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IMMINENT THREAT TO AMERICA'S LAST GREAT WILDERNESS

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I. INTRODUCTION

In 1960, two years after Alaska became a state, President Dwight D. Eisenhower created the Arctic National Wildlife Range in northeastern Alaska to protect the unique wildlife, wilderness and recreational value of the area.[1] Twenty years later, the Alaska National Interest Lands Conservation Act of 1980 (ANILCA) elevated the status of the Range to Arctic National Wildlife Refuge (ANWR) and expanded its size from 8.9 million acres to approximately 19 million acres.[2] The purposes of ANWR are fourfold: to conserve the populations and habitats of the diverse range of species utilizing the plain; to ensure that the United States fulfills its obligations under various fish and wildlife protection treaties; to provide for the continuing subsistence uses of the refuge; and to protect the supply and quality of water in the refuge.[3]

When ANILCA was enacted, little was known about this remote area.[4] A 1979 Senate Report stated that:

> [t]he Committee was particularly concerned with the ANWR. In hearings and in markup, conflicting and uncertain information was presented to the committee about the extent of oil and gas resources on the Range and the effect development and production of those resources would have on the wildlife inhabiting the Range and the Range itself . . . . The Committee was determined that a decision as to the development of the Range be made only with adequate information and the full participation of the Congress.[5]

To ensure access to information needed to decide whether to allow development of the ANWR, Congress ordered the Secretary of the Interior to prepare a "comprehensive and continuing inventory and assessment" of the ANWR coastal plain's fish and wildlife resources and to perform an analysis of the impacts on these resources of oil and gas exploration,

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1. Public Land Order No. 2214, 25 Fed. Reg. 12,598 (1960); Alaska Statehood Act, Pub. L. No. 85-508, 72 Stat. 339 (1958).

2. Alaska National Interest Lands Conservation Act, Pub. L. No. 96-487, §§ 302-303, 94 Stat. 2371, 2385-93 (1980). In addition to establishing ANWR, ANILCA also created or expanded fifteen other wildlife refuges in Alaska.

3. *Id.* § 303(2)(B), 94 Stat. 2371, 2390 (1980). *See generally* CRS REPORT FOR CONGRESS, THE ARCTIC NATIONAL WILDLIFE REFUGE: MAJOR OIL DEVELOPMENT OR WILDERNESS 34 (Feb. 25, 1988) [hereinafter CRS REPORT].

4. S. REP. No. 413, 96th Cong., 1st Sess. 241 (1979).

5. *Id.*

development and production. Additionally, the Secretary was to ensure that exploratory activities within the coastal plain would be conducted so as to avoid significant adverse effects on the fish and wildlife and other ANWR resources.[6] The future of ANWR's development thus depends heavily on the resolution of factual questions about the environmental, subsistence and mineral resource characteristics of the coastal plain.

ANILCA provides the legal structure that will determine whether ANWR will be protected from the damaging encroachment of oil and gas development and whether ANWR will remain an unblemished reserve for native peoples who presently coexist with large numbers of resident and migratory species. To analyze the desirability of development, a three-part process is utilized. First, findings of fact concerning the impact of such development in ANWR upon the environment and the indigenous cultures are to be derived from a report compiled by the Secretary of the Interior pursuant to section 1002 of ANILCA (1002 Report). This 1002 Report is to consist of a baseline biological study of ANWR, an Environmental Impact Statement regarding non-drilling exploration and a recommendation by the Secretary of the Interior. Next, Congress must determine the viability of oil and gas development based upon the findings of fact in the 1002 Report. Finally, after consideration of all of the above, Congress may grant the Secretary of the Interior leasing authority to begin exploration and development.

ANILCA, however, adds the additional requirement that any use of the reserve must be compatible with the purposes for which the area was established. This additional safeguard creates another obstacle in the path of oil exploration before drilling activities can begin. Title VIII of ANILCA also contains an independent barrier to oil and gas development. Section 810 of the Act requires that proposals for the use of Alaskan public lands must minimize any adverse impact upon the subsistence use of that land. Under section 810, the Secretary of the Interior is responsible for evaluating the impact of development on subsistence use and protecting such use from adverse effects.

The task of developing the required factual record rests upon the Secretary of the Interior, and because that record will be the primary source of information upon which Congress will rely to decide whether to allow development, the Secretary wields significant power. The shaping of the factual record will perhaps be the most important aspect of the legal process that will determine the future character of ANWR. Controversies over the results of the various required studies will be subject only to limited and deferential scrutiny in the courts.[7] The role of the Secretary in the legal process, therefore, is paramount. At present, Congress awaits the Secretary's report.

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6. 16 U.S.C. § 3142(a) (1988); *see infra* notes 74-78 and accompanying text.

7. NRDC v. Lujan, 768 F. Supp. 870, 881-83 (D.D.C. 1991). The 1002 Report is prepared as a management tool for Congress for its own purposes and is not subject to judicial review. *Id.* at 882.

Oil and gas development proponents and opponents alike are mobilizing. The context of the ANWR controversy can only be fully appreciated by recognizing the stark contrast between the goals of the two groups colliding in the development debate. The parties involved in the process vary from indigenous peoples and environmentalists to oil companies and state and federal governments. This spectrum of adversaries, however, is overshadowed by the overwhelming dimension of the subject of the debate: the 9 million acres of ecologically sensitive territory which rest atop perhaps 30 billion barrels of oil and 65 trillion cubic feet of gas.[8]

The struggle to determine ANWR's fate is a battle of extremes. In no other environmental debate are the stakes so high for so many different constituents. From the perspective of governmental entities and oil companies, the refuge represents millions of dollars in revenues and the chance to revitalize the domestic oil industry. For state and local governments and some native groups, leasing ANWR for development will replace the jobs and income from Prudhoe Bay and North Slope development upon which these groups have come to rely. Development may also be the only means to preserve the Transnational Alaska Pipeline that has brought jobs and tax revenues which pay for essential services. To the Department of the Interior, development will mean both an important revenue boost and a political victory. For environmentalists, this is the ultimate battle to preserve a vast virgin wilderness. Finally, for the Gwich'in Athabascan,[9] the resolution of the controversy may well mark the end of an entire culture.

This article explores the empirical, legal and political processes that will determine the fate of ANWR. Part II of this article provides background information about ANWR in general: the ecology of the reserve, its inhabitants and the possibility of oil and gas reserves. Part III undertakes an analysis of the components in the factual record—the 1002 Report, the Environmental Impact Statement, the Compatible Use requirement and the section 810 analysis—and the role of the Secretary of the Interior in the production of that record. Congress must use this factual record to determine whether leasing of ANWR falls within the guidelines established by ANILCA. Finally, Part IV concludes that the statutory scheme designed to protect ANWR is faulty because it is essentially under the full control of the Secretary of the Interior who will not likely recommend that Congress simply redesignate ANWR as statutory wilderness to protect it from development.

8. U.S. DEPARTMENT OF THE INTERIOR, ARCTIC NATIONAL WILDLIFE REFUGE, ALASKA, COASTAL PLAIN RESOURCE ASSESSMENT: REPORT AND RECOMMENDATION TO THE CONGRESS OF THE UNITED STATES AND FINAL LEGISLATIVE ENVIRONMENTAL IMPACT STATEMENT 75 (1987) [hereinafter IMPACT STATEMENT].

9. The Gwich'in Athabascan are a native Indian tribe, who pursue the traditional subsistence lifestyle of their ancestors and are dependent on hunting and fishing for food. They live in settlements along the Alaska-Canada border, including a settlement within the ANWR. Susan Reed, *Shadow Over an Ancient Land*, PEOPLE, Sept. 18, 1989, at 50.

II. BACKGROUND

The coastal plain, the most controversial territory in the refuge, lies in the northern part of the refuge, 250 miles above the Arctic Circle. This plain encompasses 1.55 million acres over an area measuring approximately 100 miles long and sixteen to thirty-four miles wide. Pristine, fragile tundra characterizes the coastal plain.[10] Almost all of the area is wetlands[11] with only a few freestanding lakes. No streams or rivers traverse the plain.

