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## **Sea Shepherd Australia Submission into Senate Enquiry into Oil or Gas production in the Great Australian Bight**

### **Introduction**

Sea Shepherd Australia (SSAL) is a non-profit conservation organisation whose mission is to end the destruction of habitat and slaughter of wildlife in the world's oceans in order to conserve and protect ecosystems and species.

Sea Shepherd Australia uses innovative direct-action tactics to investigate, document and take action when necessary to expose and confront illegal activities on the high seas. By safeguarding the biodiversity of our delicately balanced oceanic ecosystems, Sea Shepherd Australia works to ensure their survival for future generations.

This submission by SSAL will detail our environmental concerns we have with BP and other oil and gas production in the Great Australian Bight (GAB). These concerns go hand in hand with our mission statement to protect the biodiversity of our oceans for future generations that all humanity relies on. Also highlighted will be the state that the Gulf of Mexico is still in after the 2010 BP Deep-water Horizon oil spill and further impacts on climate change and Australia's Paris climate commitment.

### **Great Australian Bight**

The Great Australian Bight is rich in biodiversity containing numerous whales, seals, dolphins, sharks and other fish species. The waters of the Great Australian Bight are highly bio diverse, particularly in zooplankton, due to a particular series of ocean currents.

A [literature review](#) undertaken by **SARDI** (South Australian Research and Development Institute) on the Benthic Protection Zone of the Great Australian Bight Marine Park in 2003 states: "Upwelling events during summer and autumn produce cool patches of surface water along the coast of the southern Eyre Peninsula. These patches contain elevated nutrient concentrations and support enhanced levels of primary productivity. High densities of zooplankton to the northwest of the patches indicate that the prevailing south-easterly winds transport the products of this enhanced biological production into the central GAB.

These plankton communities support the highest densities of small fishes, including sardine and anchovy, in Australian waters. Juvenile southern bluefin tuna (SBT) migrate into the GAB annually to feed on these rich pelagic resources. As the nutrients are swept up from the deep water ocean floor and pushed in towards the coast, the food chain is injected with a massive influx of the bottom rung (bottom of the food chain).

There are some clear findings from the review that, "The GAB provides critical habitat for two species of marine mammals that are recognised internationally as being priorities for conservation.

The southern right whales (*Eubalaena australis*), which is listed as 'endangered' under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999, breeds at the Head of Bight during winter.

The Australian sea lion (*Neophoca cinerea*), which is endemic to Australia and is currently listed as "near threatened", breeds in small colonies along the cliffs of the GAB. These marine mammals require this habitat to remain in existence, which has been recognised by Australian law."

## BP

BP was responsible for the world's biggest oil spill accident, the Deep-water Horizon tragedy in 2010, with 800 million litres of oil spewing into the Gulf of Mexico for 87 days.

The oil rig explosion killed 11 people and injured 17 others. Over 8,000 marine animals (birds, turtles, mammals) were reported dead, just six months after the spill, many that were on the endangered species list. Marine animals are still washing up dead today as a result of illnesses caused by BP's spill in the Gulf of Mexico.



Platform supply vessels battle the blazing remnants of the BP off shore oil rig Deepwater Horizon. Photo: Wikipedia



