Protection of Marine Mammals Summary

June 2023

Seismic surveys, used for petroleum exploration generate low-frequency sound waves that penetrate the seafloor. These surveys can have detrimental impacts on marine mammals if left unmitigated. Marine mammals, including whales, dolphins, and seals, rely on sound for communication, navigation, and foraging. Anthropogenic noise introduced into their environment can lead to behavioural changes, communication disruption, stress, hearing loss, and, in extreme cases, physical injury (Nowacek, Thorne, Johnston, & Tyack, 2007; Weilgart, 2007). Therefore, to safeguard the health and welfare of these marine species, it's imperative to implement effective mitigation strategies during seismic activities.

In this context, we have proactively undertaken measures to mitigate impacts on marine mammals by the proposed Regia seismic survey in the Otway Basin. Several species of marine mammals found in the area could potentially be affected by the underwater noise produced during seismic surveys. However, thorough mitigation and management measures will be implemented to minimize any negative impacts.

Key to these controls is collaboration with whale researchers to devise effective mitigation strategies, particularly for Southern Right Whales and Blue Whales, which are known to exhibit biologically important behaviours within or near the survey area. We have pledged to refrain from any acquisition when Southern Right Whales are present in the nearby coastal areas. The Blue Whale Conservation Management Plan mandates that they must be able to continue to utilise their biologically important area without injury and must not be displaced from that foraging area. Protection for Blue Whales and our survey methods are being developed in coordination with relevant researchers and experts.





The implementation of industry-standard seismic survey controls, as delineated in the EPBC Act Policy Statement 2.1, further ensures the safety of marine mammals. Two marine mammal observers will be on the survey vessel during daylight hours, responsible for managing shutdown zones. The seismic source will be gradually ramped up over 30 minutes and can only begin if no whales have been observed within a 3km radius in the previous half-hour (Department of the Environment, 2012).

Moreover, additional measures under consideration include acoustic monitoring for whale detection and the use of vessel, aerial surveys, and shoreline observations for identifying the presence or absence of Southern Right Whales in coastal areas and other whales in offshore areas.

In summary, we are committed to taking all necessary steps to ensure the safety and protection of marine mammals during seismic surveys. These comprehensive management and mitigation measures will be combined into an Adaptive Management Plan for Marine Mammals which will be developed in collaboration with relevant authorities, researchers, and experts until they effectively minimize the potential impact on marine mammal biologically important behaviours.

References:

Nowacek, D. P., Thorne, L. H., Johnston, D. W., & Tyack, P. L. (2007). Responses of cetaceans to anthropogenic noise. Mammal Review, 37(2), 81-115.

Weilgart, L. (2007). The impacts of anthropogenic ocean noise on cetaceans and implications for management. Canadian Journal of Zoology, 85(11), 1091-1116.

Department of the Environment (2012). EPBC Act Policy Statement 2.1: Interaction between offshore seismic exploration and whales. Commonwealth of Australia, Canberra.

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