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THROUGH ANOTHER'S EYES: GETTING THE BENEFIT OF OUTSIDE PERSPECTIVES IN ENVIRONMENTAL REVIEW

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Abstract: The Deepwater Horizon blowout has important lessons to teach about environmental review. It is easy to scapegoat the former Minerals Management Service (MMS) for shoddy environmental analysis. But captive agencies are a common phenomenon. Oversight by environmental mission agencies is supposed to provide a check on their myopia. Several external reviews of MMS's environmental analysis were conducted, but none uncovered MMS's wildly incorrect estimates of the probability, magnitude, and consequences of a blowout. This article details the external reviews, explains why they proved ineffective, and offers suggestions for improvement. Outside review cannot be effective unless reviewers understand the importance of their task, are able to focus on the key aspects of analyses they are reviewing, and can bring the appropriate expertise to bear. All of these elements were missing in reviews of the analysis that preceded drilling in the Macondo prospect. Their availability for future reviews would be improved if the executive branch took some relatively easy unilateral steps.

INTRODUCTION

On the night of April 20, 2010, a series of explosions ripped through the Deepwater Horizon, a mobile oil drilling rig operating fifty miles off the coast of Louisiana on a site leased by BP from the federal government, known as the Macondo prospect.¹ Eleven people died in the explosions and ensuing fire.² The rig sank, shearing off the pipe which connected the well to the platform. A device called a blowout

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¹ See PETER LEHNER WITH BOB DEANS, IN *DEEP WATER: THE ANATOMY OF A DISASTER, THE FATE OF THE GULF, AND ENDING OUR OIL ADDICTION*, at viii (2010); Rick Jervis, *Research Teams Find Oil on Bottom of Gulf*, USA TODAY, Oct. 25, 2010, at 3A (noting that the well was fifty miles off the coast).

² See LEHNER WITH DEANS, *supra* note 1, at 43 (providing a vivid account of the explosion and the chaotic evacuation of the rig).

preventer, intended “to crush, shear and seal the pipe”³ in a disaster, had been installed at the sea floor against just such an emergency.⁴ But it failed to operate, leaving the uncontrolled well gushing oil and natural gas into the Gulf of Mexico.⁵ By the time the well was finally sealed,⁶ nearly five million barrels (more than 200 million gallons) of oil had spewed out of the Macondo well.⁷ The environmental and economic costs of the disaster may not be fully understood for many years.

This Article focuses on what the Gulf disaster can teach us about our environmental planning framework. A suite of federal laws, including the National Environmental Policy Act (NEPA),⁸ Endangered Species Act (ESA),⁹ and Coastal Zone Management Act (CZMA),¹⁰ are supposed to ensure that we understand the potential environmental trade-offs of our offshore energy development decisions before committing to them, and that those trade-offs stay within acceptable levels.¹¹ Yet the Deepwater Horizon disaster and its consequences were wholly unforeseen by key decision makers, raising significant questions about the ability of those laws to fulfill their intended purposes.¹²

Unfortunately, so far the Department of Interior shows little interest in learning any lessons about environmental review. In issuing and then lifting a short-term moratorium on new drilling in the Gulf, Interior Secretary Ken Salazar focused almost entirely on improving regulation of operations once drilling has been approved.¹³ Secretary Salazar

³ See *id.*

⁴ See *id.*

⁵ See *id.* at 2, 20.

⁶ Flow from the well was halted on July 15. Timothy J. Crone & Maya Tolstoy, *Magnitude of the 2010 Gulf of Mexico Oil Leak*, *SCIENCE*, Oct. 29, 2010, at 364. However, the well was not permanently sealed until two months later. See Harry R. Weber, *Gulf Oil Well Is Dead but the Pain Will Remain*, *ABC NEWS*, Sept. 20, 2010, <http://abcnews.go.com/Business/wireStory?id=11678895>.

⁷ See Crone & Tolstoy, *supra* note 6, at 364; Weber, *supra* note 6. Estimates of the size of the spill vary. One independent calculation put the total flow at 4.4 million barrels plus or minus twenty percent. Weber, *supra* note 6.

⁸ National Environmental Policy Act, 42 U.S.C. §§ 4321–4370h (2006).

⁹ Endangered Species Act, 16 U.S.C. §§ 1531–1544 (2006).

¹⁰ Coastal Zone Management Act, 16 U.S.C. §§ 1451–1466 (2006).

¹¹ See 16 U.S.C. §§ 1452, 1531; 42 U.S.C. § 4321.

¹² See MINERALS MGMT. SERV., U.S. DEP'T OF THE INTERIOR, MMS 2007-003, OUTER CONTINENTAL SHELF OIL & GAS LEASING PROGRAM: 2007–2012, FINAL ENVIRONMENTAL IMPACT STATEMENT, at IV-1, IV-29 (2007) [hereinafter 2007–2012 FEIS], available at <http://www.boemre.gov/5-year/2007-2012FEIS.htm> (exhibiting the lack of foresight of a potential blowout scenario).

¹³ See generally Decision Memorandum from Kenneth L. Salazar, Sec'y of the Interior, Termination of the Suspension of Certain Offshore Permitting & Drilling Activities on the Outer Cont'l Shelf, to Dir. of Ocean Energy Mgmt., Regulation & Enforcement (Oct. 12, 2010);

did restructure the Minerals Management Service (MMS), creating a new Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) to house leasing and operations management, and moving revenue collection to the Secretary's office,¹⁴ but that restructuring does nothing to improve environmental review.¹⁵

Outside observers have paid more attention to the environmental review preceding approval of drilling operations, but they have concentrated almost entirely on the shortcomings of MMS's environmental analysis.¹⁶ I have no wish to defend MMS, or to minimize the importance of persuading it to take environmental review more seriously. MMS had been a notoriously bad bureaucratic actor for some time,¹⁷

available at <http://www.doi.gov/news/pressreleases/loader.cfm?csModule=security/getfile&PageID=64767>. Salazar imposed a moratorium on new deepwater drilling in May, which was lifted in October after Interior issued a new safety rule for offshore operations. *See id.*

¹⁴ U.S. Sec'y of the Interior, Order No. 3299, Establishment of the Bureau of Ocean Energy Management, the Bureau of Safety and Environmental Enforcement, and the Office of Natural Resources Revenue (May 19, 2010), available at <http://www.doi.gov/deepwaterhorizon/loader.cfm?csModule=security/getfile&PageID=32475>. For the sake of simplicity and because the events considered here occurred before the reorganization, this Article uses the old name, MMS, throughout.

¹⁵ *See id.*; DEP'T OF INTERIOR, IMPLEMENTATION REPORT, REORGANIZATION OF THE MINERALS MANAGEMENT SERVICE 2 (2010) (indicating that the Order merely reassigns the MMS's duties).

¹⁶ KRISTINA ALEXANDER, CONG. RESEARCH SERV., R41265, THE 2010 OIL SPILL: THE MINERALS MANAGEMENT SERVICE (MMS) AND THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) 1 (2010); COUNCIL ON ENVTL. QUALITY (CEQ), EXEC. OFFICE OF THE PRESIDENT, REPORT REGARDING THE MINERALS MANAGEMENT SERVICE'S NATIONAL ENVIRONMENTAL POLICY ACT POLICIES, PRACTICES, AND PROCEDURES AS THEY RELATE TO OUTER CONTINENTAL SHELF OIL AND GAS EXPLORATION AND DEVELOPMENT 1-3 (2010) [hereinafter CEQ REPORT]; NAT'L COMM'N ON THE BP DEEPWATER HORIZON OIL SPILL & OFFSHORE DRILLING, DEEP WATER: THE GULF OIL DISASTER AND THE FUTURE OF OFFSHORE DRILLING 81-83 (2011) [hereinafter BP COMMISSION REPORT]; Oliver A. Houck, *Worst Case and the Deepwater Horizon Blowout: There Ought to Be a Law*, 40 *Envtl. L. Rep. (Envtl. L. Inst.)* 11,033, 11,033 (2010); *The National Environmental Policy Act and Outer Continental Shelf Oil and Gas Activities* 1, 29-34 (Nat'l Comm'n on the BP Deepwater Horizon Oil Spill & Offshore Drilling, Staff Working Paper No. 12, 2011), available at <http://www.oilspillcommission.gov/resources#staff-working-papers>.

¹⁷ *See generally* U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-10-276, OFFSHORE OIL AND GAS DEVELOPMENT: ADDITIONAL GUIDANCE WOULD HELP STRENGTHEN THE MINERALS MANAGEMENT SERVICE'S ASSESSMENT OF ENVIRONMENTAL IMPACTS IN THE NORTH ALEUTIAN BASIN (2010) (noting that MMS lacks a handbook "providing guidance on how to implement NEPA," and has unclear policies on what constitutes a significant environmental impact). Beyond the scandals over sex and drugs with industry officials that garnered national attention, MMS's implementation of NEPA for oil and gas development off Alaska had been harshly criticized by the Government Accountability Office in a report issued shortly before the Deepwater Horizon blowout. *See id.*; Derek Kravitz & Mary Pat Flaherty, *Report Says Oil Agency Ran Amok*, WASH. POST, Sept. 11, 2008, at A1 (noting that

and reforming it is certainly vital to restoring public confidence in offshore drilling oversight. But focusing on MMS alone risks missing the bigger picture. There will always be agencies that are too close to the industries they regulate or take too narrow a view of the public interest. The environmental review process is supposed to combat those tendencies by engaging outside agencies with environmental protection missions in an oversight role. Several entities reviewed MMS's environmental analysis, but none raised the alarm about the possibility of an uncontrolled blowout.¹⁸ The Gulf disaster underscores both the importance of bringing outside perspectives to bear in environmental review and the difficulty of doing so effectively. Those lessons will be important as offshore oil exploration resumes, and especially if it expands.¹⁹ But they will be equally important in other contexts where environmental review is conducted by agencies subject to the risk of capture.

In this Article, I detail the many opportunities for outside review of MMS's environmental analyses in the Gulf, examine why that review did not serve its intended purpose, and offer suggestions for improvement. I begin with a quick explanation of the importance of outside perspectives, and the ways that environmental laws build opportunities for environmental agency oversight into the permit approval process.²⁰ I then examine how those reviews played out in the context of the Macondo well, showing that they did little to check or improve MMS's shoddy work.²¹ Finally, I consider why reality did not meet expectations, and what changes would improve the effectiveness of mandated outside reviews.²²

This analysis reveals flaws that could quickly be fixed by unilateral executive action. The Council on Environmental Quality should revive

the Inspector General found that MMS employees had socialized with oil company employees at "alcohol-, cocaine- and marijuana-filled parties").

¹⁸ See *infra* Part II.

¹⁹ See John M. Broder, *Obama to Open Offshore Areas to Oil Drilling*, N.Y. TIMES, Mar. 31, 2010, at A1 (noting proposed expansion). The President had proposed expansion shortly before the Deepwater Horizon disaster. *Id.* In December 2010, that plan was officially pronounced dead. John M. Broder & Clifford Krauss, *U.S. Drops Bid to Explore Oil in Eastern Gulf*, N.Y. TIMES, Dec. 2, 2010, at A1. Nonetheless, so long as gasoline prices remain high there will be pressure to expand offshore oil development. See Carl Hulse, *Week Ahead: Debt Ceiling and Gas Prices Still Focus of Congress*, N.Y. TIMES (May 2, 2011, 2:25 PM), <http://the-caucus.blogs.nytimes.com/2011/05/02/week-ahead-debt-ceiling-and-gas-prices-still-focus-of-congress/#> (noting that House Republicans are pushing for legislation to expand offshore drilling and expedite the permitting process).

²⁰ See *infra* Part I.

²¹ See *infra* Part II.

