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Paralysis by Analysis in the Forest Service Oil and Gas Leasing Program

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PARALYSIS BY ANALYSIS IN THE FOREST SERVICE OIL AND GAS LEASING PROGRAM

*Jan G. Laitos**

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I. INTRODUCTION

At the beginning of the 1990's, the United States faced several uncomfortable facts about its present and future energy needs. By the fall of 1990, oil accounted for 43% of total United States' energy consumption.¹ Unfortunately, oil imports supplied an unprecedented 49.9% of the nation's oil needs,² while domestic crude oil production stood at its lowest point in thirty years.³

One reason for the decline in domestic oil production is the dramatic downturn in oil and gas leasing activity on Forest Service lands. In 1983, there were 24,000 oil and gas leases in national forests encompassing nearly 35 million acres; by 1990, there were less than 12,000

1. The Wall Street Journal, Aug. 17, 1990, at A1, col. 6. Natural gas made up 22% of domestic energy consumption. *Id.* at A4, col. 1.

2. The previous high was 48.8% during the first six months of 1977. AMERICAN PETROLEUM INST., FIELD OPERATIONS MEMO (July 19, 1990).

3. AMERICAN PETROLEUM INST., FIELD OPERATIONS MEMO (statement of Edward H. Murphy, Director of Finance, Accounting, and Statistics, on July 18, 1990). Production from the lower 48 states is declining at an estimated annual rate of 400,000 barrels/day, and in 1990 reached 5.5 million barrels/day—the lowest since 1950. Alaskan production, after peaking in 1988, is declining at an annual rate of approximately 100,000 barrels/day. *Id.*

leases on slightly over 14 million acres.⁴

There are several explanations for the slowdown of oil and gas leasing on Forest Service lands. The primary reason appears to be the Forest Service's fear of noncompliance with the National Environmental Policy Act (NEPA).⁵ This fear has produced a *de facto* moratorium on new oil and gas leasing, and lease renewals.

A contributing reason involves Forest Service unfamiliarity with federal oil and gas leasing. Prior to passage of the Federal Onshore Oil and Gas Leasing Reform Act of 1987 (Reform Act),⁶ oil and gas leases in national forests were issued by the Bureau of Land Management (BLM),⁷ in light of nonbinding consultations with and recommendations from the Forest Service.⁸ After the Reform Act, the Forest Service has far more than a consultative role. For *acquired* national forest lands, the BLM may issue oil and gas leases in national forests only with the "consent" of the Forest Service.⁹ For *public domain* national forest lands, the BLM is prohibited from issuing a lease "over the objection of the [Forest Service]."¹⁰ Moreover, the Reform Act recognizes for the first time that the Forest Service is to regulate all surface-disturbing activities on oil and gas leases in national forests.¹¹ The Forest Service has experience with timber management, not oil and gas leasing, and this new statutory responsibility has caused it to proceed in a highly cautious and conservative manner.

The Forest Service has also been unsure about how best to integrate NEPA and Reform Act requirements in its national forest management plans prepared under the National Forest Management Act of 1976 (NFMA).¹² NFMA requires the Forest Service to draft "land and resource management plans for units of the National Forest System,"¹³ which "provide for multiple use,"¹⁴ such as mineral development, that are "in accordance with [NEPA]."¹⁵ Uncertainty about the demands of NFMA has only exacerbated the Forest Service's inclina-

4. Data supplied to author by David Fredley, U.S. Dep't of Agric., Forest Service, Washington, D.C. (Sept. 21, 1990).

5. 42 U.S.C. §§ 4321-4370 (1988).

6. Pub. L. No. 100-203 (codified at 16 U.S.C. § 3148 (1988), 30 U.S.C. §§ 187a-b, 188, 191, 195, 226, 226-3 (1988)).

7. The Mineral Leasing Act of 1920, 30 U.S.C. §§ 181-287 (1988) vests the Secretary of Interior with lease issuance authority, and the BLM is the agency within the Department designated to carry out these functions. 30 U.S.C. §§ 189, 351 (1988); 43 C.F.R. Parts 3100, 3101 (1989).

8. 43 C.F.R. 3101.7 (1987); 49 Fed. Reg. 37,440 (1984); *Mountain States Legal Found. v. Andrus*, 499 F. Supp. 383, 388-89 (D. Wyo. 1980).

9. 30 U.S.C. § 352 (1988). "Acquired lands" were once in private or state ownership.

10. *Id.* § 226(h); 43 C.F.R. § 3101.7-1(c). "Public domain" lands were acquired by the United States from other sovereigns, including Indian tribes.

11. 30 U.S.C. § 226(g) (1988).

12. 16 U.S.C. §§ 1600-1614 (1988).

13. *Id.* § 1604(a).

14. *Id.* § 1604(e)(1).

15. *Id.* § 1604(g)(1).

tion to tiptoe gingerly into the unfamiliar field of oil and gas leasing.

Reluctance to lease has manifested itself in two ways. First, between 1987 and 1990, Forest Service concerns about the legality of its oil and gas leasing program caused it to withhold decisions about areas subject to lease, and lease applications. The result was, in effect, a freeze on oil and gas leasing, exploration, and development activities in national forests.¹⁶ Second, in 1990 the Forest Service promulgated regulations pursuant to the Reform Act that set out the procedures governing oil and gas leasing in national forests.¹⁷ These new regulations seek to reconcile and organize the demands of NEPA, the Reform Act, and NFMA. However, a close reading of the regulations and the Forest Service comments preceding them reveals a leasing scheme which expects NEPA analysis at virtually every stage of the multi-stage leasing lifecycle, as well as at every lease site. This extensive micro-environmental review is likely to bring about a form of leasing paralysis by environmental analysis.¹⁸

This article considers the reasons for and implications of these actions of the Forest Service. Part Two summarizes the importance of federal onshore oil and gas development at a time when reliance on foreign oil seems particularly risky and shortsighted. Part Three describes the nature of oil and gas leasing on federal lands. The Reform Act presented the Forest Service with a series of perplexing legal questions involving the timing, applicability, and contents of (1) environmental reviews under NEPA, and (2) management plans under NFMA. Part Four outlines the decisions reached by the Forest Service in the 1990 regulations, as well as subsequent agency guidance further interpreting them. Part Four concludes that one consequence of the Forest Service's position may well be a continued delay in oil and gas leasing in national forests. Part Five attempts to explain why the Forest Service chose to adopt a hyper-environmental approach to oil and gas leasing. Part Six concludes with some suggestions on how the Forest Service might alter its procedures so that they are more in line with the expectations of NEPA, and the realities of federal onshore oil and gas leasing.

16. See note 4 and accompanying text, *supra*, summarizing diminishing numbers of areas subject to lease, and reduced numbers of leases issued, through 1990.

17. 55 Fed. Reg. 10,423 (1990) (to be codified at 36 C.F.R. Parts 228, 261).

18. See Mansfield, *Through the Forest of the Onshore Oil and Gas Leasing Controversy Toward a Paradigm of Meaningful NEPA Compliance*, 24 LAND & WATER L. REV. 85, 129 (1989).

Another reason for this "paralysis" lies in the decentralized nature of the Forest Service. As a result, Forest Service field operations (at the regional, national forest, and ranger district level) have considerable autonomy. When little guidance or oversight is provided by headquarters in Washington, D.C., any uncertainty over how to apply a complicated law like NEPA is multiplied throughout Forest Service regions, forests, and districts. See generally P. CULHANE, PUBLIC LANDS POLITICS 61, 64 (1981); M. CLAWSON & B. HELD, THE FEDERAL LANDS: THEIR USE AND MANAGEMENT 167-72 (1957); H. KAUFMAN, THE FOREST RANGER 68-69, 83-86 (1960).

II. ENERGY POLICY AND REDUCED OIL AND GAS LEASING ON FOREST SERVICE LANDS

A Forest Service oil and gas leasing program that discourages leasing activity through environmental overkill will have a negative effect upon this country's energy future. Some alarming statistics bear this out.

By 1990, 65% of total United States energy consumption was either from oil (43%), or natural gas (22%).¹⁹ This enormous thirst for oil and gas is satisfied by several sources, and the federal onshore oil and gas program is an important contributor. During one particularly productive year, fiscal year 1987, over 150 million barrels of oil and over 888 million cubic feet of gas were produced from federal onshore leases.²⁰

This federal onshore oil and gas program also generates substantial federal, state, and local revenues. In fiscal year 1986, royalties from oil and gas leases to the federal treasury exceeded \$550 million.²¹ Nearly \$425 million in total federal onshore oil and gas program receipts (royalties and bonuses) were distributed directly to the states in that year.²² In states like Wyoming where the federal government owns a high percentage of the mineral estates, much of the taxable value of all real and personal property in certain counties is derived from federal oil and gas leases.²³

The Forest Service is a potential major player in the overall federal onshore oil and gas program. Oil beneath national forests is a significant future source of onshore domestic petroleum reserves. The United States Geological Survey estimates that Forest Service properties contain between 5 and 8 billion barrels of undiscovered, recoverable oil, and between 20 and 35 trillion cubic feet of undiscovered, recoverable natural gas.²⁴

19. The Wall Street Journal, Aug. 17, 1990, at A1, col. 6; A4, col. 1.

20. U.S. DEP'T OF INTERIOR, MINERAL REVENUES: THE 1988 REPORT ON RECEIPTS FROM FEDERAL AND INDIAN LEASES 13 (1989). A production total of 150 million barrels of oil represents less than 5% of domestic oil production. *Id.* The supply of oil produced from federal onshore leases has declined in every year since 1986. U.S. DEP'T OF INTERIOR, MINERAL REVENUES: THE 1989 REPORT ON RECEIPTS FROM FEDERAL AND INDIAN LEASES 51 (1990).

21. U.S. DEP'T OF INTERIOR, MINERAL REVENUES: THE 1989 REPORT ON RECEIPTS FROM FEDERAL AND INDIAN LEASES 51 (1990).

22. U.S. DEP'T OF INTERIOR, MINERAL REVENUES: THE 1988 REPORT ON RECEIPTS FROM FEDERAL AND INDIAN LEASES 6 (1989). In Wyoming, federally-distributed royalties paid on federal oil and gas activities amounted to \$111 million. PETROLEUM ASS'N OF WYOMING, WYOMING OIL AND GAS FACTS AND FIGURES (1988).

23. PETROLEUM ASS'N OF WYOMING, WYOMING OIL AND GAS FACTS AND FIGURES (1988) (approximately 80% of taxable value of property in Hot Springs, Park, Sublette, and Uinta Counties, Wyoming, attributable to oil and gas leases, 75% of which are federal leases). See also STATE OF WYOMING, 1986 ANN. REP., Department of Revenue and Taxation, Ad Valorem Tax Division 201 (1987).

24. U.S. DEP'T OF INTERIOR, U.S. GEOLOGICAL SURVEY, MINERALS MANAGEMENT SERVICE, ESTIMATES OF UNDISCOVERED CONVENTIONAL OIL AND GAS RESOURCES IN THE

Despite the reserves, overall domestic crude oil production has fallen over the last several years. The American Petroleum Institute reported in 1990 that oil production from the lower forty-eight states was the lowest it had been since 1950, and was declining at an estimated annual rate of 400,000 barrels per day.²⁵ Even Alaskan production, after peaking in 1988, was declining at an annual rate of approximately 100,000 barrels per day.²⁶ This reduced domestic production tracks decreased drilling activity. From a high of over 90,000 new wells drilled in 1981, well drilling had fallen to a new low of slightly over 25,000 wells completed in 1989.²⁷

As a corollary to diminished domestic production, this country's reliance on imported oil has grown. In 1984, oil imports had declined to 28% of total demand; but by 1990, the United States had to import a record 49.9% of its oil.²⁸ This reliance on foreign oil has surpassed the previous record of dependency, established in 1977 when imports accounted for 47.7% of total demand.²⁹ Coincident with this unprecedented share of imported oil, Iraq's invasion of Kuwait has demonstrated (again) that foreign oil from the Persian Gulf region should not be considered a reliable source of future oil supplies.

The Forest Service's unwillingness to issue oil and gas leases in recent years has contributed both to reduced domestic production and to increased reliance on foreign oil. By virtually every measure, the Forest Service has brought about a dramatic downturn in oil and gas leasing activity on its lands. In 1990, over one quarter of the 156 national forests remained unleased.³⁰ The total number of leases on Forest Service lands had dropped from 24,000 in 1983, to 11,600 in 1990; the number of acres under oil and gas lease in these lands had fallen from 34.6 million acres in 1983, to 14.4 million acres in 1990.³¹

UNITED STATES—A PART OF THE NATION'S ENERGY ENDOWMENT 10, 19 (March 6, 1989). For the Overthrust Belt in Idaho, Wyoming, and Utah, estimates of undiscovered oil go as high as 15 billion barrels. *Mountain States Legal Found. v. Andrus*, 499 F. Supp. at 386.

25. AMERICAN PETROLEUM INST., FIELD OPERATIONS MEMO (statement of Edward H. Murphy, Director of Finance, Accounting, and Statistics, on July 18, 1990). This downward trend continues. AMERICAN PETROLEUM INSTITUTE, MONTHLY STATISTICAL REPORT 1 (Nov. 12, 1990) (reporting that lower 48 production had declined 4.1% by October 1990).

26. AMERICAN PETROLEUM INST., FIELD OPERATIONS MEMO (statement of Edward H. Murphy, Director of Finance, Accounting, and Statistics, on July 18, 1990); see also Barrett, *Domestic Blockade?*, FORBES, Sept. 3, 1990, at 36 ("domestic [oil] production . . . has been dropping sharply").

27. *Boston Globe*, Sept. 16, 1990, at 82, col. 2.

28. *New York Times*, July 19, 1990, at C1.

29. 10 AMERICAN PETROLEUM INST., BASIC PETROLEUM DATA BOOK Section IX, Table 1 (May 1990).

30. U.S. GEN. ACCOUNTING OFFICE, GAO/RCED-90-123FS, FEDERAL LAND MANAGEMENT: THE EXTENT OF OIL AND GAS ACTIVITIES ON BLM AND FOREST SERVICE LANDS 5 (Apr. 1990). Approximately 60% of the national forests with leases (67 out of 113) were without exploration or production. *Id.*

31. Statistics for Forest Service Lands supplied to author by David Fredley, U.S. Dep't of Agric., Forest Service, Washington, D.C. (Sept. 21, 1990).

For many national forests, leasing has virtually ceased. For example, in Region 1 of the Forest Service, which includes part of Idaho and all of Montana and North Dakota (encompassing the highly productive Custer National Forest and Little Missouri Grasslands), oil and gas leases were issued for 105,000 acres in fiscal year 1987. But in the following year, fiscal year 1988, the Forest Service did not issue any leases in Custer National Forest, a Region 1 area of much oil and gas activity.³² A similar moratorium on oil and gas leasing was imposed by regional foresters in Utah, where no leases were issued after 1988 for the Ashley, Dixie, Manti-LaSal, Wasatch-Cache, and Uinta national forests.³³

This drop in leasing activity in otherwise productive national forests is reflected in figures showing a reduction in the total volume of oil extracted from federal onshore leases. In fiscal year 1985, federal onshore lands produced nearly 170 million barrels of oil; by fiscal year 1989, this total had fallen to under 133 million barrels.³⁴

This downturn in oil and gas leasing on Forest Service lands began in 1988, and continues into the early 1990's. It is not by chance that 1988 is the watershed year. It was in that year that the Reform Act reallocated responsibility from the BLM to the Forest Service for oil and gas leasing decisions on National Forest System lands.³⁵ It was in that year that an internal assessment by the Forest Service concluded that almost all of its NFMA land use plans did not adequately address oil and gas leasing.³⁶ It was also in that year that the Ninth Circuit concluded that the Forest Service oil and gas leasing program violated NEPA.³⁷

The triple whammy of the Reform Act, NFMA, and NEPA caused the Forest Service to halt leasing while it sought to learn how to comply with all three statutes.³⁸ To understand the difficult task

32. U.S. DEP'T OF AGRIC., FOREST SERVICE, PROPOSED STRATEGY FOR MITIGATING PERSIAN GULF SITUATION (Sept. 12, 1990) (internal document).

