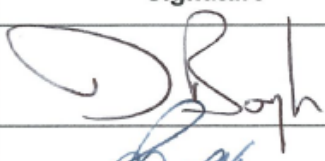
Bayu-Undan to Darwin Gas Export Pipeline
ENVIRONMENT PLAN SUMMARY

ALL/HSE/PLN/024

Revision History

Revision	Date	Description	Preparer & Title	Reviewer & Title	Approver & Title
A	March 2018	Issued for review	Jacobs		

***** Approver signature only required for release of new revision.

Position title	Name	Signature	Date
Vice President ODSC	David Boyle		23/5/18
Vice President HSE	Simon Wragg		23/5/18
Environmental Supervisor	Daniel Thompson		23/5/18

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1. INTRODUCTION

ConocoPhillips Pipeline Australia Pty Ltd (ConocoPhillips) is the operator of the existing Bayu-Undan to Darwin Gas Export Pipeline (herein referred to as the Pipeline) in the Timor Sea. The Pipeline is a dry natural gas export pipeline transporting gas from the Bayu-Undan Field (situated in the Joint Petroleum Development Area (JPDA)) to the Darwin liquefied natural gas (DLNG) Plant near Darwin, Northern Territory (NT). The Pipeline has been in operation since 2005.

The Petroleum Activity will be conducted in accordance with the revised Bayu-Undan to Darwin Gas Export Pipeline Environment Plan (EP), which was prepared to comply with the *Offshore Petroleum and Greenhouse Gas Storage (Environment) Regulations 2009* (OPGGS(E) Regulations) and the NT Energy Pipelines Act. The EP has been accepted by the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA).

This document (EP Summary) has been prepared as per requirements of OPGSS (E) Regulation 11(1) of the Environmental Regulations and provides an overview of the activities associated with operation and maintenance of the Pipeline. The content associated with the NT Energy Pipelines Act has been included for information purposes only. Relevant preventative and mitigation measures have been developed and implemented to ensure any adverse impacts are eliminated where possible or managed to be as low as reasonably practicable (ALARP) and an acceptable level.

1.1 DESCRIPTION OF THE TITLEHOLDER

1.1.1 Titleholder

ConocoPhillips (United States) is the world's largest independent exploration and production company. Through various Australia registered company subsidiaries, ConocoPhillips undertakes exploration activities and holds and operates assets in the Timor Sea, NT, Western Australia (WA) and Queensland. ConocoPhillips has been operating in Australia since the mid-1970s and its activities in Australia are currently managed, operated and administered through its Australian Business Units (ABUs); Australia Business Unit-West (ABU-W) and Australia Business Unit-East (ABU-E). ABU-W is responsible for the Bayu-Undan field in the Timor Sea, the DLNG Plant in the NT and the Pipeline. ABU-E is responsible for the Australia Pacific LNG facilities located on Curtis Island.

Further information about ConocoPhillips in Australia can be found at:

- http://www.conocophillips.com.au.

Details of the titleholder and liaison person are described below in accordance with Regulation 15 of the OPGGS(E) Regulations. ConocoPhillips will notify NOPSEMA should there be a change in the titleholder, a change in the titleholder's nominated liaison person or a change in the contact details for either the titleholder or the liaison person.

1.1.2 Titleholder

The Pipeline is operated under the following licences:

- Commonwealth Waters: WA-8-PL and NT/PL1
- NT Coastal Waters: NTC/PL-1 and PL20

ConocoPhillips Pipeline Australia Pty Ltd is the titleholder of each of the pipeline licences listed above. Contact details for the titleholder are provided below.

ConocoPhillips Pipeline Australia Pty Ltd

Address:	1 Cambridge St, West Leederville WA 6007
Telephone:	+61 8 9423 6666
Australian Company Number (ACN):	093 316 959

1.1.3 Liaison Person

Name: Daniel Thompson

Title: Environment Supervisor

Address: 1 Cambridge St, West Leederville WA 6007

Telephone: +61-8-6363-2328

Email: pipeline2@conocophillips.com

1.1.4 Relevant Parties and Interfaces

As the Titleholder, ConocoPhillips operates the Pipeline on behalf of co-venturers Santos, INPEX, Eni, Tokyo Timor Sea Resources, a consortium of Tokyo Gas and JERA (a joint venture between Tokyo Electric and Chibu Electric).

2. DESCRIPTION OF THE ACTIVITY

An overview of the activity is detailed in **Table 2-1**.

Table 2-1: Summary of attributes within the scope of the EP

Attribute	Summary
Pipeline license	Commonwealth Waters: WA-8-PL and NT/PL1 NT Coastal Waters: PL20 and NTC/PL-1
Hydrocarbon type	Dry natural gas
Activity location	The Pipeline section and all relevant activities in Commonwealth Waters and NT Coastal Waters are located within pipeline licenses WA-8-PL, NT/PL1, PL20 and NTC/PL-1. The Commonwealth waters section of the pipeline extends from kilometre Point (KP) KP42.4 (JPDA boundary) to KP402.2 (NT coastal waters boundary), as shown in **Figure 2-1**. ConocoPhillips has defined an Operational Area around the Pipeline within which the Petroleum Activity will take place. The Operational Area comprises a 500 m buffer around the Pipeline; any activities undertaken outside the Operational Area are not considered to be within the scope of the EP.
Activity description	The Pipeline transports dry natural gas from the Bayu-Undan Field to the DLNG Plant located at Wickham Point, Darwin. Activities include Inspection, maintenance and repair (IMR) associated with the Pipeline.
Vessel	Typically, a single vessel is used to conduct IMR activities. However, depending on the nature and location of a repair activity, additional vessels may be required. Vessels will use Group II hydrocarbon fuels such as marine gas oil (diesel).
Duration	The Pipeline has a design life of 25 years. The EP will cover continuous operation of the Pipeline, and associated IMR activities, for five years from the date of acceptance of the EP. The Pipeline has been in operation for 12 years to date. Initial commissioning and start-up activities were undertaken in September 2005.

2.1 LOCATION

The Pipeline section, and all relevant activities in Commonwealth Waters, is located within pipeline license WA-8-PL and NT/PL1 and extends from KP42.4 to KP402.2, as shown in **Figure 2-1**. The offshore end of the relevant section of the Pipeline (east of KP42.4) generally lies in approximately 100 m water depth, reaching a maximum depth of 134 m. The seafloor rises to a depth of less than 100 m in the vicinity of KP180 and follows a general shallowing trend towards Darwin, with a depth of less than 50 m by the time the Pipeline crosses into NT Coastal Waters (at KP402.2).

The nearest land to the Pipeline in Commonwealth waters is Bathurst Island (located approximately 20 km to the north of KP400). The nearest land to the Pipeline in NT Coastal Waters is the shore crossing at Wickham Point, in Darwin Harbour.

2.1.1 Pipeline Crossings

The Pipeline does not cross any third-party pipelines. However, it crosses four cables within Darwin Harbour; two buried 66 kV power cables which supply a Radio Australia Station and two Telstra cables. These do not provide a threat to the integrity of the pipeline. Mattresses have been laid over the cable crossings. Within Commonwealth waters, the Pipeline crosses a fibre optic telecommunication cable from Nextel Alcatel at KP88. A Telstra telecommunication cable crosses over the pipeline at KP91.2.

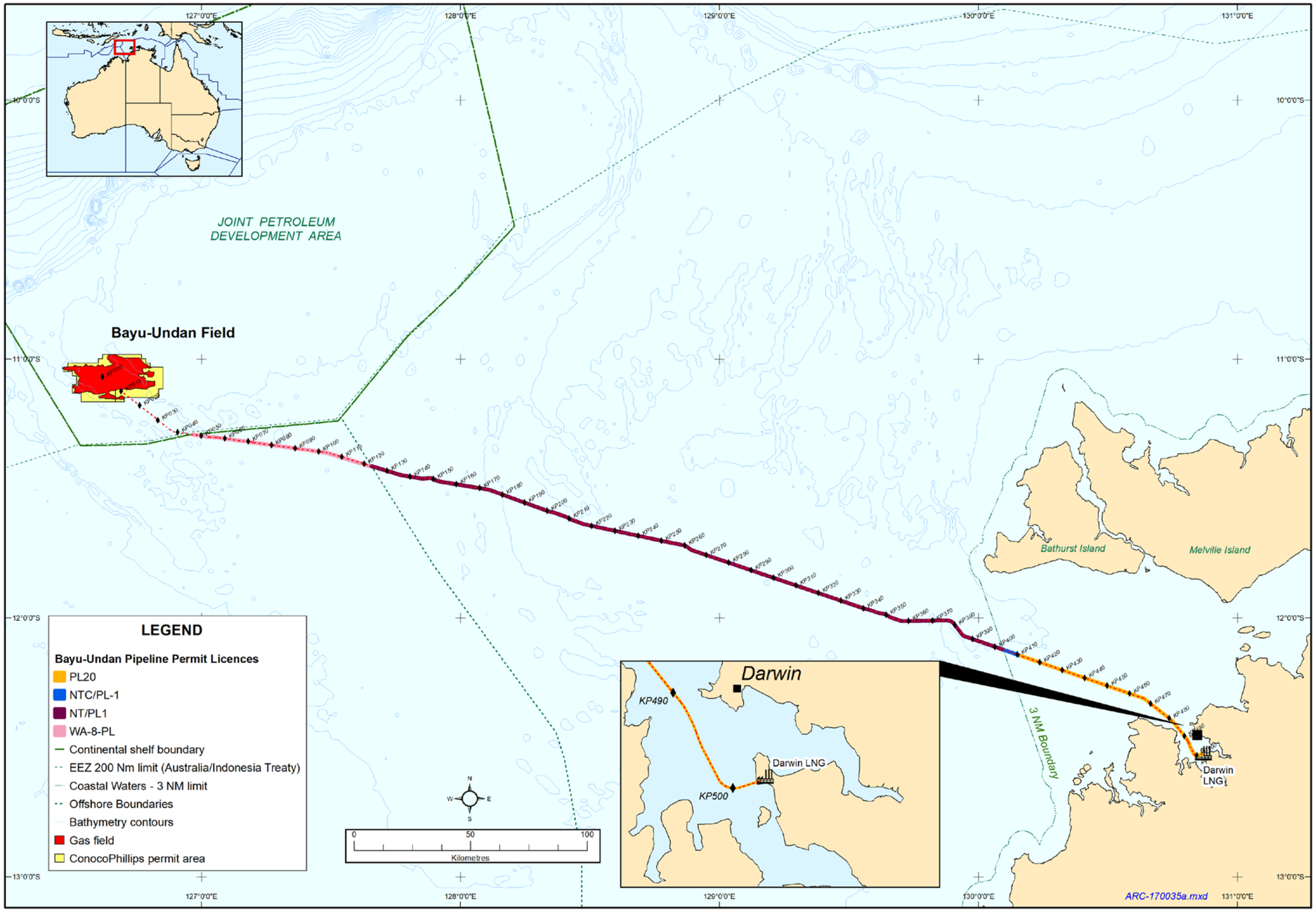

Figure 2-1: Location of the pipeline (note Operational Area not shown due to scale)

2.2 DURATION

The Pipeline is planned to be operated on a continuous basis for the in-force period of the EP (assumed to be 5 years from NOPSEMA acceptance).

2.3 OPERATIONAL AREA

ConocoPhillips has defined an Operational Area around the Pipeline, within which the Petroleum Activity will take place. The Operational Area comprises a 500 m buffer around the Pipeline considered within the scope of the EP; any activities undertaken outside the Operational Area are not considered to be within the scope of the EP, including vessels transiting to and from port. All IMR activities will take place within the Operational Area.

2.4 PIPELINE DESIGN AND CONSTRUCTION

The Pipeline within the scope of the EP is a 26" diameter 459.9 km long welded steel pipeline extending from the JPDA boundary to the beach valve at Wickham Point. A 50 m long flanged mid-line spool is located at KP 320 to allow for a potential future tie-in of a third-party gas field (future tie-ins are beyond the scope of the EP).

The Pipeline system was designed in accordance with DNV OS-F101 DNV Submarine Pipeline Systems. Independent verification of the Pipeline design was performed during the design process. Compliance with the installation, testing, and commissioning of the Pipeline was verified by a Lloyd's Register certificate of installation following the completion and commissioning activities and introduction of hydrocarbon gas.

2.4.1 Pipeline Protection

The Pipeline is protected by Cathodic Protection (CP) systems using sacrificial anodes with a design life of 25 years. The Pipeline is also coated with 5 mm asphalt enamel, with High Density Polypropylene (HDPE) Heat Shrink Sleeves (HSS) applied to joins. These coatings are intended to protect the Pipeline from corrosion. The Pipeline is coated within High Density Concrete to ensure onbottom stability and protect against physical impacts. No additional protection to the CWC is provided in the open water section of the Pipeline which is laid directly on the seabed.

For areas closer to shore that could suffer impact from anchors, the Pipeline is laid in a ploughed trench supplemented by sections of rock berm cover in high risk areas (e.g. Darwin Harbour). The Pipeline is buried at 73 locations for a total of 1,884 m, predominantly within the NT Coastal Waters. The Pipeline is supported by mattresses at cable crossings.

2.5 PIPELINE OPERATION

The Pipeline within the scope of the EP is a 26" diameter 459.9 km long welded steel pipeline extending from the JPDA boundary to the beach valve at Wickham Point. The Pipeline was laid directly on the seabed, except within Darwin Harbour where the Pipeline is buried in a trench below seabed level.

The Pipeline transports dry natural gas from the Bayu-Undan field to the DLNG Plant located at Wickham Point, Darwin. The Pipeline is operated continuously under normal circumstances and has been in operation since 2005.

The Pipeline inventory consists primarily of dry natural gas with a very small fraction of residual liquid hydrocarbons (average 0.051%), approximately 79% methane (CH_4), 6% carbon dioxide (CO_2), 0.004% hydrogen sulphide (H_2S) and 10% volatile organic compounds (VOCs).The composition of the export gas, at the pipeline inlet, is continuously monitored online at one of two gas metering skids on the Compression, Utilities and Quarters Platform (CUQ) platform located in Bayu-Undan field in the JPDA. A second gas metering point is provided at the Pipeline outlet before the gas enters into the DLNG Plant. Data from the Pipeline inlet and outlet gas metering stations are fed to the dedicated Pipeline leak detection system.

2.6 INSPECTION, MAINTENANCE AND REPAIR ACTIVITIES

IMR activities conducted on the Pipeline are infrequent and of relatively short duration. Inspections will generally involve a vessel travelling along the route of the pipeline using towed acoustic instruments or may involve using a Remotely Operated Vehicle (ROV) connected to the vessel via an umbilical, which is launched and recovered from the vessel.

Typically, vessels will be within the Operational Area for approximately 5–60 days per year depending on the type of inspection. Events such as cyclones, known dropped/dragged objects that could affect the Pipeline may also trigger inspections. Foreseeable IMR activities are detailed in **Table 2-2**.

Table 2-2: IMR activity description

Inspection Method	Description
In-Line Inspection (ILI)	Using an in-line inspection tool (intelligent pig) equipped with Magnetic Flux Leakage (MFL) measurement technology, the Pipeline wall thickness and anomalies can be measured. This tool is used to inspect the Pipeline from the pig launcher on the DPP platform to the onshore pig receiver located at the DLNG onshore plant.
Acoustic Survey	Surveys of the Pipeline may be undertaken using sidescan sonar or multibeam echo sound (MBES). These methods are used as a screening inspection prior to a detailed inspection (e.g. using a Remotely Operated Vehicle (ROV)).
External Inspection	External inspections of the Pipeline may be undertaken, typically using an ROV. Visual inspections can be used to confirm the results of other inspection methods, and aid in the planning of maintenance and repair activities. Close external inspection of the Pipeline system may be undertaken by divers. However, due to the relative complexity (based on health and safety risk) and cost of implementing diving operations in comparison with alternative methods (e.g. ROV), other inspection methods are preferred. Divers have not been used to inspect the Pipeline to date.
Trailing Wire	Sections of the Pipeline are not visible due to trenching and / or cover from protective rock berms. Inspection of these sections of the Pipeline may be undertaken using a trailing wire cathodic protection survey. Trailing wire surveys involve running a wire (approximately 10 kg breaking strain) over the Pipeline. A small reference cell is also deployed into the water.

2.6.1 Inspection Intervals

Following baseline inspections, routine inspections were initially performed at annual intervals following Pipeline commissioning. However, since no noticeable degradation was evident, future inspection intervals follow a risk based inspection (RBI) schedule as defined in **Table 2-3**.

Table 2-3: Risk based Inspection program (2018)

Hazard Register	Risk Ranking	Inspection Nominal Frequency (yrs)	Inspection Method	Inspection Platform
Excessive environmental loading (extreme weather/cyclone)	Medium	Event based	MBES GVI	Tow Fish Vessel

Hazard Register	Risk Ranking	Inspection Nominal Frequency (yrs)	Inspection Method	Inspection Platform
				ROV ILI
Excessive free spans resulting in movement and overstressing or fatigue	Medium	5yrs	SSS / MBES GVI	Tow Fish ROV
Excess marine growth	Medium	5 yrs	GVI CVI	ROV
Seismic activity	Medium	Event based 5 yrs	SSS / MBES GVI	Tow Fish ROV
Local overstress (overloading) due to pressure and thermal expansion	Medium	5 yrs	SSS / MBES GVI	Tow Fish ROV
Materials or weld failure	Medium	5 yrs 10 yrs - ILI	GVI, ILI-MFL	ROV ILI
Internal corrosion in pipeline	Medium	10 yrs	ILI - MFL	ILI
External corrosion – Export riser	Medium	1 yrs	GVI CVI	Rope Access
External corrosion – Export pipeline	Medium	10 yrs (ILI) 5 yrs (CP)	ILI - MFL CP Survey	ILI ROV Trailing Wire
External corrosion – Export pipeline rock berm	Medium	2yrs	CP MBES	Trailing Wire, Vessel
External corrosion – Shore crossing	Medium	1yrs	CIPS DCVG	Onshore hand held
Early consumption of sacrificial anodes	Medium	5yrs	CP	ROV Trailing wire
Abrasion at crossing points	Medium	5yrs 10yrs (ILI)	GVI ILI-MFL	ROV ILI
Dragging anchors, ship sinking within Darwin Port limits	Medium	Event Based 2yrs 10yrs (ILI)	MBES ILI-MFL	ROV ILI
Rock berm eroded or disturbed	Medium	Event based 2yrs	MBES	ROV
Erosion of shore crossing leading to destabilisation of pipeline	Medium	Event based 2yrs	MBES GVI	ROV
Fishing Activities – impact of pipeline by trawl boards	Medium	5yrs 10yrs (ILI)	SSS / MBES GVI ILI-MFL	Tow Fish ROV ILI
Dropped Object from Passing Ship	Medium	5yrs 10yrs (ILI)	SSS / MBES GVI ILI-MFL	Tow Fish ROV ILI

2.6.2 Maintenance, Damage Assessment, Non-urgent and Emergency Repairs

Anomalies identified from planned inspections and condition monitoring are reviewed, risk assessed, and managed. The risk is mitigated either by repair, re-rating, upgrade or monitoring as appropriate.

Urgent repairs (e.g. in the event of damage requiring precautionary shutdown) are addressed in ConocoPhillips' Emergency Repair Management Plan. This outlines the various repair options available in the event of Pipeline rupture, including materials, equipment, potential support, and repair contractors and timescales (including mobilisation) associated with various repair options. An Emergency Pipeline Repair Procedure (EPRP) has been developed and is utilised to inform repair work required.

The Pipeline Integrity Management Plan identifies that non-urgent repairs are typically similar to emergency repairs, dependent on the size of the damage (e.g. leak versus rupture) and can be repaired at opportune times (e.g. during facility shutdowns). Non-urgent and emergency repairs may consist of some or all of the following activities:

- Pipeline flooding with chemically treated seawater.
- Excavation of the Pipeline using a jetting tool or air lifting tool operated by an ROV or divers.
- Removal of concrete weight coating (CWC) and corrosion coating by ROV, divers, or special designed CWC removal tools, using high pressure water jets or hydraulic saws.
- Pipeline cutting and pipe end preparation which is performed by ROV or divers using wire cutters and deburring tools. The damaged section of the Pipeline would then be removed and the pipeline repaired.
- Free span correction using sand or grout bags using an ROV from a support vessel.

2.6.2.1 Chemical Product Selection

Prior to commencement of IMR activities, all chemical products used during the activity will be listed in the chemical register. The campaign chemical register and safety data sheets are reviewed by ConocoPhillips.

- Chemical products proposed to be discharged to the marine environment are registered in ChemAlert. These chemical products are flagged as OCNS (U.K. Offshore Chemical Notification Scheme) rated. Expiry dates are tracked prior to mobilisation and on a regular basis in ChemAlert, dependant on the activity duration, to ensure they are within the campaign date range.

The ABU-W Chemical Management Procedure (ALL/HSE/PRO/044) outlines the process to be followed for chemical products proposed to be used during the operation of the Pipeline (including IMR activities), including chemicals that are to be discharged to the marine environment.

Chemical products which meet at least one of the following environmental criteria are considered suitable for discharge to the marine environment:

- Rated as Gold or Silver under OCNS CHARM model.
- If not rated under the CHARM model, has an OCNS group rating of D or E.

For chemical products that do not meet the above criteria (i.e. chemicals with an OCNS Hazard Quotient white, blue, orange, purple, A, B, C), or non OCNS rated chemicals, will only be used when the risks and impacts of using them can be demonstrated to be As Low as Reasonably Practicable (ALARP), within acceptable levels, approved by the ConocoPhillips Project Manager and the ABU-W Environmental Supervisor, after the completion of an environmental risk assessment.

2.7 VESSELS ACTIVITIES

IMR activities are predominantly vessel based (apart from ILI), and surveys are infrequent (as per the risk based inspection intervals in **Table 2-3**) and of relatively short duration (less than two to three months). These activities are preferentially undertaken from May to November, outside of cyclone season, to minimise or avoid operational disruptions. However, depending on maintenance requirements, maintenance activities could occur at any time during the year.

Vessels used for IMR activities are expected to range between approximately 15 m and 130 m in length. The vessel type and specifications will depend on availability and specific activity requirements. Typical activity vessels use a dynamic positioning (DP) system to allow manoeuvrability and to avoid anchoring when undertaking works due to the proximity of the Pipeline.

The vessel may be sourced locally or from an international location.

Bunkering of the vessel may take place either at sea or in port. Vessels may use marine diesel or marine gas oil (MGO).

3. DESCRIPTION OF THE ENVIRONMENT

In accordance with Regulation 13(2) and 13(3) of the OPGGS(E) Regulations, as well as Schedule 1 Part 1(2) of the NT Petroleum (Environment) Regulations, a description of the existing environment, including details of any relevant values and sensitivities (also referred to in the EP as receptors, i.e. relevant natural, socio-economic and cultural features of the environment.), that may be affected (environment that may be affected - EMBA) by the presence and operation and maintenance of the Pipeline is described in this section.

The EMBA encompasses the marine environment that could be affected by both routine/non-routine planned and unplanned activities in Commonwealth and NT Coastal Waters. The EMBA entirely overlaps the Operational Area. The outer boundary of the EMBA has been defined using the adverse exposure zone (as derived from stochastic modelling) for surface, entrained and accumulated hydrocarbons from the credible hydrocarbon spill scenario of a maintenance vessel collision and a fuel tank rupture (for further explanation refer to **Sections 4.4.5** and **4.4.6**), as this represents the largest geographic extent of the environment that may be affected by the presence and operation/maintenance of the Pipeline.

3.1 PHYSICAL ENVIRONMENT

3.1.1 Regional Setting

The Operational Area lies within the Northwest Shelf Transition Provincial Bioregion which expands across the boundary of the North Marine Region (NMR) and the North West Marine Region (NWMR) (**Figure 3-1**). Most of the Operational Area is located within Commonwealth Waters in the NMR, with approximately 70 km of the Operational Area cutting across the north-eastern most extent of the NWMR. As only a small offshore portion of the EMBA overlaps the NWMR, the existing environment is more broadly representative of the NMR; however, mesoscale bioregions (the Oceanic Shoals, the Bonaparte Gulf and Anson-Beagle bioregions) which overlap both NWMR and NMR sections of the EMBA are also used to describe the existing environment. Within the NMR, the Operational Area enters NT Coastal Waters to where the Pipeline terminates in Darwin Harbour.

3.1.2 Climate and Oceanography

The NMR experiences a tropical climate and a distinct summer monsoonal wet season from December to March followed by a typically cooler winter dry season from April to September. The variation in seasonal air temperatures in the region is small, with regional mean maximum temperature ranges from 22.7 C to 31.7 C. The average tropical cyclone frequency for the Timor Sea is one cyclone per year (BOM, 2017).

The large-scale currents of the Timor Sea are dominated by the ITF current system. The strength of the ITF fluctuates seasonally, reaching maximum strength during the south-east monsoon, and

weakening during the north-west monsoon. The Holloway Current, a relatively narrow boundary current that flows along the north-west shelf of Australia between 100 m – 200 m depth, also influences the seas in the area. The direction of the current changes seasonally with the monsoon, flowing towards the north-east in summer and the south-west in winter.

In addition to the synoptic-scale current dynamics, wind and tidally drive currents are a significant component of water movement in the NMR. Surface currents reflect seasonal wind activity, flowing easterly to north-easterly during the wet season and west to south-westerly during the dry season

Tide activity across the region is complex, resulting in a combination of both diurnal and semi-diurnal tides. However, tidal activity is typically dominated by semi diurnal tides, with two daily high tides and two daily low tides.

The sea surface temperature in the region does not vary significantly during the year and typically ranges from approximately 26 °C to 27 °C. This temperature is characteristic for the top 50 m of the water column. Beneath that layer, there is typically a steady decrease in temperature with depth to about 23 °C at 110 m depth.

3.1.3 Seabed

The seabed within the north-western end of Operational Area (within Commonwealth Waters of the Oceanic Shoals bioregion), initially descends a slope from 60 to 100 m before reaching a maximum water depth of 134 m. The seafloor then remains relatively flat at a depth of approximately 100 m before following a general shallowing trend to 60 m over the last 30 km (Bonaparte Gulf bioregion). Within the Anson-Beagle bioregion (NT Coastal Waters) the Operational Area lies on the continental shelf, in water depths of typically less than 30 m to its termination in Darwin Harbour. Sediments across the Operational Area are generally fine in offshore deep habitats (silts) and become coarser (gravels and sands) towards more shallow and coastal areas.

