



## Sea Shepherd Australia

17<sup>th</sup> September, 2020

Submission to the Environment and Communications References Committee Inquiry into the impact of seismic testing on fisheries and the marine environment

Sea Shepherd is opposed to seismic in the oceans given the wealth of documented global examples of impacts to marine life from whales to plankton.

### A whales perspective

Our world is visual one, in that we can see for kilometres to the horizon and millions of kilometres out into space, because air is a fantastic medium for light. However in the ocean, even on the clearest days, we can at best see only 30 metres or so in the sea. However for the marine life, like whales, its hearing that is the primary sense for safe navigation, for finding food, finding a mate and keeping mother and child safe.

Like air is to light, water is a fantastic medium for sound. So much so that prior to the human induced noise in the ocean, a blue whales call could be heard right around the other side of the globe. Our marine life's chorus is being drowned out by human induced noise from shipping, sonar and seismic.

Christopher W. Clark, PHD, Johnsons Senior Scientist, Bioacoustics research Program, Cornell Lab of Ornithology, stated in the documentary Sonic Sea, "More and more of what you are seeing is deep ocean prospecting for oil and gas, so the modern form of dynamite is found in the form of air guns, most of which goes vertically down into the ocean and reflects off the earth's crust and then you create an image of the composition of the earth and then you search for oil and gas. You have sets of them, 10, 20, 30, 40 of them in what's called an array, it's a big matrix of them behind a ship and then they all explode simultaneously and there are multiple surveys, all setting off these charges at a regular rate of 10 or 12 seconds and the survey goes on for months at a time."

"If you were listening in the ocean, you could hear the regular explosions of these sounds coming from Africa, South America, Great Britain, Canada, and now it's also invading into the Arctic. These companies are able to take resources from the global commons, hydrocarbons in this case, and exploit those and damage the ocean ecosystem without cost, that to me is intolerable."

Michael Jasny, Director, Marine Mammal Protection, Natural Resources Defence Council, "Air guns have been shown to have an enormous environmental footprint, in baleen whales, the great whales, they have been shown to silence animals, they have been shown to cause animals to flee large areas of habitat. The areas we are talking about are enormous, and some cases documented literally over hundreds of thousands of square miles. "

### **The sound of seismic prospecting for oil and gas is changing life in the oceans, but it's also changing life for people who depend on the oceans, living on land.**

Bjornar Nicolaisen, Coastal Fisherman, Former Secretary, Norwegian Fishermen Union, Andoy Fiskarlag, talking about his homeland coast in Norway, "This coast has made thousands of generations able to survive, all my relatives before me lived from this and I have been a fisherman for many years. What is happening now is a disaster for us. Oil industry is hunting oil and gas, on our fishing grounds. Catches immediately were reduced by 60%, this was massive and this was clearly the seismic shootings, the blasting's. Then after some time, nothing coming back, its not coming back, why is it so, it should come back if everything was normal in the sea. If this is going to go on, those blasting's in the sea, in all the worlds sea, we are going to kill ourselves in the end, because we are killing our food. This is happening all around the world, we know it, but it seems we are not able to do anything about it."

## **Alternatives to current seismic**

There are alternative emerging technologies other than setting off a bomb every 10 seconds or so, and they can be profoundly quieter, than the explosion. For example there is an emerging technology, called marine vibroseis and it doesn't produce an explosion, it produces a continuous very low frequency sound, that is thousands of times, less intense and less invasive than an explosion, and it also produces a much higher resolution image of the earth. So although there will still be impacts from seismic in this way, it won't be as bad as air guns.

## **Example with basic Seismic – Madagascar 2009 – pilot whales**

100 to 200 melon headed whales were away from the ocean, in an estuary 65 kilometres away from the open ocean. They had travelled a huge distance to get out of the ocean. Only a handful of whales were saved, however most of them died. These animal were not sick, they were not injured. The oil and gas exploration off the coast coincided in time and location with this event.

Prospecting teams commissioned by an EXON Mobil subsidiary were hunting for oil off the coast of Madagascar, near the mouth of the river the whales travelled up. They were using a special industrial echo sounder that emits sound waves to map the sea floor.

An independent scientific review panel found that the whales were trying to get away from the noise of the industrial echo sounder.

## **A whale that can't hear is a dead whale.**

In our daily busy and somewhat noisy busy lives, when it all gets too much, we can turn off the TV, we can turn down the volume, we can walk out of that noisy rock concert, however our precious marine life like whales cannot. Imagine just the air blast bomb explosions going off that would sound like a war zone and no matter when you take your child, you cannot escape it, this is the nightmare world of the whales we have inflicted upon them.

Whales are critical to the health of our oceans, from healthy fisheries, boosting phytoplankton numbers to fighting climate. However we are stressing them out, displacing them and putting their recovery at grave risk. With most of the air we humans breathe coming from our oceans, we need healthy oceans and healthy oceans need whales.

I ask the committee to place yourself in the whales shoes and by default, future generations, for putting the health of our oceans first, is putting humanity first.

Even pushing aside our planets ability to support life, we know that from the impacts of inaction on climate, to covid, continuing to not put the health of the natural world first is in fact poor economic management.

For the Oceans,

Jeff Hansen

Managing Director

Sea Shepherd Australia.