²² See *infra* Part III.

a robust requirement that NEPA analysis include a frank worst-case analysis.²³ While it might not improve internal decision-making, that analysis should help draw the attention of outside reviewers to the need to take a careful look at risk assessment and impact evaluation.²⁴ Outside reviewers could also take steps to improve the effectiveness of their work. With the help of the Council on Environmental Quality, they should demand that environmental documents focus more clearly on risks and associated potential impacts. They also need to expand their expertise to include familiarity with the technological context of activities that present serious environmental threats.

In the long term, the only way to ensure that environmental review makes a difference to decisions about offshore drilling is to add explicit substantive environmental protection requirements to the governing statutes. That sort of legislative change will not happen soon, but more robust outside reviews could help push the political landscape in that direction.

I. OUTSIDE LOOKING IN

A. *The Importance of an Outside Perspective*

Calls for unified environmental regulation and oversight are common today, for good reason. Fragmentation of authority and responsibility may mean that no one ever takes a comprehensive view of the system, or that agencies work at cross-purposes. It can bring unnecessary duplication,²⁵ with attendant inefficiencies. More subtly, where multiple agencies share authority over the multiple causes of an environmental problem, each may be tempted to avoid taking politically difficult steps to address it.²⁶

The Deepwater Horizon saga, however, reminds us that concentration of responsibility also has its downsides. As Professors DeShazo and

²³ See *infra* Part III.B. Oliver Houck has already made a forceful argument for reinvigorating worst-case analysis. See generally Houck, *supra* note 16. This Article expands on Professor Houck's argument by more deeply exploring how worst-case analysis would improve outside agency review.

²⁴ See *infra* Part III.B.

²⁵ William W. Buzbee, *Recognizing the Regulatory Commons: A Theory of Regulatory Gaps*, 89 IOWA L. REV. 1, 5–6 (2003).

²⁶ See *id.* at 5–6, 27–31; Holly Doremus, *Crossing Boundaries: Commentary on "The Law at the Water's Edge,"* in WET GROWTH: SHOULD WATER LAW CONTROL LAND USE? 271, 295, 300 (Craig Anthony (Tony) Arnold, ed., 2005).

Freeman put it, “interagency conflict can be productive.”²⁷ Institutional separation and redundancy can encourage diversity of ideas and approaches, combating the tendency to fall into patterns of “group think,” where assumptions go unexamined and viewpoints tend to converge on an unrealistic extreme.²⁸ Decentralizing authority also reduces the risk and consequences of agency “capture,”²⁹ meaning domination by interest groups whose goals diverge from those of the larger political community.³⁰ At the most basic level, it is more difficult and costly to influence several agencies.³¹ In addition, fragmentation creates a role for multiple agency cultures and missions, which in turn should help check the tendency of development and extraction agencies to see only that mission.³²

Just as regulatory review provides a needed check on self-interested and short-sighted firms,³³ outside review of the regulator can provide a check on capture, group-think, and other shortcomings that interfere with regulators’ pursuit of the public interest.³⁴ The late, unlamented MMS was a poster child for the importance of that sort of outside check.³⁵

²⁷ J.R. DeShazo & Jody Freeman, *Public Agencies as Lobbyists*, 105 COLUM. L. REV. 2217, 2233 (2005).

²⁸ Anne Joseph O’Connell, *The Architecture of Smart Intelligence: Structuring and Overseeing Agencies in the Post-9/11 World*, 94 CALIF. L. REV. 1655, 1676 (2006).

²⁹ *Id.* at 1677.

³⁰ See Debra L. Donahue, *Western Grazing: The Capture of Grass, Ground, and Government*, 35 ENVTL. L. 721, 746–47 (2005) (defining “capture”).

³¹ See O’Connell, *supra* note 28, at 1677.

³² It is widely agreed, for example, that the multiple-use land management agencies have maximized output of certain resources, notably timber and forage, at the expense of others, such as wildlife and environmental preservation. See, e.g., Eric Biber, *Too Many Things to Do: How to Deal with the Dysfunctions of Multiple-Goal Agencies*, 33 HARV. ENVTL. L. REV. 1, 1–4 (2009); Michael C. Blumm, *Public Choice Theory and the Public Lands: Why “Multiple Use” Failed*, 18 HARV. ENVTL. L. REV. 405, 406–07 (1994); Josh Eagle, *Regional Ocean Governance: The Perils of Multiple-Use Management and the Promise of Agency Diversity*, 16 DUKE ENVTL. L. & POL’Y F. 143, 147–48 (2006).

³³ The Deepwater Horizon disaster provides a powerful reminder that self-interest is an insufficient motivator for environmental protection. The blowout has cost BP more than \$11 billion by late November 2010, not including lost profits from the well, and the bill is expected to get much higher by the time response costs and damage claims are resolved. Steven Mufson, *BP to Sell \$7 Billion in Argentina Assets*, WASH. POST, Nov. 29, 2010 at A3. BP has sold assets in order to cover the costs. See *id.*

³⁴ See *infra* Part III.

³⁵ See Memorandum from Earl E. Devaney, Interior Inspector Gen., to Interior Sec’y Kempthorne (Sept. 9, 2008), available at <http://www.doi.gov/images/stories/reports/pdf//RIKinvestigation.pdf>. In 2008, after a two-year investigation, the Department of Interior Inspector General reported a “[c]ulture of [e]thical [f]ailure” at MMS’s royalty-in-kind office, including “prodigious” acceptance of gifts from industry as well as sexual rela-

Ideally, review by someone other than the regulator of the environmental impacts of proposed actions should provide three benefits. First, it should help counter “mission agency syndrome,” the tendency of agencies dedicated to a primary mission to ignore or underplay anything that might conflict with that mission.³⁶ Giving agencies with a strongly internalized environmental mission a role in the environmental analysis should help keep that analysis honest. Second, effective oversight should reduce the impact of routinization. Even with the best of intentions, anyone who does the same tasks over and over will tend to do them the same way, and to default to familiar routines. Regulatory agencies repeatedly required to create environmental documentation for similar activities can easily fall into “rubber stamp syndrome,” recycling the same analysis over and over again as boiler plate without serious consideration.³⁷ Outside reviewers may also fall into such routines, but because they are likely to see documentation for a greater variety of situations they should be less prone to temptations to recycle. Third, and related to the boiler plate issue, outside review should help ensure that environmental analysis keeps abreast of technological changes, countering “past performance syndrome,” the tendency to assume that because there has not been a problem in the past one will not occur in the future. It will only do so, of course, if the reviewers understand the changing technological landscape.

B. *Building in Outside Review Opportunities*

Modern environmental law seeks, among other things, to broaden the thinking of federal agencies that decide whether to approve, fund, or engage in environmentally damaging activities.³⁸ Congress has tried

tionships and alcohol abuse with industry contacts. *Id.* at 1–2; see also Kravitz & Flaherty, *supra* note 17. Former MMS officials openly acknowledge that their mission, especially in the Gulf of Mexico, was to expedite drilling. Jason DeParle, *Leading the Way Into Deep Water*, N.Y. TIMES, Aug. 8, 2010, at A1.

³⁶ See Daniel R. Mandelker, *Thoughts on NEPA at 40*, 39 *Env'tl. L. Rep.* (Env'tl. Law Inst.) 10,640, 10,640 (2009) (noting the “sometimes myopic vision of federal mission agencies”).

³⁷ As an early critique of environmental impact analysis noted: “Informal as well as formal ‘standard operating procedures’ . . . direct scientific attention to well-marked intellectual grooves.” Eugene Bardach & Lucian Pugliaresi, *The Environmental-Impact Statement vs. the Real World*, PUB. INTEREST, Fall 1977, at 22, 28. This kind of routinization in part responds to organizational expectations like those that produce “scripted” behaviors. See Gregg P. Macey, *Coasean Blind Spots: Charting the Incomplete Institutionalism*, 98 *GEO. L.J.* 863, 885–86 (2010) (explaining the concept of scripts as recurrent patterns of interaction shaped by institutional contexts).

³⁸ See, e.g., 42 U.S.C. § 4332 (2006); Major Federal Action, 40 C.F.R. § 1508.18 (2010).

to combat mission agency syndrome both by modifying internal agency processes and by bringing outside pressures to bear.³⁹

1. NEPA and the Power to Persuade

NEPA, the first of the modern generation of environmental statutes, includes provisions designed to work internally and externally.⁴⁰ NEPA forces agencies to confront the environmental consequences of their proposed actions by mandating that they prepare "detailed statements," known as Environmental Impact Statements (EISs), on environmental impacts and alternatives before taking actions that significantly affect environmental quality.⁴¹ Because NEPA requires that each agency undertake its own environmental analyses, rather than centralizing that task in an environmental specialty agency,⁴² it has the effect of diversifying agency staff.⁴³ By restructuring agency bureaucracies, NEPA has succeeded in at least providing a voice for environmental concerns in every federal agency.⁴⁴ In some contexts, NEPA's inward-focused provisions rapidly drove agency change.⁴⁵ Other agencies, however, proved more resistant to internal pressures.⁴⁶

Under NEPA, comments from outside federal agencies provide the key external role. Judicial review is sharply limited; according to the Supreme Court, NEPA does not permit courts to second-guess the environmental trade-offs agencies choose to make.⁴⁷ In theory, public oversight could provide the needed check, but costs and lack of expertise are substantial barriers to effective public review. As Professor Andreen

³⁹ See, e.g., 42 U.S.C. § 4332.

⁴⁰ See *id.* §§ 4321–4370h.

⁴¹ See *id.* § 4332(2)(C).

⁴² See *id.*

⁴³ See Paul J. Culhane, *NEPA's Effect on Agency Decision Making: NEPA's Impacts on Federal Agencies, Anticipated and Unanticipated*, 20 ENVTL. L. 681, 690–91 (1990); see also Allan F. Wichelman, *Administrative Agency Implementation of the National Environmental Policy Act of 1969: A Conceptual Framework for Explaining Differential Response*, 16 NAT. RESOURCES J. 263, 298, 299 (1976) (noting that NEPA's special requirements would lead to hiring more staff members, and that staff would be "exposed to new informational inputs through . . . the introduction of new personnel into the agency").

⁴⁴ See generally SERGE TAYLOR, *MAKING BUREAUCRACIES THINK* (1984); Wichelman, *supra* note 43, at 263.

⁴⁵ See, e.g., Sally K. Fairfax & Barbara T. Andrews, *Debate Within and Debate Without: NEPA and the Redefinition of the "Prudent Man" Rule*, 19 NAT. RESOURCES J. 505, 506–07 (1979); H. Paul Friesema & Paul J. Culhane, *Social Impacts, Politics, and the Environmental Impact Statement Process*, 16 NAT. RESOURCES J. 339, 349–51 (1976).

⁴⁶ See DeShazo & Freeman, *supra* note 27, at 2220 & n.8 (discussing the historic reluctance of mission agencies to expand their thinking to include environmental concerns).

⁴⁷ *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 350–51 (1989).

observed twenty years ago, only the executive branch can effectively oversee the substantive implementation of NEPA.⁴⁸

Congress has tried to promote executive branch oversight, providing for it in three ways.⁴⁹ First, it created the Council on Environmental Quality (CEQ) in the Executive Office of the President as a counterweight to “the more parochial views of the established agencies.”⁵⁰ CEQ has fulfilled that role primarily by developing guidance and regulations governing the preparation and content of NEPA documents.⁵¹ Second, it required that action agencies seek comments on their EISs from other federal agencies with “jurisdiction by law or special expertise with respect to any environmental impact involved.”⁵² CEQ regulations impose a mandatory duty for those agencies to comment,⁵³ and allow them to refer disputes with the action agency to CEQ.⁵⁴

Not satisfied with these checks alone, in section 309 of the 1970 Clean Air Act, Congress required that the Environmental Protection Agency (EPA) review and comment in writing on the environmental trade-offs of proposed federal actions.⁵⁵ If EPA finds the environmental impacts of a proposed action unacceptable, it must refer the action to CEQ.⁵⁶ This provision “was designed to create an advocate within the executive branch that would blow the whistle on harmful environmental actions and press the case against such actions all the way to the Executive Office of the President.”⁵⁷

⁴⁸ William L. Andreen, *In Pursuit of NEPA's Promise: The Role of Executive Oversight in the Implementation of Environmental Policy*, 64 *IND. L. J.* 205, 209 (1989).

