Wheatstone Project

Summary Installation Environment Plan – Trunkline Installation State Waters

Document Number	WS2-0000-HES-PLN-CVX-000-00040-000	Revision 2
Revision date	1/7/2014	
IP Security	Public	

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ACRONYMS, ABBREVIATIONS AND TERMINOLOGY

AS/NZS	Australian Standard/New Zealand Standard
BHD	Backhoe Dredge
Chevron	Chevron Australia Pty Ltd
CSD	Cutter Section Dredge
CSMFIMP	Conservation Significant Marine Fauna Interaction Management Plan
DMP	Department of Mines and Petroleum (WA)
Domgas	Domestic Gas
(The) EP	Wheatstone Project Installation Environment Plan – Trunkline Installation (WS2-0000-HES-PLN-CVX-000-00013-000)
FCGT	Flooding, cleaning and gauging
km	Kilometre
KP	Kilometer Point
LNG	Liquefied Natural Gas
m	Metre
MSDS	Material Safety Data Sheets
MTPA	Million Tonnes per Annum
Nearshore	Marine habitat from the 20 m contour to the shoreline
NWS	North West Shelf
OEPA	Office of the Environmental Protection Authority
Offshore	Marine habitat beyond the 20 m contour to the shoreline
OSORP	Oil Spill Operational Response Plan
Plan	Summary Installation Environment Plan
Project	Wheatstone Project nearshore and offshore marine facilities, trunkline, and Onshore Facility
Practicable	Means reasonably practicable having regard to, among other things, local conditions and circumstances (including costs) and to the current state of technical knowledge (*taken from the WA Environmental Protection Act 1986)*
Proponent	Chevron Australia Pty Ltd
TSHD	Trailing Suction Hopper Dredge
WA	Western Australia
WP	Wheatstone Platform

1.0 INTRODUCTION

The Summary Installation Environment Plan (this Plan) summarises the Wheatstone Project Installation Environment Plan – Trunkline Installation (WS2-0000-HES-PLN-CVX-000-00013-000, Revision 6) — hereafter referred to as the EP — which was accepted by the Western Australian Department of Mines and Petroleum (DMP) on 20 June 2014.

1.1 Operator

Chevron Australia Pty Ltd (Chevron) is the proponent for the Wheatstone Liquefied Natural Gas Project.

The Joint Venture Participants in the Wheatstone Project are Australian subsidiaries of Chevron, Apache Corporation, Kuwait Foreign Petroleum Exploration Company, Kyushu Electric Power Company and PE Wheatstone Pty Ltd (part owned by TEPCO).

1.2 Location

The Wheatstone Project (the Project) will process gas from various fields located offshore in the West Carnarvon Basin, on the North West Shelf (NWS). The initial Project will produce gas from Petroleum Titles WA-46-L, WA-47-L, WA-48-L and WA-49-L (Figure 1) located approximately 145 km off the north-west coast of WA in the West Carnarvon Basin, approximately 100 km north of Barrow Island and 225 km north of Onslow. The trunkline route extends along the outer continental shelf west of Barrow Island, at approximately the 110 m isobath. The nearshore Project area is located in WA waters, on the coastal side of the 20 m isobath, approximately 10 km west of Onslow and 8 km east of the Ashburton River mouth.

The coordinates for the Wheatstone Platform (WP) and trunkline are provided in Table 1. This Summary relates only to project activities in State waters.

Table 1: Co-ordinates for the Wheatstone Platform and Trunkline

Location	Easting	Northing
Wheatstone Platform	330685	7795670
Trunkline Kilometre Points		
0	292314.74	7601512.62
10	288916.82	7610741.01
20	282594.38	7618464.39
30	276074.94	7626047.06
40	273230.68	7635351.64
50	271979.29	7645273.04
60	270790.24	7655198.97
70	274296.41	7664528.78
80	276364.41	7674190.55
90	276982.07	7684171.46
100	277599.74	7694152.36
110	277649.75	7704149.36
120	277594.03	7714149.21
130	280121.09	7723431.26
140	284953.40	7732064.66
150	287905.25	7741619.06
160	292601.47	7750406.81
170	297692.70	7759013.75
180	303130.43	7767401.13
190	308959.38	7775516.80
200	315333.03	7783218.95
210	322187.71	7790495.19
220	330579.37	7795347.71