33. *Deseret News*, July 4, 1990, at A1, A2.

34. U.S. DEP'T OF INTERIOR, MINERAL REVENUES: THE 1989 REPORT ON RECEIPTS FROM FEDERAL AND INDIAN LEASES 51 (1990).

35. See *supra* notes 9-11.

36. U.S. GEN. ACCOUNTING OFFICE, GAO/RCED-90-71, FEDERAL LAND MANAGEMENT: BETTER OIL AND GAS INFORMATION NEEDED TO SUPPORT LAND USE DECISIONS 36 (June 1990).

37. *Bob Marshall Alliance v. Hodel*, 852 F.2d 1223 (9th Cir. 1988), *cert. denied sub nom. Kohlman v. Alliance*, 489 U.S. 1066 (1989); *Conner v. Burford*, 848 F.2d 1441 (9th Cir. 1988), *cert. denied sub nom. Sun Exploration & Prod. Co. v. Lujan*, 489 U.S. 1012 (1989). Both decisions used the rationale of the D.C. Circuit when it in 1983 invalidated Forest Service oil and gas leasing decisions under NEPA. *Sierra Club v. Peterson*, 717 F.2d 1409 (D.C. Cir. 1983).

38. Post-Reform Act inadequacies in the Forest Service's NFMA plans and environmental impact statements under NEPA are recounted in U.S. GEN. ACCOUNTING OFFICE, GAO/T-RCED-89-69, IMPLEMENTATION OF THE FEDERAL ONSHORE OIL AND GAS LEASING REFORM ACT OF 1987 (Sept. 28, 1989). See also *Deseret News*, July 4, 1990, at A-2 ("Asked whether the Forest Service has imposed a moratorium on leasing, Bill Miller, the Forest Service's regional specialist on leasable minerals, replied, 'Yes. At

confronting the Forest Service in 1988, and to appreciate its eventual response in the 1990 oil and gas leasing regulations, one needs to review the requirements of NEPA, NFMA, and the Reform Act, in light of the unique nature of federal onshore oil and gas leasing.

III. NEPA, NFMA, AND OIL AND GAS LEASING ON FOREST SERVICE LANDS

To grasp the full extent of the puzzle that needed to be solved by the Forest Service in 1990, one might envision a three-dimensional matrix. One dimension consists of NEPA and NFMA requirements, as those statutes have been construed by courts and implementing agencies. A second dimension is the multi-staged, multi-sited federal onshore oil and gas leasing process. The third dimension is the Reform Act, which for the first time places in the Forest Service primary responsibility for oil and gas leasing in national forests. To satisfy the new demands of this third dimension (previously the job of the BLM), the Forest Service must develop an oil and gas leasing program which is responsive to the nature of federal onshore oil and gas leasing (the second dimension), and complies with NEPA and NFMA (the first dimension).

A. NEPA and NFMA

1. NEPA

To ensure that federal agencies do not act without first considering the environmental impacts of their actions, NEPA directs all federal agencies such as the Forest Service to prepare an environmental review "in every recommendation or report on proposals for . . . major Federal actions significantly affecting the quality of the human environment."³⁹ Typically, this environmental review takes the form of an environmental impact statement (EIS), which is a costly, time-consuming, and comprehensive look at all the foreseeable environmental consequences of the action.⁴⁰ If the agency is not certain whether its action is sufficiently "major," or the impacts environmentally "significant," it may prepare a kind of mini-EIS called an environmental assessment (EA).⁴¹ The EA considers somewhat the same issues as those discussed in an EIS, but in a much abbreviated fashion. The EA is the vehicle for determining whether to proceed with preparation of an EIS,⁴² or to issue a statement which finds that the action will not have

the present time we're not consenting to leasing on forest land in Utah until we are NEPA-sufficient.'").

39. 42 U.S.C. § 4332(2)(C) (1988).

40. 40 C.F.R. §§ 1501.4, 1502 (1990).

41. *Id.* § 1501.3.

42. *Id.* §§ 1501.4(b), (c), 1508.9. See also *Cronin v. United States Dep't of Agric.*, 919 F.2d 439, 443 (7th Cir. 1990) (EA is a "rough cut, low budget EIS").

a significant impact, thereby obviating the need for a full EIS.⁴³

The deceptively simple language of NEPA raises three related questions for agencies wishing to satisfy its requirements in the context of federal onshore oil and gas leasing. The first involves *when* an EIS should be prepared. NEPA directly requires an EIS if there is a "proposal" signifying an "irreversible and irretrievable commitment" to a course of action.⁴⁴ The EIS is to proceed at this point in time, so that the EIS can influence decisionmaking; conversely, an EIS should be late enough so that the agency has sufficient information to (1) ensure that the action will in fact occur, and (2) make reasonable predictions about its impact.⁴⁵

The second question concerns the *scope* of the particular activity proposed. Scope consists of the range of actions (and impacts) to be considered in an EIS. Defining scope becomes tricky when the agency "proposal" consists of a series of connected or related actions. Often such actions are connected either geographically, over space, or chronologically, over time. The general rule here is that proposals which are related to each other closely enough to be, in effect, a single course of action, must be evaluated in a single EIS.⁴⁶ To do otherwise is to risk segmentation of the action into component parts so insignificant that the environmental impact of all the parts combined is never adequately reviewed.⁴⁷ However, this rule against segmentation should not be taken too far. An equally viable rule for defining scope holds that even when an action relates to a broader project, it can be severed from that project and analyzed separately if it has substantial "independent utility."⁴⁸

A third question arises at the point when NEPA is triggered and

43. 40 C.F.R. §§ 1501.4(e), 1508.13 (1990).

44. 42 U.S.C. § 4332(2)(C) (1988). See *Conner*, 848 F.2d at 1446; 40 C.F.R. §§ 1502.5(a) (EIS shall be prepared at the feasibility—go/no go—stage), 1508.23 (1990). *Kleppe v. Sierra Club*, 427 U.S. 390, 399 (1976); *Foundation On Economic Trends v. Lyng*, 817 F.2d 882, 885-86 (D.C. Cir. 1987); *Sabine River Auth. v. United States Dep't of Interior*, 745 F. Supp. 388, 402 (E.D. Tex. 1990).

Agency failure to act does not trigger NEPA if the agency's authority is permissive or discretionary. *Defenders of Wildlife v. Andrus*, 627 F.2d 1238 (D.C. Cir. 1980); *Alaska v. Andrus*, 591 F.2d 537 (9th Cir. 1979). However, where an agency's duty to act is mandatory, nonaction amounts to "action" for purposes of NEPA. *Sierra Club v. Hodel*, 848 F.2d 1068, 1091 (10th Cir. 1988); 40 C.F.R. § 1508.18 (1990).

45. Compare 40 C.F.R. § 1502.5 (1990) and *Scientists' Inst. for Pub. Information v. Atomic Energy Comm'n*, 481 F.2d 1079, 1093-94 (D.C. Cir. 1973) (EIS must be early) with *Tribal Village of Akutan v. Hodel*, 869 F.2d 1185, 1192 (9th Cir. 1988) (EIS should not be prepared too early).

46. 40 C.F.R. §§ 1502.4(a), 1508.25(a) (1990).

47. *National Wildlife Fed'n v. Appalachian Regional Comm'n*, 677 F.2d 883 (D.C. Cir. 1981); *Sierra Club v. Stamm*, 507 F.2d 788, 791 (10th Cir. 1974). Actions may not be segmented if they (1) automatically trigger other actions that require EISs, (2) cannot proceed unless other actions are taken previously, or (3) are interdependent parts of a larger action which depend on the larger action for their justification. 40 C.F.R. § 1508.25(a)(1) (1990).

48. *Swain v. Brinegar*, 542 F.2d 364, 369 (7th Cir. 1976); *Indian Lookout Alliance v. Volpe*, 484 F.2d 11, 19 (8th Cir. 1973).

the scope of the action is defined. The agency must then, in either an EA or an EIS, attempt to identify, describe, and assess the magnitude of environmental *impacts*. It must undertake this task "even in the face of substantial uncertainty."⁴⁹ Agencies must consider all the "reasonably foreseeable" environmental effects of their actions.⁵⁰ These include both "indirect effects" (those caused by the action that are later in time or farther removed in distance),⁵¹ and "cumulative impacts" (the impact which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions).⁵² Cumulative impact analysis is closely related to scope. If a proposal consists of cumulative actions which have cumulatively significant impacts, these actions should be discussed in the same EIS.⁵³

Questions involving timing, scope, and impact analysis have proven to be exceptionally difficult to answer in the case of federal onshore oil and gas leasing. This is because federal onshore leasing not only proceeds in stages, over time, but also over geographic space, at many lease sites. The nature of federal onshore oil and gas leasing is such that there is considerable uncertainty whether a leasing action at one stage, or at one site, will ever lead to the next stage, or to leasing at another site.

Thus, questions of EIS timing arise in considering whether an EIS should be prepared at the lease issuance stage, at the pre-lease planning stage, or at some post-lease stage, such as when an application for a permit to drill is filed.⁵⁴ Questions of scope arise in deciding whether to define the applicable action as simply one of issuing the lease right, or of including all the rights that legally vest upon granting of the lease, but which may never be exercised by the lessee.⁵⁵ Questions of impact analysis arise in determining whether an adequate environmental review of indirect and cumulative effects can be performed with EISs on individual leaseholds after leases have been granted, or whether a single EIS should review all foreseeable project-related impacts prior to the vesting of any lease right.⁵⁶

49. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 355 (1989).

50. 40 C.F.R. § 1508.7 (1990).

51. *Id.* § 1508.8(b).

52. *Id.* § 1508.7.

53. *Id.* § 1508.25(a)(2).

54. If a lease is the point at which the federal government has made an "irretrievable commitment of resources," then an EIS must precede the commitment. If an onshore oil and gas lease commits federal lands to oil and gas development, then an EIS must precede its issuance, unless the federal agency retains authority to preclude all future environmentally-disturbing activity. *Sierra Club v. Peterson*, 717 F.2d at 1414.

55. If an agency considers separately the stages or individual sites of federal onshore oil and gas leasing, the scope of the action as a whole may be too narrowly defined, resulting in a violation of the rule against segmentation. *See supra* note 47 and accompanying text.

56. If the indirect and cumulative impacts of separate but related leases are considered only after individual leases are issued and lease-specific EISs performed, the resulting impact analyses may be deemed inadequate and too late.

2. NFMA

NEPA's emphasis on before-the-fact analysis was reflected in federal planning statutes enacted in the 1970's. For the BLM, passage of the Federal Land Policy and Management Act of 1976 (FLPMA),⁵⁷ meant that land use plans needed to be prepared for all BLM lands. These plans must provide for the management, protection, and development of lands and resources, consistent with the multiple use principle.⁵⁸ For the Forest Service, passage of NFMA in 1976⁵⁹ similarly meant that land use plans needed to be prepared to guide resource management decisions in national forests.⁶⁰ Such plans were to be "prepared according to NEPA procedures."⁶¹

The Forest Service initially sought to comply with NFMA by drafting plans that focused primarily on timber matters, not oil and gas leasing.⁶² But these plans came under attack for being environmentally inadequate under NEPA.⁶³ Judicial challenges also arose when Forest Service actions appeared to be inconsistent with the plan.⁶⁴

These legal problems were compounded when the Reform Act imposed on the Forest Service new responsibilities involving oil and gas leasing decisions. Existing NFMA plans had not identified (1) lands available for leasing, (2) areas where certain types of environmental stipulations should be attached to leases, or (3) the cumulative environmental impacts of reasonably foreseeable oil and gas development. The Forest Service was also unclear as to whether its NFMA plans should discuss whether and when leasing may occur on lands otherwise available for leasing, or whether this leasing decision should be undertaken separate from the plan.⁶⁵

57. 43 U.S.C. §§ 1701-1784 (1988).

58. *Id.* §§ 1712, 1732(a).

59. 16 U.S.C. §§ 1600-1614 (1988).

60. *Id.* §§ 1604, 1613. See generally 36 C.F.R. Part 219 (1989).

61. 16 U.S.C. § 1604(g)(1) (1988); 36 C.F.R. §§ 219.10(b), 219.12(a) (1989); *California v. Block*, 690 F.2d 753, 775 (9th Cir. 1982).

62. Until passage of the Reform Act, oil and gas leasing on Forest System lands was the responsibility of BLM, not the Forest Service. See *supra* notes 7-8 and accompanying text.

63. *Northwest Indian Cemetery Protective Ass'n v. Peterson*, 764 F.2d 581, 587-88 (9th Cir. 1985), *rev'd on other grounds*, 485 U.S. 439 (1988); *Texas Comm. on Natural Resources v. Bergland*, 573 F.2d 201, 206-08 (5th Cir. 1978), *cert. denied*, 439 U.S. 966 (1978).

64. *Intermountain Forest Indus. Ass'n v. Lyng*, 683 F. Supp. 1330 (D. Wyo. 1988). Similar challenges occurred involving BLM actions thought to be inconsistent with plans under FLPMA. See *National Wildlife Fed'n v. Burford*, 677 F. Supp. 1445, 1462-63, 1466-67 (D. Mont. 1985), *aff'd in part*, 871 F.2d 849 (9th Cir. 1989).

65. In 1988, the Forest Service decided that Reform Act requirements had made virtually all of its NFMA plans and accompanying EISs deficient. See *supra* note 36.

B. Federal Onshore Oil and Gas Leasing

Leasing is discretionary under the terms of the Mineral Leasing Act of 1920,⁶⁶ the Mining and Minerals Policy Act of 1970,⁶⁷ and the Reform Act of 1987.⁶⁸ The 1920 Act vests authority for issuing leases with the Secretary of Interior, who in turn has designated BLM with this authority within the Department of Interior.⁶⁹ In exercising this statutory discretion, BLM must be sensitive to the fact that while these statutes declare it to be federal policy to encourage development of minerals on federal lands, these statutes also permit BLM to refuse to lease.⁷⁰ This power to say no stems from the discretionary nature of the leasing decision. BLM may refuse either to lease an entire region, or to issue a lease for a particular site.⁷¹ The decision to decline to lease may be based solely upon environmental reasons.⁷²

The federal government has authority to regulate the environmental effects of oil and gas leasing.⁷³ It may do so in a number of ways. At one extreme, it may prevent leasing altogether.⁷⁴ Because it has discretionary power to refuse to lease, if it does decide to lease, it may include in the lease many environmentally protective stipulations.⁷⁵ It may also impose conditions on drilling permits, which may be issued after lease acquisition.⁷⁶ These conditions permit the government to regulate how drilling may proceed, where it may occur

66. 30 U.S.C. §§ 181, 226(a) (1988).

67. *Id.* § 21a.

68. *Id.* § 226(a).

69. *Id.* §§ 189, 351. The Reform Act gives the Forest Service a veto over leasing decisions on Forest System lands. *Id.* § 226(h).