⁴⁹ See *id.* at 212–23 (offering a thorough description of NEPA's legislative history and contemporary commentary).

⁵⁰ *Id.* at 216–17.

⁵¹ See 40 C.F.R. pt. 1500–1508 (2010).

⁵² 42 U.S.C. § 4332(2)(C) (2006).

⁵³ 40 C.F.R. § 1503.2.

⁵⁴ *Id.* § 1504.3.

⁵⁵ See 42 U.S.C. § 7609(a) (2006). The Senate committee crafting the Clean Air Act focused on lack of environmental expertise in mission-oriented agencies rather than conflicts of interest or agency capture. See Andreen, *supra* note 48, at 225. In the committee's view, NEPA did not provide an adequate remedy because it did not assure that “environmental agencies [would] effectively participate in the decision-making process.” *Id.* (quoting S. REP. NO. 91-1196, at 44 (1970), reprinted in 1 *LEGISLATIVE HISTORY OF THE CLEAN AIR AMENDMENTS OF 1970*, at 443 (1974)). Indeed, the committee found that agencies sometimes provided only verbal comments on EISs within their expertise. See, e.g., *id.* at 228 (noting an instance when a Senator's request for comments made on a draft EIS was denied because they had only been made orally).

⁵⁶ 42 U.S.C. § 7609(b).

⁵⁷ Andreen, *supra* note 48, at 229.

Very few interagency disputes have been formally referred to CEQ.⁵⁸ But the prospect of referral “has encouraged moderation and compromise” by action agencies in response to comments.⁵⁹ Agency comments are also influential with reviewing courts.⁶⁰

2. Environmental Veto Power

The NEPA process invites agencies with an environmental mission to comment on proposals, and provides an opportunity to elevate disputes about environmental impacts to the White House. Absent presidential intervention, though, it leaves the action agency in control of the ultimate decision, with little oversight from the courts.⁶¹ Review provisions in the Endangered Species Act (ESA)⁶² and Coastal Zone Management Act (CZMA)⁶³ are stronger. They effectively provide veto power,⁶⁴ subject to override measures that are difficult to invoke.⁶⁵

The ESA has been called the “pit bull of environmental laws”⁶⁶ because its substantive requirements are, at least on paper, so unyielding.⁶⁷ Section 7 of the ESA requires that federal agencies “insure” that actions they take, authorize, or fund are not likely to jeopardize the continued existence of any listed species or adversely modify designated critical habitat.⁶⁸ That duty is fulfilled through consultation with the Fish and Wildlife Service (FWS) for terrestrial species, or the Na-

⁵⁸ See DEP’T OF ENERGY, REFERRAL OF INTER-AGENCY DISAGREEMENTS TO CEQ UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT 2-4 (2009), available at http://ceq.hss.doe.gov/nepa/eis/referrals_to_CEQ_Mar09.pdf (documenting that as of March 2009 there have been only twenty-seven formal referrals to CEQ, with the most recent occurring in 2001).

⁵⁹ Andreen, *supra* note 48, at 240.

⁶⁰ See Michael C. Blumm & Stephen R. Brown, *Pluralism and the Environment: The Role of Comment Agencies in NEPA Litigation*, 14 HARV. ENVTL. L. REV. 277, 281-82 (1990). Environmental plaintiffs fare better in NEPA litigation when agency comments support their position. *See id.*

⁶¹ *See* Andreen, *supra* note 48, at 211.

⁶² *See* 16 U.S.C. §§ 1531-1544 (2006).

⁶³ *See* 16 U.S.C. §§ 1451-1466 (2006).

⁶⁴ *See* 16 U.S.C. §§ 1456, 1536.

⁶⁵ *See* 16 U.S.C. § 1456 (noting that actions will not be completed until state agencies concur and that exemptions from compliance are granted only if “the activity is in the paramount interest of the United States”); 16 U.S.C. § 1536(g)-(h) (describing the exemption process).

⁶⁶ Oliver A. Houck, *The Endangered Species Act and Its Implementation by the U.S. Departments of Interior and Commerce*, 64 U. COLO. L. REV. 277, 279 (1993).

⁶⁷ *See, e.g.*, George Cameron Coggins, *An Ivory Tower Perspective on Endangered Species Law*, 8 NAT. RESOURCES & ENV’T 3, 3 (1993).

⁶⁸ *See* 16 U.S.C. § 1536(a)(2).

tional Marine Fisheries Service (NMFS) for marine species.⁶⁹ The end result of consultation is a biological opinion developed by the wildlife agency, determining whether the proposed action would exceed the acceptable statutory threshold.⁷⁰ Although an adverse biological opinion does not technically preclude the action, the Supreme Court has recognized that it is highly coercive.⁷¹ An agency that ignores such an opinion is likely to face litigation in which the biological opinion itself will be strong evidence that the action violates the ESA.⁷²

Like NEPA comments, section 7 consultations rarely halt projects, but frequently produce modifications. Action agencies may tweak their proposals, changing the location, scope, or timing, in order to avoid formal consultation⁷³ or a jeopardy finding.⁷⁴ Furthermore, when it issues a jeopardy opinion, the wildlife agency must if possible offer “reasonable and prudent alternatives,” steps the action agency can take to avoid jeopardy.⁷⁵ While the ESA is designed to give the wildlife agencies veto power over federal actions that would likely cause extinction, it carefully circumscribes that power to prevent its overuse.⁷⁶

⁶⁹ FISH & WILDLIFE SERV. (FWS) & NAT’L MARINE FISHERIES SERV. (NMFS), CONSULTATION HANDBOOK, PROCEDURES FOR CONDUCTING CONSULTATION AND CONFERENCE ACTIVITIES UNDER SECTION 7 OF THE ENDANGERED SPECIES ACT, at xx (1998) [hereinafter FWS CONSULTATION HANDBOOK].

⁷⁰ See *id.* at 4–15; see also 16 U.S.C. § 1536(3)(a); 50 C.F.R. § 402.14 (2010).

⁷¹ See *Bennett v. Spear*, 520 U.S. 154, 169 (1997).

⁷² See *id.*

⁷³ See FWS CONSULTATION HANDBOOK, *supra* note 69, at 3–6; see also FWS, CONSULTATIONS WITH FEDERAL AGENCIES: SECTION 7 OF THE ENDANGERED SPECIES ACT 2 (2010) [hereinafter FWS AGENCY CONSULTATIONS], available at <http://www.fws.gov/endangered/esa-library/pdf/consultations.pdf> (“A large percentage of projects, as initially planned, would have had adverse impacts to listed species, but were dealt with through informal consultation. In these situations, the Federal agency made changes to the project design so that adverse impacts to listed species were avoided.”); Houck, *supra* note 66, at 318 (“[A]lmost ninety percent of all consultations under the ESA are disposed of *informally* and without fanfare . . .”).

⁷⁴ See U.S. GOV’T ACCOUNTABILITY OFFICE, GAO-04-93, ENDANGERED SPECIES: MORE FEDERAL MANAGEMENT ATTENTION IS NEEDED TO IMPROVE THE CONSULTATION PROCESS 7 (2004) (“[I]n fiscal year 2003, for example, the Services issued only one biological opinion that identified proposed activities as potentially jeopardizing threatened and endangered species [in the northwest.]”); Houck, *supra* note 66, at 318 (“[O]ver ninety percent of the consultations concerning activities sufficiently serious to be conducted *formally* resulted in findings of ‘no jeopardy’ . . .”).

⁷⁵ 16 U.S.C. § 1536(b)(3)(A); 50 C.F.R. § 402.02.

⁷⁶ See 16 U.S.C. § 1536.

The CZMA empowers state, rather than federal, environmental agencies.⁷⁷ It encourages coastal states to develop coastal zone management plans, primarily through a process called consistency review, which allows states with approved plans to force the federal government to comply with those plans.⁷⁸ Since 1990, consistency review has applied to all activities, wherever they occur, which affect coastal zone resources.⁷⁹ Offshore lease sales, offshore oil development approvals, and even the extension of lease terms in federal waters are therefore subject to CZMA review.⁸⁰

Consistency review varies slightly depending upon whether the activity is carried out by a federal agency or by a private party with federal approval.⁸¹ Federal activities affecting the coastal zone must be consistent to the maximum extent practicable with the enforceable policies of the state plan.⁸² The federal action agency must provide the state with a consistency determination before beginning the project.⁸³ If the state objects, the federal action may not proceed unless the federal agency either responds to the state's objections, or determines that full consistency is precluded by other legal requirements.⁸⁴ Alternatively, the President can exempt any activity which is "in the paramount interest of the United States."⁸⁵

Applicants for a federal license or permit for activities affecting the coastal zone must certify that the proposed activity complies with the plan's enforceable policies.⁸⁶ If the state disagrees, federal approval may not be granted, unless the Secretary of Commerce finds that the activity is consistent with the CZMA or "necessary in the interest of national security."⁸⁷

⁷⁷ See 16 U.S.C. § 1456 (2006) ("No license or permit shall be granted by the Federal agency until the state or its designated agency has concurred with the applicant's certification or until, by the state's failure to act, the concurrence is conclusively presumed . . .").

⁷⁸ See 16 U.S.C. §§ 1452, 1456.

⁷⁹ *Id.* § 1456(c)(3)(A).

⁸⁰ See *California v. Norton*, 311 F.3d 1162, 1165, 1173 (9th Cir. 2002).

⁸¹ See 16 U.S.C. § 1456(c).

⁸² *Id.* § 1456(c).

⁸³ 15 C.F.R. § 930.36(b) (2010).

⁸⁴ *Id.* § 930.43.

⁸⁵ 16 U.S.C. § 1456(c)(1)(B).

⁸⁶ *Id.* § 1456(c)(3)(A).

⁸⁷ *Id.*

State consistency objections are rare; “[s]tates have concurred with approximately 95 percent” of consistency determinations.⁸⁸ While rare, state vetoes are usually effective.⁸⁹ State objections have been successfully overridden only fourteen times.⁹⁰ Several of those overrides, however, came in the context of oil and gas development.⁹¹ The oil and gas industry has succeeded in half of the cases in which it has appealed state vetoes to the Secretary of Commerce.⁹²

II. ENVIRONMENTAL AGENCY REVIEW OF OFFSHORE OIL DEVELOPMENT

The Gulf experience highlights the difficulties of making outside review effective. The environmental review process has been deliberately designed to bring in a series of key outside voices.⁹³ Even if MMS was completely captured by the oil industry, those other reviews should not have been infected by that relationship. Yet they failed to assure a clear-eyed view of the environmental risks of oil development in the Gulf. This Part dissects the outside reviews that occurred in the course of approval of the Macondo well as a prelude to analyzing the shortcomings of that process.

A. *The Legal Context of Offshore Drilling Approval*

Offshore oil development is subject to state or federal jurisdiction, depending upon its location.⁹⁴ The states own the submerged lands directly adjacent to their coasts.⁹⁵ The United States owns and controls development of the lands further off the coast, to the outer boundary

⁸⁸ NAT’L OCEANIC & ATMOSPHERIC ADMIN., APPEALS TO THE SECRETARY OF COMMERCE UNDER THE COASTAL ZONE MANAGEMENT ACT (CZMA) 1 (2009), available at <http://coastalmanagement.noaa.gov/consistency/media/appealsdecisionlist011509.pdf>.