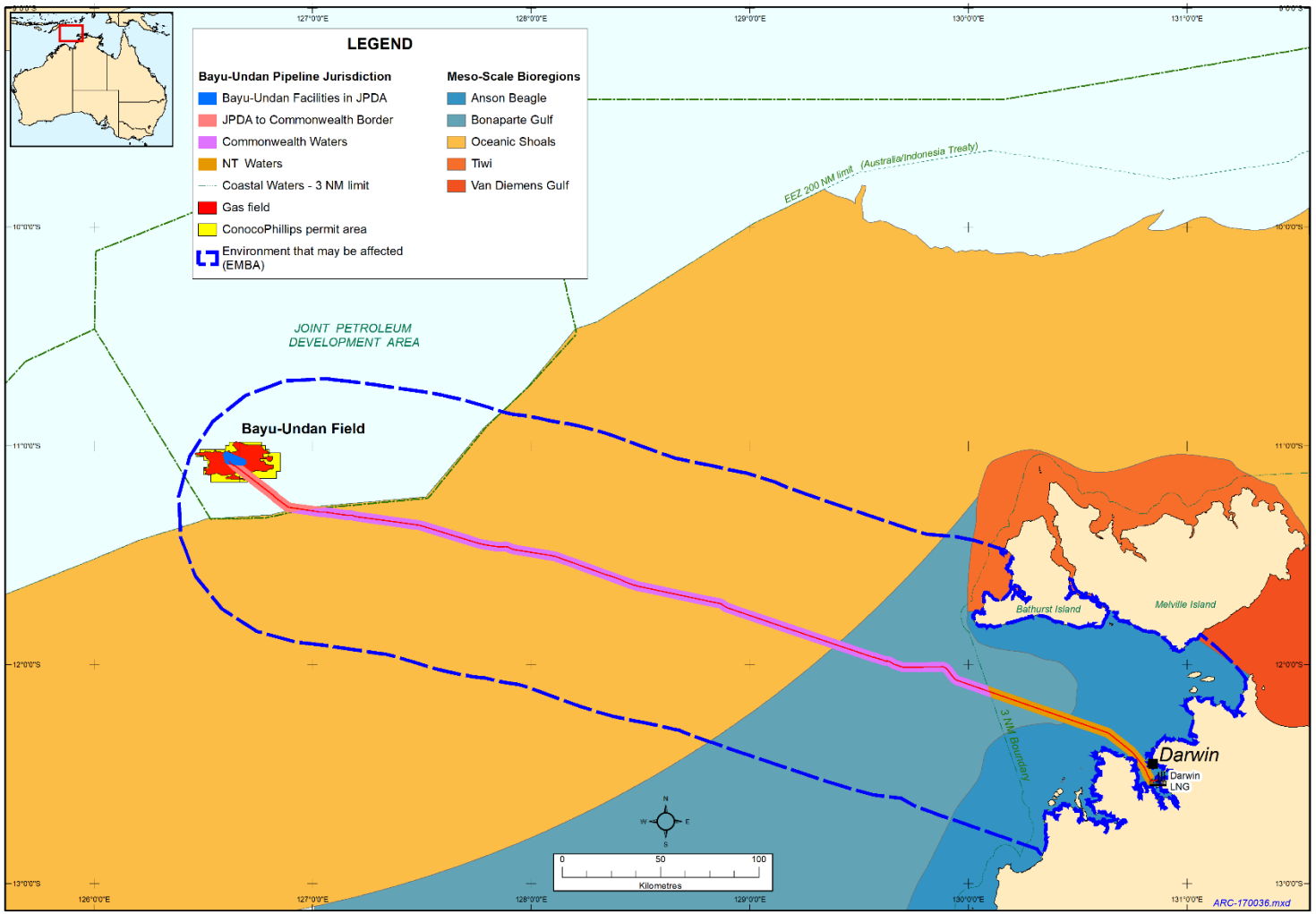

Figure 3-1: North Marine Region

3.2 BIOLOGICAL ENVIRONMENT

3.2.1 Habitats and Communities

3.2.1.1 Intertidal and Benthic Primary Producers

Coral Reefs

Coral reefs provide habitat for a high diversity of corals, associated fish and other species of both commercial and conservation importance. Within the offshore Commonwealth Waters of the EMBA (Oceanic Shoals and Bonaparte Gulf bioregions), coral reefs are expected to be confined to the shallower regions of banks, shoals and pinnacles which contain sufficient hard substrate for corals to establish communities on. A study conducted as part of the Barossa marine studies program surveyed coral cover on submerged shoals within outer continental shelf waters of the NMR (between approximately 190 – 196 km north-east from the EMBA). The results showed maximum coral cover within coral dominated areas of three surveyed submerged shoals (Tassie, Evans and Blackwood shoals) to be varied; however, typical overall of coral dominated habitats on healthy coral reefs (21 - 32%) (Heyward et al., 2017). Shoals/banks overlapping the EMBA within the Oceanic Shoals and Bonaparte Gulf bioregions which may comprise coral reef habitat like that found from the Barossa marine studies program included The Boxers, Newby Shoal, Afghan Shoal, Flat Top Bank, and Shepparton Shoal.

Within the shallow NT Coastal Waters of the Anson-Beagle bioregion, there are a number of coralline fringing reefs and patch reefs, as well as a number of rocky reefs which may support coral reef communities (DEWHA, 2008b). A number of shoals and banks also overlap the EMBA, mainly within Darwin Harbour and between the Tiwi Islands and NT mainland. In Darwin Harbour, Bladin Point and Wickham Point support communities of soft and hard corals (INPEX Browse, 2010). The inshore region of the Operational Area also supports low levels of coral habitat, with studies observing >5% hard-coral cover (INPEX Browse, 2010). Coral communities are considered one of the nine regionally important communities/habitats of the NMR.

Seagrass/Macroalgae

Seagrass and macroalgae communities provide important habitat for various marine species. Similar to coral reefs, seagrass communities are light restricted and generally occur only within shallow coastal areas. In the NWMR and NMR, seagrass communities are also restricted to sheltered waters where they are protected from strong tidal currents, high turbidity, and substantial sediment mobility characteristic of the region (Przeslawski et al., 2011).

Benthic studies within Darwin Harbour did not identify any extensive seagrass beds, predicting that the turbid waters would restrict seagrass growth to waters > 5 m (INPEX Browse, 2010). Within the Commonwealth and NT Coastal Waters sections of the EMBA, significant seagrass communities are unlikely to occur; however, small discrete patches of seagrass may be present within shallow, sheltered areas of Darwin Harbour and the Tiwi Islands, and potentially around shallow offshore shoals/banks.

Mangroves/Saltmarshes

Mangroves provide important habitat for a number of species, including nesting, feeding and staging areas for seabirds, waterbirds, waders, and migratory birds (DEWHA, 2008a). Mangroves and saltmarshes are confined to shoreline habitats. In the NMR, mangrove communities are concentrated mostly within the Gulf of Carpentaria (to the east of the EMBA), with over 136 identified mangrove-line estuaries within NT Coastal Waters (DEWHA, 2008a); however, mangroves also occur across the NMR's shorelines, including along the shorelines of the Tiwi Islands.

Within the EMBA, mangroves will occur only within NT Coastal Waters, in nearshore environments of the Anson-Beagle bioregion. Within this bioregion are extensive fringing mangrove communities which support a diverse array of species (INPEX Browse, 2010). In Darwin Harbour mangroves occupy approximately 20,400 hectares, which is around 5% of the mangroves within the NT (Lee, 2003).

3.2.1.2 Other Benthic Habitats

Regional surveys indicate that within the offshore Oceanic Shoals bioregion, the distribution of epibenthic and infaunal communities are highly correlated with geomorphology and substrate type. Relatively flat featureless areas are restricted to infaunal communities, while shoals and banks in >45 m water depth support the highest levels of epibenthic communities. Predictive benthic habitat modelling has been developed for the Oceanic Shoals to support management of the recently established Oceanic Shoals Australian Marine Park (AMP) and associated KEFs (Radford and Puotinen, 2016). Although the bioregion is recognised for its relatively complex habitat, the seabed outside of the listed features is considered relatively flat, resulting in an estimated 79% of benthic habitat being classified as bare sand. Other biotic groups identified included burrower/crinoids (approximately 19%) and filter feeders (e.g. sponges and gorgonians) (approximately 2%). Previous inspections of the Pipeline did not observe complex or sensitive benthic habitats, aside from sessile organisms attached to the Pipeline, which would not have been present prior to installation.

Whilst, within the nearshore Anson-beagle bioregion, benthic communities are diverse and related closely related to the complex and varied habitat types present within the bioregion. Soft sediment communities cover approximately 80% of the substrate within Darwin Harbour and are dominated by infaunal communities. Within rocky shoreline communities in Darwin Harbour, benthic communities vary based on intertidal zonation. Oysters, barnacles, small molluscs, and isopod crustaceans dominate the upper to mid-intertidal zone, while the lower intertidal zone includes species of oysters, limpets, barnacles, chitons, hard and soft corals, sponges, crustaceans, anemones and various species of algae and macroalgae (INPEX Browse, 2010, and references therein)

3.2.1.3 Other Communities/Habitats

Plankton

Plankton distribution is often patchy and linked to localised and seasonal productivity that produce sporadic bursts in phytoplankton, zooplankton and tropical krill production (DEWHA, 2008). Phytoplankton in the NMR is diverse (~ 200 species) and chlorophyll concentration and productivity are considered relatively high (Rochester et al., 2007). Although there are no major upwellings in the region, the Pinnacles of the Bonaparte Basin KEF which overlaps the EMBA is likely to generate significant upwelling to support higher levels of phytoplankton productivity within the region (DSEWPaC, 2012). In offshore Commonwealth Waters of the NMR (deeper than 50 m), plankton communities are dominated by dinoflagellates *Dinophysis*, *Ceratium*, *Prorocentrum* and *Caratocorys*, while shallower offshore waters support cyanobacterium *Trichodesmium* and the diatoms *Rhizosolenia* and *Thalassonema* and inshore NT Coastal Waters support diatoms *Rhizosolenia* and *Thalassonema* (DEWHA, 2008a).

Pelagic and Demersal Fish Communities

Fish occupy a range of habitats, such as coral reefs to open offshore waters, and play an important ecological role with many species being of conservation value and important for commercial and recreational fishing. Within Commonwealth and NT Coastal Waters of the NMR, higher order predatory fish including snappers, emperors and groupers are common to rocky reef and coral habitats (DEWHA, 2008a). A number of commercially important demersal fish also occur across the NMR, such as trevallies, giant queenfish, barramundi, grunters, emperors, snappers, blue salmon, king threadfin and black jewfish, as well as 61 species of pelagic fish species (DEWHA, 2008a). Of the pelagic fish species approximately 90% of commercial catch in the NMR is from six species: longtail tuna, grey mackerel, Spanish mackerel, mackerel tuna, black pomfret, and spotted mackerel (DEWHA, 2008a). In the coastal areas of the NMR, fisheries trawl data have identified 460 teleost and 56 elasmobranch fish species (DEWHA, 2008a).

In Darwin Harbour, fish occupy a wide range of habitats, with the Harbour supporting an abundance of resident and transient species (INPEX Browse, 2010). Fish within the Harbour are diverse, ranging from small gobies, cardinals and pipefish (approximately 70, 20 and 19 species, respectively) to commercially and recreationally important trevallies, mackerel, salmon, grunter, and barramundi (INPEX Browse, 2010). Juveniles of these latter species utilise mangrove habitats

within the Harbour, which is also occupied by a large number of other fish, particularly during high tides (INPEX Browse, 2010).

High species diversity is generally associated with more complex habitat and areas of upwelling which increase levels of productivity. Given this, offshore areas of high fish diversity within the Commonwealth Waters of the EMBA will be restricted to shoals/banks and the Pinnacles of the Bonaparte Basin KEF and other overlapping KEFs within this section of the EMBA. Refer to **Section 3.2.3** for further information on KEFs, and **Section 3.3** for further information on commercial, indigenous and recreational fishing in the EMBA.

3.2.2 Species

A search of the *Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act) Protected Matters Database identified 26 listed threatened and 66 listed migratory species that may occur or have habitat within the environment that may be affected (EMBA) by the presence, operation and maintenance of the Pipeline (**Table 3-1**). A review of the NT threatened animals list identified 17 species which may be found within the EMBA, including those listed under the *Territory Parks and Wildlife Conservation Act* (2014). All species identified are also listed at a national level under the EPBC Act. No critical habitats or threatened ecological communities, as listed under Section 207A of the EPBC Act, are known to occur within Commonwealth or NT Water sections of the EMBA.

A review of the National Conservation Values Atlas determined that there are nine listed Biological Important Areas (BIAs) overlapping the EMBA; three within Commonwealth Waters, five within NT Coastal Waters and one overlapping both Commonwealth and NT Coastal Waters sections of the EMBA (**Figure 3-2**). Five of these BIAs also overlap the Operational Area. In addition to these BIAs, five areas considered 'habitat critical to the survival of a species' under the EPBC Act's *Significant Impact Guidelines 1.1 – Matters of National Environmental Significance* were identified as overlapping the EMBA (**Figure 3-2**).

3.2.3 Other Values and Sensitivities

The EMBA overlaps three KEFs (**Figure 3-3**), all of which exist only within the Commonwealth Waters section of the EMBA. Within NT Coastal Waters, the EMBA overlaps four Nationally Important Wetlands; Port Darwin, Shoal Bay – Micket Creek, Finniss Floodplain and Fog Bay System and Adelaide River Floodplain System. Of these wetlands, only Port Darwin overlaps the Operational Area.

Table 3-1: EPBC and NT listed threatened and listed migratory marine species potentially occurring within the EMBA

Scientific name	Common name	EPBC listing status		NT Conservation status	Presence within the EMBA	
		Threatened Status	Listed as Migratory		Commonwealth Waters	NT Coastal Waters
Mammals						
Balaenoptera borealis	Sei Whale	Vulnerable	x		✓	✓
Balaenoptera musculus	Blue Whale	Endangered	x		✓	✓
Balaenoptera physalus	Fin Whale	Vulnerable	x		✓	✓
Megaptera novaeangliae	Humpback Whale	Vulnerable	x		✓	✓
Balaenoptera edeni	Bryde's Whale		x		✓	✓
Orcinus orca	Killer Whale, Orca		x		✓	✓
Dugong dugon	Dugong		x		✓	✓
Sousa chinensis	Indo-Pacific Humpback Dolphin		x		✓	✓
Tursiops aduncus	Indo-Pacific Bottlenose Dolphin (Arafura/Timor Sea populations), Spotted Bottlenose Dolphin		x		✓	✓
Orcaella brevirostris	Australian Snubfin Dolphin, Irrawaddy Dolphin		x		✓	✓
Reptiles						
Aipysurus apraefrontalis	Short-nosed Seasnake	Critically Endangered			✓	
Caretta caretta	Loggerhead turtle	Endangered	x	Vulnerable	✓	✓
Chelonia mydas	Green turtle	Vulnerable	x		✓	✓

Dermochelys coriacea	Leatherback turtle	Endangered	x	Critically endangered	✓	✓
Eretmochelys imbricata	Hawksbill turtle	Vulnerable	x	Vulnerable	✓	✓
Natator depressus	Flatback turtle	Vulnerable	x		✓	✓
Lepidochelys olivacea	Olive ridley turtle	Endangered	x		✓	✓
Crocodylus porosus	Salt-water Crocodile		x		✓	✓
Fish						
Rhincodon typus	Whale shark	Vulnerable	x		✓	✓
Carcharodon carcharias	Great White Shark	Vulnerable	x		✓	✓
Pristis clavata	Dwarf Sawfish	Vulnerable	x	Vulnerable	✓	✓
Pristis zijsron	Green Sawfish	Vulnerable	x	Vulnerable	✓	✓
Pristis pristis	Freshwater, Largetooth Sawfish	Vulnerable	x	Vulnerable	✓	✓
Glyphis garricki	Northern River Shark	Endangered		Endangered	✓	✓
Glyphis glyphis	Speartooth Shark	Critically Endangered		Vulnerable	✓	✓
Isurus oxyrinchus	Shortfin Mako		x		✓	✓
Isurus paucus	Longfin Mako		x		✓	✓
Manta birostris	Giant Manta Ray		x		✓	✓
Manta alfredi	Reef Manta Ray		x		✓	✓
Seabirds and Shorebirds						
Calidris canutus	Red Knot, Knot	Endangered	x	Vulnerable	✓	✓
Calidris ferruginea	Curlew Sandpiper	Critically endangered	x	Vulnerable	✓	✓
Numenius madagascariensis	Eastern Curlew	Critically endangered	x	Vulnerable	✓	✓
Limosa lapponica baueri	Western Alaskan Bar-tailed Godwit	Vulnerable	x	Vulnerable, listed at species level		✓
Limosa lapponica menzbieri	Northern Siberian Bar-tailed Godwit	Critically endangered	x	Vulnerable, listed at species level		✓

Calidris tenuirostris	Great Knot	Critically endangered	x	Vulnerable		✓
Charadrius leschenaultii	Greater Sand Plover	Vulnerable	x	Vulnerable		✓
Charadrius mongolus	Lesser Sand Plover	Endangered	x	Vulnerable		✓
Actitis hypoleucos	Common Sandpiper		x		✓	✓
Anous stolidus	Common Noddy		x		✓	✓
Calidris acuminata	Sharp-tailed Sandpiper		x		✓	✓
Calidris melanotos	Pectoral Sandpiper		x		✓	✓
Fregata ariel	Lesser Frigatebird		x		✓	✓
Fregata minor	Great Frigatebird		x		✓	✓
Calonectris leucomelas	Streaked Shearwater		x		✓	✓
Pandion haliaetus	Osprey		x		✓	✓
Charadrius veredus	Oriental Plover		x			✓
Glareola maldivarum	Oriental Pratincole		x			✓
Sternula albifrons	Little Tern		x			✓
Arenaria interpres	Ruddy Turnstone		x			✓
Calidris alba	Sanderling		x			✓
Calidris ruficollis	Red-necked Stint		x			✓
Calidris subminuta	Long-toed Stint		x			✓
Charadrius dubius	Little Ringed Plover		x			✓
Gallinago megala	Swinhoe's Snipe		x			✓
Gallinago stenura	Pin-tailed Snipe		x			✓
Limicola falcinellus	Broad-billed Sandpiper		x			✓
Limnodromus semipalmatus	Asian Dowitcher		x	Vulnerable		✓
Limosa limosa	Black-tailed Godwit		x			✓

Numenius minutus	Little Curlew, Little Whimbrel		x			✓
Numenius phaeopus	Whimbrel		x			✓
Pluvialis fulva	Pacific Golden Plover		x			✓
Pluvialis squatarola	Grey Plover		x			✓
Tringa brevipes	Grey-tailed Tattler		x			✓
Tringa glareola	Wood Sandpiper		x			✓
Tringa incana	Wandering Tattler		x			✓
Tringa nebularia	Common Greenshank		x			✓
Tringa stagnatilis	Marsh Sandpiper, Little Greenshank		x			✓
Tringa stagnatilis	Terek Sandpiper		x			✓
Numenius phaeopus	Whimbrel		x			✓
Pluvialis fulva	Pacific Golden Plover		x			✓
Pluvialis squatarola	Grey Plover		x			✓
Tringa brevipes	Grey-tailed Tattler		x			✓
Tringa glareola	Wood Sandpiper		x			✓

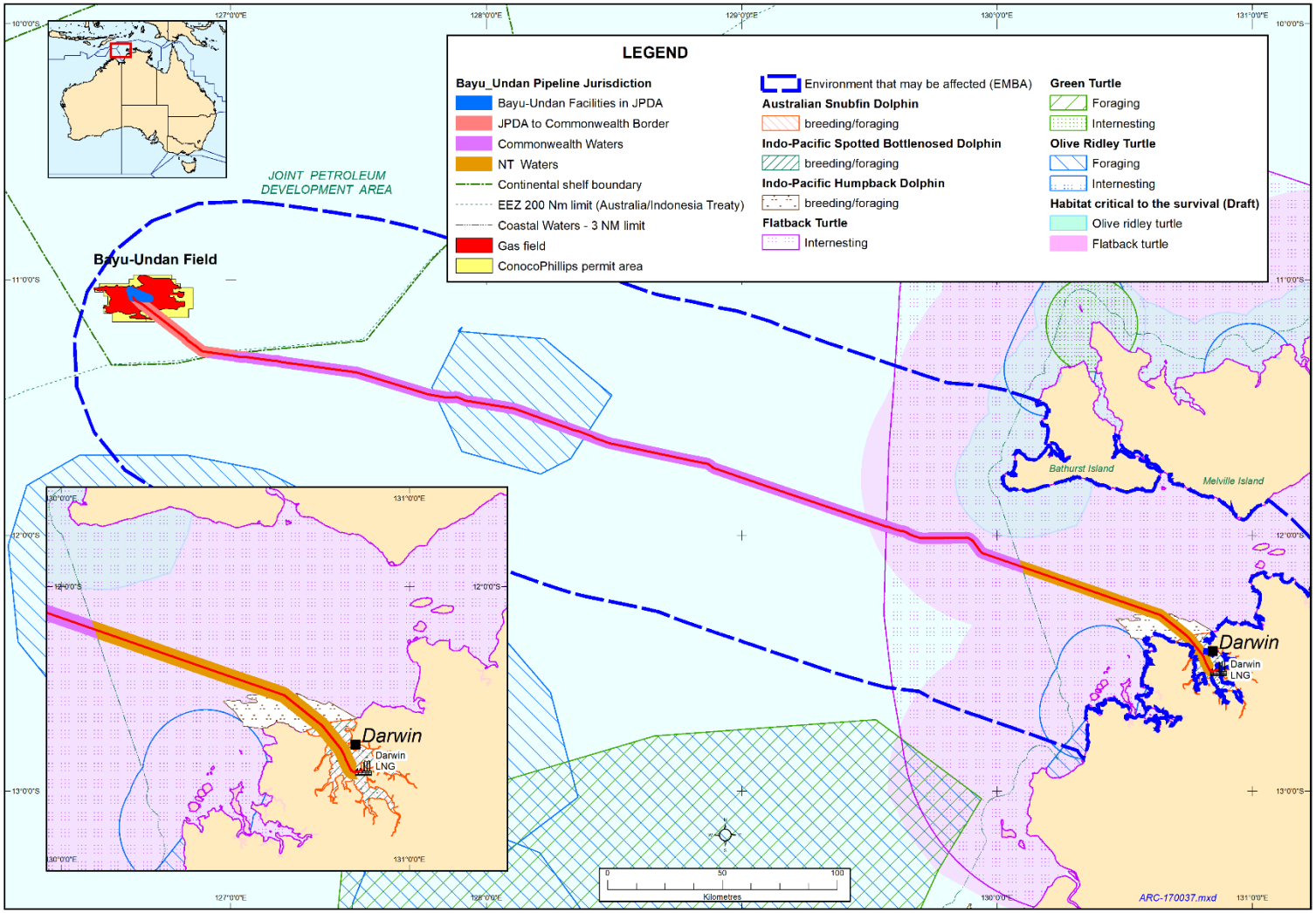

Figure 3-2: Biologically important areas and habitat critical to the survival of a species

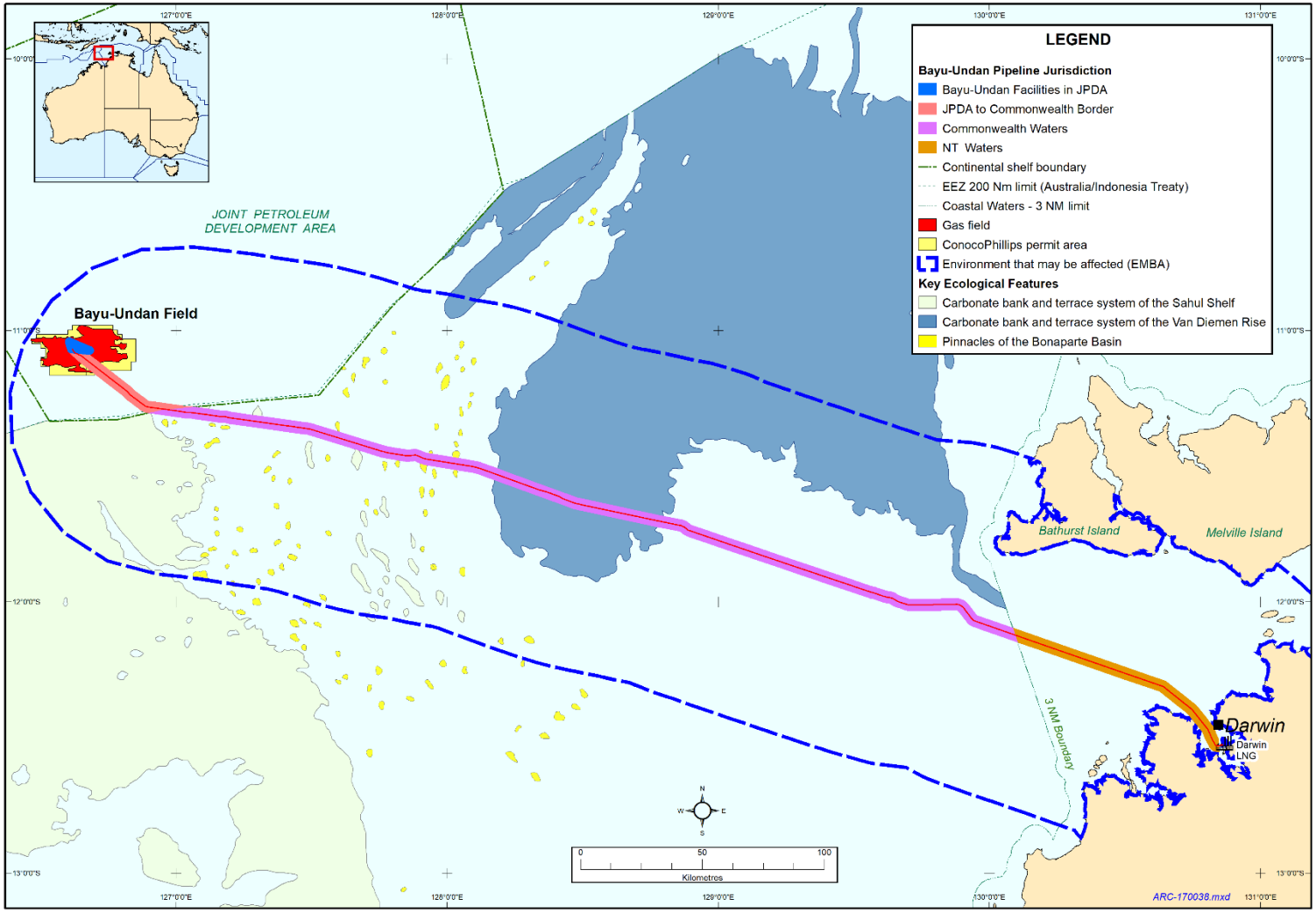

Figure 3-3: Key ecological features overlapping the EMBA

3.3 SOCIO-ECONOMIC AND CULTURAL ENVIRONMENT

3.3.1 Heritage Areas

There are no World, National or Commonwealth Heritage properties within the Operational Area or EMBA.

A search of the Australian National Shipwreck Database identified that there is a historic shipwreck protection zone surrounding the Japanese submarine 1-124, sunk in 1942, that overlaps the EMBA. The wreck is located approximately 500 m north of the Operational Area within NT Coastal Waters. A number of other shipwrecks exist within the EMBA, however, not in close proximity to the Operational Area. No other areas of European heritage value were identified as occurring within or overlapping the Operational Area or EMBA.