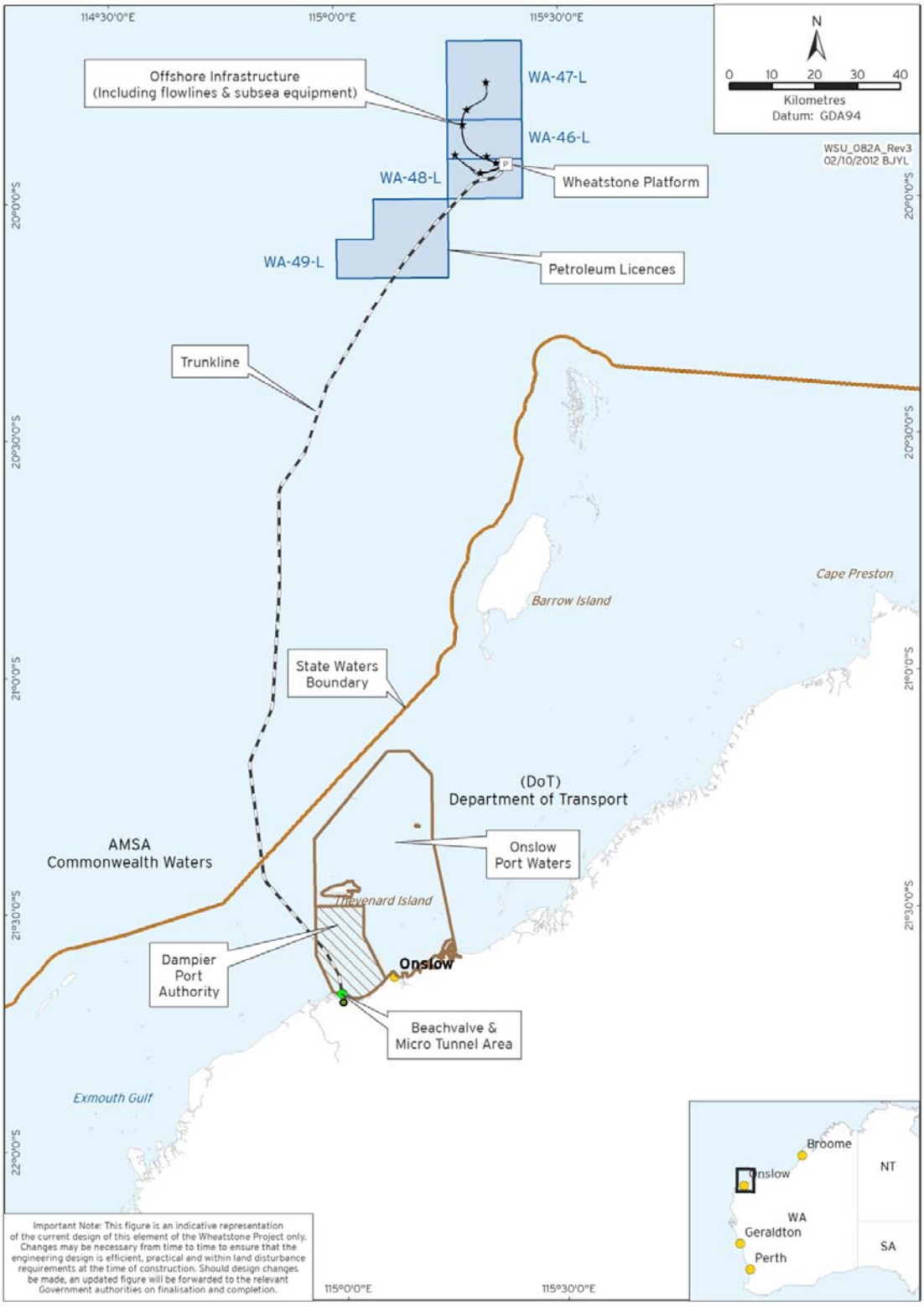

Figure 1: Project Area: Location of Wheatstone Project Infrastructure

2.0 DESCRIPTION OF THE ACTIVITY

2.1 Installation Activities

Key activities covered by this Plan include:

- Microtunnel Construction
- Trenching & Secondary Stabilisation
- Pipelay.