⁸⁹ See *id.* (noting that there have been fourteen decisions to override state objections, and twenty-nine decisions not to override state objections).

⁹⁰ *Id.*

⁹¹ See Carolyn R. Langford et al., *The Mouse That Roared: Can Louisiana’s Coastal Zone Management Consistency Authority Play a Role in Coastal Restoration and Protection?*, 20 TUL. ENVTL. L.J. 97, 129 (2006).

⁹² *Id.*

⁹³ See, e.g., 42 U.S.C. § 4332(C) (2006) (making EISs available to the President, CEQ, and the public).

⁹⁴ See Rachael E. Salcido, *Enduring Optimism: Examining the Rig-to-Reef Bargain*, 32 ECOLOGY L.Q. 863, 912 (2005).

⁹⁵ See 43 U.S.C. §§ 1301(a), 1311 (2006). For most states, including Louisiana, the boundary between state and federal waters lies three geographical miles offshore. See *id.* § 1301(a).

of the 200-mile exclusive economic zone.⁹⁶ The Macondo well was on federal land, fifty miles off the Louisiana coast.⁹⁷

The Outer Continental Shelf Lands Act (OCSLA) regulates oil and natural gas exploration, development, and extraction from federal off-shore lands.⁹⁸ Although OCSLA requires environmental safeguards, it prioritizes energy development.⁹⁹ OCSLA establishes a four-stage process of planning, leasing, exploration, and development and production.¹⁰⁰ Government discretion is concentrated in the first two stages.¹⁰¹

The first stage is nationwide planning.¹⁰² The Secretary of Interior prepares and periodically updates an oil and gas leasing plan, indicating the timing and location of leases that will “best meet national energy needs.”¹⁰³ The second stage is leasing.¹⁰⁴ The Secretary periodically offers tracts, typically three square miles, for lease, as proposed in the five-year plan.¹⁰⁵

The exploration stage follows leasing.¹⁰⁶ The leaseholder must submit an exploration plan for approval before beginning exploration activities.¹⁰⁷ At this point, government discretion is sharply constrained. Interior has only thirty days to review the exploration plan,¹⁰⁸ which it cannot disapprove unless it finds that the proposed activities would probably cause serious harm or damage to life, property, mineral re-

⁹⁶ Salcido, *supra* note 94, at 867 n.15.

⁹⁷ Neil King, Jr. & Keith Johnson, *Obama Decried, Then Used, Some Bush Drilling Policies*, WALL ST. J., July 6, 2010, at A1.

⁹⁸ 43 U.S.C. §§ 1331–1356 (2006).

⁹⁹ *See id.* § 1332. OCSLA describes the Outer Continental Shelf (OCS) as “a vital national resource reserve . . . which should be made available for expeditious and orderly development, subject to environmental safeguards.” *Id.* § 1332(3). It does, however, call for operations on the OCS to “be conducted in a safe manner by well-trained personnel using technology, precautions, and techniques sufficient to prevent or minimize the likelihood of blowouts, loss of well control, fires, spillages, physical obstruction to other users of the waters or subsoil and seabed, or other occurrences which may cause damage to the environment or to property, or endanger life or health.” *Id.* § 1332(6).

¹⁰⁰ *Sec’y of the Interior v. California*, 464 U.S. 312, 337 (1984).

¹⁰¹ *See* Robert B. Wiygul, *The Structure of Environmental Regulation on the Outer Continental Shelf: Sources, Problems, and the Opportunity for Change*, 12 J. ENERGY, NAT. RESOURCES & ENVTL. L. 75, 171 (1992).

¹⁰² *See Sec’y of the Interior*, 464 U.S. at 337.

¹⁰³ 43 U.S.C. § 1344(a).

¹⁰⁴ *See Sec’y of the Interior*, 464 U.S. at 337.

¹⁰⁵ *See* 43 U.S.C. §§ 1337, 1344(d)(3) (describing that leases may only be offered in areas and on terms consistent with the approved leasing program).

¹⁰⁶ *See Sec’y of the Interior*, 464 U.S. at 337.

¹⁰⁷ 40 C.F.R. § 1508.18 (2010).

¹⁰⁸ 43 U.S.C. § 1340(c)(1).

sources, national security, or the environment.¹⁰⁹ If it disapproves an exploration plan, Interior may choose to cancel the lease, provided it is willing to compensate the lessee.¹¹⁰

Lessees also need permits to develop oil or gas once a commercially viable find is made.¹¹¹ As with exploration plans, Interior has only limited ability to disapprove a development and production plan.¹¹² It can do so only if: the applicant has not shown that it can comply with applicable law; the proposal is not in compliance with the CZMA; the proposal would threaten national security or defense; or “because of exceptional geological conditions . . . exceptional resource values in the marine or coastal environment, or other exceptional circumstances,” and proceeding “would probably cause serious harm or damage” to human or aquatic life, property, mineral resources, national defense or the environment, and the advantages of disapproval outweigh those of development and production.¹¹³

B. *Outside Perspectives in the Environmental Review of the Macondo Well*

Environmental review of offshore oil and gas development is tied to the OCSLA stages.¹¹⁴ In the Gulf of Mexico, NEPA review occurs primarily at the planning and leasing stages.¹¹⁵ ESA review also occurs at those stages.¹¹⁶ CZMA review occurs later, at the exploration plan stage.¹¹⁷ In the course of approving development of the Macondo well, MMS created all the required documents.¹¹⁸ In retrospect, it is obvious that MMS’s analysis of the environmental risks of deepwater drilling fell badly short of the information available at the time,¹¹⁹ as might be expected of a captured agency.¹²⁰ More importantly for this Article, MMS also submitted its analysis to the required outside agency reviews, but those reviews did not correct, or even highlight, the shortcomings of its analysis.

¹⁰⁹ *Id.* §§ 1334(a)(2)(A)(i), 1340(c).

¹¹⁰ *Id.* § 1340(c)(1).

¹¹¹ *See id.* § 1351.

¹¹² *See id.* §§ 1340(c), 1351.

¹¹³ *Id.* § 1351(h)(1); *see also* 30 C.F.R. § 250.271 (2010).

¹¹⁴ ALEXANDER, *supra* note 16, at 3.

¹¹⁵ *See* CEQ REPORT, *supra* note 16, at 11.

¹¹⁶ *See* Letter from Roy E. Crabtree, Reg’l Adm’r, Nat’l Marine Fisheries Serv., to Joseph Christopher, Reg’l Supervisor, Mineral Mgmt. Serv. (June 29, 2007) (on file with author).

¹¹⁷ *See* 43 U.S.C. § 1340(c).

¹¹⁸ *See generally* 2007–2012 FEIS, *supra* note 12.

¹¹⁹ *See id.* at IV-1, IV-29.

¹²⁰ *See id.*

1. NEPA Review

NEPA review can take three forms, depending upon the expected level of environmental impact. An EIS must be prepared if the proposed action may significantly affect the quality of the human environment.¹²¹ An Environmental Assessment (EA) is a less elaborate study, prepared with less extensive public and outside agency involvement, used primarily to determine if an EIS is required.¹²² A categorical exclusion is used when the agency has determined in advance that a class of actions does not, individually or collectively, have a significant environmental impact.¹²³ Agencies invoking categorical exclusions are expected to conduct at least a brief review to determine that the exclusion applies.¹²⁴

Each of these forms of review played a role in the lengthy process that led to issuance of an exploratory drilling permit for the Macondo well.¹²⁵ Over the course of three years, the NEPA process produced a great deal of paper, documented the effects of construction and routine operations, and confidently but wrongly forecast that the risks of environmental damage from a large oil spill were negligible.¹²⁶

MMS routinely prepares an EIS to accompany the five-year offshore leasing program.¹²⁷ In April 2007, the agency released a programmatic EIS covering the environmental impacts of the 2007 to 2012 program.¹²⁸ In a conspicuous example of “past performance syndrome,” the 2007 to 2012 EIS estimated the potential magnitude and environmental effects of oil spills in the same way the EIS supporting the prior five-year program had done. Both EISs relied on historic spill data to estimate the likelihood of a “large spill,” meaning one exceeding 1000 barrels.¹²⁹ Both based their analysis of environmental effects on mean historical spill sizes from a platform (1500 barrels), pipeline (4600 barrels), and

¹²¹ 42 U.S.C. § 4332(2)(C) (2006).

¹²² 40 C.F.R. § 1508.9 (2010).

¹²³ *Id.* § 1508.4.

¹²⁴ See Final Guidance for Federal Departments and Agencies on Establishing, Applying, and Revising Categorical Exclusions Under the National Environmental Policy Act, 75 Fed. Reg. 75,628, 75,629 (Dec. 6, 2010) (to be codified at 40 C.F.R. pt. 1500–1508).

¹²⁵ See ALEXANDER, *supra* note 16, at 4, 10, 11.

¹²⁶ See generally 2007–2012 FEIS, *supra* note 12, at IV-1, IV-29.

¹²⁷ See generally *id.*; MINERALS MGMT. SERV., U.S. DEP'T OF THE INTERIOR, OUTER CONTINENTAL SHELF OIL AND GAS LEASING PROGRAM: 2002–2007, FINAL ENVIRONMENTAL IMPACT STATEMENT, 4-25 (2002) [hereinafter 2002–2007 FEIS].

¹²⁸ See generally 2007–2012 FEIS, *supra* note 12.

¹²⁹ See 2002–2007 FEIS, *supra* note 127, at 4-25.

tanker (5300 barrels) in the Gulf of Mexico.¹³⁰ Neither discussed a blowout scenario, or questioned whether the historic record was informative, given the recent trend toward deeper water development.¹³¹

The earlier EIS did not specifically address the impacts of a deep-water spill, as opposed to a coastal one, except to opine that a spill occurring in deepwater would not reach the shore.¹³² The 2007 to 2012 EIS briefly addressed the expected behavior of a deepwater spill.¹³³ On the basis of a single Norwegian experiment at a depth of less than 1000 meters, it assumed that oil from a deepwater blowout would rise to the surface, where “[s]tandard response procedures” could be used.¹³⁴ Like the earlier programmatic EIS, the 2007 to 2012 version assumed that any deepwater spill would not reach the coast.¹³⁵ Indeed, the emphasis on deepwater leasing in the 2007 to 2012 program was presented as reducing the potential for coastal environmental impacts.¹³⁶ Overall, the tone of both EISs was reassuring. The earlier one repeatedly described the impacts of expected spills on a variety of environmental resources as minor to moderate.¹³⁷ The later one did not use that terminology, but it described impacts on everything from birds to marine mammals to fisheries to tourism as localized and temporary.¹³⁸

Neither programmatic EIS included anything like a worst-case analysis.¹³⁹ The law did not require that they do so, at least not explicitly. The original CEQ regulations for NEPA implementation, issued in 1978, had required worst-case analysis when the consequences of a

¹³⁰ 2007–2012 FEIS, *supra* note 12, at IV-29; 2002–2007 FEIS, *supra* note 127, at 4-26.

¹³¹ *See generally* 2007–2012 FEIS, *supra* note 12 (mentioning blowouts and their potential impacts only briefly); 2002–2007 FEIS, *supra* note 127.

¹³² *See* 2002–2007 FEIS, *supra* note 127, at 4-46 (“Deepwater spills would either be transported away from coastal habitats, or natural weathering processes would prevent most of the oil from reaching coastal habitats.”).

¹³³ *See* 2007–2012 FEIS, *supra* note 12, at IV-43.

¹³⁴ *Id.*

¹³⁵ *Id.* at IV-57 (“Deepwater spills would either be transported away from coastal habitats or prevented, for the most part, from reaching coastal habitats by natural weathering processes.”).