A BP Oiled Brown Pelican near Grand Isle, Louisiana. Photo: Wikipedia

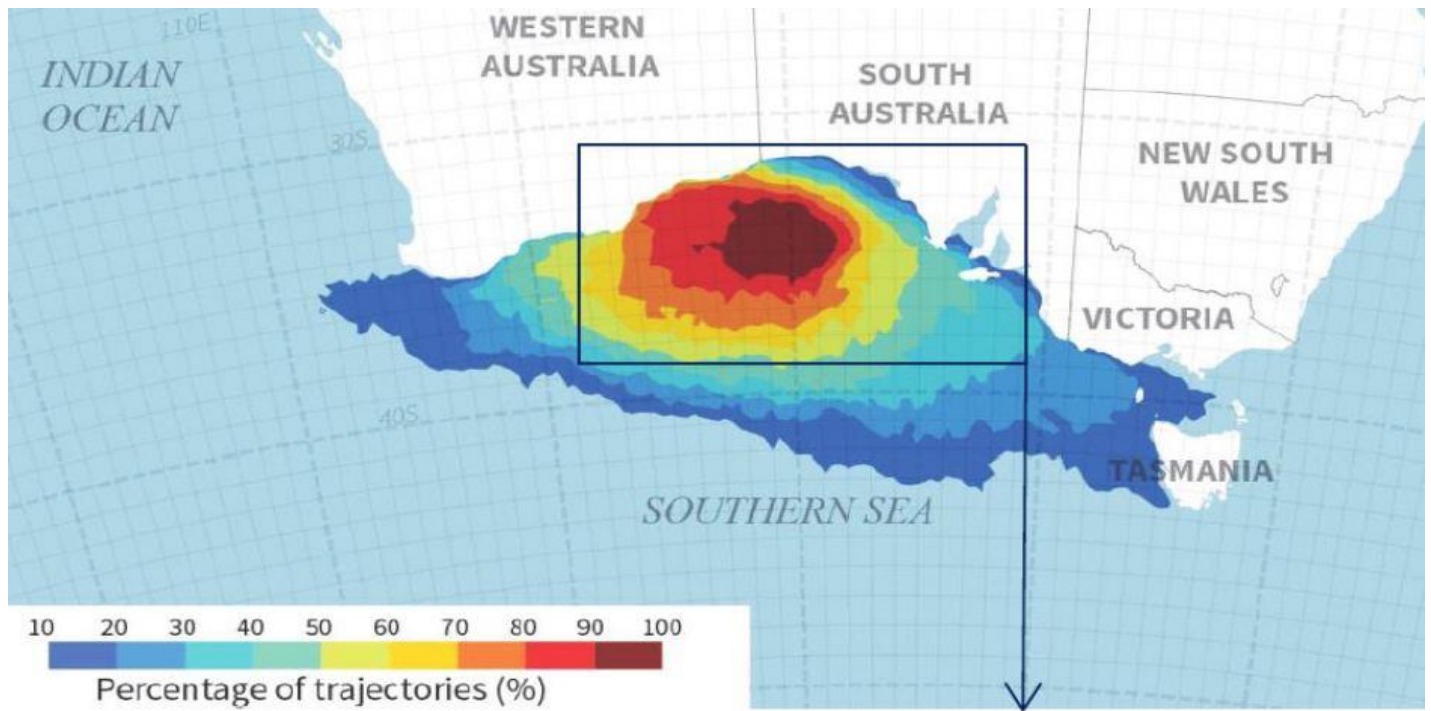
## 38 million litres of BP's oil is still sitting on the Gulf of Mexico ocean floor

Up to 38 million litres of crude oil from the 2010 Deep-water Horizon oil spill has settled at the bottom of the Gulf of Mexico, where it is threatening wildlife and marine ecosystems, according to a [new study](#).

"This is going to affect the Gulf for years to come," Jeff Chanton, the study's lead researcher and a professor of chemical oceanography at Florida State University, said in a statement. "Fish will likely ingest contaminants because worms ingest the sediment, and fish eat the worms. It's a conduit for contamination into the food web."

As always in our oceans, it's the smallest species that support the bigger ones and this is a classic example of this with the Benthic Zone and bottom rung marine life of the ladder supporting the larger ones up the ladder. So in the case of the Great Australian Bight, we are talking about the sardines, anchovies, SBT, sharks, seals, dolphins right through to the whales, that would all be catastrophically affected if BP had an oil spill in the Great Australian Bight.

## Spill modelling



Modelling of where an oil spill might extend from the Great Australian Bight, released by the Wilderness Society.

Independent modelling, commissioned by the Wilderness Society (BP's is not available) and released last year, showed that an oil spill in the Bight from a deep-sea well blowout would be devastating for fisheries, marine life and tourism. The model shows that an oil spill in the Great Australian Bight could result in the closure of fisheries in the Bight, Bass Strait and potentially the Tasman Sea. Even a low-flow oil spill could impact all of southern Australia's coast, from Western Australia right across to Victoria through Bass Strait and around Tasmania. View modelling here: <https://youtu.be/B5OnMGtx1cQ>.

## Dolphins

The GAB contains numerous species of dolphins, from striped, bottlenose and long finned pilot whales to orcas. After the spill in the Gulf of Mexico, researchers found dolphins suffering from lung diseases and abnormalities they associated with exposure to oil contamination. In August 2011, about a year after oil stopped leaking from BP's blown-out well, researchers tagged 32 dolphins and tracked them to see what happened.