2.2 Microtunnel Construction

The trunkline extends from the onshore beach valve located at the shore crossing site out through the microtunnel to the WP located in Commonwealth waters. The shore crossing is defined as the area between the onshore launch shaft and the 6 m water depth contour at lowest astronomical tide (LAT). The work through this area consists of the construction of a microtunnel commencing onshore behind the dune system and traversing to the 2 m LAT water depth contour. The microtunnel will exit at this point into the exit pit. The tunnel exit in turn, will transition into the pre-lay trunkline trench.

2.3 Trenching and Secondary Stabilisation

Trenching and secondary stabilisation involves digging a trench, maintaining the trench by removing any siltation, laying the trunkline in the trench and placing rock and sand on the trunkline to provide additional protection and/or stabilisation for weather events. Sand backfill will only be used where the pipeline is trenched while rock backfill can be employed on both the trenched and un-trenched sections of pipeline.

Sand backfill will fill the trench with some overfill. Rock will be placed in berms on each side and over both the trenched and un-trenched pipeline. Where the pipeline is un-trenched, rock berms will generally occupy an envelope of approximately 20 m wide and can cover the pipeline by approximately 1-2 m. Trunkline backfill and rock dump locations and execution methodologies are detailed in Table 2.1.

Table 2.1: Execution Methodology Summary for Backfill and Rock Dump Activities

From Approximate (KP)	To Approximate (KP)	Activity	Execution Method
0.2	2.0	Sand Backfill	TSHD + Spreader Pontoon
2.0	4.0	Sand Backfill	TSHD
7.1	8.6	Sand Backfill	TSHD
9.0	26.9	Sand Backfill	TSHD
31.6	36.3	Sand Backfill	TSHD
0.2	2.0	Stitch rock dump	SSDV
2.0	4.0	Stitch rock dump	SSDV
4.0	7.0	Rock dump	SSDV
8.8	NA	Rock Dump Roller Skate Pipeline Crossing	SSDV

From Approximate (KP)	To Approximate (KP)	Activity	Execution Method
27.1	31.4	Rock Dump	FPV

2.4 Pipelay

The Wheatstone trunkline is approximately 221 km long in total, and the portion to be installed in State waters will be between the shore-pull location near Ashburton North and the State / Commonwealth water border (Figure 1). The trunkline will be installed in three phases:

- Pre-lay survey
- Trunkline installation
- Trunkline hydrotesting.

Trunkline installation activities in State waters are detailed in the full EP and summarised as follows.

2.4.1 Pre-lay Survey

A pre-lay survey will be conducted to confirm the acceptability of the trench for pipelay. Prior to pipelay, the trench may need pre-lay intervention to the occurrence of free-spans once the pipe is laid. Pre-lay intervention may include removal of high spots, removal of debris or cleaning of any excess sediment by dredge or alternative techniques such as suction, jetting or mass-flow systems.

2.4.2 Trunkline Installation

Trunkline installation will involve approximately 30 vessels, with up to 10 vessels in the Project area at any one time. Typically they will include pipelay vessels, pipe haul barges, bulk carriers, dive boats, anchor handling, construction vessels, supply/support/command vessels and survey vessels.

For the offshore portion of the trunkline, pipelay will commence from approximately 20 m water depth starting in State water and leading into Commonwealth waters. The 4th generation dynamically positioned (DP) pipelay vessel “Solitaire” or similar, will be used to lay the offshore portion of the trunkline. The DP system shall be adequate for all phases of installation including anchoring, pipe laying, station keeping, pipeline initiation, laydown, abandonment and recovery operations. This plan considers only the portion of trunkline in State water.

In the nearshore area, from shore to approximately 20 m water depth, a flat bottom 2nd generation lay barge, the “TogMor” or similar, will be used. This vessel has an approximate ten point anchor mooring system that it uses to move the vessel along the pipeline route whilst laying pipe. These anchors will be placed and recovered by anchor handling vessels (AHV). The nearshore trunkline crosses the existing Roller/Skate pipelines in approximately 10 m of water LAT. Preparation works will involve placement of mattresses to enable the crossing.

