

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

Aspect	Potential interaction	Proposed Control
<b>Planned impacts</b>		
<b>Physical presence of subsea infrastructure, field control station and vessels within the Operational Area (OA)</b>	<ul style="list-style-type: none"> <li>presence of subsea infrastructure, field control station 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 style="list-style-type: none"> <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 Australia'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>
<b>Light emissions</b>	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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>
<b>Underwater sound from marine surveys, vessels and helicopter operations within the OA</b>	<ul style="list-style-type: none"> <li>surveys, vessels and/or helicopter operations within the operational area may result in localised and temporary increase to ambient underwater sound levels</li> <li>a change in ambient sound may result in temporary and localised behavioural disturbance to marine fauna</li> </ul>	<ul style="list-style-type: none"> <li>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</li> <li>a vessel master (or delegate) will always be on duty</li> </ul>
<b>Seabed Disturbance</b>	<ul style="list-style-type: none"> <li>seabed disturbance from installation activities may result in the alteration of marine habitat and a localised and temporary change in water quality</li> </ul>	<ul style="list-style-type: none"> <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>
<b>Air Emissions</b>	<ul style="list-style-type: none"> <li>combustion of fuel from vessels and helicopters within the operational area may result in a localised and temporary reduction in air quality</li> </ul>	<ul style="list-style-type: none"> <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>
<b>Planned Discharges – Vessel Operations</b>	<ul style="list-style-type: none"> <li>planned discharges from vessel operations may result in localised and temporary change in water quality</li> </ul>	<ul style="list-style-type: none"> <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>
<b>Planned Discharges – Subsea Operations</b>	<ul style="list-style-type: none"> <li>leak testing, flying lead installation and pre-commissioning activities may have the potential to result in planned discharges from subsea operations causing localised and temporary change in water quality</li> <li>change in ambient water quality may result in indirect impacts to marine fauna</li> </ul>	<ul style="list-style-type: none"> <li>hazardous materials will be selected and managed in accordance with Chevron Australia's Hazardous Materials Management Procedure</li> </ul>
<b>Unplanned risks</b>		
<b>Invasive marine pests</b>	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <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 gross tonnes 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>
<b>Accidental release – hazardous materials (fuel bunkering, hydraulic line failure, equipment tie-in)</b>	<ul style="list-style-type: none"> <li>unplanned release of hazardous material may result in indirect impacts to the marine environment and fauna arising from chemical toxicity</li> </ul>	<ul style="list-style-type: none"> <li>hazardous materials will be selected and managed in accordance with Chevron Australia's Hazardous Materials Management Procedure</li> <li>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</li> <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>

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<b>Accidental release - vessel collision</b>	<ul style="list-style-type: none"> <li>the potential environmental impacts associated with hydrocarbon exposure from a vessel collision event may result in marine pollution, smothering of subtidal and intertidal habitats, indirect impacts to fisheries, and reduction in amenity</li> </ul>	<ul style="list-style-type: none"> <li>vessels will meet the crew competency, navigation equipment, and radar requirements of Chevron Australia's MSRE process</li> <li>notification to relevant agencies of activities and vessel movements to allow them to send warnings and/or notices to mariners prior to commencing activity</li> <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> <li>emergency response will be implemented in accordance with the response arrangements and strategies detailed in Chevron Australia's Oil Pollution Emergency Plan</li> <li>where required, operational and scientific monitoring will be undertaken in accordance with Chevron Australia's Operational and Scientific Monitoring Plan</li> </ul>
<b>Accidental release of hydrocarbons from subsea infrastructure (dropped objects)</b>	<ul style="list-style-type: none"> <li>the potential environmental impacts associated with hydrocarbon exposure from a subsea release may result in marine pollution, shoreline impacts of subtidal and intertidal habitats, indirect impacts to fisheries, and a reduction in amenity</li> </ul>	<ul style="list-style-type: none"> <li>safe lifting of offsets from existing subsea infrastructure</li> <li>monitoring and redundancy of controls to prevent lifting equipment failure</li> <li>emergency response will be implemented in accordance with the response arrangements and strategies detailed in Chevron Australia's Oil Pollution Emergency Plan</li> <li>where required, operational and scientific monitoring will be undertaken in accordance with Chevron Australia's Operational and Scientific Monitoring Plan</li> </ul>
<b>Emergency response</b>		
<b>Ground disturbance – shoreline spill response</b>	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>where required, operational and scientific monitoring will be undertaken in accordance with Chevron Australia's Operational and Scientific Monitoring Plan</li> </ul>
<b>Physical presence—oiled wildlife response</b>	<ul style="list-style-type: none"> <li>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</li> </ul>	<ul style="list-style-type: none"> <li>where required, operational and scientific monitoring will be undertaken in accordance with Chevron Australia's Operational and Scientific Monitoring Plan</li> </ul>
<b>Onshore</b>		
<b>Terrestrial Disturbance</b>	<ul style="list-style-type: none"> <li>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</li> </ul>	