

5. KEY PROJECT ISSUES

A number of key issues have been identified during the scoping process to date. These key issues have been identified by the S&EIA project team having taken cognisance of input from I&APs. These are presented below, together with responses by the S&EIA project team. No importance is to be assigned to the order in which these are presented.

The verbatim issues and concerns raised by I&APs during the Scoping Phase to date have been compiled into a Comments and Responses Report (see Appendix 2.6). All written comments received from I&APs are included in Appendix 2.5.

5.1 EFFECT ON MARINE FAUNA

Issue: The proposed exploration operations could result in a number of impacts on marine fauna. Potential impacts include:

- Emissions from the combustion of diesel fuel for generators and other machinery used to power the vessel engines;
- Normal discharges to the marine environment from a variety of sources, including deck drainage, machinery space drainage, sewage and galley wastes from survey and support vessels;
- Localised disturbance of marine fauna due to noise and lighting from survey and support vessels; and
- Potential impacts of seismic and multi-beam bathymetry noise / pulses on marine fauna. Potential impacts could include physiological injury, behavioural avoidance of the survey area, masking of environmental sounds and communication, and indirect impacts due to effects on prey.

Response: Potential impacts on marine fauna will be addressed in the marine faunal assessment (see Section 6.2.2). The marine faunal assessment will assess the potential impacts relating to the proposed exploration activities on marine fauna (including cetaceans, seals, turtles, seabirds, fish, invertebrates and plankton species). The marine faunal assessment is based on, inter alia, a review and collation of existing information and data from the international scientific literature, the Generic EMP prepared for seismic surveys in South Africa, information sourced from the internet, as well as Marine Mammal Observer (MMO) close-out reports prepared for previous surveys undertaken off the coast of South Africa.

5.2 EFFECT ON FISHERIES

Issue: The proposed project could have an impact on commercial and recreational fishing activities, as a result of the legislated 500 m safety zones around the survey vessels during surveying. In addition to the statutory 500 m safety zone, a seismic contractor would request safe operational limits (that is greater than the 500 m safety zone) that it would like other vessels to stay beyond (typical safe operational limits for seismic surveys are illustrated in Figure 3.3). These safe operational limits are based on the fact that the array and the hydrophone streamers need to be towed in a set configuration behind the tow-ship, means that the survey operation has little manoeuvrability while operating.

Impacts could include:

- Disruption to fishing operations;
- Loss of access to fishing grounds in the proposed survey area over the survey period; and
- Fish avoidance (flight response) of the seismic survey area and changes in feeding behaviour.

These impacts could cumulatively result in decreased fishing effort and / or loss of catch.

Response: A fishing industry assessment will be commissioned to, *inter alia*, determine the fishing effort and catch (data sourced from the Department of Agriculture, Forestry and Fisheries) of all fisheries operating off the South-West Coast in relation to the proposed exploration licence area. All fishing sectors that operate within and adjacent to the proposed exploration licence area could be impacted by the exclusion zone around the survey vessels. The terms of reference for the fishing industry assessment are presented in Section 6.2.3.

5.3 EFFECT ON MARINE MINING AND EXPLORATION ACTIVITIES

Issue: The presence of the survey vessels with the associated 500 m safety zones could interfere with other prospecting, mining and exploration activities in the area.

Response: The location of the propose exploration licence area in relation to existing exploration and marine mining areas is presented in Sections 4.1.4.2 and 4.1.4.3. This impact will be assessed using experience gained from the environmental assessment of similar operations elsewhere in the region and information from the Generic EMP prepared for seismic survey in South Africa. Additional input from a specialist is not deemed necessary.

5.4 EFFECT ON MARINE TRANSPORT ROUTES

Issue: The presence of the survey vessel with the associated 500 m safety zone could interfere with shipping in the area.

Response: The majority of shipping traffic is located on the outer edge of the continental shelf with traffic inshore of the continental shelf along the South-West Coast largely comprising fishing vessels. The majority of the shipping traffic *en route* to and from Cape Town passes inshore of the proposed exploration licence area.

This impact will be assessed using experience gained from the environmental assessment of similar operations elsewhere in the region and information from the Generic EMP prepared for seismic survey in South Africa. Additional input from a specialist is not deemed necessary. It may be necessary to discuss this issue with the South African Maritime Safety Authority (maritime coordination centre), as they monitor the movement of vessels around the South African coast.

5.5 EFFECT ON SOCIO-ECONOMIC ENVIRONMENT

Issue: The proposed project could amongst others result in the following socio-economic impacts or benefits:

- Creation of limited employment opportunities; and
- Generation of limited direct revenues associated with operational activities such as refuelling, vessel repair, etc.

Response: Offshore exploration is highly technical and requires specialised units and crews, most of which are based outside South Africa. There would, however, be opportunities for local companies to provide support services in Cape Town or Saldanha, e.g. vessel supplies, support vessels, catering, cleaning, security, etc. Therefore, job creation opportunities would be limited and of very short duration (approximately three weeks per survey).

Limited direct revenues would be generated as a result of the proposed exploration activities. Revenue generating activities are related to the actual operations and could include refuelling, vessel / gear repair, port duties and hire of local fishing vessels as support vessel.

These potential benefits will be assessed using experience gained from the environmental assessment of similar operations elsewhere in the region. Additional input from a specialist is not deemed necessary.

5.6 EFFECT ON TOURISM

Issue: Recreational vessels would be required to stay out of the 500 m safety zone and give way to a survey vessel while surveying or restricted in its ability to manoeuvre. The presence of the survey vessels could thus interfere with tourism (mainly diving, whale watching, shark-cage diving and recreational fishing) activities off the South-West Coast. In addition, seismic and multi-beam noise could have an impact on the divers hearing if the survey takes place in close proximity to popular dive sites.

Response: A “no survey acquisition” zone is proposed within a 10 km buffer off the coast, which would reduce the risk of potential impacts on tourism. The 10 km buffer is based on previous seismic applications off the South and East coasts, which was determined in consultation with key stakeholders.

In assessing the potential impact on diving, it will be necessary to determine if any dive sites overlap with or occur in close proximity to the proposed survey area, which fall outside the 10 km buffer. This will be determined based on a desktop review and possibly in consultation with dive charter companies operating in the area. Once this has been established, the anticipated sound levels in the identified dive sites will be determined taking account of the attenuation (weakening) of the sound with distance. This will then be compared to human / animal hearing ranges to determine the potential impact.

The impact on boat-based whale watching is anticipated to be minimal, as the surveys would be scheduled in order to avoid the main cetacean migration / breeding period from June to December.