Throughout most of the year, the coastal plain landscape is cold and desolate. Ten percent of the area is glaciated and lies under a thick layer of permafrost.[12] Winter temperatures average only four degrees below zero.[13] From mid-May to July every year, however, the coastal plain becomes what has been described as the "American Serengeti."[14] Mild summer temperatures and a bountiful food supply bring a uniquely diverse range of wildlife to the plain. Species attracted to the coastal plain include polar bears, grizzly bears, musk oxen, Dall sheep, wolves, wolverines, snow geese, peregrine falcons and numerous other bird species, some of which migrate from as far as Africa, Australia and Antarctica.[15]

One of the species which relies on the coastal plain's summer habitat is the Porcupine caribou herd. The herd is presently 180,000 strong, making it the sixth largest herd in North America.[16] The coastal plain provides critical summer habitat for the caribou during and after calving, supplying a quiet source of food and relief from insects and predators at this critical period in the herd's annual cycle.[17] The Porcupine herd has consistently returned to the coastal plain to calve every year, and their migration has been documented since 1972, when studies of the herd commenced.[18]

The ANWR controversy has focused a significant amount of attention on the Porcupine caribou herd for several reasons. Such herds are the subject of special statutory recognition in their own right; Congress has found that "the barren-ground caribou are a migratory species deserving study and special protections, and the Western Arctic and the

10. IMPACT STATEMENT, *supra* note 8, at 13. Ninety-nine percent of the section 1002 lands, or 1.5 million acres, are classified as wetlands. Free water is limited; only a few large lakes exist. *Id.*

11. *Id.*

12. The permafrost is 800-1000 feet thick under most of the coastal plain. IMPACT STATEMENT, *supra* note 8, at 11.

13. Patrick Lee, *Alaska Oil Refuels an Old Debate,* L.A. TIMES, Sept. 15, 1991, at A1.

14. G. Schaller, *American Serengeti,* WILDLIFE CONSERVATION, Nov.-Dec. 1990, at 54.

15. Alaska National Interest Lands Conservation Act, Pub. L. No. 96-487, § 301(a)(3), 94 Stat. 2371 (1980); Lee, *supra* note 13, at A12.

16. IMPACT STATEMENT, *supra* note 8, at 21.

17. *Id.* at 25; Lee, *supra* note 13, at A12. Caribou cows in particular require rest and relief during the postcalving season when the combined stresses of winter, pregnancy, migration, birth, lactation, hair molt, antler growth and insect harassment tax the animals' energy reserves. *Id.*

18. IMPACT STATEMENT, *supra* note 8, at 25. Migrating caribou and the postcalving caribou aggregation offer an extraordinary spectacle. *Id.* at 46.

Porcupine herds are of national and international significance."[19] This heightened level of statutory protection and the effects of development-related disturbances on caribou migration have prompted a great deal of debate.

The caribou are also significant because they comprise the foundation of the subsistence economy of the Gwich'in Athabascan, one of the few remaining native groups in North America still engaged in a subsistence economy. Subsistence has also received special statutory protection,[20] and because the Gwich'in's subsistence economy depends directly on the well-being of the Porcupine herd, the caribou's fate under any mineral development scheme has dual significance.

The Gwich'in Athabascan tribe occupies an area approximately 125 miles south of the coastal plain, concentrated in small settlements at Arctic Village and Old Crow.[21] Due to the remoteness of the area, the Gwich'in rely on a subsistence economy for up to 80% of their food supply.[22] Subsistence is defined in ANILCA as:

> customary and traditional uses by rural Alaska residents of wild, renewable resources for direct personal or family consumption as food, shelter, fuel, clothing, tools or transportation; for the making and selling of handicraft articles out of inedible byproducts of fish and wildlife resources taken for personal or family consumption; for barter, or sharing for personal or family consumption; and for customary trade.[23]

The cornerstone of the Gwich'in's subsistence economy is the Porcupine caribou herd,[24] and their annual harvest ranges from 200 to as many as 1000 caribou.[25] During certain seasons, three and sometimes four meals a day consist of caribou.[26] The meat is shared with families throughout the community, given as gifts or bartered for salmon.[27] Caribou skins are used to make clothing, winter mukluks, slippers and purses, and the bones are used for tools.[28]

The significance of the caribou to the Gwich'in's subsistence is not merely economic—the caribou form the basis of a complex cultural

19. Alaska National Interest Lands Conservation Act, Pub. L. No. 96-487, § 306(a), 94 Stat. 2371 (1980).

20. *See infra* notes 137-51 and accompanying text.

21. The Gwich'in town of Arctic Village is located within ANWR and has a population of 120. Reed, *supra* note 9, at 50.

22. *See* H.R. REP. No. 1045, 95th Cong., 2d Sess., pt. II at 76 (1978).

23. 16 U.S.C. § 3113 (1988).

24. The caribou are particularly important in towns such as Arctic Village which have no salmon and only a few moose, sheep, birds and fish. Robert A. Childers, *The Gwich'in: A Nation in Peril*, 6 ENVTL. FORUM 14, 16 (1989).

25. IMPACT STATEMENT, *supra* note 8, at 25, 40. The Inupiat Eskimos from the village of Kaktovik also harvest between 25 to 75 caribou each year, but they rely primarily on seal and bowhead whales for their food supply. E. Linden, *A Tale of Two Villages*, TIME, Apr. 17, 1989, at 62.

26. Linden, *supra* note 25, at 62.

27. *Id.*

28. *Id.*

structure.[29] The Gwich'in's subsistence culture is rooted in 10,000 years of tradition.[30] In the tightly organized societal structure of subsistence every member of the community plays a vital role in the mutual survival of the group. The Gwich'in fear that if their chief survival resource disappears, the entire social structure will erode. Many members of the tiny communities will be forced to leave to seek jobs in the cities or the oil fields, and those that remain will be forced to go on welfare.[31] Even though development may offer jobs, many Gwich'in feel the benefits of a cash economy are dubious; as one chief observed, "Here you don't see drugs and alcohol, or suicide and murder. Here people walk around proud that we have our land."[32]

If development takes place, the Gwich'in stand to lose everything. Unlike the Kaktovic Inupiat Eskimo group, the Gwich'in refused to participate in a 1971 land settlement that would have given them an interest in subsurface development. The Alaska Native Claims Settlement Act of 1971 (ANCSA)[33] extinguished native aboriginal rights to land in Alaska in exchange for a cash settlement of $963 million and fee title to 44 million acres of land.[34] The settlement created village and regional corporations, giving each native in the various regions 100 shares of stock in the appropriate regional corporation and providing that these shares were inalienable until 1991.[35] Subsurface rights to land included in the settlement were vested in the Regional Corporations, while the Village Corporations controlled the surface estate.[36] If the Gwich'in had elected to accept this settlement, they might at least have enjoyed revenues from leasing. As it is, the Gwich'in retain aboriginal rights to 1.8 million acres in and near ANWR, and if development proceeds, the Gwich'in stand to lose the basis of their economy and cultural life.

The issue of development has divided the native communities.[37] Some groups stand to benefit directly from development. For instance, the Kaktovic Inupiat Corporation holds subsurface rights to 92,000 acres in the coastal plain, and the Arctic Slope Regional Corporation holds subsurface rights outside the plain.[38] In addition to royalties, some natives will benefit from the creation of jobs—an increasingly im-

29. ANILCA states that subsistence is "essential" to the natives' "cultural existence." 16 U.S.C. § 3111(1) (1988).

30. Reed, *supra* note 9, at 49.

31. *Id.* at 48; Linden, *supra* note 25, at 62.

32. Linden, *supra* note 25, at 62.

33. Pub. L. No. 92-203, 85 Stat. 688 (1971) (codified at 43 U.S.C. §§ 1601-1629 (1988 & Supp. 1992)).

34. 43 U.S.C. §§ 1603(b), 1605 (1988). ANCSA was enacted in response to a dispute between the newly recognized State of Alaska, which had begun to select tracts of land for state ownership, and natives who claimed aboriginal title to much of the land selected by the state. ROBERT D. ARNOLD, ALASKA NATIVE LAND CLAIMS 114 (1976).

35. This restriction was amended in 1987 to provide that shareholders in the corporations may decide when to eliminate the restrictions on alienation. 43 U.S.C. § 1629c (Supp. II 1990).

36. 43 U.S.C. § 1613(f) (1988).

37. Patrick Lee, *Some Native Peoples See Dividends, Others See Disaster in Oil Drilling*, L.A. TIMES, Sept. 15, 1991, at A12.

38. *Id.*

portant concern as the Prudhoe Bay field dissipates. Some members of these communities, however, sympathize with the Gwich'in's claim of the right to continue a subsistence existence. The Inupiat, similarly, depend heavily on harvesting whales and seals and are concerned about what development in the coastal plain may portend for offshore drilling.[39]

The paradox presented by this visually barren plain is that, in addition to its tremendous biological and subsistence values, the coastal plain may have significant petroleum resource potential as well. Situated between the Prudhoe Bay oil field to the west and Canadian Beaufort Sea/Mackenzie Delta region to the east, ANWR may be part of the North Slope oil province; it is touted as the most promising onshore exploration target in the United States.[40]

The probability of locating oil reserves and the extent of those reserves in ANWR are major topics of debate. According to the 1987 1002 Report to Congress by the Secretary of the Interior, there is a 19% chance of finding economically recoverable oil within the coastal plain.[41] This 1002 Report suggests a mean estimate of 3.2 billion barrels of recoverable oil, with economically recoverable reserves ranging from 0.6 billion barrels to 9.2 billion barrels—about the same amount as in Prudhoe Bay.[42] The report predicts a 95% chance that the coastal plain contains more than 4.8 billion barrels of oil and 11.5 trillion cubic feet of gas and a 5% chance that the area contains 29.4 billion barrels of oil and 64.5 trillion cubic feet of gas.[43] These 1987 estimates reflect a high probability of finding economically recoverable oil given the relatively small exploration area (1.55 million acres) and the high costs of conducting operations in the Arctic.