2.4.3 Flooding Fluid

To facilitate the hydrotest (detailed in Section 2.4.4) the trunkline will be filled with flooding fluid which will be filtered seawater collected from open water dosed with Hydrosure, a proprietary chemical mixture by Champion Technologies which is designed for the treatment

of water (neutralising bacteria and dissolved oxygen). A fluorescein dye will also be added to the flooding fluid used during hydrotesting for leak detection purposes.

2.4.3.1 Chemical Selection Process

The chemicals considered for the treatment of the trunkline flooding-fluid were subject to a detailed review and selection process. This involved four keys analysis steps:

1. Treatment Options Analysis
2. Chemical Options Analysis
3. Chemical Screening Process
4. Chemical Approval Process.

2.4.4 Trunkline Hydrotesting

To verify pipeline integrity prior to the introduction of hydrocarbons, the installed trunkline will be subject to flooding, cleaning, gauging and [hydro]testing (FCGT). The trunkline, previously planned to be hydrotested in two sections involving state water releases, will now be tested as a whole with planned discharges occurring at the WP location. These planned discharges and assessment of potential impacts are covered in a separate plan to be submitted to NOPSEMA for approval under the Commonwealth OPGGSA (2006). The activities associated with flooding, cleaning, gauging and hydrotesting that occur in State jurisdiction include the following:

- Temporary Stabilisation of Trunkline
- Temporary Onshore Storage Pond
- Unplanned and Contingency Discharges.

2.4.4.1 Temporary Stabilisation of Trunkline

Temporary stabilisation of the trunkline is required at the commencement of the first stage of the trunkline pipelay installation campaign, if the sea state is forecast to be greater than 2m Hs. The base option for temporary stabilisation is flooding approximately 8 km of the trunkline (located in State water) with the flooding fluid.

2.4.4.2 Temporary Onshore Storage Pond

The onshore storage pond will be constructed within pre-cleared ground on the Microtunnel construction pad. The proposed design characteristics are as follows:

- Approximate onshore storage pond dimensions, 135 m long by 75 m wide by 5 m deep
- Approximate maximum storage capacity of 20 178 m^3 (this storage capacity includes a one metre freeboard)
- Proposed high density polyethylene liner and
- Egress ladders.

The temporary storage pond will be located on the Microtunnel pad in the same location where 6 former ponds were located. The proposed depth of the new pond is nominally 5m below surface and during construction of the former ponds no acid sulphate soils were encountered. Although not expected to be encountered, an acid sulphate soil management plan will be in place prior to construction which will include the testing of soils associated with the construction of the pond.

2.5 Timing

Trunkline installation activities commenced in early 2013 under an approved EP and completion is anticipated to be Q3 2014. Secondary stabilisation works will occur between Q3 2014 and before start up in Q1 2016.

3.0 DESCRIPTION OF THE ENVIRONMENT

3.1 Physical Environment

The Wheatstone fields are located on the edge of the continental shelf. Surface currents at the WP site are dominated by modestly strong tidal variations. East-west variations are stronger than north-south variations. The WP site appears far enough up the slope to be inshore of any noticeable influence by the Leeuwin Current. Similarly for inshore waters east-west current variations are stronger than north-south variations. Significant wave heights peak in winter and are lowest in summer.

Tides in the project area are semi diurnal with a spring tide range of 1.9 m. Tidal peaks occur near the equinoxes (March, September) and the highest astronomical tide is 2.9 m.

During summer prevailing winds are from the north-west and south-west, changing to south easterlies over winter. Mean water temperatures range from 23 °C in winter to 28 °C in summer, and there is relatively low rainfall, although heavy downpours can occur during tropical cyclones and depressions. Cyclone season is primarily from November through to April with events delivering up to 300 mm rainfall. An average of approximately five cyclones passes through WA annually.

The NWS is characterised by a relatively clear water column, however these waters can sometimes have naturally higher levels of turbidity as a result of local current-induced re-suspension of fine sediments particularly in the nearshore waters. The regional median turbidity around the Onslow area is <1 Nephelometric Turbidity Units during non-cyclonic periods but rises during summer periods. During spring and summer months, cyclonic conditions increase turbidity through seabed stress but, for the Onslow region, high levels of sediment are also discharged from the Ashburton River.

