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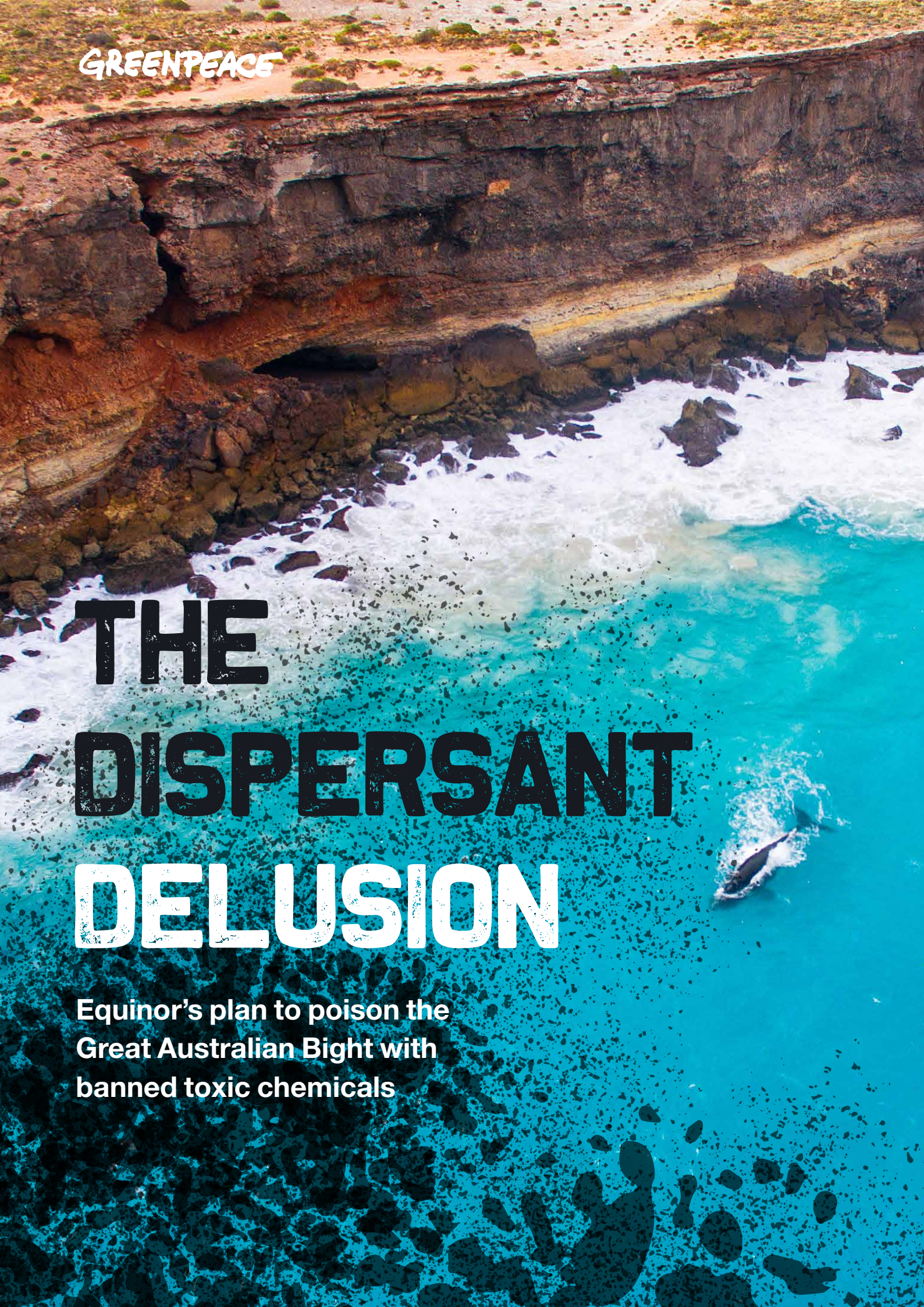

THE DISPERSANT DELUSION

Equinor's plan to poison the Great Australian Bight with banned toxic chemicals

Contents

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Cover photo:
Aerial view of Bunda Cliffs in the Great Australian Bight. This pristine stretch of ocean is a globally significant whale nursery, home to one of only two southern right whale calving grounds in the world, and a feeding area for blue whales, humpback whales, orcas and sea lions.

Back cover photo:
Whales in the Great Australian Bight.

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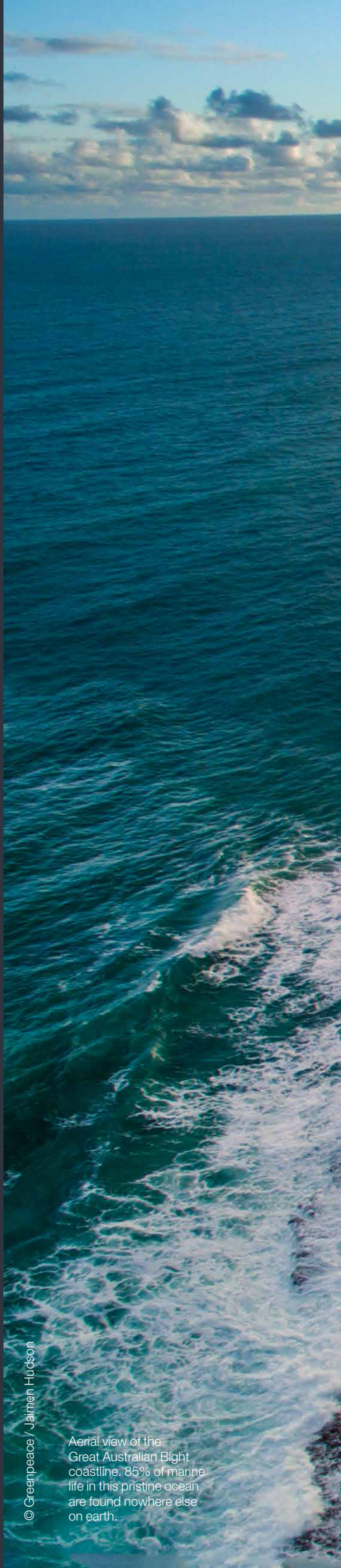


Aerial view of the Great Australian Bight coastline. 85% of marine life in this pristine ocean are found nowhere else on earth.

The Great Australian Bight is one of the most productive marine ecosystems in the world... 85 per cent of known Great Australian Bight species are found nowhere else on the planet.

Sea lions near Hopkins Island, South Australia.
© Michaela Skovranova / Greenpeace

Executive summary

- **Oil companies in Australia have stockpiled over 350 tonnes of oil dispersants, including Corexit 9500, which are toxic chemicals used to clean up oil spills. However, Corexit is no longer permitted in Australia, because studies show it harms people and marine life. Despite this, approval has been given for oil companies to spray the banned substance into the environment until existing stores are exhausted.**
- **Equinor plans to use Australia's stockpile of Corexit dispersant, and others like it, to respond to catastrophic oil spills in the Great Australian Bight, as well as shipping in thousands of tonnes of dispersants from overseas. However, Equinor's Environment Plan has not defined how its use of dispersants will affect the environment.**
- **Following the Deepwater Horizon disaster in 2010, 6.9 million litres of dispersants were sprayed onto the surface of the spill as well as injected directly into the erupting well-head. Yet, this was done without prior research to determine what levels of exposure would be harmful to humans or marine life.**
- **Since 2010, studies have demonstrated that Corexit and other dispersants harm whales and other marine mammals, fish, crustaceans, plankton, corals, and the workers and fishers who respond to the spill.**