There are no recorded Indigenous heritage sites within the EMBA. However, the Tiwi Islands are a declared Aboriginal reserve and comprise a number of protected sacred sites under the *Northern Territory Aboriginal Sacred Sites Act*. Traditional practices, including fishing continue to take place on the islands. The majority of traditional fishing occurs within 3 nm of the shoreline.

Shoal Bay Nationally Important Wetland is recognised as an important food gathering area for Aboriginal people (overlaps the EMBA to the east of the Operational Area, but lies entirely beyond the Operational Area). It is likely other coastal areas overlapping the EMBA, particularly within NT Coastal Waters, hold cultural or sustenance value for Aboriginal people in the NT, particularly coastal areas important for Aboriginal fishing activities.

3.3.2 Australian Marine Parks

One AMP, the Oceanic Shoals AMP, overlaps the Operational Area and EMBA within Commonwealth Waters. The managed area overlapped by the Operational Area is entirely Multiple Use Zone (IUCN Category VI). Several other management zones beyond the Multiple Use Zone (IUCN Category VI) have been established within the Oceanic Shoals AMP, which lie beyond the Operational Area but within the EMBA, including:

- Special Purpose Zone (Trawl) (VI) (beyond Operational Area and EMBA);
- Habitat Protection Zone (IV) (beyond Operational Area, within EMBA); and
- National Park Zone (II) (beyond Operational Area and EMBA).

3.3.3 Fisheries

The EMBA overlaps with one Commonwealth, five NT and two WA managed fisheries areas, including:

- *Commonwealth managed fisheries:*
    - Northern Prawn Fishery
- *NT managed fisheries:*
    - Demersal Fishery
    - Coastal Line Fishery
    - Offshore Net and Line Fishery
    - Spanish Mackerel Fishery
    - Timor Reef Fishery
- *WA managed fisheries*:
    - Northern Demersal Scalefish Managed Fishery (NDSMF)

- Northern Shark Fishery

The Commonwealth Waters section of the Pipeline does not pass through any traditional fisheries.

3.3.4 Tourism and Recreational Activities

Tourism and recreational activities are likely to be more concentrated within NT Coastal Waters sections of the EMBA, but activities such as deep-water fishing and diving around offshore shoals and reefs are also likely to occur within Commonwealth sections of the EMBA; however, these activities will be limited and infrequent.

3.3.5 Aquaculture

There are no known open-water aquaculture activities occurring within the EMBA in Commonwealth or NT Coastal Waters; however, there are government initiatives to encourage the development of aquaculture, particularly within Aboriginal communities. Should these be developed they are likely to be located within NT Coastal Waters.

3.3.6 Ports and Commercial Shipping

Notable shipping traffic lanes and high-density shipping traffic areas within the EMBA include Shipping traffic along the Operational Area between Darwin Harbour and Bayu-Undan field in the JPDA and an area of very high-density traffic within Darwin Harbour and NT Coastal Waters region of the EMBA.

It is reasonable to expect vessel traffic to transit broadly near the Operational Area and within both the Commonwealth and NT Coastal Waters sections of the EMBA, with more concentrated traffic from a range of vessel sizes within Darwin Harbour and NT Coastal Waters surrounding the harbour.

3.3.7 Offshore Petroleum Exploration and Operations

Several offshore petroleum projects are in operation and there is considerable exploration activity within the NMR; however, none overlap the EMBA.

3.3.8 Defence Activities

The EMBA intersects a practice area of the North Australian Exercise Area (NAXA), a maritime military zone administered by the Department of Defence. The NAXA comprises practice and training areas and extends approximately 300 km north and west from just east of Darwin into the Arafura Sea in both Commonwealth and NT Coastal Waters. The area is used for offshore naval exercises and onshore weapon-firing training.

The Australian Border Force also undertake civil and maritime surveillance (and enforcement) in Australian offshore maritime waters, which includes the Exclusive Economic Zone (EEZ). During their surveillance, Australian Border Force vessels may transit the EMBA within Commonwealth Waters.

4. DESCRIPTION OF ENVIRONMENTAL RISKS AND IMPACTS

4.1 RISK ASSESSMENT

In accordance with Regulation 13(5) and 13(6) of the OPGGS(E) Regulations and Schedule 1(3) of the Petroleum (Environment) Regulations, ConocoPhillips conducted an Environmental Risk Assessment for activities associated with the Pipeline. This process was used to identify and evaluate the risks and potential environmental impacts associated with the activity (including potential emergency situations), as appropriate to the nature and scale of each impact and risk.

ConocoPhillips risk assessment process is consistent with the AS/NZS ISO 31000:2009: Risk Management – Principles and Guidelines and Handbook (HB) 203:2006 Environmental risk

management – Principles and process (Guide) (AS/NZS 2006). The core steps of ConocoPhillips' risk assessment process is summarised in **Figure 4-1**.

This risk assessment, evaluation and management process provides a framework to demonstrate that environmental impacts and risks are reduced to ALARP and acceptable levels, as required by Regulation 10A(b) and 10A(c) of the OPGGS(E) Regulations and Regulation 9(1) of the Petroleum (Environment) Regulations.

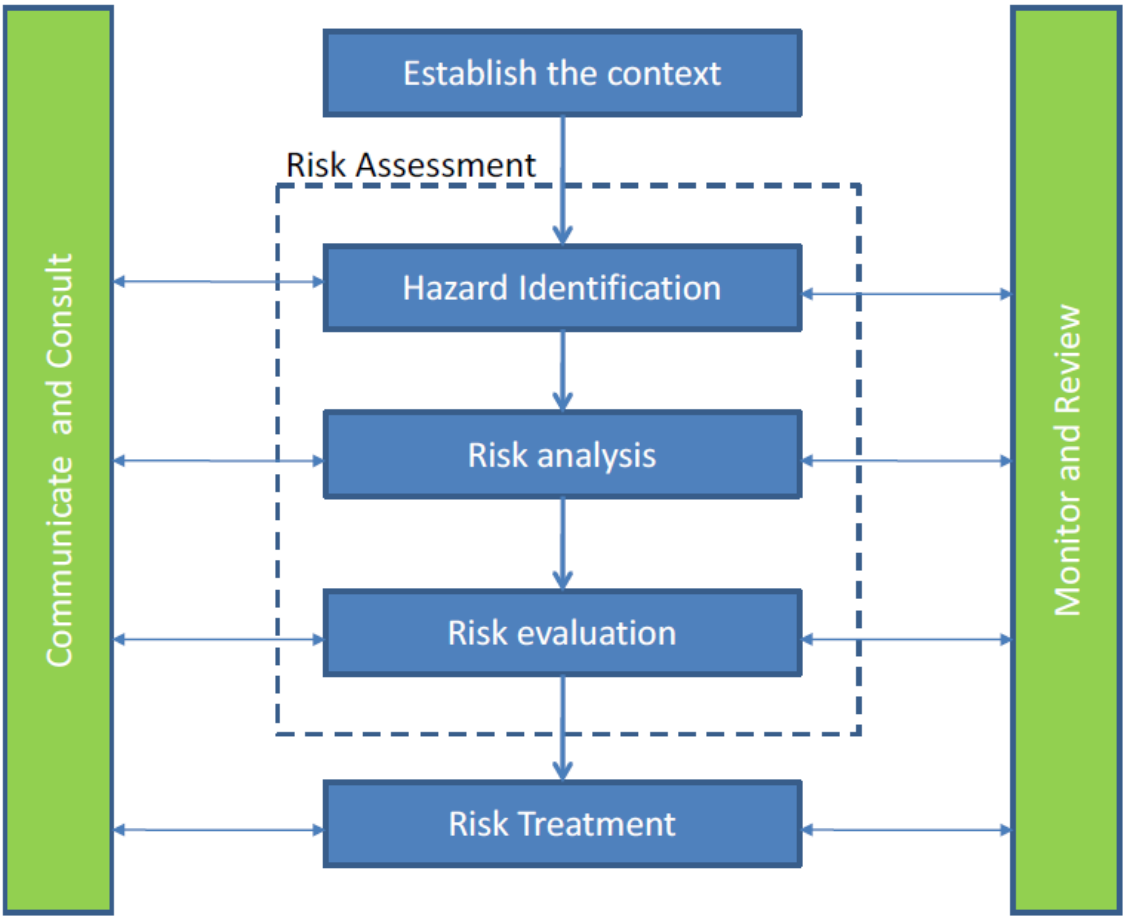

Figure 4-1: ConocoPhillips environmental risk assessment process

4.1.1 Risk Identification

A review of the activity was completed to identify potential aspects of Pipeline operations and IMR activities that may result in environmental impacts or risks. These aspects were then assessed to determine which aspects constitute hazards (i.e. may credibly result in environmental impacts and / or risks). Each hazard was then assessed to identify the impact and risks to environmental receptors. Both planned and unplanned events that could occur during Pipeline operations and IMR activities were considered.

4.1.2 Risk Analysis

The environmental risk assessment process is a qualitative risk-screening tool for evaluating the environmental risk posed by operation and maintenance of the Pipeline. ConocoPhillips assess the risk in two key stages:

- inherent risk analysis – assessment of the potential environment, socio-economic and cultural consequences and the likelihood of that consequence occurring with the application of existing control measures (e.g. relevant legislation, ConocoPhillips and contractor procedures/standards etc.) for each credible risk source scenarios

- residual risk analysis – reassessment of the inherent risk following the application of additional controls/mitigation measures. The residual risk is an indication of the significance of an environmental, socio-economic or cultural impact, considering the management approach expected to be applied throughout the activity to achieve acceptable outcomes.

Two key factors underpin the environmental risk assessment:

- the severity of the consequences if impact does occur; and
- the likelihood of receptors at risk being impacted.

The level of risk is determined by establishing the potential consequence of an impact on an environmental, socio-economic or cultural receptor resulting from an aspect of the activities associated with operation and maintenance of the Pipeline. Following the determination of the level of risk, the likelihood of the consequence occurring is then assigned. The assigned consequence and likelihood is mapped on the risk matrix to determine the level of risk, as illustrated in **Table 4-1**.

Table 4-1: ConocoPhillips ABU-W risk matrix

Risk Matrix					
Likelihood	***Consequence***				
	Negligible (1)	***Minor (2)***	***Moderate (3)***	***Significant (4)***	***Major (5)***
Frequent (5)	5	10	15	20	25
Probable (4)	4	8	12	16	20
Rare (3)	3	6	9	12	15
Remote (2)	2	4	6	8	10
Improbable (1)	I	2	3	4	5

Risk Rating		
Risk score	***Risk rating***	***Description of risk level***
IV (17-25)	High	High risk. Manage risk utilising prevention and/or mitigation with highest priority. Promote issue to appropriate management level with commensurate risk assessment details.
III (12-16)	Significant	Significant risk. Manage risk utilising prevention and/or mitigation with priority. Promote issue to appropriate management level with commensurate risk assessment detail.
II (5-10)	Medium	*Moderate risk with controls verified*. No mitigation required where controls can be verified as functional. ALARP should be evaluated, as necessary.
I (1-4)	Low	*Low risk*. No mitigation controls required. Risk is considered inherently ALARP.

4.1.2.1 Assessment of Consequence of Potential Impacts

In evaluating the level of consequence of a potential event, the following factors have been considered:

- extent of impacts – whether the impact affects the local or wider regional environment;
- duration of the impact – how long it will interact with the receiving environment;
- sensitivity of the receiving environment (including seasonal sensitivities) – nature, importance (local, national or international significance) and the sensitivity or resilience to change of the receptor that could be affected. This also considers any relevant laws,

regulations or standards aimed at protecting the receiving environment, including the EPBC Act and *Territory Parks and Wildlife Conservation Act 2014*.

The consequence rating is based on a consequence when no safeguards are in place. As a conservative approach, the consequence that results in the highest risk consequence rating by these definitions is carried through for each potential impact. Consequence definitions used during the risk assessment process are outlined in **Table 4-2**.

Table 4-2: Risk assessment consequence definitions

Consequence severity description			
Rating	***Biodiversity***	***Socio-cultural and economic***	***Business impact***
5	Catastrophic permanent loss/extinction (100%) of species, habitat or ecosystem. Irrevocable loss, no mitigation possible.	Permanent lost access or use of area with permanent reduction in community or tribal quality of life; major economic impact to surrounding community; irrevocable loss of culture resources. and/or The remediation associated with the environmental harm, asset damage and/or litigation/resolution costs will probably exceed $10 million.	Complete area evacuation. and/or National and global negative media exposure and/or Business interruption costs likely to exceed $10 million.
4	Serious loss or migration (> 50%) of species population, habitat or ecosystem. Partial mitigation only possible through prolonged and resource intensive effort (greater than 50 years).	Permanent partial restriction on access or use, or use, or total restriction > 10 years in duration; temporary reduction in quality of life > 10 years' duration; harm to cultural resources requiring major mitigation. and/or The remediation associated with the environmental harm, asset damage and/or litigation/resolution costs are between $1 million and $10 million.	Selected areas require evacuation. and/or Regional Asia-pacific and national negative media exposure and/or Business interruption costs likely to be between $1 million and $10 million.
3	Temporary, but reversible loss/migration of species population (< 25%), habitat or ecosystem. Moderate mitigation efforts required for total reversal.	Temporary restriction < 10 years in duration with a moderate reduction in usage levels or quality of life; harm to cultural resources recoverable through moderate mitigation efforts. and/or The remediation associated with the environmental harm, asset damage and/or litigation/resolution costs are between $100,000 and $1 million.	Shelters in place but evacuation not mandatory. and/or Regional negative media exposure and/or Business interruption costs likely to be between $100,000 and $1 million.
2	Brief, but reversible loss/migration of species population (< 15%), habitat or ecosystem. Minor mitigation efforts required for total reversal.	Brief restriction < 5 years in duration with a minor reduction in usage levels or quality of life; minor harm to cultural resources that are recoverable through minor mitigation efforts. and/or The remediation associated with the environmental harm, asset damage and/or litigation/resolution costs are between $10,000 and $100,000.	Local notification only (selected phone calls, letter notification). and/or State and local negative media exposure and/or Business interruption costs likely to be between $10,000 and $100,000.
1	Some minor loss/migration of species population (<10%) habitat or ecosystem that are short term and immediately and completely reversible.	Restrictions on access without loss of resources; temporary but fully reversible impacts on quality of life; minor impact on cultural resources, landscapes, traditions that are fully reversible without lost value. and/or The remediation associated with the environmental harm, asset damage and/or litigation/resolution costs are between $0 and $10,000.	No communication to the public. and/or No media exposure and/or Business interruption costs likely to be between $0 and $10,000.

4.1.2.2 Likelihood of Impact Occurrence

The likelihood of an impact occurring considers the effective implementation of industry standard mitigation measures. The likelihood of the top-level event occurring that could give rise to the impact is based on industry experience.

The likelihood selection is based on the likelihood of a consequence occurring with safeguards in place; it is not based on how often the cause occurs.

Table 4-3 provides the likelihood descriptions that have been used for the risk review, which are based on the ConocoPhillips' ABU-W Risk Management Procedure. As outlined above, this process reflects the risk management process detailed within AS/NZS ISO 31000:2009 (AS/NZS 2009) and HB 203:2006 (AS/NZS 2006).

Table 4-3: Risk assessment likelihood definitions

Level	Descriptor	Quantitative range per year*	Description	Enhanced description
1	Improbable	$< 10^{-6}$	Virtually improbable and unrealistic	Unheard of in the industry
2	Remote	$10^{-6} – 10^{-4}$	Not expected nor anticipated to occur	Has occurred once or twice in the industry
3	Rare	$10^{-4} – 10^{-3}$	Occurrence considered rare	Has occurred many times in the industry but not in the company
4	Probable	$10^{-3} – 10^{-1}$	Expected to occur at least once in 10 years	Has occurred once or twice in the company
5	Frequent	$> 10^{-1}$	Likely to occur several times a year	Has occurred several times on the location

* The values in the quantitative range should be used as guidance in selecting the appropriate likelihood category. These values should not be used in the risk calculation.

4.1.3 Risk Evaluation

The evaluation of the environmental risks was undertaken in the context of ALARP and acceptability, which are described in detail below.

4.1.3.1 Demonstration of ALARP

ConocoPhillips demonstrates risks are reduced to ALARP when the cost and effort required to further reduce risk is grossly disproportionate to the risk benefit gained. This demonstration shall include the following:

- compliance with relevant legislation, accepted industry codes and standards, including standard industry practice and guidelines;
- implementation of effective management system controls;
- incorporation of barriers/control measures commensurate with the potential impact and risk from the activity;
- confirmation that the cost/benefit/sacrifice and effort of adding further barriers/control measures is grossly disproportionate to the potential reduction in risk. This is achieved through the identification and evaluation of further measures to determine those appropriate for implementation (i.e. practicable).

For inherently significant and high-risk activities, significant effort is made to assess and implement risk reduction opportunities such as quantitative studies and cost benefit analyses and undertaking detailed review of the risk in consultation with management. For inherently low or medium risk activities, further controls are assessed qualitatively/semi-quantitatively (as per ConocoPhillips' ABU-W Risk Management Procedure) based on the nature and scale of the risk and taking into consideration regulator expectations. All assessments shall be recorded for demonstration purposes.

4.1.3.2 Demonstration of Acceptability

ConocoPhillips considers an activity to be acceptable when the level of impact and risk to the environment may be considered broadly acceptable regarding all relevant considerations including:

- the principles of ecologically sustainable development (ESD)
- relevant environmental legislation (including conservation advice and recovery plans), international agreements and conventions, guidelines and codes of practice
- internal context - alignment with ConocoPhillips ABU-W HSEMS, ABU-W HSE and Sustainable Development (HSE&SD) Policy, culture and company standards and systems
- external context - potential environmental consequence and stakeholder expectations

The linkage of the ConocoPhillips residual risk rankings and the demonstration of acceptability is outlined in **Table 4-4**.

Table 4-4: Residual risk ranking and acceptability

ConocoPhillips residual risk ranking	Acceptability
Low	***Broadly acceptable*** Alignment with ConocoPhillips HSEMS and company standards/systems. Relevant environmental legislation and standard industry practice will be applied to manage the risk and address reasonable regulator and stakeholder expectations. Management controls have been implemented to address the acceptability considerations
Medium	***Acceptable*** If risks have been reduced to ALARP and management controls have been implemented to address the acceptability considerations, a medium residual risk ranking can be considered acceptable.
Significant and High	***Unacceptable*** The activity (or element of) should not be undertaken as the risk is intolerable and does not meet the principles of ESD, legal requirements, ConocoPhillips' requirements or regulator and stakeholder expectations. The activity requires further assessment to reduce the risk to an acceptable level. If the residual risk is unable to be lowered to a more acceptable level, managerial review and approval is required.

A summary of the risk identification and analysis process is provided in **Table 4-5**. This provides a summary of:

- the sources of risk associated with routine/non-routine planned and unplanned activities that may have an impact or risk on the identified receptors;
- the identified environmental, socio-economic and cultural receptors; and
- the inherent and residual risk ranking for interaction between the activities and the receptors as determined through the risk assessment process.

Table 4-5: Activity aspect and receptor interaction matrix

Aspect and Sources of Risk		Environmental, Socio-economic or Cultural Receptor																					
		Physical Environment				Biological Environment									Other Values and Sensitivities				Socio-economic and Cultural Environment				
		Bathymetry and seabed features	Water quality	Sediment quality	Air quality	Intertidal primary producers	Benthic primary producers	Other benthic communities	Plankton	Pelagic and demersal fish communities	Marine mammals	Marine reptiles	Sharks and rays	Seabirds and migratory shorebirds	Key Ecological Features	Australian Marine Parks	Reef Protection Areas	Nationally Important Wetlands	European heritage	Indigenous Heritage	Commercial fishing	Traditional fishing	Tourism and recreational activities	Ports and commercial shipping
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
Routine/Non-routine Planned Activities																								
Physical Presence																								
1	Interactions between IMR Vessels and Other Marine Users																				1T	1U	1V	1W
2	Disturbance to Seabed and Other Marine Users from Physical Presence of Pipeline							2G							2N	2O					2T			
3	Disturbance to Seabed from IMR Activities	3A						3G							3N									
4	Disturbance to Seabed from Anchoring / Mooring	4A						4G							4N									
Discharges																								
5	Vessel Utility Discharges		5B						5H							5O								
Atmospheric Emissions																								
6	Exhaust from Combustion Engines and Incinerators				6D																			
Light Emissions																								
7	Artificial Light on Vessels and ROVs									7I		7K		7M										
Acoustic Emissions																								
8	Noise from IMR Vessels and Activities									8I	8J	8K	8L											
Unplanned Activities																								
Physical Presence																								
9	Dropped Objects	9A					9F	9G							9N									
10	Introduction of Invasive Marine Species						10F	10G							10N	10O								10W
11	Collision with Marine Fauna								11J			11K	11L											
12	Implementation of Spill Response		12B						12J			12K	12L	12M										
Discharges																								

Aspect and Sources of Risk		Environmental, Socio-economic or Cultural Receptor																					
		Physical Environment				Biological Environment									Other Values and Sensitivities				Socio-economic and Cultural Environment					
		Bathymetry and seabed features	Water quality	Sediment quality	Air quality	Intertidal primary producers	Benthic primary producers	Other benthic communities	Plankton	Pelagic and demersal fish communities	Marine mammals	Marine reptiles	Sharks and rays	Seabirds and migratory shorebirds	Key Ecological Features	Australian Marine Parks	Reef Protection Areas	Nationally Important Wetlands	European heritage	Indigenous Heritage	Commercial fishing	Traditional fishing	Tourism and recreational activities	Ports and commercial shipping
		A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W
13	Marine Diesel Release from Vessel Collision		13B			13E			13H	13I	13J	13K	13L	13M		13O	13P	13Q			13T	13U		
14	Marine Diesel Release from Bunkering Incident		14B						14H	14I	14J	14K	14L	14M		14O	14P				14T	14U		
15	Incidental spills of fluids, chemicals and lubricants		15B																					
16	Loss of waste overboard		16B	16C							16J	16K	16L	16M										
Atmospheric Emissions																								
17	Dry natural gas release from Pipeline				17D						17J	17K	17M									17T	17U	17V	17W

Key

	Interaction reasonably possible – low residual risk
	Interaction reasonably possible – medium residual risk
	Interaction reasonably possible – significant residual risk
	Interaction reasonably possible – high residual risk
	Interaction not reasonably expected

4.2 ROUTINE/NON-ROUTINE PLANNED ACTIVITIES

4.2.1 Physical Presence: Interactions between IMR Vessels and Other Marine Users

During IMR activities there is the potential for interference with commercial fishers, shipping vessels and other marine users. The risk assessment for potential impacts is summarised in **Table 4-6**

Table 4-6: Risk assessment of physical presence – interactions between IMR Vessels and Other Marine Users

Risk	• Interactions between IMR vessels and other marine users	
Aspect-receptor Reference (see Table 4-5)	1T – Commercial fishing	1U – Traditional fishing
	1V – Tourism and recreational activities	1W – Ports and commercial shipping
Potential Impacts	During IMR activities there is potential for interference with commercial fishers, shipping vessels and other marine users. Given the intermittent, spatially restricted and short duration of IMR activities, interactions with other marine users are considered remote. Consultation with other marine users, including fishing stakeholders, AMSA and Darwin Port, did not raise any issues in relation to potential interactions with vessels undertaking the Petroleum Activity (**Section 6**). ***Commercial Fisheries and Traditional Fishing*** From review of available fishery data, it was determined that there is only a low potential for commercial fishing to be undertaken within the Operational Area, mostly within Commonwealth waters. Any interactions with commercial fishers are expected to be restricted to temporary avoidance and should not significantly impact fishing activities. Non-shore-based indigenous and recreational fishing practices are typically observed near/around shoal and reef features in the NMR region and are consequently expected to be restricted to within only these few and isolated areas of the Operational Area within NT Coastal Waters, mostly within the 3 nm limit and in proximity to the entrance to Darwin Harbour (which is subject to relatively high vessel traffic. ***Ports and Commercial Shipping*** The presence of IMR vessels has the potential to cause temporary disruption to commercial shipping, particularly within nearshore NT Coastal Waters where there is a significant amount of traffic associated with Darwin Port. However, as all shipping vessels are also required to comply with the COLREGS and associated Marine Orders, it is expected navigational and communicative aids are sufficient to preventing any negative interactions beyond basic avoidance during IMR activities. Consultation with the Darwin Port indicated than vessel traffic within the harbour is concentrated east of the Pipeline, hence the potential for interactions with port traffic is low. Beyond Darwin Port, most vessel traffic within 20 km of the Pipeline comprise of ships displacing less than 10,000 tonnes which allows for greater manoeuvrability and, therefore, greater ease when shipping vessels are required to avoid IMR vessels. In summary, the likelihood of interactions between vessels undertaking IMR and other marine users is considered to be remote. The potential impacts of such interactions are no more than a temporary displacement of other users, which are considered to be negligible.	
Risk Assessment		
	Consequence	***Likelihood***	***Risk rating***
Inherent risk	1 Negligible	2 Remote	2 – Low
Residual risk	1 Negligible	2 Remote	2 – Low
Summary of Control Measures		
• Vessels will be equipped and crewed in accordance with the *Navigation Act 2012* (as applicable for vessel size, type and class), including implementing:		

- o Marine Order 21 (Safety of navigation and emergency procedures) 2012
- o Marine Order 27 (Radio Equipment) 2009
- o Marine Order 30 (Prevention of Collisions) 2009
- o Marine Order 71 (Masters and Deck Officers) 2014
- Develop and implement consultation plan to support operation of the Pipeline
- Notify Australian Hydrographic Office (AHO) prior to commencement of IMR activities.
- Notify Darwin Harbourmaster prior to commencing IMR activities within Darwin Harbour

4.2.2 Physical Presence: Disturbance to Seabed and Other Marine Users from Physical Presence of Pipeline

The Pipeline is in direct contact with the seafloor and will therefore, cause localised impact to other marine users, the seabed features and the benthic environment. The risk assessment for potential impacts is summarised in **Table 4-7**.

