NATURAL RESOURCES JOURNAL

Volume 54
Issue 1 *Spring 2014*

Spring 2014

An Environmental Conversation

William Murray Tabb

WILLIAM MURRAY TABB*

An Environmental Conversation

ABSTRACT

Federal environmental law and policy ambitiously purports to provide clean air and water, protect endangered and threatened species, clean-up hazardous and toxic waste sites, and infuse environmental considerations into the decision-making process of all federal agencies with respect to major proposals impacting the environment. Despite such lofty goals and an expansion of the regulatory state, certain types of activities and associated risks have eluded statutory coverage. Additionally, these uncoordinated federal environmental statutes typically embody a singular and sometimes myopic focus, leading to unpredictable or undesirable regulatory gaps, constraints, and inefficiencies. Further, limitations on standing and judicial review may significantly limit the ability of private litigants to enforce compliance with substantive and procedural duties of federal agencies and other private actors.

This article illuminates these complexities through the lens of a hypothetical but plausible scenario presenting controversial environmental issues associated with hydraulic fracturing operations. The various issues presented are discussed and analyzed by a fictional Supreme Court, drawing upon both recent and historically significant judicial decisions of the real U.S. Supreme Court and others. This conceit highlights the problematic interplay of the federal statutes and standards of judicial review. It also provides insight into potential methods to navigate the substantive and procedural challenges faced by private litigants, federal agencies, and the courts in applying these complex statutes to address modern environmental threats, such as those presented in hydraulic fracturing activities.

INTRODUCTION

Innovative technology may spur economic growth, yet it may also pose collateral threats to human health and the environment. A recent illustration of this duality is evidenced by the rapidly escalating employment of hydraulic fracturing technology for the exploration of oil and gas resources. While the "fracking" technique has sparked a stampede of drilling in major shale plays across the United States, conservation and public interest groups have raised serious concerns about the causal connections to an array of environmental hazards. Critics of fracking cite a broad spectrum of environmental disasters, including earthquakes, ac-

* David Ross Boyd Professor; Judge Fred A. Daugherty Chair in Law, University of Oklahoma College of Law.

celerated climate change through escaped methane gas, water contamination, and critical habitat destruction, among others. Hydraulic fracturing, though, is merely the latest illustration of uncertain yet potentially significant environmental challenges presented by technological advancements on the frontiers of science.

Scientific uncertainty poses a challenge in environmental regulation, and that complication is compounded when gaps in coverage exist in the regulatory structure. Due to the limitations of environmental statutes and the constraints of judicial review, challengers to agency action may be unable to force the adequate consideration of the unknown hazards or potential risks of new technology such as hydraulic fracturing. Additionally, the interplay among federal statutes creates another layer of uncertainty for regulators, private and public interests, and courts.

The purpose of this article is to illustrate the challenges presented by these multi-faceted environmental and regulatory issues through the rubric of a complex hypothetical scenario. The scenario identifies the relevant federal environmental statutes that principally govern the topics presented, demonstrates how the statutes interrelate in certain respects, and also identifies areas in which the statutory schemes may not adequately address contemporary problems in a satisfactory, comprehensive manner. The article also incorporates historical and modern judicial perspectives on the issues presented, highlights the boundaries of judicial deference to administrative decision-making with respect to matters of scientific uncertainty and agency expertise, and reconciles that with the role of federal courts to ensure fidelity to statutory obligations.

These issues are reviewed and discussed in a behind the scenes "conversation" by a hypothetical Supreme Court in which the Justices, sitting in chambers, are fleshing out and debating various controversial environmental questions. The conversation by the Justices highlights the complex, multi-faceted, and interrelated issues of technology, science, economics, information uncertainties, and health and safety issues evaluated by federal courts in the context of interpreting the substantive and procedural mandates of federal environmental statutes.

This article is organized in two parts. Part I presents a comprehensive factual scenario that involves the interrelationship of a proposed federal highway, the Endangered Species Act (ESA), the National Environmental Policy Act (NEPA), and potential environmental hazards presented by hydraulic fracturing operations on public lands. Although the events represented are hypothetical, variations of the scenario are in fact presently occurring with increasing frequency and magnitude. The problems associated with these events present a complex interplay of

federal environmental statutes, the role of the courts, and the administrative responsibilities of federal agencies.

In Part II, the Justices engage in a hypothetical discussion regarding the issues raised in the fact pattern presented in Part I. Part II begins with a conversation examining Article III standing requirements in federal courts. It examines the litigation efforts of an environmental public interest organization with certain members who claim injury related to their use of the resources affected by the federal proposal. The fictional conversation continues with a consideration of the nature and scope of judicial review of agency decision-making, including whether the federal agencies have satisfied the "hard look" standard of analysis in the context of the "rule of reason," as traditionally applied in federal environmental law decisions. Part II concludes with a discussion of four major themes under NEPA, as applied to this article's hypothetical scenario. Historically, these themes represent controversial battlegrounds for challenges to federal compliance with NEPA. They include: (1) the threshold assessment of the significance of the environmental impact associated with proposed major federal actions; (2) consideration of the alternatives to federal proposals; (3) analysis of the scope of a proposal, including whether certain actions should be considered as connected or independent and assessing the cumulative or incremental effects of specific environmental impacts; and (4) determining the proper circumstances in which an impact statement should be updated to take significant new information into account.

I. THE HYPOTHETICAL: A FEDERAL PROPOSAL, ENDANGERED SPECIES, AND HYDRAULIC FRACTURING

The following material presents a fictional scenario that condenses many of the major themes of contemporary environmental regulation and litigation into one dispute. The article then dissects these themes in Part II.

A. The Great Plains Leasing Project and Hydraulic Fracturing

In 2008, the U.S. Department of the Interior, Bureau of Land Management (BLM) developed plans to lease approximately two million acres of public lands in Colorado, Utah, and Wyoming for the exploration and development of oil shale and tar sands resources. The agency issued a programmatic environmental impact statement (EIS) pursuant to NEPA[1] for the proposal, called the Great Plains Mineral Leasing Project (Great Plains MLP).

1. 42 U.S.C. §§ 4321–4370(h) (1970).

In 2011, the BLM updated its previously issued EIS when it proposed offering approximately 90,000 acres of federal land for oil and gas leases located in the Green River Formation in western Colorado, southeastern Utah, and southern Wyoming. The Green River is the chief tributary of the Colorado River, with its headwaters in Wyoming's Wind River Mountains. The Green River is the chief tributary of the Colorado River, with its headwaters in Wyoming's Wind River Mountains and a watershed that encompasses Wyoming's Washakie Basin, Utah's Uinta Basin, and the Piceance Basin of Colorado. The BLM concluded that the additional leasing activity in the region would not present significant environmental effects, so it published a Finding of No Significant Impact under NEPA. The finding was principally based on earlier guidance documents developed pursuant to the Great Plains MLP.

B. The Proposed Green River Project: Construction of a Highway, Ferry Terminal, and Bridge

In 2012, the U.S. Army Corps of Engineers (Corps), in consultation with the Federal Highway Administration (FHWA), the U.S. Fish and Wildlife Service (FWS), the U.S. Bureau of Reclamation, and the Colorado Department of Transportation, developed plans to construct a new ferry terminal and bridge on the Green River, which would intersect with a proposed highway segment through the White River National Forest (the Green River Project). The Corps published a Green River Environmental Impact Assessment (GREA), which stated that the scope of the Green River Project contemplated federal agency construction of three component parts: a ferry terminal, bridge, and highway segment. The articulated purpose of the Green River Project was to "improve transportation efficiency and to function as an important link in the regional, state and federal national highway system." The project objectives did not mention anything with respect to federal leasing of lands for oil and gas development.

The GREA addressed various factors that were potentially implicated by the project, including the environmental consequences of the highway for wilderness areas, air and water quality, historic preservation, soils and vegetation, geology and minerals, noise, impacts to threatened and endangered wildlife species, recreation, cultural resources, and socioeconomic impacts on the affected communities. The GREA also analyzed projected commercial development and financial benefits associated with the road and potential effects on minority and low-income population groups in the region.

Also, in the administrative record, the Corps acknowledged growing hydraulic fracturing activity in the Green River Basin, but determined that any potential environmental impacts to the ecosystem from

those operations were unrelated to the highway and bridge construction proposal and were too speculative to be addressed more comprehensively in the GREA. The GREA did not specifically discuss the rapid increase in fracking activity in the Niobrara Shale formation, which largely occurred since the BLM's Great Plains MLP for leasing of public lands. The Niobrara Shale is principally located in northeastern Colorado and southern portions of Wyoming and Nebraska. The Niobrara runs across the Front Range of Colorado and extends through the Denver-Julesburg Basin, which is adjacent to the lands covered by the proposed Green River ferry terminal, bridge, and highway construction project.

C. Phase II of the GREA: Highway Expansion and Reservoir Construction

The FHWA also studied a possible second phase of the highway extension that would continue south, pass through the White River National Forest, and intersect with Interstate Highway 70. The study also contemplated potential construction of a Green River reservoir with a capacity of approximately 200,000 acre-feet, together with a pump station and canal to channel water diverted from the Green River to the reservoir. The action would also inundate a portion of U.S. Highway 40, and so would necessitate the relocation and extension of approximately 12 miles of the highway. The purpose of the second phase would be to improve current and future delivery of potable water resources to the communities of northwestern Colorado. However, since Phase II was not being considered for immediate agency action, it was not considered to be connected to Phase I of the Green River Project, so any possible environmental impacts associated with Phase II were excluded from agency decision-making regarding the GREA.

D. The Green River Project: Alternatives and Public Comment

The GREA considered two alternative sites for the location of the bridge and compared each option on the bases of cost, anticipated traffic levels, engineering considerations, socioeconomic impacts, future development, and sustainability. The comparison studied a range of environmental factors, including noise, air quality, wetlands impact, endangered species impact, and potential contamination. Additionally, several alternatives to the proposed highway and bridge were considered, including the option to take no action. One alternative contemplated construction of a more modest highway spur that would skirt the White River National Forest. Another alternative involved building a light rail line (which would connect with other regional transportation centers and fa-

cilitate shipment of freight) and re-routing the interchange to less congested highways in the state.

The FHWA invited public comment and also held a public hearing on the environmental impacts of the project. Several hundred people attended the hearing and many objections were raised. Some local citizens complained that the project would drastically impair the visual aesthetics of the national forest landscape and would harm agriculture, fishing, and tourism industries. Native American groups, including the Ute Tribes of the Uinta and Ouray Bands, identified the region as part of their ancestral homeland. The Tribes maintained longstanding cultural, religious, and historical ties to the land and resources affected, which included several important archaeological sites. A variety of alternatives and mitigation measures were suggested, including combinations of traffic management methods and road improvements rather than construction of a new bridge and highway. Mitigation measures with respect to the Native American historical sites were discussed.