70. The 1920 Act states that "lands subject to disposition under [the Act] which are known or believed to contain oil and gas deposits may be leased . . ." [emphasis added] *Id.* § 226(a). See also *Udall v. Tallman*, 380 U.S. 1, 4 (1965); *McTiernan v. Franklin*, 508 F.2d 885, 887 (10th Cir. 1975).

71. *McLennan v. Wilbur*, 283 U.S. 414, 419 (1931); *McDonald v. Clark*, 771 F.2d 460, 463 (10th Cir. 1985).

An applicant for an oil and gas lease receives only the right to be treated fairly, not an entitlement to a lease. *Arnold v. Morton*, 529 F.2d 1101, 1105-06 (9th Cir. 1976); *Laitos & Westfall, Government Interference with Private Interests in Public Resources*, 11 HARV. ENVTL. L. REV. 1, 18-19 (1987).

72. *Bob Marshall Alliance*, 852 F.2d at 1229 n.4 (the no leasing option is viable for environmental reasons if leases have not been issued); *Copper Valley Mach. Works v. Andrus*, 653 F.2d 595, 600 (D.C. Cir. 1981); *Duesing v. Udall*, 350 F.2d 748, 750 (D.C. Cir. 1965), cert. denied, 383 U.S. 912 (1966); *Learned v. Watt*, 528 F. Supp. 980, 981-82 (D. Wyo. 1981).

73. 30 U.S.C. §§ 187, 189 (1988).

74. *Chapman v. Sheridan-Wyoming Coal Co.*, 338 U.S. 621, 627-28 (1950).

75. 43 C.F.R. §§ 3101.1-3, 3101.5-4 (1989). *Getty Oil Co. v. Clark*, 614 F. Supp. 904, 915-16 (D. Wyo. 1985), *aff'd sub nom. Texaco Producing Inc. v. Hodel*, 840 F.2d 776 (10th Cir. 1988).

These stipulations may require the lessee to mitigate adverse impacts to cultural or environmental values, give the government power to control the location and manner of drilling and vehicle use within the lease site, and prohibit activities that threaten wildlife, particularly endangered species.

76. Before the initiation of drilling, a lessee must submit an application for a permit to drill, and a surface use operations plan. 36 C.F.R. § 228.106 (1990).

within the lease area, and when drilling is permissible during the calendar year.⁷⁷

Both BLM and the Forest Service have been inclined to impose one of two kinds of protective stipulations in oil and gas leases.⁷⁸ One type of stipulation allows the government to regulate how drilling may proceed, but does not grant the government authority to prohibit drilling in order to prevent adverse surface effects. Because some type of surface occupancy is permitted, and because the leases do not reserve to the government the absolute right to prevent all surface-disturbing activity, leases with these stipulations are awkwardly known as "non-no surface occupancy" leases, or "non-NSO leases."⁷⁹ By contrast, leases with a strict no surface occupancy (NSO) stipulation prohibit surface drilling on the leased land, merely conveying rights to subsurface minerals without rights to conduct surface-disturbing activities. They are known as "NSO leases."⁸⁰

Restrictive environmental protection stipulations have been liberally included in federal oil and gas leases because prior to lease issuance, the federal government has maximum power to control the nature of the leasing activity. At the pre-lease stage, the government can exercise one of three options to ensure that the environment is protected. First, it can make certain lands unavailable for leasing, often in a FLPMA or NFMA plan.⁸¹ Second, for lands open to lease, it can deny lease applications.⁸² Third, it can process the application with conditions in the form of lease stipulations.⁸³

After lease issuance, the lessee is subject to continued regulation by the federal government. The government may enforce pre-lease conditions, and impose additional, post-lease requirements. For example, a lessee must receive approval before undertaking drilling or other surface disturbing activities. The lessee must submit to the applicable government agency an "Application for Permission to Drill" (APD), which specifies the content of the lessee's "surface use pro-

77. See generally Zuchegno, *How New Rules Affect Existing Oil and Gas Leases*, 19 COLO. LAW. 2072 (Oct. 1990); Burton, *Federal Leasing-Restrictions and Extensions*, 28 ROCKY MTN. MIN. L. INST. 1133 (1983); Edelson, *The Management of Oil and Gas Leasing on Federal Wilderness Lands*, 10 B.C. ENVTL. AFF. L. REV. 905 (1983); Pring, "Power to Spare": *Conditioning Federal Resource Leases to Protect Social, Economic, and Environmental Values*, 14 NAT. RESOURCES LAW. 305 (1981).

78. See 43 C.F.R. § 3101.1-2 (1989) (BLM lands); 36 C.F.R. § 228.108 (1990) (Forest Service lands).

79. See *Conner*, 848 F.2d at 1447-50; *Sierra Club v. Peterson*, 717 F.2d at 1412-15.

80. *Conner*, 848 F.2d at 1447-50; *Sierra Club v. Peterson*, 717 F.2d at 1412-15. If a lessee is granted an NSO lease, access to the leased minerals must be made by diagonal drilling from outside the leased area.

81. See *supra* notes 57-60 and accompanying text.

82. See *Duesing v. Udall*, 350 F.2d at 750-51 (an application creates no property right in the applicant that may be "taken" by a refusal to lease). Discretion to deny a lease may be circumscribed by prohibitions against "arbitrary and capricious" exercises of authority. See *FMC Wyoming Corp. v. Hodel*, 816 F.2d 496, 500-02 (10th Cir. 1987), *cert. denied*, 484 U.S. 1041 (1988).

83. See *supra* notes 75-80 and accompanying text.

gram.”⁸⁴ The BLM or the Forest Service can condition APD approval by including requirements in addition to those found in lease stipulations.⁸⁵

However, unless the lease has a pre-lease condition that includes an NSO stipulation, the government may not prevent the lessee from taking steps to extract the subsurface oil and gas. This is because the federal oil and gas lease is a binding contract,⁸⁶ enforceable against the government,⁸⁷ conveying to the lessee absolute rights to drill.⁸⁸ Since the government cannot prevent a lessee from drilling if the lessee holds a non-NSO lease, it can only impose reasonable conditions on the lease (usually through the APD process) designed to mitigate the environmental impacts of drilling operations.⁸⁹

The more limited control of activities at the post-lease stage causes the federal government to “front-load” the lease with many restrictions, conditions, and stipulations. But despite front-loading, the reality of federal onshore oil and gas leasing suggests a need for post-leasing environmental review. This is because it is impossible to predict before or even at lease issuance whether a lessee will ever proceed through any of the stages theoretically possible after lease issuance.

To understand the many uncertainties inherent in the lifecycle of federal onshore oil and gas leasing, the nine phases of the entire lifecycle are set out below. The first column lists, in roughly sequential order, the actions that may, but not necessarily will, be taken by the lessee. The second column sets out the actions that may be taken by the federal government (BLM or the Forest Service) in conjunction with the lessee’s action. To appreciate the difficulty in forecasting the environmental consequences of federal oil and gas leasing, one need only realize that none of the stages described below inevitably follows from the previous stage.

84. BLM and Forest Service regulations require the APD to separate the surface use program into a “drilling plan” and a “surface use plan of operations.” 43 C.F.R. § 3162.3-1 (1989) (BLM); 36 C.F.R. §§ 228.104-108 (1990) (Forest Service).

85. 43 C.F.R. § 3162.3-1(h)(1) (1989); 36 C.F.R. § 228.107(b)(2)(ii) (1990).

86. *Sun Oil Co. v. United States*, 572 F.2d 786, 818 (Ct. Cl. 1978); *Continental Oil Co. v. United States*, 184 F.2d 802, 807 (9th Cir. 1950).

87. *Union Oil v. Morton*, 512 F.2d 743, 747 (9th Cir. 1975).

88. See *Boesche v. Udall*, 373 U.S. 472 (1963); *Copper Valley Mach. Works v. Andrus*, 653 F.2d 595 (D.C. Cir. 1981).

89. *Sierra Club v. Peterson*, 717 F.2d at 1414.

<i>Action by Lessee:</i>	<i>Action by Government:</i>
Action 1: Preliminary exploration. ⁹⁰	Action 1: Development of a land management plan. ⁹¹
Action 2: Decision to submit lease application. ⁹²	Action 2: Identification of lands available to lease and lease decision. ⁹³
Action 3: Lease award. ⁹⁴	Action 3: Lease issuance by BLM. ⁹⁵
Action 4: Geological and geophysical prospecting. ⁹⁶	Action 4: Seismic or other geophysical permitting. ⁹⁷
Action 5: Acquisition of surrounding leaseholds. ⁹⁸	Action 5: Lease issuance by BLM. ⁹⁹
Action 6: Exploratory drilling. ¹⁰⁰	Action 6: Grant of an APD. ¹⁰¹
Action 7: Discovery of oil and gas. ¹⁰²	Action 7: Grant of APDs for confirmation wells. ¹⁰³
Action 8: Full field development. ¹⁰⁴	Action 8: Grant of APDs for full field development of the leased area. ¹⁰⁵

90. Little or no surface disturbance occurs at this point. The likelihood of petroleum can be investigated by reviewing aerial photos, geological maps, or the results of neighboring leases containing drilling sites.

91. The plan is prepared pursuant to FLPMA (BLM lands) or NFMA (Forest System lands).

92. Submittal of an application to lease does not obligate the Interior Department to issue a lease. *See supra* notes 70-72 and accompanying text.

93. The decision to lease certain lands does not carry with it a decision to lease to any given lease applicant. Identification of lands available to lease may have occurred in the plan.

94. Acquisition of a lease gives a lessee a right to drill. *See supra* notes 88-89 and accompanying text.

95. Even after the Reform Act, oil and gas leases on Forest System lands are issued by the BLM.

96. This form of oil and gas exploration does not entail drilling, but does include such surface disturbing activities as recording seismic impulses from an explosive which generates a shock wave through the underlying geological formations.

97. *See* 43 C.F.R. § 3101-1.2 (1989) (surface use rights of lessee subject to "reasonable measures as may be required by the authorized officer to minimize adverse effects").

98. A lessee will acquire surrounding leaseholds to prevent reservoir drainage from adjacent wells not under the control of the lessee.

99. *See supra* note 101.

100. Drilling of a "wildcat" well will not occur until (1) a lease has been obtained, (2) preliminary investigations are favorable, and (3) a permit to drill has been acquired.

101. The APD will, with Forest System leases, include a surface use plan of operations. 36 C.F.R. §§ 228.106-.107 (1990).

102. If a wildcat well becomes a discovery well (a well that yields commercial quantities of oil or gas), additional development wells will be drilled to confirm the discovery and establish the extent of the field. If a well does not encounter oil or gas, it is plugged with cement and abandoned. If the well will produce, casing is run to the producing zone and cemented in place.

103. Every well drilled on a federal oil and gas lease is subject to an APD. When more than one well is drilled, each is subject to well-spacing requirements. 43 C.F.R. § 3162.3-1(a) (1989).

104. If confirmation wells suggest the presence of a large reservoir (a "barn burner"), multiple wells will be drilled on the lease site and on surrounding leaseholds, consistent with well-spacing rules, to efficiently drain the reservoir.

105. APDs for full field development typically include unitization proposals, as

Action 9: Abandonment.¹⁰⁶Action 9: Reclamation
requirements.¹⁰⁷

At the point where an oil and gas lease is awarded, no environmental damage has occurred. Lease issuance is largely a paper transaction. At full field development, with hundreds of drilling sites, the potential for environmental harm is high. But what is critical to recognize is that at the leasing stage (step #3), full field development (step #8) is an extremely tentative possibility. Put another way, *one cannot possibly know at the lease issuance stage whether there will be any post-leasing stage.*

As a practical matter, only one in ten leases is ever tested with an exploratory well. Of the 10% tested, only a tiny percentage of these will yield a commercially productive well.¹⁰⁸ Even if a well is commercially productive, the chances are no better than 50-50 that such a well will evidence a major reservoir, justifying the drilling of more wells for eventual full field development.¹⁰⁹ There are, then, two looming uncertainties inherent in the lifecycle of federal onshore oil and gas leasing. First, over *time* there is uncertainty (and unlikelihood) that any lease will ever result in drilling, or discovery of oil and gas, or full field development. Second, over *space* it is impossible to know the location or number of drilling sites within an area (e.g., a national forest) which could, in theory, affect the environment.

C. NEPA and the Reform Act

1. Pre-1988

Prior to passage of the Reform Act, the Forest Service had made three decisions about NEPA and oil and gas leasing on Forest System lands. Each decision was thought to reflect the reality of the federal onshore oil and gas leasing lifecycle.

The first of these was that a full EIS, considering all the impacts

well as plans for additional storage facilities, pipeline networks, and transportation corridors.

106. Field lifespans vary. An estimate of 15-25 years is used by the Forest Service to describe the average life of a typical field. Abandonment of individual wells may start early in a field life, and reach a maximum when the field is depleted. U.S. DEP'T OF AGRIC., FOREST SERVICE, BRIDGER-TETON NATIONAL FOREST LAND AND RESOURCE MANAGEMENT PLAN, Attachment Four at 50-51 (Dec. 11, 1989).

107. Well plugging and reclamation requirements vary with rock formations, subsurface water, well site, and the well. After plugging, the drilling rig is removed and the surface restored to the requirements of the APD.

108. In the Rocky Mountain area, the average ratio of exploratory wells drilled to viable discoveries is 50 to 1. Rocky Mountain Oil & Gas Ass'n v. Watt, 696 F.2d 734, 742 (10th Cir. 1982). Elsewhere, the ratio is ten to one. Park County Resource Council v. United States Dep't of Agric., 817 F.2d 609, 623 (10th Cir. 1987).

109. See Comment, *NEPA Compliance in Oil and Gas Leasing: Leasehold Segmentation and the Decision to Forego an Environmental Impact Statement*, 58 U. COLO. L. REV. 677, 685 n.50 (1988).

of site-specific drilling, should not be made at the time of decision to offer leases in certain areas, or at the time of lease issuance. Rather, the Forest Service assumed such an EIS could be deferred until the initial APD stage, when the Forest Service would be able to know that a lessee had determined that it was worthwhile to sink an exploratory well. At the APD stage, unlike the leasing stage, the Forest Service would know (1) if the lessee was going to drill (and have the potential to impact the environment), and (2) where on the lease the lessee would affect the surface. The second decision was to define the scope of the leasing action narrowly, so as to encompass primarily the leasing decision, but not the stages that might follow. This seemed like a reasonable approach in light of the high odds against any given lease ever proceeding to a post-lease stage, such as drilling, discovery, or full field development. The third decision was to presume that lease issuance itself had no significant impact on the environment. Therefore, comprehensive impact analysis of the leasing decision did not need to be made at the time of lease, but could be delayed until such time as the probability and location of the impacts could be better ascertained. That time would be at the initial APD stage.¹¹⁰

These Forest Service decisions about how NEPA should be interpreted regarding timing, scope, and impact analysis seemed consistent with what had been judicially approved for federal onshore oil and gas leasing programs,¹¹¹ federal coal leasing programs,¹¹² and federal offshore oil and gas leasing programs.¹¹³ The Forest Service approach seemed to avoid a "trivialization" of NEPA by requiring an EIS only in those cases where significant impacts were likely to occur, and not where impacts were highly speculative, abstract, and theoretical.¹¹⁴ The Forest Service also reasoned that the availability of pre-lease stipulations and post-leasing conditions (during the actual drilling phase) permitted it to adequately mitigate any on-the-ground environmental consequences of the leasing decision.¹¹⁵

Rather than try to predict the environmental consequences of its action at the lease issuance stage, the Forest Service chose to adopt a "tiered" or "staged" environmental review process for onshore oil and gas leasing. Tiering is an accepted method of NEPA compliance when

110. The Forest Service's decisions about NEPA and oil and gas leasing are summarized in *Sierra Club v. Peterson*, 717 F.2d at 1411-12; *Conner*, 848 F.2d at 1446-51.