Table 4-7: Risk assessment of physical presence – disturbance to the seabed

<table>
<tr><td>Risk</td><td colspan="2">• Disturbance to seabed from the physical presence of the Pipeline
• Interactions between Pipeline, other marine users and benthic habitats</td></tr>
<tr><td rowspan="2">Aspect-receptor Reference (see Table 4-5)</td><td>2G – Other benthic communities</td><td>2N – Key ecological features</td></tr>
<tr><td>2T – Commercial fishing</td><td>2O – Australian marine parks</td></tr>
<tr><td>Potential Impacts</td><td colspan="2">
Habitats and Communities
The Pipeline overlaps three separate mesoscale bioregions: Oceanic Shoals, Bonaparte Gulf and Anson-Beagle which each support relatively different benthic environments and geomorphologies. Within the offshore Oceanic Shoals bioregion, the Operational Area overlaps three KEFs (Table 4-8).
Table 4-8: Areas and Percentages of KEFs overlapping the Operational Area
<table>
<tr><th>KEF</th><th>Area of KEF overlapped by Operational Area (km²)</th><th>Percentage of KEF overlapped by Operational Area (%)</th></tr>
<tr><td>Carbonate bank and terrace system of the Sahul Shelf</td><td>6.138</td><td>0.015</td></tr>
<tr><td>Pinnacles of the Bonaparte Basin (North Bioregion)</td><td>0.084</td><td>0.038</td></tr>
<tr><td>Carbonate bank and terrace system of the Van Diemen Rise</td><td>79.83</td><td>0.255</td></tr>
</table>
Given the small proportion of relevant KEFs overlapping the Pipeline, the seabed footprint impact from the presence and/or localised movement of the Pipeline represents a very small portion of these features and will not cause a significant impact to the ecological values associated with the KEFs.
Benthic habitat modelling indicated the majority of the Operational Area is classified as bare sand, with small areas of burrowers / crinoids (20%) and filter feeders (2%). Previous inspections of the Pipeline did not record any significant or complex benthic habitats, which is consistent with the habitat modelling results.
Benthic communities in the area have been found to be correlated with geomorphology and substrate type, with relatively featureless areas restricted to infaunal communities with almost no visible presence of epifauna (Nichol et al., 2013). Higher density benthic communities are expected to be restricted to isolated geomorphic features, particularly banks / shoals (Przeslawski et al., 2011), which do not overlap the Operational Area. The Pipeline itself may support higher diversity and abundances where it is functioning as an artificial reef.
A study in southern California found fish densities associated with an oil pipeline to be approximately seven and six times that of the adjacent seafloor in shallow and deep
</td></tr>
</table>

	water sections of the pipeline, respectively (Love and York, 2005). These higher fish densities are likely the outcome of higher densities of benthic communities resulting from the presence of the artificial hard substrate. Further inshore, the Pipeline crosses the Bonaparte Gulf bioregion, which is situated in both Commonwealth and NT Coastal Waters. The Bonaparte Gulf bioregion is considered relatively uniform with simple geomorphology with an expected low diversity of epifauna (Rochester et al., 2007). Adjacent to this bioregion is the Anson-Beagle bioregion, which includes nearshore NT Coastal Waters and Darwin Harbour. A number of reefs and shoals exist within the Anson-Beagle bioregion; however, none were identified as overlapping the Pipeline. Approximately 80% of substrate in Darwin Harbour comprise soft sediment communities which are dominated by infaunal communities (INPEX Browse, 2010). Sensitive habitats overlapping the Pipeline route in NT Coastal Waters, which are not specifically considered to be credibly impacted by the presence and/or movement of the Pipeline include the Charles Point Reef Protection Area which was established to reduce occurrence of barotrauma during fishing activities, and the Port Darwin Nationally Important Wetland which overlaps the full extent of Darwin Harbour. Given most of the seabed within the Operational Area comprises bare sand and low diversity benthic communities, the potential impacts from the Pipeline's presence is expected to be restricted to ongoing, minor and localised disturbance to low sensitivity benthic habitat. The negative impacts are expected to be at least partially compensated for by the probable positive impacts of the Pipeline acting as an artificial reef. Therefore, the consequence of potential impacts and risks associated with seabed disturbance from the presence of the Pipeline are considered low. ***Interference with Commercial Trawl Fishers*** Considering the Pipeline has been in operation since 2005 with no incidents from interaction between trawl fishing gear/vessels to date, it is considered highly unlikely that incidents will arise in the future given the existing controls in place. ConocoPhillips has engaged with all relevant commercial fishers which have potential to fish within the EMBA and confirmed their awareness of the Pipeline's location. In summary, the potential impacts and risks to other commercial fishers are considered low. ***Oceanic Shoals Australian Marine Park*** Natural values of the Oceanic Shoals AMP include the KEFs (refer to discussion in Habitats and Communities above) and examples of ecosystems representative of the Northwest Shelf Transition Provincial Bioregion. The Oceanic Shoals AMP also hosts threatened and migratory species, including BIAs and habitat critical for the survival of for marine turtles. Given the Pipeline footprint is highly localised, and the Pipeline has become an artificial reef, the continued operation of the Pipeline is not expected to result in impacts to threatened and migratory species (including turtles). Other values of the Oceanic Shoals AMP, such as cultural and socio-economic values, are not expected to be impacted by the presence of the Pipeline. Consultation with stakeholders did not indicate any claims or objections from relevant persons (Table 6-3). The section of the Oceanic Shoals AMP within which the Pipeline exists is zoned entirely IUCN VI (Multiple Use Zone). Management principles for this zoning include: • The biological diversity and other natural values of the reserve or zone should be protected and maintained in the long term; • Management practices should be applied to ensure the ecologically sustainable use of the reserve or zone; and • Management of the reserve or zone should contribute to regional and national development to the extent that this is consistent with these principles. The construction and operation of the Pipeline is consistent with these principles, as it does not represent a threat to the protection and maintenance of biological diversity and other natural values, the environmental risks and impacts are managed, and the Pipeline contributes to the economic development of the region and nation. Consultation with the Director of National Parks (DNP) indicated no additional requirements will be applied to new or existing pipelines with Category VI zones which have an accepted EP in place (Table 6-3).
Risk Assessment	
Pipeline footprint: physical damage/disturbance to benthic habitats	
Consequence	***Likelihood*** / ***Risk rating***

Inherent risk	1 Negligible	3 Rare	3 – Low
Residual risk	1 Negligible	3 Rare	3 – Low
Proximity of Pipeline to other marine users			
Inherent risk	1 Negligible	1 Improbable	1 – Low
Residual risk	1 Negligible	1 Improbable	1 – Low
Summary of Control Measures			
• Undertake consultation with relevant persons (including applicable notifications) to support operation of the Pipeline (**Table 4-6)** • Pipeline to be marked on standard nautical charts available from AHS • All Pipeline operations, including risk-based IMR activities, are undertaken in accordance with the PMP, with corrective actions (e.g. span rectification) carried out where an unacceptable risk to Pipeline integrity is identified.			

4.2.3 Physical Presence: Disturbance to Seabed from IMR Activities

IMR activities conducted on the Pipeline may result in disturbance to the seabed and benthic habitats in the immediate area of the activity. The risk assessment for potential impacts is summarised in **Table 4-9**.

Table 4-9: Risk assessment of physical presence – disturbance to seabed from IMR Activities.

Risk	Disturbance to seabed from maintenance of Pipeline including: • Pipeline stabilisation • Span rectification • Pipeline coating removal	
Aspect-receptor Reference (see Table 4-5)	3A – Bathymetry and seabed features	3G – Other benthic communities
	3N – Key ecological features	
Potential Impacts	As discussed in **Section 2.6**, the Pipeline is inspected in accordance with the risk-based approach detailed in Table 2-3. Inspections to date have indicated benthic habitat surrounding the Pipeline is predominantly sand. Sand habitat is broadly represented in the region and is considered to be of low environmental sensitivity. Impacts from Pipeline maintenance activities may include displacement and smothering of benthic organisms, limited to the immediate vicinity of the section of the Pipeline where maintenance is taking place. Impacts are expected to be confined to sediment burrowing infauna and surface epifauna invertebrates inhabiting the seabed around the Pipeline. Should maintenance be required to the sections of the Pipeline overlapping the Carbonate bank and terrace system of the Van Diemen Rise and the Sahul Shelf KEFs, the seabed footprint impact would represent only a very small portion of these features and will not cause a significant impact to the ecological values associated with the KEF. Furthermore, impacts from stabilisation or span rectification activities in these sections would likely function to restrict impact to benthic habitats by minimising the Pipeline's footprint. During placement of stabilisation and span rectification materials, and particularly during CWC removal activities, there is expected to be a temporary increase in turbidity levels within the water column. Considering turbidity levels are naturally high within the area, these increases are not expected to be significant and will return to normal levels rapidly. Following any placement of stabilisation or span rectification materials, it is likely that the introduction of additional hard substrate will allow for increased abundances and diversity of benthic organisms from previous levels, similarly to the Pipeline functioning as an artificial reef. Given the temporary nature and localised scale of impacts to the seabed and water column, impacts to marine fauna such as marine turtles and fishes are not considered credible given these species are mobile and can avoid the affected area. The Operational	

	Area overlaps critical internesting habitat for flatback turtles, however no impacts to flatback turtles are expected to occur. The extent of seabed disturbance from IMR activities would be assessed individually on a case by case basis as it would be dependent on the nature and scale of the activity. From ConocoPhillips experience and considering industry standard practices, the impact of direct loss and smothering of benthic habitats from these activities would typically be restricted to approximately 100 m^2, as they are generally conducted on relatively short areas of a Pipeline (i.e. tens of meters). Given, the low sensitivity of benthic habitats, and the localised and/or temporary nature of maintenance IMR activities, the risk associated with seabed disturbance from Pipeline maintenance activities is considered low.

Risk Assessment			
	Consequence	***Likelihood***	***Risk rating***
Inherent risk	1 Negligible	2 Remote	2 – Low
Residual risk	1 Negligible	2 Remote	2 – Low

Summary of Control Measures & Environmental Performance Standards

- All IMR activities restricted to the Operational Area.

4.2.4 Physical Presence: Disturbance to Seabed from Anchoring / Mooring

The anchoring and mooring of IMR vessels will directly contact the seafloor and will therefore cause localised impact to the seabed features and the benthic environment. The risk assessment for potential impacts is summarised in **Table 4-10**.

Table 4-10: Risk assessment of physical presence – disturbance to seabed from anchoring/mooring

Risk	• Disturbance to seabed from anchoring or mooring of IMR vessels	
Aspect-receptor Reference (see Table 4-5)	4A – Bathymetry and seabed features	4G – Other benthic communities
	4N – Key ecological features	
Potential Impacts	The seabed across the extent of the Pipeline is relatively variable as it extends from far offshore waters in depths of up to 140 m to the shoreline within Darwin Harbour. As discussed in Section 3.2.3, a number of features overlap the Operational Area, including two KEFs, which could be impacted by seabed disturbance such as anchoring and mooring. However, these features only occur within deeper waters (> 50 m) of the Operational Area where routine anchoring / mooring is not planned to occur. Seabed disturbance in these areas is unlikely to cause significant impacts to the benthic environment beyond temporary, highly localised smothering and modification of benthic habitats. Benthic habitat modelling indicated the majority of the Operational Area is classified as bare sand, with small areas of burrowers / crinoids (20%) and filter feeders (2%). Previous inspections of the Pipeline did not record any significant or complex benthic habitats, which is consistent with the habitat modelling results. Given the low sensitivity of benthic habitats within the Operational Area, in the event that anchoring is required the potential for impacts to benthic habitat is considered to be negligible given the low sensitivity of habitats modelled and observed to date and the localised area that would be affected by anchors / moorings.	

Risk Assessment			
	Consequence	***Likelihood***	***Risk rating***
Inherent risk	1 Negligible	2 Remote	2 Low
Residual risk	1 Negligible	2 Remote	2 Low

Summary of Control Measures
All anchoring / mooring restricted to the Operational Area

4.2.5 Discharges: Vessel Utility Discharges

During the IMR activities, the IMR vessels will routinely discharge treated sewage, grey-water, putrescible waste, deck drainage, and bilge water to the marine environment. The risk assessment for potential impacts is summarised in **Table 4-11**.

Table 4-11: Risk assessment of discharges – vessel utility discharges

Risk	• Routine discharge of treated sewage, grey-water, putrescible waste, deck drainage, and bilge water from IMR vessels		
Aspect-receptor Reference (see Table 4-5)	5B – Water quality	5H – Plankton	
	5O – Australian marine parks		
Potential Impacts	Impacts from the discharge of sewage, grey water and putrescible waste are associated with eutrophication, where an increase in nutrients within the water column leads to a depletion of dissolved oxygen and an increase in phytoplankton (i.e. phytoplankton bloom). Deck drainage and bilge generally contain small quantities of hydrocarbons and other chemicals (e.g. detergents). The impact of these substances can vary depending on the types of contaminants, volumes discharged and sensitivity of the receiving environment. If discharged in large enough quantities or for a significant time period, many of these chemicals can have toxic effects to marine organisms. However, at small quantities and over short durations (as expected during IMR activities) chemicals are expected to disperse rapidly to levels below those which would cause adverse impacts. In more sensitive environments this impact may be more significant, such as in protected areas. Although the Oceanic Shoals AMP overlaps the operational area and EMBA in Commonwealth waters, given its listed values and physical environmental characteristics (i.e. open, relatively deep offshore environment with significant current and tidal action) no impacts to this AMP from vessel utility discharges is expected. Any potential impacts from discharged of treated sewage, grey-water, putrescible waste, deck drainage, and bilge water from IMR vessels are expected to be highly localised and temporary decreases in water quality, with a negligible increase in cumulative discharges from other vessels in the area and negligible impacts to any marine organisms. In summary, the potential impacts and risks to the marine environment from routine discharges described above are considered low.		
Risk Assessment			
	Consequence	***Likelihood***	***Risk rating***
Inherent risk	1 Negligible	2 Remote	2 – Low
Residual risk	1 Negligible	2 Remote	2 – Low
Summary of Control Measures			
• Vessels shall be equipped and crewed in accordance with the *Navigation Act 2012* and the *Protection of the Sea (Prevention of Pollution from Ships) Act 1983* (as applicable for vessel size, type and class), including implementing: o Marine Order 91 (Marine Pollution Prevention – Oil) o Marine Order 95 (Marine Pollution Prevention – Garbage) o Marine Order 96 (Marine Pollution Prevention – Sewage)			

4.2.6 Atmospheric Emissions: Exhaust from Combustion Engines and Incinerators

Atmospheric emissions will be generated by the IMR vessels primarily from the combustion of

fossil fuels and potentially from the incineration of waste. The risk assessment for potential impacts is summarised in **Table 4-12**.

Table 4-12: Risk assessment of atmospheric emissions – exhaust from combustion engines and incinerators

Risk	• Atmospheric emissions from IMR vessel combustion engines and incinerators		
Aspect-receptor Reference (see Table 4-5)	6D – Air quality		
Potential Impacts	The location where IMR vessels will be transiting is predominately in the remote offshore environment where there are no other permanent sources of air pollution and the air quality is expected to be nearly pristine. Within nearshore NT Coastal Waters, particularly within Darwin Harbour, air quality is impacted by several anthropogenic influences, however is generally considered good. Atmospheric emissions from IMR vessels can result in a deterioration in local air quality, while emissions of GHG can cause an incremental increase in global GHG concentrations. Given the nature and scale of IMR activities (low frequency and short duration), both risks are considered to have a negligible impact on air quality in both Commonwealth and NT Coastal Waters.		
Risk Assessment			
	Consequence	***Likelihood***	***Risk rating***
Inherent risk	1 Negligible	1 Improbable	2 – Low
Residual risk	1 Negligible	1 Improbable	2 – Low
Summary of Control Measures			
• Vessels will be suitably equipped and crewed in accordance with the *Navigation Act 2012* and the *Protection of the Sea (Prevention of Pollution from Ships) Act 1983* (as applicable for vessel size, type and class), including implementing: o Marine Order 97 (Marine Pollution Prevention – Air Pollution)			

4.2.7 Light Emissions: Artificial Light on Vessels and ROVs

Light emissions will be generated by the IMR vessels and ROVs. The risk assessment for potential impacts is summarised in **Table 4-13**.

Table 4-13: Risk assessment of light emissions – artificial light on vessels and ROVs

Risk	• Light emissions from IMR vessels and ROVs	
Aspect-receptor Reference (see Table 4-5)	7I – Pelagic and demersal fish communities	7K – Marine reptiles
	7M – Seabirds and migratory shorebirds	
Potential Impacts	Light emissions associated with IMR activities involving vessels and ROVs may present a potential risk to marine fauna causing a temporary change in movement patterns and/or behaviour, such as the attraction or disorientation of individuals. Artificial lighting can affect several marine fauna including seabirds and migratory shorebirds, marine turtles, as well as sharks/rays and other fish. Birds may be attracted to lights either causing collision with vessels, or distraction during long-distance migrations resulting in depletion of vital energy reserves (Poot et al., 2008). Marine turtle hatchlings can become disorientated by coastal artificial lighting when moving towards the sea from nesting beaches (Salmon et al., 1995b; Salmon and Witherington, 1995), however, once reaching the water are primarily directed by water movements (Lohmann et al., 1990; Lohmann and Lohmann, 1992). When turtles become disorientated there is potential for them to not reach the sea and become stranded onshore, or for increased predation of hatchlings resulting from an increased window of opportunity for birds and other predators. Similarly, adult marine turtles are also affected by coastal lighting during nesting periods (Salmon et al., 1995b,	

	1995a; Salmon and Witherington, 1995), as they can become stranded or potentially predated on. Overlapping the EMBA are six BIAs and five areas of habitat critical to the survival of a species, relevant to flatback and olive ridley turtles (refer **Sections 3.2.2**). Of these, the areas surrounding the Tiwi Islands, specifically around the south-west region of Bathurst Island (20 km from the EMBA at its closet point), as well as mainland beaches, specifically to the west of the EMBA, are particularly relevant to this source of risk. Flatback and olive ridley turtles breed in the NMR between June and September and April and June, respectively; however, they are expected to be present in low numbers throughout the year, near the island. Given the lighting from IMR vessels will be coming from offshore, the impact to any turtles is expected to be minor and temporary disorientation while in the water (i.e. while either moving towards or away from nesting beaches), with negligible impacts to turtle migration. the island. Given the lighting from IMR vessels will be coming from offshore, the impact to any turtles is expected to be minor and temporary disorientation while in the water (i.e. while either moving towards or away from nesting beaches), with negligible impacts to turtle migration. Fish including sharks and rays are more likely to be affected by underwater lighting than from vessel lighting. A number of studies have specifically explored the behavioural effects of artificial light from ROVs on various fish species and have found impacts depend on a number of factors; for example, the species (e.g. its activity level and mobility), the strength of the light source, speed of vehicle, environmental conditions, as well as other biological variables such as age (Ryer et al., 2009; Stoner et al., 2008). Behavioural effects may include avoidance, agitation or attraction to the light source, and effects may vary for individual species based timing of the survey (i.e. during feeding, breeding or resting periods). Impacts to turtles from the temporary use of ROVs is expected to cause only brief behavioural changes in fish within a localised area and will not have any lasting effects to individuals. Given the low frequency and duration of IMR activities (i.e. a RBI approach based on Table 2-3), lighting from vessels is expected to cause only minor disturbance to marine mammal, turtle and bird behaviour with negligible impacts. ROVs may be used during IMR activities, however at an even lower frequency and duration (e.g. for less than 12 hours and during only some IMR activities). Therefore, the disturbance to marine fauna from ROV lighting is also considered to have a negligible impact.
Risk Assessment	
Consequence	***Likelihood*** / ***Risk rating***
Inherent risk	1 Negligible / 2 Remote / 2 – Low
Residual risk	1 Negligible / 2 Remote / 2 – Low
Summary of Control Measures & Environmental Performance Standards	
No existing or additional (implementable) controls identified	

4.2.8 Acoustic Emissions: Noise from IMR Vessels and Activities

IMR activities which will produce underwater noise emissions. The risk assessment for potential impacts is summarised in **Table 4-14**.

Table 4-14: Risk assessment of acoustic emissions – noise from IMR vessels and activities

Risk	• Underwater noise associated with IMR vessels • Underwater noise associated with sidescan sonar and MBES	
Aspect-receptor Reference (Table 5-6)	8I – Pelagic and demersal fish communities	8J – Marine mammals
	8K – Marine reptiles	8L – Sharks and rays
Potential Impacts	Marine fauna that may be impacted by underwater noise from IMR vessels and IMR activities, include marine mammals (cetaceans), reptiles, sharks/rays and other fish. Marine fauna use sound in a range of functions including social interaction, foraging and	

orientation. Marine fauna responds variably when exposed to underwater noise from anthropogenic sources, with effects dependent on a number of factors, including distance from the sound source, the animal's hearing sensitivity and audible frequency range, type and duration of sound exposure and the animal's activity at time of exposure. Broadly, the effects of sounds on marine fauna can be categorised as:

- behavioural response – behavioural changes vary significantly and may include temporary avoidance, increased vigilance, reduction in foraging and reduced vocalisations.
- acoustic masking – anthropogenic sounds may interfere, or mask, biological signals therefore reducing the communication and perceptual space of an individual
- auditory threshold shift (temporary and permanent hearing loss) – marine fauna exposed to intense sound may experience a loss of hearing sensitivity. Hearing loss may be in the form of a temporary threshold shift (TTS) from which an animal recovers within minutes or hours, or a permanent threshold shift (PTS) from which the animal does not recover.
- non-auditory physiological effects – physiological injury or mortality.

Behavioural impacts, will depend on the audible frequency range of each potential receptor in relation to the frequency of the noise, as well as the intensity of the noise. Physiological impacts, including TTS and PTS, are associated mainly with the intensity level of the noise source; however, audible frequency can be taken into consideration for some marine species through using developed M-weighted sound exposure metrics (Southall et al., 2007).Table 4-15 summarises the frequency ranges of different potential noise sources in relation to the potential for behavioural impacts to marine fauna.

Table 4-15: Summary of potential behavioural impacts to marine fauna from various noise sources based on audible frequency ranges

Predicted Frequency Range of Marine Fauna	Audible Frequency Range (kHz)	Acoustic Noise Sources		
		Vessel DP thrusters	Sidescan sonar	MBES
Frequency Range of Noise Source (kHz)		***0.02 – 1.2***	***120-410***	***>70***
High frequency cetaceans	0.02 – 180	Y	Y	Y
Medium frequency cetaceans	0.015 – 160	Y	Y	Y
Low Frequency Cetaceans	0.007 – 22	Y	N	N
Marine Turtles	0.005 – 2	Y	N	N
Fish	<0.01 – 20	Y	N	N

Based on Table 4-15, vessel noise from DP thrusters has the potential to cause behavioural impacts to each of the relevant marine fauna groups, while behavioural impacts from acoustic surveys are relevant to only medium to high frequency cetaceans (e.g. dolphins and other toothed whales). The type of behavioural impacts to marine fauna will depend on the intensity of sound. Table 4-16 summarises reported behavioural thresholds for potential physiological and behavioural impacts.

Table 4-16: Summary of marine fauna impact thresholds and predicted sound intensities from vessel and acoustic survey noise emissions, as derived in Southall et al. (2007) and Popper et al. (2014)

Potential Marine Fauna Receptor	Physiological Effects (Mortality and Injury)	Impairment			Behaviour
		PTS	TTS	Masking	
Continuous noise (i.e. vessel DP thrusters)					
High frequency cetaceans	179 db re 1 μPa^2s M-weighted SEL	198 db re 1 μPa^2s M-	183 db re 1 μPa^2s M-	-	90-140 dB re 1 µPa rms SPL

		weighted SEL	weighted SEL		
Mid-frequency cetaceans*	198 db re 1 µPa^{2}s M-weighted SEL	198 db re 1 µPa^{2}s M-weighted SEL	183 db re 1 µPa^{2}s M-weighted SEL	-	90-170 dB re 1 µPa rms SPL
Low Frequency Cetaceans	192 db re 1 µPa^{2}s M-weighted SEL	198 db re 1 µPa^{2}s M-weighted SEL	183 db re 1 µPa^{2}s M-weighted SEL	-	120-160 dB re 1 µPa rms SPL
Marine Turtles	(N) Low (I) Low (F) Low	(N) Low (I) Low (F) Low	(N) Moderate (I) Low (F) Low	(N) High (I) High (F) Moderate	(N) High (I) Moderate (F) Low
Fish: no swim bladder†	(N) Low (I) Low (F) Low	(N) Low (I) Low (F) Low	(N) Moderate (I) Low (F) Low	(N) High (I) High (F) Moderate	(N) Moderate (I) Moderate (F) Low
Fish: swim bladder no involved in hearing†	(N) Low (I) Low (F) Low	(N) Low (I) Low (F) Low	(N) Moderate (I) Low (F) Low	(N) High (I) High (F) Moderate	(N) Moderate (I) Moderate (F) Low
Fish: swim bladder involved in hearing†	(N) Low (I) Low (F) Low	170 dB rms SPL for 48 hrs	158 dB rms SPL for 12 hrs	(N) High (I) High (F) High	(N) High (I) Moderate (F) Low

Note: a range of sound units are provided in the table above, reflecting the range of studies from which these data have been derived. The difference in units presents difficulty in reliably comparing threshold values. Where practicable, the threshold values have been compared with indicative sound sources levels of the same sound unit types to facilitate comparison. The sound units provided in the table above include:

- *M-weighted sound exposure level (SEL): a weighted sound metric that emphasises the audible frequency bands for the receptor groups – low, mid- and high frequency cetaceans. SEL units are time integrated and best suited for continuous noise sources, such as vessels holding station or continuous machinery noise.*
- *Root mean square (rms) sound pressure level (SPL): root mean square of time-series pressure level, useful for quantifying continuous noise sources (as per SEL point above).*
- *Relative risk (high, medium and low) is given for fish (all types), turtles and eggs and larvae at three distances from the source defined in relative terms as near (N), intermediate (I) and far (F) (after Popper et al. 2014).*

Based on Table 4-16, vessel related noises at the source are not expected to have the intensity and characteristics likely to cause physiological injury to most marine fauna, with the exception to some high frequency marine cetaceans. As DP thruster noise is low frequency, it propagates well through water and is not well absorbed, meaning marine fauna may be exposed to relatively high levels of this noise at greater distances from the source than high frequency noise. Surveys which reported maximum source levels for DP vessels holding station (182 dB re 1 µPa at 1 m), found reduced levels of 137 dB re 1 µPa at 405 m away from the source (measured in strong currents) (McCauley, 1998). Given most marine fauna will only be affected behaviourally, impacts from DP thruster noise are not expected to cause more than minor and temporary changes in behaviour such as avoidance of IMR vessels.

Acoustic surveys emit greater intensities of sound, which are above reported exposure physiological thresholds for all cetaceans (Table 4-16). As the noise from acoustic surveys is also high frequency, it is easily absorbed and does not propagate well in

water. Cylindrical geometric spreading equations[1] can be used to estimate transmission loss (TL) from acoustic survey noise and derive impact zones based on exposure thresholds (Table 4-17).

Table 4-17: Estimate sound transmission loss for potential noise sources

Range from Source	Received Noise (dB re µPa) at 30 m water depth
Sidescan sonar (minimum 120 kHz)	
1 m	192.4
2 m	130.9
3 m	75.2
MBES (minimum 70 kHz)	
1 m	193.1
2 m	158.3
3 m	129.2
5 m	77.2

Note: lowest expected frequency and average minimum depths were used to obtain conservative estimates of transmission loss. In higher frequencies and greater water depths transmission loss will be greater.