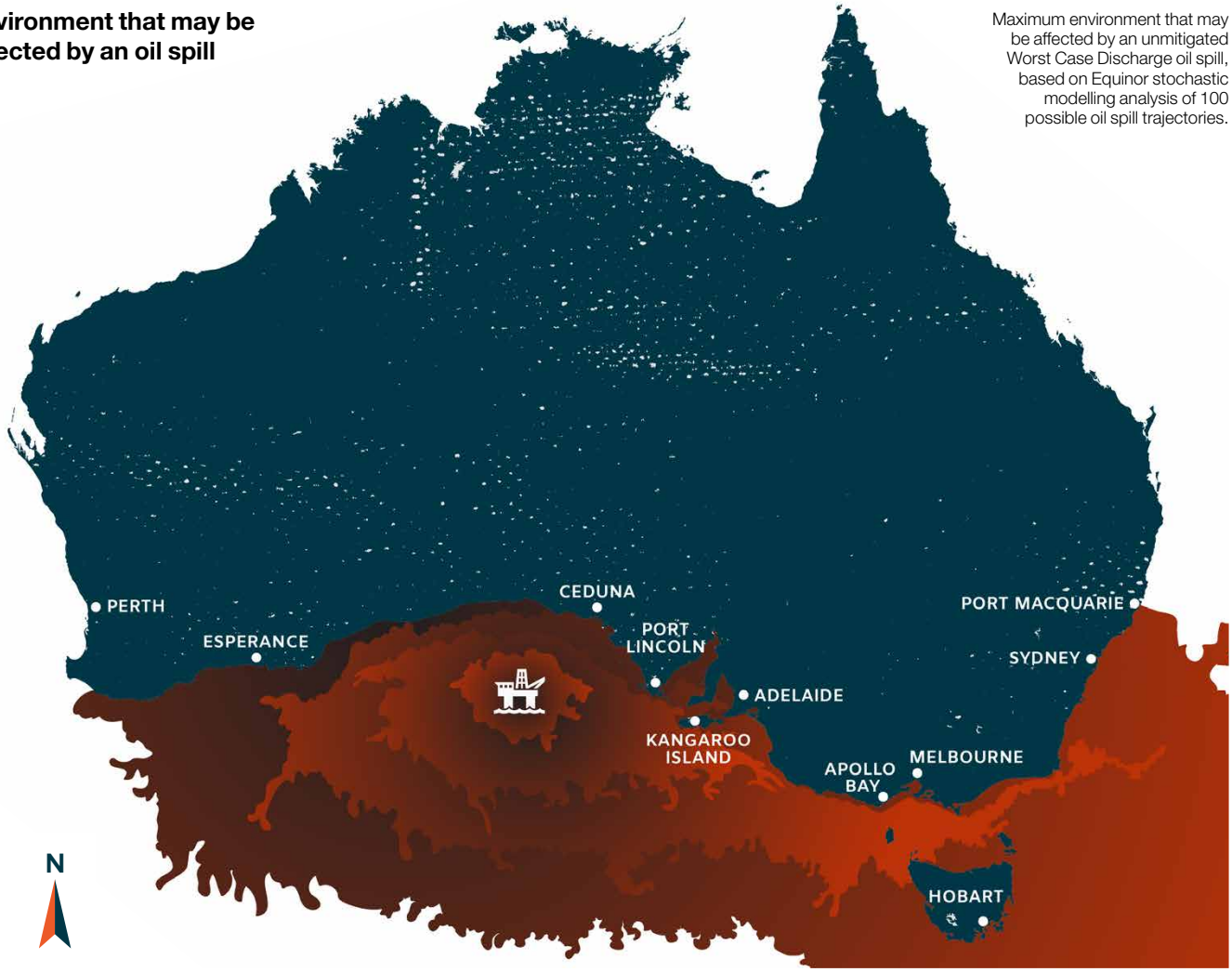
Using dispersants *increases* the toxic effects of an oil spill.

The Norwegian oil company, Equinor, is seeking approval for its plans to drill for oil at a seabed site in the Great Australian Bight, 372km off the southern Australian coast. Oil drilling is inherently risky, especially frontier exploration drilling where reservoir pressures and temperatures are unknown. Well blowouts and oil spills occur, and when they do, they are disastrous for the environment, with serious harm to plants, animals, and people. Moreover, damage persists long after the initial leak is sealed, as was seen most dramatically in BP's 2010 Deepwater Horizon disaster in the Gulf of Mexico.

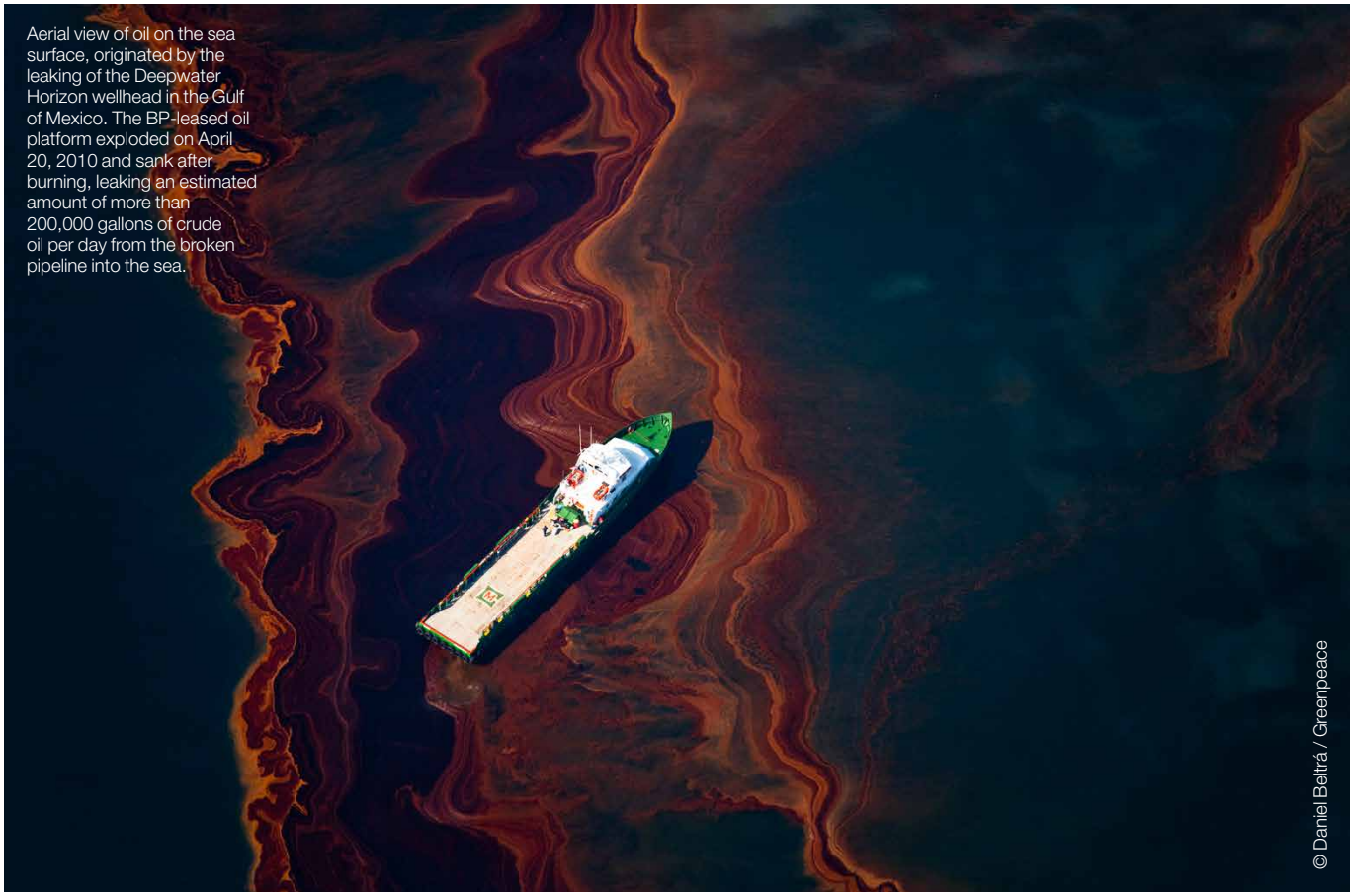
As part of the Australian approvals process to drill, Equinor is required to submit an environment plan that outlines its emergency response and 'clean-up' strategy in the event an oil spill occurs. Central to Equinor's oil spill response plan is the use of large quantities of oil dispersants, which are chemicals that break an oil slick into small droplets, thus preventing the oil from reaching the shore. In other words, dispersants do not really disperse, but rather keep the oil suspended out at sea near the well-head site. In the case of a well blowout and oil discharge, Equinor's plan would pump all of Australia's current stockpiles of chemical dispersants into the Great Australian Bight. Yet, this action would also require massive quantities of existing supplies from overseas: over 5000 tonnes in total.[1] However, recent studies following the responses to the Deepwater Horizon spill have shown that dispersants are dangerous to marine life and humans. In essence, using dispersants *increases* the toxic effects of an oil spill.

Aerial view of the Great Australian Bight coastline. The Great Australian Bight is a pristine wilderness, home to more unique species than the famous Great Barrier Reef.

Environment that may be affected by an oil spill



Maximum environment that may be affected by an unmitigated Worst Case Discharge oil spill, based on Equinor stochastic modelling analysis of 100 possible oil spill trajectories.



Aerial view of oil on the sea surface, originated by the leaking of the Deepwater Horizon wellhead in the Gulf of Mexico. The BP-leased oil platform exploded on April 20, 2010 and sank after burning, leaking an estimated amount of more than 200,000 gallons of crude oil per day from the broken pipeline into the sea.