Two members of a public interest environmental conservation organization called Save All Natural Environments (SANE), Liesa Bernardin and Michael Wells, submitted written comments criticizing various aspects of the proposal. Bernardin expressed concerns about the detrimental impact on various recreational activities, including sightseeing, boating, camping, hunting, off-highway vehicle riding, mountain biking, horseback riding, and hiking. Wells commented that the federal agencies should have included in the Green River environmental impact assessment more study and analysis of the environmental impact associated with increased hydraulic fracturing activities on adjacent federal lands. Although the Great Plains MLP addressed certain environmental impacts associated with hydraulic fracking, Wells observed that this earlier study failed to adequately take into account the major Niobrara shale discovery and also might detrimentally affect the ecosystem of lands covered by the proposed Green River Project. Wells stated:[2]

> The vast majority of new oil and gas wells located on the leased public lands utilize a hydraulic fracturing or "fracking" horizontal drilling method. The operation generally involves injecting very large quantities of water, sand, chemicals, and ceramic beads into the strata of shale rock formations to forcefully expand the fissures and facilitate the removal of mineral deposits. The fracking method can involve pumping literally millions of gallons of highly pressurized water per well into

2. These comments form a portion of the fictional hypothetical, while the scientific and academic literature are from actual sources.

underground rock formations to extract deposits of oil and natural gas.[3]

A growing body of scientific and academic literature[4] recognizes that fracking operations pose potentially significant det-

---

3. New York State Department of Environmental Conservation estimates that a fracking operation typically requires 2.4 million to 7.8 million gallons of water. N.Y. STATE DEP'T OF ENVTL. CONSERVATION, REVISED DRAFT: SUPPLEMENTAL GENERIC ENVIRONMENTAL IMPACT STATEMENT ON THE OIL, GAS AND SOLUTION MINING REGULATORY PROGRAM at 5-93 to -94 (2011), *available at* http://www.dec.ny.gov/data/dmn/rdsgeisfull0911.pdf [hereinafter REVISED DRAFT: SUPPLEMENTAL GENERIC ENVIRONMENTAL IMPACT STATEMENT].

4. David Spence, *Federalism, Regulatory Lags, and the Political Economy of Energy Production*, 161 U. PA. L. REV. 431 (2013); Terry Roberson, *Environmental Concerns of Hydraulically Fracturing a Natural Gas Well*, 32 UTAH ENVTL. L. REV. 67 (2012); Shawna Bligh et al., *Hydraulic Fracturing: Drilling into the Issue*, 27 NAT. RESOURCES & ENV'T 7 (2013); REVISED DRAFT: SUPPLEMENTAL GENERIC ENVIRONMENTAL IMPACT STATEMENT, *supra* note 3; Stephen G. Osborn et al., *Methane Contamination of Drinking Water Accompanying Gas-Well Drilling and Hydraulic Fracturing*, 108 PROC. NAT'L ACAD. SCI. 8172 (2011), *available at* http://www.pnas.org/content/108/20/8172.full.pdf; Lynn Kerr McKay et al., *Science and the Reasonable Development of Marcellus Shale Natural Gas Resources in Pennsylvania and New York*, 32 ENERGY L.J. 125 (2011); William J. Brady & James P. Crannell, *Hydraulic Fracturing Regulation in the United States: The Laissez-Faire Approach of the Federal Government and Varying State Regulations*, 14 VT. J. ENVTL. L. 39 (2012); Zachary Lees, *Anticipated Harm, Precautionary Regulation and Hydraulic Fracturing*, 13 VT. J. ENVTL. L. 575 (2012); Robin Kundis Craig, *Hydraulic Fracturing (Fracking), Federalism, and the Water-Energy Nexus*, 49 IDAHO L. REV. 241 (2013); Elizabeth Burleson, *Cooperative Federalism and Hydraulic Fracturing: A Human Right to a Clean Environment*, 22 CORNELL J.L. & PUB. POL'Y 289 (2012); Nicole R. Snyder Bagnell, *Environmental Regulation Impacting Marcellus Shale Development*, 19 PENN. ST. ENVTL. L. REV. 177 (2011); Bruce M. Kramer, *Federal Legislative and Administrative Regulation of Hydraulic Fracturing Operations*, 44 TEX. TECH. L. REV. 837 (2012); Emily C. Powers, *Fracking and Federalism: Support for an Adaptive Approach That Avoids the Tragedy of the Regulatory Commons*, 19 J.L. & POL'Y 913 (2011); Robert L. Glicksman, *From Cooperative to Inoperative Federalism: The Perverse Mutation of Environmental Law and Policy*, 41 WAKE FOREST L. REV. 719 (2006); James Murphy, *Slowing the Onslaught and Forecasting Hope for Change: Litigation Efforts Concerning the Environmental Impacts of Coalbed Methane Development in the Powder River Basin*, 24 PACE ENVTL. L. REV. 399 (2007); Arnold W. Reitze, Jr., *The Role of NEPA in Fossil Fuel Resource Development and Use in the Western United States*, 39 B.C. ENVTL. AFF. L. REV. 283 (2012); Susan L. Brantley & Anna Meyendorff, *The Facts on Fracking*, N.Y. TIMES, Mar. 13, 2013, http://www.nytimes.com/2013/03/14/opinion/global/the-facts-on-fracking.html; Chris Mooney, *The Truth About Fracking*, SCI. AM., Nov. 2011, at 80, *available at* http://www.acfan.org/wp-content/uploads/2011/11/truth-casings.pdf; Envtl. Law Inst., *Litigation Environment for Drilling and Hydraulic Fracturing*, 43 ENVTL. L. REP. NEWS & ANALYSIS 10,221 (2013); Ellen Burford, *The Need for Federal Regulation of Hydraulic Fracturing*, 44 URB. LAW. 577 (2012); Hannah Wiseman, *Fracturing Regulation Applied*, 22 DUKE ENVTL. L. & POL'Y F. 361 (2012); Nancy D. Perkins, *The Fracturing of Place: The Regulation of Marcellus Shale Development and the Subordination of Local Experience*, 23 FORDHAM ENVTL. L. REV. 44 (2011–2012); Dennis C. Stickley, *Expanding Best Practice: The Conundrum of Hydraulic Fracturing*, 12 WYO. L. REV. 321 (2012); Thomas Swartz, *Hydraulic Fracturing: Risks and Risk Management*, 26 NAT. RESOURCES & ENV'T. 30 (2011); David E. Pierce, *Developing a Common Law of Hydraulic Fracturing*, 72 U. PITT. L. REV. 685 (2011).

> rimental effects to human health and the environment, including contamination of aquifers and groundwater across geologic formations from escaped drilling fluids and brines through poorly sealed bores and injection wells, air and noise pollution, habitat destruction, and chemical spills. Also, fracking poses hazards to municipal and public wells, domestic wells, springs, and surface water diversions.
>
> Some recent studies have observed that methane leaks from natural gas wells contribute to elevated levels of greenhouse gases in the atmosphere,[5] and others have linked recent earthquakes[6] to the underground injection of wastewater from fracking operations.
>
> As geologic results in the Niobrara Formation began to reveal a significant shale play comparable to the Bakken Shale formation in North Dakota, major oil and natural gas companies quickly sought to obtain leasing rights. Consequently, the GREA inadequately considers the potentially significant environmental impacts associated with the magnitude of hydraulic fracturing operations in the Niobrara Formation. In particular, fracking poses a serious threat to the critical habitats of several threatened and endangered species in the project area.

The Corps and FHWA considered each of the comments and proposed alternatives but rejected them on the basis that they did not provide another corridor across the Green River or achieve transportation efficiencies in the region to the extent desired. Further, the agencies addressed but rejected the views of Wells that fracking in the Niobrara shale formation would present significant environmental impacts in the lands covered by the proposed Green River Project. The agencies concluded that any potential risks to the Green River ecosystem associated with hydraulic fracking were too remote and speculative. Further, since the only proposal contemplated by the Corps and FHWA involved construction of a highway, ferry terminal and bridge in the Green River area, the agencies determined that it was not relevant to consider other unrelated activities outside the scope of the pending proposal.

---

5. *See* Robert W. Howarth et al., *Methane and the Greenhouse-Gas Footprint of Natural Gas from Shale Formations*, 106 CLIMATE CHANGE 679, 687 (2011).

6. Nicholas J. van der Elst et al., *Enhanced Remote Earthquake Triggering at Fluid-Injection Sites in the Midwestern United States*, 341 SCIENCE 164 (2013); Henry Fountain, *Far-Off Quakes May Cause Temblors at Injection Wells*, N.Y. TIMES (July 11, 2013), http://www.nytimes.com/2013/07/16/science/far-off-quakes-may-cause-temblors-at-injection-wells.html; U.S. ENVTL. PROT. AGENCY, DRAFT REPORT MINIMIZING AND MANAGING POTENTIAL IMPACTS OF INDUCED-SEISMICITY FROM CLASS II DISPOSAL WELLS: PRACTICAL APPROACHES (Nov. 27, 2012), *available at* www.eenews.net/assets/2013/07/19/document_ew_01.pdf.

E. Species Impacts in the Green River Project

In response to a request by the FHWA pursuant to the ESA,[7] the FWS furnished to the FHWA and the Corps a list of species[8] and designated critical habitats[9] that may be present in the action area[10] contemplated for the Green River Project.[11] Endangered species on the list included the southwestern willow flycatcher (*Empidonax traillii extimus*),[12] the gray wolf (*Canis lupus*),[13] the Uncompahgre fritillary butterfly (*Boloria acrocnema*),[14] and Knowlton's cactus (*Pediocactus knowltonii*).[15] Additionally, threatened species included the Mexican spotted owl (*Strix occidentalis lucida*),[16] the greenback cutthroat trout (*Oncorhynchus clarki stomias*),[17] and the Canada lynx (*Lynx canadensis*).[18]

The FHWA, with cooperation from the Corps and the Forest Service, consequently completed a biological assessment[19] (BA), which determined that the proposed action[20] in the Green River Project "may affect"[21] the southwestern willow flycatcher or its critical habitat.[22] The

---

7. 16 U.S.C. § 1536(a)–(d) (1988); 50 C.F.R. § 402.01 (1986).
8. Lists of endangered and threatened wildlife and plants are located in 50 C.F.R. §§ 17.11–17.12 (2010).
9. Critical habitat designations are found in 50 C.F.R. §§ 17.95–17.96 (2009). *See also* 50 C.F.R. § 226 (2012).
10. An "action area" is defined as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action." 50 C.F.R.§ 402.02 (2009).
11. 16 U.S.C. § 1536(c)(1) (1988); 50 C.F.R. § 402.12(c)–(d) (2009).
12. 50 C.F.R. § 17.11 (2010).
13. *Id.*
14. *Id.*
15. 50 C.F.R. § 17.12 (2010).
16. 50 C.F.R. § 17.11 (2010).
17. *Id.*
18. *Id.*
19. 16 U.S.C. § 1536(c)(1) (1988); 50 C.F.R. §§ 402.02, 402.13 (2009).
20. *See* Nat'l Ass'n of Homebuilders v. Defenders of Wildlife, 551 U.S. 644, 671 (2007) (stating that the ESA consultation mandate applicable to discretionary actions by federal agencies may jeopardize threatened or endangered species); *see* 50 C.F.R. § 402.02 (2009) (definition of "action" according to the Fish and Wildlife Service and the National Marine Fisheries Service (NMFS)).
21. *See* U.S. FISH & WILDLIFE SERV. & NAT'L MARINE FISHERIES SERV., ENDANGERED SPECIES CONSULTATION HANDBOOK xvi (1998), *available at* http://www.fws.gov/endangered/esa-library/pdf/esa_section7_handbook.pdf [hereinafter CONSULTATION HANDBOOK] (describing "may affect" as "the appropriate conclusion when a proposed action may pose any effects on listed species or designated critical habitat" (emphasis omitted)); *see* 50 C.F.R. § 402.02 (2009) (The "effects" of an action include "direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline.").

agencies determined that the other listed species would not be affected by the proposed area action. The FHWA engaged in informal consultation[23] with the FWS but determined that the flycatcher was not likely to be "adversely affected"[24] and that the project would not likely jeopardize the continued existence of the flycatcher.[25] The FWS reviewed the information and prepared a Biological Opinion that concurred with the determination that the action was not likely to result in jeopardy to any listed species.[26]

F. SANE's Suit for Injunction

SANE filed suit in the federal court for the Northern District of Colorado, seeking a declaratory judgment and an injunction to restrain the Corps and FHWA from proceeding with the Green River Project on the basis of various violations of the ESA and NEPA. SANE asserted representational standing based upon the submission of affidavits of two of its members, Liesa Bernardin and Michael Wells.