Using conservative parameter estimates (lowest expected frequency and highest expected intensity, as well as average minimum water depth which constrains sound propagation/absorption) the transmission loss expected for sidescan sonar and MBES acoustic surveys results in physiological exposure impact zones of 2 m, and behavioural impact zones of 2 – 3 m, for all marine fauna with quantitative thresholds (Table 4-17). Given the low likelihood of marine fauna being located within this proximity to the noise emitting sources of these surveys, impacts to marine fauna from this noise are low and restricted to minor, localised and temporary increase in underwater noise with negligible behavioural impacts to marine fauna, including high frequency cetaceans (e.g. dolphins).

Risk Assessment

Underwater noise associated with IMR vessels

	Consequence	***Likelihood***	***Risk rating***
Inherent risk	2 Minor	2 Remote	2 – Low
Residual risk	2 Minor	2 Remote	2 – Low

Underwater noise associated with IMR activities

	Consequence	***Likelihood***	***Risk rating***
Inherent risk	2 Minor	2 Remote	4 – Low
Residual risk	2 Minor	2 Remote	4 – Low

Summary of Control Measures & Environmental Performance Standards

No existing or additional (implementable) controls identified.

[1] $TL = 20\log_{10}(R) + \alpha R$ where:
TL is transmission loss (in dB), R is the range between source and receptor, and α is the frequency-specific absorption coefficient (0.001 at 100 Hz) (Fisher and Simmons, 1977) for typical seawater (temperate 25 °C, salinity of 35 PSU and pH of 8).

4.4 UNPLANNED ACTIVITIES

4.4.1 Physical Presence: Dropped Objects

During IMR activities, there is a potential for objects to be accidently lost overboard to the marine environment. The risk assessment for potential impacts is summarised in **Table 4-18**.

Table 4-18: Risk assessment of physical presence: dropped objects

Risk	Accidental dropping of objects from vessels resulting from: • Loss of control of suspended loads • Loss of equipment off vessel deck	
Aspect-receptor Reference (see Table 4-5)	9A – Bathymetry and seabed features	9F – Benthic primary producers
	9G – Other benthic communities	9N – Key Ecological Features
Potential Impacts	If an object is dropped overboard, potential impacts would be limited to minor and localised disturbance of the seabed and benthic habitats near the dropped object. Benthic habitat mapping of much of the Oceanic Shoals AMP has shown that benthic habitats within the Operational Area are not of high conservation value. The majority of the Operational Area overlapping the area mapped by Heyward et al. (2017) is bare sand habitat (approximately 79%), with burrower / crinoids (approximately 19%) and filter feeders (e.g. sponges and gorgonians) (approximately 2%) habitat also potentially present. Mapping by Heyward (2017) indicated all of these habitats are well-represented in the region. Given the IMR activities are restricted to the Operational Area, which is primarily low sensitivity habitat (bare sand), the potential for impacts to benthic habitats from dropped objects is considered to be low. Objects dropped overboard may occur within the KEFs that overlap the Operational Area (**Section 3.2.3**). Potential for dropped objects to impact upon the environmental values of these KEFs is considered to be low due to: • Very low portions of the KEFs within the Operational Area; and • "Less concern" or "N/A' status of physical habitat modification as a pressure for these KEFs.	

Risk Assessment			
	Consequence	***Likelihood***	***Risk rating***
Inherent risk	1 Negligible	3 Rare	3 – Low
Residual risk	1 Negligible	3 Rare	3 – Low

Summary of Control Measures

- ConocoPhillips will confirm the vessel procedures for lifting include:
  - Lifting operations to be undertaken by competent personnel
  - Use of appropriate and certified lifting equipment and accessories
  - Preventative maintenance will be undertaken on the key lifting equipment as per manufacturer's specifications
  - Consideration of weather conditions (e.g. no heavy lifts undertaken in severe weather conditions
- All dropped object incidents to assess the environmental risk and the potential to recover the object, and objects will be recovered where safe and practicable to do so.

4.4.2 Physical Presence: Introduction of Invasive Marine Species

The activity has the potential to translocate and/or introduce invasive marine species (IMS) to the marine environment, particularly through the discharge of vessel ballast water or marine biofouling

on the support vessels and/or submersible equipment. The risk assessment for potential for impacts to the marine environment due to IMS is summarised in **Table 4-19**.

Table 4-19: Risk assessment of physical presence - introduction of IMS

Risk	Accidental introduction of invasive marine species (IMS) via: • Biofouling (e.g. on vessel hulls or submersible equipment) • Modification of existing biological communities • Damage to marine infrastructure		
Aspect-receptor Reference (see Table 4-5)	10F – Benthic primary producers	10G – Other benthic communities	
	10N – Key Ecological Features	10O – Australian Marine Parks	
	10W – Ports and shipping		
Potential Impacts	The introduction of IMS may result in considerable modification of the environment through out-competing native species and modifying existing habitats. Such modifications may result in in significant environmental. Once established, IMS may be very difficult or impossible to eradicate from an area. If an IMS were to become established in the Oceanic Shoals AMP, it may potentially affect the natural values of the park, such as benthic biota associated with the carbonate bank and terrace systems in the park. IMS have been identified as relevant pressures of "Less concern" for the Carbonate bank and terrace system of the Van Diemen Rise and Pinnacles of the Bonaparte Basin KEFs. If an IMS were to become established within Darwin Harbour because of the operation of the Pipeline, there is the potential for socio-economic impacts, such as fouling of coastal infrastructure (e.g. cooling water intakes), increased biosecurity risk to other vessels requiring additional management.		
Risk Assessment			
Introduction of IMS from Ballast Water			
	Consequence	***Likelihood***	***Risk rating***
Inherent risk	4 Significant	1 Improbable	4 - Low
Residual risk	4 Significant	1 Improbable	4 – Low
Introduction of IMS from Biofouling			
	Consequence	***Likelihood***	***Risk rating***
Inherent risk	4	1	4 - Low
Residual risk	4	1	4 – Low
Summary of Control Measures			
• Vessels will have a suitable anti-fouling coating in accordance with the *Protection of the Sea (Harmful Anti-fouling Systems) Act 2006* (as applicable for vessel size, type and class), including: o Marine Order 98 (Marine Pollution – Anti-fouling Systems) 2013 • Ballast water discharges will comply with the requirements of the Australian Ballast Water Management Requirements, which implements the requirements of the *Biosecurity Act 2015* and the International Convention for the Control and Management of Ships' Ballast Water and Sediments (as appropriate for vessel class), including: o No discharge of high-risk ballast water within 12 nautical miles of coastlines, including any ports; o Maintain a ballast water record system to record the management of all ballast water taken up and discharged; o Implementation of approved methods of ballast water management (as detailed in the Requirements); o Vessel equipped with Ballast Water Management Plan; and o Vessels maintain a Ballast Water Recording System. • Vessels will comply with IMO Guidelines for the Control and Management of Ships' Biofouling to Minimize the Transfer of Invasive Aquatic Species (2011) (as appropriate to class), including: o Vessels equipped with a Biofouling Management Plan; and		

- Vessels maintain a Biofouling Record Book.

- Vessels mobilised from international waters will comply with the Australian National Biofouling Management Guidance for the Petroleum Production and Exploration Industry (Commonwealth of Australia, 2008):
  - Completion of IMS Risk Assessment
  - Implement mitigation measures commensurate with the level of risk

4.4.3 Physical Presence: Collision with Marine Fauna

Vessels undertaking IMR activities along the Pipeline may interact with marine fauna that occur at or near the water surface. The risk assessment for potential impacts is summarised in **Table 4-20**.

Table 4-20: Risk assessment of physical presence – interference and/or collision with marine fauna

Risk	• Accidental collision between marine fauna (e.g. turtles and cetaceans) and vessels	
Aspect-receptor Reference (see Table 4-5)	11J – Marine mammals	11K – Marine reptiles
	11L – Sharks and rays	
Potential Impacts	***Marine Mammals*** The likelihood of vessel/whale collision being lethal is influenced by vessel speed; the greater the speed at impact, the greater the risk of mortality (Jensen and Silber, 2004; Laist et al., 2001). Vanderlaan and Taggart (2007) found that the chance of lethal injury to a large whale as a result of a vessel strike increases from about 20% at 8.6 knots to 80% at 15 knots. Given the relatively low speed (typically < 6 knots) of vessels undertaking IMR activities, the likelihood of a collision with a large whale resulting in injury is low. Collisions at such low speeds are uncommon and, based on reported data contained in the US National Ocean and Atmospheric Administration database, there only two known instances of collisions when the vessel was travelling at less than 6 knots; both of these were from whale watching vessels that were deliberately placed amongst (Jensen and Silber, 2004). There are no BIAs, critical habitats or known aggregations of whales in the vicinity of the Pipeline. Collisions with smaller cetaceans, such as dolphins and porpoises, are very infrequent due to the mobility of these smaller cetaceans, which allows them to avoid vessels. BIAs for snubfin and Indo-Pacific humpback dolphins occur within Darwin Harbour (i.e. entirely within Northern Territory coastal waters). Collisions between vessels undertaking IMR activities and these dolphin species are considered improbable. Dugongs may occur in the vicinity of the pipeline in NT Coastal Waters where suitable habitat (e.g. seagrass meadows) occur. Like other fauna, the risk of vessel collision with dugongs is related to vessel speed; high speed vessels are more likely to be involved in a collision with a dugong, and the results of high speed collisions are more likely to result in mortality (Groom et al., 2004). Given the lack of suitable habitat and the relatively short and infrequent nature of IMR activities, collisions with dugongs are considered improbable. ***Whale Sharks*** Whale sharks are at risk from vessel strikes when feeding at the surface, or in shallow waters (where there is limited option to dive). Whale sharks are not known to aggregate in the vicinity of the Pipeline, nor are there BIAs in the vicinity of the Pipeline. Tagging studies have indicated that whale sharks may transit in waters west of the Pipeline (Meekan and Radford, 2010). As such, collisions between vessels and whale sharks are considered improbable. ***Turtles*** Several species of marine turtle are known to occur in the vicinity of the Pipeline. Important habitat for flatback and olive ridley turtles (defined as internesting/foraging BIAs and habitat critical for marine turtles as per the Recovery Plan for Marine Turtles (Commonwealth of Australia, 2017)) overlap the Pipeline in both Commonwealth waters and coastal waters. The typical response from turtles on the surface to the presence of vessels is to dive (a potential “startle” response), which decreases the risk of collisions (Hazel et al., 2007). As with cetaceans, the risk of collisions between turtles and vessels increases with vessel speed (Hazel et al., 2007). Given the low speeds of vessels undertaking IMR activities and typical turtle response behaviour, collisions between vessels and turtles are considered to be improbable.	

Risk Assessment			
	Consequence	***Likelihood***	***Risk rating***
Inherent risk	2 Minor	2 Remote	4 - Low
Residual risk	2 Minor	2 Remote	4 - Low

Summary of Control Measures
• Vessels will comply with EPBC Regulations 2000 – Part 8 Division 8.1 Interacting with cetaceans (and applied for marine turtles), specifically: o Apply the following Caution Zones, as per the meaning of Division 8.1 of the EPBC Regulations 2000: - 300 m for whales; - 150 m for dolphins; - 150 for turtles o When operating a vessel or equipment within a Caution Zone: - Operate the vessel or equipment at a constant speed of < 6 knots and minimise noise; - Make sure the vessel or equipment does not drift or approach closer than: o 100 m for whales; o 50 m for dolphins, turtles or whale sharks; - If the cetacean, turtle or whale shark shows signs of being disturbed, immediately withdraw (where safe to do so) from the Caution Zone at a constant speed of < 6 knots; o Post a lookout for cetaceans, turtles and whale sharks while within a Caution Zone; o Not approach, pursue or restrict the movement of cetaceans, turtles or whale sharks.

4.4.4 Physical Presence: Implementation of Spill Response

Accidents or emergencies during the operation of the Pipeline may warrant implementation of emergency response activities. During the activity there is a potential for the implementation of inappropriate response strategies. The risk assessment for potential impacts is summarised in **Table 4-21**.

Table 4-21: Risk assessment of physical presence – implementation of spill response

Risk	Implementation of inappropriate response strategies in response to: • Loss of pipeline containment; or • Significant hydrocarbon spill.		
Aspect-receptor Reference (see Table 4-5)	12B – Water quality	12J – Marine mammals	
	12K – Marine reptiles	12L – Sharks and rays	
	12M – Seabirds and migratory shorebirds		
Potential Impacts	***Monitor and Evaluate*** The monitor and evaluate option for the credible spill scenarios during operation of the Pipeline will typically be conducted from deployment of oil spill tracking buoys and vessels. Aerial platforms may supplement observations from vessels. The environmental risks and impacts from vessel operations have been considered elsewhere in this EP. Vessels implementing the monitor and evaluate response option will comply with the requirements for vessels in this EP. ***Wildlife Response – Hazing*** Implementation of the wildlife hazing secondary response option relies on behavioural disturbance to encourage animals to avoid given areas where hydrocarbons above impact thresholds may be present. Methods used will depend on the fauna at risk (e.g. acoustic deterrents for birds). The behavioural disturbance may interfere with normal animal behaviours, such as foraging. Marine diesel from the credible spill scenarios is expected to disperse rapidly in the marine environment, as such the window of opportunity for this response option is in the order of hours to days. As such, the potential behavioural impacts of this response option are temporary. ***Pre-emptive Capture/Post-contact Wildlife Response*** The capture of wildlife (either pre-emptive or post-contact) may result in considerable stress on animals, particularly when oiled animals are cleaned. Marine diesel from the credible spill scenarios is expected to disperse rapidly in the marine environment, as such the window of opportunity for this response option is in the order of hours to days. Given the non-persistent nature of the hydrocarbon, the potential for oiled wildlife requiring cleaning is considered to be very low. Cleaning of oiled wildlife will result in the generation of wastes which may be contaminated with hydrocarbons. Oily wastes may result in secondary contamination if not handled and disposed of effectively.		
Risk Assessment			
	Consequence	***Likelihood***	***Risk rating***
Inherent risk	1 Negligible	1 Improbable	1 - Low
Residual risk	1 Negligible	1 Improbable	1 - Low
Summary of Control Measures			
IMT to undertake spill response (operational) NEBA to determine applicable response strategies, initiation and termination of response options			

4.4.5 Discharges: Marine Diesel Release from Vessel Collision

A number of prerequisite conditions must exist for a vessel collision to result in the loss of fuel to the environment from a vessel undertaking IMR activities:

- The vessel must be involved in a collision;
- The collision must occur with sufficient force to rupture a fuel tank;
- The rupture must be of such a nature that the fuel can be released into the environment.

4.4.5.1 Credible Spill Scenario

ConocoPhillips determined the worst case credible spill scenario to inform the impact assessment of a marine diesel release from a vessel collision. This scenario consists of the release of 152 m^2 of marine diesel over a period of six hours. The location of the release was where the Pipeline crosses between Commonwealth waters and Northern Territory Coastal Waters. This release location was considered representative to inform the impact assessment for both Commonwealth and Northern Territory Coastal Waters

4.4.5.2 Spill Modelling Methods

RPS was commissioned to complete hydrocarbon spill modelling to determine the risk of exposure to the environment.

The modelling study was carried out in several stages. Firstly, the tidal currents for the region were generated using RPS' ocean/coastal model, HYDROMAP. Secondly, large scale ocean currents were obtained from a large-scale ocean model for the same region and combined with tidal currents. The hybrid ocean/coastal model was used to describe the total water movement within the region. Finally, the currents and local winds were used as inputs in the oil spill model (SIMAP) to simulate the drift, spread, weathering and fate of the spilled hydrocarbon.

Exposure probabilities were determined using a stochastic modelling approach, which aggregates the behaviour of multiple random spill simulations undertaken for three representative seasons (summer, winter and a transitional period). Each of the simulated spills are started at a different time of day to ensure that the predicted transport and weathering of each spill trajectory was subjected to varying wind and current conditions. A total of 100 model runs were conducted for each season, with the total stochastic data set comprising 300 model runs. The model results were combined to provide a summary of each season.

The stochastic model outputs does not represent the potential behaviour of a single spill (which would have a much smaller area of effect), but provides an indication of the probability of any given area of the sea surface being contacted.

4.4.5.3 Hydrocarbon Exposure Thresholds

Sea-surface, sub-surface (entrained and dissolved hydrocarbon) and shoreline accumulation thresholds were defined based on available scientific literature and applied to the hydrocarbon spill modelling to show the EMBA in the event of a spill (as denoted by the outer boundary of the moderate exposure zone for entrained hydrocarbons), both in terms of contact and impact. The EMBA has been shown using low, moderate and high exposure zones for each hydrocarbon fate (i.e. sea surface, entrained, dissolved and shoreline accumulation), with the outer limit of the adverse exposure zone (i.e. area within which impact may occur) represented by the moderate threshold boundary. The thresholds for the surface and sub-surface hydrocarbons, and their correlation with the zones of exposure, are presented in **Table 4-22**. The moderate exposure for entrained and sea surface hydrocarbons has been used to define the EMBA.

Table 4-22: Sea surface and sub-surface thresholds and zones of exposure

Exposure Zone	Threshold
Sea Surface Film Threshold	
Low exposure (1 g/m^2–10 g/m^2)	1 g/m^2
Moderate exposure (10 g/m^2–25 g/m^2)	10 g/m^2
High exposure (>25 g/m^2)	25 g/m^2
Entrained Hydrocarbon Threshold	
Low exposure (10 ppb–100 ppb)	10 ppb
Moderate exposure (100 ppb–500 ppb)	100 ppb
High exposure (> 500 ppb)	500 ppb

Dissolved Aromatic Hydrocarbon Threshold	
Low exposure (6 ppb–50 ppb)	6 ppb
Moderate exposure (50 ppb–100 ppb)	50 ppb
High exposure (>400 ppb)	400 ppb
Shoreline Accumulation Threshold	
Low accumulation (10-100 g/m^2)	10 g/m^2
Moderate accumulation (100-1,000 g/m^2)	100 g/m^2
High accumulation (> 1,000 g/m^2)	1,000 g/m^2

4.4.5.4 Modelling Results

Table 4-23 summarises the maximum distance and direction of sea surface hydrocarbon exposure at each surface threshold for low (1 – 10 g/m^2), moderate (10 – 25 g/m^2) and high (>25 g/m^2) exposure thresholds.

Table 4-23 and **Table 4-24** details the predicted probability of hydrocarbon contact to shorelines and considers the time, volume and length for the three distinct seasons. Summer conditions were predicted to have the highest probability (4%) of shoreline contact. The quickest a marine diesel spill had reached the shoreline was 11.7 days with a maximum volume onshore of 1.24 m^3.

Table 4-23: Summary of the maximum distance and direction of sea surface hydrocarbon exposure at each surface threshold during summer, transitional and winter conditions for the spill modelling results for the vessel collision scenario

Season	Distance & Direction of EMBA relative to Release Location	Exposure to the Sea Surface by Marine Diesel		
		Low (1–10 g/m^2)	Moderate (10–25 g/m^2)	High (>25 g/m^2)
Summer	Max. distance (km)	89.4	20.9	9.0
	Max. distance (km) (99th percentile)	47.9	19.7	6.9
	Direction	ESE	ESE	ESE
Transitional	Max. distance (km)	60.3	16.3	8.0
	Max. distance (km) (99th percentile)	49.5	15.3	7.0
	Direction	ESE	ESE	ESE
Winter	Max. distance (km)	40.8	22.4	6.1
	Max. distance (km) (99th percentile)	31.9	15.3	6.0
	Direction	ENE	NW	NW

Table 4-24: Summary of predicted hydrocarbon contact to shoreline receptors during summer, transitional and winter conditions for the spill modelling results for the vessel collision scenario

Shoreline statistics	Summer	Transitional	Winter
Probability of contact to any shoreline (%)	4	1	1
Absolute minimum time to shore (days)	11.7	15.3	9.3
Maximum volume of hydrocarbon ashore (m^3)	1.3	0.6	1.5

Table 4-25: Predicted length of shoreline exposed by a single hydrocarbon spill trajectory (above 10 g/m^2) during summer, transitional and winter conditions for the spill modelling results for the vessel collision scenario

Shoreline statistics	Summer	Transitional	Winter
Maximum shoreline length (km) with stranded hydrocarbon concentration >10 g/m^2 accumulation threshold	5 km	3 km	8 km

Table 4-26 shows the predicted hydrocarbon contact to specific locations. The NT Mainland was the only shoreline to be contacted during summer and the probability was 4% (meaning 4 out of 100 model runs reached a shoreline). The quickest a spill would reach the NT mainland was 11.7 days and the maximum volume ashore was 1.3 m^3.

During the transitional and winter seasons, only 1 out 100 spills (1% probability) had contacted Bathurst Island and the time to shore was 11.7 days and 9.3 days, respectively. The maximum volume onshore was slightly higher for the hydrocarbon spill commencing in winter (1.5 m^3).

The maximum dosage and probability of entrained hydrocarbons are outlined in **Table 4-27**. Shepparton Shoal was the only receptor predicted to be exposed to entrained hydrocarbons in the 0 – 10 m depth layer. No entrained hydrocarbons above low exposure thresholds were predicted below 10 m.

No dissolved aromatics above impact thresholds were predicted to occur in this scenario.

Table 4-26: Predicted hydrocarbon contact to specific locations for the vessel collision scenario

Season	Location Name	Minimum travel time (days)	Shoreline Probability (%) above 10 g/m^2	Maximum shoreline loading (g/m^2)	Maximum Volume Ashore (m^3)
Summer	Bathurst Island	-	-	-	-
	Melville Island	-	-	-	-
	NT Mainland	11.7	4	19.1	1.3
Transitional	Bathurst Island	15.3	1	24.7	0.6
	Melville Island	-	-	-	-
	NT Mainland	-	-	-	
Winter	Bathurst Island	9.3	1	17.7	1.5
	Melville Island	-	-	-	-
	NT Mainland	-	-	-	-

Table 4-27: Probability of entrained hydrocarbon exposure for receptors assessed during summer, transitional and winter conditions for the vessel collision scenario

Receptor		Probability of low exposure to entrained hydrocarbons (%)	Probability of moderate exposure to entrained hydrocarbons (%)	Probability of high exposure to entrained hydrocarbons (%)
		0-10 m	0-10 m	0-10 m
Summer	Shepparton Shoal	6	0	0
Transitional	Shepparton Shoal	2	0	0

Winter	Shepparton Shoal	1	0	0

4.4.5.5 Risk Assessment

The risk assessment for potential impacts is summarised in **Table 4-28**.

Based on the outcomes of the risk assessment and the implementation of controls throughout the activity, ConocoPhillips considers that the impacts and risks from a marine diesel release from vessel collisions are reduced to ALARP.

Table 4-28: Risk assessment for discharges - marine diesel release from vessel collisions

Risk	• Loss of marine diesel fuel containment resulting from vessel collision	
Aspect-receptor Reference (see Table 4-5)	13B – Water quality	13E – Intertidal primary producers
	13H – Plankton	13I – Pelagic and demersal fish communities
	13J – Marine mammals	13K – Marine reptiles
	13L – Sharks and rays	13M – Seabirds and migratory shorebirds
	13O – Australian marine parks	13P – Reef protection areas
	13Q – Nationally important wetlands	13T – Commercial fishing
	13U – Traditional fishing	
Potential Impacts	Potential impacts of a hydrocarbon spill are most likely to be limited to the immediate vicinity of the spill, however, there is also the very low possibility of shoreline impact as indicated by the modelling. However, this would be at low concentrations that are unlikely to cause adverse environmental impact and are best left to degrade naturally via coastal processes.	
	Water Quality It is likely that water quality will be reduced at the location of the spill due to hydrocarbon contamination, however, such impacts would be temporary and highly localised in nature due to the small spill volume and rapid weathering of the released marine diesel.	
	Intertidal Primary Producers There is the potential for intertidal primary producers such as mangroves and seagrasses to be impacted by spilled hydrocarbons. Based on the results of the spill modelling, the likelihood of contact is relatively low, and accumulations are relatively low (< 25 g/m^2). Mangrove habitat and associated mud flats are widely represented along the NT coastline. Hydrocarbons coating prop roots of mangroves can occur from surface hydrocarbons when they are deposited on the aerial roots. Hydrocarbons deposited on the aerial roots can block the pores used to breathe or interfere with the trees' salt balance resulting in sub-lethal and potential lethal effects. Mangroves can also be impacted by entrained/dissolved aromatic hydrocarbons that may adhere to sediment particles. In low energy environments such as in mangroves, deposited sediment-bound hydrocarbons are unlikely to be removed naturally by wave action and may be deposited in layers by successive tides (National Oceanic and Atmospheric Administration 2014). Given the low portion of persistent hydrocarbon in marine diesel, hydrocarbons in mangrove environments are not expected to persist long-term. Seagrass in the subtidal and intertidal zones have different degrees of exposure to hydrocarbon spills. Subtidal seagrass is generally considered much less vulnerable to surface hydrocarbon spills than intertidal seagrass, primarily because freshly spilled hydrocarbons float under most circumstances. Dean et al. (1998) found that hydrocarbons mainly affect flowering, therefore, species that are able to spread through apical meristem growth are not as affected (such as *Zostera*, *Halodule* and *Halophila* species). Seagrass in the intertidal zone is particularly vulnerable as it may come into direct contact with surface hydrocarbons, as well as entrained components, which can smother and kill seagrasses, if it coats their leaves and stems (Taylor and Rasheed 2011). This conclusion is supported by Howard et al. (1989) who noted that surface hydrocarbon spills which become stranded on the seagrass and smother it during the rise and fall of the tide can result in reduced growth rates, blackened leaves and mortality. Wilson and Ralph (2011) concluded that long-term impacts to seagrass are unlikely unless hydrocarbon is retained within the seagrass meadow for a sustained duration.	

	Plankton Plankton communities may be impacted in the event of a hydrocarbon spill, particularly dissolved and entrained fractions. Toxic effects from exposure to dissolved hydrocarbons may result in mortality of planktonic organisms, and entrained hydrocarbons may cause impacts such as blocked filter feeding organs and impacts resulting from ingestion of hydrocarbons. Given the high productivity of planktonic communities and the nature and scale of the credible spill, these impacts are expected to be highly localised to the release location and temporary in nature.
	Pelagic and Demersal Fish Communities (including Sharks and Rays) Fish mortalities are rarely observed to occur as a result of hydrocarbon spills (International Tanker Owners Pollution Federation 2011). This has generally been attributed to the possibility that pelagic fish are able to detect and avoid surface waters underneath hydrocarbon spills by swimming into deeper water or away from the affected areas. Fish that have been exposed to dissolved aromatic hydrocarbons are capable of eliminating the toxicants once placed in clean water, hence, individuals exposed to a spill are likely to recover (King et al. 1996). Where fish mortalities have been recorded, the spills (resulting from the groundings of the tankers Amoco Cadiz in 1978 and the Florida in 1969, which were significantly bigger than the worst case credible spill scenario during Pipeline operations) have occurred in sheltered bays. Given the nature and scale of the credible spill scenario, impacts to pelagic and demersal fishes are expected to be highly localised and temporary.
	Marine Mammals Cetaceans are highly mobile and are known to migrate through the region, though no known migration routes are known within the vicinity of the EMBA. Studies and field observations suggest that cetaceans may be able to detect and avoid hydrocarbon slicks (Geraci and St Aubin 1990; Smith et al. 1983). Cetaceans are vulnerable to the effects of surface hydrocarbon due to the need to surface and breathe. Direct contact with surface slicks and inhalation of vapours may irritate eyes, airways and lungs. Lethal or sub-lethal effects will depend on the concentration of the hydrocarbons and the duration of exposure. Potential impacts to dugongs are expected to be similar to cetaceans given their sensitivity to hydrocarbon exposure is likely to be similar. Given spilled marine diesel is expected to disperse and weather rapidly, the potential for impacts to cetaceans will be concentrated around the release location.