111. *Park County Resource Council v. United States Dep't of Agric.*, 817 F.2d 609 (10th Cir. 1987); *County of Suffolk v. Secretary of Interior*, 562 F.2d 1368 (2d Cir. 1977), *cert. denied*, 434 U.S. 1064 (1978).

112. *Northern Plains Resource Council v. Lujan*, 874 F.2d 661 (9th Cir. 1989).

113. *North Slope Borough v. Andrus*, 642 F.2d 589 (D.C. Cir. 1980).

114. See *Cabinet Mountains Wilderness v. Peterson*, 685 F.2d 678, 682 (D.C. Cir. 1982); *Isaak Walton League of America v. Marsh*, 655 F.2d 346, 377 (D.C. Cir. 1981), *cert. denied sub nom. Atchison, Topeka & Santa Fe Ry. Co. v. Marsh*, 454 U.S. 1092 (1981). But see *Foundation on Economic Trends v. Heckler*, 756 F.2d 143, 160 (D.C. Cir. 1985); *Scientists' Inst. for Pub. Information*, 481 F.2d at 1092.

115. Of course, issuance of an NSO lease would obviate the need for most post-leasing conditions. See *supra* notes 78-80 and accompanying text.

an agency action proceeds over many stages, but where there is uncertainty about whether any particular stage will be reached. Tiering permits agencies to "focus on the actual issues ripe for decision at each level of environmental review."¹¹⁶ As applied to onshore oil and gas leasing, tiering entails a more general NEPA review for a leasing program over a wide area, coupled with front-loading leases with standard stipulations and conditions. Site-specific NEPA review and identification of particular mitigation measures in an EIS is delayed until the APD stage. It is at that time that the lessee actually decides to undertake exploratory operations in a localized area, or, upon discovery, seeks permission to conduct full field production.¹¹⁷

To the Forest Service, tiering seemed perfectly suited to the speculative nature of oil and gas leasing. Tiering was a judicially-approved course of conduct for federal onshore oil and gas leasing,¹¹⁸ and offshore oil and gas leasing.¹¹⁹ The courts had also accepted tiering as a way to avoid highly speculative and redundant EISs in the management of timber reserves on Forest System¹²⁰ and BLM lands.¹²¹

2. Post-1988

Two 1988 decisions of the Ninth Circuit crushed any illusions held by the Forest Service that it knew how to conform NEPA to oil and gas leasing in national forests. These two cases—*Conner v. Burford*¹²² and *Bob Marshall Alliance v. Hodel*¹²³—adopted the analysis of an earlier case decided by the D.C. Circuit—*Sierra Club v. Peterson*¹²⁴—holding that issuance of an oil and gas lease on national forest lands is the critical "point of commitment" triggering NEPA's EIS requirement. This is because, unless it is an NSO lease, the Forest Service may no longer totally preclude surface disturbing activities after lease issuance.¹²⁵ Neither the D.C. Circuit nor the Ninth Circuit were persuaded by the argument that an EIS should be delayed at lease issuance because the Forest Service could not foresee the envi-

116. 40 C.F.R. §§ 1502.20, 1508.28 (1990).

117. *Park County Resource Council*, 817 F.2d at 624.

118. *Id.*

119. *Village of False Pass v. Clark*, 733 F.2d 605 (9th Cir. 1984).

120. *Portland Audubon Soc. v. Lujan*, 884 F.2d 1233, 1238-39 (9th Cir. 1989), *cert. denied*, 110 S. Ct. 1470 (1990); *Big Hole Ranchers Ass'n v. United States Forest Service*, 686 F. Supp. 256, 260 (D. Mont. 1988); *Texas v. United States Forest Service*, 654 F. Supp. 296, 298 (S.D. Tex. 1987); *Sierra Club v. Block*, 576 F. Supp. 959, 964 (D. Or. 1983).

121. *Headwaters, Inc. v. Bureau of Land Management*, 684 F. Supp. 1053, 1055 (D. Or. 1988), *aff'd*, 914 F.2d 1174 (9th Cir. 1990).

122. 848 F.2d 1441 (9th Cir. 1988), *cert. denied sub nom.* Sun Exploration & Prod. Co. v. Lujan, 489 U.S. 1012 (1989).

123. 852 F.2d 1223 (9th Cir. 1988), *cert. denied sub nom.* Kohlman v. Alliance, 489 U.S. 1066 (1989).

124. 717 F.2d 1409 (D.C. Cir. 1983).

125. *Conner*, 848 F.2d at 1449; *Sierra Club v. Peterson*, 717 F.2d at 1412, 1414. See *supra* notes 86-89 and accompanying text.

ronmental consequences of leasing without site-specific proposals.¹²⁶ Said the *Conner* court: "The government's inability to fully ascertain the precise extent of the effects of oil and gas leasing in a national forest is not, however, a justification for failing to estimate what those effects might be before irrevocably committing to the activity."¹²⁷

Conner and *Bob Marshall* were decided at the same time the Reform Act elevated the Forest Service to a position equal to the BLM with regard to leasing National Forest System lands.¹²⁸ In the Reform Act, Congress prohibited BLM from issuing an oil and gas lease in national forests "over the objection of the Secretary of Agriculture."¹²⁹ In addition, the Reform Act required the Forest Service to regulate all surface-disturbing activities of leases in national forests.¹³⁰ Having largely deferred to the BLM on oil and gas leasing matters prior to 1987, the Forest Service in 1988 found itself facing twin obligations: (1) a new statutory duty to establish its own oil and gas leasing program; and (2) a series of cases requiring it to rethink its understanding of NEPA's and NFMA's relationship to federal onshore oil and gas leasing.¹³¹

Consider the legal questions that had to be resolved by the Forest Service after passage of the Reform Act: Should NFMA plans identify lands available to lease and make leasing decisions for these lands? Should eventual leasing decisions be consistent with NFMA plans? What point (or points) in the leasing process is the NEPA-triggering "point of commitment"? In light of the multi-staged nature of oil and gas leasing, where each stage depends on success at a previous stage, should NEPA review be early in time (pre-leasing), or only after post-leasing activities reveal the likelihood of development? Should some kind of environmental analysis take place at each of the above nine government decision points (assuming each has "independent utility")? Should environmental analysis be tiered? Should it be at one time, in one document (e.g., the plan)? At each drilling site? Should any environmental analysis take the form of an EIS, or an EA? Should this document consider indirect or cumulative environmental effects at early pre-drilling stages, when the realistic chances of development are so remote? And might the Forest Service be exempt from the pre-lease EIS obligation if it imposes mitigation conditions on

126. This argument was accepted by the court only when the Forest Service "reserves both the authority to *preclude* all activities pending submission of site-specific proposals and the authority to *prevent* proposed activities if the environmental consequences are unacceptable." *Sierra Club v. Peterson*, 717 F.2d at 1415. This is a description of an NSO lease. *Conner*, 848 F.2d at 1451.

127. *Conner*, 848 F.2d at 1450.

128. 30 U.S.C. § 226(h) (1988).

129. *Id.*; 43 C.F.R. § 3101.7-1(c) (1989).

130. 30 U.S.C. § 226(g) (1988). See generally Sansonetti & Murray, *A Primer on the Federal Onshore Oil and Gas Leasing Reform Act of 1987 and its Regulations*, 25 LAND & WATER L. REV. 375 (1990).

131. The Forest Service's difficulties in complying with NFMA are recounted in notes 62-64 and accompanying text, *supra*.

leasing (e.g., NSO stipulations) that avoid environmental damage which might otherwise occur?

IV. THE NEW FOREST SERVICE APPROACH TO OIL AND GAS LEASING

In March of 1990, the Forest Service issued its final regulations governing leasing for oil and gas within the National Forest System. These regulations are intended to accomplish the purposes of the Reform Act, and to put the Forest Service in compliance with NEPA and NFMA.¹³²

The 1990 regulations articulate four distinct phases of the Forest Service oil and gas leasing program: (1) development of a land use plan under NFMA; (2) identification of lands administratively available for leasing; (3) leasing decisions for specific lands; and (4) approval of a drilling permit and surface use plan of operation after receipt of an APD.¹³³

A. *The Four Phases of Oil and Gas Leasing on Forest System Lands*

1. The Plan

Forest plans are to be prepared for each national forest.¹³⁴ The plan establishes a management system for future decision-making by setting the land use and environmental requirements that govern the conduct of oil and gas operations on any lease, should leasing be eventually authorized.¹³⁵ While the decision regarding lands that are administratively *available* for leasing may be made in the forest plan, the decision to authorize the issuance of leases will normally not be made in the plan.¹³⁶

132. 55 Fed. Reg. 10,423 (1990).

133. 36 C.F.R. §§ 228.102-108 (1990). See generally U.S. DEP'T OF AGRIC., FOREST SERVICE, #90-13-60-0192, APPEAL OF THE BRIDGER-TETON NATIONAL FOREST LAND AND RESOURCE MANAGEMENT PLAN (Oct. 1, 1990) [hereinafter BRIDGER-TETON APPEAL]; U.S. GEN. ACCOUNTING OFFICE, GAO/RCED-90-71, FEDERAL LAND MANAGEMENT: BETTER OIL AND GAS INFORMATION NEEDED TO SUPPORT LAND USE DECISIONS 25 (June 1990).

Of these four phases, only the last three (availability of lands, leasing decision, and APD) are Forest Service "decisions" constituting appeal points. U.S. DEP'T OF AGRIC., FOREST SERVICE GUIDANCE TO REGIONAL FORESTERS FOR OIL AND GAS LEASING 3 (June 20, 1990) [hereinafter GUIDANCE TO REGIONAL FORESTERS].

134. There are 156 national forests.

135. 55 Fed. Reg. 10,430 (1990); U.S. DEP'T OF AGRIC., FOREST SERVICE, #2056, APPEAL OF THE CUSTER NATIONAL FOREST LAND AND RESOURCE MANAGEMENT PLAN 2 (Oct. 1, 1990) [hereinafter CUSTER APPEAL].

A plan does several things in providing a procedural framework for managing oil and gas activities: (1) forest multiple-use goals and objectives; (2) multiple use prescriptions; (3) monitoring and evaluation requirements; and (4) project and activity level decisions. BRIDGER-TETON APPEAL, *supra* note 133, at 6.

136. 55 Fed. Reg. 10,429, 10,432 (1990). See also CUSTER APPEAL, *supra* note 135, at 7; BRIDGER-TETON APPEAL, *supra* note 133, at 7, 9. But see GUIDANCE TO REGIONAL FORESTERS, *supra* note 133, at 2, noting that one "option is to make *both* the administrative availability decisions *and* the leasing decision for specified lands in the ROD

The new regulations assume that if the decision to identify lands administratively available for leasing is not made in the plan, then there has been neither a "decision" nor an "irretrievable commitment" to leasing that triggers full NEPA review.¹³⁷ Nevertheless, the preamble to the regulations, as well as the Forest Service's NFMA regulations, assume just the opposite—that preparation of a forest plan must also entail preparation of an EIS.¹³⁸ Case law also requires that NFMA plans conform to NEPA.¹³⁹ Therefore, the forest plan will surely be accompanied by a NEPA-sufficient EIS.

The plan has two important effects. First, any decision to permit oil and gas leasing for specific lands must be consistent with the plan.¹⁴⁰ Second, the plan is intended to have a legal impact that is independent of any previous plan or regulation that may have been applied to a lessee. Consider this language from the preamble to the new regulations:

If there is a conflict between the rights conveyed by an oil and gas lease and a subsequently adopted forest land and resource management plan, the authorized Forest officer may choose to enforce that forest plan, recognizing that this may subject the Government to appropriate legal action by the lessee¹⁴¹

2. Lands Administratively Available for Leasing

The new regulations provide that the Forest Service will identify those lands within national forests that it has concluded should be administratively available for leasing.¹⁴² This is part of a "leasing analysis" which consists of locating on maps those areas that will be (1) open to development subject to the terms and conditions of the standard oil and gas lease form, (2) open to development subject to lease stipulations which may prohibit surface uses (NSO leases), or (3)

[record of decision] for the Forest Plan." Moreover, this guidance document "strongly recommends against selecting" the option that makes only the availability decision in the plan. *Id.* at 2-3.

137. CUSTER APPEAL, *supra* note 135, at 9; U.S. DEP'T OF AGRIC., FOREST SERVICE, OUR APPROACH TO OIL AND GAS: DESK REFERENCE, NORTHERN REGION—JULY, 1990 4 [hereinafter DESK REFERENCE, NORTHERN REGION] ("during the integrated resource analysis phase (NFMA) . . . there is no decision . . . that requires a NEPA decision document"); Idaho Conservation League v. Mumma, No. 88-197, slip. op. at 16 (D. Mont., Aug. 8, 1990) ("the [plan] does not make an irretrievable commitment of resources"). The preamble to the new regulations implies that there will be some "environmental document(s) that . . . accompany a forest . . . plan." 55 Fed. Reg. 10,430 (1990).

138. 55 Fed. Reg. 10,429 (1990) ("the record of decision for a forest plan and its accompanying environmental impact"); 36 C.F.R. §§ 219.10(b), (c)(1), 219.12(a) (1989).

139. See *supra* note 63.

140. 36 C.F.R. § 228.102(e)(1) (1990); 55 Fed. Reg. 10,430, 10,435 (1990); GUIDANCE TO REGIONAL FORESTERS, *supra* note 133, at 3.

141. 55 Fed. Reg. 10,435 (1990).

142. 36 C.F.R. § 228.102(d) (1990).

closed to leasing.¹⁴³ A decision to make lands administratively unavailable for leasing is tempered by the requirement that alternatives be considered prior to making this decision.¹⁴⁴ Although such a decision risks challenge for making an illegal *de facto* withdrawal of those areas from the operation of the mineral leasing laws,¹⁴⁵ case law suggests that a decision to refuse to permit oil and gas leasing in an area is within the discretion of the federal government.¹⁴⁶

The administratively available determination may be in a forest plan, plan amendment or revision, or document separate from the plan.¹⁴⁷ If the determination is made separate from the plan, it must also be analyzed in NEPA documents that are different than those that accompany the plan.¹⁴⁸ This is because the administratively available determination is a discrete, appealable decision point.¹⁴⁹ These NEPA documents must consider the "reasonable foreseeable impacts of the projected [post-leasing] operations on the lands that would be made administratively available."¹⁵⁰

3. Leasing Decisions for Specific Lands

The leasing decision for specific lands is where the Forest Service authorizes the BLM to offer specific lands for lease; it is therefore the final appealable decision by the Forest Service before BLM leases parcels.¹⁵¹ The leasing decision not only encompasses leasing, but also all post-leasing activities, including projected exploration, development, and production of the lease.¹⁵² While the Forest Service may make the leasing decision on any or all lands administratively available for lease, it need not make the leasing decision for all lands administratively available.¹⁵³

The leasing decision is for site-specific "tracts" of land.¹⁵⁴ Such

143. *Id.* § 228.102(c).

144. *Id.* § 228.102(c)(2).

145. *See Mountain States Legal Found. v. Hodel*, 668 F. Supp. 1466 (D. Wyo. 1987).