SANE claimed that the federal agencies violated section 7,[27] the heart of the ESA, because the agency analysis in the BA for the Green River Project was inadequate. The BA incorporated by reference a 2003 Biological Opinion prepared by the Forest Service (Northern Colorado BA), which analyzed the effects of fracking on listed endangered species; however, the 2012 BA did not provide a separate analysis of fracking. Rather, the federal agencies assumed that the environmental baseline[28]

---

22. 16 U.S.C. § 1536(c)(1) (1988); 50 C.F.R. § 402.12(f) (2009).

23. 16 U.S.C. § 1536(a)(2) (1988) (stating that the agency must consult with FWS or NMFS, depending on the species affected, to ensure that the action does not jeopardize the listed species or adversely modify its critical habitat); 50 C.F.R. § 402.13 (2009).

24. 50 C.F.R. § 402.12(k) (2009).

25. 16 U.S.C. § 1536(a)(2) (1988) (requiring an agency to ensure that no discretionary action will "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species").

26. 16 U.S.C. § 1536(b)(3)(A) (1988); 50 C.F.R. §402.12(j) (2009).

27. 16 U.S.C. § 1536(a)(2) (1988).

28. The environmental baseline for section 7 consultation purposes is viewed as a "snapshot" in time of the health of a species. *See* CONSULTATION HANDBOOK, *supra* note 21, at 4–22; 50 C.F.R. § 402.02 (2009) provides:

> The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process.

Id. See also J. B. Ruhl & James Salzman, *Gaming the Past: The Theory and Practice of Historic Baselines in the Administrative State*, 64 VAND. L. REV. 1, 39 (2011).

remained the same with respect to any potential effect of fracking on the species or their designated critical habitat. The plaintiffs also asserted that the 2012 Green River BA was inadequate because it failed to evaluate the potential consequences of the proposed federal highway project and hydraulic fracturing in the region on greenback cutthroat trout and on the designated habitat of the flycatcher.[29] Plaintiffs claimed that the agency reliance on the 2003 study did not satisfy the requirement in section 7(a)(2) of the ESA to use the "best scientific and commercial data available."[30] Consequently, plaintiffs asserted that the federal agency action was arbitrary and capricious because it did not consider relevant environmental factors.

SANE also alleged several violations of NEPA, including that the GREA failed to adequately consider the potential adverse environmental effects to the Green River ecosystem related to hydraulic fracturing on adjacent federal lands, the scope of the proposal was unduly narrow, and the agencies failed to properly consider a range of reasonable alternatives. Additionally, SANE argued a supplemental impact statement should have been prepared to evaluate the potential impact on the critical habitat of the endangered and threatened species.

After a trial on the merits, the federal district court granted summary judgment to the Corps and FHWA on all counts, holding that the agencies had not violated the ESA or NEPA in any respect. SANE appealed the court's decisions with respect to NEPA, the Tenth Circuit Court of Appeals affirmed, and the Supreme Court granted certiorari.

II. AN ENVIRONMENTAL CONVERSATION

This part of the article contains a fictional discussion in chambers by members of a hypothetical Supreme Court of the United States. The members of the Court are: Rivera, C.J.; Bennett, J.; Canfield, J.; Downing, J.; Jordan, J.; Locke, J.; Mitchell, J.; Rosner, J.; and Sykes, J.

A. The Doctrine of Standing: "Using" the Environment

Rivera, C.J.: Before turning our discussion to the merits, to ensure the proper exercise of the judicial power of the federal courts we must be satisfied that an actual case or controversy exists to meet the require-

29. *See* 16 U.S.C. § 1536(a)(2) (1988); *see also* Pac. Rivers Council v. U.S. Forest Serv., 689 F.3d 1012, 1032 (9th Cir. 2012) *vacated by* U.S. Forest Serv. v. Pac. Rivers Council, 133 S. Ct. 2843, 186 L. Ed. 2d 881 (2013) (requiring analysis of manner and degree to which alternatives may have affected fish).

30. 16 U.S.C. § 1533(b)(1)(A) (2003).

ments of Article III.[31] The traditional expression of that limitation on parties invoking federal jurisdiction, of course, is that a claimant must possess standing to raise the particular issues in dispute.[32] We have determined that the irreducible constitutional minimum of standing involves satisfying three core criteria: the plaintiff must show an actual or threatened injury-in-fact to a legally protected interest, the injury may be causally connected or fairly traceable to the challenged action of the defendant, and the asserted harm must be likely to be redressed by a favorable decision.[33]

As we recognized in *Lujan v. Defenders of Wildlife*,[34] the burden of establishing these elements rests upon the party invoking federal jurisdiction—not merely as "pleading requirements but rather [as] an indispensable part of the plaintiff's case."[35]

The requirement of demonstrating an injury-in-fact ensures that the claimant has a personal or direct stake in the outcome that is concrete and particularized, actual or imminent, and not conjectural or hypothetical.[36] Federal courts will not decide abstract or hypothetical issues or render advisory opinions, but only resolve concrete, justiciable disputes between adverse parties.[37] Prudential limitations on the exercise of federal court jurisdiction are a separate strand and conceptually distinguishable from the strictures of Article III standing.[38] The law of standing is based upon separation-of-powers principles and "serves to prevent the judicial process from being used to usurp the powers of the political branches."[39]

---

31. U.S. CONST. art. 3, § 2, cl. 1; *see also* Hollingsworth v. Perry, 133 S. Ct. 2652, 2661 (2013).

32. *Hollingsworth*, 133 S. Ct. at 2661–63.

33. *See* Monsanto Co. v. Geertson Seed Farms, 130 S. Ct. 2743, 2752 (2010) (stating that "standing under Article III of the Constitution requires that an injury be concrete, particularized, and actual or imminent; fairly traceable to the challenged action; and redressable by a favorable ruling"); Valley Forge Christian Coll. v. Ams. United for Separation of Church & State, Inc., 454 U.S. 464, 471 (1982) (stating that the federal judicial power is not an "unconditioned authority to determine the constitutionality of legislative or executive acts" but rather must be reserved to the determination of a "real, earnest and vital controversy").

34. Lujan v. Defenders of Wildlife, 504 U.S. 555 (1992).

35. *Id.* at 561.

36. *See Id.* at 562–63, 579; *see also* Massachusetts v. EPA, 549 U.S. 497, 517 (2007) (stating that a personal stake in the outcome is "the gist of the question of standing").

37. *Valley Forge Christian Coll.*, 454 U.S. at 471 (stating that federal judicial power is not an "unconditioned authority to determine the constitutionality of legislative or executive acts"; rather it must be reserved to the determination of a "real, earnest and vital controversy").

38. United States v. Windsor, 133 S. Ct. 2675, 2685 (2013).

39. Clapper v. Amnesty Int'l USA, 133 S. Ct. 1138, 1146 (2013).

Sykes, J.: As we have seen on various occasions in major public interest litigation, standing eligibility often turns on whether an organization may properly represent the legal rights and interests of third parties. Our starting point in that analysis has recognized that even when the plaintiff has alleged an injury otherwise sufficient to meet the case or controversy requirement of Article III, other limitations must also be satisfied. These limitations are related closely to Article III concerns and are essentially matters of judicial self-governance. Without such judicial self-restraint, federal courts could become besieged with requests to decide abstract matters of public interest. Apart from the constitutional implications of such actions, claimants in such cases are ordinarily better served by seeking recourse through other governmental institutions that may possess more competency to address the issues at stake.[40]

In that regard, we have recognized that an organization may have standing to sue on behalf of its members where "(a) its members would otherwise have standing to sue in their own right; (b) the interests it seeks to protect are germane to the organization's purpose; and (c) neither the claim asserted nor the relief requested requires the participation of individual members in the lawsuit."[41] In this case, the district court found and the court of appeals affirmed that SANE had satisfied the requirements for representational standing and demonstrated an injury-in-fact through the pleadings of two of its members.

Before considering the question of standing with respect to Plaintiff Bernardin, serious questions are presented with regard to the status of Plaintiff Wells as a proper party to raise these issues in federal court.

The affidavit of Michael Wells, a member of SANE, stated:

> I am a retired ornithologist living in Sedona, Arizona and have a longstanding personal interest in observing and recording sightings of rare birds in numerous locations across the United States. In 2011, I recorded sightings of the endangered southwestern willow flycatcher (*Empidonax traillii extimus*) and the threatened Mexican spotted owl (*Strix occidentalis*) in their critical habitats, located in the Green River watershed and the White River National Forest in Colorado. Those findings were subsequently published in the nationally recognized *Journal of Field Ornithology*. The proposed road and bridge would be located in that vicinity, and the hydraulic fracturing operations on adjacent federal lands will likely detrimentally affect the critical habitats of both species. As a result, I will likely suffer

40. Warth v. Seldin, 422 U.S. 490, 500 (1975).
41. Hunt v. Wash. Apple Adver. Comm'n, 432 U.S. 333, 343 (1977).

> harm to my recreational and personal interests in observing those species in the future.[42]

Injury-in-fact for standing jurisprudence is not limited to threatened harm to economic or property interests, but includes harm to aesthetic interests as well, such as the ability to observe an animal species.[43] Nevertheless, demonstrating a cognizable interest is not sufficient to support standing alone; rather, the claimant must personally show that they were or will be directly injured by the action contested.[44] We have long recognized that even a sincere, demonstrable interest in an issue from a highly qualified and well-respected organization does not translate into being "adversely affected" or "aggrieved" to meet the requirements of standing.[45]

Plaintiff Wells states that his interest in viewing the endangered species is merely "in the future." Asserting indefinite future harms presents special problems of application in the field of standing, although "imminence" of injury is undoubtedly a fairly elastic concept. Despite some measure of latitude in projecting alleged future injuries, though, we must be mindful not to engage in speculation. Rather, especially when an asserted injury is based upon a claimant's own actions, we must require a higher standard of immediacy; otherwise, we might decide a case in which no injury would have occurred.[46] Additionally, Plaintiff Wells fails to provide the requisite specificity to satisfy standing by simply alleging use of lands "in the vicinity" of the particular lands subject to the agency's proposed action.[47] Such allegations are too nebulous to meet Article III standards.