¹³⁶ *See id.* at IV-75 (“Because 75 percent of the development that is expected to occur during the 2007–2012 program is assumed to occur far from the coast in deep and ultra-deep water, the likelihood of a large spill occurring close enough to the coastline to affect turtle nesting beaches is expected to be small.”). That same claim is repeated with respect to other coastal resources. *See id.*

¹³⁷ *See* 2002–2007 FEIS, *supra* note 127, at 2-2.

¹³⁸ *See* 2007–2012 FEIS, *supra* note 12, at III-18 to III-68.

¹³⁹ *See generally* 2007–2012 FEIS, *supra* note 12; 2002–2007 FEIS, *supra* note 127.

proposed federal action were uncertain,¹⁴⁰ but that requirement was eliminated during the Reagan administration.¹⁴¹ The current regulation requires only that agencies consider the reasonably foreseeable impacts of their actions.¹⁴² Although it defines “reasonably foreseeable” to include catastrophic, low-probability consequences,¹⁴³ the removal of the words “worst case analysis” from the regulation has made it easy for agencies to avoid confronting the worst possibilities.¹⁴⁴

MMS got nowhere near a worst-case analysis.¹⁴⁵ It did not even live up to a generous interpretation of the current regulation; it considered only the consequences of what it thought was the most likely oil spill scenario. But no one questioned whether larger spills might be “reasonably foreseeable.”¹⁴⁶ EPA reviewed the draft programmatic EIS under its NEPA and Clean Air Act authorities. It identified a handful of concerns related to the selection of alternatives, cumulative impacts, and the discussion of Clean Water Act permits, but allowed the oil spill estimates to pass without comment.¹⁴⁷

More detailed environmental analysis is tiered to the programmatic EIS prepared for the five-year program. Another EIS is prepared prior to lease sales.¹⁴⁸ In the central and western Gulf of Mexico, the most active offshore drilling region, MMS prepares a single regional EIS for all lease sales proposed by the five-year program.¹⁴⁹ For any lease sale conducted more than a year after that EIS is issued, MMS also

¹⁴⁰ National Environmental Policy Act—Regulations, 43 Fed. Reg. 55,978, 55,997 (Nov. 29, 1978).

¹⁴¹ National Environmental Policy Act—Regulations, 51 Fed. Reg. 15,618 (Apr. 25, 1986) (codified at 40 C.F.R. § 1502.22 (2010)).

¹⁴² 40 C.F.R. § 1502.22.

¹⁴³ *Id.*

¹⁴⁴ See *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 355–56 (1989); Houck, *supra* note 16, at 11,038.

¹⁴⁵ An early critique of NEPA compliance, published in 1977, asserts that EISs issued by the Department of Interior were more likely to over- than under-state environmental impacts, “creat[ing] a mood of pessimism about the possible impacts even while ostensibly maintaining a neutral tone.” Bardach & Pugliaresi, *supra* note 37, at 28. While a pessimistic mood may have been typical of Interior’s NEPA analyses in that era, it certainly was not characteristic of MMS in the years leading up to the Deepwater Horizon blowout. See, e.g., 2002–2007 FEIS, *supra* note 127, at iii–v.

¹⁴⁶ See, e.g., *id.* at 4-202.

¹⁴⁷ Letter from Anne Norton Miller, Dir., Office of Fed. Activities, Env’tl. Prot. Agency, to James F. Bennett, Branch of Env’tl. Assessment, Minerals Mgmt. Serv. (Nov. 22, 2006) (on file with author).

¹⁴⁸ MINERALS MGMT. SERV., DEP’T OF THE INTERIOR, LEASING OIL AND NATURAL GAS RESOURCES: OUTER CONTINENTAL SHELF 20 (2005) [hereinafter MMS, OUTER CONTINENTAL SHELF], available at <http://www.boemre.gov/ld/PDFs/GreenBook-LeasingDocument.pdf>.

¹⁴⁹ *Id.* at 20.

prepares a separate EA to determine if there are additional environmental impacts that were not considered in the regional EIS.¹⁵⁰

Shortly after completing the 2007 to 2012 programmatic EIS, MMS issued a regional EIS for the planned central and western Gulf lease sales.¹⁵¹ In October 2007, even though less than a year had passed since the programmatic EIS, MMS also issued an EA for Lease Sale 206, which included the Macondo prospect.¹⁵² That EA found no need for a new EIS.¹⁵³

The lease sale environmental analysis added nothing to the programmatic EIS in terms of the likelihood or consequences of an oil spill.¹⁵⁴ In fact, in some ways it softened the analysis in the programmatic document. The lease sale EIS forecast one or two spills over the life of the facilities made possible by the group of sales. It predicted that those spills would probably come from pipelines; that their most likely size was 4600 barrels each; and that any oil spilled in deepwater would dissipate before reaching shore.¹⁵⁵ MMS acknowledged that “loss of well control” was becoming more common and that blowout preventers were known to fail frequently, but still presented the risk of a resulting oil spill as minimal.¹⁵⁶ EPA reviewed the regional lease sale EIS and reported no objections, although it did request more information on responses to a spill, “[g]iven the large distances to many new OCS operating leases.”¹⁵⁷

With only that cursory environmental analysis preceding it, Lease Sale 206 in the central Gulf of Mexico was offered for bids in March 2008.¹⁵⁸ The sale encompassed a huge geographic area of more than

¹⁵⁰ *See id.*

¹⁵¹ MINERALS MGMT. SERV., DEP’T OF THE INTERIOR, GULF OF MEXICO OCS OIL AND GAS LEASE SALES: 2007–2012; WESTERN PLANNING AREA SALES 204, 207, 210, 215, AND 218; CENTRAL PLANNING AREA SALES 205, 206, 208, 213, 216, AND 222; FINAL ENVIRONMENTAL IMPACT STATEMENT (2007) [hereinafter LEASE SALES FEIS], available at <http://www.gomr.boemre.gov/PDFs/2007/2007-018-Vol1.pdf>.

¹⁵² *See* MINERALS MGMT. SERV., DEP’T OF THE INTERIOR, MMS 2007-059, PROPOSED GULF OF MEXICO OCS OIL AND GAS LEASE SALE 206, CENTRAL PLANNING AREA, ENVIRONMENTAL ASSESSMENT, at ii (2007), available at <http://www.gomr.boemre.gov/PDFs/2007/2007-059.pdf>.

¹⁵³ *See id.*

¹⁵⁴ *See id.* at 13–63 (analyzing potential impacts).

¹⁵⁵ *See* LEASE SALES FEIS, *supra* note 151, at 4-228 to -250.

¹⁵⁶ *Id.* at 4-249 to -250 (noting that of sixty-two instances of loss of well control over ten years, only ten resulted in oil loss, the largest being only about 1000 barrels).

¹⁵⁷ Letter from Rhonda M. Smith, Chief, Office of Planning & Coordination, to Chris C. Oynes, Reg’l Dir., MMS (Jan. 9, 2007) (on file with author).

¹⁵⁸ Press Release, MMS, Dep’t of the Interior, MMS Issues Final Notices of Central and Eastern Gulf Lease Sales (Feb. 13, 2008), available at <http://www.gomr.boemre.gov/homepg/whatsnew/newsreal/2008/080213.pdf>.

5000 three-square-mile blocks.¹⁵⁹ It set a revenue record, attracting nearly \$3.7 billion in high bids.¹⁶⁰ Mississippi Canyon Block 252, also known as the Macondo prospect, was one of the hot sellers.¹⁶¹ It attracted six different bids.¹⁶² BP's was the highest, at over \$34 million.¹⁶³

Once it accepted BP's bid, the government was committed to allowing exploratory drilling and development unless it could show a high likelihood of severe environmental impacts. No more NEPA analysis was undertaken. From 1986 until after the Deepwater Horizon disaster, approvals of exploration or development plans in the central and western Gulf of Mexico were covered by a categorical exclusion.¹⁶⁴ That categorical exclusion was never defended in a public forum.¹⁶⁵ On its web site, MMS offers a "past performance" justification: "hundreds of Environmental Assessments (EAs) were prepared for approval of certain types of oil and gas exploration and development and production plans in the central and western Gulf of Mexico. However, none of those EAs identified the need to prepare an Environmental Impact Statement (EIS)."¹⁶⁶

BP submitted a proposed exploration plan for the Macondo prospect in February 2009.¹⁶⁷ It proposed drilling in nearly 5000 feet of water, but assured MMS that no new or unusual technologies would be

¹⁵⁹ *See id.*

¹⁶⁰ Press Release, Office of the Sec'y, Dep't of the Interior, Oil and Gas Lease Sales in Gulf of Mexico Attract \$3.7 Billion (Mar. 19, 2008), available at <https://www.mms.gov/homepg/whatsnew/newsreal/2008/080319.pdf>.

¹⁶¹ *See* MINERALS MGMT. SERV., DEP'T OF THE INTERIOR, OIL AND GAS LEASE SALE 206: FINAL BID RECAP, CENTRAL GULF OF MEXICO 42 (2008), available at <http://www.gomr.boemre.gov/homepg/lseale/206/206FinalBidRecap.pdf>.

¹⁶² *See id.*

¹⁶³ *See id.*

¹⁶⁴ *See* MINERALS MGMT. SERV., DEP'T OF THE INTERIOR, DEPARTMENTAL MANUAL, at pt. 516, 15.4(C) (2004) available at http://206.131.241.18/app_DM/act_getfiles.cfm?relnum=3625 (establishing categorical exclusion for "[a]pproval of an offshore lease or unit exploration, development/production plan or a Development Operation Coordination Document in the central or western Gulf of Mexico").

¹⁶⁵ Although MMS did invite public comment on its NEPA procedures before finalizing them, it did not offer any explanation for its categorical exclusions. *See* National Environmental Policy Act; Proposed Implementing Procedures, 50 Fed. Reg. 9132, 9133 (Mar. 6, 1985).

¹⁶⁶ *National Environmental Policy (NEPA)—Categorical Exclusion Reviews*, BUREAU OF OCEAN ENERGY MGMT., REGULATION & ENFORCEMENT, <http://www.boemre.gov/eppd/compliance/nepa/policy/ce/index.htm> (last visited Apr. 15, 2011).

¹⁶⁷ *See generally* BP EXPLORATION & PRODUCTION, INITIAL EXPLORATION PLAN, MISSISSIPPI CANYON BLOCK 252 (2009), available at <http://www.scribd.com/doc/35728155/29977-BP-Initial-Exploration-Plan-Mississippi-Canyon-Block-252-OCS-G-32306>.

used.¹⁶⁸ MMS did not require that the exploration plan evaluate a blow-out scenario.¹⁶⁹ Nonetheless, BP did provide an estimate of the worst-case scenario, a blowout spewing 162,000 barrels of oil per day.¹⁷⁰ The company assured MMS that it could handle containment and clean up of that worst case, citing its approved oil spill response plan.¹⁷¹ In April 2009, MMS approved the exploration plan under its Gulf of Mexico categorical exclusion, after minimal review,¹⁷² as it has done for hundreds of other permits.¹⁷³ No outside agency reviewed those approvals.

2. ESA Consultation

MMS informally consulted with FWS and NMFS at the planning stage on the impacts of the 2007 to 2012 leasing program on threatened and endangered species.¹⁷⁴ It took the position that because there was not likely to be any adverse effect on listed species, formal consultation was not required.¹⁷⁵ FWS agreed, and therefore conducted no further analysis.¹⁷⁶

Even taking MMS's rosy oil spill predictions at face value, it is hard to see how that conclusion was reached. The 2007 to 2012 programmatic EIS conceded, for example, that several threatened and endangered coastal bird species could be affected by a nearshore oil spill, and that the whooping crane, whose entire population winters on the Texas Gulf Coast, could be wiped out by a spill affecting its habitat.¹⁷⁷ FWS

¹⁶⁸ See *id.* at 2-1.