146. *Udall v. Tallman*, 380 U.S. at 4; *McLennan v. Wilbur*, 283 U.S. at 419; *CUSTER APPEAL*, *supra* note 135, at 12.

147. 55 Fed. Reg. 10,429 (1990). *See also* U.S. DEP'T OF AGRIC., FOREST SERVICE, QUESTIONS AND ANSWERS, "OUR APPROACH TO OIL AND GAS LEASING," NORTHERN REGION 2 (July 1990) [hereinafter QUESTIONS AND ANSWERS]. The regulations permit this separate document to be "through preparation of NEPA documents." 36 C.F.R. § 228.102(c) (1990).

148. 55 Fed. Reg. 10,429 (1990).

149. *DESK REFERENCE, NORTHERN REGION*, *supra* note 137, at 6; *GUIDANCE TO REGIONAL FORESTERS*, *supra* note 133, at 3.

150. 36 C.F.R. § 228.102(c)(4) (1990). Lands that are made administratively available in documents that are NEPA-adequate are then subject to specific parcel identification.

151. 36 C.F.R. § 228.102(e) (1990).

152. *Id.* § 228.102(c)(3), (4); 55 Fed. Reg. 10,429 (1990); *DESK REFERENCE, NORTHERN REGION*, *supra* note 137, at 5.

153. *QUESTIONS AND ANSWERS*, *supra* note 147, at 3-4.

154. 55 Fed. Reg. 10,429 (1990).

tracts probably equate to the parcels that the BLM puts up for lease sale.¹⁵⁵ The Reform Act provides that these parcels shall be "in units of not more than 2,560 acres, except in Alaska, where units shall not be more than 5,760 acres."¹⁵⁶ A leased "tract" may be much larger in size than an individual well site somewhere on the tract; if the tract is sufficiently large, there may be several potential well sites.¹⁵⁷

The Forest Service agrees with the conclusion reached in *Sierra Club v. Peterson* and *Conner v. Burford* that, except with NSO leases, it may not disallow future surface disturbing activities reasonably necessary for a lessee to exercise lease rights.¹⁵⁸ Therefore, in terms of NEPA, the leasing decision for specific lands is the "irreversible and irretrievable commitment of resources" to lease lands. The Forest Service must find that oil and gas leasing of the specified lands "has been adequately addressed in a NEPA document If NEPA has not been adequately addressed . . . additional environmental analysis shall be done before a leasing decision for specific lands will be made."¹⁵⁹ The Forest Service may not defer NEPA compliance until there is a lessee-generated application to permit on-the-ground operations;¹⁶⁰ rather, the Forest Service must comply with NEPA in deciding whether to authorize leasing.¹⁶¹

Significantly, the new regulations do not include the requirement that all leases for National Forest System lands include a "standard" stipulation reserving the authority to deny all operations on the lease. Unlike an NSO stipulation, which imposes as an up front condition that no surface disturbing activities are permitted, this standard stipulation simply and crudely reserves the right to forbid any kind of activity, should the activity be thought to threaten the environment.

The standard stipulation would have allowed the Forest Service to engage in "staged" NEPA compliance, where environmental analysis of future lease operations is postponed at the time a decision is made to issue a lease. The new regulations specifically reject use of

155. QUESTIONS AND ANSWERS, *supra* note 147, at 3, 6.

156. 30 U.S.C. § 226(b)(1)(A) (1988). While the Reform Act puts a maximum limit on the size of the lease parcels sold to lessees, in practice very small parcels may be leased—sometimes less than an acre.

157. Four variables affect the number of wells on a tract: (1) the size and shape of the underground reservoir; (2) the surface conditions (e.g., wildlife and topographical features); (3) well-spacing rules; and (4) the size of the tract. Well density on a tract will rarely exceed one well every 50 acres.

158. 55 Fed. Reg. 10,430 (1990) ("oil and gas operations for the benefit of the lease could be allowed somewhere on the lease unless stipulations prohibiting all surface occupancy are to be used"); *DESK REFERENCE, NORTHERN REGION, supra* note 137, at 7 ("the decision is the decision to permit development unless surface occupancy and development is totally precluded by stipulation.") See *supra* notes 122-125 and accompanying text.

159. 36 C.F.R. § 228.102(e)(1) (1990).

160. *But see Park County Resource Council*, 817 F.2d at 622 (EIS can await site-specific proposals to work the lease).

161. 55 Fed. Reg. 10,431 (1990); *BRIDGER-TETON APPEAL, supra* note 133, at 2.

this type of stipulation and this staged approach to NEPA compliance. The new regulations opt instead for a system where specific lands will not be allowed to be leased until “[1] appropriate environmental review indicates that . . . [2] development is possible somewhere on the lease.”¹⁶²

The leasing decision for specific lands is subject to two additional conditions that relate to two earlier stages of the oil and gas leasing process. First, the leasing decision must be consistent with the applicable forest plan.¹⁶³ Second, the leasing decision should ensure that all surface occupancy conditions previously identified in the “lands administratively available” document will be implemented through inclusion of appropriate stipulations in any lease issued.¹⁶⁴

4. Application for Permit to Drill (APD)

The final key decision point in the Forest Service’s oil and gas leasing program is reached when (and if) the lessee wishes to go beyond the acquisition-of-lease phase, to the drilling phase. The lessee must then submit an APD for approval prior to conducting lease operations. The APD must be submitted to the BLM, which then distributes it to the affected surface management agency (i.e., the Forest Service).¹⁶⁵ The new Forest Service regulations provide that the APD must include a “surface use plan of operations”¹⁶⁶ and assurances that the lessee will conduct operations consistent with several “surface use requirements.”¹⁶⁷

The surface use plan of operations must be sufficiently detailed to demonstrate that proposed drilling operations will be consistent with the forest plan.¹⁶⁸ The surface use plan and permit to drill may be conditioned to mitigate the adverse impacts of surface-disturbing activities.¹⁶⁹ However, because the regulations provide that a lease cannot be issued without determining that “operations and development be allowed somewhere on each proposed lease,”¹⁷⁰ conditions to the surface use plan or drilling permit cannot in effect prevent the lessee

162. 55 Fed. Reg. 10,430, 10,433 (1990). In making the leasing decision for specific lands the Forest Service must determine “that operations and development could be allowed somewhere on each proposed lease.” 36 C.F.R. § 228.102(e)(3) (1990).

163. 36 C.F.R. § 228.102(e)(1) (1990); 55 Fed. Reg. 10,430 (1990). The leasing decision itself should *not* be made in the plan. *Id.* at 10,432; BRIDGER-TETON APPEAL, *supra* note 133, at 9.

164. 36 C.F.R. § 228.102(e)(2) (1990). These conditions could also have been identified in the forest plan. 55 Fed. Reg. 10,430 (1990).

165. 43 C.F.R. § 3162.3-1 (1990).

166. 36 C.F.R. § 228.106 (1990).

167. *Id.* § 228.108. These requirements include protection of various resources, such as wildlife and wetlands.

168. 55 Fed. Reg. 10,435 (1990).

169. 36 C.F.R. § 228.107(b)(2)(ii) (1990); U.S. GEN. ACCOUNTING OFFICE, GAO/RCED-90-71, FEDERAL LAND MANAGEMENT: BETTER OIL AND GAS INFORMATION NEEDED TO SUPPORT LAND USE DECISIONS 30 (June 1990).

170. 36 C.F.R. § 228.102(e)(3) (1990).

from drilling somewhere on the lease. Nor can the surface use requirements halt all well drilling on the lease.

The regulations are explicit regarding the role of NEPA at the APD stage. Even though there must be NEPA compliance at the lease decision stage, there must also be NEPA compliance at the APD stage.¹⁷¹ The preamble to the regulations explains that—"the Forest Service [must] comply with NEPA before approving proposed surface disturbing operations. After reviewing a proposal to conduct operations, the Forest Service will prepare a site-specific environmental document that considers the reasonably foreseeable environmental consequences of the proposal."¹⁷²

If a lessee with a permit to drill wishes to drill additional exploratory or confirmation wells, or wells for full field development, then additional APDs must be submitted for each of these steps. New or supplemental surface use plans of operation must be provided for these subsequent operations, because they will cause additional surface disturbance.¹⁷³ At each APD stage—the initial exploratory well, additional exploratory wells, confirmation wells, full field development—NEPA-sufficient environmental review must be accomplished.¹⁷⁴

B. Forest Service Interpretation of the New Regulations

Read together, the new regulations and the preamble to the regulations state that NEPA requirements must be satisfied at each of the four phases of the Forest Service's oil and gas leasing program.¹⁷⁵ Taken to its logical extreme, the Forest Service's obsession with NEPA would mean that an EIS would have to be prepared at six points during the oil and gas leasing process:

- (1) forest plan;

171. *Id.* § 228.107(a); 55 Fed. Reg. 10,431 (1990) ("the law is clear that the Forest Service must comply with NEPA in deciding both whether to authorize leasing of National Forest System lands and whether to permit operations on those leases").

172. 55 Fed. Reg. 10,435 (1990).

173. 36 C.F.R. § 228.106(d) (1990).

174. BRIDGER-TETON APPEAL, *supra* note 133, at 4-5; QUESTIONS AND ANSWERS, *supra* note 147, at 9.

175. The four phases are: (1) the development of a forest plan ("and its accompanying environmental impact statement") 55 Fed. Reg. 10,429 (1990); (2) identifying lands administratively available ("rule requires the Forest Service to analyze the reasonably foreseeable environmental impacts") *id.* at 10,429; (3) making leasing decisions for specific lands ("if existing environmental documents are not adequate to satisfy NEPA, additional environmental documents will be prepared") *id.* at 10,430; and (4) complying with APD requirements ("rule requires that the Forest Service comply with NEPA before approving proposed surface disturbing operations") *id.* at 10,435.

The regulations found in the Code of Federal Regulations have binding effect upon agencies. The preamble to the regulations, found in the Federal Register, does not have legal effect, and instead serves as an explanation of how the agency wants its regulations to be interpreted.

- (2) availability analysis, if not part of the plan;
- (3) leasing decision for specific lands;
- (4) APD for initial exploratory wells;
- (5) APD for confirmation wells;
- (6) APD for full field development.

In recognition of this frightening prospect, the Forest Service has attempted to offer alternatives to EIS saturation. The regulations and preamble intentionally avoid requiring an EIS at each of the above stages of oil and gas leasing. Instead, the regulations ambiguously speak in terms of NEPA compliance through preparation of "NEPA documents."¹⁷⁶ The preamble refuses to make a "determination as to what environmental documents must be prepared."¹⁷⁷ This opens the possibility for a less comprehensive EA to become the appropriate environmental document at any given leasing stage.¹⁷⁸

It would likely be a mistake to rely on an EA at the leasing for specific lands stage. *Conner v. Burford*, the case most relied upon by the Forest Service, states that "the government violated NEPA by selling non-NSO leases without preparing an EIS."¹⁷⁹ The Forest Service's Northern Region concurs that an EIS must be prepared at the lease decision stage. Moreover, the Northern Region assumes that this EIS must be "an analysis of the site-specific and cumulative effects resulting from the development of oil and gas resources and associated access facilitating drilling and transportation of products and people on specific lands."¹⁸⁰

If reliance on EAs is not viable, another way to avoid a flurry of EISs is to "tier" the environmental analyses at subsequent stages to a previously prepared EIS. As noted above,¹⁸¹ tiering eliminates repetitive discussions of the same issues, and permits subsequent environmental statements to focus only on those matters ripe for review. The regulations seem to permit tiering, or even the elimination altogether of additional NEPA review, so long as "NEPA has . . . been adequately addressed" in some earlier prepared EIS.¹⁸² Forest Service

176. 36 C.F.R. §§ 228.102(c), (e)(1) (1990).

177. 55 Fed. Reg. 10,431 (1990).

178. See U.S. DEP'T OF AGRIC., FOREST SERVICE, PROPOSED STRATEGY FOR MITIGATING PERSIAN GULF SITUATION 5 (Sept. 12, 1990) (internal document) ("request CEQ to . . . allow us to do EAs instead of EISs for leasing regardless of whether there was potential for significant impacts").

179. *Conner*, 848 F.2d at 1450.

180. QUESTIONS AND ANSWERS, *supra* note 147, at 3, 7; DESK REFERENCE, NORTHERN REGION, *supra* note 137, at 26-27.

181. 40 C.F.R. § 1502.20 (1990). See also *supra* notes 116-121 and accompanying text.

182. 36 C.F.R. § 228.102(e)(1) (1990). See also QUESTIONS AND ANSWERS, *supra* note 147, at 1, 9 ("the [administratively available and leasing] decisions are analyzed . . . in . . . documents tiered to the Forest Plan EIS"); (environmental effects of an APD can "tier to the prior oil and gas leasing EIS"); CUSTER APPEAL, *supra* note 135, at 4

headquarters in Washington, D.C. has advised the regions to analyze both the administrative availability decision and the leasing decision in "the same decision document" so that there is only one environmental analysis. "This will eliminate the need to prepare a second round of environmental documents."¹⁸³

Although either tiering or combining decision documents will likely reduce the number of EISs that are needed during the leasing process, both techniques require the Forest Service to engage in rampant speculation about the environmental impacts associated with places (e.g., drilling sites) and events (e.g., a lessee's decision to drill).¹⁸⁴ The Forest Service must guess (1) whether an area has the potential to contain oil and gas, (2) whether that area has the potential to be developed by a lessee, and (3) whether that development will, in some way, affect the environment.¹⁸⁵

As noted previously,¹⁸⁶ the inherently uncertain nature of oil and gas leasing makes it impossible to know at the pre-leasing or leasing stages whether, when, or where a lessee will sink a well and disturb the environment. How then can the Forest Service project the type, location, and amount of post-leasing activity that is likely to occur as a consequence either of making lands available for lease, or of making a leasing decision? And how can the Forest Service make this determination on a *site-specific* basis when it develops the forest plan, or identifies lands administratively available, or makes the leasing decision for specific lands?¹⁸⁷

C. Consequences of the New Regulations

Perhaps the most striking feature of the new regulations is that they insist upon adequate environmental documentation and analysis both geographically and chronologically. Geographically, NEPA must be satisfied for every forest, every management area for lands made administratively available for leasing within a national forest, every lease tract, and every drilling site.¹⁸⁸ Chronologically, the Forest Ser-

("the EIS for the forest plan may be sufficiently detailed to allow the leasing decision for specified lands to be made without further NEPA analysis").

183. GUIDANCE TO REGIONAL FORESTERS, *supra* note 133, at 2. "We also would strongly recommend against . . . requir[ing] more than one pre-lease environmental document . . ." *Id.* at 3.

184. This speculation is acknowledged in QUESTIONS AND ANSWERS, *supra* note 147, at 4; DESK REFERENCE, NORTHERN REGION, *supra* note 137, at 12.

185. This guesswork is acknowledged in the regulations as the "reasonably foreseeable" development [RFD] scenario, which requires analysis of all reasonably foreseeable impacts of post-leasing activity. 36 C.F.R. §§ 228.102(c)(3), (4) (1990).

186. See *supra* notes 90-109 and accompanying text.

187. "It is fully recognized that the forecast of specific drilling pad and access road locations is highly speculative and subject to considerable error, but it is absolutely necessary to make this site-specific RFD scenario forecast in order to permit a site-specific estimate of the effects of this exploration, development, and production activity." DESK REFERENCE, NORTHERN REGION, *supra* note 137, at 15.