Downing, J.: Although I believe that Justice Sykes reads our jurisprudence on injury-in-fact too restrictively with respect to Plaintiff Wells, SANE is still a proper party before this Court because Plaintiff Bernardin readily demonstrates a sufficient personal stake in the outcome to satisfy Article III.

---

42. These comments form a portion of the fictional hypothetical, while the scientific and academic literature are from actual sources.

43. Lujan v. Defenders of Wildlife, 504 U.S. 555, 562–63 (1992).

44. Sierra Club v. Morton, 405 U.S. 727, 734–35 (1972).

45. *Id.* at 734–37 (stating that environmental public organization's special interest in conservation issues was inadequate to demonstrate injury in fact for standing).

46. *Lujan*, 504 U.S. at 565 n.2; *see also* Clapper v. Amnesty Int'l USA, 133 S. Ct. 1138, 1147–50 (2013) (stating that claimant's assertion of future injury was too speculative, and insufficient to satisfy standing for Article III jurisdiction).

47. *See* Lujan v. Nat'l Wildlife Fed'n, 497 U.S. 871, 885–89 (1990) (stating that affidavits alleging recreational use and aesthetic enjoyment of lands "in the vicinity" of areas affected by Bureau of Land Management program lacked sufficient specificity to satisfy standing requirement of injury in fact).

The affidavit of Liesa Bernardin, another member of SANE, stated:

> I have lived in Glenwood Springs, Colorado for the past five years, and on a number of occasions have enjoyed various recreational activities in the White River National Forest and the Green River watershed, including sightseeing, mountain biking, horseback riding, and hiking. The proposed road and bridge will drastically impair the visual aesthetics and accessibility of the national forest landscape, resulting in injury to my recreational interests. I plan to participate in a 20K mountain biking trek through the White River National Forest next April, which is held annually as a fund-raising event sponsored by SANE in connection with Earth Week to support a local wildlife conservation center.

The pleadings of Plaintiff Bernardin allege a specific and perceptible harm that distinguishes her claim from other citizens who have not used the natural resources at the center of this dispute.[48] The type of injury sufficient for standing certainly need not be limited to economic interests but also may include "aesthetic, conservational, or recreational values."[49] Bernardin does not allege a generalized harm to the forest or the environment. Rather, standing is merited because the asserted injury affects her recreational and aesthetic interests.[50] We have consistently acknowledged the relevance of aesthetic and environmental well-being as important ingredients in the quality of life, and that recognition is not diminished when many people may share a common interest in the environment.[51]

To satisfy the requirements of Article III, the plaintiff still must allege a distinct and discernable personal injury, even if that injury may be shared by a large contingent of other possible litigants. Once that personal stake in the controversy is satisfied, however, a litigant may invoke the general public interest in support of their claim.[52] Because Plaintiff Bernardin, a member of SANE, demonstrates a future injury-in-fact with the requisite degree of clarity and specificity, I would affirm the decision

---

48. *See* United States v. Students Challenging Regulatory Agency Procedures (*SCRAP*), 412 U.S. 669, 684–89 (1973) (distinguishing appellees from petitioners in Sierra Club v. Morton, 405 U.S. 727 (1972), who had no standing because the harm to petitioners was far less direct).

49. *Sierra Club v. Morton*, 405 U.S. at 738.

50. *See* Summers v. Earth Island Inst., 555 U.S. 488, 494 (2009).

51. *Morton*, 405 U.S. at 734.

52. *Warth*, 422 U.S. at 501.

of the court of appeals finding standing for SANE, as a third party representative.

B. Judicial Review: Hard Looks and the Rule of Reason

Canfield, J.: An agency's decisions pursuant to NEPA, such as whether to prepare or supplement an EIS, are evaluated in accordance with the Administrative Procedure Act (APA).[53] In determining the proper standard of review, the APA authorizes federal courts to "hold unlawful and set aside agency action, findings, and conclusions" if they do not comply with at least one of six specified standards.[54] The present dispute is not controlled by either § 706(2)(E) or § 706(2)(F), which typically apply to matters involving agency rulemaking or adjudication. Additionally, the claim does not assert that the FHWA or Corps exceeded either constitutional authority under § 706(2)(B) or statutory authority under § 706(2)(C), or failed to observe procedures required by law under § 706(2)(D).[55] Therefore, the federal agency action in the present dispute can be set aside only upon a showing that it was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."[56]

The nature of our review of an agency decision or action under the APA, of course, requires application of *some* legal standard.[57] With respect to evaluating an agency decision under the arbitrary and capri-

---

53. 5 U.S.C. §§ 551–559, 701–706 (2011).

54. Marsh v. Or. Natural Res. Council, 490 U.S. 360, 375 & n.21 (1989) ("A reviewing court shall 'hold unlawful and set aside agency action, findings, and conclusions found to be:

> (A) arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;
> (B) contrary to constitutional right, power, privilege, or immunity;
> (C) in excess of statutory jurisdiction, authority, or limitations, or short of statutory right;
> (D) without observance of procedure required by law;
> (E) unsupported by substantial evidence in a case subject to sections 556 and 557 of this title or otherwise reviewed on the record of any agency hearing provided by statute; or
> (F) unwarranted by the facts to the extent that the facts are subject to trial de novo by the reviewing court.

In making the foregoing determinations, the court shall review the whole record or those parts of it cited by a party, and due account shall be taken of the rule of prejudicial error.'" (quoting 5 U.S.C. § 706(2) (2011))).

55. 5 U.S.C. § 706(2) (2011).

56. *See* Dep't of Transp. v. Pub. Citizen, 541 U.S. 752, 763 (2004) (quoting 5 U.S.C. § 706(2)(A) (2011)); *see also Marsh*, 490 U.S. at 375–76; Kleppe v. Sierra Club, 427 U.S. 390, 412 (1976).

57. *Marsh*, 490 U.S. at 377 n. 22; *see also* Citizens to Pres. Overton Park, Inc. v. Volpe, 401 U.S. 402, 410 (1971), *abrogated by* Califano v. Sanders, 430 U.S. 99 (1977).

cious standard, our review contemplates whether the decision was based on a "consideration of the relevant factors" and whether it involved a "clear error of judgment."[58] In this instance, the substantive and procedural factors are informed by reference to the dictates of NEPA. Since NEPA provides a strict standard of compliance with procedural obligations, yet is substantively very flexible, our review necessarily requires an evaluation of both prongs of agency actions.

Although our review process must "be searching and careful," it is also constrained within narrow parameters.[59] Historically, we have interpreted that standard of review to ensure that the federal agency has taken a "hard look"[60] at environmental consequences.

Rosner, J.: In this case, SANE contends that the federal agencies violated the ESA by the substantive decisions and resulting actions with respect to the potentially affected endangered and threatened species. The agencies have produced a reasoned and thorough administrative record of that analysis, however, which satisfies our judicial inquiry. Further, the Forest Service is entitled to judicial deference with regard to evaluating scientific evidence.[61]

Jordan, J.: Certainly a federal agency is entitled to appropriate judicial deference with respect to matters within the expertise of the agency, particularly where the subject involves issues of scientific uncer-

---

58. *Overton Park*, 401 U.S. at 416.

59. *Id.*

60. In Maryland-Nat'l Capital Park & Planning Comm'n v. U.S. Postal Service, 487 F.2d 1029, 1040 (D.C. Cir. 1973), Judge Leventhal noted four criteria that have been influential in shaping the contours of judicial review of an agency's decision-making under NEPA:

> First, did the agency take a "hard look" at the problem, as opposed to bald conclusions, unaided by preliminary investigation? . . . Second, did the agency identify the relevant areas of environmental concern? . . . Third, as to problems studied and identified, does the agency make a convincing case that the impact is insignificant? . . . If there is impact of true "significance" has the agency convincingly established that changes in the project have sufficiently minimized it?

Id.; *see also* Harold Leventhal, *Environmental Decisionmaking and the Role of the Courts*, 122 U. PA. L. REV. 509, 511, 514 (1974); William H. Rodgers, Jr., *Betty B. Fletcher: NEPA's Angel and Chief Editor of the Hard Look*, 40 ENVTL. L. REP. 10,268 (2010); Thomas O. McGarity, *Some Thoughts on "Deossifying" the Rulemaking Process*, 41 DUKE L.J. 1385 (1992); William H. Rodgers, Jr., *A Hard Look at* Vermont Yankee: *Environmental Law Under Close Scrutiny*, 67 GEO. L.J. 699 (1979); Patrick M. Garry, *Judicial Review and the "Hard Look" Doctrine*, 7 NEV. L.J. 151 (2006); William S. Jordan, III, *Ossification Revisited: Does Arbitrary and Capricious Review Significantly Interfere With Agency Ability to Achieve Regulatory Goals Through Informal Rulemaking?*, 94 NW. U. L. REV. 393 (2000).

61. Native Vill. of Chickaloon v. Nat'l Marine Fisheries Serv., 947 F. Supp. 2d 1031, 1067–68 (D. Alaska 2013) (stating that NMFS's discretion in deciding what is the best scientific evidence available deserves deference).

tainty and debate among experts. Deference does not mean blind support, however, when an agency summarily relies upon outdated scientific data and fails to provide a justifiable explanation of its methods and the reasonably available alternative information.[62]

In this instance, the incorporation by reference of a 10-year-old Biological Opinion falls short of the reasoned analysis needed to withstand our scrutiny. The issues pertaining to agency compliance under the ESA are not presently before this Court. However, related questions of the proper extent of judicial deference to administrative decisions involving scientific uncertainty are implicated in our consideration of NEPA compliance. Even apart from the ESA, NEPA also contemplates consideration of potential adverse impacts on endangered or threatened species or its habitats in the overall context of assessing the significance of agency actions.[63] In this instance, however, the agencies appear to have appropriately considered such impacts, so we should defer to their expertise in matters of scientific complexity and uncertainty.

Downing, J.: In evaluating whether a federal agency has satisfied its obligations under NEPA, neither the statute nor its legislative history contemplates that a court should substitute its judgment for that of the agency as to the environmental consequences of agency actions.[64] Rather than merely rubber-stamping agency decisions, though, our review must be meaningful. Consequently, when reviewing an agency's compliance with NEPA's "action-forcing" mandate, a hard look requires that the agency has developed a sufficient record that demonstrates reasoned analysis within the procedural framework of the statute rather than a record of conclusory judgments.[65]

---

62. *See* Dow AgroSciences LLC v. Nat'l Marine Fisheries Serv., 707 F.3d 462, 464, 475 (4th Cir. 2013) (stating that Fisheries Service failed to explain or support assumptions critical to biological opinion).

63. 40 C.F.R. § 1508.27(b)(9) (1979).