¹⁶⁹ See *id.*; see also MINERALS MGMT. SERV., DEP'T OF THE INTERIOR, NTL No. 2008-G04, NOTICE TO LESSEES AND OPERATORS OF FEDERAL OIL, GAS, AND SULPHUR LEASES IN THE OUTER CONT'L SHELF, GULF OF MEXICO OCS REGION: INFORMATION REQUIREMENTS FOR EXPLORATION PLANS AND DEVELOPMENT OPERATIONS COORDINATION DOCUMENTS 6 (2008) [hereinafter MMS NOTICE TO OPERATORS], available at <http://www.gomr.boemre.gov/homepg/regulate/regs/ntls/2008NTLs/08-g04.pdf>.

¹⁷⁰ BP EXPLORATION & PRODUCTION, *supra* note 167, at 7-1.

¹⁷¹ See *id.* BP and the other companies drilling in the Gulf routinely issued similar boilerplate assurances. Mike Soraghan, *Industry Claims of 'Proven' Technology Went Unchallenged at MMS*, N.Y. TIMES (June 2, 2010), <http://www.nytimes.com/gwire/2010/06/02/02green-wire-industry-claims-of-proven-technology-went-unch-55514.html?pagewanted=all>.

¹⁷² MARGARET R. CALDWELL ET AL., CTR. FOR OCEAN SOLUTIONS, THE NATIONAL ENVIRONMENTAL POLICY ACT AND A REVIEW OF MMS NEPA DOCUMENTS 6, 8, 12-13 (2010), available at <http://www.oilspillcommission.gov/resources>.

¹⁷³ See *id.* at 6-7; Houck, *supra* note 16, at 11,036-37.

¹⁷⁴ See Press Release, Dep't of the Interior, Interior to Examine Endangered Species Questions as Part of BP Oil Spill Reviews (May 14, 2010), available at <http://www.doi.gov/news/pressreleases/Interior-to-Examine-Endangered-Species-Questions-as-Part-of-BP-Oil-Spill-Reviews.cfm>.

¹⁷⁵ See *id.*

¹⁷⁶ See *id.*

¹⁷⁷ 2007-2012 FEIS, *supra* note 12, at IV-58.

appears to have been completely asleep at the switch, perhaps lulled by the low probabilities projected for any spill to reach shore.

NMFS was a bit more awake. It demanded formal consultation, but concluded that the adverse effects on listed species would not reach the jeopardy threshold.¹⁷⁸ Like FWS, NMFS accepted MMS's oil spill projections.¹⁷⁹ Assuming, as MMS did, that there would be only three spills of roughly 4600 barrels each over the forty-year lifetime of the facilities authorized by the program, and that each of these spills would quickly disperse and degrade, NMFS determined that the impacts to threatened and endangered species would not violate the ESA.¹⁸⁰

Like the NEPA analysis, NMFS's biological opinion did not examine a worst-case scenario. And like the NEPA analysis, it was ultimately far off the mark. Although the full effects are not yet known, they are clearly serious. More than four hundred oiled sea turtles have been collected from Gulf waters since the spill.¹⁸¹ Hundreds of endangered sea turtle nests were relocated from the northern Gulf Coast to the east coast of Florida to protect the hatchlings from swimming into oiled waters.¹⁸² It will be decades before the hatchlings return to nest themselves, allowing the success of that effort to be evaluated.¹⁸³ A satellite study has suggested that the spill hit a key spawning ground of the Atlantic bluefin tuna, which has been declining precipitously in population—though it is not yet listed as endangered or threatened.¹⁸⁴ Dead and dying corals have been found near the blowout site¹⁸⁵ and sam-

¹⁷⁸ NMFS, NAT'L OCEANIC & ATMOSPHERIC ADMIN., SE REG'L OFFICE, PROTECTED RES. DIV., ENDANGERED SPECIES ACT—SECTION 7 CONSULTATION BIOLOGICAL OPINION 99 (2007), available at http://sero.nmfs.noaa.gov/sf/deepwater_horizon/02611_MMS_Leases_2007-2012.pdf.

¹⁷⁹ See *id.* at 31–32.

¹⁸⁰ See *id.* at 99.

¹⁸¹ FWS, DEEPWATER HORIZON RESPONSE CONSOLIDATED FISH AND WILDLIFE COLLECTION REPORT 1 (2010) available at http://www.restorethegulf.gov/sites/default/files/documents/pdf/Consolidated%20Wildlife%20Table%20101310_0.pdf.

¹⁸² See Press Release, FWS, State and Federal Wildlife Agencies, Other Partners, Move to Safeguard Sea Turtle Nests FedEx providing transportation to Florida's Space Coast (July 9, 2010), <http://www.fws.gov/southeast/news/2010/r10-048.html>.

¹⁸³ Leslie Kaufman, *Gulf Studies Yield More Than Damage*, N.Y. TIMES, Apr. 12, 2011, at D1.

¹⁸⁴ See *Bluefin Tuna Hit Hard by 'Deepwater Horizon' Disaster*, EUR. SPACE AGENCY (Oct. 18, 2010), http://www.esa.int/esaCP/SEM1K4WO1FG_index_0.html; *Atlantic bluefin tuna* (*Thunnus thynnus*), NOAA FISHERIES OFF. PROTECTED RESOURCES, www.nmfs.noaa.gov/pr/species/fish/bluefintuna.htm (last visited Apr. 15, 2011); see also *Thunnus Thynnus*, IUCN RED LIST THREATENED SPECIES, <http://www.iucnredlist.org/apps/redlist/details/21860/0> (last visited Apr. 15, 2011).

¹⁸⁵ John Collins Rudolf, *Dead Coral Found in Gulf, with Oil the Main Suspect*, N.Y. TIMES, Nov. 6, 2010, at A10.

pling miles away from the wellhead has revealed dead bottom-dwelling invertebrates.¹⁸⁶ Thousands of birds are known to have been oiled;¹⁸⁷ because detection rates for oiled birds are low, hundreds of thousands may have died.¹⁸⁸ Similar extrapolations for cetaceans suggest that more than 5000 may have been killed.¹⁸⁹ The impacts may be continuing; scientists are debating whether an unusual rash of dolphin strandings in the spring of 2011 is connected to the spill.¹⁹⁰

3. CZMA Consistency Determination

Although lease sales have been subject to consistency review since the 1990 CZMA amendments,¹⁹¹ MMS still prefers to focus state review on the exploration and development stages. Both the CZMA and OCSLA require consistency review before an exploration or development plan is approved.¹⁹² Indeed, at those late stages states have greater authority to halt offshore drilling than the federal government; states need only find that drilling would be inconsistent with their approved coastal plan, while the federal government must find that drilling would probably cause severe environmental harm.¹⁹³

States, however, have rarely used this powerful lever.¹⁹⁴ In 2006, MMS reported that since 1978 it had approved more than 10,000 ex-

¹⁸⁶ Kaufman, *supra* note 183.

¹⁸⁷ FWS, BIRD IMPACT DATA FROM DOI-ERDC DATABASE DOWNLOAD 1 (2010) [hereinafter FWS BIRD IMPACT DATA], available at <http://www.fws.gov/home/dhoilspill/pdfs/Bird%20Data%20Species%20Spreadsheet%201162010.pdf>. As of Nov. 16, 2010, FWS reported that a total of 2888 birds had been found either alive or dead with verified oiling, including more than three hundred Brown pelicans, a species listed at the time of the consultation but since removed from the list, and fifty threatened Least terns. *Id.*

¹⁸⁸ Kaufman, *supra* note 183.

¹⁸⁹ *Id.*

¹⁹⁰ See 2010–2011 Cetacean Unusual Mortality Event in Northern Gulf of Mexico, NOAA FISHERIES OFF. PROTECTED RESOURCES, http://www.nmfs.noaa.gov/pr/health/mmume/cetacean_gulfofmexico2010.htm (last visited Apr. 15, 2011) (documenting unusual dolphin mortality levels after Fall 2010); Ben Raines, *Cold Water Influx in Gulf May Have Delivered Fatal Blow to Dead Dolphins*, PRESS-REGISTER (Mobile, Ala.), Mar. 8, 2011, http://blog.al.com/live/2011/03/cold_water_may_have_delivered.html (quoting a leading dolphin researcher as saying that the unusual mortality levels are likely due to a combination of factors including cold waters and the direct and indirect effects of the Deepwater Horizon blowout).

¹⁹¹ H.R. REP. NO. 101-964, at 970 (1990) (Conf. Rep.); Jack H. Archer, *Evolution of the Major 1990 CZMA Amendments: Restoring Federal Consistency and Protecting Coastal Water Quality*, 1 TERRITORIAL SEA J. 191, 192 (1991).

¹⁹² See 43 U.S.C. §§ 1340(c)(2), 1351(d) (2006).

¹⁹³ See *id.* § 1340.

¹⁹⁴ See Coastal Zone Management Act Federal Consistency Regulations, 71 Fed. Reg. 788, 791 (Jan. 5, 2006) (codified at 15 C.F.R. pt. 390).

ploration plans and 6000 development and production plans.¹⁹⁵ States had concurred with nearly all of those approvals.¹⁹⁶ There had only been eighteen appeals of state consistency objections.¹⁹⁷ Seven of those objections were overridden by the Secretary of Commerce.¹⁹⁸

Very occasionally, states have objected at other OCSLA stages.¹⁹⁹ Between 1990, when the CZMA was expanded to cover activities indirectly affecting the states' coastal zones, and 2006, there was only one state objection to a lease sale.²⁰⁰ States have objected six times since 1990 to five-year plans.²⁰¹ One objection was withdrawn, two were overridden, and three were allowed to stand.²⁰² Although states have rarely used the CZMA to halt offshore drilling, they have been able to negotiate conditions and information provisions. For example, exploration and development plans potentially affecting Florida must include blowout scenarios, while those expected to affect only Louisiana need not do so.²⁰³

Louisiana has been especially reluctant to use its CZMA authority against oil and gas operations. It has objected only twice, once in 1991,²⁰⁴ and again in 2006.²⁰⁵ In both cases, MMS refused to back down, and Louisiana filed suit. Louisiana ultimately withdrew the 1991 suit, and settled the 2006 suit on favorable terms.²⁰⁶

Despite those brief showings of backbone, by the time the Macondo well was approved Louisiana had returned to passivity. It appears that MMS submitted a consistency determination to Louisiana for its five-year plan and another for Lease Sale 206.²⁰⁷ The state did not object to either.²⁰⁸ Louisiana had another opportunity to object, or to demand that MMS and BP provide more information, at the exploration

¹⁹⁵ *Id.*

¹⁹⁶ *Id.*

¹⁹⁷ *Id.*

¹⁹⁸ *Id.*

¹⁹⁹ *See id.*

²⁰⁰ *See* Coastal Zone Management Act Federal Consistency Regulations, 71 Fed. Reg. at 791.

²⁰¹ *See id.*

²⁰² *Id.*

²⁰³ *See* MMS NOTICE TO OPERATORS, *supra* note 169.

²⁰⁴ Langford et al., *supra* note 91, at 138.

²⁰⁵ Ryan M. Seidemann & James G. Wilkins, Blanco v. Burton: *What Did We Learn from Louisiana's Recent OCS Challenge?*, 25 PACE ENVTL. L. REV. 393, 401 (2008).

²⁰⁶ Langford et al., *supra* note 91 at 138–43; Seidemann & Wilkins, *supra* note 205, at 418.

²⁰⁷ *See* Sam Kalen, *The BP Macondo Well Exploration Plan: Whither the Coastal Zone Management Act?*, 40 ENVTL. L. REP. 11,079, 11,082–83 (2010).

²⁰⁸ *See id.* at 11,082.

plan stage, but again it did not.²⁰⁹ As a result, the CZMA process did not act as a check on either MMS's environmental analysis or its frantic push to facilitate offshore drilling.

