1. **Isn't this highly speculative?**

   Our highly conservative estimates are based on historical data. Our estimates use average spill rates and volumes for offshore platforms and pipelines during 1974-2015 based on the same data sets that BOEM relies on to estimate offshore oil spill risk.

   BOEM estimates the number of large (≥1000 barrels) and small (≤1000 barrels) oil spills based on the **anticipated oil production** for each planning area using historical spill and volume rates. For Trump's plan, we used estimated oil amounts for **undiscovered economically recoverable resources** in unleased blocks that are slated for leasing since the administration has not published anticipated production.

   Oil production depends in part on the price of oil and thus estimated oil spills may change accordingly. We based our estimate on the mid-level $100/barrel oil price, which is commonly used by the government in environmental impact statements.

   Oil companies may not drill on every lease, but the only way to be sure higher oil prices and changing technology don't prompt more drilling and spilling is to pull those leases out of the plan.

2. **Doesn't this dramatically understate likely spills, since you excluded catastrophic incidents like Deepwater Horizon?**

   Yes, our estimates are highly conservative and likely significantly underestimate spill risk. They do not include catastrophic incidents like the Deepwater Horizon disaster which spilled 4.9 million barrels of oil in the Gulf of Mexico. These catastrophic incidents will become more likely as the Trump administration rolls back offshore drilling safety rules.

   It also doesn't factor in the extraordinary spill risk posed by drilling in treacherous Arctic waters, which would be greenlighted under the Trump administration's plan.

   We excluded such incidents because spills from them are hard to quantify, but they're obviously a huge concern. Because of those risks, it's likely that Trump's offshore drilling plan will spill far more oil than our estimate predicts.

   We also did not include spills from tankers, which further leads to an underestimate of oil spill risk.

3. **Over what period of time would these 4,232 spills take place?**

   The spills would take place over the lifetime of the wells, platforms and pipelines built in these leases. They could start as soon as oil production got underway and

continue for years to come. Federal records show peak oil production usually occurs about 20 years into the lease and tapers off steadily from there.

4. **Doesn't this overstate spill potential? Why include areas like the California coast where oil companies may be unlikely to drill?**

   Our calculations are based on the draft program plan which includes these areas. If there's not much oil industry interest in these locations, that's all the more reason for the Trump administration to withdraw them from the leasing plan.

   Oil extraction technology has changed rapidly in recent years, opening up huge deposits of oil previously thought to be unrecoverable.

   If the price of oil continues to rise, it's hard to predict where the industry will drill. We based this estimate on $100/barrel price, which is commonly used by the government when doing environmental impact statements. The only way to be sure these areas are safe from spills and pollution is for the federal government not to lease them to the petroleum industry.

5. **It looks like most oil spills could happen in the Gulf of Mexico, southern California, and northern Alaska. Why is this?**

   Most of the oil production would happen in these areas, and therefore most of the oil spills. The more oil is produced and handled, the higher the probability of small and large oil spills.

   A huge concern with the Arctic is that oil spills in the Chukchi and Beaufort Sea could be much higher than we think because drilling in the Arctic is more difficult (icebergs, Arctic storms, melting permafrost, etc.). An oil spill in those areas will certainly be impossible to clean up and could permanently damage marine ecosystems in the area.

6. **Why did you divide oil spills into large and small spills?**

   Large and small oil spills happen at vastly different rates. Large spills (≥1000 barrels) are less frequent than small spills (≤1000 barrels). Large spills are harder to clean up and have more disastrous impact on marine wildlife. For example, there were six large platform spills including the Deepwater Horizon disaster and 16 large pipeline spills from 1974 to 2015. However, the total amount and volume of small oil spills can easily surpass those of large spills and can have cumulative impacts on wildlife and water quality.