64. Strycker's Bay Neighborhood Council v. Karlen, 444 U.S. 223, 227 (1980).

65. *See also* League of Wilderness Defenders-Blue Mountain Biodiversity Project v. U.S. Forest Serv., 689 F.3d 1060, 1075–77 (9th Cir. 2012) (stating that the agency took a hard look through its qualitative evaluation and analysis of proposed experimental forest thinning and research project which sought to reduce the risk of wildfire and beetle infestation); Habitat Educ. Ctr., Inc. v. U.S. Forest Serv., 673 F.3d 518, 527 (7th Cir. 2012) (stating that the agency did not act arbitrarily or capriciously by excluding from final impact statement projects that could not be meaningfully evaluated when agency issued draft EIS, and such actions do not significantly affect environmental landscape); Coal. for Responsible Growth & Res. Conservation v. U.S. Fed. Energy Regulatory Comm'n, 485 Fed. Appx. 472, 474 (2d Cir. 2012) (stating that the FERC took requisite hard look at environmental effects of building and operating natural gas pipeline and was not arbitrary and capricious in deciding that an EIS was not required); Webster v. U.S. Dep't of Agric., 685 F.3d 411, 425 (4th Cir. 2012) (stating that the agency took hard look at land treatment and dam construction project despite inconsequential omissions); Citizens for Smart Growth v. Dep't of

Assuming the federal agency has complied with NEPA's procedural requirements, our only role is to ensure that the environmental consequences were considered.[66] With respect to matters within areas of the discretion of the executive, we will not interject our substantive preferences as to particular choices regarding actions to be taken.[67]

Mitchell, J.: Our analysis pursuant to NEPA contemplates application of a "rule of reason," which essentially focuses on whether and to what extent an impact statement must be prepared in light of "the usefulness of any new potential information to the decision[-]making process."[68] In that vein, the critical inquiry is whether undertaking the impact statement analysis would serve a useful purpose or merely be a perfunctory exercise without accomplishing the statutory objectives.[69]

The procedures developed by the federal agency pursuant to NEPA provide a framework for analysis and also must be supported by reasons, not merely conclusory statements. Such a foundation allows our judicial review of the agency decisions to give appropriate deference to agency expertise.[70] In keeping with the scope of our judicial review under the APA, a federal agency must show a strict standard of compliance with its procedural obligations under NEPA.[71] However, it is also clear that NEPA cannot and should not "serve as the basis for a substantial revision of the carefully constructed procedural specifications of the APA."[72]

In this instance, the Corps and the FHWA followed appropriate procedures consistent with the dictates of NEPA in providing a forum for receiving public comments and gathering diverse viewpoints regard-

---

Transp., 669 F.3d 1203, 1212 (11th Cir. 2012) (stating that the agency took hard look at proposed bridge construction project although it relied upon information contained in local planning documents when evaluating alternatives). *But see* Ctr. for Biological Diversity v. U.S. Dep't of the Interior, 623 F.3d 633, 650 (9th Cir. 2010) (stating that the Bureau of Land Management failed to take a hard look and acted arbitrarily and capriciously by assuming without explanation that the environmental impacts of a proposed land exchange and the no action alternative would be the same).

66. *Karlen*, 444 U.S. at 227.

67. Kleppe v. Sierra Club, 427 U.S. 390, 410 n.21 (1976).

68. Dep't of Transp. v. Public Citizen, 541 U.S. 752, 767 (2004); *see also* Marsh v. Or. Natural Res. Council, 490 U.S. 360, 373–74

69. *Dep't of Transp.*, 541 U.S. at 767; *see also* Aberdeen & Rockfish R. Co. v. Students Challenging Regulatory Agency Procedures (*SCRAP II*), 422 U.S. 289, 325 (1975); 40 C.F.R. §§ 1500.1(b)–(c) (2011).

70. *See* Scientists' Inst. for Pub. Info. v. Atomic Energy Comm'n, 481 F.2d 1079, 1094 (D.C. Cir. 1973).

71. Calvert Cliffs' Coordinating Comm. Inc. v. U.S. Atomic Energy Comm'n, 449 F.2d 1109, 1112 (D.C. Cir. 1971).

72. Vermont Yankee Nuclear Power Corp. v. Natural Res. Def. Council, Inc., 435 U.S. 519, 548 (1978).

ing the proposal. The question is not whether more procedures could conceivably have been implemented but rather whether fidelity to the statutory requirements was maintained. SANE cannot force an expansion of an agency's administrative responsibilities by asserting an unproven hypothetical that more could have been done.

Our jurisprudence recognizes that "administrative proceedings should not be a game or a forum to engage in unjustified obstructionism by making cryptic and obscure reference to matters that 'ought to be' considered and then, after failing to do more to bring the matter to the agency's attention, seeking to have that agency determination vacated on the ground that the agency failed to consider matters 'forcefully presented.'"[73]

I cannot favor some kind of "Monday morning quarterbacking" or second-guessing as that would not only encourage but virtually force an agency to conduct all rulemaking proceedings with the full range of procedures ordinarily reserved for adjudicatory hearings.[74] Not only would that be an inefficient outcome, but it would create endless uncertainty on the part of agencies in conducting their administrative obligations. Our determination regarding the adequacy of the record must be based upon whether the FHWA has followed the statutory requirements of NEPA and its applicable regulations.[75]

Sykes, J.: This dispute primarily requires evaluation and resolution of complex facts with a high degree of technical expertise. In such circumstances, the proper role of courts must be to defer to the informed discretion of the responsible federal agencies.[76] But science often involves considerable uncertainties. In our review of agency decisions, taking a hard look also requires ensuring that the agency addressed those very uncertainties in a meaningful manner.[77] Of course, scientists may often express conflicting views. In such situations, federal agencies must have discretion to rely on the reasonable opinions of their own qualified experts, irrespective of whether a court might find contrary views more persuasive.[78] A federal agency's "interpretation of NEPA is entitled to

---

73. *Id.* at 553–54.

74. *Id.* at 547.

75. *Id.*

76. Marsh v. Or. Natural Res. Council, 490 U.S. 360, 377 (1989); *see also* Kleppe v. Sierra Club, 427 U.S. 390, 412 (1976); Balt. Gas & Elec. Co. v. Natural Res. Def. Council, Inc., 462 U.S. 87, 103 (1983) (stating that when examining scientific determinations "a reviewing court must generally be at its most deferential").

77. *See* Ecology Ctr., Inc. v. Austin, 430 F.3d 1057, 1065–68 (9th Cir. 2005), *overruled by* The Lands Council v. McNair, 537 F.3d 981 (9th Cir. 2008).

78. *Marsh*, 490 U.S. at 378.

substantial deference."[79] In this case, the FHWA and the Corps solicited the technical expertise of the Forest Service, and the administrative record demonstrates a reasoned analysis of the environmental effects related to the road and bridge construction. Consequently, I would defer to their expertise and judgment with respect to the particular choice of actions proposed.

C. The National Environmental Policy Act: Paradigms and Federal Proposals

1. Threshold Duties and Evaluating Environmental Impacts

Locke, J.: As we turn our attention directly to whether the agency actions conformed to NEPA, it is useful to recognize that the statute represents a strong "national commitment to protecting and promoting environmental quality."[80] The purposes of NEPA are broadly articulated[81] and impose the substantive responsibility on federal agencies to use "all practicable means" to accomplish the objectives of the Act.[82] Additionally, NEPA admonishes federal agencies to carry out its procedural obligations "to the fullest extent possible."[83] Despite its sweeping scope, however, NEPA is unusual in the landscape of federal environmental laws because it does not focus on particular health risks, control specific kinds or sources of pollution, or establish regulatory standards, abatement techniques, or remedial actions.

Instead, NEPA achieves its goals "through a set of 'action-forcing' procedures that require federal agencies to take a 'hard look' at environmental consequences" and to disseminate relevant environmental infor-

---

79. Andrus v. Sierra Club, 442 U.S. 347, 358 (1979).

80. Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 348 (1989) (citing 42 U.S.C. § 4331 (1970)).

81. National Environmental Policy Act § 101 [hereinafter NEPA], 42 U.S.C. § 4321 (1970). The section provides, in part:

> The purposes of this [Act] are: To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation . . . .

Id.

82. NEPA § 101(b), 42 U.S.C. § 4331(b) (1970); *see also* Calvert Cliffs' Coordinating Comm. Inc. v. U.S. Atomic Energy Comm'n, 449 F.2d 1109, 1111 (D.C. Cir. 1971) (stating that NEPA takes the major step of "requiring all federal agencies to consider values of environmental preservation in their spheres of activity, and it prescribes certain procedural measures to ensure that those values are in fact fully respected").

83. NEPA § 102, 42 U.S.C. § 4332 (1975).

mation to a wider audience.[84] One of the important changes effected by NEPA was to change the mission and the culture of federal agencies, by not only empowering them to consider environmental values in their ongoing programs but also directing them to expand their decision-making process to include projected environmental effects of their actions.[85]

Rosner, J.: Certainly one of the foremost changes instituted by NEPA was to inculcate within the mission of all federal agencies a mandate to consider environmental factors in the process of decision-making. The statute establishes a host of procedural devices to anticipate and consider potentially significant environmental effects of major federal projects so that agencies can meaningfully evaluate the projected impacts of the proposal and also develop reasonable alternatives to establish a "clear basis for choice"[86] in decision-making. NEPA provides that agencies should use "all practicable means"[87] to protect environmental values, yet it does not elevate environmental considerations above other factors in carrying out the statutory requirements.

The directive in NEPA § 102 that agencies comply with the impact statement requirements "to the fullest extent possible" is purposeful and is not hyperbolic. Absent such a strong mandate, environmental considerations could be lost in the bureaucratic maze. Congress sought to ensure that all federal agencies—whether involved in environmental matters routinely or merely occasionally—would cultivate principled environmental decision-making in a manner that would expand beyond the contours of their typical manner of doing business.[88]

---

84. *Robertson*, 490 U.S. at 350; *see also* Vermont Yankee Nuclear Power Corp. v. Natural Res. Def. Council, Inc., 435 U.S. 519, 558 (1978).

85. In *Calvert Cliffs*', 449 F.2d 1109, an early influential decision on NEPA, Judge Skelly Wright stated:

> Of course, all of these Section 102 duties are qualified by the phrase "to the fullest extent possible." We must stress as forcefully as possible that this language does not provide an escape hatch for footdragging agencies; it does not make NEPA's procedural requirements somehow "discretionary." Congress did not intend the Act to be such a paper tiger. Indeed, the requirement of environmental consideration "to the fullest extent possible" sets a high standard for the agencies, a standard which must be rigorously enforced by the reviewing courts.

Id. at 1114; *see also* Kleppe v. Sierra Club, 427 U.S. 390, 409 (1976); Andrus v. Sierra Club, 442 U.S. 347, 350 (1979); 40 C.F.R. § 1502.1 (2012) ("An environmental impact statement is more than a disclosure document. It shall be used by Federal officials in conjunction with other relevant material to plan actions and make decisions.").

86. 40 C.F.R. § 1502.14 (2012).

87. 42 U.S.C. § 4331(b); § 101(b) (1970).

88. Flint Ridge Dev. Co. v. Scenic Rivers Ass'n of Okla., 426 U.S. 776, 787 (1976) (quoting 42 U.S.C. § 4332 (1975)) (citation omitted).