III. FILLING IN THE MISSING INGREDIENTS

Claims about the likelihood and consequences of a drilling-associated oil spill made by BP and endorsed by MMS throughout the course of multiple rounds of environmental review turned out to be disastrously wrong. Not only were they wrong in hindsight, there was plenty of contemporary evidence that deepwater drilling presented far greater environmental hazards than MMS acknowledged.²¹⁰

MMS itself had produced some of that evidence. Eight years before Lease Sale 206, MMS issued an EA for deepwater drilling operations ("Deepwater EA") which contradicted key assumptions of the subsequent studies.²¹¹ The Deepwater EA concluded that: "[d]eepwater operations have the potential to result in oil spills on the OCS that are greatly larger than those previously analyzed;"²¹² that the behavior of underwater oil plumes could not be confidently predicted;²¹³ that blow-outs, although rare, were far from unknown over the previous twenty-five years and would be more difficult to control in deepwater;²¹⁴ and that technology was changing rapidly enough that reassessment would be needed periodically.²¹⁵

Yet neither MMS nor any of the environmental agencies invited or required to review the environmental documentation preceding approval of the Macondo well suggested that a catastrophic oil spill might occur, or that one would be difficult to contain or clean up. Not only did MMS fail at its regulatory task, the environmental agencies failed at their oversight task.

MMS was thoroughly captured by the industry it was supposed to regulate, and it fell into an analytic routine where it simply repeated one set of analyses over and over again without critical examination, assuming that because there had not been a major disaster in the re-

²⁰⁹ *See id.* at 11,083.

²¹⁰ *See, e.g.,* Houck, *supra* note 16, at 11,033–35.

²¹¹ *See* MINERALS MGMT. SERV., DEP'T OF THE INTERIOR, MMS 2000-001, GULF OF MEXICO DEEPWATER OPERATIONS AND ACTIVITIES: ENVIRONMENTAL ASSESSMENT, at iv (2000), available at <http://www.gomr.boemre.gov/PDFs/2000/2000-001.pdf>.

²¹² *Id.*

²¹³ *Id.* at ix.

²¹⁴ *Id.* at II-16 to -17.

²¹⁵ *Id.* at II-3.

cent past there was no threat of one in the future.²¹⁶ Those tendencies are endemic to many regulatory agencies and difficult to correct internally. Oversight by agencies with an environmental mission was supposed to counteract them, but also failed disastrously.

Part of the ineffective oversight story, no doubt, is that many of the key events happened during the Bush administration, when the leadership of the wildlife agencies was not committed to environmental protection.²¹⁷ But oversight mechanisms should be robust in the face of changes in administrations, at least to the extent of making environmental trade-offs visible to the political process. The Deepwater Horizon experience highlights some systematic shortcomings and suggests reforms that could improve the oversight process in any administration.

A. *The Elements of Effective Review*

Two things are needed to make outside review effective. First, the attention of the reviewer needs to be captured and focused on the salient issues. Agencies are chronically short of resources and face many demands on their time.²¹⁸ Unless they understand the importance of their task in the specific context, they may treat the review as a matter of routine. Furthermore, reviewers should not face unnecessary barriers to identifying the most important or questionable elements of the analysis. Second, for activities that pose an uncertain or low-probability risk of dire environmental harm, reviewers need access to the expertise required to review the risk as well as the potential environmental impacts.

Getting the oversight agencies' committed attention is the key to improving the oversight process. Federal agencies produce roughly 250 to 300 draft EISs each year, and close to an equal number of final EISs.²¹⁹ There are many more EAs²²⁰ and untold numbers of categorical

²¹⁶ See Houck, *supra* note 16, at 11,034–35. See generally 2007–2012 FEIS, *supra* note 12, at IV-3 to -4.

²¹⁷ See Michael Kunzelman, *U.S. Fish and Wildlife Service Said Risk from Gulf Drilling Projects Was 'Low'*, HUFFINGTON POST (July 5, 2010, 6:38 PM), http://www.huffingtonpost.com/2010/07/05/gulf-oil-spill-us-fish-wildlife_n_635743.html.

²¹⁸ See COMM'N ON RISK ASSESSMENT & RISK MGMT., RISK ASSESSMENT AND RISK MANAGEMENT IN REGULATORY DECISION-MAKING (1996), available at http://www.riskworld.com/nreports/1996/risk_rpt/html/nr6aa015.htm ("Federal regulatory agencies are confronted with many problems and issues related to health and environmental protection, but have limited time and resources for action.").

²¹⁹ See COUNCIL ON ENVTL. QUALITY (CEQ), ENVIRONMENTAL IMPACT STATEMENTS FILED 1973 THROUGH 2007, http://ceq.hss.doe.gov/nepa/EISs_by_Year_1970_2007.pdf.

²²⁰ A survey of federal agencies estimated that, by 1993, 50,000 EAs were being produced annually. CEQ, THE TWENTY-FIFTH ANNIVERSARY REPORT 51 (1995), available at http://ceq.hss.doe.gov/nepa/reports/1994-95/25th_ann.pdf.

exclusions.²²¹ All told, there is plenty to keep the relatively small proportion of EPA staff dedicated to NEPA reviews busy. Similarly, the FWS faces some 35,000 requests for consultation each year, also covering a wide range of projects.²²² Although most are dealt with informally,²²³ the resource demands are still substantial.

The need for something to grab the reviewing agencies' attention is heightened if effective review requires the agency to go beyond its core expertise, as it typically does where a risk assessment is needed. Evaluating the probability and magnitude of a blowout is a very different task than evaluating the harm that released oil will cause. The former requires the skills of an engineer rather than a biologist. In addition, good risk evaluation requires an understanding of where oil will go and how it will degrade in the marine environment—well outside the expertise of species experts. The further afield the necessary analysis drifts from the reviewing agency's core expertise, the more important it will be to persuade the agency that it merits an extraordinary effort.

The attention of reviewing agencies needs to be directed both generally at the documents that could most benefit from oversight, and specifically on the key portions of those documents. An early criticism of NEPA environmental analyses remains accurate: they are “very bulky documents”²²⁴ that tend to spend many pages on matters of limited relevance to the decision, are often organized in ways that are difficult to follow,²²⁵ and do not highlight the most important issues.²²⁶ CEQ could help on this score by updating its guidelines for implementing NEPA. Those guidelines require that NEPA documents “be written in plain language . . . so that decisionmakers and the public can readily understand them.”²²⁷ Anyone who has plowed through an EIS knows that regulation has not produced documents which are either readable or understandable. With the benefit of more than forty years of NEPA experience, CEQ should try to develop broader guidance for organization and presentation of NEPA analyses to highlight the issues of greatest controversy or importance to the decision. EPA could also use its

²²¹ The categorical exclusion is “the most frequently employed method of complying with NEPA.” CEQ, 3125-W0, FINAL GUIDANCE FOR FEDERAL DEPARTMENTS AND AGENCIES ON ESTABLISHING, APPLYING, AND REVISING CATEGORICAL EXCLUSIONS UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT 17 (2010).

²²² FWS AGENCY CONSULTATIONS, *supra* note 73, at 2.

²²³ *See id.*

²²⁴ Bardach & Pugliaresi, *supra* note 37, at 25.

²²⁵ *Id.* at 27.

²²⁶ *Id.*

²²⁷ 40 C.F.R. § 1502.8 (2010).

mandated review of all federal EISs²²⁸ to highlight and request improvement of unnecessarily turgid or confusing documents.

Reviewing agencies also need access to appropriate expertise, which may go well beyond their core competence. They might get that expanded expertise by providing current employees with additional training, hiring new employees with the needed skills, or contracting with expert consultants. In some cases that additional expertise may only be needed for a short term, to prepare a primer or guidance document that can be used by non-expert reviewers.²²⁹ The reviewing agency must have experts responsive to its environmental mission in order to perform its oversight function effectively. But it also must have experts capable of understanding the engineering challenges of deep-water oil production, the technologies currently in use and on the horizon, and the options for responding to a blowout. Perhaps that expertise already exists in the federal government—the United States Geological Survey has considerable experience with oil production.²³⁰ Perhaps it exists in academia or in the National Academies—following the Deepwater Horizon disaster, Interior sought review of the blowout by the National Academy of Engineering.²³¹ However it is done, though, invoking that additional expertise will impose resource costs, which must come either from other agency programs or from added appropriations. That is why it is critical to persuade reviewing agencies of the importance of their task.

B. *Getting the Attention of Oversight Agencies with Worst-Case Analysis*

An effective oversight procedure must provide clear signals to reviewing agencies of when they should be willing to invest unusual levels of resources. Clear and explicit worst-case analysis, as CEQ once re-

²²⁸ See *supra* notes 55–57 and accompanying text.

²²⁹ An example might be guidance prepared by EPA's Office of Federal Activities with the technical assistance of outside consultants to help reviewers of EISs for nuclear power plant projects "identify specific aspects of the EIS that have a heightened ability to cause environmental non-compliance." EPA, § 309 REVIEWERS GUIDANCE FOR NEW NUCLEAR POWER PLANT ENVIRONMENTAL IMPACT STATEMENTS 1-1 (2008), available at <http://www.epa.gov/compliance/resources/policies/nepa/309-reviewers-guidance-for-new-nuclear-power-plant-EISs-pg.pdf>.

²³⁰ See USGS *Energy Resources Program*, U.S. GEOLOGICAL SURVEY, <http://energy.usgs.gov/> (last visited Apr. 15, 2010) (showing that the United States Geological Survey has experience with oil and gas assessment).

²³¹ See NAT'L ACADEMY OF ENGINEERING & NAT'L RESEARCH COUNCIL, INTERIM REPORT ON CAUSES OF THE DEEPWATER HORIZON OIL RIG BLOWOUT AND WAYS TO PREVENT SUCH EVENTS 1 (2010), available at http://www.nationalacademies.org/includes/DH_Interim_Report_final.pdf.

quired under NEPA, can provide that signal. Worst-case analysis need not be required for every project; it is important only when there is an uncertain or low probability risk of a disastrous event, like an oil well blowout or a successful terrorist attack on a nuclear installation.²³² Worst-case analysis is especially important where an agency individually approves large numbers of projects, each of which has a low probability of causing large harm, as MMS does in the Gulf of Mexico. Multiplied by hundreds or thousands of deepwater operations, even a very low individual probability of catastrophe becomes significant.

By highlighting the importance of technological, engineering, or other assumptions, a worst-case analysis can help reviewing agencies identify the additional expertise they need to effectively fulfill their roles. If they fully understood how crucial MMS's assumptions about the low probability and limited extent of oil spills were to the environmental analysis, EPA and the wildlife agencies might have been more highly motivated to push on the justification for those assumptions. They might have assigned staff to track MMS's environmental analyses, including the Deepwater EA which seemed to disappear into thin air once it had been completed. They might have contracted with the National Academy of Engineering, with the United States Geological Survey, or with other outside experts to advise them or to peer review MMS's assumptions. And they could have made a better case to budget and political authorities for devoting those resources to those purposes.

That raises another issue—the mindset of reviewing agencies must be broadened, both from within and from without. Environmental agencies have to internalize the idea that their job requires them to understand key industries as well as the environment. Ideally, they should be encouraged by the administration at the highest level, and by the relevant congressional oversight committees, to see that form of review as an essential aspect of their mission. Again, having a serious, robust worst-case analysis could help both internal and external audiences make that connection.

A serious, robust worst-case analysis might also help reluctant states see the importance of their own oversight role and commit the resources necessary to fulfill that role. The CZMA has been a tool of widely varying utility, in large part because different states have displayed very different willingness and ability to use it. California and

²³² See *San Luis Obispo Mothers for Peace v. Nuclear Regulatory Comm'n*, 449 F.3d 1016, 1019, 1035 (9th Cir. 2006) (considering whether risk of terrorist attack must be evaluated in course of nuclear licensing proceedings).

