Table 2: Summary of impacts/risks and key proposed controls for installation activities

Aspect	Potential interaction	Proposed Control	
Planned impacts			
Physical presence of subsea infrastructure and vessels within the Operational Area (OA)	<ul> <li>presence of subsea infrastructure and vessels within the OA has the potential to interact and disrupt commercial shipping, fishing vessels and marine fauna</li> <li>potential interaction with fishing vessels may result in entanglement of trawl fishing gear on subsea infrastructure</li> </ul>	<ul> <li>relevant parties will be advised of the commencement of key phases of the activity</li> <li>marine safety information to be issued via AUSCOAST and/or Notice to Mariners (where required) prior to commencing the installation activity</li> <li>vessels will meet Chevron's crew competency, navigation equipment, and radar requirements as per the Chevron Australia's Marine, Safety Reliability and Efficiency (MSRE) process</li> <li>in accordance with EPBC Regulations 2000 – Part 8 Division 8.1 – Interacting with Cetaceans, vessels will implement caution and no approach zones, where practicable</li> <li>where required, a simultaneous operation plan will be developed and implemented to manage the activity</li> </ul>	
Light emissions	<ul> <li>navigation and operational lighting from vessels within the OA may result in a localised and temporary change in ambient light</li> <li>change in ambient light may result in the temporary attraction of light-sensitive species</li> </ul>	<ul> <li>vessels will meet lighting requirements of Chevron Australia's MSRE process</li> <li>an activity risk assessment will be undertaken when vessels work at night within critical habitats and during turtle nesting season</li> </ul>	
Underwater sound from marine surveys and vessel operations within the OA	surveys and vessel operations within the operational area may result in localised and temporary increase to ambient underwater sound levels     a change in ambient sound may result in temporary and localised behavioural disturbance to marine fauna	in accordance with EPBC Regulations 2000 – Part 8 Division 8.1 – Interacting with Cetaceans, vessels will implement caution and no approach zones, and interaction management action     a vessel master (or delegate) will always be on duty	
Seabed Disturbance	seabed disturbance from installation activities may result in the alteration of marine habitat and a localised and temporary change in water quality	<ul> <li>pre-lay surveys will be conducted to identify and avoid emergent seabed features before installing subsea infrastructure</li> <li>vessels will meet the crew competency, navigation equipment, and radar requirements as per the Chevron Australia's MSRE process</li> </ul>	
Air Emissions	combustion of fuel from vessels within the operational area may result in a localised and temporary reduction in air quality	<ul> <li>reduced sulphur content fuel will be used when available</li> <li>vessels will comply with the requirements of Marine Order 97 (MARPOL 73/78 Annex VI) in relation to air pollution</li> </ul>	
Planned Discharges – Vessel Operations	planned discharges from vessel operations may result in localised and temporary change in water quality	<ul> <li>vessels will comply with the requirements of Marine Order 96 (MARPOL 73/78 Annex IV) in relation to sewage discharge</li> <li>vessels will comply with the requirements of Marine Order 95 (MARPOL 73/78 Annex V) in relation to food waste discharge</li> <li>vessels will comply with the requirements of Marine Order 91 (MARPOL 73/78 Annex I) in relation to oily bilge water discharges</li> </ul>	
Unplanned risks			
Invasive marine pests	planned discharged of ballast water or the presence of biofouling on vessels may have the potential to result in the introduction of an invasive marine pest	<ul> <li>vessels will meet the requirements of the Chevron Australia's Quarantine Management Procedure for Marine Vessel</li> <li>ballast water exchanges will be managed in accordance with the Australian Ballast Water Management Requirements</li> <li>vessels greater than 400 GT with an antifoul coating are to maintain an up-to-date international antifouling coating certification in accordance with the Protection of the Sea (Harmful Anti-fouling Systems) Act 2006 and/or relevant codes and standards</li> <li>where required, vessel pre-arrival information will be reported through the Maritime Arrivals Reporting System as per the Commonwealth Biosecurity Act 2015.</li> </ul>	
Accidental release - (including fuel bunkering, dropped objects and interaction with subsea infrastructure)	unplanned release of hazardous material from vessel activities that may result in impacts to the marine environment and fauna arising from chemical toxicity	hazardous materials will be selected and managed in accordance with Chevron Australia's Hazardous Materials Management Procedure     Safe Lifting offsets from existing subsea infrastructure	

Aspect	Potential interaction	Proposed Control
		vessels will meet the requirements of Chevron Australia's MSRE process, including the pre-mobilisation inspections of equipment, couplings and secondary containment availability and refuelling/bunkering process
		<ul> <li>vessels will comply with the requirements of Marine Order 91 (MARPOL 73/78 Annex I) in relation to having an approved Ship Oil Pollution Emergency Plan in place</li> </ul>
		where required, operational and scientific monitoring will be undertaken in accordance with Chevron Australia's Operational and Scientific Monitoring Plan
Accidental release - vessel collision	the potential environmental impacts associated with hydrocarbon exposure from a vessel collision event may result in marine pollution, smothering of subtidal and intertidal	vessels will meet the crew competency, navigation equipment, and radar requirements of Chevron Australia's MSRE process
	habitats, indirect impacts to fisheries, and reduction in amenity	notification to relevant agencies of activities and vessel movements to allow them to send warnings and/or notices to mariners prior to commencing activity
		vessels will comply with the requirements of Marine Order 91 (MARPOL 73/78 Annex I) in relation to having an approved Ship Oil Pollution Emergency Plan in place
		emergency response will be implemented in accordance with the response arrangements and strategies detailed in Chevron Australia's Oil Pollution Emergency Plan
		where required, operational and scientific monitoring will be undertaken in accordance with Chevron Australia's Operational and Scientific Monitoring Plan
Emergency response		
Ground disturbance – shoreline spill response	in the event of a worst-case spill event, if shoreline is impacted, implementing shoreline clean-up techniques involves people and equipment, which may disturb shoreline habitat with subsequent impacts to fauna	where required, operational and scientific monitoring will be undertaken in accordance with Chevron Australia's Operational and Scientific Monitoring Plan
Physical presence—oiled wildlife response	in the event of a worst-case spill event, if fauna is affected, the handling and treating of marine fauna will result in personnel interacting with marine fauna	where required, operational and scientific monitoring will be undertaken in accordance with Chevron Australia's Operational and Scientific Monitoring Plan
Onshore		
Terrestrial Disturbance	Chevron Australia has prepared a separate Information Sheet outlining controls to be implemented to manage impacts and risks associated with terrestrial disturbance on Barrow Island. If you would like a copy, please contact the email address listed in the 'your feedback' section	