188. See 55 Fed. Reg. 10,429, 10,435 (1990) (compliance with NEPA needed for

vice must comply with NEPA during virtually every stage of development that may, but not necessarily will, arise during the lifecycle of the leasing process.¹⁸⁹

It is true that the regulations intentionally leave open the issue of whether an EA or an EIS will satisfy NEPA.¹⁹⁰ They also do not call for the preparation of "additional environmental documents" at any given stage "if existing environmental documents satisfy NEPA."¹⁹¹ However, both case law and Forest Service regulations suggest that *an EIS may have to be prepared during each of the four key phases of the Forest Service's oil and gas leasing program.*

First, at the forest plan stage, both NFMA regulations¹⁹² and the preamble to the new regulations¹⁹³ speak of an "EIS" that accompanies a forest plan. Second, at the stage where lands are made administratively available, the new regulations require preparation of a "reasonably foreseeable" development (RFD) scenario, which projects the environmental impacts of conducting a leasing program with post-leasing activities.¹⁹⁴ The RFD scenario is, and has been interpreted to be, the functional equivalent of an EIS.¹⁹⁵ Third, at the leasing decision for specific lands stage, *Conner v. Burford* holds that selling non-NSO leases "without preparing an EIS" is a violation of NEPA.¹⁹⁶ Fourth, at the APD stage, the Interior Board of Land Appeals (IBLA) has concluded that, unless an EIS has previously been prepared which analyzes the impacts of full field development, the filing of an APD for additional development wells triggers the need for "an EIS."¹⁹⁷ The Tenth Circuit has also warned that "an APD for a specific site may trigger the need for a broader-based EIS."¹⁹⁸

All this environmental review can only have one consequence,

"specific tracts of land" that the Forest Service proposes to lease; upon receipt of an APD containing a "proposal to conduct operations, the Forest Service will prepare a site-specific environmental document"); QUESTIONS AND ANSWERS, *supra* note 147, at 3 (at "the decision to lease" stage, "the NEPA analysis must be an analysis of the site-specific and cumulative effects resulting from the development of oil and gas resources").

189. See *infra* notes 192-198 and accompanying text.

190. 55 Fed. Reg. 10,431 (1990).

191. *Id.* at 10,430; 36 C.F.R. § 228.102(e)(1) (1990); QUESTIONS AND ANSWERS, *supra* note 147, at 4 ("assuming that the prior EIS adequately considered cumulative effects . . . then the agency would only have to verify that NEPA had been complied with").

192. 36 C.F.R. §§ 219.10(b), (c)(1), 219.12(a) (1990).

193. 55 Fed. Reg. 10,429 (1990).

194. 36 C.F.R. § 228.102(c)(3), (4) (1990).

195. See QUESTIONS AND ANSWERS, *supra* note 147, at 4-5; DESK REFERENCE, NORTHERN REGION, *supra* note 137, at 7-15.

196. *Conner*, 848 F.2d at 1450-51; accord, *Bob Marshall Alliance*, 852 F.2d at 1227 ("the agencies violated NEPA by failing to prepare an EIS for the non-NSO leases").

197. Michael Gold, 115 IBLA 218, 226 (July 12, 1990) (decision stayed pending review by the Secretary of Interior, Nov. 30, 1990).

198. *Park County Resource Council*, 817 F.2d at 623.

which is to further delay oil and gas leasing and development on Forest System lands. Even the Forest Service concedes that preparation of EISs under the new regulations may not be complete until 1995.¹⁹⁹ It thus seems that in its desire to satisfy the demands of courts and the Congress, the Forest Service has required excessive environmental analysis,²⁰⁰ in the form of repetitive, costly, time-consuming EISs,²⁰¹ which will serve only to continue the *de facto* moratorium on leasing that began in 1988.

V. WHY DID THE FOREST SERVICE ADOPT ITS PARTICULAR APPROACH TO OIL AND GAS LEASING?

One contemplating the likely consequences of the new regulations might presume that (1) the Forest Service had been captured by environmentalists, or (2) it simply did not wish to permit oil and gas leasing within Forest System lands. Rather than fix upon the seemingly obvious, perhaps one can find the true impetus for the regulations in the nature of the problem that needed to be solved, and the nature of the agency doing the solving.

The problem facing the Forest Service was to promulgate oil and gas leasing regulations which complied with NEPA and NFMA. The crux of the problem was integrating NEPA requirements into the unique nature of federal onshore oil and gas leasing. With uncertainties present both at every stage of the multi-stage leasing process and at particular sites within national forests, the Forest Service discovered that NEPA case law did not offer obvious answers to questions involving the timing, scope, or impact analysis needed. One important reason for the excessive environmentalism reflected in the regulations then lies not with the Forest Service, but with cases construing NEPA. As will be noted below, these cases provide maddeningly unclear and inconsistent guidance on how to address a multi-staged government action like oil and gas leasing. The Forest Service could not have known how best to apply NEPA, because NEPA case law typically offers more than one acceptable approach.

Another explanation for the approach taken by the regulations is found in the nature of the Forest Service. As will also be discussed below, the regulations were shaped in part by the institutional character of the Forest Service, as well as the context in which it operated in

199. U.S. DEP'T OF AGRIC., FOREST SERVICE, PROPOSED STRATEGY FOR MITIGATING PERSISTENT GULF SITUATION 1 (Sept. 12, 1990) (internal document).

200. *Id.* "Offices [of the Forest Service] may be undertaking preparation of EISs that are excessive, i.e., in our desire to improve documents we are erring on the side of doing too much, rather than too little." *Id.*

201. See Ackerman, *Observations on the Transformation of the Forest Service: The Effects of NEPA on Forest Service Decision Making*, 20 ENVTL. L. 703, 711 (1990); Comment, *Onshore Oil and Gas Leasing on Public Lands: At What Point Does NEPA Require the Preparation of an Environmental Impact Statement?*, 25 SAN DIEGO L. REV. 161, 189-90 (1988).

the 1988-1990 period.

A. *The Absence of Guidance in NEPA Case Law*

As noted in Part III,²⁰² federal onshore oil and gas leasing raises three NEPA-related questions: (1) the timing of environmental review; (2) the scope of the activity proposed; and (3) the impacts that must be discussed. Unfortunately, existing pertinent case law serves only to confuse, not clarify.

1. Timing

As applied to federal onshore oil and gas leasing, the timing question gives rise to two related issues. First, when should an EIS be prepared during the lifecycle of oil and gas leasing? At some pre-lease point? At lease sale? When post-leasing development is contemplated? Second, is the promise of a subsequent EIS sufficient to excuse the absence of an EIS at an earlier stage?

a. *When Should an EIS Be Prepared?* For a large scale, multi-step project, the first question is ascertaining when an EIS should be prepared to measure the project's environmental impact.²⁰³ Site-specific impacts should be evaluated early, before there is a "critical decision" to act on site development.²⁰⁴ Such a decision is reached when the agency proposes to make an "irreversible and irretrievable commitment of the availability of resources" to a project at a particular site.²⁰⁵ The cases seem to define this critical decision and point of commitment as the time when the agency still retains a maximum range of options,²⁰⁶ including, most importantly, the no action alternative.²⁰⁷ An EIS should be performed before the no action alternative is lost; otherwise, the agency cannot entirely preclude environmentally damaging activities.²⁰⁸

The Forest Service realized that the time when the no action alternative is lost is at the lease stage. But the time when environmental damage occurs is at the post-lease, APD stage. An EIS thus seems

202. See *supra* notes 44-53 and accompanying text.

203. *County of Suffolk*, 562 F.2d at 1378.

204. *Save the Yaak Comm. v. Block*, 840 F.2d 714, 718 (9th Cir. 1988); 40 C.F.R. § 1502.5 (1990); *California v. Block*, 690 F.2d at 761; *Sierra Club v. Hathaway*, 579 F.2d 1162, 1168 (9th Cir. 1978).

205. *Environmental Defense Fund v. Andrus*, 596 F.2d 848, 852 (9th Cir. 1979). See 40 C.F.R. §§ 1502.5 (go/no go stage), 1508.23 (agency has a goal and is actively preparing to make a decision) (1990).

206. *Conner*, 848 F.2d at 1446; *Thomas v. Peterson*, 753 F.2d 754, 760 (9th Cir. 1985); *Sierra Club v. Peterson*, 717 F.2d at 1414; *California v. Block*, 690 F.2d at 763; *National Wildlife Fed'n v. Appalachian Reg. Comm'n*, 677 F.2d at 891; *Port of Astoria v. Hodel*, 595 F.2d 467, 479 (9th Cir. 1979).

207. *Conner*, 848 F.2d at 1451.

208. *Id.* at 1450; *Sierra Club v. Peterson*, 717 F.2d at 1414; *County of Suffolk*, 562 F.2d at 1377-78.

warranted at both stages. Judicial opinions applying NEPA to federal oil and gas leasing provide inconsistent guidance on this timing issue.

For offshore leasing, the Supreme Court in *Secretary of Interior v. California*,²⁰⁹ stated, in dictum, that NEPA requirements "must be met" at the lease sale stage, even while conceding that "the purchase of a lease entails no right to proceed with full exploration, development, or production."²¹⁰ The United States Courts of Appeals for the Ninth,²¹¹ District of Columbia,²¹² and Second Circuits²¹³ have focused on the "no right to proceed" reality of an offshore lease. For these circuits, the critical fact about an offshore lease is that, unlike an onshore lease, it does not provide lessees with any development rights. As a result, despite the Supreme Court's admonition in *Secretary of Interior* that NEPA requirements are to be "met" at lease sale, these circuits have all held that an EIS for offshore leases at lease sale is premature. They have concluded that EISs are more appropriate when environmental impact analysis is not speculative, which is at "the later exploration, production, and development stages."²¹⁴

The decision by these lower courts to defer full EIS review until some post-lease sale stage is explainable in part by the Outer Continental Shelf Lands Act.²¹⁵ This Act provides that for offshore leases, the lease sale itself is only a preliminary and relatively self-contained stage within an overall oil and gas development program. Under the Act, a lessee needs substantive approval and review prior to implementation of the potentially environmentally threatening exploration and development stages. For offshore leasing, then, the lease sale is indeed a purely "paper transaction." This scheme is different than that applicable to onshore leasing, where, without an NSO stipulation, the lessee is entitled to undertake some surface disturbing activities upon lease issuance.²¹⁶

Nevertheless, another underlying rationale for the decision to delay EIS review in the case of offshore leasing might equally be applicable to onshore leasing. These lower courts considering offshore leasing concluded that the lease sale phase presented a record of facts and doubts that had not yet fully matured. With no assurance that offshore drilling would ever take place, and without information regarding where oil might be discovered, or whether it would be in quantities sufficient to justify commercial development, there was thought to

209. 464 U.S. 312 (1984).

210. *Id.* at 338-39. The Court did not discuss the scope of NEPA analysis required at the lease sale stage.

211. *Tribal Village of Akutan*, 869 F.2d at 1192; *Village of False Pass*, 733 F.2d at 616.

212. *North Slope Borough*, 642 F.2d at 605.

213. *County of Suffolk*, 562 F.2d at 1380.

214. *Tribal Village of Akutan*, 869 F.2d at 1192; *California v. Watt*, 683 F.2d 1253, 1268 (9th Cir. 1982).

215. 43 U.S.C. §§ 1331-1356 (1988).

216. See *supra* notes 86-89 and accompanying text.

be too much uncertainty to warrant an EIS at the lease sale stage. These courts were unanimous in deciding that full EIS review should occur only after such information was available, at some post-lease sale stage.²¹⁷ A similar absence of information at the lease sale stage underlay the Forest Service's hesitation to prepare an EIS for onshore leases at that point.

The offshore leasing cases thus provide inconsistent guidance. The Supreme Court in the *Secretary of Interior* case stated that NEPA requirements must be satisfied at the lease sale stage. But lower federal courts have concluded that the speculative nature of post-leasing activities argues in favor of deferring EIS review until some post-lease stage.

Applicable law for onshore leasing provides equally poor guidance. The cases suggest three alternatives, but each suffers from a serious disability.

First, the Forest Service may issue NSO leases that absolutely forbid the lessee from occupying or using the surface of the leased land. Sale of an NSO lease has no effect on the environment, and as such, cannot be considered the go/no go point of commitment at which an EIS is required. The Ninth Circuit has concluded that sale of an NSO lease does not require preparation of an EIS.²¹⁸

There are, however, two problems with NSO leases. The NSO stipulation can be altered or removed, albeit with an EIS.²¹⁹ And NSO-type stipulations are thought to be unfair and perhaps even unconstitutional by the BLM. The BLM has argued that NSO stipulations deprive lessees of protectable property interests in their leaseholds by making their exploration and development so dependent on subsequent administrative approval.²²⁰

The second alternative is to issue non-NSO leases containing stipulations that require the lessee to obtain approval before undertaking any surface disturbing activity on the lease, but which do not authorize the Forest Service to preclude any activities proposed by the lessee. The District of Columbia Circuit has expressed concern that such stipulations permit the federal government only to "mitigate" environmental harm which may result. Because such non-NSO leases do not preclude surface disturbing activity, including drilling, the court has concluded that "the decision to lease is itself the point of irreversible, irretrievable commitment of resources—the point at

217. See *Tribal Village of Akutan*, 869 F.2d at 1192; *Village of False Pass*, 733 F.2d at 616; *North Slope Borough*, 642 F.2d at 606; *County of Suffolk*, 562 F.2d at 1378-80.

218. *Conner*, 848 F.2d at 1448.

219. *Id.*

220. See 14 Pub. Land News No. 1, at 1 (Jan. 5, 1989); see generally, Coggins & Van Dyke, *NEPA and Private Rights in Public Mineral Resources: The Fee Complex Relative?*, 20 ENVTL. L. 649, 668-69 (1990).

which NEPA mandates that an [EIS] be prepared."²²¹

However, while this alternative of an EIS for a non-NSO lease at the lease sale stage might satisfy NEPA (and the D.C. Circuit), the Forest Service feared that it could not prepare an adequate EIS at that stage. This was because, without a site-specific proposal, it could not foresee and evaluate the environmental consequences of leasing.

The third alternative is to prepare an EA at the lease sale stage, and to issue leases with sufficient lease stipulations aimed at protecting the environment. This alternative permits deferral of full EIS review when a decision is being made on issuing a lease, provided that lease stipulations ensure that authority is retained to (1) preclude surface disturbing activities pending submission of site-specific operating proposals, and (2) prevent proposed operations if their environmental consequences are unacceptable.

This third approach was acceptable to the Tenth Circuit,²²² but not to the Forest Service. In the preamble to the new regulations the Forest Service concluded that this alternative would substantially devalue leases, and reverse the proper order of environmental review.²²³

Faced with these three unsatisfactory alternatives, the Forest Service hoped that the Supreme Court would resolve the conflict in the courts, and identify the acceptable approach. Unfortunately, the Court refused to offer such guidance when it denied certiorari in the *Conner v. Burford* case.²²⁴ The Forest Service then decided that the best tact was an extremely conservative one, and one that erred on the side of environmental caution. As a result, the Forest Service regulations adopt the *Secretary of Interior* rationale (NEPA must be satisfied at lease sale stage), and the holdings of the Ninth and D.C. Circuits calling for "up-front" EISs for onshore leasing. However, case law from both offshore and onshore leasing would have justified a decision to defer EIS preparation until the APD stage.

b. Does the Promise of a Site-Specific EIS Excuse Failure to Prepare An EIS at the Lease Stage? Again, the courts seem divided on this question. One line of cases holds that subsequent site-specific EISs are "meaningless" if at an earlier stage the agency loses the no action alternative.²²⁵ This reasoning was similarly used in *Conner v. Burford* when the Court rejected the Forest Service's argument for

221. *Sierra Club v. Peterson*, 717 F.2d at 1412. *But see* *Cabinet Mountains Wilderness v. Peterson*, 685 F.2d at 682 (no significant impacts under NEPA if mitigation measures "completely compensate" for the adverse effects of the proposal).