The dispersants that Equinor plans to use in response to a worst-case scenario oil spill in the Bight include existing Australian stockpiles of Corexit 9500, which has been banned in Australia by the Australian Maritime Safety Authority, as well as in other countries. Corexit 9500 can no longer be produced in or imported to Australia. Despite this, Australian authorities will permit Equinor to exhaust the remaining stockpiles of Corexit 9500, seemingly regardless of the increased risk to marine life and human health. Yet, since Deepwater Horizon, rigorous scientific studies have shown Corexit 9500 to be harmful or fatal to a wide range of marine life, including whales, fish, oysters, coral, crabs, and the tiny zooplankton that are the foundation of the marine food chain.

The Great Australian Bight is one of the most productive marine ecosystems in the world. It is estimated that 85 per cent of known Great Australian Bight species are found nowhere else on the planet. The Bight also has the greatest concentrations of marine mammals, sea birds, fishes, and sharks in Australia. At least 37 species of whales and dolphins and dozens of species and habitats that are listed as threatened or endangered use the Bight. From a financial perspective, the Bight supports numerous species of commercial value to the fishing and aquaculture sectors that collectively underpin more than 25% of the value of Australia's national seafood production.

The chemical dispersants that Equinor plans to use pose an unacceptable risk to Great Australian Bight species, especially if used in the large quantities that would be necessary in the event of a worst-credible spill as outlined by Equinor - a spill of a similar scale to Deepwater Horizon. Yet Equinor has made no attempt to measure the environmental damage its proposal to use these chemicals would cause. Its assessment of environmental risk in the Great Australian Bight is deficient and both the regulator and the community is in the dark as to the scale of the environmental threat.

Equinor's plans for oil drilling in the Bight are manifestly incompatible with the preservation of the unique and pristine ecosystems of the Great Australian Bight and the protection of the Australians who work in the fishing and recreation industries that rely on the Bight for their livelihoods. The only way to protect the Great Australian Bight and its communities is to prevent Equinor from proceeding with its drilling program in the first place. But before being granted approval, oil companies must be made to fully quantify the environmental harm their response tactics would cause and they must be prevented from utilising response methods that cause more harm than other available options, including dispersants like Corexit 9500.

EQUINOR'S PLANS

A Norwegian citizen decorates Equinor's corporate headquarters.

© Greenpeace

Equinor's plans to use chemical dispersants in the Great Australian Bight

According to Equinor's Environment Plan, lodged with the National Offshore Petroleum Safety and Environmental Management Authority (NOPSEMA) and published in September 2019, chemical dispersants represent a key part of the company's proposed oil spill response strategy in the Bight.[2]

Equinor's worst scenario predicts a flow rate exceeding 42,000 barrels of oil per day. After 102 days... an oil spill similar in scale to the 2010 Deepwater Horizon disaster in the Gulf of Mexico would be evident.

Oil spill modelling by Equinor demonstrates that a catastrophic oil spill could result in oil washing up on Australian coastlines spanning from Western Australia to northern New South Wales. Equinor's worst scenario predicts a flow rate exceeding 42,000 barrels of oil per day. After 102 days, the time it could potentially take to 'kill' the leaking well, an oil spill similar in scale to the 2010 Deepwater Horizon disaster in the Gulf of Mexico would be evident. In response to the Deepwater Horizon disaster, 1.84 million gallons (6.9 million litres) of dispersants were introduced into the environment.[3]

In the case of a disastrous well-head blowout at the Stromlo-1 site, Equinor plans to inject the toxic chemical dispersants directly into the oil flow gushing out of the failed well-head (sub-sea dispersant injection, or SSDI), and spray dispersants onto any surface oil slick using boats and aircraft.[4] Dispersants would be 'sourced from the Australian Marine Oil Spill Centre, Australian Maritime Safety Authority National Plan stockpiles and the Oil Spill Response Limited global dispersant stockpile'. Subsea dispersant application would be through two contracted parties: Oil Spill Response Limited and Wild Well Control. Additional dispersant stock beyond Australian stockpiles would be sourced from around the world and dispersant manufacturers 'would be requested to increase dispersant

Adult brown pelicans wait in a holding pen to be cleaned by volunteers at the Fort Jackson International Bird Rescue Research Center in Buras, Louisiana. The birds are covered in oil from the Deepwater Horizon wellhead disaster. The BP-leased Deepwater Horizon oil platform exploded on April 20, 2010 and sank after burning.

production' to meet Equinor's needs.[5] Equinor estimates that it will use over 5000 tonnes of dispersants in the first 45 days of an oil spill response alone.[6]

The dispersants named in Equinor's Environment Plan are Dasic Slickgone NS (Slickgone), Finasol 52 OSR, Corexit 9500, and Ardrox 6120. Equinor's Environment Plan specifies the following 'acceptability criterion' for the use of individual dispersants:

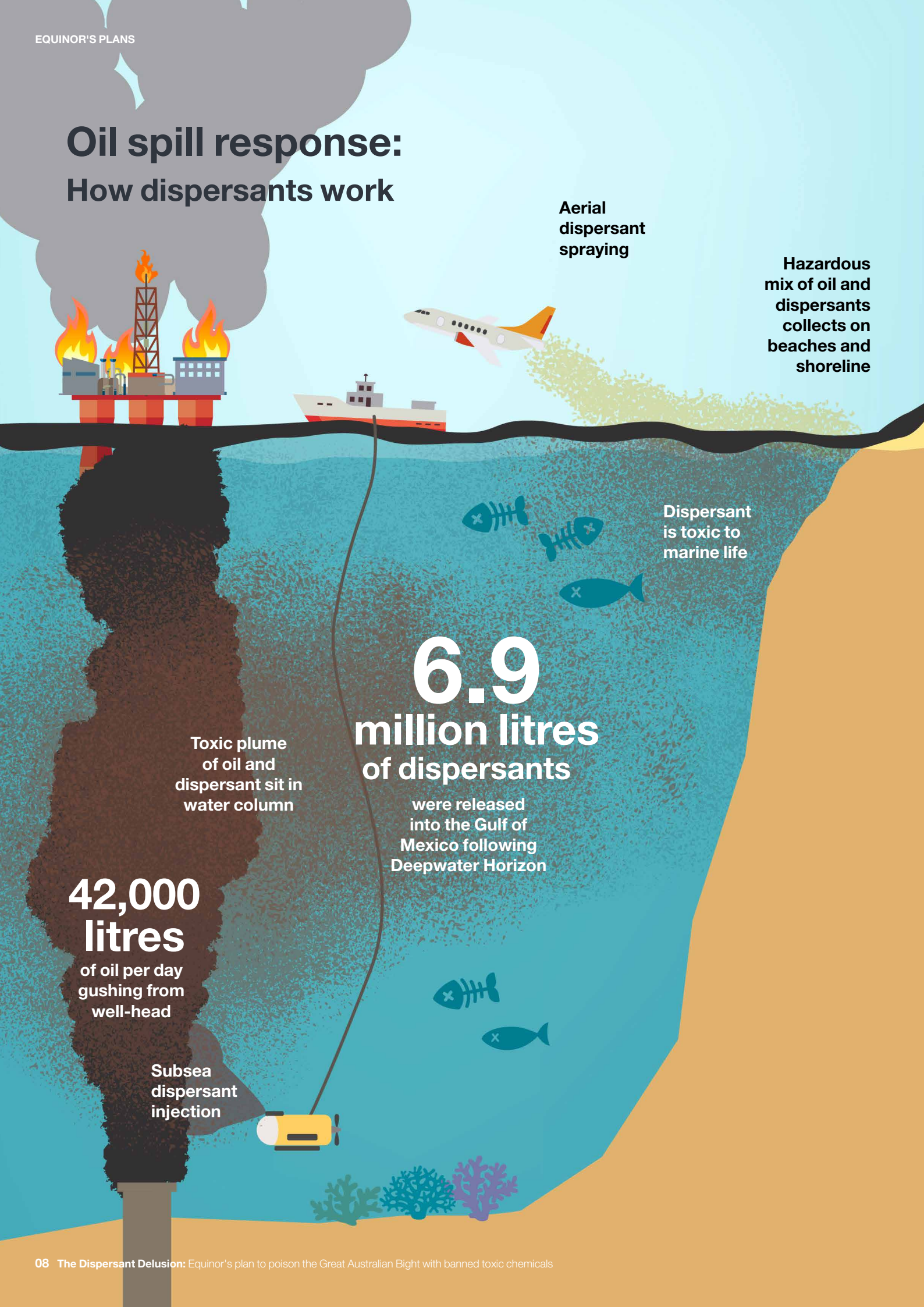
> *'Dispersants [will] meet the Australian Maritime Safety Authority ecotoxicity acceptability criteria for Oil Spill Control Agent (OSCA) product listing under the Australian National Plan'*[7]