3.2 Biological Environment

The ecological marine environment of the Project area is typical of the NWS. No sensitive, threatened, isolated or restricted ecological communities have been identified within the Project area. The mangrove system and lagoon systems in the Project area are considered to be regionally important.

At the onshore shore crossing site two communities were mapped: Coastal Sand Dunes and Inland Sand Dunes. These two communities have a low and high significance respectively for the local area, however neither are threatened or priority ecological communities.

Ecological communities found within the Project area include:

State waters: Nearshore benthic habitats

- seagrass
- macro algae
- mangroves and lagoons
- filter feeders
- sub-tidal pavement

Commonwealth waters: Offshore pavements and soft substrates

- Flat to micro rippled (<0.5 m) relief
- Silt/sand substrate

- Sparse (1–10 /m^2) to abundant (50–100 /m^2) bioturbation (evidence of infauna such as burrows and mounds)
- Trace to very sparse (<1%) benthic sessile and motile invertebrates including soft corals, sea pens, sponges, sea whips, ascidians, urchins and hydroids.

Six species of marine turtles occur in the Project area. Of the six marine turtle species, only Green, Flatback and, to a lesser extent, Hawksbill turtles are regularly found nesting in the Project area. This predominantly occurs during the summer on offshore islands, including Serrurier, Thevenard, Bessieres, Locker and Ashburton. Low density flatback nesting has been observed on the mainland beach more than 4 km west of the onshore Project area but none on the beaches adjacent to the Ashburton North Strategic Industrial Area, which is unsuitable for nesting due to inundation during spring tides. Juvenile green turtles have been observed around the islands, likely in their foraging grounds and flatback turtles may be present year round.

Several species of whale and dolphin are known to occur in the region. Humpback whales are known to move through the region on their northern and southern migrations to and from the Kimberley between June and October. Generally, northbound migration takes place in May to July on the continental slope at an average depth of 300 m. A transitional phase takes place in late August, in which whale distribution varies from depths of 50 m to 1200 m. During the migration south, from September to November, high densities of cow-calf pairs have been observed resting in Exmouth Gulf for periods of up to two weeks. During the southern migration, most of the whales are in waters shallower than 75 m.

Dugongs (*dugong dugon*) are found in the Project area and more broadly within the shallow coastal waters of the Onslow region. Chevron studies found dugongs tend to occur near seagrass habitats in wide shallow bays, mangrove channels and lees of inshore islands. Survey data suggests a small population of dugong are resident in Project area, within state waters, year round but with seasonal variations in densities.

Coastal dolphin species occur within the project area. Species known to occur include the bottlenose dolphin (*Tursiops truncatus*) and indo-pacific humpback dolphin (*Sousa chinensis*).

3.3 Conservation Areas

Barrow Island and the Montebello Islands are the nearest marine protected areas to the Project area in offshore areas. Thevenard Island is a nature reserve in close proximity to the Project area. Ningaloo Marine Park lies approximately 65 km south of the trunkline.

3.4 Social Environment

The Pilbara economy is dominated by the mining and petroleum industries, with iron ore, oil and condensate, Liquefied Petroleum Gas, LNG and natural gas among WA's largest export revenue earners. Onslow Salt Works lies along the eastern adjacent boundary of the Ashburton North site and the BHP Macedon on shore gas plant lies adjacent to the south west.

The waters off the Pilbara coast are home to many managed commercial fisheries including prawn, demersal scalefish, demersal finfish, mackerel, oyster and several types of tuna. The fisheries in closest proximity to Onslow are managed by the Department of Fisheries and include:

- Onslow and Nichol Bay Prawn Managed Fisheries
- Pilbara Managed Trap Fishery
- North Coast Blue Swimmer Fishery
- Pearl Oyster Managed Fishery
- Pilbara Line Fishery
- Mackerel Managed Fishery
- Specimen Shell Managed Fisher
- Marine Aquarium Fish Managed Fishery.