Bennett, J.: The goals in NEPA are indeed substantive, yet the principal mechanisms for accomplishing those objectives are procedural. We take note that NEPA ensures the development and appropriate analysis of critical information, but the ultimate decision of the federal agency with respect to that information may differ entirely from the substantive decision we might have reached.[89]

Although other statutes may direct federal agencies to comport with specific substantive environmental outcomes, NEPA's aim is to promote the development of information in a timely manner. If an agency chooses to proceed in a manner deemed unwise by public opinion or even by courts, it is not a statutory violation provided that the procedures are fully satisfied and the decision is predicated on reasoned analysis.[90]

Plaintiff SANE contends, in part, that the proposed road and bridge pose a more significant threat to human health and the environment than was considered by the Corps and the FHWA. Additionally, plaintiffs express serious concerns about the impact of hydraulic fracturing operations on federal lands. Our analysis, though, requires inquiry not into the relative merits of whether a proposed federal project should go forward, nor whether this Court might choose a different path. Instead, our review under NEPA is considerably narrower. It asks whether the federal agency has complied with the procedural dictates of the statute and provided reasoned analysis to support its substantive decisions. Although the substantive policies are flexible and leave room for the exercise of agency discretion, NEPA's procedural provisions demand a "strict standard of compliance."[91]

Adherence to the procedures under NEPA certainly influences the agency decision-making on a substantive level, but the statute does not dictate specific results.[92] Instead, where the agency follows the procedures outlined in the statute and identifies and appropriately evaluates adverse environmental effects of a proposed action, the agency retains the discretion to decide that other considerations should outweigh detrimental environmental impacts.[93] In this case, then, since the FHWA and

---

89. *Vermont Yankee Nuclear Power Corp.*, 435 U.S. at 558 (citations omitted); *see* 42 U.S.C. § 4332 (1975).

90. *See, e.g.*, Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 351 (1989).

91. Calvert Cliffs' Coordinating Comm. Inc. v. U.S. Atomic Energy Comm'n, 449 F.2d 1109, 1112 (D.C. Cir. 1971)

92. *Robertson*, 490 U.S. at 350; *see also* Strycker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223, 227–28 (1980) (per curiam); *Vermont Yankee Nuclear Power Corp.*, 435 U.S. at 558.

93. *See Robertson*, 490 U.S. at 350; *see also Karlen*, 444 U.S. at 227–28; Kleppe v. Sierra Club, 427 U.S. 390, 410 n.21 (1976).

the Corps identified the reasonably projected effects associated with construction of the road and bridge, SANE's contention that the project may have adverse impacts on the national forest, even if accurate, does not constitute a violation of NEPA.

Jordan, J.: Our inquiry into agency compliance with NEPA necessarily must center on the requirements set forth in § 102(2)(C),[94] which directs agencies "to consider the environmental impact of any major federal action."[95] This provision carries out the statute's "action-forcing" purpose in two important ways.[96] First, it directs that the federal agency prepare an EIS, which ensures that environmental values are included in a thoughtful manner in its decision-making process.[97] By integrating environmental concerns into the process of decision-making, the impact statement provides tangible evidence to interested parties and reviewing courts that environmental considerations have been actively taken into account in a meaningful and timely manner. If that is not done, then the statutory mandate and goals of NEPA would be defeated.[98]

The importance of focusing the agency's attention on potential environmental effects—whether adverse, beneficial, or neutral—is critical from a timing perspective. In one sense, NEPA speaks to the potential harm resulting from bureaucratic momentum in which one commitment to a course of action may inexorably justify another in an unbroken sequence. NEPA, then, demands that agencies pause and evaluate important effects during the planning stage before committing resources to undertake a major action.[99] Moreover, the regulations of the Council on Environmental Quality (CEQ) require federal agencies to "integrate the NEPA process with other planning at the earliest possible time to [e]nsure that planning and decisions reflect environmental values . . . ."[100]

Second, the transparent and timely publication of the draft and final EIS serves a larger informational role by making the public aware that the agency has taken environmental considerations into account in its decision-making process.[101] Disclosure of information gives the public the assurance that the agency "has indeed considered environmental

94. National Environmental Policy Act § 102(2)(C), 42 U.S.C. § 4332 (2)(C) (1975).
95. Balt. Gas & Electric Co. v. Natural Res. Def. Council, Inc., 462 U.S. 87, 89 (1983).
96. *Robertson*, 490 U.S. at 349.
97. Weinberger v. Catholic Action of Hawaii/Peace Educ. Project, 454 U.S. 139, 143 (1981).
98. Andrus v. Sierra Club, 442 U.S. 347, 350–51 (1979).
99. *Robertson*, 490 U.S. at 349.
100. 40 C.F.R. § 1501.2 (2012).
101. *Weinberger*, 454 U.S. at 143; *see also* Balt. Gas & Electric Co. v. Natural Res. Def. Council, Inc., 462 U.S. 87, 97 (1983); *Robertson*, 490 U.S. at 349.

concerns in its decision-making process," and, perhaps more significantly, provides a springboard for public comment.[102]

These procedural duties imposed upon federal agencies are precise and our task in ensuring fidelity to the statutory requirements is equally specific. NEPA does not authorize nor direct federal courts to engage in a balancing test with respect to the substantive factors relevant to the particular proposal. Such involvement would necessarily be overly intrusive and would spawn needless litigation challenging the agency decision-making process.[103]

Although I have serious concerns about the potential harmful environmental effects associated with hydraulic fracturing operations, especially in reference to the delicate ecosystems and critical habitat of endangered species, the record adequately supports the decisions of the FHWA and the Corps as reasoned and timely.

Downing, J.: As Justice Jordan noted, our oversight function is principally restricted to evaluating agency compliance with the statute's procedural requirements.[104] Congress in enacting NEPA, however, did not require agencies to elevate environmental concerns over other appropriate considerations. Rather, it required only that the agency take a "hard look" at the environmental consequences before taking a major action. The role of the courts is simply to ensure that the agency has adequately considered and disclosed the environmental impact of its actions and that its decision is not arbitrary and capricious.[105]

Also, inherent in NEPA and its implementing regulations is a "rule of reason," which ensures that agencies determine whether and to what extent to prepare an EIS based on the usefulness of any potential new information to the decision-making process. The rule of reason does not, of course, require a federal agency to prepare an EIS if it would not serve a useful purpose.[106] Despite differing viewpoints of scientists regarding the possible impact of the road and bridge on the environment, I am convinced that the administrative record supports the reasoned decisions of the Corps and the FHWA.

Sykes, J.: Congress certainly did not enact NEPA so that federal agencies would evaluate the potential significant environmental impacts of an action as an abstract exercise. Instead, the "hard look" by agencies must be incorporated as an integral part of the process of deciding

---

102. *Balt. Gas & Electric Co.*, 462 U.S. at 97.

103. Kleppe v. Sierra Club, 427 U.S. 390, 406 (1976).

104. Strycker's Bay Neighborhood Council, Inc. v. Karlen, 444 U.S. 223, 227–28 (1980); *see also Kleppe*, 427 U.S. at 410 n.21.

105. *Balt. Gas & Electric Co.*, 462 U.S. at 97–98.

106. Dep't of Transp. v. Pub. Citizen, 541 U.S. 752, 767 (2004); *see also* 40 CFR §§ 1500.1(b)–(c) (2003).

whether or not to pursue a particular federal action.[107] SANE has raised serious questions about the scientific basis supporting the GREA proposal, particularly with respect to the potential environmental impact from hydraulic fracturing. Acknowledging a scientific debate is quite different from analyzing the evidence and reaching a reasoned, justifiable conclusion.

2. Consideration of Alternatives: The Heart of NEPA

Locke, J.: One of the cornerstones of NEPA is the principle that agencies must undertake reasoned analysis of alternatives to proposed major federal actions. A concern underlying that premise is that otherwise, the statute could become merely an exercise in bureaucratic red-tape. Although the substantive outcomes of agency decision-making are given considerable latitude, including the selection of which particular alternative is ultimately chosen, the effectiveness of NEPA turns in large part on ensuring that agencies thoughtfully evaluate alternatives to proposed actions.

In this instance, the debate focuses on whether the GREA reflects a reasoned articulation and evaluation of an appropriate range of alternatives to the Green River Project. SANE contends that the agencies stated the project's goal of "improving transportation in the region" in such broad terms that virtually any decision would effectively escape meaningful scrutiny. As such, SANE suggests that the consequent review process would necessarily be primarily formalistic rather than deliberative. The agencies, in contrast, contend that building bridges and highways necessarily do relate intrinsically to that specific goal and that reasonable alternatives were in fact considered and weighed.

The starting point for our analysis, then, begins with identifying the objectives of a proposed project by the relevant federal agency. In NEPA terms, the goals of a project are couched in reference to the scope of the federal action being contemplated. Our inquiry into the stated scope of the proposal consequently marks the beginning of our evaluation of the goals of the GREA.[108]

Federal agencies bear the responsibility for defining at the outset the objectives of an action.[109] In keeping with defining the goals of a proposed project, NEPA also requires agencies to "study, develop, and describe appropriate alternatives to recommended courses of action in any proposal which involves unresolved conflicts concerning alternative uses

---

107. *Balt. Gas & Electric Co.*, 462 U.S. at 100.

108. *See* Students Challenging Regulatory Agency Procedures (*SCRAP II*), 422 U.S. 289, 322 (1975).

109. 40 C.F.R. § 1502.13 (2012).

of available resources."[110] This portion of the statute, in a similar manner to a detailed statement, emphasizes the importance of evaluating alternatives to the proposed course of action, including shelving the project entirely. According to the CEQ, the consideration of alternatives is the "heart" of the EIS[111] because one of the principal thrusts of the statute is to ensure timely and informed decision-making by federal agencies with possession of a full range of reasoned options before irretrievably committing resources to a project.

The goal is to improve decision-making, with the expectation that a thorough vetting of alternatives will produce the most beneficial outcomes. An added benefit is that the development of alternatives serves an evidentiary function, allowing parties outside the process to gain insight into the various factors considered by the agency.[112] Accordingly, the scope of a proposed action shapes and informs the range of reasonable alternatives that could achieve the stated objectives of the project.[113]

Bennett, J.: Agencies have considerable discretion to define the purpose of a project, and alternatives that do not accomplish the purpose of an action are not reasonable and "need not be studied in detail by the agency."[114] The immediate difficulty in our review, of course, is that the term "alternatives" is not self-defining. Agencies must be guided by reasonableness and feasibility in assessing alternatives; otherwise, the impact statement would become merely meaningless boilerplate and not a tool for analysis.[115]

The NEPA process is dynamic, and the nature and scope of feasible alternatives may evolve in direct relation to the development of information with respect to various environmental effects as they become better known or understood.[116] At the same time, though, the template for agency action necessarily must be bounded by notions of reason. An impact statement of alternatives cannot be invalidated "simply because the agency failed to include every alternative device and thought conceivable by the mind of man."[117] An exhaustive examination of too many

---

110. 42 U.S.C. § 4332(2)(E) (1975).

111. 40 C.F.R. § 1502.14 (2012).

112. Calvert Cliffs' Coordinating Comm., Inc. v. U.S. Atomic Energy Comm'n, 449 F.2d 1109, 1114 (D.C. Cir. 1971).

113. *See* 40 C.F.R. § 1508.25 (2010).