The Australian Maritime Safety Authority (AMSA) no longer lists Corexit 9500 or Ardrox 6120 as acceptable chemical dispersants for procurement in Australia, due to concerns about their safety and ecotoxicity. Instead, AMSA classifies these dispersants as having only 'transitional acceptance' based on their having acquired an earlier, less stringent approval via an assessment process completed in 2012.[8] However, this loophole allows Equinor to use the Corexit 9500 that remains in AMSA stockpiles in the case of an oil spill in the Bight, despite the fact that AMSA no longer considers it safe enough to pass its most recent standards. Dispersant use for oil spill response is banned outright in Sweden, while Corexit has been banned for coastal use in the UK since 1998 due to its damaging effects on marine life.[9]

This report focuses on the environmental impacts of Corexit 9500 over Equinor's other nominated dispersants because knowledge of Corexit's harmful effects on marine life is much more robust. This is primarily due to the extensive scientific studies documenting the effects of Corexit in the Gulf of Mexico after BP's Deepwater Horizon disaster, where it was applied in unprecedented quantities. Research on other dispersants, such as Dasic Slickgone, Total Finasol, and Ardrox 6120, has not been as rigorous. However, their harm profile is likely to be similar to Corexit, based on the materials safety data sheets (MSDS) provided by their manufacturers.[10]

equinor

Oil spill response:
How dispersants work



A heavily oiled loon found dead in Kenai Fjords, Alaska after the Exxon Valdez oil spill disaster.

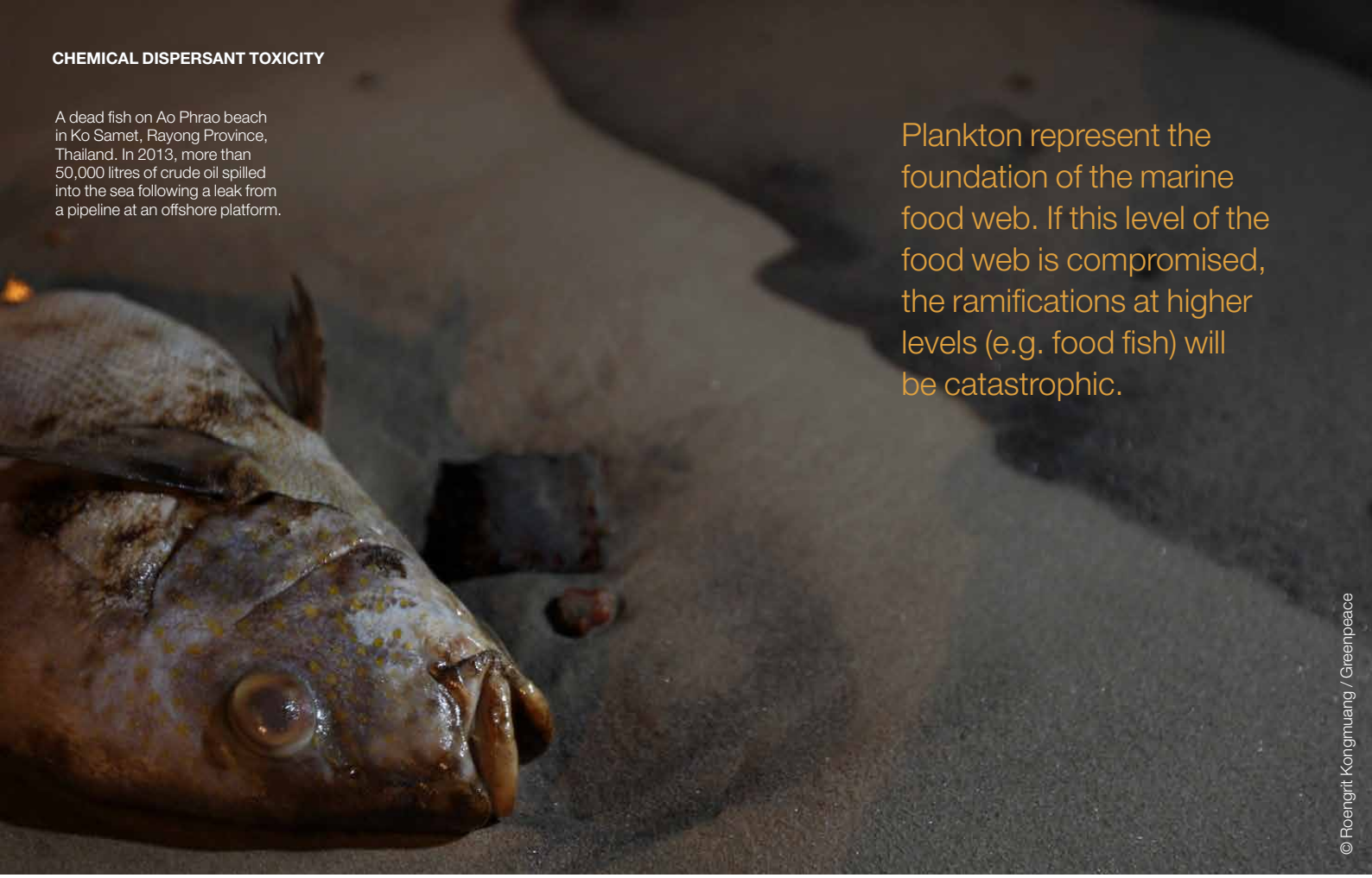
An oil plume with and without dispersants

Oil	Oil and Dispersant
1 second	
	
5 seconds	
	
10 seconds	
	

The images on the left show how chemical dispersants interact with oil when injected directly into the site of a leak.

As the images with oil and dispersant clearly illustrate, dispersants do not "clean up" or reduce the amount of oil in the environment. The chemicals merely break up the oil creating a plume of oil mixed with chemical dispersants that is less visible at the surface but affects more of the water column than oil alone would.

Source: Australian Maritime Safety Authority (AMSA), Irving, P. (2015), Dispersants: a brief overview



A dead fish on Ao Phrao beach in Ko Samet, Rayong Province, Thailand. In 2013, more than 50,000 litres of crude oil spilled into the sea following a leak from a pipeline at an offshore platform.

Plankton represent the foundation of the marine food web. If this level of the food web is compromised, the ramifications at higher levels (e.g. food fish) will be catastrophic.

Chemical dispersant toxicity and environmental impact

Effects on marine life

Chemical dispersants are toxic to marine life. Toxicity comes from the effects of the dispersant chemical cocktail itself and from the way the chemicals interact with the oil.

Numerous scientific, peer-reviewed studies have been carried out: both those performed under controlled, laboratory conditions and those field-based, on-site studies following BP's 2010 Deepwater Horizon oil spill in the Gulf of Mexico. Results suggest that dispersants, such as Corexit 9500, are lethal to some marine organisms upon exposure to high doses and cause significant harm upon exposure to lower doses.

Specific examples include the following:

- Corexit 9500 is cytotoxic (kills living cells) and genotoxic (destroys DNA in living cells) in sperm whale skin cells.[11]
- When bottlenose dolphins and likely other marine mammals are exposed to Corexit 9500 and oil, in combination, they exhibit a suppressed immune system, 'leaving them more susceptible to disease'.[12]
- Both the lung tissue of humans and mice and the gill tissue of zebrafish and blue crabs exhibit adverse effects upon exposure to Corexit 9500.[13]
- Corexit 9500 has been found 'highly toxic to microzooplankton…the combination of dispersant with crude oil significantly increases the toxicity of crude oil to microzooplankton'.[14] Plankton represent the foundation of the marine food web. If this level of the food web is compromised, the ramifications at higher levels (e.g. food fish) will be catastrophic.

Leafy Seadragon (Phycodurus eques) at Kangaroo Island in the Great Australian Bight.

