

# Wheatstone 4D Marine Seismic Survey Environment Plan Response to Public Comments



<b>Environment Plan:</b>	Wheatstone 4D Marine Seismic Survey Environment Plan	<b>Titleholder:</b>	Chevron Australia Pty Ltd
<b>Document ID:</b>	WS2-COP-00624	<b>Date:</b>	16 August 2023

#	Comments received (in general terms)	Titleholder response
1	<p><i>Matter:</i> Public comments were received citing concerns relating to impacts and risks associated with underwater sound from seismic acquisition.</p> <p><i>Claims:</i> Concerns that the activity may result in:</p> <ul style="list-style-type: none"> <li>• disruption to the local environment, displacement and loss of marine life and ecosystems</li> <li>• impacts to marine life.</li> </ul>	<p>Chevron Australia acknowledges the public comments received relating to the management of environmental impacts and risks associated with underwater sound from the proposed Wheatstone 4D Marine Seismic Survey (MSS).</p> <p><b>Section 7.5</b> (impulsive sound) and <b>Section 7.6</b> (continuous [non-impulsive] sound) of the <i>Wheatstone 4D Marine Seismic Survey Environment Plan</i> provides a detailed environmental impact and risk assessment and the full suite of control measures to be implemented to reduce impacts and risks to marine fauna and other values and sensitivities.</p> <p>Chevron Australia used acoustic and animal movement (animat) modelling to inform its assessment of impacts and risks associated with underwater sound and in the development of control measures to manage the activity to as low as reasonably practicable and acceptable levels.</p> <p>The assessment identified that underwater sound emissions associated with the MSS may result in a localised and temporary changes in ambient underwater sound, and that these changes in ambient underwater sound may subsequently result in behavioural disturbance or auditory impairment to marine fauna, or changes to other values and sensitivities within the marine environment.</p> <p>In accordance with EPBC Act Policy Statement 2.1 – interaction between offshore seismic exploration and whales, the following controls will be implemented:</p> <ul style="list-style-type: none"> <li>• precaution zones</li> <li>• a dedicated marine fauna observer will be on-duty during all active operations</li> <li>• supplementary marine fauna observations from support vessel, where practicable</li> <li>• night and low visibility procedures</li> <li>• marine fauna observations from the seismic vessel will include marine turtles and Whale Sharks during seismic survey</li> </ul>

#	Comments received (in general terms)	Titleholder response
		<ul style="list-style-type: none"> <li>shutdown and pre-start-up visual observation procedures for marine turtles and Whale Sharks will be implemented.</li> </ul> <p>In addition, Chevron Australia will ensure the activity is conducted in a manner that is not inconsistent with management action A.2.3 of the Blue Whale Conservation Management Plan: “anthropogenic noise in biologically important areas will be managed such that any blue whale continues to utilise the area without injury and is not displaced from a foraging area”.</p> <p>Chevron Australia considers the existing <i>Wheatstone 4D Marine Seismic Survey Environment Plan</i> addresses the matters raised in the public comments relating to potential impacts or risks associated with underwater sound from seismic acquisition, and as such no amendments to the Environment Plan have been made.</p>
2	<p><b>Matter:</b> Public comments were received citing concerns relating to pollution of the marine environment.</p> <p><b>Claims:</b> The activity may result in:</p> <ul style="list-style-type: none"> <li>pollution of water ways, and surrounding areas.</li> <li>knock on effect of water pollution on an already struggling environment.</li> <li>degradation of basin infrastructure and surrounding landscapes.</li> </ul>	<p>Chevron Australia acknowledges the public comments received relating to the management of environmental impacts and risks associated with water pollution from the proposed Wheatstone 4D Marine Seismic Survey (MSS).</p> <p><b>Section 7.8</b> and <b>Section 7.9</b> of the <i>Wheatstone 4D Marine Seismic Survey Environment Plan</i> provides a detailed environmental impact and risk assessment and control measures to be implemented to reduce impacts and risks associated with planned discharges from vessel operations and unplanned release scenarios.</p> <p>The MSS will be managed in accordance with the requirements of <i>The International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978</i> (MARPOL 73/78).</p> <p>Planned discharges from vessels include deck wash-water, sewage, greywater, food wastes, cooling water and oily bilge water. As the duration of the survey is short term (~75 days), the Operational Area is in relatively deep waters (~50 – 1,250 m) in an offshore environment &gt;30 km from the nearest land, it is expected that planned discharges during the survey will result in limited environmental impact.</p> <p>The worst-case unplanned release scenario identified for the activity is a vessel collision event resulting in a surface release of ~1,000 m<sup>3</sup> of marine diesel oil. Chevron Australia has undertaken oil spill modelling to define the environment that may be affected by a worst-case oil spill scenario and to inform the risk assessment associated with this unplanned release. To mitigate potential vessel collision risks, Chevron Australia will conduct the petroleum activity in accordance with its <i>Marine Standard</i> and <i>Managing Safe Work</i> processes which outline requirements relating to crew competency, navigation equipment, radar requirements and simultaneous operations planning. Chevron Australia will also notify the relevant agencies of the activities so a Notice to Mariners can be issued. In the unlikely event of an oil spill, the Shipboard Oil Pollution Emergency Plan and Chevron Australia’s <i>Australian Business Unit Consolidated Oil Pollution Emergency Plan</i> and <i>Operational and Scientific Monitoring Plan</i> would be implemented to reduce impacts and risks. <b>Section 7.12</b> of the <i>Wheatstone 4D Marine Seismic Survey Environment Plan</i></p>