Florida, two states highly conscious of the contribution of their coastal environment to their economies, have wielded the CZMA effectively against offshore drilling and other threats.²³³ Louisiana has not.²³⁴ In part, that is simply a reflection of the states' different economic goals, or perhaps of the different economic and political power of the potential victims of offshore accidents. But it may also be a reflection of the unwillingness of Louisiana to confront the tension between its commitment to the oil and gas industry, its established commercial fishing industry, and its increasing emphasis on tourism. A robust worst-case analysis might have brought home the potential costs, economic and social, of a catastrophe before one happened, helping the state more realistically evaluate the trade-offs it was unknowingly making.²³⁵

Furthermore, an accurate worst-case analysis would allow other states a say in the trade-offs which affect them, and would facilitate a clearer view of the extent to which nationally important resources were at stake. Although the bulk of the coastal impacts from the Deepwater Horizon blowout have been felt in Louisiana, oil found its way to beaches in Florida, Alabama, and Mississippi;²³⁶ fishing closures and tourism scares affected the regional economy;²³⁷ and the spill's continuing effects threaten bird and fish species that are national assets.²³⁸ Yet

²³³ See, e.g., *California v. Norton*, 311 F.3d 1162, 1165 (9th Cir. 2002); Andrew S. Jessen, Comment, *Louisiana and the Coastal Zone Management Act in the Wake of Hurricane Katrina: A Renewed Advocacy for a More Aggressive Use of the Consistency Provision to Protect and Restore Coastal Wetlands*, 12 OCEAN & COASTAL L.J. 133, 134–36 & n.12 (2006).

²³⁴ See Langford et al., *supra* note 91, at 143; see also Jessen, *supra* note 233, at 136 n.12.

²³⁵ It might also help if more data were available concerning the relative economic impact of extractive and environmentally sensitive sectors. According to a recent report, there are more than five times as many Gulf jobs in the tourism and fishing industries as in oil and gas production. MICHAEL GRAVITZ, ENV'T AM. RESEARCH & POLICY CTR., *TOO MUCH AT STAKE: DON'T GAMBLE WITH OUR COASTS 2* (2010), available at <http://www.environmentamerica.org/home/reports/report-archives/ocean-conservation/healthy-oceans/too-much-at-stake-dont-gamble-with-our-coasts>.

²³⁶ NATURAL RES. DEF. COUNCIL, *DEEPWATER HORIZON OIL SPILL: BEACH CLOSURES, ADVISORIES, AND NOTICES AS OF JULY 27, 2010*, at 1, 4 (2010), available at <http://www.nrdc.org/water/oceans/tiw/gulf.pdf>; PING WANG & TIFFANY M. ROBERTS, UNIV. OF S. FLA., *ONGOING BEACH CLEANUP OF THE BP OIL SPILL—A SUPERFICIAL JOB, LITERALLY 1* (2010), available at <http://news.usf.edu/article/articlefiles/2566-PW%202nd%20Beach%20report.pdf>.

²³⁷ See U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-10-723, *HURRICANES KATRINA AND RITA: FEDERALLY FUNDED PROGRAMS HAVE HELPED TO ADDRESS THE NEEDS OF GULF COAST SMALL BUSINESSES, BUT AGENCY DATA ON SUBCONTRACTING ARE INCOMPLETE* 44–48 (2010); Sara K. Clarke & Kevin Spear, *Florida Panhandle Hotels Hurt By Oil Spill's Effects*, L.A. TIMES, Oct. 23, 2010, at B2.

²³⁸ See FWS BIRD IMPACT DATA, *supra* note 187; *How the Gulf Oil Spill Could Hurt Animals*, NAT'L WILDLIFE FED'N (May 4, 2010), <http://www.nwf.org/News-and-Magazines/National-Wildlife/Animals/Archives/2010/Oil-spill-species.aspx>.

MMS has been all too willing in the past to follow the gung-ho, “drill, baby, drill” attitude of pro-drilling states like Louisiana.²³⁹ That deference to local preferences can seem justified if Louisiana bears the brunt of both the economic costs of restricting drilling and the environmental costs of any disaster. To the extent that worst-case analysis shows that a significant portion of the environmental costs may be externalized, it would encourage wider engagement in the ultimate decision.

A worst-case analysis sufficient to serve this purpose need not be difficult either for the action agency to produce or for a reviewing agency to evaluate. For the Macondo well, for example, a worst-case analysis would have considered the highest expected pressure in the well, the size of the reservoir, the worst time of year for a blowout, and where the oil might go if it did not quickly degrade and hit unfavorable wind or current conditions. The attention-grabbing headline of a worst-case analysis will motivate reviewing agencies—and the interested public—to question whether the action agency has gotten the nuances right.

One might legitimately question what difference more skeptical oversight and a credible worst-case analysis would make to the ultimate decisions. The short answer is that it would force decision makers to actually confront the potential trade-offs. Additionally, federal or state regulators could have demanded more credible assurances in advance that BP knew how to kill a wild deepwater well, required that a relief well be drilled in parallel with the exploratory well, researched the effectiveness and impacts of dispersants applied in deep water, or checked to see if promised response capabilities actually existed.

C. *Getting from Here to There*

Perhaps the most attractive feature of this analysis is that it suggests a fix which does not need congressional action or even regulatory change. CEQ can explicitly amend its regulations to reinstate the worst-case analysis requirement. But regulatory correction, while desirable, is not necessary. CEQ never firmly renounced worst-case analysis, it simply dropped the explicit reference to it.²⁴⁰ The current regulation continues to require that NEPA documentation analyze even low probab-

²³⁹ Although MMS has been happy to cooperate with pro-drilling states, it has been notably less cooperative on the rare occasions that Louisiana has sought to slow offshore development. See Seidemann & Wilkins, *supra* note 205, at 401–04.

²⁴⁰ See 40 C.F.R. § 1502.22 (2010).

ity catastrophic results, provided they lie within the rule of reason.²⁴¹ In an August report on the Deepwater Horizon NEPA failures, CEQ suggested—although its phrasing could have been more explicit—that blowout analysis must be included in future NEPA documentation for offshore drilling approvals.²⁴² EPA, in its NEPA oversight role, should make sure that BOEMRE follows that recommendation,²⁴³ that its analysis is a worst-case one rather than a simple reassurance that blowouts are not usually disastrous,²⁴⁴ and that other agencies whose actions raise risks of catastrophe also include credible worst-case analyses.

The wildlife agencies should follow CEQ's lead. They also need not amend their regulations, although the better practice would be to do so.²⁴⁵ They should require that action agencies seeking either formal consultation or concurrence with a no adverse effects determination include a worst-case analysis for any low-probability but high-impact effects.

Where environmental risks result from technological advances, as in the case of offshore oil development, it would also be desirable to have periodic outside review of technological change—such as increasing capability to exploit deepwater petroleum reserves—and the extent to which it increases existing environmental risks or adds new ones. Worst-case analysis can highlight contexts in which such review would be helpful. Congress should impose periodic review requirements, but the administration need not wait for legislative action. Worst-case analy-

²⁴¹ *See id.*

²⁴² CEQ, REPORT REGARDING THE MINERALS MANAGEMENT SERVICE'S NATIONAL ENVIRONMENTAL POLICY ACT POLICIES, PRACTICES, AND PROCEDURES AS THEY RELATE TO OUTER CONTINENTAL SHELF OIL AND GAS EXPLORATION AND DEVELOPMENT 26–29 (2010), available at <http://www.whitehouse.gov/sites/default/files/microsites/ceq/20100816-ceq-mms-ocs-nepa.pdf>.

²⁴³ In a recent draft Supplemental EIS for a lease sale in the western Gulf of Mexico, the Bureau of Ocean Energy Management, Regulation and Enforcement (BOEMRE) did prepare a "Catastrophic Spill Event Analysis," based on a Deepwater Horizon-sized blowout. BOEMRE, GULF OF MEXICO OCS OIL AND GAS LEASE SALE: 2011, WESTERN PLANNING AREA LEASE SALE 218, DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT, at App. B (2011). That analysis provides a much more detailed picture of the potential for serious long-term environmental damage from a blowout than the agency's pre-Deepwater Horizon NEPA documents. *See id.* Unfortunately it is buried in an appendix while the text of the draft EIS sunnily proclaims that there is no need to revise earlier estimates of environmental impacts. *See id.* Still, the appendix should be enough to get the attention of outside reviewers.

²⁴⁴ *See Houck, supra* note 16, at 11,036–37 (noting that "the 'no risk' environmental documents did them in"); *see also* 2007–2012 FEIS, *supra* note 12, at IV-18.

²⁴⁵ Eighteen months ago, the Obama administration issued notice that it was considering revising the regulations governing ESA consultations, but nothing has yet come of that declaration. *See* Interagency Cooperation Under the Endangered Species Act, 74 Fed. Reg. 20,421, 20,421–22 (May 4, 2009) (codified at 50 C.F.R. pt. 402).

sis should help increase the leverage of environmental agencies within the administration and even within cabinet departments. The Secretary of the Interior, alerted by FWS and other environmental bureaus, could seek the advice of the National Academy of Engineering or other outside experts as part of the periodic OCSLA planning process. If the Department of the Interior declines to institute a commitment to such review on its own, the President could mandate it through executive order, or could make it part of his recently launched marine spatial planning initiative.²⁴⁶

CONCLUSION

MMS was a rogue agency. Forty years of experience suggests, however, that it was not alone in its cavalier treatment of environmental review requirements.²⁴⁷ The availability of citizen suits helps, but lack of resources and expertise make the public an imperfect watchdog. Environmental agencies can play that role most effectively. But the Deepwater Horizon saga exposes some serious flaws in outside agency oversight.

A robust worst-case analysis requirement for risky activities, which could be imposed by administrative fiat or even interpretation, would go a long way toward improving environmental agency oversight. Strengthening and actually trying to enforce mandates for readability, and requiring that environmental analyses focus on issues of importance to the decision would also help. In the long term, of course, it would be better for Congress to impose clearer and stronger environmental protection obligations in development statutes like OCSLA.²⁴⁸ Requiring that the Department of the Interior not only solicit the comments of environmental agencies on its five-year plans for offshore development, but also

²⁴⁶ Allison Winter, *NOAA Grant Proposal Could Launch Marine Zoning*, N.Y. TIMES, Feb. 5, 2010, <http://www.nytimes.com/gwire/2010/02/05/05greenwire-noaa-grant-proposal-could-launch-marine-zoning-54858.html>; see also *National Ocean Council*, WHITE HOUSE, <http://www.whitehouse.gov/administration/eop/oceans> (last visited Apr. 15, 2011).

²⁴⁷ See Bradley C. Karkkainen, *Toward a Smarter NEPA: Monitoring and Managing Government's Environmental Performance*, 102 COLUM. L. REV. 903, 906–07 (2002) (“Agencies have come to terms with the formal demands of the NEPA Environmental Impact Statement requirement by routinizing and compartmentalizing their response, effectively marginalizing its operative effect and thereby circumventing NEPA’s core purpose.”).

²⁴⁸ DeShazo and Freeman, for example, conclude that amendments to the Federal Power Act have been more effective than the addition of other environmental mandates like NEPA in convincing the Federal Energy Regulatory Commission to include environmentally protective conditions in hydropower relicensings. DeShazo & Freeman, *supra* note 27, at 2217, 2293–94.

respond to any objections in writing would greatly improve environmental oversight.

Of course, the real challenge is to foresee the next problem. No doubt at least in the immediate future both industry and regulators will be well attuned to the kind of failure that occurred on the Deepwater Horizon. Whether they will better anticipate and plan for the next unexpected low-probability environmental disaster is another question. With strong external review as a starting point, the answer is more likely to be yes.