An April, 1991, document by the Bureau of Land Management revised and increased the 1987 figures.[44] The report claims there is a

39. *Id.*

40. IMPACT STATEMENT, *supra* note 8, at 177.

41. *Id.* at 177. For reasons discussed in more depth, *see infra* discussion at pp. 608-09, the conclusions drawn by the Secretary are currently being challenged under the National Environmental Policy Act as not supported by the record and as being arbitrary and capricious. Plaintiffs' Memorandum of Points and Authorities in Support of Motion for Summary Judgment at 111, NRDC v. Lujan, 768 F. Supp. 870 (D.D.C. 1991) [hereinafter Plaintiffs' Memorandum]. The author of this paper is not technically qualified to comment on the reliability of these figures but offers them to suggest the dimensions of the debate.

42. IMPACT STATEMENT, *supra* note 8, at 178. This figure has been challenged by NRDC on the grounds that the economic recoverability figure is based on 1984 prices that are far higher than those prevailing since the mid-1980s. Plaintiffs' Memorandum, *supra* note 41, at 90.

43. IMPACT STATEMENT, *supra* note 8, at 75.

44. Bureau of Land Management, Dep't of the Interior, Overview of the 1991 Arctic National Wildlife Refuge Recoverable Petroleum Resource Update (Apr. 8, 1991) [hereinafter BLM 1991 Overview]. The figures contained in this document have been criticized on the grounds that the sources and bases of this information have not been revealed, and thus the document is little more than a conclusory prediction. *Lujan*, 768 F. Supp. at 884. After the figures in this document were cited to Congress in a number of hearings, a court ordered the Department of the Interior to prepare a Supplemental Environmental Impact Study in conjunction with this newly released information, and thus this information may be subject to change. *Id.* at 891.

46% marginal probability of finding economically recoverable oil and increases the mean resource estimate from 3.23 to 3.57 billion barrels of oil,[45] as contrasted with the 1002 Report estimate of a 5% chance of recovering at least 8.8 billion barrels of oil.[46] Furthermore, the report raises the number of prospective drilling sites from ten to thirty.[47] If these figures are accurate, ANWR would become the second largest oil field ever developed in the United States.

The validity of both the 1991 and the 1987 figures, however, has been called into question.[48] The 1991 estimate in particular has been challenged.[49] The Department of the Interior has only recently been ordered to circulate the report for public comment and has not revealed the source of information upon which it relied in formulating the estimates.[50] Due to statutory restrictions on drilling activities,[51] only one test well has been drilled, and the results of this drilling have remained highly confidential.[52]

Environmental activists, in contrast, have vowed to "draw a line in the tundra" to prevent development in the coastal plain.[53] Although the Natural Resource Defense Council (NRDC) and the Wilderness Society have taken an especially visible role in the debate, the battle to defeat development has attracted the support of a vast number of environmental organizations. Citing the overall pattern of environmental damage in Alaskan oil fields[54] as well as notable disasters like the Exxon Valdez oil spill at Prince William Sound, environmentalists scoff at the notion that oil development can be conducted without destroying the coastal plain habitat. The environmental community views the controversy as a struggle to save the last great wilderness. The prevailing view is that if ANWR is not immune from development, nothing is sacred. To environmentalists, the battle also represents an opportunity for the nation to make a fundamental policy choice in favor of the environment by making a commitment to renewable sources of energy instead of exploiting mineral resources at the expense of the environment.

In addition to questioning the estimates of recoverable oil, environmentalists have suggested that, even if the estimates of recoverable oil prove correct, this amount is only enough to supply the country's needs for 200 days and will not reduce the nation's dependence on oil imports.[55] Nevertheless, these criticisms have done little to dampen the

45. BLM 1991 Overview, *supra* note 44, at 1.

46. *Lujan*, 768 F. Supp. at 886, *citing* IMPACT STATEMENT.

47. *ANWR Plays Key Role in Interior Budget; Outer Continental Shelf Sales Uncertain*, 21 ENV'T REP. 1797 (Feb. 8, 1991) [hereinafter *ANWR Plays Key Role*].

48. *See generally Lujan*, 768 F. Supp. at 884-91.

49. *Id.*

50. *Id.* at 891-92.

51. 16 U.S.C. § 3142(d) (1988).

52. Chevron drilled a test well in 1985 on ANWR land adjacent to the coast, which is controlled by the Kaktovic Inupiat Corporation. Lee, *supra* note 13, at A10.

53. Paul Rauber, *Last Refuge*, SIERRA, Jan.-Feb. 1992 at 38 (quoting from statement of Senator Joseph Lieberman (D-Conn.)).

54. Plaintiffs' Memorandum, *supra* note 41, at 116-24; Lee, *supra* note 13, at A10-11.

55. Plaintiffs' Memorandum, *supra* note 41, at 89-94; Lee, *supra* note 13, at A10.

enthusiasm of the proponents of oil development. ANWR will continue to be portrayed as the last great oil field as well as the last great wilderness. To date, neither side can claim absolute victory. It might be said that the environmentalists are prevailing at the moment because, so far, the ANWR has not been opened for drilling activities. On the other hand, the oil companies and governmental entities are anxiously awaiting any opportunity to change the status quo.

Pressure for oil and gas discovery must be understood in the context of declining reserves in Prudhoe Bay and the limited lifespan of the Transnational Alaska Pipeline. Prudhoe Bay's reserves have declined significantly over the past decade,[56] and the continued viability of the Transnational Alaskan Pipeline System (TAPS) is at stake. The pipeline was originally designed to last until the year 2007, but corrosion has eaten away at the pipeline more rapidly than predicted.[57] As a consequence, the pipeline is becoming increasingly expensive to maintain. Due to the rising costs and declining reserves in Prudhoe Bay, operation of the TAPS will become cost-prohibitive by 2009 unless other reserves become available.[58] The Secretary of the Interior urges that the need to transport ANWR oil alone can keep the pipeline open for decades—long enough to produce a billion barrels of North Slope oil that otherwise would not be economically feasible to produce.[59]

The State of Alaska and the federal government stand to gain a great deal from opening ANWR for development. First, the economic stimulation produced by ANWR development represents political currency. The Secretary of the Interior claims that ANWR production can generate over $150 billion in taxes and other revenues.[60] These tax revenues would enable Alaska to provide better health and educational services in areas that typically have very few public facilities. Additionally, the Secretary postulates that ANWR revenues would reduce the trade deficit by $200 billion and create 700,000 jobs nationwide.[61] The Secretary of the Interior also has a direct budgetary stake in the development of ANWR and is already relying heavily on projected ANWR leasing revenues.[62] Confident that ANWR leasing would be approved, the Secretary assumed in his fiscal 1992 budget that the Department would receive $1.9 billion in revenue from ANWR leasing.[63]

Division of leasing revenues is at the heart of a bitter controversy that may have contributed to Congress's refusal to approve leasing in 1991. Under the Alaska Statehood Act of 1959, Alaska claims 90% of any oil revenues from the refuge with the remaining 10% going to the

56. IMPACT STATEMENT, *supra* note 8, at 177-78.
57. *See* Plaintiffs' Memorandum, *supra* note 41, at 16 n.19.
58. *Federal Estimates of ANWR Potential Pessimistic, Geologist Tells Subcommittee*, 22 ENV'T REP. 660 (July 19, 1991).
59. Manuel Lujan, *A Mandate to Balance Protection with the Use of Our Riches*, ROLL CALL, Nov. 18, 1991, at Policy Briefing No. 33, 1991 Natural Resources.
60. *Id.*
61. *Id.*
62. *ANWR Plays Key Role*, *supra* note 47, at 1797.
63. *Id.*

Department of the Interior.[64] However, the Secretary of the Interior has tried various ways of evading the state's 90% share. In July of 1987, the Secretary conducted secret negotiations with several native corporations in other refuges for the purpose of diverting the 90% royalties to the native corporations.[65] Ordered by the Reagan Administration to drop this plan, the Secretary next tried a more direct approach. In the unveiling of Bush's 1991 energy plan, the Secretary proposed that the Administration should keep 100% of the revenues, contending that ANWR is a federal refuge.[66] More recently, a 50-50 split has been proposed, but the issue remains unresolved.[67] Until the revenue share issue is settled, proponents of development are less likely to mount an effective coalition to open the refuge.