Fishing is one of the key recreational activities in Onslow, drawing tourists to the area and contributing to Onslow's identity as a small fishing town. A local charter vessel services the Mackerel Islands Resort on Thevenard and Direction islands offering diving, whale watching and recreational fishing. Charter and tourist boats, usually from Exmouth and Dampier, offer fishing trips and visits to offshore islands including the Montebello Islands.

Heritage surveys of the main Project area and its associated infrastructure area have been completed and Thalanyji monitors are deployed to monitor initial ground disturbing activities. Chevron will manage all impacts on Aboriginal cultural heritage sites with the objective that any such impacts do not breach the Aboriginal Heritage Act (WA).

4.0 MAJOR ENVIRONMENTAL HAZARDS AND CONTROLS

The risk assessment methodologies used for this Plan are consistent with the approach outlined in the following standards:

- Australian Standard/New Zealand Standard (AS/NZS) ISO 31000:2009 Risk Management – Principles and Guidelines (Standards Australia/Standards New Zealand 2009)
- AS/NZS Handbook 203:2006 Environmental Risk Management – Principles and Process.

Additional detailed risk assessments have been undertaken for specific scopes of work within this Plan, using Chevron's RiskMan2 Procedure.

The major environmental hazards and the associated management/mitigation measures to ensure the residual risks and impacts are reduced to As Low As Reasonably Practicable (ALARP) and acceptable are detailed in Table 1.

The outcomes of these assessments have been considered in the preparation of the Environment Plan. The major environmental hazards and the associated management/mitigation measures are identified in Table 2.

Table 2: Key Environmental Risks and their Management and Mitigation Measures

Sources of Risk (Hazards)	Potential Environmental Impacts	Management and Mitigation Measures
Physical presence of infrastructure	♦ Change in habitat or fishing areas	♦ Trunkline activities confined to corridors approved in the TRIP (as amended from time to time). ♦ AMSA Maritime Safety Information (MSI) notifications (coastal warnings and NAVAERA X). ♦ Australian Hydrographic Service Notice to Mariners (NTM) issued for the duration of installation activities
	♦ Mortality of fauna as a result of drowning and/or ingestion of flooding water	♦ Records show fauna exclusion/egress controls are in place and maintained A formal chemical selection process will be used to ensure the chemical selected presents: ▪ the lowest practicable environmental risk while meeting requisite technical performance criteria and HES requirements. ▪ a low risk of persistence or bioaccumulation once released into the marine environment.
Seabed disturbance	♦ Physical disturbance of benthic habitats from placement of facilities, site preparation, anchor placement ♦ Reduced water quality from increased turbidity from trenching, backfill and thrusters/propeller wash ♦ Smothering of benthic habitat	♦ Trunkline activities confined to corridor approved in the TRIP (as amended from time to time). ♦ Implement Port Authority Regulation 2001 – Schedule 1 Sub Div 3 within Port waters, *Western Australian Marine Act 1982* Section 65(1) outside of Port waters ♦ Vessel presence and trunkline installation activities will be notified to AMSA (Commonwealth Waters) as applicable to enable a Notice to Mariners (or similar instrument) to be issued. ♦ Pre-rock placement survey will be carried out prior to the start of any rock placement activities ♦ Rock material will meet specification within the design drawings before rock dumping occurs
Vessel presence	♦ Impacts to other marine users ♦ Marine fauna injury or fatality	♦ EPBC Regulation 2000 Division 8.1 Interacting with cetaceans is to be deployed to Vessel Masters or their delegate prior to commencement of Installation activities ♦ Vessel presence and trunkline installation activities will be notified to AMSA (Commonwealth Waters) as applicable to enable a Notice to Mariners (or similar instrument) to be issued
Artificial light	♦ Alter marine fauna	♦ Vessels operate consistently with CSMFIMP