114. WildEarth Guardians v. Nat'l Park Serv., 703 F.3d 1178, 1183 (10th Cir. 2013).

115. Vermont Yankee Nuclear Power Corp. v. Natural Res. Def. Council, Inc., 435 U.S. 519, 551 (1978); *see also* W. Watersheds Project v. Abbey, 719 F.3d 1035, 1046 (9th Cir. 2013).

116. *Vermont Yankee*, 435 U.S. at 552–53.

117. *Id.* at 551; *see also* Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Fed. Reg. 18026, 18027 (Mar. 23, 1981) (question 1b) ("When there are potentially a very large number of alternatives, only a reasonable number

alternatives could perversely undermine the NEPA process and would place too great a strain on limited agency resources.

In this case, the agency articulated several reasonable alternatives to the road and bridge proposal, including taking no action, and made a reasoned choice among those alternatives. It is not the province of courts to second-guess the substantive decisions of federal agencies under NEPA, provided that the predicate for decision-making is established.

Canfield, J.: An agency bears the responsibility for deciding which alternatives to consider in an EIS.[118] We have also held that an agency must follow a rule of reason[119] in preparing an EIS and also with respect to identifying which alternatives should be evaluated and the extent to which those alternatives should be analyzed.[120]

Our review of agency compliance with NEPA is deferential, as reflected by the phrase "rule of reason." Accordingly, an agency's decision with respect to identifying objectives and alternatives to achieve those objectives will be upheld as long as each stage in the process comports with notions of reasonableness.[121]

Our judicial review, though, is not dormant, and deference certainly does not imply that we should give unfettered license to federal agencies to make decisions without reasoned analysis throughout the process.[122] An agency cannot "frame its goals in terms so unreasonably broad that an infinite number of alternatives would accomplish those goals and the project would collapse under the weight of the possibilities."[123] Yet neither may an agency define the objectives of its action in terms so unreasonably narrow that only one alternative would accomplish the goals of the agency's action, and the outcome becomes effectively predetermined.[124]

---

of examples, covering the full spectrum of alternatives, must be analyzed and compared in the EIS."); 40 C.F.R. § 1505.1(e) (2012).

118. *See* 40 C.F.R. § 1502.14 (2012).

119. Dep't of Transp. v. Pub. Citizen, 541 U.S. 752, 767 (2004) (stating that "inherent in NEPA and its implementing regulations is a 'rule of reason' which ensures that agencies determine whether and to what extent to prepare an EIS based on the usefulness of any new potential information to the decision[-]making process"); *see also* Natural Res. Def. Council, Inc. v. Morton, 458 F.2d 827 (D.C. Cir. 1972) (articulating the "rule of reason" in the NEPA context).

120. *See Morton*, 458 F.2d at 834, 837; Citizens Against Burlington, Inc. v. Busey, 938 F.2d 190, 196 (D.C. Cir. 1991).

121. *Busey*, 938 F.2d at 196.

122. *Id.*

123. *Id.*

124. *Id.*; *see also* Klamath-Siskiyou WildLands Ctr. v. U.S. Forest Serv., 373 F.Supp.2d 1069, 1088 (E.D. Cal. 2004) (stating that an agency cannot "narrowly define its purpose and

Fidelity to the NEPA process thus requires that the agency decision-making must be truly reasoned and analytical rather than perfunctory or conclusory. If an agency has "irreversibly and irretrievably" committed itself to a specific outcome prior to completing the environmental analysis, then the outcome is effectively predetermined and NEPA becomes a paper tiger.[125]

An agency may have a preferred alternative, however, provided that the alternatives selected to accomplish a proposal be meaningfully evaluated. The comprehensive "hard look" required to fulfill the statutory mandate requires good-faith objectivity and serious analysis by the agency.[126]

In this instance, the stated objective of the GREA was to "improve transportation efficiency and to function as an important link in the regional, state, and federal national highway system." It would be difficult to find a more generalized statement of purpose. As such, it is practically impossible for agencies to reasonably articulate and analyze the potentially limitless alternatives to achieve such ill-defined goals, and it certainly strains logic to require courts to engage in meaningful review to determine whether NEPA's mandate was satisfied.

Mitchell, J.: Although I agree in certain respects with Justice Canfield that the rule of reason governs the articulation of alternatives, my review of the administrative record would lead to a different conclusion. It makes sense that the FHWA would reasonably identify an objective of improving regional transportation through construction of a highway. The only real question in this case, and one where we should give deference to agency discretion, involves the analysis of alternatives. The record amply satisfies the rule of reason standard both with respect to identifying the goal and the FHWA decision as to its preferred alternative.

---

need [for a project] so as to winnow down the alternatives until only the desired one survives").

125. *See* Forest Guardians v. U.S. Fish & Wildlife Serv., 611 F.3d 692, 714 (10th Cir. 2010); Coalition to Protect Cowles Bog Area v. Salazar, No. 2:12–CV–515, 2013 WL 3338491 (N.D. Ind. July 2, 2013). *Compare* Lee v. U.S. Air Force, 354 F.3d 1229, 1239 (10th Cir. 2004) (describing how the Air Force conducted a NEPA process before entering into formal agreements regarding stationing training aircraft for foreign government), *with* Davis v. Mineta, 302 F.3d 1104, 1112 (10th Cir. 2002) (stating that NEPA was violated where consultant hired by federal agency contractually obligated itself to finding no significant impact before conducting environmental assessment).

126. *See* Ctr. for Biological Diversity v. U.S. Dept. of Int., 581 F.3d 1063, 1065 (9th Cir. 2009) *opinion withdrawn and superseded on denial of reh'g*, 623 F.3d 633 (9th Cir. 2010) (stating that the agency failed to take hard look at environmental consequences of proposed land exchange by assuming no different impacts if private mining company acquired fee simple ownership or if land remained under government control).

3. A Question of Scope: Assessment of Connections and Cumulative Impacts

Downing, J.: Another important question in the present dispute is whether the agency should have considered the environmental effects of Phase II of the Green River Project in conjunction with its analysis of the impacts associated with Phase I of the GREA. SANE contends that the respective phases of the project must be considered simultaneously in order to provide the federal agencies with the most realistic evaluation of the environmental effects from each aspect of the federal actions. Conversely, the agencies argue that no proposal is pending with respect to Phase II, so integrating those possible impacts is premature. In a sense, both sides in this dispute are correct but for different reasons.

One of the foundational principles of NEPA is that the federal agency will undertake a meaningful, serious analysis of the relevant impacts or "effects"[127] of a proposal on human health and the environment prior to making decisions with respect to that proposal. The importance of properly considering the range of effects, then, directly translates into the determination of whether a proposal is deemed "significant"[128] for NEPA purposes and informs the obligation to potentially prepare an environmental impact statement under § 102(2)(C).[129] In order for the statute to function effectively, an underlying assumption is that the agency will consider the full impact of a proposed course of action at the point of decision-making rather than undertake its analysis piecemeal.

Consequently, where proposals are so closely related as to effectively constitute a single course of action, the agency must consider them together in an impact statement. This requirement serves to prevent an agency from segmenting a project into multiple "actions," each of which may individually have a relatively minor or insignificant environmental impact, but collectively could yield a substantial impact.[130] This means the CEQ regulations require "connected" actions to be considered together in a single EIS.[131] Application of these principles historically contemplates an independent utility test, which essentially considers

---

127. *See* 40 C.F.R. § 1508.8 (2011) (explaining direct and indirect effects).

128. *See* 40 C.F.R. § 1508.27 (2012) (defining use of "significant" in the relevant sections).

129. 42 U.S.C. § 4332(C) (1975).

130. Great Basin Mine Watch v. Hankins, 456 F.3d 955, 969 (9th Cir. 2006).

131. *See* 40 C.F.R. § 1508.25(a)(1) (2010) which defines "Connected actions" as actions that:

> (i) Automatically trigger other actions which may require environmental impact statements, (ii) Cannot or will not proceed unless other actions are taken previously or simultaneously, or (iii) Are interdependent parts of a larger action and depend on the larger action for their justification.

Id.; *See also* 40 C.F.R. § 1502.4(a) (2010), and 40 C.F.R. § 1508.18(b)(3) (2010).

whether each of the two projects would have taken place without the other. If the proposed projects are in actuality interdependent, then NEPA requires their effects to be analyzed conjunctively rather than separately.[132]

In this case, SANE argues that the FHWA and the Corps should have discussed the impact of Phase I of the Green River Project involving the proposed ferry terminal, bridge, and highway segment together with the potential impacts associated with the future highway extension and reservoir construction contemplated under Phase II. Although the FHWA did consult with the Corps with respect to the second phase of the GREA, no proposal is currently pending on that project. It is not enough that the agency merely contemplates an action at some distant point in the future; rather, for the purposes of NEPA's § 102(2)(C) threshold duty to prepare an EIS, a concrete proposal is required.[133] The requirement of a proposal for NEPA purposes is not intended to be a formalistic inquiry, but embraces both the formal and the *de facto* actions of federal agencies.[134] In this instance, neither is present with respect to the road extension under Phase II of the project. As a result, it is premature and conjectural to consider the impacts from the road extension and reservoir as being interconnected with the GREA, and the FHWA was justified in excluding those impacts from its analysis.[135]

Jordan, J.: NEPA requires federal agencies to prepare an EIS only where the proposed action will "significantly affect the quality of the human environment."[136] Under applicable CEQ regulations, "major Federal action" is defined to include "actions with effects that may be major and which are potentially subject to Federal control and responsibility."[137] Further, NEPA focuses federal agency analysis on both the direct and the indirect effects or impacts of its proposed actions.[138]

The central theme of § 102 in NEPA is embodied by the term "environmental." Agencies are not required to evaluate limitless effects of

---

132. *See* Thomas v. Peterson, 753 F.2d 754, 758 (9th Cir. 1985) (stating that road construction and timber sales were connected, so they must be considered together); *see also* Swain v. Brinegar, 542 F.2d 364, 369 (7th Cir. 1976) (enumerating test for evaluating the issue of segmentation of a proposed federal highway).

133. 40 C.F.R. § 1508.23 (1996).

134. *Id.*

135. *See* Wilderness Workshop v. U.S. Bureau of Land Mgmt., 531 F.3d 1220, 1230 (10th Cir. 2008) (stating that the agency is not required to analyze potential natural gas well development as connected to pipeline construction project because each could exist independently).

136. *Dep't of Transp. v. Pub. Citizen*, 541 U.S. 752, 763 (2004) (quoting 42 U.S.C. § 4332(2)(C) (1975)).

137. 40 C.F.R. § 1508.18 (2010).

