

Dear Committee Secretary,

We are responding to the question taken on notice by Ms Eleanor Lawless on behalf of the Protect Our Coast.

We thank you for the opportunity to present at the inquiry and stress we gave evidence as community members not as experts.

There is limited evidence for the impacts of seismic testing as ecological surveys are not adequately funded or do not exist. What the available scientific research and citizen science, community observation from local fishing and tourism businesses demonstrates is seismic testing adversely impacts fisheries and the marine environment. Importantly there is no evidence to indicate that seismic testing is not harmful.

The body of science and research into the use of seismic testing

We believe there is a need for more extensive research into the impacts of seismic testing on marine species. The body of work that has been completed so far points to significant and often permanent impacts including death of some species.

We are calling for a moratorium on seismic testing until the scientific community are confident that there is a way to mitigate impacts, or an alternative technology is introduced.

The research we are aware of details the following:

- Fish eggs and larvae can be killed by intense sound.¹
- The growth of young scallops is affected²
- Significant impact on zooplankton and krill extending at least 1.2km away³
- Adult fish within 5 metres of a seismic air gun can suffer damage to their swim bladders and ear cells that may take weeks or months to recover. Additional side effects can include internal bleeding and blindness.⁴
- The blasts can cause temporary and permanent hearing loss in marine mammals which can result in stranding or even death.⁵ In 2004 there were 115 known deaths of whales and dolphins following seismic testing off the Tasmanian coast⁶
- Further impacts to marine mammals include abandonment of habitat, disruption of mating and feeding
- For whales and dolphins, which rely on their hearing to find food, communicate, and reproduce, being able to hear is a life or death matter. The waters covered by PEP11 provide habitat to 25 species of whales and dolphins.

¹ <http://marinesciencetoday.com/2014/02/11/seismic-blasting-in-the-atlantic-the-real-story/#ixzz3fmuUb2vl.%3C--LINK>

² <http://www.imas.utas.edu.au/news/news-items/research-finds-marine-seismic-surveys-significantly-increase-mortality-in-scallop>

³ <https://www.nature.com/news/air-guns-used-in-offshore-oil-exploration-can-kill-tiny-marine-life-1.22167>

⁴ http://www.dfo-mpo.gc.ca/CSAS/Csas/DocREC/2006/RES2006_092_e.pdf

⁵ <https://www.cbd.int/doc/meetings/sbstta/sbstta-16/information/sbstta-16-inf-12-en.pdf>

⁶ <https://www.abc.net.au/news/2004-11-30/seismic-testing-halt-urged-for-whales/594774>

Fisheries

Seismic blasting is highly disruptive to fisheries due to disturbing habitat, injuring and killing invertebrates including fish species, eels, prawns, crustaceans, eggs and larvae⁷. Reduced catch rates of 40%-80% have been reported near seismic surveys⁸. According to Jason Nunn owner of Fisherman's Warehouse in Lake Macquarie, after the 2004 round of seismic testing, at the "lake mac big fish tournament" no-one caught a fish Mr Nunn also says that following that there was very little fish caught, including sharks and even off the outer reefs. To quote mr Nunn "it effected the commercial industry terribly and that's what everyon'es forgetting, to those guys it's their livelihoods." After the 2004 round of seismic testing, from Catho to Newcastle no adequate assessment of the impact following the tests was carried out. The NSW Lobster Fishery is a small but valuable fishery, with a GVP of approximately \$11.7 million for the 2017/18 fishing period.⁹

In 2016 the commercial fishing industry was estimated to contribute more than \$436 million in revenue annually to the NSW economy and account for about 3,290 full-time jobs. This includes the fishers, service industries, sales and marketing. While the industry contributes significantly to society, community life, national identity and wellbeing of citizens.¹⁰

Conclusion

To close we recommend ecological surveys of the impact of seismic testing be adequately funded. However, all the current available evidence clearly indicates seismic testing adversely impacts fisheries and the marine environment. Importantly there is no evidence to indicate that seismic testing is not harmful.

We urge you to be brave and sensible and take a long term sustainable view for our ocean, wildlife, local businesses, food security, people and planet. We recommend, as is comparable with other countries, a ban on seismic testing in Australia's Commonwealth and State waters.

Yours Sincerely,
The Protect Our Coast Alliance



⁷ Please see more information and examples here

<https://www.abc.net.au/news/2020-08-09/fears-seismic-testing-rocking-lobster-industry-recovery/12495116>

⁸ Please see more information and examples here

<https://www.abc.net.au/news/2020-08-04/whiting-catch-down-because-of-seismic-testing/12502930>

⁹ NSW department of primary industries

<https://www.dpi.nsw.gov.au/fishing/commercial/fisheries/lobster-fishery>

¹⁰ The Conversation 2016

<https://theconversation.com/fishing-is-worth-more-than-jobs-and-profits-to-australias-coastal-towns-67053>