#	Comments received (in general terms)	Titleholder response
		<p>provides further details on Chevron Australia’s environmental impact and risk assessment and the control measures to be implemented to reduce impacts and risks associated with unplanned releases.</p> <p>Chevron Australia considers the existing <i>Wheatstone 4D Marine Seismic Survey Environment Plan</i> addresses the matters raised in the public comments relating to potential impacts or risks associated with marine pollution and as such no amendments to the Environment Plan have been made.</p>
3	<p><b>Matter:</b></p> <p>Public comments were received citing concerns relating to air pollution and greenhouse gas emissions associated with oil and gas developments.</p> <p><b>Claims:</b></p> <ul style="list-style-type: none"> <li>• knock on effect of air pollution on an already struggling environment</li> <li>• seismic surveys are the first step towards drilling for oil</li> <li>• mining for oil in the Wheatstone area will add more CO<sub>2</sub> to the atmosphere</li> <li>• general concerns relating to greenhouse gas emissions and climate change.</li> </ul>	<p>Chevron Australia acknowledges the public comments received relating to the management of environmental impacts and risks associated with air pollution and greenhouse gas emissions from the proposed Wheatstone 4D Marine Seismic Survey (MSS).</p> <p>As described in <b>Section 3.1.1</b> of the Wheatstone 4D Marine Seismic Survey Environment Plan, the purpose of the MSS is not for exploration purposes to enable new developments. The MSS will monitor the reservoirs within production licences WA-46-L, WA-47-L, and WA-48-L, allowing Chevron Australia to efficiently manage the reservoirs associated with the approved Wheatstone Project.</p> <p>Chevron Australia has assessed impacts associated with direct air emissions from the MSS in <b>Section 7.3</b> of the Wheatstone 4D Marine Seismic Survey Environment Plan. As the MSS is a short-term activity (~75 days) with one main (seismic vessel) and up to two support vessels, air quality impacts are expected to be limited. Additionally direct greenhouse gas emissions associated with the MSS will not, of themselves, materially increase overall Australian or global carbon emissions. These direct emissions will only result in a de minimis decrease in global carbon budget.</p> <p>The MSS will not directly result in any material increase to overall greenhouse gas emissions associated with the Wheatstone Project. It should be noted that the Wheatstone Project was subject to the requirements of the Commonwealth <i>Environment Protection Biodiversity Conservation Act 1999</i> (EPBC Act) and the <i>WA Environmental Protection Act 1986</i> (EP Act) and that greenhouse gas emissions were assessed under both the EPBC Act and EP Act approval processes. In addition, Chevron Australia has assessed direct and indirect greenhouse gas emissions associated with the Wheatstone Project in the NOPSEMA accepted Wheatstone Start-up and Operations Environment Plan. This Environment Plan is publicly available on the NOPSEMA website and outlines the control measures Chevron Australia implements to reduce impacts and risks associated with air and greenhouse gas emissions to as low as reasonably practicable and acceptable levels.</p> <p>Chevron Australia considers the existing Wheatstone 4D Marine Seismic Survey Environment Plan addresses the matters raised in the public comments relating to air pollution and greenhouse gas emissions and as such no amendments to the Environment Plan have been made.</p>

#	Comments received (in general terms)	Titleholder response
		<p>The public comments broadly objecting to emissions and their association with climate change impacts are not applicable to the Wheatstone 4D Marine Seismic Survey Environment Plan because they primarily relate to emissions associated with the broader Wheatstone Project (or reflect a misunderstanding the purpose of the MSS is to support a new development).</p>
4	<p><i>Matter:</i> Broad objections and comments not related to Environment Plan content.</p> <p><i>Claims:</i></p> <ul style="list-style-type: none"> <li>• comments broadly objecting to seismic surveys and the development of offshore petroleum resources</li> <li>• human endeavour should from here forward be invested in genuinely green alternatives for power and resources.</li> </ul>	<p>Chevron Australia received comments broadly objecting to seismic surveys and the development of offshore petroleum resources. As these comments were not specific to the management of the Wheatstone 4D Marine Seismic Survey (MSS), Chevron Australia has not identified any sections of the Environment Plan in which amendments are required as a result of these comments.</p> <p>In addition, comments were received relating to the progression of new energies rather than oil and gas.</p> <p>Chevron Australia believes the future of energy is lower carbon. To help advance a lower carbon future, we are striving to reduce the carbon emissions intensity of our traditional operations and seeking to grow lower carbon businesses; while proudly continuing to deliver the reliable, affordable energy the world needs.</p> <p>Although not relevant to the management of the MSS, information on Chevron's initiatives and investments into new energies is available on the <a href="#">Chevron Australia website</a>.</p>