222. *Park County Resource Council v. United States Dep't of Agric.*, 817 F.2d at 621-23.

223. "[C]omprehensive environmental analysis [should] be performed to ensure that leases were not issued for lands that further analysis would reveal were inappropriate for leasing and oil and gas operations." 55 Fed. Reg. 10,433 (1990).

224. *Cert. denied sub. nom. Sun Exploration & Production Co. v. Lujan*, 489 U.S. 1012 (1989).

225. *California v. Block*, 690 F.2d at 763; *Thomas v. Peterson*, 753 F.2d at 760.

postponing EISs until the APD stage.²²⁶ Concern about reliance on later-in-time EISs, or supplements to an existing EIS, has also been raised by the United States Supreme Court.²²⁷

Yet other cases accept the premise that EISs should be postponed until some site-specific development stage, when environmentally damaging impacts are more probable.²²⁸ These cases seem to require some certainty linking the federal action (e.g., leasing) to environmental harm (e.g., well drilling).²²⁹ Since leasing does not inevitably lead to exploratory drilling, indeed, since leasing rarely results in exploratory drilling,²³⁰ such a link is missing at the lease stage.

In its new regulations the Forest Service has chosen to reject this latter line of cases. Instead, it has opted for the up-front EIS approach at the lease sale stage,²³¹ to be supplemented by subsequent EISs at the site-specific APD stage.²³²

2. Scope

For federal onshore oil and gas leasing, the scope of the NEPA action has both a chronological and spatial dimension. Chronologically, the question is whether the lifecycle of the leasing process should be considered as a whole, including those stages that may never materialize (e.g., post-leasing exploration and development), or whether the stages should be segmented and reviewed independently as they arise. Spatially, the issue is the extent to which NEPA review should be broad-based, encompassing a wide area, or very site-specific, or some combination of both.

a. Chronological Scope: Lumpers v. Splitters. Given the conflicting nature of NEPA case law, it should not be surprising that the courts permit agencies facing a multi-staged proposal both to "lump" the many sequential stages into a single action, and to "split" these stages into separate, segmented components. Lumping the stages to-

226. *Conner*, 848 F.2d at 1449-51 (the government's right to regulate, rather than preclude, surface-disturbing activities does not obviate the need for an EIS at the lease sale stage).

227. *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 370-78 (1989). See also *Headwaters, Inc.*, 914 F.2d at 1176-77; 40 C.F.R. § 1502.9(c)(1) (1990).

228. *Tribal Village of Akutan*, 869 F.2d at 1192. "[T]he lease sale stage for off-shore leasing is unlikely to result in environmental damage, because a lease sale 'does not directly mandate further activity' . . ." *Id.* (quoting *Village of False Pass*, 733 F.2d at 616); *North Slope Borough*, 642 F.2d at 606 ("uncertainty over remote hazards can be rectified as more information is collected").

229. *Sierra Club v. Hathaway*, 579 F.2d at 1168 ("an agency can only be required to analyze specific actions of known dimensions"); *Park County Resource Council*, 817 F.2d at 622.

230. See *supra* notes 108-109 and accompanying text (only one in ten leases is ever tested with an exploratory well).

231. 55 Fed. Reg. 10,433 (1990).

232. See *Park County Resource Council*, 817 F.2d at 624 n.5 ("if oil or gas is found and development undertaken, an EIS is clearly required").

gether is required when they are deemed to be "connected actions." Case law and NEPA regulations promulgated by the United States Council on Environmental Quality (CEQ) require connected actions "to be considered together in a single EIS."²³³ Moreover, lumping is mandated by case law and CEQ regulations "where several actions have a cumulative or synergistic environmental effect."²³⁴ A cumulative impact is the impact on the environment that results from "the incremental impact of the action when added to . . . reasonably foreseeable future actions . . ." ²³⁵ Connected actions which have cumulative impacts should be discussed in the same EIS.²³⁶

On the other hand, splitting the stages into separate parts is permitted so long as (1) the stages are substantially "independent" of each other, and (2) the splitting does not contravene the "rule against segmentation." Stages of an agency action display independent utility when any given stage is not dependent upon subsequent stages.²³⁷ The rule against segmentation is violated when an agency segments an overall plan into smaller parts, involving action with less significant environmental effects, in order to avoid designating the project a major federal action triggering NEPA.²³⁸ Conversely, the rule is not violated when the stages are not interdependent,²³⁹ and when they have separate, independent viability, and are not components or increments of a larger project.²⁴⁰

Is federal onshore oil and gas leasing more suitable for lumping or splitting? There probably is no one correct response to this question,

233. 40 C.F.R. § 1502.4(a) (1990). CEQ regulations define connected actions as those that are "closely related," or are "interdependent parts of a larger action." *Id.* § 1508.25(a)(1)(iii). See *Northern Plains Resource Council v. Lujan*, 874 F.2d at 666; *Save the Yaak Comm.*, 840 F.2d at 719; *Big Hole Ranchers Ass'n*, 686 F. Supp. at 261; *Thomas v. Peterson*, 753 F.2d at 758-59; *Sierra Club v. Ass'n*, 507 F.2d at 790-91.

234. *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1312 (9th Cir. 1990); see also *Kleppe v. Sierra Club*, 427 U.S. 390, 409-10 (1976); *Northwest Indian Cemetery Protective Ass'n v. Peterson*, 764 F.2d at 588; *North Slope Borough*, 642 F.2d at 600. See 40 C.F.R. § 1508.7 (1990). Lumping is also encouraged to avoid redundancy. *National Wildlife Fed'n v. Coston*, 773 F.2d 1513, 1518-19 (9th Cir. 1985).

235. 40 C.F.R. § 1508.7 (1990).

236. *Id.* § 1508.25(a)(2).

237. See *Trout Unlimited v. Morton*, 509 F.2d 1276, 1285 (9th Cir. 1974); *Village of False Pass*, 733 F.2d at 614; *National Wildlife Fed'n v. Appalachian Regional Comm'n*, 677 F.2d at 891; *Lange v. Brinegar*, 625 F.2d 812, 815-16 (9th Cir. 1980).

CEQ regulations permit agency "proposals" to be evaluated "by stage." 40 C.F.R. § 1502.4(c)(3) (1990).

238. See *Taxpayers Watchdog v. Stanley*, 819 F.2d 294, 298 (D.C. Cir. 1987) (rule against segmentation developed to ensure that interrelated projects, the overall effect of which may be environmentally significant, not be artificially divided into smaller, less significant actions); *National Wildlife Fed'n v. Appalachian Regional Comm'n*, 677 F.2d at 890; *Susquehanna Valley Alliance v. Three Mile Island Nuclear Reactor*, 619 F.2d 231, 240 (3d Cir. 1980).

239. *Park County Resource Council*, 817 F.2d at 623.

240. *Swain v. Brinegar*, 542 F.2d at 368-70; *Trout Unlimited v. Morton*, 509 F.2d at 1285; *Sierra Club v. Stamm*, 507 F.2d at 792-93; *Sierra Club v. Callaway*, 499 F.2d 982, 987 (5th Cir. 1974).

and the courts, again, are divided in their answer.²⁴¹ For example, the lease and post-lease stages of oil and gas leasing may be viewed as being "connected," in that issuance of a lease gives rise to a legal right to engage in some post-lease surface-disturbing activities. Yet the lease and post-lease stages may also be viewed as having "independent utility," because the likelihood of *any* post-leasing activity is so remote.

A more Solomon-like resolution of the lumping-splitting dichotomy is to permit the stages of oil and gas leasing to be "tiered." As noted above,²⁴² tiering allows an agency to prepare a broad EIS at an early stage that discusses only in a general way issues not yet ripe (e.g., site-specific exploration and development). When and if these stages become ripe (e.g., when an APD is filed), later analysis can provide more narrow and detailed impact review by EIS supplement, EA, or an EIS that tiers to the original EIS.²⁴³ Tiering is judicially approved,²⁴⁴ and sanctioned by CEQ regulations.²⁴⁵ Prior to 1990, the Forest Service used tiering as the most NEPA-efficient way of addressing the environmental impacts of the uncertain oil and gas leasing process.²⁴⁶

The new regulations neither condone nor prohibit tiering. However, in light of (1) statements made in the preamble,²⁴⁷ (2) the regulations' reliance on *Conner v. Burford*,²⁴⁸ as well as (3) the likelihood of EISs being mandated at each of the four key leasing phases,²⁴⁹ tiering has probably been rejected by the Forest Service, even though it certainly appears to be a sensible approach to oil and gas leasing.

b. Spatial Scope: Environmental Review of Site-Specific Impacts. The other question involving NEPA "scope" is whether environmental review of onshore oil and gas leasing should be general, including broad expanses of Forest System land, or narrow and site-specific. The answer to this question is critical to the nature of impact review required of the Forest Service, because the scope of the EIS is determined by the scope of the proposed action.

The Forest Service had three options. First, it could rely on a general EIS or EA at the pre-lease and lease stages, and prepare site-specific EISs only at the post-lease APD stages, when site-specific environmental consequences were real, not conjecture. Second, it could

241. See *supra* notes 218-222 and accompanying text.

242. See *supra* notes 116-121, 181 and accompanying text.

243. 40 C.F.R. §§ 1502.20, 1508.28 (1990).

244. *Headwaters, Inc.*, 684 F. Supp. at 1055; *Portland Audubon Soc'y v. Lujan*, 884 F.2d at 1239; *Big Hole Ranchers Ass'n*, 686 F. Supp. at 260; *Village of False Pass*, 733 F.2d at 615; *Sierra Club v. Block*, 576 F. Supp. at 964.

245. See *supra* note 116.

246. *Park County Resource Council*, 817 F.2d at 624.

247. See 55 Fed. Reg. 10,433 (1990) (rejecting the option of "staged" NEPA compliance).

248. *Id.* at 10,432-33.

249. See *supra* notes 192-198 and accompanying text.

prepare full EISs at the pre-lease and lease stages, and site-specific EISs at post-lease stages. Third, it could prepare an EIS at the lease stage, before any on-the-ground impacts were contemplated by the lessee, which guessed at the site-specific impacts that might occur. Unfortunately for the Forest Service, NEPA case law supports all three options.

Option one—deferral of site-specific review until site-specific impacts are imminent—was accepted by the United States Supreme Court in *Kleppe v. Sierra Club*.²⁵⁰ Said the Court in *Kleppe*:

[NEPA] speaks solely in terms of *proposed* actions; it does not require an agency to consider the possible environmental impacts of less imminent actions Should contemplated actions later reach the stage of actual proposals, impact statements on them will take into account the effect of their approval upon the existing environment²⁵¹

Kleppe has been followed by many federal courts, which have permitted federal agencies to postpone site-specific EISs until actions affecting the environment are probable, not problematic.²⁵² Even when an EIS is eventually prepared, courts have not required excessive site-specificity when EISs have been challenged for being inadequate.²⁵³

Option two—preparation of EISs both at a general, conceptual stage, and when site-specific impacts are contemplated—has also been acceptable to courts.²⁵⁴ This option seems particularly popular whenever an agency is planning some type of large scale regional development, which is to be implemented through individual licenses or contracts.²⁵⁵

Option three—preparation of an EIS at an early stage that considers site-specific impacts—was mandated by *Conner v. Burford*.²⁵⁶ The *Conner* opinion is consistent with several other cases calling for

250. 427 U.S. 390 (1976).

251. *Id.* at 410 n.20.

252. *Park County Resource Council*, 817 F.2d at 622 (an "oil and gas lease, by itself, does not cause a change in the physical environment. In order to work the lease, the lessee must submit site-specific proposals to the Forest Service"); *County of Suffolk*, 562 F.2d at 1380; *Texas v. United States Forest Service*, 654 F. Supp. at 298 (NEPA does not require the Forest Service to issue an EIS for each site within a national forest); *NRDC v. Hodel*, 624 F. Supp. 1045, 1051 (D. Nev. 1985), *aff'd*, 819 F.2d 927 (9th Cir. 1987) ("because the scope of the EIS is determined by the scope of the proposed action, it is unreasonable to expect the EIS to analyze possible actions in greater detail than is possible given the tentative nature of the [action]").

253. *NRDC v. Hodel*, 819 F.2d 927, 930 (9th Cir. 1987); *Sierra Club v. Clark*, 774 F.2d 1406, 1411 (9th Cir. 1985).

A site-specific supplemental EIS is not required if environmental impacts are adequately addressed in a site-specific EA. *Headwaters, Inc.*, 914 F.2d at 1178.

254. *City of Tenakee Springs*, 915 F.2d at 1312; *California v. Block*, 690 F.2d at 760-61.

255. *Environmental Defense Fund v. Andrus*, 596 F.2d at 850-51; *NRDC v. Morton*, 388 F. Supp. 829, 834 (D.D.C. 1974).

256. 848 F.2d at 1451.

site-specific EISs at points of time where environmental impacts are still contingent on future actions.²⁵⁷

The Forest Service regulations reject option one, and employ a combination of options two and three. These options are the most environmentally protective, but entail the most speculation about site-specific impacts. The exact degree of site-specificity required at the lease sale stage is not stated, but is probably limited by the regulations' reference to lease "tracts," which in all states but Alaska may be no larger than 2,560 acres.²⁵⁸ While a site-specific EIS must contain a thorough discussion of the distinguishing characteristics and unique attributes of each area affected by the proposed action,²⁵⁹ it need not necessarily disclose exact locations of potential well sites or access roads.²⁶⁰

3. Impact Analysis

The third NEPA related question confronting the Forest Service involves the nature of the environmental impacts of oil and gas leasing that need to be discussed. The question is this: If environmental review in the form of an EIS is done at lease sale, before post-lease APDs inform the Forest Service of the location or number or types of exploratory wells, should the lease sale EIS nonetheless make an educated guess about the environmental harms that might ensue?

As usual, NEPA case law provides conflicting guidance. On the one hand, cases like *Conner v. Burford* hold that the government's inability at an early stage to fully ascertain the future effects of its action "is not a justification for failing to estimate what those effects might be"²⁶¹ In *Robertson v. Methow Valley Citizens Council*,²⁶² the United States Supreme Court stated that agencies must describe environmental impacts "even in the face of substantial uncertainty."²⁶³ CEQ regulations expect agency EISs to deal with "incom-

257. *Environmental Defense Fund v. Andrus*, 619 F.2d at 1377; *Sierra Club v. Block*, 576 F. Supp. at 964; *American Timber Co. v. Berglund*, 473 F. Supp. 310, 314 (D. Mont. 1979).

258. See *supra* notes 154-157 and accompanying text.

259. *California v. Block*, 690 F.2d at 761-64.

260. *Stein v. Barton*, 740 F. Supp. 743, 749 (D. Alaska 1990).

261. *Conner*, 848 F.2d at 1450. See also *City of Tenakee Springs*, 915 F.2d at 1312 (EIS must consider foreseeable future development); *Thomas v. Peterson*, 753 F.2d at 760 (uncertainty about the future does not excuse failure to consider future impacts); *NRDC v. Hodel*, 618 F. Supp. 848, 873 (E.D. Cal. 1985) ("an agency must do more to avoid preparing an EIS . . . than to merely express its view that the potential threat . . . is 'highly unlikely' to occur"); *Environmental Defense Fund v. Andrus*, 596 F.2d at 853.

