



A hatchling loggerhead sea turtle emerges from its nest. Photo by US Fish and Wildlife Service.

Cross-posted at [CPRBlog](#)

The media have paid a lot of attention to the cavalier attitude of the former Minerals Management Service (now called the [Bureau of Ocean Energy Management, Regulation, and Enforcement](#)) toward the National Environmental Policy Act (I blogged about it [here](#) and [here](#) and Dan weighed in [here](#)). Less has been said, so far, about the Endangered Species Act. (One conspicuous exception is Keith Rizzardi's [ESA Blawg](#), which called on May 29 for a review of ESA implementation.)

As more oil nears shore, the impacts of the spill on sea life are becoming more obvious. The most recent [report from the federal response team](#) lists a total of 1240 oiled birds collected, 359 of them dead, 113 oiled sea turtles (11 dead), and 5 oiled marine mammals (3 dead). That's undoubtedly only a small total of the affected wildlife, since many animals which encounter oil at sea will never be found.

And there's clearly more trouble to come. The [Washington Post reports](#) that the Fish and Wildlife Service plans to collect the eggs of the threatened loggerhead sea turtle from nests along the Gulf Coast and move them to Florida's east coast, a risky operation but one that seems necessary to save the hatchlings from swimming "to their certain doom" (according to David Godfrey, executive director of the Sea Turtle Conservancy) in oiled waters.

There are two distinct questions about the ESA and the oil spill: (1) what role did the ESA have in permitting the Deepwater Horizon and other offshore oil operations?; and (2) what are the ESA implications of the spill now that it's occurred? This post considers the first question.

The ESA requires federal agencies to consult with FWS and the National Marine Fisheries Service on any actions (including funding and permitting decisions) that may adversely affect listed species. The agencies must ensure that their actions are not likely to jeopardize the continued existence of any listed species or adversely modify or destroy designated critical habitat. Actions cause jeopardy if their direct or indirect effects are expected "to reduce appreciably" the likelihood of the species' survival and recovery to the point of delisting. The regulatory definition of adverse modification of critical habitat is similar, but a

series of federal courts have ruled that adverse modification includes impacts that interfere with recovery even if they do not affect survival.

MMS did consult with FWS and NMFS on the impacts of the 5-year 2007-2012 offshore drilling program in the Gulf of Mexico. So far as I can tell, there was never any consultation on the actual lease sales or on subsequent exploration and development. The program-scale consultation, like the program-scale NEPA analysis, appears to have fallen victim to [optimistic assessments](#) about the likelihood and magnitude of oil spills.

FWS actually signed off on MMS's conclusion that the entire 5-year program was "not likely to adversely affect" any listed species under FWS's jurisdiction. That means FWS didn't expect any harm to any of its listed species, including the brown pelican, which had not yet been delisted, from any actions that would be authorized under the entire 5-year plan. Oops.

NMFS wasn't as asleep at the switch. It demanded formal consultation and prepared a lengthy [Biological Opinion](#) which found that there would be no jeopardy or adverse modification of critical habitat. The Biological Opinion considered the effects of constructing oil and gas platforms, the shipping and helicopter trips to and from those platforms, seismic surveying activity, pipeline construction, platform lighting, water pollution from ordinary operations, and oil spills.

NMFS acknowledged that accidental oil spills could affect sea turtles, sperm whales, and the Gulf sturgeon. The agency worked hard to evaluate the likely impacts of oil spills over the forty year expected time of operations for facilities from these lease sales. It estimated, for example, that a total of 42 loggerhead sea turtles would be killed by oil spills, and another 119 injured, over that time. Considered together with take due to vessel strikes, NMFS decided that level of impact would not jeopardize the population.