- Eastern oysters (*Crassostrea virginica*) exposed to Corexit 9500 or a Corexit/oil mixture exhibited compromised 'immunological and physiological functions', including feeding rates, which '... could result in serious health outcomes for oysters.'[15]
- Coral larvae (*Porites asteroides*) exposed to either crude oil, an oil-Corexit mix, or Corexit only exhibited decreases in settling behaviour and even death. The researchers concluded that '... exposure of coral larvae to oil spill related contaminants, particularly the dispersant Corexit® 9500, has the potential to negatively impact coral settlement and survival, thereby affecting the resilience and recovery of coral reefs following exposure to oil and dispersants.'[16]
- Mortality in juvenile Harris mud crabs (*Rhithropanopeus harrisii*) was higher in those exposed to Corexit-dispersed oil when compared to crabs exposed to crude oil alone.[17]
- The use of chemical dispersants increases the toxicity of crude oil in trout.[18]
- Juvenile African sharptooth catfish (*Clarias gariepinus*) exposed to Corexit 9500 exhibited interference with key metabolic pathways in the gills, liver, and kidney.[19]

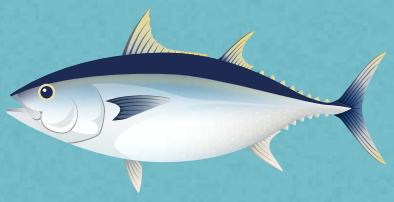
Authorities clean the oil spill in Balikpapan Bay, East Kalimantan, Indonesia. The 2018 oil spill off Borneo island that led to five deaths and the declaration of a state of emergency, was caused by a burst undersea pipe belonging to Indonesia's state oil company, Pertamina.

Equinor's own Environment Plan appears to side-step the toxic effects of the dispersant chemicals themselves, referring to a limited range of studies on dispersant toxicity, and concluding that 'the increased risk for most taxa appears to come from the increased solubility (hence bioavailability) of the toxic components of the oil, not the dispersant itself'.[20]

Potential harm to Great Australian Bight ocean life by dispersants

Plankton

Corexit is highly toxic and fatal to plankton – its use has the potential to cause widespread disruption to marine life in a contaminated region due to the role of plankton as the foundation of the marine food chain.

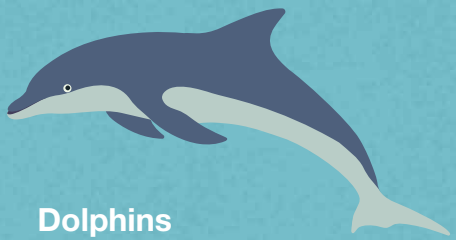


Fish

Corexit was found to be toxic to the gills, liver, and kidneys of fish affecting their metabolic function.

Whales

Corexit and oil have been found to kill and damage the DNA of whale skin cells.



Dolphins

Corexit and oil have been found to cause damage to the immune systems of dolphins, leaving them susceptible to disease.

37

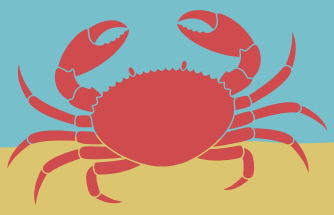
species of whale and dolphin including endangered blue and southern right whales are found in the Bight.

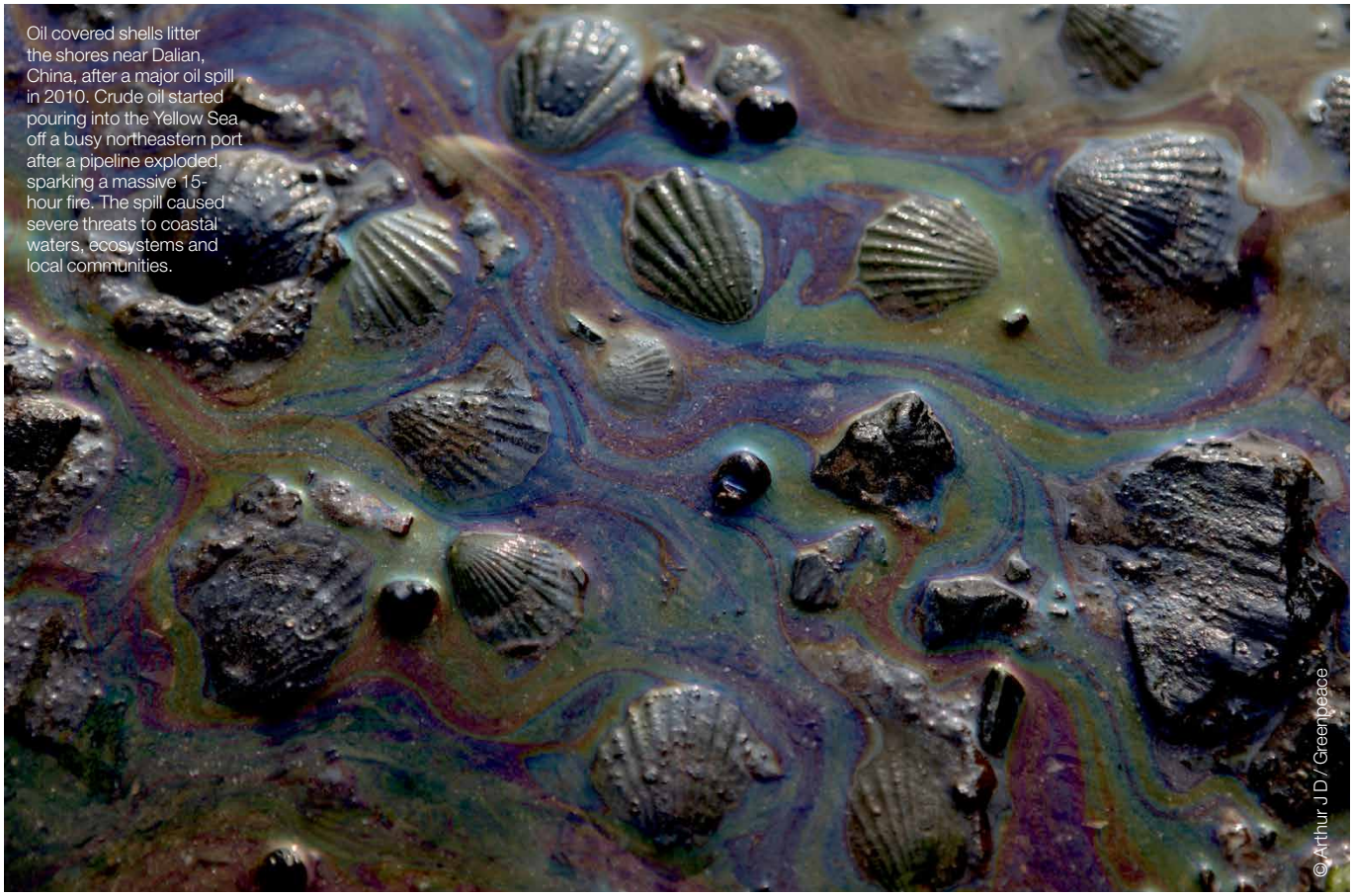
Crustacea

The combination of Corexit and oil was found to be more fatal to crabs than oil on its own with worrying implications for other crustacea like the southern rock lobster.

Corals

Corexit has the potential to negatively impact coral settlement and survival affecting their recovery and resilience.





Oil covered shells litter the shores near Dalian, China, after a major oil spill in 2010. Crude oil started pouring into the Yellow Sea off a busy northeastern port after a pipeline exploded, sparking a massive 15-hour fire. The spill caused severe threats to coastal waters, ecosystems and local communities.

© Arthur J D / Greenpeace

This has led to a decision by Equinor to exclude direct dispersant toxicity from its risk assessment:

> *'The assessment of the environmental effects of using dispersants hereafter is based on the effects of redistributing the oil plume into the water column, conservatively assuming the oil retains its toxicity and assessing the degree of exposure of various environmental values and sensitivities to entrained and dissolved oil.'*

It is clear from the studies cited above, however, that there is sufficient scientific evidence suggesting that dispersants such as Corexit 9500 are toxic to marine life, both in isolation and in combination with oil. It is therefore negligent for any risk assessment plan to disregard the direct impacts of dispersant chemicals and focus instead on the redistributive effects of the oil.

Moreover, as admitted by Equinor, the redistribution of the oil into the water column (i.e. as opposed to it remaining on the surface) means that the effects of the oil will reach further and for longer, as well as making the oil more bioavailable. This means that marine organisms are at a greater risk than if dispersants had not been used.

Effects on humans

Exposure to chemical dispersants is harmful to human health.