	Marine Reptiles Marine turtles are susceptible to the effects of hydrocarbon spills during all life stages (NOAA, 2010b). They are in frequent contact with the sea surface and show little avoidance behaviour in response to the presence of surface hydrocarbons, which makes them vulnerable to coating and inhalation of toxic vapours. A number of BIAs and critical habitats have been identified for marine turtles within the EMBA (**Section 3.2.2**). A hydrocarbon spill above impact thresholds in these areas may result in impacts to biologically important behaviours. During the breeding season, turtle aggregations near nesting beaches around Bathurst Island and the mainland coast to greater turtle densities and potential impacts may occur at the population level of some marine turtle species. Internesting BIAs and critical nesting habitat buffers for flatback and olive ridley turtles nesting in these areas overlap the EMBA. A marine diesel release from a vessel collision in these areas may result in exposure of flatback and olive ridley turtles to hydrocarbons above impact thresholds. Marine turtles are more likely to be present in these BIAs and critical habitats during the nesting seasons. Given the very low levels of hydrocarbons potentially stranding on shorelines, the potential for impacts to nesting turtles and egg clutches on beaches is considered to be very low. Adult sea turtles exhibit no avoidance behaviour when they encounter hydrocarbon spills (National Oceanic and Atmospheric Administration, 2010). Contact with surface slicks, or entrained hydrocarbon, can therefore, result in hydrocarbon adherence to body surfaces (Gagnon and Rawson, 2010) causing irritation of mucous membranes in the nose, throat and eyes leading to inflammation and infection (National Oceanic and Atmospheric Administration, 2010). Oiling can also irritate and injure skin which is most evident on pliable areas such as the neck and flippers (Lutcavage et al., 1995). Given the non-persistent nature of the hydrocarbon, along with the expected rapid weathering of surface hydrocarbons in the tropical environment, the timeframe during which turtles may be exposed to hydrocarbons above impact thresholds is low. The spatial extent of the EMBA, along with the wide distribution of turtle species in the region, indicates population-scale impacts are unlikely. Sea snakes may be vulnerable to hydrocarbon spills due to their need to surface to breathe and may spend time at the sea surface to bask in the sun however little information is available to describe the effects of hydrocarbon spills on sea snakes.
	Seabirds and Migratory Shorebirds Seabirds and migratory shorebirds birds are particularly vulnerable to contact with floating hydrocarbons, which may mat feathers. This may lead to hypothermia from loss of insulation and ingestion of hydrocarbons when preening to remove hydrocarbons; both impacts may result in mortality (Hassan and Javed 2011). Seabirds generally do not exhibit avoidance behaviour to floating hydrocarbons. Physical contact of seabirds with surface slicks is by several exposure pathways, primarily, immersion, ingestion and inhalation. Such contact with hydrocarbons may result in plumage fouling and hypothermia (loss of thermoregulation), decreased buoyancy and potential to drown, inability to fly or feed, anaemia, pneumonia and irritation of eyes, skin, nasal cavities and mouths (Australian Maritime Safety Authority 2013, International Petroleum Industry Environmental Conservation Association 2004) and result in mortality due to oiling of feathers or the ingestion of hydrocarbons. Longer term exposure effects that may potentially impact seabird populations include a loss of reproductive success (loss of breeding adults) and malformation of eggs or chick (Australian Maritime Safety Authority 2013). A hydrocarbon spill may result in surface slicks above impact thresholds in foraging habitat for seabirds. Seabird distributions are typically concentrated around islands and hydrocarbons in proximity to nesting / roosting areas may result in increased numbers of seabirds being impacted. Nesting / roosting areas in the vicinity of the EMBA include Bathurst Island and coastal mangroves and mudflats. Given the nature and scale of the credible hydrocarbon spill, the potential or impacts to birds is expected to be temporary (hours to days) and restricted to the area covered by sea surface hydrocarbons above impact thresholds.

	Australian Marine Parks, Reef Protection Areas and Nationally Important Wetlands As outlined above, a hydrocarbon spill has the potential to impact upon water quality and a range of biological receptors. These environmental values are contained with the Oceanic Shoals AMP in Commonwealth waters and Reef Protection Areas in NT Coastal Waters. Impacts to environmental values within these protected areas may diminish the value of these protected areas, however given the nature and scale of the credible spill scenario such impacts are improbable. Two Nationally Important Wetlands occur within NT Coastal Waters that were identified as being potentially impacted by a hydrocarbon spill. These are characterised by mangroves and mudflats; refer to the discussion of potential impacts to intertidal primary producers above for further information.		
	Fishing (Traditional and Commercial) A hydrocarbon spill may impact upon fish species exploited by fishers (refer to the discussion on pelagic and demersal fish communities above), potentially reducing fish numbers available for capture within the EMBA. A hydrocarbon spill may also temporarily displace traditional, commercial and recreational fishers from the EMBA. This displacement would be localised and short-term (hours to days). Additionally, spilled hydrocarbons may contaminate fishing gear, which may require cleaning.		
Risk Assessment			
	Consequence	***Likelihood***	***Risk rating***
Inherent risk	2 Minor	2 Remote	4 - Low
Residual risk	2 Minor	2 Remote	4 - Low
Summary of Control Measures			
Refer to **Section 4.2.1** Implement tiered spill response in the event of a marine diesel spill			

4.4.6 Discharges: Marine Diesel Release from Bunkering Incident

4.4.6.1 Credible Spill Scenario

A release of marine diesel could occur as a result of hose break or coupling failure during vessel refuelling. Spill volumes were determined from transfer hose inventory and spill prevention measures including 'dry break' or 'break away' couplings, rapid shutdown of fuel pumps and spill response preparedness, with 10 m^3 considered to be the maximum volume that could escape from the hose (hose inventory) prior to shut down.

4.4.6.2 Spill Modelling Methods

As with the marine diesel release from a vessel collision scenario, ConocoPhillips commissioned APASA to complete hydrocarbon spill modelling to determine the risk of exposure to environmental receptors from a marine diesel release from a bunkering incident. Refer to **Section 4.4.6.2**.

4.4.6.3 Hydrocarbon Exposure Thresholds

Refer to **Section 4.4.5.3**.

4.4.6.4 Modelling Results

The modelling results show:

- No probability of shoreline contact for any season.
- During the summer and transitional months, spill trajectories are predicted to travel to the east-south east and west – north west.
- During winter months spill trajectories are predicted to travel in a west – north west direction.
- When tracked to light exposure levels (1g/m^2), the maximum distance travelled was 21.2 km in summer and 15.2 km in winter (Table 4-29).

Table 4-29: Maximum distances travelled by release of marine diesel from a bunkering incident

Season	Exposure to the Sea Surface by Marine Diesel		
	Low (1–10 g/m^2)	**Moderate** (10–25 g/m^2)	**High** (>25 g/m^2)
Summer	21.2 km East	9.5 km West – north west	2.2 km East – south east
Transitional	16.8 km East – south east	8.7 km West – north west	3.6 km West – north west
Winter	15.2 km West – north west	7.5 km West	2 km West – north west

4.4.6.5 Risk Assessment

The risk assessment for potential impacts is summarised in **Table 4-30**.

Based on the outcomes of the risk assessment and through the implementation of controls throughout the activity, ConocoPhillips considers that the risks to the marine environment from a bunkering incident are reduced to ALARP.

Table 4-30: Risk assessment for discharges – marine diesel release from bunkering incident

Risk	• Marine diesel release from a bunkering incident	
Aspect-receptor Reference (see Table 4-5)	14B – Water quality	14H – Plankton
	14I – Pelagic and demersal fish communities	14J – Marine mammals
	14K – Marine reptiles	14L – Sharks and rays
	14M – Seabirds and migratory shorebirds	14O – Australian marine parks
	14P – Reef protection areas	14T – Commercial fishing
	14U – Traditional fishing	
Potential Impacts	The potential impacts for a marine diesel release during a bunkering incident are similar to those described in **Section 4.4.5**, although the significantly smaller credible release volume constrains the receptors that may be impacted. Water quality in the area affected by the bunkering incident will decline due to the presence of floating, entrained and dissolved hydrocarbons. This may result in toxic effects to marine organisms such as phyto- and zooplankton. The decrease in water quality is expected to be short-lasting (hours) as marine diesel has a high portion of volatile hydrocarbons that will evaporate quickly. The low viscosity of marine diesel indicates a surface slick will spread rapidly, which will facilitate evaporation and entrainment within the water column. Marine fauna may be exposed to hydrocarbons, particularly fauna associated with the sea surface such as birds and air-breathing animals such as cetaceans and turtles. Given the relatively small area that would be affected, and the low persistence of marine diesel in the environment, the potential for marine fauna to be impacted is considered to be very low.	

Risk Assessment

	Consequence	***Likelihood***	***Risk rating***
Inherent risk	1 Negligible	2 Remote	2 – Low
Residual risk	1 Negligible	2 Remote	2 – Low

Summary of Control Measures

- Vessels will be suitably equipped and crewed in accordance with the *Navigation Act 2012* and the *Protection of the Sea (Prevention of Pollution from Ships) Act 1983* (as applicable for vessel size, type and class), including implementing:
  - Marine Order 91 (Marine Pollution Prevention – Oil)
- ConocoPhillips will confirm vessel bunkering procedures include:
  - defined roles and responsibilities – bunkering to be undertaken by trained staff
  - Pre-bunker safety meeting to ensure all personnel involved are fully briefed and understand their roles and responsibilities
  - Visual inspection of hose prior to bunkering to confirm they are in good condition
  - Testing emergency shutdown mechanism on the transfer pumps
  - Established communication protocols between vessel master and personnel responsible for monitoring tank levels, leaks and overflows during bunkering operations.
  - Continual visual monitoring during diesel transfers of hoses, connections and tank levels to detect leaks and prevent overflows during bunkering operations.
  - Assessment of weather/sea state.

Refer to **Section 4.4.5.5**

4.4.7 Discharges: Incidental Spills of Hydrocarbons and Chemicals

The risk assessment for potential impacts to the marine environment due to the accidental loss of hydrocarbons and spills from vessels undertaking IMR activities is shown in **Table 4-31**.

Table 4-31: Risk assessment for discharges – incidental spills of hydrocarbons and chemicals

Risk	• Chemical or hydrocarbon release from incidental spill (e.g. minor deck spill)		
Aspect-receptor Reference (see Table 4-5)	15B – Water quality		
Potential Impacts	Accidental spills of hydrocarbons or chemicals from vessels undertaking IMR activities will decrease the water quality in the immediate area of the spill. Given the nature and volumes of chemicals and hydrocarbons that may be released, along with the open water environment, impacts to water quality will be temporary and highly localised. Spilled hydrocarbons or chemicals will be rapidly mixed and diluted in the water column. Potential impacts to biological receptors will be limited to planktonic biota in the immediate vicinity of the spill; no impacts to fauna such as fishes, turtles, cetaceans or birds are expected to occur. No impacts to socio-economic receptors (e.g. fishers) will occur.		
Risk Assessment			
	Consequence	***Likelihood***	***Risk rating***
Inherent risk	1 Negligible	2 Minor	2 – Low
Residual risk	1 Negligible	2 Minor	2 – Low
Summary of Control Measures & Environmental Performance Standards			
• Selection of vessel contractor is subject to ConocoPhillips local and global marine vessel vetting processes, specifically: o Appropriate procedures for storage (e.g. bunding), labelling (including Safety Data Sheet (SDS) available) and handling of chemicals and hydrocarbons; o Completion of vessel OVID inspection and report; o Implementation of a Permit to Work (PTW) or equivalent authorisation process (e.g. JSA) for transfers of hydrocarbon / chemicals (refer to bunkering for bunkering-specific controls). • Vessels will be suitably equipped and crewed in accordance with the *Navigation Act 2012* and the *Protection of the Sea (Prevention of Pollution from Ships) Act 1983* (as applicable for vessel size, type and class), including implementing: o Marine Order 91 (Marine Pollution Prevention – Oil) • Selection of vessel contractor is subject to ConocoPhillips local and global marine vessel vetting processes, specifically: o Spill kits stocked and ready for use by trained personnel. • Procedures for ROV operations meet requirements of IMCA guidelines or alternative equivalent guidelines for ROV operations including use of appropriate equipment, ROV operations undertaken by competent personnel, preventative maintenance and inspection of equipment.		

4.4.8 Discharges: Loss of Wastes Overboard

The risk assessment for potential impacts to the marine environment due the accidental loss of wastes overboard from vessels undertaking IMR activities is shown in **Table 4-32**.

Table 4-32: Risk assessment of discharges – loss of wastes overboard

Risk	• Loss of waste material overboard		
Aspect-receptor Reference (see Table 4-5)	16B – Water quality	16B – Water quality	
	16J – Marine mammals	16J – Marine mammals	
	16L – Sharks and rays	16L – Sharks and rays	
Potential Impacts	The potential impacts of solid wastes accidentally discharged to the marine environment will depend on the nature and amount of waste, and the sensitivity of the receiving environment. Potential impacts may include: • Decreases to water quality; • Decreases in sediment quality; • Impacts to fauna from entanglement and / or ingestion. Given the nature and scale of the source of risk, the potential impacts to water and sediment quality are expected to be localised and temporary given the types of wastes that may credibly be loss overboard. Impacts to fauna may result in injury or mortality through entanglement and / or ingestion, however this would reasonably be expected to impact upon a small number of animals; no population-scale impacts would credibly occur.		
Risk Assessment			
	Consequence	***Likelihood***	***Risk rating***
Inherent risk	1 Negligible	2 Remote	2 - Low
Residual risk	1 Negligible	2 Remote	2 - Low
Summary of Control Measures			
• Vessels will be suitably equipped and crewed in accordance with the Navigation Act 2012 and the *Protection of the Sea (Prevention of Pollution from Ships) Act 1983* (as applicable for vessel size, type and class), including implementing: o Marine Order 95 (Marine Pollution Prevention – Garbage) • Vessels will be suitably equipped and crewed in accordance with the *Navigation Act 2012* and the *Protection of the Sea (Prevention of Pollution from Ships) Act 1983* (as applicable for vessel size, type and class), including implementing: o Marine Order 93 (Marine Pollution Prevention – Noxious Liquid Substances), o Marine Order 94 (Marine Pollution Prevention – Packaged Harmful Substances)		

4.4.9 Atmospheric Emissions: Dry Natural Gas Release from Pipeline Loss of Containment

A pipeline rupture will result in a release of dry gas to the environment. The scale of a pipeline leak is dependent on the nature of the rupture. A major rupture (e.g. catastrophic failure) would result in the discharge of a volume 151,000m^3 of dry gas forming a large plume in the water column and dispersing into the atmosphere. A catastrophic failure is considered to be the worst-case credible release form the Pipeline. The risk assessment for potential impacts is summarised in **Table 4-33**.

Table 4-33: Risk assessment of atmospheric emissions – dry natural gas release from pipeline loss of containment

Risk	• Loss of pipeline containment resulting in dry gas release			
Aspect-receptor Reference (see Table 4-5)	17D – Air quality		17J – Marine mammals	
	17K – Marine reptiles		17M – Seabirds and migratory shorebirds	
	17T – Commercial fishing		17U – Traditional fishing	
	17V – Tourism and recreational activities		17W – Port and commercial shipping	
Potential Impacts	A gas plume would be released from the Pipeline in the event of a rupture. The plume would move towards the surface, with some of the gas becoming dissolved in seawater as the plume rises. A worst-case pipeline rupture would lead to the formation of a large gas cloud, which would rapidly disperse in the atmosphere. Methane (the main component of the dry gas) is lighter than air and would rise into the atmosphere, away from the release location. The gas cloud may result in impacts to air-breathing fauna, such as marine mammals, marine reptiles and birds. Animals breathing in the immediate vicinity of the release may be asphyxiated, potentially resulting in mortality. Given the dispersion of gas into the atmosphere, this potential effect would be highly localised to the release location. The gas cloud poses a significant risk to the health and safety of other users, such as fishers (traditional and commercial), tourism and recreational users, and (in the event of a release in Darwin Harbour) other port users. A gas cloud could potentially form an explosive mix which, if ignited, result in injury / death and damage to property. A leak from the Pipeline in Darwin Harbour has the potential to cause significant disruption to other users, however ruptures elsewhere along the Pipeline are less likely to impact other users due to relatively low use levels.			
Risk Assessment				
	Consequence		***Likelihood***	***Risk rating***
Inherent risk	1 Negligible		1 Improbable	1 - Low
Residual risk	1 Negligible		1 Improbable	1 - Low

Summary of Control Measures
• ConocoPhillips Pipeline Integrity Management Plan, specifically: o The Pipeline pressure and export gas moisture content are continually monitored. o Requirements for maintenance inspections and activities to assure ongoing integrity of the Pipeline and containment of the dry gas inventory. o Frequency of inspections. o Inspection methods to be used. o Reporting requirements. o The Pipeline alignment is demarcated on navigation charts. • Accepted Safety Case (Commonwealth Waters) and PMP NT Coastal Waters) in place for the Pipeline • Repairs to be carried out in accordance with the Pipeline Integrity Management Plan (H8-10000001725) and DNV Offshore Standard for Submarine Pipeline Systems (DNV-OS-F101). • The Bayu-Undan Emergency Response Plan (ALL/HSE/ER/003) and the Pipeline Emergency Repair Management Plan (H8-10000005136) to be followed in the event of an impact to the Pipeline, rupture of the Pipeline or sea surface fire resulting from a pipeline. This includes: o Visual inspection by vessel or helicopter to determine the location of the leak. o ROV inspection to determine the size of the leak. o Evaluation of the leak using risk assessment methods to determine severity and priority for repair. Leaks which have a moderate to high risk of harm to environmental, economic or human receptors will be repaired as soon as practicable. o For significant leaks, pipeline depressurisation will be performed.

5. ONGOING MONITORING AND ENVIRONMENTAL PERFORMANCE

5.1 SUMMARY OF MANAGEMENT APPROACH

All activities associated with the Pipeline (including IMR activities) are identified, planned and implemented in accordance with relevant legislation, EP commitments and ConocoPhillips environment standards and procedures. The implementation strategy describes the arrangements for monitoring, review and reporting of environmental performance and the strategy to confirm that the controls are implemented, maintained and effective for the in-force period of the EP. This will allow environmental impacts and risks to be continually managed to a level that is ALARP and acceptable, and EPOs and environmental performance standards to be met.

The implementation strategy in the EP includes roles/responsibilities and training/competency requirements for all personnel (ConocoPhillips and contractors) in relation to:

- implementing controls;
- managing non-conformance;
- emergency response; and
- meeting monitoring, auditing, and reporting requirements.

ConocoPhillips, as titleholder, is responsible for ensuring that the Pipeline is operated in accordance with the implementation strategy and ConocoPhillips' ABU-W HSEMS.

In accordance with ConocoPhillips' HSEMS (Element 9), the ABU-W has developed processes for measuring and monitoring HSE performance, evaluating the achievement of HSE goals and objectives, identifying opportunities for improvement and providing assurance of compliance. Leading and lagging performance measures are developed, identified and tracked to provide timely information to manage trends and impacts and to establish future goals and direction. Processes are also in place to measure and monitor project operations and activities, as per the ConocoPhillips Projects HSE Management System Standard.

5.1.1 Environmental Audits and Review

HSE audits and follow-up actions are conducted in accordance with ConocoPhillips HSE Corporate Audit Standard, ConocoPhillips Business Unit Audit Guidelines and ConocoPhillips ABU Auditing and Inspection Procedure (ALL/HSE/PRO/031). The audits will be documented, and corrective actions will be tracked to completion in accordance with these procedures.

The ABU HSE auditing process consists of a three-tier auditing hierarchy. In the last quarter of each year an annual integrated Tier 1, 2 & 3 audit schedule is developed and once approved the audit schedule is included in the planning processes for the respective facilities and areas of operation for the coming year. The audit schedule applicable to the Pipeline is detailed within the Bayu-Undan Export Pipeline Safety Case, and it consists of the following:

- Tier 1, (internal) routine inspections as detailed in the Pipeline Integrity Management Plan
- Tier 2, (internal) peer audit within the Australian Business Unit – conducted at least yearly
- Tier 3, (external) corporate level audit by USA ConocoPhillips based auditors and/or 3rd Party audit conducted at least 3-yearly, Regulator audit schedule will be as agreed with the Regulator.
- Administering Authority Audits - at a frequency determined by NOPSEMA.

5.1.2 Integrity Reviews

In-service integrity reviews are performed as follows:

- after each major inspection;
- whenever topside asset modifications are implemented that may result in a change to Pipeline operating conditions;
- if deviations from the original design or agreed operating conditions occur or have occurred, including repairs or modifications; and
- After unusual or unexpected events, that might affect the Pipeline's integrity, such as severe weather or construction work in the vicinity.

5.1.3 Vessel Contractor Management

ConocoPhillips, as titleholder, is responsible for the planning of the IMR campaigns, including selection and management contractors conducting the work.

HSE assurance of all contracted vessels will be performed in accordance with ConocoPhillips' Contractor HSE Management Process (ALL/HSE/PRO/016). The ConocoPhillips Marine Vessel Vetting Process (**Section 7.2.3**) outlines the minimum requirements that must be met and confirms that the vessels meet or exceed the standards and criteria set by industry practice, international regulations, and relevant authorities such as Australian Maritime Safety Authority (AMSA). The marine assurance process includes assessment of vessel suitability, equipment and design, and personnel training, including officer experience, followed by on vessel inspection and verification.

5.2 ENVIRONMENT PLAN REVISIONS AND MANAGEMENT OF CHANGE

ConocoPhillips has a Management of Change (MOC) procedure which is specific to managing (potential) changes associated with operations / activities within an accepted EP. It covers all content of the EP, including any legislative, procedural, engineering or physical change that is permanent, temporary, prospective or retrospective that may affect the potential impacts and risks from an activity and / or the environmental performance of an activity. The procedure defines a framework that enables changes to be considered in the merit of a number of aspects including regulatory requirements and a 'materiality test', i.e. screening for significance. The procedure allows for (potential) changes to be appropriately assessed and managed under internal decision points or to identify when resubmission to the regulator is required.

A risk assessment may also be completed to determine if there is an increased risk to the marine environment. In all cases, where a potential release to the marine environment has been identified, assessment of implementing additional risk control measures to lower the potential risk to ALARP will be undertaken. Any significant changes to the operations may necessitate amendment to the EP and OPEP, as appropriate to the level of change.

A revised EP will be submitted to NOPSEMA under Regulation 17 of the OPGGS(E) Regulations if any changes occur to the EP due to:

- a new activity;
- a significant modification or new stage of activity that is not provided for in the approved EP;
- significant new or increased environmental impact or risk; or
- changes in titleholder that results in a change in the way the environmental impacts and risks of the activity are managed.

NOPSEMA will assess the revised EP and all relevant documents under Regulation 21 of the OPGGS(E) Regulations. While the revision is being assessed any activities adequately addressed under the existing accepted EP can still occur.

The EP may be revised in line with ConocoPhillips management of change process but may not be resubmitted to NOPSEMA if it does not trigger Regulation 17 of the OPGGS (E) Regulations.

ConocoPhillips will undertake an annual review of the description of the existing environment, including:

- Revised database searches for threatened fauna (e.g. PMST report) to identify species that may occur within the Operational Area and EMBA;
- Review of conservation advice, recovery plans and scientific literature for threatened fauna to identify threats; and
- Review sources of risk considered in the EP and update as required where the source of risk is identified as a threat.

5.3 OIL POLLUTION EMERGENCY RESPONSE PLAN

The Oil Pollution Emergency Plan (OPEP) outlines the immediate emergency management arrangements and oil spill response for Pipeline and maintenance activities. It should be noted that the Pipeline is a lean gas (dry gas) export pipeline, with a low fraction of residual liquid hydrocarbons. Therefore, there are no credible spills associated with a rupture of the pipeline. However, there are credible spill scenarios associated with marine vessel operations during pipeline inspection, maintenance and repair activities.

The objectives of the OPEP are as follows:

- To define the oil spill response arrangements and capabilities that are in place for the credible spill scenarios
- To provide guidance to the ERT and IMT in relation to oil spill response selection and implementation
- To provide procedures for enabling access to appropriate resources to support a marine hydrocarbon spill response during IMR activities.

The OPEP provides the information required for an effective response in the unlikely event of an unplanned release of petroleum products. The OPEP details actions to be taken in response to the incident, describes arrangements and reporting relationships for command, control and communication, and provides interfaces to emergency specialist response groups, statutory authorities and other external bodies.

5.3.1 Response options

ConocoPhillips' response objectives are to develop and implement appropriate and effective response options commensurate to the scale, nature and risk of the spill, including the following:

- Minimise the volume or duration of a hydrocarbon spill
- Obtain and situational awareness as soon as practicable, and maintain situational awareness for the duration of the response
- Protect wildlife aggregations from hydrocarbon impacts, if identified within the environment that may be affected (EMBA) (area potentially impacted by the spill) and at potential risk from the spill trajectory

The following response options have been identified, as primary and secondary response options, based on a pre-spill net environmental benefit analysis (NEBA):

- Monitor and evaluate
- Wildlife response – hazing
- Pre-emptive capture/post contact wildlife response

5.3.1.1 Primary response

Monitor and evaluate is the only primary response strategy selected. Monitor and evaluate involves the collection and evaluation of information and data to provide and maintain situational awareness in the event of a spill. This response option includes fate and trajectory monitoring, spill tracking and field observations, while allowing natural processes to break up, degrade and weather the spill. Whilst this option involves no direct response actions to mitigate the spill, it is considered the most appropriate response for spills of non-persistent hydrocarbons such as MDO, in a remote offshore location with low probabilities of shoreline contact from surface hydrocarbons above threshold levels.

Monitor and evaluate can include one or more of the following tactics:

- Deployment of tracking buoy(s) obtained from the Bayu Undan Floating Storage Offloading Facility (FSO) – requires a buoy to be deployed to the water at the leading edge of the spill to track the movement of the spill
- Fate and weathering modelling – uses computer modelling (e.g. ADIOS2) to estimate the weathering of an oil spill
- Oil spill trajectory modelling – uses computer modelling (e.g. SIMAP) to estimate the movement, fate and weathering of spills
- Visual observation (via aerial and/or vessel surveillance) – requires trained observers to identify and characterise spills. Survey platforms typically include aircraft and/or vessels. Is also used to ground truth oil spill trajectory modelling and monitor the effectiveness of response options
- Satellite surveillance and data capture – uses satellite technology to identify and track oil spills.