Nevertheless, both proponents and opponents of ANWR oil and gas development will continue to mount significant pressure upon the State of Alaska, the Department of the Interior and Congress. These campaigns are, to a large extent, determined by the designated process through which Congress must determine whether ANWR should be opened for development.

III. THE LEGAL STRUCTURE AND ANWR DEVELOPMENT

The legal structure established to protect ANWR's environmental and subsistence resources is, perhaps, critically flawed. Within the structure, the Secretary of the Interior maintains tremendous power to shape the course of events by molding a fact record that supports development. First, the Secretary can exert significant influence on Congress's decision to grant leasing authority. The factual record could serve as a vehicle to convince Congress that oil and gas development will not significantly impair the environmental and subsistence values the refuge was designed to protect and that the coastal plain's potential mineral resources justify any disturbance to these values.[68]

If Congress ultimately approves leasing, however, other statutory requirements may bar development[69]—but again, the strength of these barriers will be determined by the Secretary's success in shaping the factual record. The question whether development is compatible with the refuge's environmental and subsistence purposes probably will be determined largely by the factual findings in the 1002 Report, the leasing Environmental Impact Statement and the subsistence study. By taking full advantage of courts' limited level of scrutiny under the arbitrary and

64. Alaska Statehood Act, *supra* note 1; *see generally* Lisa J. Booth, Comment, *Arctic National Wildlife Refuge: A Crown Jewel in Jeopardy*, 9 PUB. LAND L. REV. 105 (1988).

65. *See* Booth, *supra* note 64, at 121-23.

66. *Alaska Governor Stunned by White House Plan, Will Fight for Share of ANWR Oil and Gas Revenue*, 21 ENV'T REP. 1986 (Mar. 8, 1991).

67. *Id.*

68. Plaintiffs' Memorandum, *supra* note 41, at 63-103. It should be noted, however, that not all senators meekly accept the fact record put together by employees of the executive branch. *See generally* CRS REPORT, *supra* note 3, which is an example of the type of factfinding commissioned by Congress.

69. *See infra* notes 73-75 and accompanying text.

capricious standard,[70] the Secretary has great leeway to mold a fact record that will further his political agenda with Congress and insulate his later decisions from judicial inquiry.

The legal structure which determines the course of events in ANWR is provided in ANILCA. At present, development in ANWR is prohibited unless Congress grants leasing authority to the Secretary of the Interior.[71] ANILCA defers congressional debate on this issue pending the preparation of several informational studies by the Secretary, including the comprehensive 1002 Report regarding the coastal plain and its environmental and resource values.[72] Should Congress decide to extend leasing authority, the Secretary will be required to complete an Environmental Impact Study on the impacts of leasing.[73] In addition, section 810 of ANILCA requires the Secretary to evaluate the impact of oil and gas operations on the coastal plain, on subsistence and to minimize any adverse impacts.[74] Finally, under both ANILCA and the National Wildlife Refuge Act, the Secretary may not permit uses of the refuge that are inconsistent with the refuge's major purposes.[75]

A. *Section 1002 Report*

Section 1002 of ANILCA requires the Secretary to compile several informational analyses of ANWR's coastal plain. The first two, a baseline biological study and an Environmental Impact Statement related to non-drilling exploration guidelines for the range, have been completed without challenge.[76]

The third informational assessment of the coastal plain, in contrast, has proved extremely controversial. Section 1002(h) solicits the Secretary's recommendations concerning development activity in the coastal

70. NRDC v. Lujan, 768 F. Supp. 870, 881-83 (D.D.C. 1991). The 1002 Report is not subject to judicial review because existing guidelines are vague and insufficient for judicial use in evaluating compliance with the statute. *Id.* at 883.

71. 16 U.S.C. § 3143 (1988).

72. *Id.* § 3142(h). *See infra* notes 73-80 and accompanying text.

73. 16 U.S.C. § 3149 (1988). An Environmental Impact Statement (EIS) is a detailed written statement prepared by the responsible official, in this case the Secretary of the Interior, for "every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C) (1988). In Trustees for Alaska v. Hodel, 806 F.2d 1378, 1383-84 (9th Cir. 1986), the Secretary of the Interior was required to prepare a separate Legislative EIS (LEIS) in conjunction with the Section 1002 Report.

74. 16 U.S.C. § 3120 (1988). It is not completely clear from the statute when this report is to be prepared, and several groups have mounted a strong argument that this subsistence study should be completed before Congress makes any decision concerning leasing. *See* discussion pp. 64-66. However, the U.S. District Court for the D.C. Circuit has held that this subsistence study is not required until congressional approval has been obtained. *Lujan*, 768 F. Supp. at 884.

75. Alaska National Interest Lands Conservation Act, Pub. L. No. 96-487, § 303(2)(B), 94 Stat. 2371, 2390 (1980); National Wildlife Refuge System Administration Act, 16 U.S.C. §§ 668dd, 668ee (1988).

76. 16 U.S.C. § 3142(c) (1988) (baseline study); 16 U.S.C. § 3142(d)(2) (exploration guidelines) (1985). For the baseline study, the Secretary is directed to:

plain.[77] The 1002 Report serves to identify potential oil and gas production areas and estimate the potential volume at stake; describe the fish and wildlife in the coastal plain and their habitat, evaluating the adverse effects of further exploration activities; describe how any oil and gas produced in the coastal plain could be transported to processing facilities; and evaluate the national need for new domestic sources of oil and gas.[78] The 1002 Report should conclude with the Secretary's recommendations concerning whether further exploration and development should be permitted, as well as an identification of additional legal authority needed to avoid or minimize harm to wildlife and habitat from these activities.[79] Notwithstanding Congress's recent refusal to confer leasing authority, this Report can be expected to play an important role in future congressional debate.[80]

1. The Environmental Impact Study

The 1002 Report has been a target of litigation from the outset. Shortly after the Fish and Wildlife Service completed an initial version of the report in 1983, a coalition of environmental groups challenged its failure to prepare an Environmental Impact Statement pursuant to the National Environmental Policy Act (NEPA).[81] In response to this lawsuit, the Secretary decided to prepare such a statement; however, he intended to submit the document directly to Congress without prior circulation of a draft for public comment, in accordance with the abbreviated procedures available for a Legislative Environmental Impact Study (LEIS).[82] The *Trustees for Alaska* court held that the 1002 Report was a legislative study process, and subject to the full range of procedural requirements applicable to an Environmental Impact Statement, including notice and comment procedures.[83] In accordance with the

(A) assess the size, range, and distribution of the populations of the fish and wildlife;

(B) determine the extent, location and carrying capacity of habitats of the fish and wildlife;

(C) assess the impacts of human activities and natural processes on the fish and wildlife and their habitats;

(D) analyze the potential impacts of oil and gas exploration, development, and production on such wildlife and habitats; and

(E) analyze the potential effects of such activities on the culture and lifestyle (including subsistence) of affected Native and other people.

16 U.S.C. § 3142(c) (1988). The EIS for exploration activities was completed in 1983, and the final report of the baseline study was published in 1986. *Lujan*, 768 F. Supp. at 873.

77. 16 U.S.C. § 3142(h) (1985).

78. *Id.*

79. *Id.*

80. *See* Booth, *supra* note 64, at 121-23.

81. Trustees for Alaska v. Hodel, 806 F.2d 1378, 1379-80 (9th Cir. 1986). The National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321-4370a, requires the preparation of an EIS before any major federal action significantly affecting the environment. 42 U.S.C. § 4332(2)(C) (1988).

82. *Trustees for Alaska*, 806 F.2d at 1383 (construing 40 C.F.R. § 1506.8 (1991)).

83. *Id.* Ordinarily, an EIS must be circulated in draft form for public comment before a final draft is completed. Exceptional procedures exist for an LEIS, which may be submitted to Congress at the same time it is released to the public. However, the *Trustees for Alaska* court held that the 1002 Report/LEIS represented a study process required by Con-

court's ruling, the Secretary circulated a draft LEIS for public comment and finally submitted the section 1002 Report and LEIS to Congress as a single, integrated document in May of 1987. The substantive adequacy of this final 1002 Report/LEIS is currently being challenged under NEPA.[84]

A new chapter in the saga of the 1002 Report was opened in April of 1991, when the Bureau of Land Management produced a report revising the likelihood of oil discovery in the coastal plain. This document prompted the plaintiffs challenging the existing 1002 Report/LEIS to claim that this information significantly revised the information relied upon in the original LEIS, and should be released as a supplemental LEIS (SEIS).[85] After holding that the 1002 Report/LEIS is subject to NEPA's supplementation requirements, the court found that the revised estimates present significant new information that would affect the analysis of environmental impacts.[86] Accordingly, the court ordered the Secretary to release the 1991 Overview as an SEIS on an expedited basis.[87] Another round of commenting and litigation is expected in connection with this SEIS.