Sources of Risk (Hazards)	Potential Environmental Impacts	Management and Mitigation Measures
	behaviour ♦ Marine fauna injury or fatality	
Underwater Noise	♦ Masking biologically important sounds ♦ permanent or temporary reductions in hearing sensitivity	♦ Helicopter pilots are aware of obligations under EPBC Act Amendment Regs 2006 No. 1 and EPBC Regs 2000 Part B Div 8.1 ♦ EPBC Regulation 2000 Division 8.1 Interacting with cetaceans is to be deployed to Vessel Masters or their delegate prior to commencement of Installation activities
Atmospheric Emissions	♦ Reduction in air quality ♦ GHG addition to global inventory	♦ Protection of the Sea (Prevention of Pollution from Ships) Act 1983 – Part IIID ♦ Marine Orders – Part 97: Marine Pollution Prevention – Air Pollution o International Air Pollution Prevention (IAPP) Certificate o Operational preventative maintenance system (PMS)
Invasive Marine Species (IMS)	♦ Competition with native fauna and flora for resources such as food and shelter ♦ Introduction of disease and pathogens within Project area ♦ Detrimental impacts to fisheries	♦ Implement DAFF Australian Ballast Water Management Requirements apply as defined under the *Quarantine Act (1908)* to all vessels being mobilised from outside Australia ♦ Manage vessel mobilisations and demobilisations to Project area consistent with the IMP RAP (as amended from time to time) and IMP conditions MS873
Discharges to sea - Sewage, Greywater and Putrecible Waste	♦ Localised enriching nutrients and BOD and promoting certain species	♦ Waste management plans and procedures will be developed and implemented ♦ Sewage is to be discharged and equipment maintained as per: ▪ MARPOL 73/78 Annex IV, Protection of the Sea (Prevention of Pollution from Ships) Act 1983 ▪ Protection of the Sea (Prevention of Pollution from Ships) Act 1983 ▪ Marine Orders – Part 96: Marine Pollution Prevention – Sewage ▪ Dampier Port Authority Marine Notice (12/2013) within Port Waters

Sources of Risk (Hazards)	Potential Environmental Impacts	Management and Mitigation Measures
Discharges to Sea – Equipment/Machinery Space (oily bilge water and deck drainage)	♦ Marine water quality causing localised acute and chronic toxic effects to marine biota	Management and discharge of deck drainage in accordance with: ♦ *Protection of the Sea (Prevention of Pollution from Ships) Act 1983* – Parts II (Section 9), specifically that the oil in water content does not exceed 15 ppm and is not within Port waters (en-route only) or contained and disposed of onshore. ♦ MARPOL Annex I – Prevention of Pollution by Oil ♦ SOPEP (vessels > 400 T)
Potential Acid Sulphate Soil (PASS)	♦ Degradation of terrestrial habitats and groundwater	♦ Implement Chevron Construction Acid Sulphate Soil Management Plan to reduce potential risk associated with the disturbance of PASS
Solid, Liquid and Hazardous Wastes - Onshore	♦ Reduced soil and surface/ground water quality ♦ Chemical bioaccumulation, injury or fatality to fauna	Controls for waste management for onshore activities include: ♦ Compliance with Landfill Waste Classifications and Landfill Definitions 1996 and Environment Protection (Controlled Waste) Regulations 2004 – Part II
Solid, Liquid and Hazardous Wastes - Offshore	♦ Reduced marine water quality ♦ Chemical bioaccumulation, injury or fatality to fauna	Vessel equipment will be maintained and operated to ensure that solid, liquid and hazardous wastes will be disposed to the marine environment in accordance with: ♦ MARPOL 73/78 Annex IV, ♦ *Protection of the Sea (Prevention of Pollution from Ships) Act 1983* ♦ Marine Orders – Part 96: Marine Pollution Prevention – Sewage ♦ DPA Marine Notice (12/2013) within Port Waters
Unplanned events – Spills	♦ Reduced marine water quality ♦ Chemical bioaccumulation, injury or fatality to flora, fauna and habitats	♦ Implement Oil Spill Operational Response Plan (OSORP) ♦ Shipboard oil pollution Prevention Emergency Plan (SOPEP)
Fuel and Hazardous Materials – Offshore -	♦ Reduced marine water quality ♦ Chemical bioaccumulation, injury or fatality to flora,	Chevron Marine Operating Procedure will be followed during bunkering activities to prevent unplanned release of hydrocarbons to the marine environment, specifically: ♦ use dry break couplings for vessel to vessel transfer where the hose is >2 inch diameter ♦ equipment regularly checked (i.e. transfer hoses and couplings)