These cases concur that an agency need not prepare an EIS for speculative development alternatives, so long as it reserves the right to preclude or prevent actions with unacceptable environmental consequences (e.g., NSO leases). *Conner*, 848 F.2d at 1451; *Northern Plains Resource Council v. Lujan*, 874 F.2d at 666.

262. 490 U.S. 332 (1989).

263. *Id.* at 355.

plete or unavailable information."²⁶⁴

On the other hand, an array of federal courts hold that if "effects cannot be readily ascertained and if [they] are deemed only remote and speculative possibilities, detailed discussion of environmental effects is not contemplated under NEPA."²⁶⁵ This principle has been applied to excuse the absence of an EIS at the lease sale stage for both onshore²⁶⁶ and offshore²⁶⁷ oil and gas leasing projects. In *Kleppe v. Sierra Club*,²⁶⁸ the United States Supreme Court stated that an EIS is not required when it is unclear whether a program will necessarily result in environmentally damaging consequences.²⁶⁹ Even the CEQ regulations require that EISs "be supported by evidence."²⁷⁰

Awash in a sea of confusing and contradictory NEPA cases and CEQ regulations, the Forest Service again chose to steer a course in more environmentally conservative waters. Although guesswork and speculation must surely result, the new regulations expect the Forest Service to anticipate and analyze the site-specific environmental impacts foreseeable at the lease sale stage.

B. Historic Context and Institutional Character

CEQ regulations and NEPA case law neither compel nor prohibit the approach taken in the new regulations. Rather, existing law gave the Forest Service several options regarding the timing of environmental review, scope of activity proposed, and impacts discussed. In resolving each of these three issues, the Forest Service inevitably chose to be environmentally cautious. Its regulations reflect this caution by requiring (1) consideration of future environmental impacts at every key stage of oil and gas leasing, (2) particularly at the pre-lease and lease stages, (3) with as much site-specificity as possible.

If applicable law does not mandate this result, and if the new regulations will likely further delay oil production from Forest System lands and materially diminish the lessee's rights,²⁷¹ then why did the

264. 40 C.F.R. § 1502.22 (1990).

265. *Environmental Defense Fund v. Andrus*, 619 F.2d at 1375. See also *NRDC v. Hodel*, 819 F.2d at 930; *Sierra Club v. Hathaway*, 579 F.2d at 1168.

266. *Park County Resource Council*, 817 F.2d at 622-23 (EIS not required at lease sale stage because "full field development is typically an extremely tentative possibility at best at the leasing stage"); *County of Suffolk*, 562 F.2d at 1379 ("to require an EIS to specify such [onshore oil pipeline] routes at this stage would be equal to demanding that the Department specify the probable route of a highway that may never be built from points as yet unknown to other points as yet unknown over terrain as yet uncharted in conformity with state plans as yet undrafted").

267. *Tribal Village of Akutan*, 869 F.2d at 1192; *Village of False Pass*, 733 F.2d at 616; *North Slope Borough*, 642 F.2d at 605-06.

268. 427 U.S. 390 (1976).

269. *Id.* at 406-07.

270. 40 C.F.R. § 1502.1 (1990).

271. See Coggins & Van Dyke, *NEPA and Private Rights in Public Mineral Resources: The Fee Complex Relative?*, 20 ENVTL. L. 649, 664-70 (1990) (NEPA's applica-

Forest Service opt for such an environmentally restrictive approach? Perhaps the answer can be found in the context in which the regulations were adopted, and in the institutional character of the Forest Service itself.

1. Context

Several realities converged on the Forest Service in the 1988-1990 period that contributed to the environmentalism found in the regulations. The catalyst was the Reform Act, which forced the Forest Service to make binding policy decisions about a subject (oil and gas leasing) that had previously been the responsibility of the BLM.²⁷² The Forest Service's expertise was with timber management, not with leasing minerals under its lands.²⁷³ To the extent that it did have experience with oil and gas leasing, this experience taught it that leasing would invariably elicit judicial attack by environmental organizations. Two of these challenges, *Conner v. Burford*²⁷⁴ and *Sierra Club v. Peterson*,²⁷⁵ were not only major losses in court for the Forest Service, they also produced opinions that called for an EIS at the early lease sale stage. For an agency already reeling from a series of losses in court as a result of NEPA challenges,²⁷⁶ the lesson was obvious: NEPA was a statute to be feared and respected, not ignored.

Apart from courts and environmental organizations, the Forest Service was also feeling pressure from the United States General Accounting Office (GAO). In 1990, in a report titled "Federal Land Management: Better Oil and Gas Information Needed to Support Land Use Decisions,"²⁷⁷ the GAO criticized the Forest Service for failing to adequately assess the environmental impacts of oil and gas leasing and development decisions.²⁷⁸ Worse yet, the GAO concluded that in-

tion to onshore oil and gas leasing means that the lessee no longer obtains "a true property interest in underlying minerals when it receives the lease; rather, it gets only the exclusive procedural right to seek further clearance for exploration and production.").

272. See *supra* notes 6-8 and accompanying text.

273. See P. CULHANE, PUBLIC LANDS POLITICS 123 (1981).

274. 848 F.2d 1441 (9th Cir. 1988).

275. 717 F.2d 1409 (D.C. Cir. 1983).

276. In addition to *Conner v. Burford*, *supra* note 274, and *Sierra Club v. Peterson*, *supra* note 275, *Bob Marshall Alliance v. Hodel*, 852 F.2d 1223 (9th Cir. 1988) similarly invalidated a Forest Service oil and gas leasing decision on NEPA grounds.

Other NEPA losses not involving oil and gas leasing include: *Marble Mountain Audubon Soc'y v. Rice*, 914 F.2d 179 (9th Cir. 1990); *City of Tenakee Springs v. Clough*, 915 F.2d 1308 (9th Cir. 1990); *Save the Yaak Comm. v. Block*, 840 F.2d 714 (9th Cir. 1988); *Sierra Club v. United States Forest Service*, 843 F.2d 1190 (9th Cir. 1988); *Thomas v. Peterson*, 841 F.2d 332 (9th Cir. 1988); *Big Hole Ranchers Ass'n v. United States Forest Service*, 686 F. Supp. 256 (D. Mont. 1988); *National Wildlife Fed'n v. United States Forest Service*, 592 F. Supp. 931 (D. Or. 1984); *California v. Block*, 690 F.2d 753 (9th Cir. 1982); *Foundation for N. Am. Wild Sheep v. United States Dep't of Agric.*, 681 F.2d 1172 (9th Cir. 1982).

277. U.S. GEN. ACCOUNTING OFFICE, GAO/RCED-90-71 (June 1990).

278. *Id.* at 3.

adequate environmental review had resulted in court challenges, which resulted in delayed oil and gas activity, which resulted in lost federal revenue.²⁷⁹ Another lesson was learned: Forest Service oil and gas leasing regulations should be environmentally adequate.

2. Institutional Character

Prior to the promulgation of its regulations, the Forest Service was being pressed by the Congress, the courts, environmental organizations, and the GAO. When a bureaucracy like the Forest Service is being criticized by multiple entities, it tends to act in predictable ways. Political scientists have studied the behavior of bureaucracies under fire, and they have described how large organizations typically respond to pressure.²⁸⁰ The Forest Service regulations are consistent with the predicted behavior that emerges from these studies.

The most common response is "goal displacement," by which means are substituted for ends.²⁸¹ This is characterized by a desire to give procedures precedence over the objectives for which they were created.²⁸² These procedures then become ends in themselves.²⁸³ Goal displacement is also manifested by literal adherence to rules, even when doing so causes the agency to develop a rigidity and formalism that interferes with its primary mission.²⁸⁴ The bureaucracy engages in goal displacement to deflect criticism and avoid uncertainty. The bureaucracy hopes that by perfecting "means" it will (1) immunize itself from attacks on its performance, and (2) regularize the reactions of the actors with whom it has to deal.²⁸⁵

The new regulations may be viewed as a form of goal displacement. Instead of concentrating on the goal of oil and gas development,²⁸⁶ the regulations tend to focus on the myriad of environmental steps that must be taken as a precondition to this development.²⁸⁷ Ex-

279. *Id.* at 3, 32-33.

280. See generally D. NACHMIAS & D. ROSENBLUM, *BUREAUCRATIC GOVERNMENT USA* 22 (1980); Allison, *The Power of Bureaucratic Routines: The Cuban Missile Crisis*, in *BUREAUCRATIC POWER IN NATIONAL POLITICS* 86 (F. Rourke ed. 1972); R. MERTON, *SOCIAL THEORY AND SOCIAL STRUCTURE* 253 (1968); P. BLAU, *THE DYNAMICS OF BUREAUCRACY* 235 (1966); C. JACOB, *POLICY AND BUREAUCRACY* 47 (1966); F. DYER & J. DYER, *BUREAUCRACY VS. CREATIVITY* 10 (1965).

281. C. JACOB, *POLICY AND BUREAUCRACY* 47 (1966).

282. F. DYER & J. DYER, *BUREAUCRACY VS. CREATIVITY* 10 (1965).

283. D. NACHMIAS & D. ROSENBLUM, *BUREAUCRATIC GOVERNMENT USA* 22 (1980).

284. R. MERTON, *SOCIAL THEORY AND SOCIAL STRUCTURE* 253 (1968); P. BLAU, *THE DYNAMICS OF BUREAUCRACY* 235 (1966).

285. Allison, *The Power of Bureaucratic Routines: The Cuban Missile Crisis*, in *BUREAUCRATIC POWER IN NATIONAL POLITICS* 86 (F. Rourke ed. 1972).

286. Both the 1920 Mineral Leasing Act, 30 U.S.C. sections 181-287 (1988), and the Mining and Minerals Policy Act of 1970, 30 U.S.C. section 21a (1988), proclaim it federal policy to "encourage" the development of oil and gas on federal lands.

287. NEPA is a procedural law designed to promote sound decision-making; NEPA does not mandate particular substantive goals. *Robertson v. Methow Valley Citizens Council*, 490 U.S. at 350.

cessive and rigid preoccupation with NEPA procedures will surely hinder oil and gas leasing. It is true that the Forest Service has reduced the chances of a successful challenge to its leasing program for being NEPA deficient. But in so doing it has also reduced the chances of much oil and gas activity on Forest System lands.

VI. A NEED TO RECONSIDER

After reviewing NEPA case law, as well as contextual and institutional realities present prior to 1990, at least one can understand why the Forest Service adopted regulations that require such an extremely environmentally-sensitive approach to oil and gas leasing. Nonetheless, the regulations are now in place, and they will likely only serve to further discourage oil and gas activity in national forests. Because the regulations will certainly have a depressing effect on federal oil and gas leasing at a time when domestic onshore production should be encouraged, the Forest Service may wish to reconsider the approach taken in its new regulations. Such a reconsideration seems justified on three grounds.

First, federal oil and gas leasing regulations that deter exploration and development efforts are inconsistent with the 1920 Mineral Leasing Act,²⁸⁸ and the Mining and Minerals Policy Act of 1970.²⁸⁹ Both these statutes declare it to be federal policy to "encourage" development of minerals on federal lands, including domestic oil and gas. Moreover, the new regulations are also inconsistent with the Reform Act, one of whose purposes is to generate federal revenue from additional oil and gas royalties.²⁹⁰ If the regulations delay oil and gas leasing in national forests, wells will not be developed which generate royalties and revenues to the federal government.

Second, Part V of this article points out that while NEPA case law can support the regulations, NEPA case law can also support the Forest Service's more sensible pre-1990 approach to oil and gas leasing. This approach assumes that full NEPA analysis should not occur at the lease stage, since very few leases ever result in land-disturbing exploration or production. Prior to drilling, stringent lease stipulations and EAs provide adequate environmental analysis and resource protection. It is when drilling is proposed that comprehensive NEPA review (in the form of an EIS) can realistically consider the potential, site-specific environmental consequences of the action. Conditions imposed on the permit to drill can offset the adverse effects of drilling activities.²⁹¹

288. 30 U.S.C. §§ 181-287 (1988).

289. *Id.* § 21a.

290. Sansonetti & Murray, *A Primer on the Federal Onshore Oil and Gas Leasing Reform Act of 1987 and its Regulations*, 25 LAND & WATER L. REV. 375, 380-81 (1990).

291. See *Park County Resource Council*, 817 F.2d at 622; 36 C.F.R. §§ 228.107(b)(2)(ii), 228.108 (1990).

Third, there are intimations that the United States Supreme Court might be receptive to the argument that NEPA should not be triggered at the lease stage, but only at the site-specific APD stage. While no NEPA case has raised the issue squarely with the Court, one 1990 case suggests that the Supreme Court might find an EIS at the lease sale stage to be premature.

*Lujan v. National Wildlife Federation*²⁹² involves judicial construction of sections 702 and 704 of the federal Administrative Procedure Act (APA).²⁹³ In *Lujan*, the Court concluded that a BLM-initiated "land withdrawal review program" was not ripe for judicial review because of the absence of either "agency action" or "final agency action" within the meaning of sections 702 and 704 of the APA. There was no ripeness for judicial review because there had not yet been site-specific implementation of the BLM program.²⁹⁴ The Court noted that ripeness would be present if, pursuant to the program, BLM granted a permit to mine a discrete portion of land.²⁹⁵ At that point there would be agency action that might cause some environmental harm. However, "before the grant of such a permit, or . . . the filing of a notice to engage in mining activities, or . . . actual mining of the land, *it is impossible to tell where or whether mining activities will occur.*"²⁹⁶

Although the *Lujan* case involves ripeness for judicial review of agency action under the APA, not ripeness for agency preparation of an EIS under NEPA, the Court's insistence upon a "case-by-case approach"²⁹⁷ underscores its sensitivity to the dangers of prematurely presuming the existence or location of environmental harms caused by agency actions. The Forest Service's new regulations belie this sensitivity. Prior to the 1990 regulations, however, the Forest Service more appropriately believed that an EIS was not ripe until site-specific plans are submitted enabling it to "accurately evaluate the consequences of drilling and other surface disturbing activities."²⁹⁸ This approach is more consistent with *Lujan*, which holds that agency actions are not ripe (for judicial review under the APA) "until the scope of the controversy has been reduced to more manageable proportions, and its factual components fleshed out, by some concrete action . . . that harms or threatens to harm"²⁹⁹

Lujan suggests that the Forest Service's initial inclination about the leasing decision was correct after all. Comprehensive NEPA re-

292. 110 S. Ct. 3177 (1990).

293. 5 U.S.C. §§ 702, 704 (1988).

294. *Lujan v. National Wildlife Fed'n*, 110 S. Ct. at 3190.

295. *Id.* at 3190-91 n.3.

296. *Id.* at 3191 n.3 [emphasis added].

297. *Id.* at 3191.

298. *Sierra Club v. Peterson*, 717 F.2d at 1415.

299. *Lujan v. National Wildlife Fed'n*, 110 S. Ct. at 3190. *See also* *Sierra Club v. Yeutter*, 911 F.2d 1405, 1418 (10th Cir. 1990) (case not ripe for judicial resolution without "actual case of imminent harm").

view should be delayed until the potential environmental effects of drilling and production are foreseeable. Foreseeability is possible not at the lease stage, but when site-specific drilling is proposed.