

Table 2: Summary of key impacts and risks and key proposed control measures for operational activities.

Aspect	Key impacts/risks	Key proposed control measures ¹
First Nations cultural values (tangible and intangible)	<ul style="list-style-type: none"> • Potential disturbance to underwater cultural heritage (UCH) during IMR activities. • Potential changes to cultural values, including songlines, dreaming stories and culturally important marine fauna. 	<ul style="list-style-type: none"> • A UCH 'finds protocol' will be implemented where there are activities interacting with the seabed with the risk of disturbing unlocated First Nations UCH, to ensure discoveries are identified and responded to with adequate conservation and management actions. • Control measures related to marine fauna and other cultural values and features are outlined in sections below. • Chevron Australia is committed to ongoing engagement and consultation with Traditional Owners and their representative bodies. This will continue to inform our understanding of cultural values and features and facilitate the co-design of appropriate controls to avoid impacts.
Planned activities		
Physical presence of subsea infrastructure, FCS and vessels within the OA	<ul style="list-style-type: none"> • Presence of subsea infrastructure, FCS and vessels within the OA may interact with and disrupt commercial shipping, fishing vessels and marine fauna. • Potential interaction with fishing vessels may result in entanglement of trawl fishing gear on subsea infrastructure. 	<ul style="list-style-type: none"> • Relevant parties will be advised of the commencement of key phases of the activity. • Marine safety information to be issued via AUSCOAST and/or Notice to Mariners (where required) prior to commencing the IMR activity. • Vessels will meet Chevron Australia's crew competency, navigation equipment, and radar requirements as per the Chevron Corporation Marine Standard. • In accordance with EPBC Regulations 2000 – Part 8 Division 8.1 – Interacting with Cetaceans, vessels will implement caution and no approach zones, where practicable. • Where required, a simultaneous operation plan will be developed and implemented to manage the activity.
Electromagnetic field (EMF) from J-IC umbilical	<ul style="list-style-type: none"> • Cables and transformers create electromagnetic field, which may cause disruption to behaviour of EMF-sensitive species. 	<ul style="list-style-type: none"> • Cable shielding will be installed to enclose the electrical cores, reducing the transmission of EMFs into the water column.
Seabed disturbance from IMR activities	<ul style="list-style-type: none"> • Seabed disturbance from IMR activities may result in the alteration of marine habitat and a localised and temporary change in water quality. 	<ul style="list-style-type: none"> • Hazard Identification and Risk Assessment (HIRA) undertaken to identify and assess potential environmental impacts and risks associated with the proposed IMR activity. • Activity specific work procedures implemented as required, including any additional controls identified for implementation (e.g. pre-activity surveys of the seabed). • Vessels will be required to meet Chevron's crew competency, navigation equipment and radar requirements in accordance with the Chevron Corporation Marine Standard.
Underwater sound from SCSt operations <small>*For more detailed information, view the J-IC Underwater Sound information sheet ></small>	<ul style="list-style-type: none"> • SCSt operations will result in a localised change to ambient underwater sound. • A change in ambient underwater sound may result in behavioural disturbance or auditory impairment to marine fauna. 	<ul style="list-style-type: none"> • In-field sound source level verification will be undertaken during SCSt startup and commissioning to ensure sound levels remain within the expected operating parameters of the SCSt. • A control measure will be implemented to limit the power load of the compressors, if required, to ensure sound levels are not inconsistent with the Blue Whale Conservation Management Plan.
Underwater sound from vessel, IMR and helicopter operations	<ul style="list-style-type: none"> • Vessel, IMR and helicopter operations within the OA may result in a localised and temporary change to ambient underwater sound. • A change in ambient underwater sound may result in behavioural disturbance or auditory impairment to marine fauna. 	<ul style="list-style-type: none"> • In accordance with EPBC Regulations 2000 – Part 8 Division 8.1 – Interacting with Cetaceans, vessels and helicopters will implement caution and no approach zones, and interaction management action.
Light emissions	<ul style="list-style-type: none"> • Navigation and operational lighting from vessels and the FCS may result in a localised change in ambient light. • Change in ambient light may result in the temporary attraction or deterrence of light-sensitive species. 	<ul style="list-style-type: none"> • Vessels will meet lighting requirements of the Chevron Corporation Marine Standard. • HIRA undertaken prior to vessels working at night within critical habitats and during turtle nesting season.

1 | Proposed control measures are subject to change through consultation with relevant persons and the subsequent NOPSEMA assessment process.