- <http://www.cbsnews.com/news/dolphin-reproduction-hurt-by-bp-oil-spill/>
- <http://ecowatch.com/2013/12/18/dolphins-suffering-from-disease-bp-gulf-oil-spill/>



Striped dolphins (*Stenella coeruleoalba*) observed in emulsified oil on April 29, 2010. Photo: Wikipedia



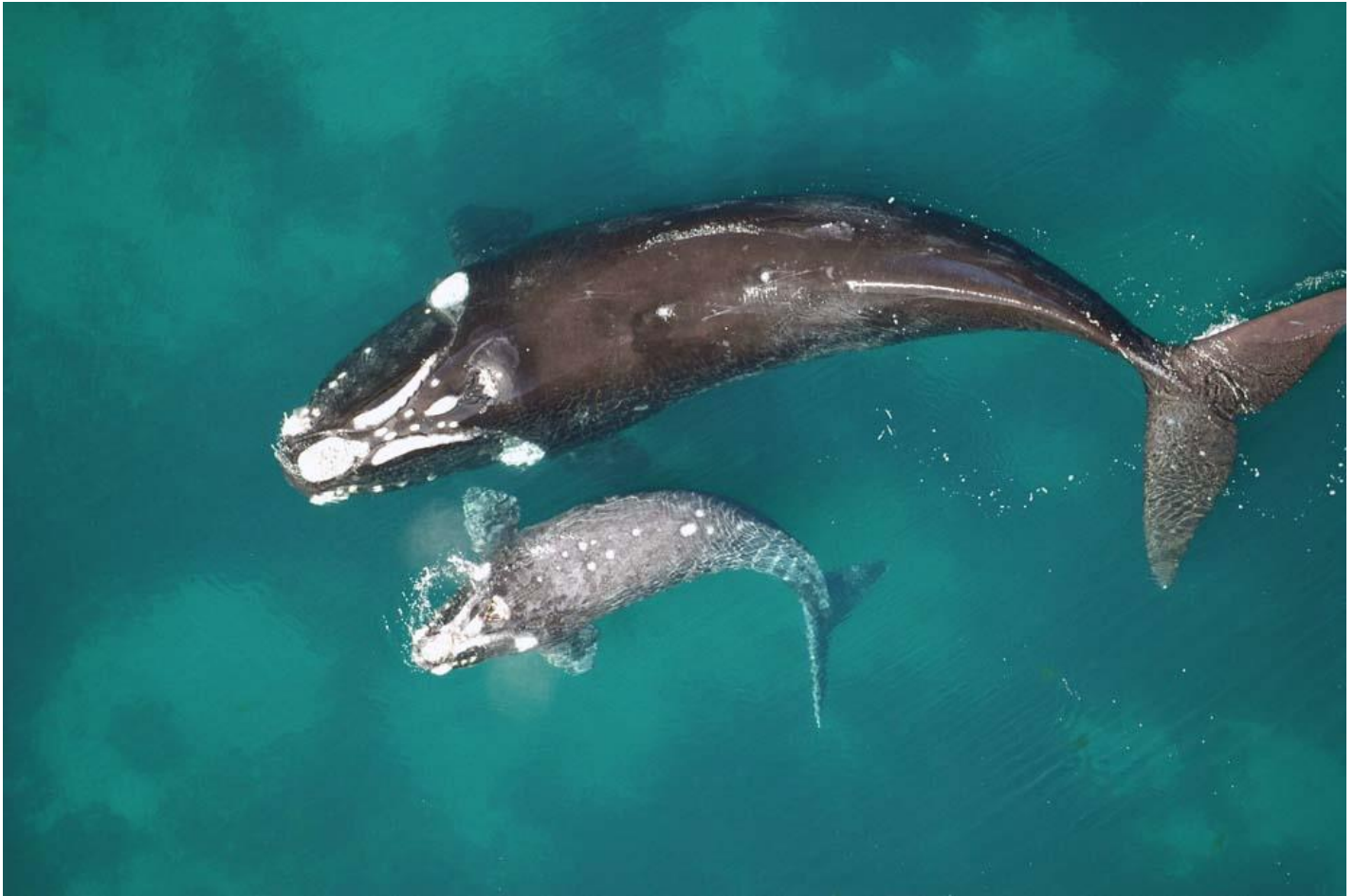
One of the stranded dead dolphins after the BP oil spill. Louisiana Department of Wildlife & Fisheries pic.