Secondary (or optional) responses that may be implemented have also been identified, and include wildlife response (including both wildlife hazing and pre-emptive capture/post contact wildlife response).

5.3.2 Operational and Scientific Montoring

ConocoPhillips' ABU Operational and Scientific Monitoring Program (OSMP) (ALL/HSE/PLN/032),

describes a program of monitoring oil pollution that will be adopted in the event of a hydrocarbon spill incident (tier 2 or 3) to marine or coastal waters. The OSMP is structured so that it can provide a flexible framework that can be adapted to individual spill incidents. A series of Operational Monitoring Plans (OMPs) and Scientific Monitoring Plans (SMPs) sit under this framework and provide detail on the initiation criteria, termination criteria and guidance on objectives, monitoring design, standard operating procedures, data management and reporting.

6. STAKEHOLDER CONSULTATION

In accordance with the requirements of Regulations 11A and 14(9) of the OPGGS(E) Regulations, ConocoPhillips has engaged with interested and relevant stakeholders while preparing the EP.

Prior to development of the EP, ConocoPhillips reviewed its stakeholder database to verify all existing stakeholders that would be relevant to this activity and ensure any new stakeholders (relevant or interested parties) were captured. This covered the stakeholder databases for both Commonwealth Waters and NT Coastal Waters.

Key stakeholder groups identified included Commonwealth and NT Government Departments and Agencies, fishing industry councils and commercial fishing licence-holders and recreational fishing bodies operating close to the Pipeline jurisdiction within Commonwealth Waters and NT Coastal Waters. Spill response agencies with a role to play should an incident occur to the Pipeline were also consulted during preparation of the OPEP.

Issues, risks and opportunities associated with the project were mapped to stakeholders' interests. To ensure consistency with regulatory requirements, ConocoPhillips adapted its categorisation and definition of stakeholder groups to broadly align with those used by NOPSEMA, as outlined in **Table 8-2**.

Table 6-1: Broad list of stakeholder groups

Stakeholder group	Description
Commonwealth Government organisations	Commonwealth Government regulatory agencies, organisations and political representatives
NT Government organisations	NT Government regulatory agencies, organisations and political representatives
Associations	Petroleum and professional and recreational fisherman industry associations
Industry	Petroleum titleholders (current and future applicants)
Other marine users	Commercial and recreational fishermen, shipping companies
Environmental interest groups	Environmental non-government organisations
Darwin Harbour users	Darwin Ports, Darwin Harbour commercial and recreational users
Indigenous groups	Traditional Owners and other local Indigenous groups
Business community	Companies with relevance to ongoing operation of the Pipeline
Research/education groups	Interested research, education and training organisations

Within the broad stakeholder groupings, the following list of stakeholders (**Table 8-3**) was identified as being interested or relevant for Commonwealth waters and NT Coastal Waters. As stated above, all relevant stakeholders were afforded the same engagement process.

Table 6-2: Full list of Commonwealth Waters and NT Coastal Waters stakeholders

Relevant	Commonwealth waters	NT waters
A. Raptis & Sons Pty Ltd	x	x
Amateur Fishermen's Association of the Northern Territory (AFANT)	x	x
Aquarium Fishery NT Commercial License Holders	x	x
Arafura Bluewater Charters	x	x
Austfish Pty Ltd	x	
Austral Fisheries Pty Ltd	x	
Australia Bay Seafoods	x	
Australian Fisheries Management Authority (AFMA)	x	
Australian Marine Conservation Society (AMCS)	x	x
Australian Marine Oil Spill Centre (AMOSC)*	x	x
Australian Maritime Safety Authority (AMSA)*	x	x
Australian Southern Bluefin Tuna Industry Association	x	
Barker, Grant (commercial fishing license holder)	x	
Bishop, Wayne (commercial fishing license holder)	x	
BOC Gas		x
Commonwealth Fisheries Association	x	
Darwin Port Corporation*	x	x
Demersal Fishery NT Commercial License Holders	x	
Department of Agriculture & Water Resources, Commonwealth	x	
Department of Biodiversity, Conservation & Attractions, Western Australia (including former Dep't of Parks & Wildlife)	x	
Department of Defense, Commonwealth (including Australian Hydrographic Service and Maritime Border Command)	x	
Department of Environment & Energy, Commonwealth (including Parks Australia)	x	
Department of Environment & Natural Resources (Environment division), NT	x	x
Department of Foreign Affairs & Trade, Commonwealth	x	
Department of Industry, Innovation & Science, Commonwealth	x	
Department of Infrastructure, Planning & Logistics (Transport), NT*	x	x
Department of Mines, Industry Regulation & Safety (Environmental Management & Petroleum divisions), WA*	x	
Department of Primary Industries & Regional Development (Fisheries), WA	x	
Department of Primary Industry & Resources (Fisheries), NT	x	x
Department of Primary Industry & Resources (Mines & Energy), NT	x	x
Department of Resources, Energy & Northern Australia, Commonwealth	x	
Department of the Chief Minister, NT	x	x

Relevant	**Commonwealth waters**	**NT waters**
ENI Australia	x	
Environment Centre Northern Territory	x	x
Environmental Defenders Office Northern Territory	x	x
Environment Protection Authority, NT		x
Fischer, Horst (commercial fishing license holder)	x	
INPEX	x	x
Jamaclan Marine Services	x	
Lattice Energy	x	
Magellan Petroleum Australia	x	
Melbana Energy (formerly MEO Australia)	x	
Monsoon Aquatics	x	x
Northern Fishing Companies Association	x	
Northern Prawn Fishery (NPF)	x	
Northern Territory Guided Fishing Industry Association (NTGFIA)	x	x
Northern Territory Seafood Council (NTSC)	x	x
Northern Trawl Owners Association	x	
Northern Wildcatch Seafood Australia	x	
Office of Minister for Environment & Energy, Commonwealth	x	
Office of Minister for Environment & Natural Resources, NT	x	x
Office of Minister for Infrastructure, Planning & Logistics, NT (including Transport)*	x	x
Office of Minister for Primary Industry & Resources, NT (including Fisheries and Mines & Energy)	x	x
Office of Minister for Resources, Energy & Northern Australia, Commonwealth	x	
Offshore Net and Line Fishery Commercial License Holders	x	
Oil Spill Response Ltd*	x	x
Origin Energy	x	
Paspaley Pearling Company	x	x
Pearl Oyster Fishery Commercial License Holders	x	x
Pearl Producers Association	x	x
Power and Water Corporation, NT		x
Santos	x	x
Sea Turtle Foundation	x	x
Shell	x	
SK E&S	x	

Relevant	**Commonwealth waters**	**NT waters**
Spanish Mackerel Fishery (NT) License Holders	x	
Tellurian Inc	x	
Timor Reef Fishery License Holders	x	
Tiwi Land Council	x	x
Tokyo Electric	x	x
Tokyo Gas	x	x
Total	x	x
WA Fishing Industry Council (WAFIC), representing Western Tuna and Billfish Fishery license holders	x	
WA Seafoods	x	
Woodside	x	
WorkSafe NT		x
Interested		
Australian Institute of Marine Science (AIMS)	x	x
Australian Petroleum Production & Exploration Association (APPEA)	x	x
Centre for Whale Research	x	
Charles Darwin University (CDU)	x	x
Commonwealth Scientific & Industrial Research Organisation (CSIRO)	x	x
Department of Trade & Business Innovation, NT		x
Federal Member for Solomon, Northern Territory	x	x
Geoscience Australia	x	
Monash University	x	x
National Offshore Petroleum Titles Authority (NOPTA)	x	
Office of Minister for Indigenous Affairs, Commonwealth	x	
Office of Minister for Industry, Innovation and Science (DIIS), Commonwealth	x	
Office of Senator for the Northern Territory	x	x
Office of Shadow Parliamentary Secretary for Northern Australia	x	x
Office of the Chief Minister, NT	x	x
Office of the Leader of the Opposition NT	x	x
Pendoley Environmental*	x	x
RPS Asia Pacific Applied Science Associates (APASA)*	x	x
Whale and Dolphin Conservation Society	x	x
Wilderness Society	x	x
World Wide Fund for Nature (WWF)	x	x

* Relevant to preparation of Oil Pollution Emergency Plan (OPEP)

A detailed summary of the consultation is provided in **Table 6-3**.

ConocoPhillips is committed to ongoing consultation in relation to the progress of the EP and as part of a broader commitment to thorough stakeholder engagement around its operations. ConocoPhillips is committed to ongoing consultation with all stakeholders relevant to the ongoing operation of the Pipeline. ongoing consultation with all stakeholders relevant to the ongoing operation of the Pipeline. This occurs in three ways:

- DLNG telephone line
- Pipeline activity notification
- General enquiry process

Table 6-3: Stakeholder Consultation Summary Table

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
A Raptis and Sons (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			
18 Jan 2018	COPA called Brisbane head office and left detailed message as per 16 Jan email reminder and additional follow-up email.			
18 Jan 2018	Stakeholder advised via email that would not be back from leave until 12 Feb 2018. COPA replied that would contact the stakeholder again on that date.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Amateur Fisherman's Association NT (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			
18 Jan 2018	COPA called Darwin office and left detailed message with reception as per reminder email of 16 Jan. No return call was received.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
APASA Response (Relevant for OPEP)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			
19 Jan 2018	COPA made follow-up call and left detailed message as per 16 Jan email reminder.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Aquarium Fishery NT Commercial Licence Holders (Relevant)				

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
7 Dec 2017	COPA provided Notice of Consultation via covering letter and fact sheet, as per process previously requested by licence holders' representative body the Northern Territory Seafood Council. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email NT Department of Fishery's Aquarium Fishery Manager to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			
18 Jan 2018	COPA phoned and left detailed message with coordinating officer within NT Department of Fisheries. Aquarium Fishery Manager was included on follow-up email to Department which included offer to meet in Darwin to discuss any comments/queries.			
19 Jan 2018	Follow-up call, message left and email to NTSC Chief Executive representing aquarium fishery licence holders			
22 Jan 2018	Follow-up call, message left and email to aquarium fishery licence holder Monsoon Fisheries			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Arafura Bluewater Charters (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	Stakeholder advised he had no issues related to the existing pipeline.	No response required	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			
18 Jan 2018	COPA had phone discussion with stakeholder during which they advised they don't have an issue related to the existing pipeline and pipelines tended to attract fish. COPA provided follow-up email summary of telephone discussion: that he didn't have an issue related to the existing pipeline and his main concern relates to any proposals to conduct seismic surveys. COPA advised we would send an update email when we were closer to submitting the EP to the regulator and to provide any comments/queries in the meantime.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Austfish Pty Ltd (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			
19 Jan 2018	COPA called Fremantle office and left message re 16 Jan email. COPA provided follow-up email stating had left a message at the Fremantle office, we had also spoken to Northern Prawn Fishery (email attached) and WA Seafoods. Asked stakeholder to advise if he was happy with NPF's email but otherwise we were available to discuss any comments/queries. Stated we would try again next week.			
29 Jan 2018	Called Fremantle office and left further message.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
Austral Fisheries Pty Ltd (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			
18 Jan 2018	Called office and left message. COPA provided email stating would follow-up with key contact when they returned from leave in a few weeks' time.			
14 Feb 2018	Phone discussion held with Northern Fishery Manager who advised he was likely to leave any comment to the Northern Prawn Association's representative. COPA provided follow-up email summarising telephone discussion and provided opportunity to still provide comment until the end of February.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Australia Bay Seafoods (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	Stakeholder advised COPA that he had no issues.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			
18 Jan 2018	COPA held phone discussion with licence-holder who advised he did not have an issue related to the existing pipeline and followed this up with confirmation via email.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Australian Fisheries Management Authority (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
18 Jan 2018	Telephone call all with Canberra Office and was advised to send further correspondence via the generic address only and any comments will be provided through that address. Sent follow-up email to all AFMA contacts advising this process would be followed.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
Australian Institute of Marine Science (Interested)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Australian Marine Conservation Society (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			
18 Jan 2018	COPA called and left message for Executive Officer.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Australian Marine Oil Spill Centre (Relevant for OPEP)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	Stakeholder was provided with OPEP revision to provide comment if required. No issues were raised. The stakeholder advised the OPEP accurately described the interface between COPA and AMOSC, particularly the procedures and notifications for assistance during a major spill response operation.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary as well as a copy of the accepted OPEP. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
16 Jan 2018	Email from AMOSC asking for copy of the proposed OPEP to provide comment and input based on COPA's proposed response functions requiring AMOSC resources/services in the event of a spill from the pipeline. COPA advised via email that relevant person was away and would respond asap.			
22 Jan 2018	COPA provided email advising that OPEP revision was still being prepared and would be provided for review around mid-February. AMOSC responded via email that this was fine.			
21 Mar 2018	COPA provided copy of OPEP to AMOSC and requested feedback by 26 March.			
26 Mar 2018	Letter received via email from AMOSC advising it had reviewed the OPEP Rev 2 as provided by COPA and had no comments or questions.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Australian Maritime Safety Authority (Relevant for OPEP)				

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide a copy of the full EP under MoU. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
23 Jan 2018	COPA called and left message. Phone call back from AMSA confirming that with the MoU in place they did not need to provide comment and just needed to see the EP once accepted by NOPSEMA COPA email response acknowledging that AMSA does not have any comments and just requires a copy of the EP once accepted.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
9/10 May 2018	COPA asked for confirmation from AMSA of information presented in the OPEP related to jurisdictional arrangements where a specific Act applies. The appropriate excerpt was provided. In response AMSA confirmed via email that the information appeared correct.			
Australian Petroleum Production & Exploration Association (Interested)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Australian Southern Bluefin Tuna Industry Association (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	The Association raised the general issue of oil spill response preparedness common to any similar facility. It did not have any specific queries or concerns. Relevant information was provided in response to the general issue raised. No further response was received from the Association. •	• The following information was provided to the Association in response to its general concern: • The Pipeline is operated in accordance with the controls identified in the Pipeline Management Plan (PMP) and Bayu-Undan Export Pipeline Safety Case (BU/HSE/MAN/010). • The Asset and Integrity Management System (AIMS) is a key control to prevent an unplanned release of hydrocarbons from the Pipeline. The AIMS address the continuing assurance of facility integrity in the operational phase by testing, addressing and measuring	COPA believes it has responded appropriately to the stakeholder's issues and concerns and provided adequate time and opportunity for the stakeholder to comment on this specific response. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			
18 Jan 2018	COPA called, left message and sent follow-up email to ASBTIA.			
19 Jan 2018	ASBTIA advised via email that its fishing operations were concentrated in the Great Australian Bight so they no concern over potential interactions with fishing activity. Main concern from these operations in that area would be around potential adverse impact on ecology of the SBT spawning grounds which are located in the deep waters to the west of the area of the pipeline. ASBTIA sought assurance that all operations were performed to the highest standard to prevent accidental discharge of hydrocarbons and other chemicals likely to impact on SBT larvae and their food supply, including having sufficient response resources and capability readily available to unnecessary time delays responding to unforeseen events.			

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
	COPA response via email same day advising a timeframe for response. ASBTIA advised via email same day that this would be fine		performance and condition at scheduled intervals. • In accordance with Regulation 14 (8AA) (a), the OPEP includes adequate arrangements for responding to and monitoring oil pollution, including the control measures necessary for timely response to an emergency that results or may result in the event of an unplanned release from the Pipeline. The control measures associated with the implementation of the OPEP are: • Incident Command System • Roles, responsibilities, and competencies • Processes and procedures for emergency conditions • Equipment including the arrangements and capabilities for each control measure to enable a timely and effective response. COPA is a participating company in the Australian Marine Oil Spill Centre (AMOSC) and can call on AMOSC personnel and equipment to support an oil spill response. COPA also has a contract with Oil Spill Response Limited (OSRL), which includes the provision of support, equipment, and personnel. COPA also has arrangements with other agencies and third parties.	
29 Jan 2018	COPA responded via email as follows: Acknowledged comment that the Association has no concern over potential interactions with fishing vessels in this area and its main concern is for potential adverse impact on ecology of the SBT spawning grounds located in the deep waters to the west of the existing pipeline. Acknowledged that the Association did not have a specific query and provided relevant information in relation to the Oil Pollution Emergency Plan (OPEP) for the pipeline operation. Advised the Association to advise if further information was required.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Barker, Grant, commercial fishing licence holder (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			
18 Jan 2018	COPA left message on mobile after calling office			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
Bishop, Wayne, commercial fishing licence holder Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
18 Jan 2018	Called and left message plus follow-up email			
24 Jan 2018	Follow-up call to mobile but not able to leave message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
BOC Gas (relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
18 Jan 2018	COPA called and BOC confirmed had received email and would respond if required.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Centre for Whale Research (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
18 Jan 2018	Called and left message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Charles Darwin University (Interested)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal.
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked			

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
	stakeholders for their input			COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
Commonwealth Fisheries Association (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
18 Jan 2018	COPA called and left message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Commonwealth Scientific & Industrial Research Organisation (Interested)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Darwin Ports Corporation (Relevant)				
27 Nov 2017	COP held meeting with DPC to discuss input to preparation of OPEP.	Views of COPA and the stakeholder on the issues discussed related to the OPEP, i.e. vessel collision risk and spill preparedness responsibilities, were aligned. Stakeholder requested additional information related to their responsibilities within Darwin harbour and this was provided.	No further response required as stakeholder's views are aligned with those stated in the OPEP and further information related to responsibilities within Darwin Harbour has been provided with no issues raised.	COPA provided/discussed information requested by the stakeholder. No issues/concerns have been raised that were not already addressed in the submitted EP/OPEP. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to
28/29 Nov 2017	Email exchange re outcomes from meeting on OPEP: • Discussed the likelihood of a collision between the pipeline survey vessel and another vessel that could lead to a pollution incident • Critical factors were the location of the CP pipeline to the west of the main vessel traffic flows and the reduced speed during the survey operation • Concluded that the risk of collision leading to a pollution incident was so small it could be ignored • Discussed spills during normal operations and agreed that the vessel's own SOPEP covered this adequately.			
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.			

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Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
13/14 Dec 2017	Stakeholder thanked COPA for information and requested copy of existing EP. COPA provided initial confirmation of request.			the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
18/19 Dec 2017	COPA sent email advising the information of most use will be in the updated EP, will keep informed re progress, will share the draft updated information in sufficient time for review and make ourselves available discussion.			
12/13 Mar 2018	Attempted phone calls and email sent 12 March provided more detailed information of Pipeline Management and Environment Aspects in Darwin Harbour, including discussion of the environmental impacts and risks that may arise from the operation of the pipeline and the controls ConocoPhillips will apply to manage these impacts and risks. COPA advised the stakeholder that comment could still be provided within the next week so it could be considered prior to EP submittal. Stakeholder did not provide further response.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
19 April 2018	COPA provided additional information related to size of vessels used in developing OPEP. No additional comments were received in response from DPC.			
Demersal Fishery Commercial Licence Holders (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering letter and fact sheet as per process requested by licence holders' representative body the NTSC. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			
18 Jan 2018	Phone discussion with one licence-holder and follow-up email provided summarizing discussion.			
18 Jan 2018	Call and left message and follow-up email to licence-holder			
19 Jan 2018	Call and email to NTSC representing licence-holders			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Department of Agriculture & Water Resources, Commonwealth (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised by this stakeholder or the relevant agency, AFMA, within the department.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
18 Jan 2018	Call and follow-up email by COPA to stakeholder.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Department of Biodiversity, Conservation & Attractions, Western Australia, including former Department of Parks & Wildlife (Relevant for OPEP)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide

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Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
7 Dec 2017	Acknowledgement email advising receipt and enquiry will be forwarded to the relevant area of the department for direct response.			feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses Auto-response email received from Department.			
18 Jan 2018	Called and left message for Environmental Management Branch			
22 Jan 2018	Called and left further message. Missed call and message received from Department to call back			
23 Jan 2018	Called and left further message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Department of Defence, Commonwealth, including Australian Hydrographic Service and Maritime Border Command (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
7 Dec 2017	Email from Australian Hydrographic Service advising it had no concerns or comments			
7 Dec 2017	Email from Maritime Border Command requesting that information and enquires be directed to the Department's property management branch. COPA response email advising the information had been re-directed.			
12 Jan 2018	Email from Defence has no objections to the proposed renewal of the Environment Plan for the Bayu-Darwin Gas Export Pipeline.			
15 Jan 2018	Email from COPA thanking department for input and advising it will continue to be provided the relevant updates.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Department of Environment & Energy, Commonwealth including Parks Australia (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	1 The DNP has issued a general approval under section 359B of the EPBC Act that allows a range of activities, including mining operations, in marine parks that were proclaimed in 2012 (including the Oceanic Shoals). As advised by PA, this approval does not preclude the requirement for an approved EP. 2 The DNP reiterated the relevant notification requirement that should be included in COPA's emergency response procedure.	1 In renewing the EP, COPA has considered the impacts and risks of activities in the context of the known reserve conservation values and Australian IUCN reserve management principles and ensured that the impacts and risks will be managed to an acceptable level 2 In renewing the OPEP and associated emergency response procedures, the relevant DNP notification information has been included	All issues raised by the stakeholder have been fully discussed and the appropriate considerations and information have been part of the EP's preparation and drafting. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of
21 Dec 2017	Email response from Parks Australia covered the following issues: 1 Transitional management arrangements currently applying for the Oceanic Shoals Marine Park within which the pipeline lies traverses the multiple use zone (IUCN VI) and the requirement for titleholders to have an approved EP from NOPSEMA. Notification was requested once the EP has been approved. 2 Emergency response procedure must include making DNP aware of oil/gas pollution incidence which occur within marine parks or are likely to impact on a park as soon as possible via the 24-hour Marine Compliance Duty Officer. 3 Draft plans for future marine park management were released for public comment in Q3, 2017 and comments were being analysed prior to revised plans being provided to the Minister for the Environment and Energy. Once approved, the Minister will table the Plans in Parliament for approval.			

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	When implementing the new management plans, DNP will seek to minimise duplication and simplify regulatory processes for mining activities. NOPSEMA will remain the sole assessor for offshore petroleum and greenhouse gas activities in Commonwealth waters and additional assessment by the DNP is not likely to be required in Special Purpose and Multiple Use zones. This arrangement will be subject to a class approval, which applies to any operation that has been assessed and approved by NOPSEMA. Class approvals allow a specific class of activities to occur, where the activities are done in the same way by all persons conducting the activity. DNP is working with NOPSEMA to update the NOPSEMA Guidance Note – *Activities within Commonwealth marine reserves* (N-04750-GN 1565) to provide more clarity on consultation requirements with the DNP.	3 The DNP advised that no additional requirements are likely to be applied to existing pipelines in Category VI zones, which have been approved and are operating under an accepted Environment Plan approved by NOPSEMA. This has been confirmed by the final plans released by the Minister in March 2018.	3 DNP has provided COPA with understanding of the future management arrangements and COPA is cognisant of all relevant requirements for the pipeline's continuing operations.	maintenance activities occurring. The stakeholder has confirmed that COPA's process is correct and appropriate and aligned with the obligations documented in NOPSEMA Guidance Note – *Activities within Commonwealth marine reserves* (N-04750-GN 1565)
21 Dec 2017	COPA emailed DNP thanking it for the feedback and advising a formal response would be provided in a timeframe that was accepted via response email by DNP COPA advised it would ensure a further period would be provided for additional feedback and discussion prior to the EP renewal's submittal to NOPSEMA.	4 To ensure alignment with NOPSEMA Guidance Note – Activities within Commonwealth marine reserves (N-04750-GN 1565) COPA further consulted with Parks Australia to ensure COPA's understanding of requirements was correct.	4 DNP has provided further response and confirmation that COPA has provided the appropriate information and its proposed future process is aligned. DNP requested one amendment to the notification timeframe proposed by COPA and this amendment has been accepted and confirmation provided back to DNP. The information confirmed with DNP has been incorporated into the relevant sections of this EP. .	
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
17 Jan 2018	Email communication between COPA and the Department of Environment re process for providing any additional feedback if required.			
18 Jan 2018	COPA organized via phone and email for teleconference with DNP to clarify aspects of the information provided in DNP's email of 21 December 2017.			
19 Jan 2018	COPA made follow-up call to Department of Environment which responded that it did not consider itself relevant and would respond only if required.			
22 Jan 2018	Teleconference held with DNP (discussions summarized in email entry below)			
23 Jan 2018	COPA provided follow-up email to Department of Environment thanking it for clarifying the Department's position on relevance and advised we will continue to provide updated information via the department's generic address.			
29 Jan 2018	COPA provided email to DNP summarizing the 22 January teleconference discussion and outcomes and providing additional information in response to the 21 December email from DNP: In developing the Pipeline EP renewal, COPA has considered the protected area objectives for IUCN Category VI reserves, as well as the material provided in the draft management plan. In particular, the following values of the Oceanic Shoals Commonwealth Marine Reserve. • Australian reserve management principles for IUCN Category VI (which is the zoning of the both the current Oceanic Shoals and the draft zoning of the Oceanic Shoals Commonwealth Marine Park); • Key Ecological Features: • Fauna that are Matters of National Environmental Significance (MNES); • Cultural Values; and • Socio-economic values. The IUCN principles and Oceanic Shoals Commonwealth Marine Park values will be considered in the Environment Plan renewal when determining the acceptability of risks and impacts. Once the final plan comes into effect the developed EP will be updated to reflect the change that will be reflected in the new NOPSEMA guidance. Regarding emergency response arrangements and notification to DNP of oil/gas pollution incidents, which occur within marine parks, COPA will update the emergency response contacts to include a notification to the Marine Compliance Duty Officer. COPA will continue to engage with DNP, following submission of the EP renewal at the end of March 2018. Email response same day from Parks Australia confirmed that no additional requirements will be applied to existing or new pipelines in Category VI zones, which have been approved and are operating under an Environment Plan accepted by NOPSEMA. These pipelines will be captured under a Class Approval, which will come into effect at the same time as management plans.			