2. Substantive Adequacy

The substantive adequacy of the 1002 Report and LEIS has been sharply criticized and is currently under attack.[88] Underlying the numerous specific complaints about the 1002 Report is the accusation that the Secretary is cynically manipulating the Report to support his predetermined opinion that ANWR should be opened for leasing activity, thus thwarting Congress's intention in section 1002(h) to seek an objective source of data.[89] Because the *NRDC* court has held that the report's compliance with section 1002(h) is nonjusticiable due to a lack of manageable standards for review,[90] the remaining legal question concerns the adequacy of the LEIS under NEPA.

Although the full range of allegations exceeds the scope of this paper, a brief summary of criticisms is in order. One category of criticisms concerns the factual adequacy of the Secretary's assessment. NEPA reg-

gress, which is an exception to the LEIS exception and is not eligible for abbreviated commenting procedures. *Id.*; *see* 40 C.F.R. §§ 1503.1, 1503.4 (1991); 40 C.F.R. §§ 1506.8, 1506.8(b)(2)(ii) (1991).

84. NRDC v. Lujan, Nos. 89-2345, 89-2393 (D.D.C. ordered July 22, 1991). A number of other issues were resolved in the previous action, including issues of standing and procedural compliance with NEPA. NRDC v. Lujan, 768 F. Supp. 870, 891 (D.D.C. 1991).

85. NEPA requires the preparation of an SEIS whenever there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts. 40 C.F.R. § 1502.9(c)(1)(ii) (1991).

86. *Lujan*, 768 F. Supp. at 888. The court pointed out that environmental impacts were not addressed in the 1991 Overview and apparently were not considered at all. *Id.*

87. *Id.* at 891-92. The court declined to order the release of nonconfidential data relied upon in preparing the 1991 Overview, noting that this claim was not ripe because a Freedom of Information Act (FOIA) appeal was pending. *Id.* at 890.

88. Booth, *supra* note 64, at 119-26; NRDC v. Lujan, Nos. 89-2345, 89-2393.

89. Plaintiffs' Memorandum, *supra* note 41, at 1, 4, 6.

90. *Lujan*, 768 F. Supp. at 883.

ulations require that an EIS show how a proposed action will or will not meet the requirements of applicable environmental laws and policies, such as the Clean Air Act, the Clean Water Act and any other applicable laws.[91] In this instance, environmentalists argue that the LEIS seriously underestimates the severity of impacts within the coastal plain by giving cursory treatment to issues such as hazardous waste disposal and wastewater contamination.[92] Moreover, environmentalists argue that the Secretary fails to discuss several types of impacts, such as air pollution.[93] Another serious shortcoming is the LEIS's failure to explore the cumulative impacts of development.[94] For example, although the LEIS characterizes oil spills as "an inevitable consequence" of development[95] and acknowledges that these spills can seriously harm vegetation, it does not explore the consequences of oil spills for species such as polar bears and migratory fish. Instead, it flatly states that the cumulative effects of oil spills are not significant.[96]

Perhaps the most serious criticism of the 1002 Report/LEIS is that the Secretary's summary and recommendation contradicts the analysis in the body of the document. The most egregious example is the contrast between the treatment of impacts to the Porcupine caribou herd in the body of the document and the description of this analysis in the recommendation. The body of the document acknowledges that the Porcupine herd will experience "major effects" as a consequence of development in the coastal plain.[97] This discussion stresses that the calving period spent in the coastal plain habitat is essential to the herd's productivity and surmises that disruption of this traditional habitat can be expected to diminish the herd's population.[98] This portion of the Report dismisses the notion that the development at Prudhoe Bay represents an analogous environmental success story, pointing out that the population of this herd has lately begun to decline, and concedes that this development has, in fact, interfered with the Central Arctic caribou herd's movements.[99]

The Secretary's recommendation and summary disregards this analysis. In his recommendation, the Secretary offers the disingenuous disclaimer that major effects are not necessarily adverse.[100] This

91. 40 C.F.R. § 1502.2(d) (1991).

92. Plaintiffs' Memorandum, *supra* note 41, at 38.

93. *Id.* The EPA has also criticized the Secretary's failure to address air quality impacts in the 1002 Report. Plaintiffs' Memorandum, *supra* note 41, at 54.

94. NEPA requires a comprehensive analysis of cumulative environmental impacts. 40 C.F.R. § 1508.7 (1991), *construed in* Kleppe v. Sierra Club, 427 U.S. 390 (1976).

95. Numerous large (over 10,000 gallons) spills of crude oil, gasoline and diesel fuel have occurred throughout the operation of Prudhoe Bay; in 1985 alone, over 82,000 gallons were spilled. IMPACT STATEMENT, *supra* note 8, at 115, *cited in* Plaintiffs' Memorandum, *supra* note 41, at 28.

96. *Id.*

97. IMPACT STATEMENT, *supra* note 8, at 123.

98. *Id.* at 24-25, 123-24.

99. IMPACT STATEMENT, *supra* note 8, at 118-24, *cited in* Plaintiffs' Memorandum, *supra* note 41, at 7.

100. IMPACT STATEMENT, *supra* note 8, at 187.

recommendation deflects attention from the qualitative importance of the time spent in the calving grounds by emphasizing its relatively brief duration of six to eight weeks.[101] In the conclusion to the Report, the Secretary claims that development and environmental values can coexist, pointing obliquely to the "success at Prudhoe Bay and elsewhere" without stating his basis for characterizing the Prudhoe Bay developments as successful.[102]

As NRDC alleges in its brief of the case, these statements may mislead those readers who forego reading the entire 200-plus page document in favor of skimming the summary and conclusions, and thus may constitute a politically shrewd—if deceptive—strategy.[103] However, it is unclear whether this tactic will pass muster with a reviewing court, which may go beyond the conclusory statements to examine the factual support in the body of the document. Although courts are reluctant to inquire closely into subjective agency decisionmaking under the arbitrary and capricious standard of review for agency action, reviewing courts generally do require citation of some factual support for agency decision.[104]

Even if the plaintiffs prevail to some extent in the current lawsuit and in possible future litigation concerning the SEIS, victory at this level alone cannot prevent development in ANWR. The practical result of challenges to the informational analyses prepared by the Secretary will be to delay a congressional decision or, at most, to force the Secretary to acknowledge more extensive environmental harm. An EIS, as well as an LEIS or an SEIS, serves the purpose of putting knowledge of environmental impacts before a decisionmaker and gives governmental entities as much information as possible about environmental consequences, but it has no force in and of itself to require the decisionmaker to change a recommendation or decision.[105] Moreover, since the adequacy of the Secretary's recommendation under ANILCA section 1002(h) has been ruled nonjusticiable,[106] the Secretary cannot be required to change his recommendation of immediate full leasing on the basis of findings of adverse environmental consequences.[107] The litigation, however, may pressure the Secretary to compromise, perhaps by adopting an alternative such as restricted leasing or further exploration, and may create enough publicity to discredit the Secretary's objectivity in claiming that oil and gas development will not destroy the coastal plain.

101. *Id.* at 187.

102. *Id.* at 187. NRDC points out evidence of environmental disaster related to the Prudhoe Bay development. Plaintiffs' Memorandum, *supra* note 41, at 123-24.

103. Plaintiffs' Memorandum, *supra* note 41, at 95.

104. NRDC v. Lujan, 768 F. Supp. 870, 889 (D.D.C. 1991).

105. 42 U.S.C. §§ 4331-4335 (1988).

106. *Lujan*, 768 F. Supp. at 883.

107. Note that NEPA compels a full and fair disclosure of alternatives, but does not compel the agency's substantive choice. 42 U.S.C. §§ 4331-4335 (1988).

IV. CONGRESSIONAL DELEGATION OF LEASING AUTHORITY

Once a final 1002 Report and LEIS have been submitted, Congress can decide to delegate leasing authority to the Secretary; however, leasing and production of oil and gas within ANWR are specifically prohibited until authorized by an act of Congress.[108] To the Secretary's dismay, this authority was denied in the National Energy Security Act of 1992 as a political tradeoff for Congress's declining to impose Corporate Average Fuel Economy (CAFE) standards on the automotive industry.[109] Environmentalists welcomed this news, although it represented something less than a victory.