The study found they've suffered from a high mortality rate and chronic diseases that have hurt the animals' ability to reproduce.

Many dolphin mothers had to give birth to still born calves as a result of BP's devastating oil spill.

### **Southern Right whales**



*Southern right whales – credit Ocean Alliance*

From an ecotourism perspective the Great Australian Bight is a jewel, characterised by cliff faces (up to 60 metres high), surfing beaches and rock platforms, ideal for whale watching. This is a popular activity during the southern hemisphere winter, when increasing numbers of southern right whales migrate to the region from their summer feeding grounds in the Antarctic. The whales come to the Bight region, especially to the Head of Bight, to calve and breed, and do not feed until they return to the Antarctic, southern ocean whale sanctuary.

Southern right whale numbers were severely depleted by whaling, particularly during the 19th century, but have since recovered to some extent. The northern right whales are only down to a few hundred individuals and given increases in pollution and shipping, their numbers are under severe stress. When scientists that study the northern right's see our southern right whales, they are amazed at what they see. They get to see what fat and healthy right whales should look like. Indicating that what we have off Australia's coast is rare and unique and is of global significance, deserving the outmost level of protection.

A spill in the GAB would be catastrophic to the southern right whale population. It would destroy the whale nursery where the mothers give birth and nurture their young. Southern right whales either skim along the ocean filtering the water for food or at times, are bottom feeders. Either way, a spill would annihilate the population of southern right whales still recovering from the commercial whaling era.

The South Australian Research and Development Institute (SARDI) conducted a [study](#) on the offshore migratory movement of southern right whales. They found that in summary the southern

right whale (*Eubalaena australis*) (SRW) has a southern hemisphere circumpolar distribution between latitude 16°S and 65°S. Between May and October, a portion of the Australasian population aggregates at calving grounds in coastal Australian waters before migrating to offshore feeding grounds. However, the timing and route taken to these feeding grounds is unknown.

### **The world's biggest animal to ever live on planet earth/ocean**

The GAB is home to numerous other whale species, including sperm whales that feed there in the canyons and IUCN red listed endangered blue whales, the largest animal to ever exist on planet earth. Blue whales can reach up to 30 metres and weight 170 tonnes. Their numbers in Antarctic were estimated prior to whaling at 239,000, now they are estimated at 2,000, hence they are on the brink of extinction. Blue whale numbers have never recovered from commercial whaling days and once again highlights that the Bight is their last chance at holding on to the future of their species. An oil spill in the Great Australian Bight would devastate the last remaining blue whales.

### **The least the Australian Government can do**

Sea Shepherd has conducted ten Antarctic whale defence campaigns that have directly saved the lives of over 5,000 whales. We are defending the whales from the illegal Japanese whaling fleet. We are defending the whales from being killed in the established southern ocean whale sanctuary in upholding a global moratorium on commercial whaling. Sea Shepherd is also upholding the Australian Federal Court Ruling of 2008, banning the slaughter on whales in the Australian whale sanctuary, which the whalers are in contempt of. The Japanese whalers are also going against the International Court of Justice ruling that found their "scientific" whaling to be illegal.

In December 2015 a national poll, commissioned by Sea Shepherd Australia and undertaken by Australian market research company Roy Morgan Research, showed that 76.9% of Australians want the Federal Government to send a ship to oppose Japanese whaling in the Southern Ocean. This is what Minister Greg Hunt promised to do prior to becoming Australia's Federal Environment Minister.

However, there was no action by the Federal Government. In Minister Hunt's own words prior to becoming the Federal Environment Minister "we have blood in the water and a blind eye in Canberra".

In our ten Antarctic whale defence campaigns, Sea Shepherd has received no support or assistance from the Australian government.

If the Australian Government is not going to protect Australia's whales in the Australian Antarctic whale sanctuary and not uphold Federal and International laws, and not do what the overwhelming majority of Australians want them to do and what they promised to do, then the very least they can do is protect Australia's whales in the waters right off our coast and not allow BP to drill for oil in the Great Australian Bight, risking what BP has done to the whales in the Gulf of Mexico.

