RESPONSE TO THE PLANNED SEISMIC SURVEY BY CGG

We represent three organisations involved in the squid jig fishery, however the financial investment in the squid industry by these three companies, taking into account the purchase of vessels, boat modifications and purchase and installation of gear and processing equipment, possibly equals the total investment of all other operators in this industry. Two of these organisations have, or are in the process of fitting out vessels as dedicated squid jig operations, the third one has put on hold investment of some $4/4.5m due to the uncertainty around seismic surveys and the effect on squid. All other operators in the industry are multi purpose operators and limit their squid fishing to a small part of the year.

This investment by these companies is being undertaken to take advantage of a growing export industry and will see an expansion of the traditional squid fishing season, and an expansion of the areas of operation of the fleet.

These companies are concerned regarding the lack of knowledge of the effect of seismic surveys on the squid biomass.

There is scientific information that suggests that squid are adversely affected by seismic surveys. This information is concerning. However, what is more concerning is the lack of information regarding any effects in actual seismic testing.

Squid spawn all year round at depths up to 700 metres the science says that squid will come to the surface to avoid the activity when testing.

During a seismic survey planned by Trident in 2013 we stated similar concerns regarding the possibility of squid and squid egg damage by the activity. The following reply was received by the representative from Trident.

"We note your concern about potential effects of seismic surveys during the squid breeding season and expect, based on the work of McCauley (2002), that squid will distance themselves to a range of 2 to 5 km from the acoustic source and will not be harmed. Also noted is that squid are widely distributed, highly abundant, and the current assessment indicates the SSJF harvest combined with the trawl harvest is having little impact on the squid biomass. Although you advocate strongly about potential effects of seismic on squid, the SSJF harvest involves the killing of thousands of tons of squid during their breeding season. Trident expects that any impact on squid eggs and other micro-fauna will only occur within 10m from the acoustic source, drawing inferences from work on the eggs and larvae of other species; and that such impacts are insignificant at a population scale. Similar impacts at this level have also been attributed to the propeller wash of boats, and so we urge you to keep things in perspective."

It is extremely doubtful that research has successfully monitored an area of 25 square klms by some 50/100 metres deep to ascertain that squid "will distance themselves to a range of 2 to 5 klms from the acoustic source". This, even as unlikely as it may be, is the only piece of "scientific" research that is referred to in the reply. This is because there is no definitive research.

The other comments are purely "spin" and have no scientific basis whatsoever and any research referred to does not relate to squid. It is irrelevant to talk about "the propeller wash of boats", as squid deposit their eggs on the ocean floor. This is presuming squid are not affected by seismic surveys, are still alive and have the ability to breed.

We are particularly concerned with the comment that thousands of tonnes of squid are caught during the breeding season. This insinuates that if a few squid are killed by seismic surveys then it is not a problem. We would prefer that squid mortality is restricted to that for human consumption. In addition a number of fish species are targeted during the breeding season with the blessing of scientific research.

We realise this response is not related to CGG, however, it is indicative of the treatment of the oil and gas exploration industry towards the fishing industry.

The "super trawler" Abel Tasman was stopped from operating due to a lack of knowledge regarding the effects on species due to the fishing practices, even though the operation was target specific, and the expected catch was well within the quota set for the target species.

The proposed survey area, as mentioned in your information, covers part of the area fished by squid jig fishers and board trawl fishers, as well as a large area in which squid breed.

As mentioned previously, the investment, and planned investment by these three companies is being made on the basis that both the fishing season and the areas of operation will be expanded.

All three companies here also have investment in the scallop industry and have had experience over the years with the oil and gas exploration industry refuting anecdotal evidence of the damage seismic testing has had on scallops. There is now evidence that scallops are killed by seismic testing. See

http://www.pnas.org/content/114/40/E8537

http://www.utas.edu.au/news/2017/9/19/415-seismic-airguns-noise-harming-scallops/

http://frdc.com.au/Archived-Reports/FRDC%20Projects/2012-008-DLD.PDF

There is also evidence that seismic testing affects southern rock lobster and this has been recognised by your industry.

The area covered by your proposed survey covers large areas of the squid jig, squid trawl, scallop and rock lobster fisheries and this puts the proposed survey, and investment by the industry in conflict.

We ask that the survey area be reduced to ensure that there is no impact on the squid population or squid breeding areas and probable scallop settlement areas.

Should this not be acceptable then we ask that the Government, under the Environment, and Fisheries legislation, implement the Precautionary Principle until such time as science can prove that there is no effect on squid and scallops.

There has been little, if any, scientific research into the effects seismic surveys have on giant crab, however, the decline in the fishery over the last few years has not been due, alone, to fishing effort. There has been a consistent reduction in the total allowable catch reflecting the decline in numbers of this species. More work needs to be done to determine the effects of seismic surveys on the crab, and their reproduction cycle.

We recognise that the oil and gas industry is extremely important to the overall economy of Australia. However, legislation has been framed to protect industries affected by the activities of this industry.

There is sufficient evidence to suggest that squid, rock lobster and scallops are all affected, or killed by seismic testing and it is the responsibility of the oil and gas exploration industry to either avoid the

areas in which these species live and breed, or stop testing until science can prove that testing does no harm.

The precautionary principle has been used in the fishing industry and if the fishing industry and the oil and gas exploration industry cannot come to agreement on this issue we must lobby Government to have the precautionary principle implemented.

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