Although the Persian Gulf War created a resurgence of interest in the need for domestic oil, several factors combined in 1991 to weaken the pro-development coalition—the dispute between the Department of the Interior (DOI) and the State of Alaska over royalty shares,[110] the Public Utility Commission controversy and the current political fashionability of environmentalism, to name a few. The issue of ANWR development may, however, be reopened when these factors are not present, and when Congress is able to open the refuge without fear of an effective public outcry.

If Congress is more sympathetic to ANWR development in the future, it is still unclear whether it will favor the Secretary's recommendation of immediate full leasing or whether it will select one of the more moderate alternatives considered by the Secretary in the 1002 Report.[111] One option is to drill a number of test wells, and postpone further decision pending the results of the drilling.[112] Limited leasing is another alternative which could minimize the impact of drilling and production activity on the Porcupine caribou herd by excluding the herd's core calving area from exploration and production.[113]

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108. 16 U.S.C. § 3143 (1988).

109. Barbara Rosewicz, *Energy Measure Clears Congress, Is Sent to Bush*, WALL ST. J., Oct. 9, 1992, at A3; Paul Rauber, *Last Refuge*, SIERRA, Jan.-Feb. 1992, at 37.

110. *Alaska Governor Stunned by White House Plan, Will Fight for Share of ANWR Oil and Gas Revenue*, 21 ENV'T REP. 1986 (Mar. 8, 1991); *see supra* notes 64-67 and accompanying text.

111. Discussion of alternative actions is required by ANILCA, 16 U.S.C. § 3142(h) (1988) and by NEPA, 42 U.S.C. § 4332(2)(C) (1988). In addition to the development-oriented alternatives discussed below, two non-development options were addressed in the Impact Statement. One possibility is to designate part or all of ANWR as a national wilderness area, which would permanently insulate the refuge from development. The Secretary also rejected this possibility, claiming ANWR's value is not unique due to the amount of designated wilderness in Alaska and Canada. IMPACT STATEMENT, *supra* note 8, at 189-90. Another option, which was the choice temporarily made by Congress in 1992, is to take no action. The Secretary rejected this approach in the Impact Statement, pointing out that it could take ten to fifteen years to bring ANWR into production, and claiming that national security needs make any delays imprudent. *Id.* at 190.

112. The Secretary rejected the notion of drilling four test wells on the theory that oil companies require financial incentives to invest in exploration. The Secretary also cited the political debacle of the federal exploration program in Alaska's National Petroleum Reserve. IMPACT STATEMENT, *supra* note 8, at 101, 191. Chevron has drilled an exploratory well on the ASRC/KIC Native lands in the refuge, but the results have not been made public. *Id.*

113. *Id.* at 191. This alternative would exclude approximately 242,000 acres from pro-

If Congress eventually grants DOI permission to lease, the Secretary's right to exercise that authority is not automatic. Two barriers to development will remain: a subsistence analysis and the requirement that all uses of the refuge must be compatible with its major purpose.[114] At that point, however, the Secretary will have the advantages of momentum and investment of resources.

A. *Compatible Use Requirement*

If Congress extends leasing authority to the Secretary under one of the above alternatives, a significant obstacle to leasing remains: opening the coastal plain to full leasing may violate the "compatible use" test found in ANILCA and the National Wildlife Refuge Administration Act (Refuge Act).[115] The Refuge Act authorized the Secretary to "permit the use of any area within the System for any purpose including, but not limited to, hunting, fishing, public recreation and accommodations, and access whenever the Secretary determines that such uses are compatible with the major purposes for which such areas were established."[116] Similarly, ANILCA provides that "the Secretary may not permit any use, or grant easements for any purpose . . . unless such use is compatible with the purposes of the refuge."[117]

> The statutory purposes of ANWR are clearly articulated:
> (i) To conserve populations and habitats in their natural diversity including, but not limited to, the Porcupine caribou herd (including participation in coordinated ecological studies and management of this herd and the Western Arctic caribou herd), polar bears, grizzly bears, musk oxen, Dall sheep, wolves, wolverines, snow geese, peregrine falcons and other migratory birds, and Arctic char and grayling;
> (ii) To fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats;
> (iii) To provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents; and
> (iv) To ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.[118]

Conspicuously absent from this list is the exploitation of mineral resources. Although several ANILCA provisions reflect congressional awareness of the possible existence of oil reserves at the time ANILCA

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duction. The Secretary rejected this option, citing estimates that this restriction would lower the recoverable oil resource by 25%. *Id.*

114. 16 U.S.C. § 3112 (1988); *Id.* § 668dd(d)(1)(A). An EIS is also required for each specific lease, *Id.* § 3149, but these are unlikely to pose obstacles to development.

115. Alaska National Interest Lands Conservation Act, Pub. L. No. 96-487, § 303(2)(B), 94 Stat. 2371, 2390 (1980); National Wildlife Refuge Administration Act of 1966, 16 U.S.C. §§ 668dd, 668e (1988).

116. Refuge Administration Act, 16 U.S.C. § 668dd(d)(1)(A) (1988).

117. Alaska National Interest Lands Conservation Act, Pub. L. No. 96-487, § 304(B), 94 Stat. 2371, 2393 (1980).

118. *Id. See generally* CRS Report, *supra* note 3.

was enacted,[119] Congress declined to include the development of these minerals among the purposes of the refuge. A critical question exists concerning the meaning of compatibility. Neither the Refuge Act nor ANILCA supplies a statutory definition. It is possible, however, that a definition might be borrowed from the Alaska Native Claims Settlement Act of 1971.[120] According to this statute, "compatibility" means that the proposed uses must not "materially impair the values for which the refuge was established."[121]

Assuming that compatibility will be defined in terms of material impairment in the context of ANWR, it becomes clear why it is important to the Secretary to craft a record supporting the notion that development in the coastal plain will not harm environmental and subsistence values. Although arguing that the benefits of development will justify resulting environmental harms might suffice to win a political victory by convincing Congress to open the refuge, this argument has no bearing on the compatible use requirement. Under the arbitrary and capricious standard for judicial review of agency action, the Secretary simply must show that development will not violate ANILCA's compatible use requirement by providing some factual basis for arguing that exploration and development will not materially impair the environmental and subsistence purposes of the refuge.[122] The battle over the adequacy of the 1002 Report/LEIS thus assumes another dimension: in addition to persuading Congress to open ANWR to full leasing, the Secretary also is attempting to provide some basis for his eventual conclusion that development is compatible with ANWR's major statutory purposes.

Based on the existing 1002 Report, it is apparent that the Secretary has not yet indicated that development is compatible with these purposes. For example, the 1002 Report does not show that development will not materially impair water supply and quality.[123] The Secretary acknowledges in the 1002 Report that 99% of the ANWR environment is wetlands.[124] The Secretary, however, never estimates the amount of water that will be required for or polluted by development.[125] Instead, the Secretary simply states, in a conclusory fashion, that development will not impair water quality or quantity in the coastal plain, providing

119. *E.g.*, the exploration guidelines, 16 U.S.C. § 3142(d) (1988), and the request that the Secretary address the impacts of oil and gas development in the Impact Statement. 16 U.S.C. § 3142(c)(d) (1988).

120. 43 U.S.C. §§ 1601-1629e (1988).

121. 43 C.F.R. § 2650.4-6(b) (1991). *See* National Audubon Soc. v. Hodel, 606 F. Supp. 825 (D. Alaska 1984), in which the court stated that only activities "compatible" with the major purposes of a Refuge are permitted under these laws and regulations. *Id.* at 837. The court held that the Secretary's determination that a support base located within the refuge in question would be compatible with the environmental protection purposes of the refuge was contrary to the underlying record. *Id.* at 846.

122. Alaska National Interest Lands Conservation Act, Pub. L. No. 96-487, § 303(2)(B), 94 Stat. 2371, 2390 (1980).

123. Plaintiffs' Memorandum, *supra* note 41, at 39-45.

124. IMPACT STATEMENT, *supra* note 8, at 13.

125. Plaintiffs' Memorandum, *supra* note 41, at 41 (estimating the amount of water needed for an average well and discussing the water pollution associated with oil wells).

no factual support whatsoever for this statement.[126] Even under the restrained scope of inquiry under the arbitrary and capricious standard of judicial review, it is unlikely that a mere conclusory statement will constitute a showing that ANILCA's purpose of water protection will not be materially impaired.

Notwithstanding claims that the current 1002 Report underestimates the environmental impacts of development, it can be argued that the existing 1002 Report positively demonstrates that development is not compatible with the purposes of the refuge. The Secretary's analysis of impacts on the Porcupine caribou herd and on subsistence provides an illustration. The Secretary acknowledges that successful oil development and production will have significant and long-lasting impacts.[127] These include major effects on the area's limited natural fresh-water sources, noise generation from aircraft and drilling operations and impaired visual appearance caused by drilling and production operations.[128] Mining gravel for use in operations may cause melting of permafrost, destruction of tundra, erosion and stream pollution.[129] Accidental spills of crude oil and refined petroleum products, an "inevitable consequence" of oil field development,[130] are expected to occur in the coastal plain, with possible severe decreases in vegetation as a result.