## The Recovery of the World's Most Endangered Sea Turtle Has Stalled since BP spill



**Kemp's ridley sea turtle. (Photo: Courtesy U.S. Environmental Protection Agency/Flickr)**

Decades of efforts to restore the Gulf of Mexico's populations of critically endangered Kemp's ridley sea turtles have stalled, and the species may be on the decline again, worrying [new research](#) reveals.

Kemp's ridley sea turtles, nearly went extinct in the second half of the last century after fishing nets devastated their populations. By 1985 the species was down to its last 200 to 250 breeding females. Habitat protection and conservation efforts helped turn that around, including the introduction of devices that allow sea turtles to escape fishing nets. Populations began rebounding during the 1990s, rising as much as 15 percent a year.

That recovery has now stopped. Kemp's ridley sea turtles laid eggs in just 14,000 nests last year, a 34 percent decline from 2009. One possible explanation for the stall is the 2010 BP Deep-water Horizon oil disaster. "The Deep-water Horizon spill occurred in a very critical area for Kemp's ridley," Thane Wibbels, Professor of Biology at the University of Alabama said. "It didn't occur in nesting beaches, but it did occur in very well known and possibly important foraging grounds and developmental habitats."

The spill area is also an important migratory corridor: Most female turtles pass through it on their way to and from the nesting beach at Rancho Nuevo. Hatchlings, which already have a low survival rate owing to predation, also travel on currents through the same region.

Another possibility is that the Gulf of Mexico may no longer be able to support a large number of sea turtles. Wibbels pointed out that blue crabs, one of the turtles' favourite foods, are in decline in many areas of the Gulf since the spill.



## Climate change, the Great Barrier Reef and Australia's commitment at the 2015 Paris Climate Summit

### Great Barrier Reef

There is absolutely no doubt that our planet; our only home is in the grip of climate change. Each summer that passes includes another hottest month on record. The world-renowned UNESCO Great Barrier Reef has now been confirmed to be 95% bleached in the northern section according to a [recent aerial survey](#), with most of it to perish and not recover. This is all caused by climate acidification and warming oceans as a result of carbon induced climate change.

### Humans need air

Since 1950 we have lost 40% of the oceans Phytoplankton. Researchers have found declines among phytoplankton, the base of the food chain, which has implications for the marine food web and the world's carbon cycle: <http://www.scientificamerican.com/article/phytoplankton-population/>.

The researchers found the most notable phytoplankton declines in waters near the poles and in the tropics, as well as the open ocean. They believe that rising sea temperatures are driving the decline. As surface water warms, it tends to form a distinct layer that does not mix well with cooler, nutrient-rich water below, depriving phytoplankton of some of the materials they need to turn carbon dioxide and sunlight into energy.

### Paris agreements

The Australian Federal Government signed on with the climate change deal that will seek to limit an increase in global temperatures to "well below" 2 degrees Celsius, with an aspirational goal of 1.5 degrees Celsius. Australia's target of a 26 to 28 per cent reduction in greenhouse gas emissions below 2005 levels by 2030 remains unchanged, but the Paris agreement will put pressure on the Government to do more.

Australia cannot achieve these targets and promises we have made in Paris and allow further oil and gas production in the Great Australian Bight.

We cannot have more extraction of fossil fuels and at the same time have the Great Barrier Reef. We have to choose.

We cannot not have more extraction of fossil fuels and maintain the phytoplankton levels we need to breathe. We have to choose, is it air or allow BP to put the Great Australian Bight at risk and our children's future?

### BP has made people and the environment sick and still continues to do so

When BP's Deepwater Horizon began leaking some 210 million gallons of Louisiana Crude into the Gulf of Mexico, the U.S. government allowed the company to apply chemical "dispersants" to the blossoming oil slick to prevent toxic gunk from reaching the fragile bays, beaches, and mangroves of the coast, where so much marine life originates. But a number of recent studies show that BP and the federal government may have made a huge mistake, for which everything from microscopic organisms to bottlenose dolphins are now paying the highest price.