138. *See* 40 C.F.R. § 1508.8 (2011) (defining direct and indirect effects).

proposed actions but rather those that impact the human environment. Contextually, NEPA reflects a congressional purpose of promoting human welfare by directing agencies to assess the effects of their proposals on the physical environment, or the world around us.[139]

NEPA's goals are couched in terms to human health and welfare, but the mechanism to achieve those goals focuses on impacts to the physical environment.[140] Our analysis of specific effects, then, must consider the relationship between that impact and any resulting influence or change that is reasonably likely to take place in the physical environment.[141] The task of evaluating such relationships and causal connections is a familiar one. Although some effects would not occur "but for" certain causes, our inquiry also requires determining whether the causal sequence is too attenuated or remote.[142] In that vein, we can take guidance from the doctrine of proximate cause in tort law, which considers the reasonably foreseeable categorical results from particular causes in light of notions of timing and likelihood of occurrence.[143]

SANE has asserted that the risks associated with the BLM leasing program of federal lands for oil and gas development, as discussed in the Great Plains MLP, will impact the environmental consequences of the proposed road through the national forest as contemplated in the Green River Project. Risks of a particular event must be distinguished conceptually from effects on the physical environment, however.[144]

We face a litany of risks from modern technology, and generalized public policy concerns about whether the benefits from technology are worth the risks are outside the scope of NEPA.[145] The political pro-

---

139. Metro. Edison Co. v. People Against Nuclear Energy, 460 U.S. 766, 772 (1983).

140. *Id.* at 773.

141. *Id.* at 773–74. The Court cited the following illustration:

> For example, if the Department of Health and Human Services were to implement extremely stringent requirements for hospitals and nursing homes receiving federal funds, many perfectly adequate hospitals and homes might be forced out of existence. The remaining facilities might be so limited or so expensive that many ill people would be unable to afford medical care and would suffer severe health damage. Nonetheless, NEPA would not require the Department to prepare an EIS evaluating that health damage because it would not be proximately related to a change in the physical environment.

Id.

142. *Id.* at 774; *see also* Dep't of Transp. v. Pub. Citizen, 541 U.S. 752, 767 (2004) (stating that a causal connection between agency's issuance of proposed regulations and entry of Mexican trucks was insufficient to make agency responsible for considering environmental effects under NEPA).

143. *See People Against Nuclear Energy*, 460 U.S. at 774.

144. *Id.* at 775.

145. *See id*. at 775–76.

cess, rather than the NEPA process, provides the appropriate forum to address whether technology should be dealt with in a particular manner.[146] The NEPA inquiry is more circumspect. In this instance, then, the FHWA already properly considered the reasonably foreseeable effects associated with hydraulic fracturing operations on adjacent federal lands in the context of the Great Plains MLP. To expand that inquiry to require an assessment of hypothetical risks from those activities stretches the bounds of NEPA beyond congressional purpose and the structure of the statute. An essential difficulty with SANE's contention is a familiar concept in the law of proximate cause in the law of torts. If taken to its logical conclusion, SANE's line of argument would require federal agencies to dramatically expand their range of environmental impact analysis beyond the bounds of reasonableness. In short, SANE offers no principled basis for line-drawing for agencies in determining which risks must ultimately be evaluated in its analysis of a proposed major federal action.

Sykes, J.: A federal agency is also required to assess the cumulative impact of its proposed action on the environment as a relevant factor in evaluating the significance of the action under NEPA.[147] The theory behind evaluating cumulative effects recognizes the potential environmental relevance of incrementalism associated with collective conduct.[148] In essence, sometimes the total impact from an aggregated set of actions "may be greater than the sum of the parts."[149]

In a related vein, SANE contends that the agency violated NEPA by failing to prepare a comprehensive impact statement with respect to the regional environmental issues associated with the land leasing as well as the proposed road. It is true that § 102(2)(C) "may require a comprehensive impact statement in certain situations where several proposed actions are pending at the same time."[150] NEPA announced a national policy of environmental protection and placed a responsibility upon the federal government to further specific environmental goals by

---

146. *See id.* at 777.

147. *See* 40 C.F.R. § 1508.27 (1979) (stating that "significance" requires consideration of both context and intensity).

148. *See* 40 C.F.R. § 1508.7 (2012); *see also* Dep't of Transp. v. Pub. Citizen, 541 U.S. 752, 769–70 (2004) (stating that the agency properly considered incremental impact of safety rules with respect to cross-border operations of Mexican motor carriers).

149. Klamath-Siskiyou Wildlands Ctr. v. Bureau of Land Mgmt., 387 F.3d 989, 994 (9th Cir. 2004); *see also* Ocean Advocates v. U.S. Army Corps of Eng'rs, 402 F.3d 846, 870 (9th Cir. 2005) (stating that Corps findings about cumulative impacts of oil refinery dock expansion failed to consider past, present, and future projects); N. Plains Res. Council, Inc. v. Surface Transp. Bd., 668 F.3d 1067, 1077 (9th Cir. 2011) (stating that cumulative foreseeable impact of future coal bed methane well development and coal mining projects must be considered with proposed construction of 130-mile railroad line to haul coal).

150. Kleppe v. Sierra Club, 427 U.S. 390, 409 (1976).

"all practicable means, consistent with other essential considerations of national policy."[151]

By requiring an impact statement, Congress intended to assure such consideration during the development of a proposal. A comprehensive impact statement may be necessary in some cases for an agency to meet this duty. Thus, when several proposals for actions that will have cumulative or synergistic environmental impact upon a region are pending concurrently before an agency, their environmental consequences must be considered together. An agency can meaningfully evaluate different courses of action only by comprehensively considering pending proposals.[152] However, in the present case, a regional or comprehensive impact statement should not be mandated because only a single proposal under the Green River Project is presently pending. The Great Plains MLP separately considered environmental impacts associated with the leasing program and no other proposal is pending that would justify a more comprehensive EIS.

4. Reconciling the Finality of Agency Decisions with New Information

Rivera, C.J.: Federal agencies are required by NEPA to prepare an EIS as part of any "proposals for legislation and other major Federal actions significantly affecting the quality of the human environment."[153] However, the subject of a post-decision supplemental EIS is not expressly addressed in NEPA. Preparation of such statements, however, is at times necessary to satisfy the Act's "action-forcing" purpose. Agencies are never mandated by NEPA to achieve particular substantive environmental results; rather, the procedural structure of the statute requires a systematic and careful evaluation of the environmental effects of proposed agency action.[154]

By undertaking that analysis, an agency will have an opportunity to modify its planned course of action if necessary, rather than acting first and then later regretting the consequences.[155] Also, the statutory policy promoting the transparent disclosure and dissemination of information allows the public and other agencies to respond to proposed actions in a timely manner. NEPA does not allow an agency to put on blinders

151. 42 U.S.C. 4331(b) (1970).

152. Kleppe v. Sierra Club, 427 U.S. 390, 410 (1976).

153. Norton v. S. Utah Wilderness, 542 U.S. 55, 72 (2004) (quoting 42 U.S.C. § 4332(2)(C) (1975)).

154. Marsh v. Or Natural Res. Council, 490 U.S. 360, 371 (1989).

155. *Id.*; Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 349 (1989).

and foreclose consideration of useful information simply because certain decisions may have already been made.[156]

As we observed in *TVA v. Hill*,[157] although at some point the NEPA process must conclude because the agency would not have a meaningful opportunity to evaluate the merits and detriments of a proposed project, the default approach should be to require agency consideration of new material information so long as decisions remain which would be environmentally significant.[158]

The CEQ regulations make plain that supplementation may be required in certain instances. These regulations, which we have held are entitled to substantial deference,[159] impose a duty on all federal agencies to prepare supplements to either a draft or final EIS if "there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts."[160] By the same token, the agency's own NEPA implementing regulations call for the preparation of a supplemental EIS if "new significant impact information, criteria or circumstances relevant to environmental considerations impact on the recommended plan or proposed action."[161]

Rosner, J.: The decision by a federal agency whether to prepare a supplemental EIS is governed by a "rule of reason" standard.[162] An agency need not supplement an EIS every time new information comes to light after the EIS is finalized, of course. Such a requirement would be unduly burdensome and effectively hamstring the ability of agencies to function. We still apply a rigorous standard of review to ensure that agencies have taken the requisite "hard look" at the environmental effects of their planned action, even after making initial decisions with respect to a proposal. The critical inquiry in applying the "rule of reason" focuses on the "value of the new information to the still pending decision-making process."[163] In short, the test for supplementation is whether major federal action is still expected to occur, and if the new information is sufficient to show that the remaining action will affect the quality of

156. *Marsh*, 490 U.S. at 371.
157. Tennessee Valley Authority v. Hill, 437 U.S. 153, 188 n.34 (1978).
158. *Marsh*, 490 U.S. at 372.
159. *Id.*
160. 40 C.F.R. § 1502.9(c) (2011).
161. *Marsh*, 490 U.S. at 372–73.
162. *Marsh*, 490 U.S. at 373.
163. *Id.* at 374.

the human environment in a significant[164] manner or to a significant extent not already considered.[165]

In this case, SANE contends that the increased hydraulic fracturing activities in the Great Plains region constitutes significant new information that justifies abating the GREA proposal while further study by the federal agencies considers those potential environmental impacts. Although oil and gas development activity is ongoing and remains likely to continue for the foreseeable future, the agencies have sufficiently taken those developments into account in a reasonable manner and additional study would not serve a useful purpose. Therefore, in light of the traditional standards of deference owed to such administrative decisions, the agency has fulfilled its statutory obligations under NEPA.

CONCLUSION

As the above discussion illustrates, the existing federal environmental statutes provide only a partial solution to the significant challenges presented by innovative technology, scientific uncertainty and quantifying risks to human health and the environment. The complexity of our biotic environment, coupled with rapid advances in technology, sometimes outpaces the ability of legislators, regulators, and courts to provide comprehensive solutions to adequately protect human health and the environment. NEPA partially addresses those concerns in that its design contemplates the consideration of material environmental impacts prospectively. The promise and hope of NEPA was to interject meaningful analysis and consideration of the environmental effects of proposed major federal actions into the decision-making process in a timely manner and to engage the public in a transparent manner to participate in that process of evaluation. NEPA is a procedural statute so it does not demand specific substantive outcomes. Indeed, as the Court observed in *Robertson v. Methow Valley Citizens Council*, the statute "merely prohibits uninformed—rather than unwise—agency action."[166]

History cannot fully or accurately prove a negative—whether the promise of NEPA ultimately has been fulfilled—because it is impossible to determine what might have been absent the statutory influence on agency action. Also, as new environmental effects from advancements in technology appear on the scene, such as those evidenced in hydraulic fracturing, federal agencies must recalibrate their procedures and inform their decision-making to take into account a changing landscape of risks.

---

164. *See* 40 C.F.R. § 1508.27 (1979).

165. *Cf.* Norton v. S. Utah Wilderness, 542 U.S. 55, 73 (2004) ("There is no ongoing 'major federal action' that could require supplementation . . . .").

166. Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 351 (1989).

As Aldo Leopold observed over a half century ago:

> "Thus always does history, whether of marsh or marketplace, end in paradox."[167]
>
> "The ordinary citizen today assumes that science knows what makes the community clock tick; the scientist is equally sure that he does not. He knows that the biotic mechanism is so complex that its workings may never be fully understood."[168]
>
> "By and large, our present problem is one of attitudes and implements. We are remodeling the Alhambra with a steam-shovel, and we are proud of our yardage. We shall hardly relinquish the shovel, which after all has many good points, but we are in need of gentler and more objective criteria for its successful use."[169]

167. ALDO LEOPOLD, A SAND COUNTY ALMANAC 101 (Oxford University Press edition, 1989).

168. *Id.* at 205.

169. *Id.* at 225–26.