The problem with the BiOp is that it accepted MMS's estimates of the probability and magnitude of oil spills. That's not surprising, since NMFS surely doesn't have much expertise in petroleum engineering. Oddly, the numbers don't correspond exactly with those used in the EIS, but like those in the EIS they are much different than the result of the Deepwater Horizon blowout. The BiOp (see p. 77) envisioned many little spills, which would quickly disperse, but only 3 large spills over forty years. Even those were supposed to be about 193,000 gallons each, and to disperse within 5 days. The Deepwater Horizon spill has already [poured somewhere between](#) 80 million and 280 million gallons of oil into the gulf, and its still going after more than 70 days. NMFS never thought about the kind of damage a blowout of this magnitude could do to endangered species.

NMFS can and should require a worst-case analysis for oil spills in consultations on offshore (or for that matter onshore) drilling. The ESA requires that species get the benefit of the doubt, and there is good reason to believe that estimates of the probability of accidents are likely to be too optimistic, especially where those estimates depend heavily on data or analysis from the regulated industry. NMFS and FWS should evaluate the effects of a blowout at the worst time of year rather than mean estimates of spill magnitude over 40 years. (It is worth noting that under the Obama administration NMFS appears to be headed this direction. In 2009 [comments on the next proposed 5-year leasing program](#), made public by The New York Times, NMFS questioned MMS's oil spill risk estimates and requested that worst-case scenarios be presented in NEPA documents.)

A worst-case analysis would allow NMFS and FWS to analyze more credibly whether a catastrophic oil spill would threaten the continued existence of protected species, as the Deepwater Horizon spill seems to do by threatening to cause complete failure of loggerhead sea turtle reproduction in the Gulf for at least this year. The ESA requires only that federal agencies insure that jeopardy is not "likely," but that must require more than keeping the probability of a catastrophic event below 50%. Catastrophic risk should have to be sufficiently low as to be discountable, on the order of the level of risk of death that a rational, well-informed human being would voluntarily incur. (Would you fly if there was a 49% chance the plane would crash, or even 10%?) I don't think that showing could have been made for deepwater drilling in the Gulf, given the evidence that MMS and industry knew that [blow-out preventers were vulnerable to failure](#) in deep water.

There could, however, be another route to a no-jeopardy finding. It might be possible to protect listed species against jeopardy even if a catastrophic event occurs. In that case, the BiOp could require effective protective measures. The BiOp on Gulf oil development might have required that deepwater leases include terms that would ensure a blowout could be capped within a reasonable amount of time, for example by requiring pre-drilling of relief wells or demonstrations of the ability to cap a blow-out effectively and quickly at depth.

Of course, in order to be effective, consultation always requires that both the wildlife agency and the action agency be trustworthy and committed to fulfilling their conservation responsibilities. Since it's clear that the former MMS does not merit that trust, more oversight should be required. Its worst-case scenarios and probability analyses should be reviewed by an independent panel. The wildlife agencies must also follow up to make sure the conditions they impose are in fact implemented; if necessary, they should have cabinet- and White House-level backing.

The Department of Interior [has committed to reviewing](#) the process for evaluating offshore

oil and gas operations under the ESA and Marine Mammal Protection Act, as well as under NEPA. Interior should make sure that future ESA consultations include credible worst-case scenario analysis, and that leases include conditions that minimize both the risk of future blow-outs and the ability to respond to blowouts if they occur.

In addition to doing better consultation in the future, Interior should reinitiate consultation on all ongoing deepwater operations in the Gulf. ESA regulations require reinitiation if any discretionary federal involvement or control remains and (among other things) new information shows that the action “may affect listed species or critical habitat in a manner or to an extent not previously considered.” 50 C.F.R. 402.16(b). The Deepwater Horizon disaster provides dramatic evidence that deepwater oil development threatens listed species on the Gulf in ways not previously analyzed. And there’s still discretionary federal control over previously approved operations. Under the Outer Continental Shelf Lands Act, Interior [can suspend drilling operations](#)

if there is a threat of serious, irreparable, or immediate harm or damage to life (including fish and other aquatic life), to property, to any mineral deposits (in areas leased or not leased), or to the marine, coastal, or human environment.

That’s plenty of discretion to make the consultation obligation a continuing one.