

individuals within areas of the AOI)...” DPEIS at 4-60. The Associations strongly disagree with this conclusion because it has no support in fact, science, or law. Specifically, as set forth below, this conclusion is erroneous because it (i) is derived from an unlawful “worst case analysis” that BOEM admits is not realistic; (ii) ignores the effects of mitigation measures; (iii) relies on biased and flawed technical assumptions and modeling; and (iv) does not consider all of the best available information, including a wealth of data demonstrating that seismic activities have had no detectable adverse impacts on marine mammal populations.

### **1. The DPEIS Unlawfully Relies on a “Worst Case” Analysis**

Prior to 1986, NEPA regulations required a lead agency to prepare a “worst case analysis” of impacts for which there is incomplete or unavailable information. *See* 51 Fed. Reg. 15,618 (Apr. 25, 1986). However, this requirement was expressly rescinded decades ago because it was found to be “an unproductive and ineffective method of achieving [NEPA’s] goals; one which can breed endless hypothesis and speculation.” *Id.*; *see Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 354-56 (1989) (U.S. Supreme Court confirming that worst case analysis is no longer applicable).

In place of the worst case analysis requirement, the federal Council on Environmental Quality (“CEQ”) promulgated “a wiser and more manageable approach to the evaluation of reasonably foreseeable significant adverse impacts in the face of incomplete or unavailable information in an EIS.” 51 Fed. Reg. at 15,620. The new (and current) approach requires federal lead agencies to disclose such impacts and perform a “carefully conducted” evaluation based upon “credible scientific evidence.” *Id.*; *see* 40 C.F.R. § 1502.22(b)(1). In developing this requirement, CEQ explained that “credible” means “capable of being believed” and stated that “[i]nformation which is unworthy of belief should not be included in an EIS.” 51 Fed. Reg. at 15,622-23 (emphasis added).

However, by BOEM’s admission, the DPEIS presents an unrealistic worst case assessment of the potential effects of seismic activities on marine mammals that is purposefully constructed to overestimate levels of projected adverse effects. Specifically, the effects analysis is based solely on modeling (Appendix D) that “creates an estimate of the potential number of animals exposed to the sounds.” DPEIS at 1-16. BOEM explains:

This estimate alone does not reflect BOEM’s determination of the actual expected physical or behavioral impacts to marine mammals but rather an overly conservative upper limit because none of the mitigations examined in this Programmatic EIS were modeled. Biological significance to marine mammals is left to interpretation by the subject-matter experts.

*Id.* (emphasis added). “Biological significance” is not further evaluated or considered in the DPEIS even though, as addressed below, relevant information is available. This is a particularly arbitrary error because it results in a DPEIS that does not evaluate the actual effects that are

anticipated to be “caused by the action” or that are “reasonably foreseeable.” 40 C.F.R. § 1508.8 (definitions for “direct” and “indirect” effects).

Additionally, the exposure estimates themselves “are based on acoustic and impact models that are, by their nature, conservative and complex.” DPEIS at 1-19. Indeed, “[e]ach of the inputs into the models is purposely developed to be conservative, and this conservativeness accumulates throughout the analysis.” *Id.* (emphasis added). As a result, the exposure estimates are “higher than BOEM expects would actually occur in a real world environment.” *Id.*; *id.* at 1-20 (“This estimate does not reflect an actual expectation that marine mammals will be injured or disturbed. It is an overly conservative estimate.”). BOEM further admits that using the exposure models as a basis for the effects analysis “requires accepting a worst-case scenario, which ultimately overestimates the numbers of ‘take’ under the [Marine Mammal Protection Act (“MMPA”)] by equating those numbers with the exposures identified in the modeling rather than real world conditions.” *Id.* (emphasis added).

The Associations appreciate BOEM’s candor in providing accurate descriptions of the substantial shortcomings of the exposure modeling. However, such candor does not excuse BOEM from performing a lawful evaluation of the actually anticipated direct and indirect effects of the proposed action. As stated above, both direct and indirect effects must be “caused by” the action, and indirect effects must be “reasonably foreseeable.” 40 C.F.R. § 1508.8. By BOEM’s admission, the exposure estimates presented in the DPEIS do not accurately represent effects that BOEM expects to be “caused by” the proposed action or that are “reasonably foreseeable.” Aside from being contrary to NEPA requirements, BOEM’s inappropriate reliance on a worst case scenario to estimate marine mammal impacts could present challenges for the National Marine Fisheries Service (“NMFS”) should NMFS decide to rely on a similarly flawed analysis when issuing incidental take regulations under the MMPA.

Moreover, by performing an effects analysis that is “purposely developed to be conservative,” based on the highest sound levels and erroneously high marine mammal densities, and purposely intended to overestimate adverse effects, BOEM has performed precisely the type of “worst case analysis” that was rejected by both CEQ and the U.S. Supreme Court many years ago. By its terms, and as expressly stated in the DPEIS, the analysis of marine mammal impacts is intentionally designed to be inaccurate and to evaluate the worst possible consequences that could hypothetically result from unmitigated seismic surveying. It is hard to imagine an analysis that presents a scenario worse than the thousands to millions of incidental exposures that are predicted by the DPEIS.

In sum, the DPEIS’s analysis of marine mammal effects is plainly not credible; it evaluates effects that, by BOEM’s admission, will not occur, and, therefore, it is “unworthy of belief.” 40 C.F.R. § 1502.22(b)(1); 51 Fed. Reg. at 15,622-23. The DPEIS violates NEPA because it relies exclusively on a “worst case” analysis of seismic impacts on marine mammals, contrary to well-established law.