After the spill, BP secured about a third of the world's supply of dispersants, namely Corexit 9500 and 9527, according to *The New York Times*. Of the two, 9527 is more toxic. Corexit dispersants emulsify oil into tiny beads, causing them to sink toward the bottom. Wave action and wind turbulence degrade the oil further, and evaporation concentrates the toxins in the oil-Corexit mixture, including dangerous compounds called polycyclic aromatic hydrocarbons (PAHs), known to cause cancer and developmental disorders.

When BP began spraying the Gulf, critics cried foul. They said Corexit is not only toxic to marine life on its own, but when combined with crude oil, the mixture becomes several times more toxic than oil or dispersant alone.

A study from the University of South Florida found that underwater plumes of BP oil, dispersed by Corexit, had produced a "massive die-off" of foraminifera, microscopic organisms at the base of the food chain. Other studies show that, as a result of oil and dispersants, plankton have either been killed or have absorbed PAHs before being consumed by other sea creatures.

Hydrocarbon-laden, mutated seafood is not the only legacy left behind by Corexit, many scientists, physicians, environmentalists, fishermen, and Gulf Coast residents contend. Take Part wrote about Steve Koilan, a researcher and founder of the non-profit group EcoRigs, whose volunteer scientists and divers seek to preserve offshore oil and gas platforms after production stops, for use as artificial reefs and for alternative energy production.

EcoRigs divers took water and marine life samples at several locations in the months following the BP blowout. Now, they and countless other Gulf residents are sick, with symptoms including bleeding from the nose, ears, breasts, and even anus. Others complain of cognitive damage, including what one man calls getting "stuck stupid," when he temporarily cannot move or speak, but can still hear.

"If we are getting sick, then you know the marine life out in the Gulf is too," Koilan said. The diver and researcher completed an affidavit on human and marine health used in GAP's report.

[http://www.huffingtonpost.com/2013/04/25/corexit-bp-oil-dispersant\\_n\\_3157080.html](http://www.huffingtonpost.com/2013/04/25/corexit-bp-oil-dispersant_n_3157080.html)

<http://www.tampabay.com/news/environment/water/gulf-oil-spill-killed-millions-of-microscopic-creatures-at-base-of-food/2113157>

<http://www.takepart.com/article/2013/04/17/corexit-deepwater-horizon-oil-spill>

A story on [60 minutes](#) Australia also highlighted that the dispersants used by BP made the spill 52 times more toxic.

BP has made people and the environment sick and still continues to do so, they should not be allowed to drill for oil in the Great Australian Bight.

### **We are not separate from nature.**

Climate change is now threatening the very life support systems that make it possible for our planet to sustain life, to support us as a species. It is the biggest threat humanity has faced and we need to stop making compromises on our children's future on this planet.

In 2015 the IMF (International Monetary Fund) reported that the fossil fuel industry is subsidized \$5.5 trillion dollars per year, including direct payments, tax breaks and unpaid environmental costs, with Australia paying \$7 billion on average annually in production subsidies to fossil fuel producers. Take away these subsidies and with the price of oil and renewables becoming more affordable and efficient and it's a natural shift away from fossil fuels and onto renewables.

Those that deny climate change exists and that its caused by carbon, merely don't want the guilt of knowing that their decisions and lifestyle is making the planet worse off for their kids.

In March 2016, the United States banned oil and gas drilling in much of the Atlantic seaboard, following a similar policy reversal in the Arctic. Australia should follow Obama's lead and honour the recent Paris commitment to address climate change and put a stop to oil and gas production in the Great Australian Bight.

The Great Australian Bight is rich in biodiversity and given the state of the world's oceans, it's a place that is rare and unique, of global significance and deserves the outmost protection.



The mess that BP created in the Gulf of Mexico has still not been cleaned up and will go on impacting marine life, communities and industries for decades.

Now BP wants to drill in waters deeper and rougher than where their "Deep water Horizon" rig blew out.

Given the recent agreements made in Paris and given BP's track record, and given the fragility of the Great Australian Bight, Sea Shepherd Australia's position is that there should be no oil and gas production in the Great Australian Bight.

We cannot compromise on the health of our oceans, on climate change and on our children's future on this planet we call home. There is no planet B!

On behalf of Sea Shepherd Australia,

Yours truly,

Jeff Hansen  
Managing Director  
Sea Shepherd Australia