The manufacturer's materials guidance for Corexit 9500 specifies that the following safety equipment is required for the safe application of Corexit:

- Safety goggles
- Face shield
- Chemical resistant gloves
- Protective clothing
- Certified respirators, especially if workers are faced with high concentrations of Corexit 9500 [22]

Studies on workers who helped clean up BP's Deepwater Horizon oil spill in the Gulf of Mexico showed acute and persistent health effects including the following:

> *Workers experienced '... eye, nose, and throat irritation; respiratory problems; blood in urine, vomit and rectal bleeding; seizures; nausea and violent vomiting episodes that last for hours; skin irritation, burning and lesions; short-term memory loss and confusion; liver and kidney damage; central nervous system effects and nervous system damage; hypertension; and miscarriages.'*[23]

The BP oil spill clean-up workers exhibited an increased risk of developing cancer and other illnesses, according to a 2013 study. The researchers found that workers exposed to the oil spill and dispersant experienced significantly altered blood profiles, liver enzymes, and somatic symptoms.'[24]

Although less is known about other dispersants, when compared to Corexit, Equinor's two other nominated dispersants for use in the Bight likely have a similar harm profile. Finasol OSR 52 and Dasic Slickgone NS are both classified as harmful when in contact with skin or eyes, swallowed, and 'fatal if swallowed and enters airways'.[25]

The manufacturer's materials guidance for Finasol and Slickgone specify that the following safety equipment is required for their safe application:

- Safety glasses with side shields
- Face shield
- Chemical resistant gloves
- Protective clothing
- Protective shoes or boots
- Certified respirators, if workers are faced with higher concentrations of dispersants.[26]

A clean up worker uses an oil spill boom to collect oil in Ko Samed, Rayong Province, Thailand. This was part of the clean up efforts following a major leak from a pipeline at an offshore platform in 2013.

Health effects of dispersants

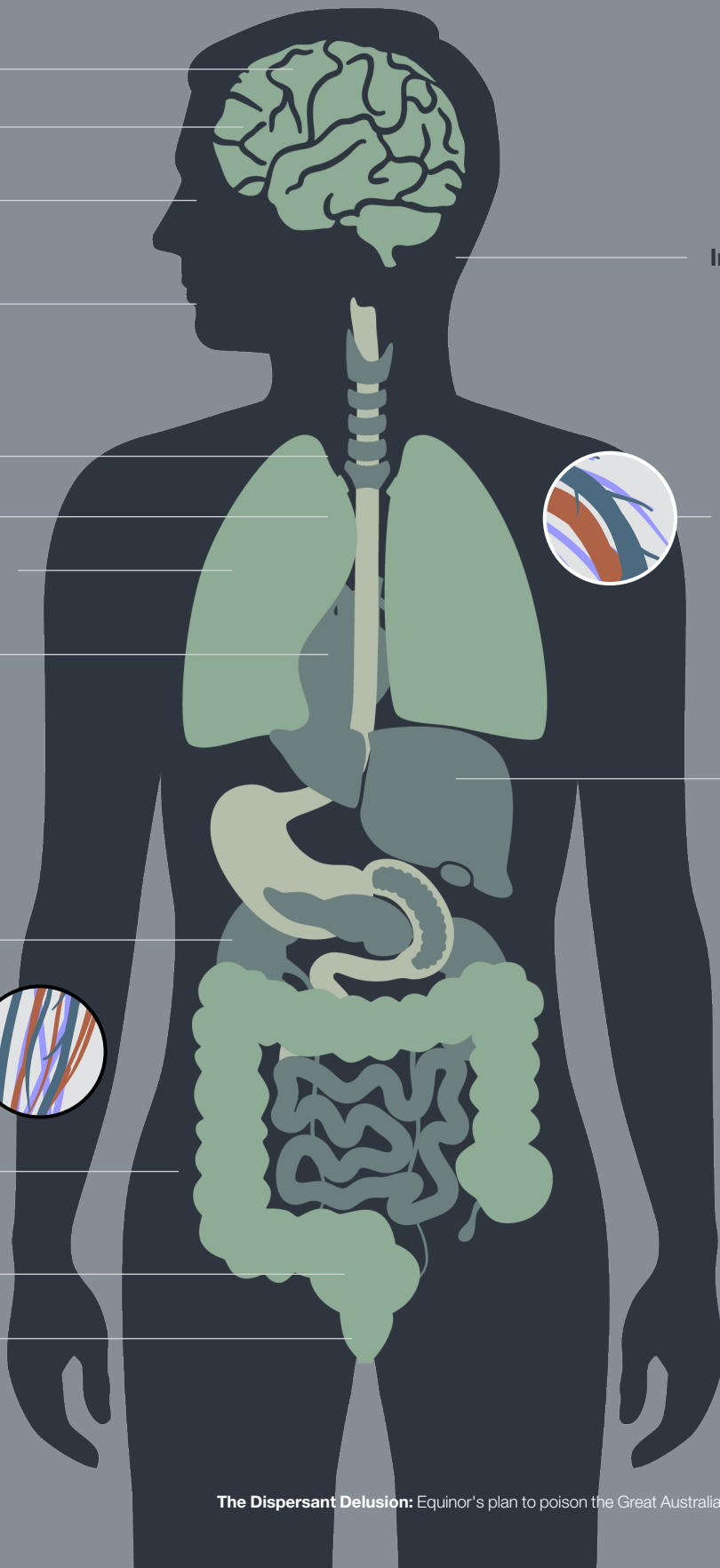
Harmful effects reported by workers involved in the Deepwater Horizon spill response where 6.9 million litres of Corexit was applied to the spilled oil.

Short term effects:

- Seizures
- Short-term memory loss and confusion
- Eye, nose and throat irritation
- Nausea and violent vomiting episodes that last for hours
- Burning and lesions
- Skin irritation
- Respiratory problems
- Hypertension
- Kidney damage
- Central nervous system effects and nervous system damage
- Miscarriages
- Blood in urine
- Rectal bleeding

Long term effects:

- Increased risk of cancer
- Altered blood profiles
- Liver damage



C130 plane spraying dispersant over the oil leaked from the Deepwater Horizon wellhead in the Gulf of Mexico. The BP-leased oil platform exploded on April 20, 2010 and sank after burning, leaking an estimate of more than 200,000 gallons of crude oil per day from the broken pipeline to the sea.

"My whole team and I were sprayed in late June 2010. We were in a fleet of 20 vessels in a line a plane flew over us as it was spraying Corexit and went along the whole beach line spraying. The wind carried the dispersant and it blew back on us; it looked like a hundred people were smoking 6 cigarettes in a straight line and there was smoke in the air. I really got the brunt of it because as a supervisor, I was standing off to the side as everyone else was pulling boom out of the water on the other side. After I got sprayed, I told my crew 'This is burning, you all better move.' It felt like somebody threw some hot coffee on my arm. The burning stopped, then it started back up 20 minutes later, and then it started itching."[21]

- Andre Gaines, Deepwater Horizon oil spill responder

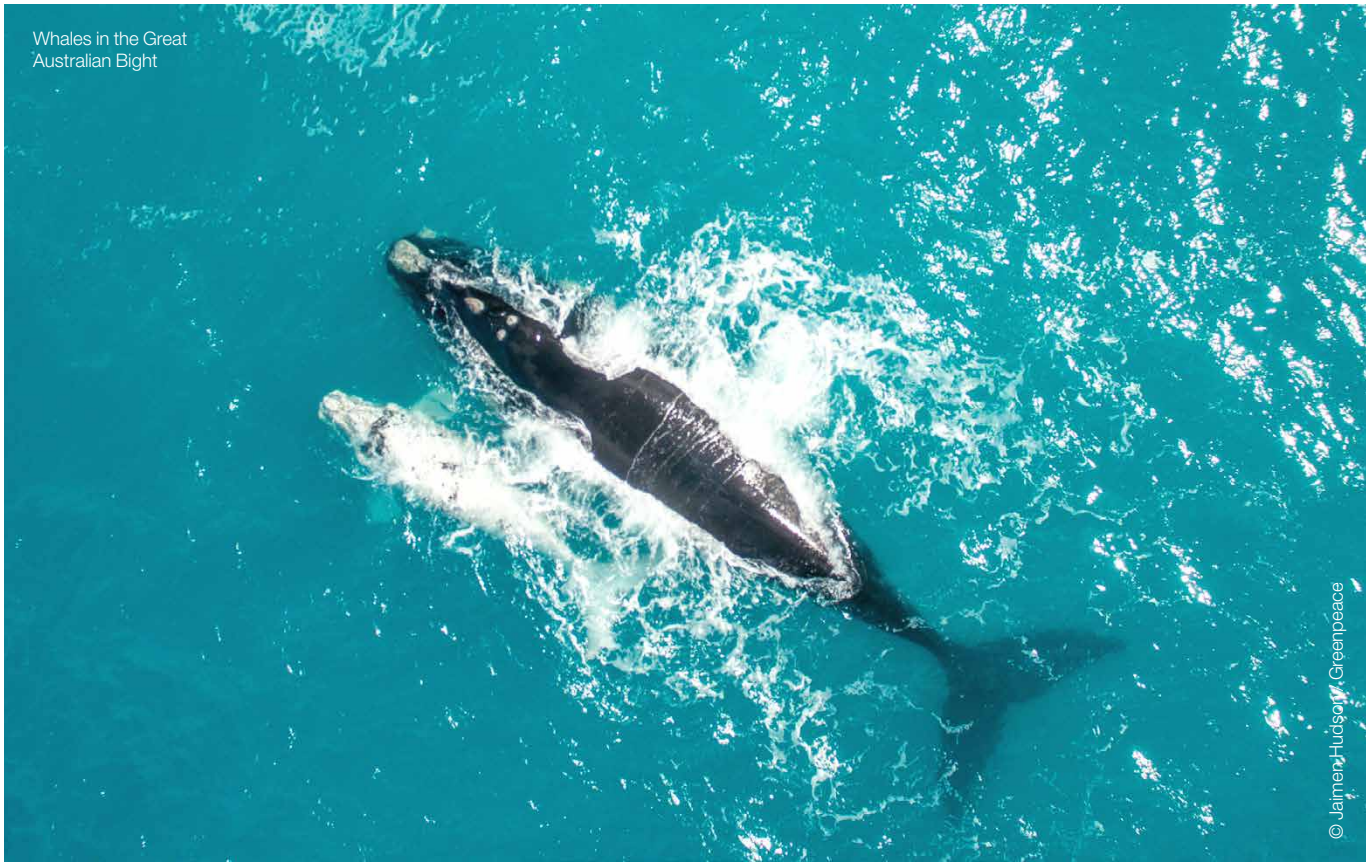
Endangered species, such as the blue whale and southern right whale use the Great Australian Bight for feeding, calving, and transit during seasonal migrations.