Likewise, the 1002 Report acknowledges that this disruption of the coastal plain habitat will produce "major effects" on the Porcupine caribou herd.[131] The Report defines "major effects" as "widespread, long-term change in habitat availability or quality [that] would likely modify natural abundance or distribution of species."[132] Although the Report denies that an appreciable population decline is anticipated,[133] it predicts that a change in the herd's distribution is to be expected.[134]

126. IMPACT STATEMENT, *supra* note 8, at 198; Plaintiffs' Memorandum, *supra* note 41, at 43.

127. IMPACT STATEMENT, *supra* note 8, at 115. The Secretary claims that unsuccessful exploration will produce only short-term, minor impacts on the coastal plain. *Id.*

128. *Id.* at 113-14. Since 99% of the coastal plain is wetlands, dedicating the vast amounts of water required for oil and gas development activities to industrial uses will have a major effect. Noise generated by aircraft operations, drilling operations and traffic at work sites would be major. The visual effects of such activities would be a major, long-term consequence of full leasing as well. *Id.*

129. "Moderate effects" would be caused by removing gravel from natural sites to construction areas, resulting in changes to topography in these areas. Localized removal or destruction of tundra vegetation would result from constructing gravel drilling and equipment pads, gravel roads and gravel mines. Thermokarsting (caused by melting of ground ice and settling or caving of the ground surface so that pits, depressions and small ponds result) of tundra is expected. Permafrost may melt under burrow sites and under vegetation disturbed by other development activities, resulting in sloughing, erosion and stream pollution lasting well beyond the life of the project. IMPACT STATEMENT, *supra* note 8, at 111-13.

130. *Id.* at 115. Throughout the operation of Prudhoe Bay, there have been very large spills of over 10,000 gallons of crude oil, gasoline and diesel fuel. *Id.*

131. IMPACT STATEMENT, *supra* note 8, at 123.

132. *Id.* at 107.

133. This contention is hotly contested by NRDC, which argues that new information regarding the caribou affected by activity in the Prudhoe Bay area calls this conclusion into serious doubt. Plaintiff's Memorandum, *supra* note 41, at 124.

134. IMPACT STATEMENT, *supra* note 8, at 124.

Any significant change in the migration pattern, redistribution or population of the Porcupine herd could be expected to have significant adverse impacts on the subsistence lifestyle of the Gwich'in Indians of Arctic Village, who annually harvest caribou for subsistence uses.[135] These changes also may affect the United States's compliance with international treaties concerning the caribou.[136]

Thus, based on the existing 1002 Report alone, it can be argued that development will significantly impair three of the major purposes of the refuge—protection of the Porcupine herd, subsistence use and compliance with international treaties—and therefore fails the compatible use test.

B. *Section 810 Analysis*

An independent barrier to oil and gas development in ANWR's coastal plain is found in Title VIII of ANILCA, which protects subsistence uses of public lands in Alaska by requiring that other uses of the lands have the least possible adverse impact on subsistence.[137] Section 810(a) of ANILCA requires that whenever a federal agency proposes to "withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of [Alaskan] public lands," the head of that agency must first evaluate the effect of the proposed use and identify alternatives that would reduce or eliminate the proposed use of the public lands needed for subsistence.[138] If this evaluation indicates that the proposed use would significantly restrict subsistence uses, the Secretary must provide notice to appropriate state and local agencies and hold local hearings in the areas to be affected.[139] Before the use can be carried out, the agency must determine that a significant restriction of subsistence uses is necessary, that a minimal amount of public lands will be used and that reasonable steps are taken to minimize adverse impacts upon subsistence uses.[140] If an EIS is required for leasing, it must include these subsistence findings.[141]

The section 810 analysis is part of ANILCA's strong policy preference in favor of subsistence. Protection of subsistence lifestyles is identified as one of the primary purposes of ANILCA.[142] Section 802 states:

135. *Id.* at 40.
136. Plaintiffs' Memorandum, *supra* note 41, at 66.
137. 16 U.S.C. § 3112 (1988).
138. *Id.* § 3120.
139. *Id.* §§ 3120(a), (a)(1), (a)(2).
140. *Id.* § 3120. The pertinent language reads:
> In determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands under any provision of law authorizing such actions, the head of the Federal agency, having primary jurisdiction over such lands or his designee shall evaluate the effect of such use, occupancy, or disposition on subsistence uses and needs, the availability of other lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the use, occupancy, or disposition of public lands needed for subsistence purposes.

Id.
141. *Id.* §§ 3120(b) (1988); NRDC v. Lujan, 768 F. Supp. 870, 883 (D.D.C. 1991).
142. 16 U.S.C. § 3101(c) (1988).

> It is hereby declared to be the policy of Congress that—(1) consistent with sound management principles, and the conservation of healthy populations of fish and wildlife, the utilization of the public lands in Alaska is to cause the least adverse impact possible on rural residents who depend upon subsistence uses of the resources of such lands; consistent with management of fish and wildlife in accordance with recognized scientific principles and the purposes for each unit established, designated, or expanded by or pursuant to titles II through VII of the Act, the purpose of this subchapter is to provide the opportunity for rural residents engaged in a subsistence way of life to do so.[143]

This preference is based on a congressional recognition that "the continuation of the opportunity for subsistence uses by rural residents of Alaska . . . is essential to Native physical, economic, traditional, and cultural existence and to non-Native physical, economic, traditional, and social existence."[144]

Despite the strong enunciation of a policy in favor of protecting subsistence, in reality, section 810 offers only weak protection against oil and gas development which threatens the subsistence of the Gwich'in. First, the subsistence analysis will not be conducted until after Congress has made its initial decision whether to grant leasing authority to the Secretary. Section 810 states that the subsistence evaluation is required "[i]n determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands under any provision of law authorizing such actions . . . ."[145] In *NRDC v. Lujan*,[146] the D.C. District Court found that NRDC's claim based on the 1002 Report/LEIS's failure to include the section 810 subsistence evaluation was premature because leasing authority has not yet been authorized by Congress.[147]

This holding considerably weakens the role that subsistence issues will play in the congressional deliberation of extending leasing authority. Although effects of development on subsistence are addressed in the baseline study of the coastal plain, alternatives that would minimize these impacts are not discussed.[148] Thus, without an adequate discussion of alternative development strategies that could reduce impacts on subsistence, Congress must decide whether to permit leasing as well as restrictions to impose on this authority. Once congressional leasing authority has been granted, it may be too late for the subsistence analysis to play a decisive role. At that point, political momentum will likely render Congress less willing to subsequently revoke or limit the Sec-

143. *Id.* § 3112. Arguably, section 802 is part of a subchapter largely oriented toward protecting subsistence resources from taking by non-subsistence uses such as hunting and fishing; for example, section 804 speaks in terms of restricting other consumptive uses when necessary to ensure adequate subsistence resources. *Id.* § 3114. However, the policy statement favoring subsistence is not restricted to consumptive uses. *Id.* § 3112(2).

144. *Id.* § 3111(1).

145. *Id.* § 3120.

146. 768 F. Supp. 870 (D.D.C. 1991).

147. *Id.* at 884.

148. 16 U.S.C. § 3142(c)(E) (1988).

retary's leasing authority based on the results of the subsistence evaluation.

Similarly, if substantial investments are made by developers based on congressional approval of leasing, a reviewing court will be reluctant to enjoin development activities based on section 810. For instance, in *Amoco Production Co. v. Village of Gambell*,[149] the Supreme Court reversed an injunction against offshore exploration activities based on the Secretary's failure to conduct a section 810(a) subsistence analysis, citing the fact that oil developers had already made considerable investment in exploratory activities, which would be lost if exploration was enjoined.[150]

It is questionable whether a challenge under section 810 could result in a prohibition of development activities in the refuge. Unlike the compatible use requirement, section 810 does not compel the Secretary to forego development that would interfere with subsistence uses; it merely requires the Secretary to evaluate the effects of development in order to decide whether significant restrictions on subsistence are to be expected. Depending on the Secretary's success in the forum of the 1002 Report, he may be able to provide himself with an arguable basis for finding no significant restrictions on subsistence. Even if the Secretary does find significant restriction of subsistence and elects to conduct hearings, section 810 probably does not pose a serious barrier to development. The Secretary must find that such a significant restriction is "necessary," but presumably, the proposed authorized use justifies restrictions of subsistence under section 810.[151] Second, although the Secretary must ensure that the restriction will involve a minimal amount of public lands and that the impacts will be minimized,[152] it does not provide that the proposed use will be prohibited if the Secretary finds that restrictions on subsistence uses cannot be minimized.[153]

C. *Lease-by-Lease Analysis*

The Secretary must determine on a lease-by-lease basis whether each lease is consistent with the major purposes of the refuge.[154] If NEPA is applicable, he must prepare an EIS for each leasing decision, including the section 810 subsistence evaluation.[155] Presumably, these subsequent leasing decisions would be subject to challenge under the arbitrary and capricious standard because in each case, the Secretary must state his reasons for the decision and explain why the reasons for leasing would be compatible or incompatible with the purposes of the

149. 480 U.S. 531 (1987).

