



International Fund for Animal Welfare

IFAW Oceania office
6 Belmore Street
Surry Hills NSW 2010
Australia
Tel: +61 (0)2 9288 4900
Fax: +61 (0)2 9288 4901
Free call: 1800 00 IFAW (4329)
Email: info-au@ifaw.org

IFAW supplementary evidence: Senate Environment and Communications References Committee Inquiry into the potential environmental, social and economic impacts of BP's planned exploratory oil drilling project, and any future oil or gas production in the Great Australian Bight

Submitted electronically, 6 May 2016

1. IFAW submits the following supplementary evidence in answer to questions taken on notice during Matthew Collis' appearance before the Committee on the 28 April 2016.
2. In response to a question from Senator Back, regarding any studies in relation to what, if any, pathological effects there are on marine animals from oil that escapes naturally from the seabed, Mr Collis offered to investigate further and come back to the committee on that question.
3. IFAW is not aware of any specific scientific studies in relation to impacts on marine life from natural oil seeps. Anecdotally, we understand the impacts of oiling on individual marine animals would be the same, regardless of whether the oil was released naturally or due to an industrial disaster. Paragraphs 27-32 of IFAW's original submission highlighted the impacts of oiling on marine mammals.
4. However, the scale of the impact, i.e. the number of animals affected, would likely be very different in the event of a catastrophic oil spill. Naturally occurring seeps are generally very old and flow at a very low rate. In addition, rather than being made up entirely of crude oil, the material flowing from seeps is often heavily biodegraded by microbial action deep beneath the seafloor (Woods Hole Oceanographic Institute, 2016). In contrast, man-made spills generally result in relatively short, high-volume inputs of oil into the marine environment, and are therefore likely to have an impact on more animals on a wider scale than natural seeps.
5. Senator Back is correct that as much as half of the oil that enters the coastal environment comes from natural seeps of oil and natural gas (Woods Hole Oceanographic Institute, 2016). However, oil from natural seeps normally stays in the water for between 10 hours and 5 days. Oil from man-made spills can last in the marine environment for months and years.
6. For example, oil seeps occur constantly throughout the Gulf of Mexico. Although collectively they do release a lot of oil over time, their individual spill rates are far, far lower than the Deepwater Horizon gusher. These much smaller seeps are also dispersed around the Gulf, so each seep's oil can be degraded more quickly. At the Deepwater Horizon site (and at any other well blowout site), all the oil is coming out at the same time, in the same place. The water in one location can only degrade so much oil at one time; an oil spill overwhelms the ocean's natural oil-coping mechanisms.
7. The oil from all those natural seeps escapes year-round. So while the water can degrade small amounts of oil within 5 days, continuously, that oil-disposal capacity is always already in use, year-round. So any additional oil spilled does not follow that time line. It lasts much longer and has a much greater impact.

8. The Deepwater Horizon site released 3 to 12 times the oil per day compared to that released by natural seeps across the entire Gulf of Mexico. By 30 May 2010, the Deepwater Horizon site had released between 468,000 and 741,000 barrels of oil, compared to 60,000 to 150,000 barrels from natural seeps across the entire Gulf of Mexico over the same 39 day period (Cleveland, 2010).
9. Senator Xenophon also asked questions regarding the natural weathering and dispersal of oil in the Great Australian Bight marine environment. IFAW understands that the extent to which any oil spilt would naturally weather, and the range over which it would disperse, would be affected by factors such as: oil composition, oil slick thickness, temperature of seawater and air, and wind speed and sea state (AMSA, 2016). This is all information that should be available to BP (or at least BP will have good estimates of e.g. the likely oil composition, flow rates and therefore likely slick thickness etc).
10. This is exactly the kind of information that should be supplied publicly through the environmental assessment process, along with BP's interpretation of how this would affect the natural weathering and dispersal of any oil spilt, in order for stakeholders to make an informed judgment about the likely nature and scale of a spill and the appropriateness, or not, of relying on natural weathering and dispersal. The fact that to date no such information has been released by BP highlights a major flaw in the system. As alluded to in paragraph 43 of IFAW's original submission, the public information released to date by BP regarding its response plan (in the Oil Spill Response Tactic Summary released alongside the original Environment Plan (BP, 2016)), does not give any quantifiable estimates of how natural conditions would impact their ability to successfully deploy mitigation responses in the event of a spill, and therefore the level to which they will be relying on, and the environmental consequences of relying on, natural weathering and dispersal.

References

AMSA (Australian Maritime Safety Authority), (2016). Weathering of Oil at Sea. Available at:

<https://www.amsa.gov.au/environment/maritime-environmental-emergencies/national-plan/general-information/dispersants/weathering-of-oil/index.asp> [accessed 4 May 2016]

BP (2016). Oil Spill Response Tactics Summary. Available at:

<http://www.bpgabproject.com.au/external/content/document/5771/2588074/1/Oil%20Spill%20Response%20Tactics%20Summary.pdf> [accessed 4 May 2016].

Cleveland, Dr C.J., (2010), Natural Oil Seeps and the Deepwater Horizon Disaster: A Comparison of Magnitudes, as cited on The Oil Drum, available at: <http://www.theoil drum.com/node/6552> [accessed 4 May 2016].

Woods Hole Oceanographic Institute, (2016). Natural Oil Seeps. Available at:

<http://www.whoi.edu/oil/natural-oil-seeps> [accessed 4 May 2016].