How will marine life in the Great Australian Bight be affected?

The Great Australian Bight is a region of high biodiversity, containing numerous species that are found nowhere else in the world (i.e. endemic) as well as many species that are threatened or endangered. Of the known species in the Bight, more than 85 per cent of the fish, 95 per cent of the molluscs, 75 per cent of red algae, and 95 per cent of seagrass species are endemic to the Bight waters. The Great Australian Bight has the highest levels of benthic (sea floor) biodiversity and endemism found anywhere in Australia.

Endangered species, such as the blue whale and southern right whale use the Great Australian Bight for feeding, calving, and transit during seasonal migrations.

The Bight is also a key sperm whale feeding area. Other whale species that call the Bight home include the fin whale, pygmy blue whale, and sei whale. The majority of Australian sea lion and the long-nosed fur seal populations occur in the Bight. Both species are endemic to the area. Moreover, 55 species of seabirds, 37 species of whales and dolphins, and 10 shark species use the Great Australian Bight.



Whales in the Great Australian Bight

© Jaimen Hudson / Greenpeace

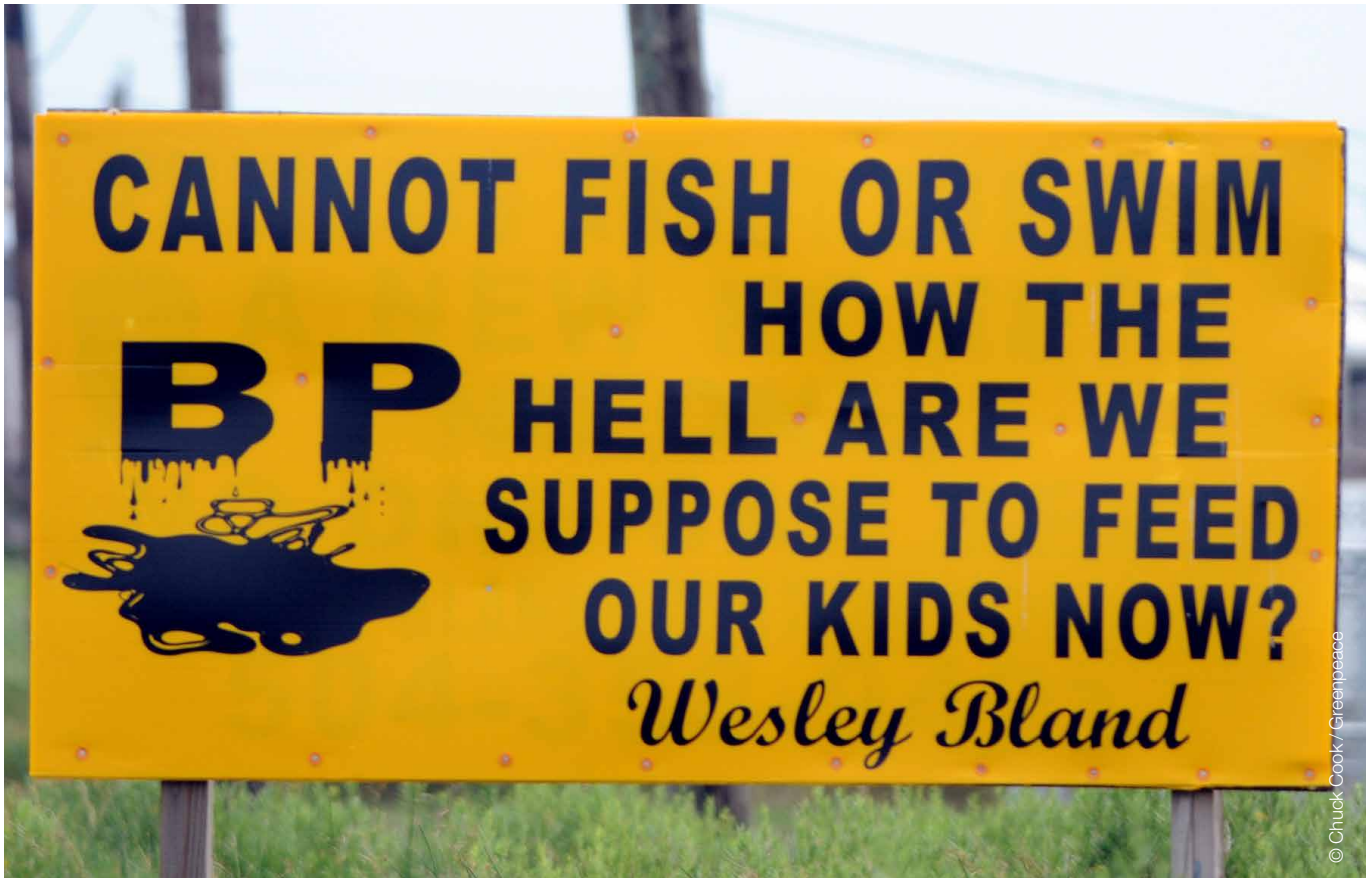
This biodiverse marine region is composed of numerous unique habitats and ecosystems. The brown algal forests of the Great Southern Reef are dominated by algae ('fucoid algae') and kelp. The Great Southern Reef has the highest fucoid diversity and endemism globally and kelp is one of the most prolific primary producers of organic matter on the planet. These algal forests are key to biodiversity, as is another unique feature of the Bight: nutrient upwellings. Coastal upwellings enriched with nutrients and promoting high levels of primary productivity are transported over large distances of the Great Australian Bight's continental shelf, supporting commercial fisheries and highly diverse ecosystems.

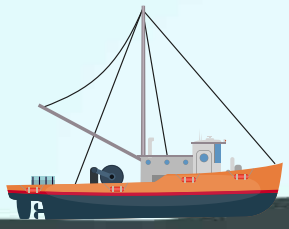
The Great Australian Bight produces 25% of Australia's seafood by value and it supports Australia's largest single species commercial fishery by volume: sardines. Australia's largest and most valuable stocks of pelagic fishes, especially Australian sardine and southern bluefin tuna, occur in the Bight, and there are important coastal fisheries for crustaceans (southern rock lobster, prawns and crabs), molluscs (abalone) and finfish (snapper, King George whiting, garfish and flathead), with the majority of South Australia's valuable aquaculture farming residing in the coastal waters off Eyre Peninsula.

The aquaculture industry in inshore and coastal waters is largely based on ranching of juvenile southern bluefin tuna, initially taken from the Commonwealth fishery. The tuna ranching activity contributes around two thirds of the value of aquaculture production in South Australia. The Pacific Oyster industry has also developed into a major aquaculture industry, with South Australia now the major producer of Pacific Oysters in Australia.

Chemical dispersants pose an unacceptable risk of harm to these species especially if used in the large quantities that Equinor has outlined in its plans to deal with a disastrous well blowout.

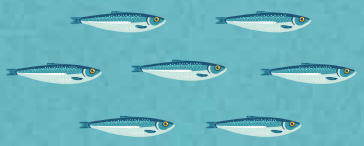
Below: A sign reading "Cannot fish or swim, BP how the hell are we supposed to feed our kids now?" in the tiny community of Grand Isle on the Louisiana gulf coast near the site of the Deepwater Horizon oil spill. The BP-leased Deepwater Horizon oil platform exploded on April 20, 2010 and sank after burning, leaking record amounts of crude oil from the broken pipeline into the sea.