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Air and Greenhouse Gas (GHG) emissions	<ul style="list-style-type: none"> Combustion of fuel from vessels and on the FCS may result in a localised and temporary reduction in air quality. Direct GHG emissions within the OA and indirect GHG emissions from activities associated with processing of gas at the Gorgon Gas Facility on Barrow Island, transport and third-party end use of products, may result in contribution to the reduction of the global atmospheric carbon budget. 	<ul style="list-style-type: none"> Reduced sulphur content fuel will be used. Vessels will comply with the requirements of Marine Order 97 (MARPOL 73/78 Annex VI) in relation to air pollution. Scope 1 GHG emissions will be managed in accordance with Ministerial Statement 800 (as amended by MS 1198) and are subject to the Federal Government's Safeguard Mechanism. For a full list of control measures, refer to the current NOPSEMA accepted revision of the Gorgon and Jansz Feed Gas Pipeline and Wells Operations (Commonwealth Waters) EP.
Planned discharges from vessel operations	<ul style="list-style-type: none"> Planned discharges from vessel operations may result in localised and temporary change in water quality. 	<ul style="list-style-type: none"> Vessels will comply with the requirements of Marine Order 96 (MARPOL 73/78 Annex IV) in relation to sewage discharge. Vessels will comply with the requirements of Marine Order 95 (MARPOL 73/78 Annex V) in relation to food waste discharge. Vessels will comply with the requirements of Marine Order 91 (MARPOL 73/78 Annex I) in relation to oily bilge water discharges.
Planned discharges from FCS operations	<ul style="list-style-type: none"> Planned discharges (sewage, greywater, oily water and drainage from the deck and integrated firefighting system) from the FCS may result in a localised and temporary change in water quality. 	<ul style="list-style-type: none"> Hazardous materials will be selected and managed in accordance with the Chevron Australia Hazardous Materials Management Procedure.
Planned discharges from subsea operations and IMR activities	<ul style="list-style-type: none"> Planned discharges from subsea operations and IMR activities may result in a localised and temporary reduction in water quality. 	<ul style="list-style-type: none"> Hazardous materials will be selected and managed in accordance with the Chevron Australia Hazardous Materials Management Procedure. HIRA undertaken to identify and assess potential environmental impacts and risks associated with the proposed IMR activity. Activity specific work procedures developed to address HIRA findings, including any additional controls identified for implementation.

Unplanned events activities

Invasive marine pests	<ul style="list-style-type: none"> Planned discharge of ballast water or the presence of biofouling on vessels may result in the introduction of an invasive marine pest. 	<ul style="list-style-type: none"> Vessels will meet the requirements of the Chevron Australia Quarantine Management Procedure for Marine Vessels. Ballast water exchanges will be managed in accordance with the Australian Ballast Water Management Requirements. 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. Where required, vessel pre-arrival information will be reported through the Maritime Arrivals Reporting System as per the Commonwealth Biosecurity Act 2015.
Accidental release – waste	<ul style="list-style-type: none"> Unplanned release of waste to environment causing marine pollution. 	<ul style="list-style-type: none"> Vessels will comply with the requirements of Marine Order 95 (MARPOL 73/78 Annex V) in relation to managing waste (garbage) offshore.
Accidental release – hazardous materials (fuel bunkering, hydraulic line failure etc.)	<ul style="list-style-type: none"> Unplanned release of hazardous material may result in indirect impacts to the marine environment and fauna arising from chemical toxicity. 	<ul style="list-style-type: none"> Hazardous materials will be selected and managed in accordance with the Chevron Australia Hazardous Materials Management Procedure. Vessels will meet the requirements of the Chevron Corporation Marine Standard, including the pre-mobilisation inspections of equipment, couplings and secondary containment availability and refuelling/bunkering process. 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.

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Accidental release – vessel collision	<ul style="list-style-type: none"> Hydrocarbon exposure from an accidental vessel collision event may result in marine pollution, smothering of subtidal and intertidal habitats, indirect impacts to fisheries, and reduction in amenity. 	<ul style="list-style-type: none"> Vessels will meet the crew competency, navigation equipment, and radar requirements of the Chevron Corporation Marine Standard. Marine safety information to be issued via AUSCOAST and/or Notice to Mariners (where required) prior to commencing the IMR activity. <p>Spill response</p> <ul style="list-style-type: none"> 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 arrangements and strategies detailed in the Chevron Australia Oil Pollution Emergency Plan (OPEP). Where required, operational and scientific monitoring will be undertaken in line with the Chevron Australia Operational and Scientific Monitoring Plan (OSMP).
Accidental release from subsea infrastructure	<ul style="list-style-type: none"> Hydrocarbon exposure from an accidental subsea release may result in marine pollution, shoreline impacts of subtidal and intertidal habitats, indirect impacts to fisheries, and a reduction in amenity. 	<ul style="list-style-type: none"> Lifting procedure in place that complies with the requirements of the Managing Safe Work ABU Standardised OE Process. Inspection, maintenance and monitoring of the hydrocarbon system to maintain integrity will be undertaken in accordance with the relevant Inspection and Monitoring Plan. <p>Spill response</p> <ul style="list-style-type: none"> Emergency response will be implemented in accordance with the arrangements and strategies detailed in the Chevron Australia OPEP. Where required, operational and scientific monitoring will be undertaken in line with the Chevron Australia OSMP.
Emergency response		
Ground disturbance – shoreline spill response	<ul style="list-style-type: none"> In the event of an oil spill which impacts the shoreline, implementing shoreline clean-up techniques will involve people and equipment, which may disturb shoreline habitat with subsequent impacts to fauna. 	<ul style="list-style-type: none"> Where required, operational and scientific monitoring will be undertaken in accordance with the Chevron Australia OSMP.
Physical presence – oiled wildlife response	<ul style="list-style-type: none"> In the event of an oil spill which impacts fauna the handling and treating of marine fauna will result in personnel interacting with marine fauna. 	<ul style="list-style-type: none"> Where required, operational and scientific monitoring will be undertaken in accordance with the Chevron Australia OSMP.