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Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
	DNP also acknowledge the commitments COPA has made to give consideration to the values and IUCN principles of the Oceanic Shoals Marine Park in the EP renewal.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
14 Aug 2018	During the Environment Plan assessment period, NOPSEMA, in consultation with Parks Australia, developed and published a new guidance note GN1785 - Petroleum activities and Australian marine parks - Rev 0 - July 2018 (PDF 781KB) outlining what titleholders need to consider and evaluate during the preparation of an environment plan and the requirements for consulting with the Director of National Parks as a relevant person during the preparation and implementation of an environment plan. To ensure alignment with the guidance note, COPA provided an update via email to Parks Australia to ensure the consultation requirements have been addressed. The update included permit and contact details; activity overview including type of activity, start and completion dates; a description of the operational area including a map showing location of the activity relative to marine park boundaries; a description of any planned aspects of the activity within or that may impact on the values of a Marine Park; the notifications process to Parks Australia for activity; and acknowledgement of the Class Approval Conditions addressed within the EP under assessment.			
22 Aug 2018	COPA conducted follow-up discussion via phone with Parks Australia with view to gaining a response to email of 14 August by COB of 27 August 2018			
27/28 Aug 2018	COPA requested confirmation of its understanding and future process in meeting requirements of Class Approval Conditions from Parks Australia via response email for inclusion in formal consultation records.			
29 Aug 2018	Parks Australia provided email response confirming COPA's description of proposed activities and notification process, requesting one amendment to a notification period. COPA provided response email confirming that requested amendment would be made to process.			
Department of Environment & Natural Resources (Environment Division), Northern Territory (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	1 The Department expressed satisfaction and did not raise any specific concerns 2 The Department request additional information with specific questions related to the maintenance program.	1 No response required 2 Additional information provided to the Department as follows: Inspection Maintenance and Repair (IMR) activities are undertaken on the Pipeline to ensure integrity of the hydrocarbon system is maintained. Typically, inspections will involve the use of a single vessel and remotely operated vehicle (ROV) along the Pipeline route within the offshore Pipeline licence area. During inspections, vessels are expected to maintain position using dynamic positioning systems. Inspections of the pipeline may include the following: • Visual inspections • Non-destructive testing • Cathodic protection measurements	No specific issues/concerns were raised. COPA responded to requests for additional information and specific questions and no further feedback was provided by the stakeholder. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
18 Jan 2018	The Department advised via email that it was satisfied that environmental hazards had been addressed using appropriate control measures for the operation of the existing Bayu-Darwin Gas Export Pipeline. The Department requested some further information to supplement its understanding of how maintenance works are carried out on the pipeline, including whether there is a requirement to remove the hard growth at a particular point and how this is undertaken; and whether there has been any evidence of an artificial reef effect given the length of time the pipeline has been in position COPA provided initial response via email that it would consult with the relevant environmental personnel and revert back with a response as soon as possible			
29 Jan 2018	COPA provided response via email acknowledging the Department's satisfaction that environmental hazards had been addressed using appropriate control measures for the operation of the existing Bayu-Darwin Gas Export Pipeline and provided information as requested on the maintenance program and in response to the specific questions.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			

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Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
			Maintenance and repair activities may be required during the operational life of the Pipeline to prevent deterioration and/or failure of infrastructure; and maintain reliability and performance of the Pipeline. Where required, maintenance and repair activities could include removal of marine biological growth. This can be carried out by the ROV. Marine growth removal will typically be carried out by high pressure water jetting with the water jet mounted on board an ROV. The most recent subsea assets integrity campaign using a combination of Side Scan Sonar and WROVs from the vessel MMA Pinnacle, was completed on the 31 October 2017. There was no evidence of an artificial reef effect on the Pipeline.	
Department of Foreign Affairs & Trade, Commonwealth (Relevant for OPEP)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
22 Jan 2018	COPA called and left message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Department of Industry, Innovation & Science, Commonwealth (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
18 Jan 2018	COPA called and left message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Department of Infrastructure, Planning & Logistics (Transport), Northern Territory (Relevant)				

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7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	Stakeholder advised that it had no issues or concerns.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			
16 Jan 2018	Marine Safety division acknowledgement receipt via email and advised a response will be provided within five working days if required			
17 Jan 2018	Marine Safety division emailed to advise it had no concerns. COPA responded via email thanking department for its input.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input.			
Department of Mines, Industry Regulation & Safety (Environmental Management and Petroleum divisions), Western Australia (Relevant for OPEP)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	The stakeholder advised that it had no issues or concerns.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring and kept informed of COPA's activities in Commonwealth waters.
12 Dec 2017	Department acknowledged via email that the EP would be assessed by NOPSEMA and the NT-DPIR; that the information had been reviewed and no further information was required and to keep the Department informed on Conoco Phillips' activities in Commonwealth waters.			
13 Dec 2017	Email response from COPA noting the department does not required any further information on this specific activity and will ensure it is kept informed of COPA's activities in Commonwealth Waters.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input.			
Department of Primary Industries & Regional Development (Fisheries), Western Australia (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised. Stakeholder advised it is not relevant for this activity.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
18 Jan 2018	COPA called and left message and follow-up email.			
19 Jan 2018	COPA sent further follow-up email to the Department and advised that we had also spoken to WAFIC and emailed the information to Ocean Wild Tuna which WAFIC had advised was likely to be the only WA-based commercial licence holder that may be relevant.			
19 Jan 2018	Acknowledgement from Dept that 16 Jan email had been received and would be actioned within 14 days			
31 Jan 2018	Email from Department advising the consultation process and relevant contact information and advising it will review the information and revert back to COPA following with any feedback.			

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
2 Feb 2018	Email from the Department advising that because there are no WA-managed fisheries operating in these waters there is no requirement for Conoco Phillips to consult with Fisheries on this occasion.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Department of Primary Industry & Resources (Fisheries) Northern Territory (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No specific issues were raised. The Department suggested additional information could have been provided but did not specify exactly what information. COPA decided to supply further information and the Department advised this should be included in the EP.	In response to the Department's general comment that additional information could be provided in future COP provided the following information and an accompanying table: ConocoPhillips has a comprehensive internal and external inspection program for the pipeline, to identify any potential pipeline integrity issues. The table provides details of completed internal and external inspections of the Pipeline, the most recent inspection was conducted in 2017 and found the pipeline to be in sound condition with no degradation. Operation of the pipeline is continually monitored and evaluated from both Bayu-Undan and DLNG facilities, to ensure the pipeline operation is consistent with the pipeline design. The operations monitoring includes monitoring of temperatures, pressures and gas composition using meters (gas density and moisture) and analyser (gas composition). Data from the operations monitoring are fed to the dedicated Pipeline leak detection system, which continuously monitors Pipeline operation and integrity. Since operations commenced there have been no recordable or reportable environment incidents of uncontrolled release from the Pipeline.	No issues/concerns have been raised. In response to a general comment on the amount of information provided, COPA prepared and supplied further information it considered relevant and this was acknowledged by the Department. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
18 Jan 2018	COPA called and left message and follow-up email. COPA also advised a representative would be in Darwin that week if the Department wanted to discuss any comments/queries and the other relevant stakeholders that the information had also been sent to.			
2 Feb 2018	COPA had telephone discussion with Department in which no issues or concerns were raised and provided follow-up email requesting the Department provide a formal written response if possible.			
8 Feb 2018	Department advised via email that it did not have any specific comment but noted it was difficult to make an assessment with the information provided and in future it would be good to have some information on whether there were any issues with the line or whether it was operating normally. COPA provided an initial response that we were not aware of any issues with the line or its operation but would provide a further response after checking. COPA also asked whether there was specific further information the Department was seeking.			
9 Feb 2018	Department advised via email that the extra information wasn't critical but would help people reading the document to be comfortable with the low risks in the assessment.			
14 Feb 2018	COPA provided additional information to the Department via email on the internal and external inspection program for the pipeline, including results of the most recent inspection conducted in 2017 which found the pipeline to be in sound condition with no degradation. Department was advised that COPA was available to discuss further any points on the program or other aspects of the pipeline inspections or normal operations. Department responded via email that the provided information should be included in the EP to further support the risk and impact assessments. No further issues were raised or information sought by the Department.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Department of Primary Industry & Resources (Mines & Energy), Northern Territory (Relevant)				
16 Nov 2017	Telephone discussion between COPA and Department re provision of a single EP covering both NT Coastal Waters and Commonwealth waters and incorporating consultation with all relevant and interested stakeholders both jurisdictions	No issues raised. The Department is the regulator for the section of pipeline and activities relevant to NT Coastal	No response required.	No issues/concerns have been raised.

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Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
20/21 Nov 2017	Email from Department advising that the proposal can be accommodated it in the following manner: • The one EMP is sufficient and can be treated it as an update on the current PMP. • The current licence for NTCPL1(2004) contains a condition that requires the EP to it consistent with the OPPGSA • COPA would need to identify the areas relevant to the NT portion • DPIR would asses and approve separately to NOPSEMA • On acceptance of the EMP, both renewal periods will align.	waters.		COPA believes it has provided all the stakeholders nominated with the Department with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. The department will advise when the EP relevant to NT Coastal waters is accepted. The nominated stakeholders relevant to NT Coastal waters will be advised when the EP is approved and provided access to the EP summary. The nominated stakeholders and the Department will also be notified in advance of maintenance activities occurring.
30 Nov 2017	Meeting between COPA and the Department to discuss Department's specific requirements for stakeholder consultation for section of pipeline within NT Coastal Waters. Department advised it was happy for COPA to follow its accepted practice. COPA provided via email a list of external stakeholders for the Department to review and advised we would advise in the new year on the progress of consultation.			
6 Dec 2017	COPA provided the Department via email with a requested bathymetry map and draft Notice of Consultation that will be distributed externally on 7 December and sought any comments on the information prior to its distribution.			
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018. Department provided acknowledgement via email that the information had been received.			
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
19 Jan 2018	Department called COPA to request some historical information for its records. COPA provided available information via email.			
23 Jan 2018	COPA called department and provided report on consultation progress and offered to meet if required. Department requested COPA ensure it provided information and offered opportunity to NT-EPA to comment. COPA advised that NT-EPA had received information and was being followed-up by phone and email.			
14 Mar 2018	COPA and Department had progress meeting during which COPA advised the EP preparation was progressing well and stakeholder consultation was almost completed with minimal inquiries received.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Department of Resources, Energy & Northern Australia, Commonwealth (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
23 Jan 2018	COPA made follow-up phone call and left message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
Department of the Chief Minister, Northern Territory (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	Stakeholder advised it had no issues or concerns.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
12 Jan 2018	Department advised via email that it had consulted with the Department of Trade Business and Innovation (DTBI) and assumed COPA had consulted also with the Department of Primary Industry and Resources; supported the application to renew the pipeline EP and understood that the operation of the pipeline had been conducted in an environmentally sound manner since 2006.			
15 Jan 2018	COPA confirmed via email that it had consulted with the Department of Primary Industry and Resources both prior to information being provided to all stakeholders and during that release; will also be consulting directly and further with DPIR (both Mines & Energy and Fisheries) and DTBI; and will ensure the Department is provided an update on the progress of consultation with NT Government departments during the EP preparation period and continue to be provided other relevant updates.			
23 Jan 2018	Formal letter received by COPA from Chief Minister's Office acknowledging the consultation undertaken by COPA and reiterating the views expressed in the email of 15 Jan 2018.			
29 Jan 2018	COPA responded to letter via email acknowledging the views expressed and advising that neither the NT Department of Trade Business and Innovation (DTBI) or the NT Department of Primary Industry and Resources had raised any specific queries to date; that COPA had also consulted with the Department of Environment and Natural Resources and the NT Environment Protection Authority and attached a copy of this correspondence. COPA advised it would provide an update on the progress of consultation with NT Government departments during the EP preparation period could be contacted if further information was required.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Department of Trade & Business Innovation, Northern Territory (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	Stakeholder advised it had no issues or concerns.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
12 Jan 2018	Reference noted in DCM's response (see entry for DCM above)			
15 Jan 2018	Reference noted in COPA's response to DCM (see entry for DCM above)			
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
23 Jan 2018	Referenced in letter from DCM's Office (see entry for DCM above)			
29 Jan 2018	Referenced in COPA response to DCM letter (see entry for DCM above)			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Eni Australia (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur			

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Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
	via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
23 Jan 2018	COPA made follow-up call and left message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Department of Water and Environment Regulation, Western Australia (Relevant for OPEP)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
18 Jan 2018	COPA called and re-sent email from 16 Jan 2018 to another address. Department emailed confirming receipt and advised that enquiry will be actioned and responded to within 10 business days.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input.			
Environment Centre, Northern Territory (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
17 Jan 2018	COPA called and provided follow-up email. Environment Centre responded via email that it would email by the end of the week if it had further questions.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Environmental Defenders Office, Northern Territory (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when
17 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
22 Jan 2018	COPA made follow-up call and left message. EDO advised via email that it would contact COPA when it had looked at the information.			an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Environment Protection Authority, Northern Territory (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	1 The Department expressed satisfaction and did not raise any specific concerns 2 The Department request additional information with specific questions related to the maintenance program.	1 No response required 2 Additional information provided to the Department as follows: Inspection Maintenance and Repair (IMR) activities are undertaken on the Pipeline to ensure integrity of the hydrocarbon system is maintained. Typically, inspections will involve the use of a single vessel and remotely operated vehicle(ROV) along the Pipeline route within the offshore Pipeline licence area. During inspections, vessels are expected to maintain position using dynamic positioning systems. Inspections of the pipeline may include the following: • Visual inspections • Non-destructive testing • Cathodic protection measurements Maintenance and repair activities may be required during the operational life of the Pipeline to prevent deterioration and/or failure of infrastructure; and maintain reliability and performance of the Pipeline. Where required, maintenance and repair activities could include removal of marine biological growth. This can be carried out by the ROV. Marine growth removal will typically be carried out by high pressure water jetting with the water jet mounted on board an ROV. The most recent subsea assets integrity campaign using a combination of Side Scan Sonar and WROVs from the vessel MMA Pinnacle, was completed on the	No specific issues/concerns were raised. COPA responded to requests for additional information and specific questions and no further feedback was provided by the stakeholder. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			
23 Jan 2018	COPA made follow-up call and was advised by the NT-EPA that the email from the Department of Environment and Natural resources had covered their response (see DENR entry).			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
			31 October 2017. There was no evidence of an artificial reef effect on the Pipeline.	
Federal Member for Solomon, Northern Territory (Interested)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
23 Jan 2018	COPA made follow-up call and was advised the Member's office had no concerns and if they have any questions they will reply to the email.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Fischer, Horst, commercial fishing licence holder (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			
19 Jan 2018	COPA made follow-up call and left message and provided email stating would try again next week. COPA made follow-up call and provided email to NTSC in its capacity representing licence-holders.			
23 Jan 2018	COPA made follow-up call			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Fish, Rob, Board Member, Northern Territory Seafood Council (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
19 Jan 2018	COPA made follow-up call and left message and provided email stating would try again next week. COPA made follow-up call and provided email to NTSC in its capacity representing licence-holders.			
23 Jan 2018	COPA made follow-up call			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
Geoscience Australia (Interested)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Inpex (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			
23 Jan 2018	COPA made follow-up call and was advised that information had been forwarded internally with no feedback and if we don't hear back we can assume there are no concerns.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input.			
Jamaclan Marine Services (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
19 Jan 2018	COPA made follow-up call and left message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Lattice Energy (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	Stakeholder advised it had no issues.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously			

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Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
	provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
16 Jan 2018	Lattice advised via email that it saw no impact to its activities and had no need of further engagement at this time. COPA provided email thanking Lattice for its input.			COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Magellan Petroleum Corporation (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
19 Jan 2016	COPA made follow-up call and left message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input.			
Melbana Energy, formerly MEO Australia (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
23 Jan 2018	COPA made follow-up call and was advised to re-send the information to another email address and they would contact us if they had any questions. COPA forwarded email to stated address and provided further opportunity to provide feedback or ask questions.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input.			
Monash University (Interested)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
Monsoon Aquatics (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
19 Jan 2018	COPA made follow-up call and email to NTSC in its capacity representing all licence-holders			
22 Jan 2018	COPA made follow-up call and email to Monsson Aquatics			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input.			
National Offshore Petroleum Titles Authority (Interested)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
7 Dec 2017	Please accept this email as acknowledgement that your email has been received by NOPTA.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Northern Fishing Companies Association (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
18 Jan 2018	COPA made follow-up call and left message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Northern Prawn Fishery (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	Stakeholder did not raise any issues or concerns.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
17 Jan 2018	NPFI noted via email that the pipeline has already in place for 10 years at a depth of 60+ meters and runs along the seabed in an area not fished by NPF operators; looked to be of minimal risk to the NPF however will take a look at the EP to ensure necessary safeguards are in place COPA response via email to let us know if there are any further comments and will ensure NPF continues to be provided all relevant updates.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input.			
Northern Territory Guided Fishing Industry Association (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
19 Jan 2018	COPA made follow-up call and left message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Northern Territory Seafood Council (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
19 Jan 2018	COPA made follow-up call and provided email.			
23 Jan 2018	COPA made follow-up call and left message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input.			
Northern Trawl Owners Association (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
18 Jan 2018	COPA made follow-up call and left message			an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input.			
Northern Wildcatch Seafood Australia (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
18 Jan 2018	COPA made follow-up call and left message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input.			
Ocean Wild Tuna (Western Tuna and Billfish Fishery licence holder)				
18 Jan 2018	COPA emailed following phone call with WAFIC and advised WAFIC felt you may be the only WTBF fisher that would operate that far north and wanted to make sure you received the information (attached) and had opportunity to provide comment.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Office of Minister for Environment & Energy, Commonwealth (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018. Received auto-email response from Minister's office.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
18 Jan 2018	Minister's office advised via email that COPA should contact the Department and provided contact that had already been consulted.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
Office of Minister for Environment & Natural Resources, Northern Territory (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
23 Jan 2018	COPA made follow-up call and left message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Office of Minister for Infrastructure, Planning & Logistics, including Transport, Northern Territory (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018. Acknowledgement email received from Minister's Office	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
23 Jan 2018	COPA made follow-up call and left message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Office of Minister for Jobs and Innovation (Interested)				
7 Dec 2018	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
23 Jan 2018	Made follow-up call and advised to forward the information to another address. COPA forwarded and received auto-email response.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Office of Minister for Primary Industry & Resources, including Fisheries and Mines & Energy, Northern Territory (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as			

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
	preparation of the EP progresses			
23 Jan 2018	COPA made follow-up call and was advised that Minister's office was happy with the engagement conducted by COPA.			COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Office of Minister for Indigenous Affairs, Commonwealth (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018. Office requested via email that full contact details be provided. COPA provided full contact details for Stakeholder Engagement Adviser via response email.	Stakeholder advised they did not have any issues or concerns.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
22 Jan 2018	COPA made follow-up call and received email response advising the Senator doesn't have any questions on the plan.			
Office of Minister for Industry, Innovation & Science, Commonwealth (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
23 Jan 2018	COPA made follow-up call and was advised to forward email and information to another address.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Office of Minister for Resources & Northern Australia, Commonwealth (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			
23 Jan 2018	COPA made follow-up call and was advised to forward email and information to another address.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
Office of Opposition Leader, NT (Interested)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	Stakeholder advised they had no issues or concerns.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
22 Jan 2018	COPA made follow-up call and left message			
23 Jan 2018	Office called COPA and advised they had no issues or concerns.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Office of Senator for the Northern Territory				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	Stakeholder advised they had no issues or concerns.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
23 Jan 2018	COPA made follow-up call and was advised via response email that the Senator had no concerns to raise.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Office of Shadow Parliamentary Secretary for Northern Australia, Commonwealth (Interested)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018. Office requested via email that full contact details be provided. COPA provided these for Stakeholder Engagement Adviser via response email.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
23 Jan 2018	COPA made follow-up call and was advised they would respond if they had any follow up questions or concerns.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Office of the Chief Minister, Northern Territory (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018. Chief Minister's office provided confirmation of receipt email.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
17 Jan 2018	COPA made follow-up call to Chief Minister's office and was advised response would be provided via the Department (see separate entry)			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Office of the Leader of the Opposition, Northern Territory (Interested)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
23 Jan 2018	COPA made follow-up call and was advised the Office had no concerns. COP provided follow-up email seeking confirmation.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Offshore Net and Line Fishery Commercial Licence Holders				
7 Dec 2017	COPA provided Notice of Consultation via covering letter and fact sheet to licence holders as per request from their representative body the NTSC. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
19 Jan 2018	COPA made follow-up call to NTSC in its capacity representing all licence-holders and provided email.			
23 Jan 2018	COPA made follow-up call to NTSC in its capacity representing all licence-holders and left message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Oil Spill Response Ltd (Relevant for OPEP)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
23 Jan 2018	COPA made follow-up call and was advised by OSRL that as it was a contractor it did not require further engagement.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
Origin Energy (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			
19 Jan 2018	COPA made follow-up call and left message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Paspaley Pearling Company (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
22 Jan 2018	COPA made follow-up call and left message			
23 Jan 2018	COPA and Paspaleys had follow-up phone discussion and COPA was advised to forward email to another address.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Pearl Oyster Fishery Commercial Licence Holders (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering letter and fact sheet to licence holders as per request from their representative body the NTSC. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
22 Jan 2018	COPA made follow-up call to principal licence-holder, Paspaleys,and left message			
23 Jan 2018	COPA and Paspaleys had follow-up phone discussion and COPA was advised to forward email to another address.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Pearl Producers Association (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018 Provided to all Pearl Oyster Fishery NT licence holders via letter and fact sheet.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
19 Jan 2018	COPA made follow-up call to PPA and left message			
22 Jan 2018	COPA made follow-up call to principal licence-holder, Paspaleys,and left message			
23 Jan 2018	COPA and Paspaleys had follow-up phone discussion and COPA was advised to forward email to another address.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Pendoley Environmental (Relevant to OPEP)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Power and Water Corporation, Northern Territory (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018. PWC provided auto-email response.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			
17 Jan 2018	Auto-response email received from Power & Water on			
23 Jan 2018	COPA made follow-up call to PWC seeing relevant contact information			
31 Jan 2018	PWC provided contact name and number via email and advised they did not think they would need to be involved in the renewal plan COPA emailed contact and provided information and arranged to have phone discussion.			
1 Feb 2018	COPA and PWC had phone discussion and COPA provided follow-up email summary stating that based on the discussion PWC did not have any concerns or feedback, that any comments and questions based on further review of the material could be discussed and PWC would be kept informed with relevant updates.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
RPS Asia Pacific Applied Science Associates (Relevant to OPEP)				

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Santos (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
17 Jan 2018	Santos advised via email that it had no concerns.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Sea Turtle Foundation (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
19 Jan 2018	COPA made follow-up call and left message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Shell Development Australia (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			

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Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
23 Jan 2018	COPA made follow-up call and left message			an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
SK E&S (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			
18 Jan 2018	SK E&S emailed COPA to clarify why the email was being sent to it for comment.			
19 Jan 2018	COPA provided response via email clarifying purpose of email.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Spanish Mackerel Fishery Commercial Licence Holders				
7 Dec 2017	COPA provided Notice of Consultation via covering letter and fact sheet to licence holders as per request from their representative body the NTSC. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
19 Jan 2018	COPA made follow-up call to NTSC in its capacity representing all licence-holders and provided email.			
23 Jan 2018	COPA made follow-up call to NTSC in its capacity representing all licence-holders and left message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Tellurian Inc				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
23 Jan 2018	COPA made follow-up call and left message with head office			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Timor Reef Fishery Commercial Licence Holders (Relevant)				

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Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
7 Dec 2017	COPA provided Notice of Consultation via covering letter and fact sheet to licence holders as per request from their representative body the NTSC. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up email to all relevant stakeholders including NTSC, Horst Fisher, Rob Fish and Austral Fisheries advising: Early last month ConoCOPAhillips sent you an advice that we were seeking to renew the accepted Environment Plan (EP) for the operation of the existing Bayu-Darwin Gas Export Pipeline located in Commonwealth and Northern Territory Waters. I am planning to follow-up with a telephone call later this week to ensure you have further opportunity to provide feedback or have any questions answered. The previously provided information is re-attached for your convenience. Updated written information will also be provided to all stakeholders as preparation of the EP progresses.			
18, 19 and 23 Jan 2018	Follow-up calls and emails made to NTSC, Horst Fisher, Rob Fish and Austral Fisheries (see separate entries)			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Tiwi Land Council (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
23 Jan 2018	COPA made follow-up call to office and email			
30 Jan 2018	COPA made follow-up call and left message			
2 Feb 2018	COPA made follow-up call and left message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Tokyo Electric (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	Tokyo gas responded via email with questions relate	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
19 Jan 2018	COPA made follow-up call and email			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Tokyo Gas (Relevant)				

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised. The stakeholder raised a query not related to this activity and COPA provided an explanation.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
12 Jan 2018	Tokyo Gas responded via email asking why there wasn't a reference to ta potential future pipeline tie-in and whether this would be subject to a separate EP.			
15 Jan 2018	COPA repled via email that a separate EP will be required for any tie-in that may be required to the existing pipeline and a representative of DLNG Operatorship could supply further information Tokyo gas advised it understood the situation.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Total (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses.			
23 Jan 2018	COPA made follow-up call and left message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
WA Fishing Industry Council (WAFIC), representing Western Tuna and Billfish Fishery commercial licence holders (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised. WAFIC requested another licence-holder be contacted and afforded opportunity to comment and this was completed.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
18 Jan 2018	COPA made follow-up call and email and held phone discussion with WAFIC during which it advised that there was only one WA-based operator that may be relevant to the activity covered by this EP renewal. WAFIC advised it would provide the information to the licence-holder and provided email details to COPA COPA provided information to the licence-holder and opportunity to comment, as requested by WAFIC			
22 Jan 2018	WAFIC emailed COPA to thank it for the follow-up and requested the contact details be adjusted.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
WA Seafoods (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide

STAKEHOLDER CONSULTATION SUMMARY TABLE				
Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
19 Jan 2018	COPA made follow-up call and provided advice via email that on the pipeline depth and the advice (attached) from the NPF that they believed the risks of this activity were minimal and they will look at the EP to ensure necessary safeguards are in place. COPA provided opportunity for any further comments/queries and advised we would continue providing the relevant updates.			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input.			
Whale and Dolphin Conservation Society (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			
23 Jan 2018	COPA made follow-up call and left message			
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input.			
Wilderness Society (Interested)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
Woodside (Relevant)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	Stakeholder advised it had no issues or concerns.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when
16 Jan 2018	COPA provided follow-up reminder email to all relevant stakeholders and advised that follow-up would also occur via phone to ensure further opportunity to provide feedback or have any questions answered. The previously provided information was re-attached and stakeholder was advised a further update would be provided as preparation of the EP progresses			

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Date	**Contact made/feedback received/issues raised**	**COPA assessment of issues raised**	**COPA response, including outcomes proposed/achieved**	**Summary of COPA assessment/response**
23 Jan 2018	COPA made follow-up call and Woodside advised via response email that it had no feedback to provide on this activity.			an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
WorkSafe, Northern Territory (Interested)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			
World Wide Fund for Nature (Interested)				
7 Dec 2017	COPA provided Notice of Consultation via covering email and fact sheet to all interested and relevant stakeholders. Information included pipeline location and map and summaries of pipeline purpose, past and ongoing operations, environmental management, regulatory and consultation process. Feedback was requested by 12 January 2018.	No issues raised.	No response required.	No issues/concerns have been raised. COPA believes it has provided the stakeholder with reasonable and adequate time and information to provide feedback and no further action is required prior to EP re-submittal. COPA will advise the stakeholder when an EP is accepted and provide access to the EP summary. The stakeholder will also be notified in advance of maintenance activities occurring.
27 Mar 2018	COPA provided email advising that consultation had been completed and EP was being submitted and thanked stakeholders for their input			

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