Sources of Risk (Hazards)	Potential Environmental Impacts	Management and Mitigation Measures
Refuelling	fauna and habitats	Compliance with Port Authorities Regulations 2001 – Sch 1, Div 4, sub div 2, 45 bunkering within Port waters
Fuel and Hazardous Materials – Offshore – Vessel Grounding or Collision	♦ Reduced marine water quality ♦ Chemical bioaccumulation, injury or fatality to flora, fauna and habitats	♦ All operating vessels shall implement Chevron Marine Operating Procedure Section 2.12 when operating within the vicinity of installations to minimise the risk of collision (Chevron 2012k) ♦ AMSA Maritime Safety Information (MSI) notifications (coastal warnings and NAVAERA X). Australian Hydrographic Service Notice to Mariners (NTM) issued for the duration of installation activities
Fuels and Hazardous Materials - Damage to existing subsea infrastructure	♦ Reduced marine water quality ♦ Chemical bioaccumulation, injury or fatality to flora, fauna and habitats	♦ Implement Chevron Wheatstone pipeline crossing design drawings for trunkline pipeline crossing of 3rd party infrastructure

5.0 MANAGEMENT APPROACH

Chevron is committed to conducting activities associated with the upstream installation activities in an environmentally responsible manner and aims protect environmental values and reduce impacts to the environment through the implementation of the Operational Excellence Management System. This systematically addresses environmental stewardship through setting objectives, targets, the use of appropriate technology and management practices.

To achieve this, the Environment Plan details the environmental performance objectives, standards and criteria to monitor the environmental performance of these activities. As such the Wheatstone upstream offshore, nearshore and onshore installation activities in State waters will be managed in accordance with the Wheatstone Installation Environmental Plan accepted by the DMP.

An internal compliance and assurance program and schedule has been developed and will be undertaken to include audits and reviews of environmental performance and compliance with Project Conditions, State and Commonwealth legislation.

To ensure that the environment objectives and standards are met, a number of implementation strategies are defined within the Plan including:

- Roles and responsibilities for key personnel involved in the projects implementation
- Training and inductions of all personnel (including contractors and subcontractors) to facilitate the understanding of environmental responsibilities and increase awareness of the management and protection measures required to reduce potential impacts on the environment
- An environmental audit and review process to assess compliance with the Plan and support a program of continual improvement
- Environmental monitoring aimed at ensuring the environmental performance objectives and standards are achieved
- Emergency response in the event of a spill
- Environmental reporting to Regulators to inform on Chevron Australia's environmental performance including incidents (if any) and environmental records.
- Requirements for the control of documentation and records to ensure that information is current and accessible
- Reviews of this plan to ensure continuous improvement.

6.0 CONSULTATION

Consultation with stakeholders has been undertaken by Chevron Australia on a regular basis throughout the development of environmental impact assessment management documentation for the Wheatstone Project. This has included engagement with the community, government departments, industry operators and contractors to Chevron Australia via planning workshops, risk assessments, meetings, teleconferences, and the EIS/ERMP formal approval process.

Stakeholders that may be potentially affected by the installation activities were identified by reviewing:

- Social / commercial receptors within the environment that may be affected
- Historical consultation undertaken for the Gorgon Project for common stakeholders
- Applicable legislation to identify regulatory agencies.

The appropriate level of consultation has been assessed for each of the identified stakeholders. The level of engagement was based on:

- The level of interaction the stakeholder may have during the installation activities
- The level of potential impact that the stakeholder may be exposed to during the installation activities
- The level of engagement required by the stakeholder to ensure potential impacts is avoided during normal operations and in the event of an emergency.

Stakeholders were also consulted, and will continue to be consulted as required, on the development of this plan and as installation activities are undertaken. Key stakeholders include:

- Dampier Port Authority
- Onslow Community Reference Group
- Onslow Community
- Fisheries Working Group
- Onslow Salt
- Department of Transport.

7.0 CONTACT DETAILS

Further information regarding the Wheatstone project is available at the Chevron Australia website; http://www.chevronaustralia.com.

Further information regarding this Plan may also be obtained by emailing Andy.Turner@chevron.com

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