150. *Id.* at 544.

151. 16 U.S.C. § 3120 (1988).

152. *Id.* § 3120(a)(3).

153. *See supra* notes 115-36. However, a finding of significant adverse effects in the subsistence evaluation may be used to show that the proposed development is not compatible with the major purposes of the refuge. *Id.*

154. 16 U.S.C. § 3149(b) (1988).

155. *Id.*

refuge.[156] But again, the Secretary could cite the 1002 Report in his own support when defending any challenged leasing decision, which lessens the chance that a court would find his actions arbitrary and capricious.

V. Conclusion and Recommendation

A. *Recent Legislative Developments*

ANWR has been the subject of passionate debate in the halls of Congress during the last few years.[157] The Bush Administration, the Department of the Interior, the State of Alaska and big oil companies have attempted to convince Congress that ANWR should be opened for drilling activity.[158] The Johnston-Wallop energy bill, which contained such a provision, was prevented from reaching the floor of the Senate by a filibuster on November 1, 1991; this effectively killed the bill.[159] The filibuster was made up of a coalition of senators representing very diverse interests—environmentalists, public utility companies and automobile manufacturers—who compromised on controversial issues in order to defeat the bill.[160] The automobile manufacturers worked with the environmentalists to further their own agenda and ensure that the CAFE standards, a provision placed in the bill to mandate higher automobile efficiency, would be killed.[161] The National Energy Security Act (NESA), presently winding its way through the halls of Congress, no longer poses an immediate danger to ANWR because its sponsors realize that adding a provision for drilling in ANWR would be the Act's death warrant.[162] In an attempt to emphasize his views on the subject, President Bush has threatened to veto the NESA if it does not provide for the commencement of drilling in ANWR or, alternatively, threatened to attach a similar provision to another bill which might make it more difficult for environmentalists to line up allies.[163]

B. *Wilderness Area Designation*

The National Energy Security Act of 1991 represents a victory for ANWR defenders, but only a temporary one. Given our nation's reluctance to wean itself from oil dependence, the current faltering domestic economy and the oil industry's political staying power, it is unlikely that pressure to develop ANWR's reserves will cease. The only alternative to keeping ANWR constantly on the national agenda is to provide stronger legislative barriers to mineral development.

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156. *Id.*
157. *See generally* CRS Report for Congress, Arctic National Wildlife Refuge: Congressional Consideration Since the 99th Congress (Apr. 5, 1991).
158. *ANWR Issue Derails Senate Energy Bill,* Oil & Gas J., Nov. 11, 1991, at 17.
159. *Id.*
160. *Id.*
161. *Id.*
162. *Supra* note 53.
163. Oil & Gas J., *supra* note 158, at 17.

One way to secure more permanent protection is to upgrade ANWR's status from national wildlife refuge to national wilderness area. Generally, commercial enterprise and permanent roads are prohibited in these areas.[164] Temporary roads, mechanical transport and aircraft landings are prohibited as well, except as necessary to administer the area for the purposes of the Act—which do not include mineral development.[165] The extent of protection may depend on how the coastal plain is added to the national wilderness preservation system. If the plain is designated a national forest, data-gathering to determine mineral values will be not only permitted, but required.[166] Designation as a national wildlife area, however, will preclude oil and gas exploration or development.

Redesignation may not immunize ANWR from development permanently, but it will mean that greater pro-development momentum would be needed to revoke wilderness designation. If the coastal plain is characterized as national forest and thus made subject to mineral exploration, and such exploration confirms the Bureau of Land Management's enthusiastic predictions about the quantity of oil reserves, publication of these data could fuel developers' efforts to revoke the wilderness area designation. Nevertheless, commercial mineral development will not be permissible as long as the plain remains in the system.

ANILCA requires the Secretary of the Interior to consider whether ANWR is suitable for wilderness preservation.[167] The Secretary rejected this option in the 1002 Report, arguing that he was persuaded that wilderness "designation is not necessary to protect the 1002 area environment and is not in the best interest of the Nation."[168]

Opponents of redesignation may argue that ANWR's coastal plain does not meet the threshold requirements for national wilderness area status. No serious allegation can be made that the coastal plain does not fulfill the Act's definition of wilderness as "an area where the earth and its community of life are untrammeled by man, where man himself is a visitor who does not remain."[169] However, opponents may protest that adding ANWR's coastal plain to the wilderness preservation system is

164. 16 U.S.C. § 1133(c) (1988).

165. *Id.* § 1131 (1988).

166. *Id.* § 1133(d)(2). However, these activities must be carried out in a manner consistent with the preservation of the wilderness environment. *Id.*

167. *Id.* § 3144. The largest part of ANWR is already designated as a wilderness area. The only part of the refuge which is still open to question regarding wilderness designation is the coastal plain area or the 1002 area. CRS REPORT, *supra* note 3, at ix-x.

168. IMPACT STATEMENT, *supra* note 8, at 189-90.

169. 16 U.S.C. § 1131(c) (1988). The definition further states that wilderness is "an area of underdeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions and which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value." *Id.*

inconsistent with the purposes of the National Wilderness Preservation System Act. Since a great deal of Alaskan territory is already protected by various wilderness designations, it might be argued that the Act's purposes of preserving some land in pristine condition have already been fulfilled by existing wilderness in Alaska and that the ANWR coastal plain designation is thus superfluous. In addition, some critics have suggested that, notwithstanding the area's biological value, the plain lacks the spectacular vistas that should inspire the most stringent protection.

These attacks on ANWR's suitability as a national wilderness area bear very little weight. First of all, the Act does not quantify how much wilderness is needed to adequately protect the public interest in preserved lands. Second, the argument that enough wilderness has been preserved in Alaska is ludicrous since ANWR is widely recognized as the last pristine wilderness remaining in the United States, and thus it is precisely the type of land the Act seeks to protect. Finally, the area's recreational value in terms of spectacular scenery is irrelevant; the purpose of wilderness area protection is not to safeguard areas with particular unique characteristics, but to provide the public with unaltered wilderness areas.[170]

Upgrading ANWR's designation has attracted some congressional support. On October 17, 1991, a twelve to four majority of the Senate Environment and Public Works Committee approved legislation proposed by Senator William Roth (R-Del.) adding the coastal plain to the National Wilderness Preservation System,[171] but the bill has not been voted on by the entire Senate. Proponents of the bill optimistically predict strong support from the same legislators who voted to exclude the authorization to lease ANWR from the 1991 National Energy Security Act. However, any measure providing permanent sanctity for the area, as opposed to a temporary reprieve, is likely to face far stronger opposition. Under the current administration, such a measure would almost certainly be vetoed. Thus, although redesignation as a national wilderness area is an extremely potent defensive weapon, it may be an issue better reserved for a different administration. Alternatively, the specter of a vigorous redesignation campaign might be used to gain leverage in negotiating for other protection measures.

In creating ANWR, Congress resolved to protect the last and greatest wilderness in North America. Unfortunately, the statutory scheme, which was designed to ensure that development will not be conducted at the expense of the environmental and subsistence values, is dependent on the production of a "factual finding" that is essentially under the full control of the Secretary of the Interior. Taking full advantage of the wide berth given agency discretion under the arbitrary and capricious standard of judicial review, the Secretary can custom-build a factual rec-

170. McMichael v. United States, 355 F.2d 283 (9th Cir. 1965).

171. S. 39, 102nd Cong., 1st Sess. (1991); *Senators Pledge Filibuster on Energy Bill to Block Arctic Refuge Drilling Provisions*, 22 ENV'T REP. 1618 (Oct. 25, 1991).

ord to support his foregone conclusion in favor of development, thus frustrating the requirement that uses of the refuge must be compatible with the major purposes for which it was designed. If neither Congress nor the courts intercede, the Secretary of the Interior can pillage the last true wilderness and destroy the foundation of the last subsistence economy in the United States.

The only permanent protection for ANWR's coastal plain is legislative. To settle the question permanently, Congress should redesignate ANWR as statutory wilderness.