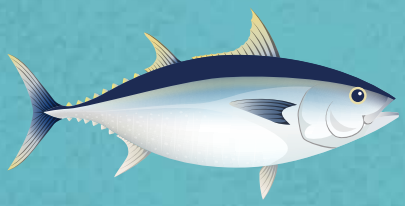


Effects on Australia's most important seafood region

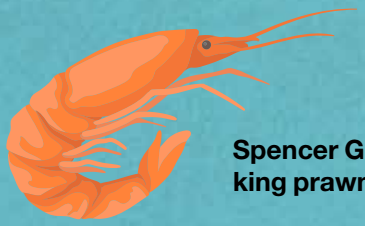
Key species at risk:



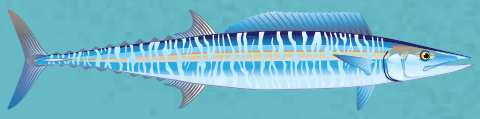
Sardines



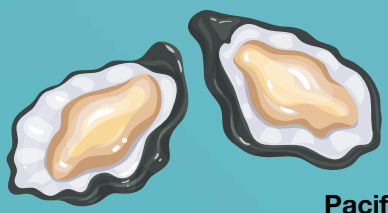
Southern bluefin tuna



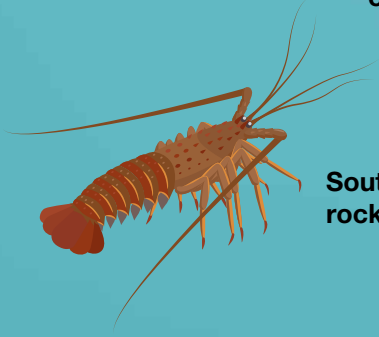
Spencer Gulf king prawns



Hiramasa kingfish



Pacific oysters



Southern rock lobster

The Bight provides **25%** of Australia's seafood (by value)

5,600 jobs

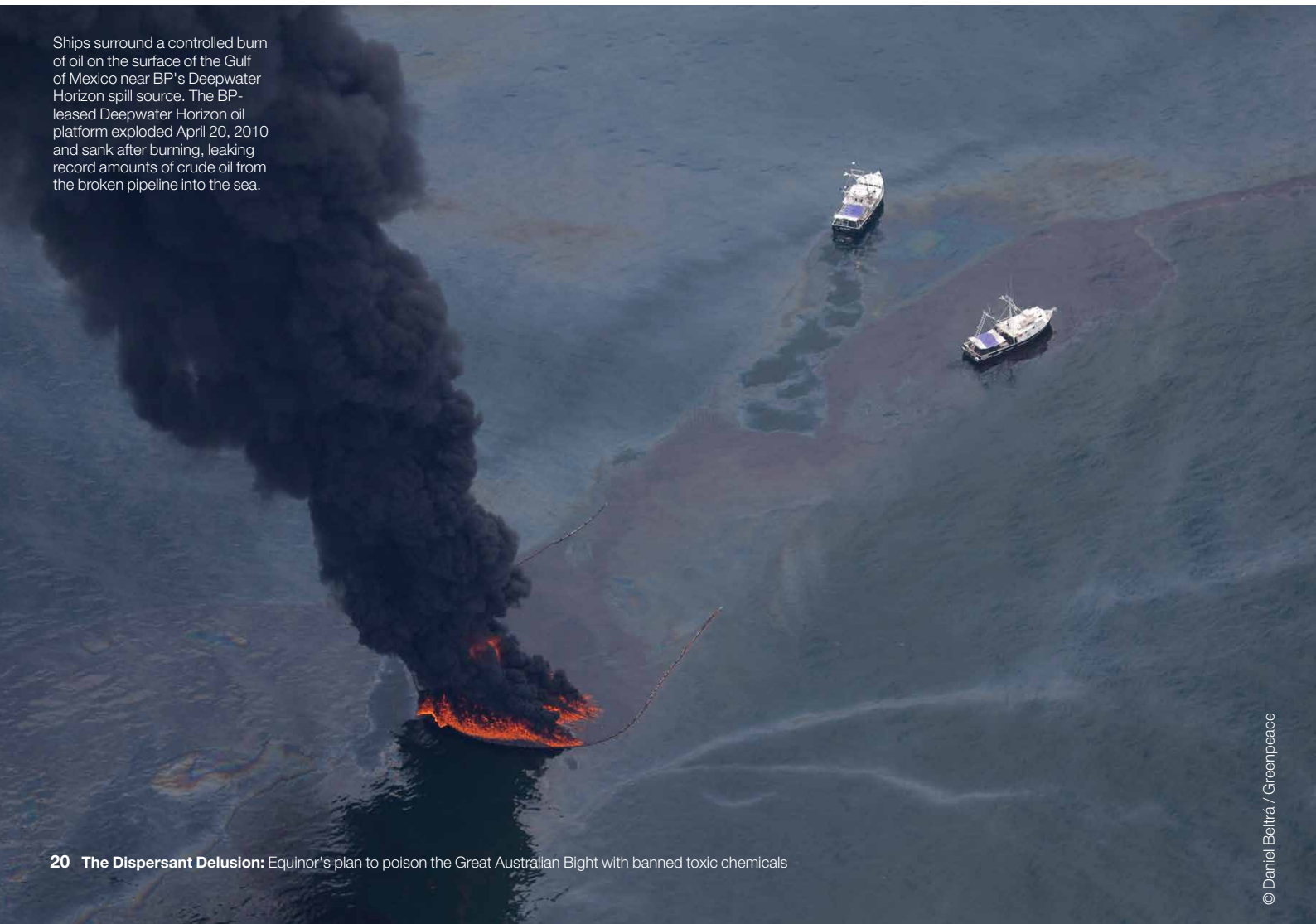
There are 5,600 direct and indirect jobs in fishing and aquaculture in South Australia.

$350 million

The amount the fishing industry contributes to household income supporting workers and their families.

Hingebeak shrimp (Rhynchocinetes sp.) at Kangaroo Island in the Great Australian Bight.

Ships surround a controlled burn of oil on the surface of the Gulf of Mexico near BP's Deepwater Horizon spill source. The BP-leased Deepwater Horizon oil platform exploded April 20, 2010 and sank after burning, leaking record amounts of crude oil from the broken pipeline into the sea.



Conclusions

Chemical dispersants are chemicals that are toxic and have no place in the Great Australian Bight. The best available science has concluded that dispersants are harmful or fatal to a wide range of marine life, including whales, fish, oysters, coral, crabs, and the tiny zooplankton that are the foundation of the marine food chain.

Despite this, chemical dispersants are a central part of Equinor's oil spill response strategy in the case of a catastrophic well blowout and oil spill at its proposed Stromlo-1 drill site in the Great Australian Bight. In the event of such an incident, Equinor plans to pump all available dispersant stocks in Australia into the Bight, and import further supplies from overseas. These include stockpiles of Corexit 9500, banned in Sweden and the United Kingdom due to concerns about its toxicity, and only 'transitionally approved' in Australia.

Equinor's Environment Plan fails to properly consider the direct toxicity of the dispersants that it plans to use, because they are approved for use in Australia, choosing instead to focus its risk mitigation analysis on the impact of dispersants on the oil plume that would result from a catastrophic well blowout.

It is clear, therefore, that Equinor's plans for oil drilling in the Bight are manifestly incompatible with the preservation of the unique and pristine ecosystems of the Great Australian Bight and the protection of the Australian fishing and recreation industries that rely on the Bight for their prosperity.

The best way to look after the Great Australian Bight and its communities is to prevent oil drilling in the first place. But oil companies like Equinor that propose to drill in the Bight must be required to fully quantify the environmental harm their response tactics would cause. Moreover, we need to prevent oil companies from using response methods, such as dispersants like Corexit, that cause more harm than good. The Australian government needs to withdraw the 'transitional acceptance' status of Corexit 9500; if Corexit is too dangerous to procure, then it is too dangerous to release into the environment where it will harm humans and marine life.

Equinor's plans for oil drilling are manifestly incompatible with the preservation of the unique and pristine ecosystems of the Great Australian Bight.

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Hermit crabs are smothered in oil from the BP Deepwater Horizon wellhead disaster on Grand Terre Island. The BP-leased Deepwater Horizon oil platform exploded April 20 and sank after burning, leaking record amounts of crude oil from the broken pipeline into the sea.

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