ANILCA Section 810: An Undervalued Protection for laskan Villagers’ Subsistence

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ARTICLES

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INTRODUCTION

Alaska is a land of extremes. More than twice the size of Texas, the state is marked by extraordinary variations in topography and climate. This variability extends also to the region’s economy. More than half of Alaska’s population lives in the urban, commercial centers of Anchorage and Fairbanks. Another quarter of the population is scattered among some 200 rural villages in all corners of the “Great Land.” Life in these villages is quite different from life in Alaska’s urban centers. Transportation is difficult, expensive, and often slow. Industry is almost nonexistent. Natural resources are extracted, but are exported from the region for process-


2. See id. In 1980, 26.8 percent of the population lived in places with less than 1,000 people. Id. at 302.

Because there are few year-round jobs and little commerce, the cash economy is minimal. Villagers live largely, as they have for centuries, off the land. The name used to describe this rural economy is “subsistence.”

The subsistence economy dominates every aspect of village life.

4. Alaska’s principal resource revenues are from oil which is exported to other states for refining. See NASKE & SLOTNICK, supra note 1, at 266-69, 272 (describing operation of trans-Alaska pipeline and dependence of state government on oil revenues). See also FIELD COMMITTEE REPORT, supra note 3, at 55 (describing villagers’ migration to obtain seasonal wage employment in remote fish canneries).


6. See id.; JAMES H. BARKER, ALWAYS GETTING READY: UPTERRLAINARLUTA, YUP’IK ESKIMO SUBSISTENCE IN SOUTHWEST ALASKA 20 (1993); see also FIELD COMMITTEE REPORT, supra note 3, at 13, 50-54.

7. BERGER, supra note 3, at 51-59; Martha Lee, Northern Voices—Subsistence Hinges on Labor, Trade, Land’s Resources, ANCHORAGE DAILY NEWS, Jan. 10, 1994, at C3; see Steve Behnke, Editorial, ALASKA FISH & GAME, Nov.-Dec. 1989, at 1. In addition to a complex economic system involving cooperative effort, sharing of the harvest, and trade, “subsistence” also denotes activities that have great social, cultural, and religious significance for many villagers.

8. See BERGER, supra note 3, at 48-59; see also FIELD COMMITTEE REPORT, supra note 3, at 50-54 (while degree of dependence varies by region, most village Alaskans survive, in some measure, by hunting, fishing, and gathering); see generally BARKER, supra note 6, passim (documenting subsistence lifestyle of contemporary southwest Alaskan Eskimos). The Alaskan subsistence economy is estimated to produce over 40,000,000 pounds of food per year. Jim Magdanz, River Trip—A Personal Exploration of Contemporary Subsistence Life, 21 ALASKA FISH & GAME, Nov.-Dec. 1989, at 41, 43. Three quarters of all Native families in smaller villages derive at least 50 percent of their food from subsistence. H.R. REP. NO. 1045, 95th Cong., 2d Sess., pt. 1, at 181-82 (1978). The Division of Subsistence of the Alaska State Department of Fish and Game has published over 150 technical papers analyzing subsistence activities in Alaskan villages. See Behnke, supra note 7, at 1; cf. Robert G. Bosworth, Describing Subsistence, ALASKA FISH & GAME, Nov.-Dec. 1989, at 31, 31-33 (discussing methods used by sociologists to gather subsistence data). These papers are available from the
Village residents follow the cycles of nature by hunting, fishing, and gathering wild plants as the seasons dictate. Many of the villagers are Alaska Natives whose ancestors followed these cycles. From their ancestors, they received the wealth of knowledge that makes it possible for them to survive by subsistence. Although airstrips, schools, and electrification, as well as modern tools such as outboards and snowmobiles, have touched village life, daily tasks are still accomplished through the traditional methods of gathering, processing, storing, and preparing wild food. Integrated with

Division of Subsistence, Dept. of Fish and Game, Box 3-2000, Juneau, AK 99802.

9. See Twitchell, supra note 7, at 636; see also DAVID S. CASE, ALASKA NATIVES AND AMERICAN LAWS 275-76, 334, 339-41, 344-45, 349-51, 354-56 (1984) (defining legal elements of traditional Native subsistence, positing federal trust responsibility to protect Native subsistence, and summarizing subsistence history of Native regions); cf. Wolfe, supra note 5, at 16 (in 1989, about 45 percent of rural villagers legally qualified for subsistence preference were Natives). Native villages generally harvest more wild foods per capita than non-Native villages, because of differences in factors such as personal income and distance from the transportation system. See Alaskans’ Per Capita Harvests of Wild Foods, ALASKA FISH & GAME, Nov.-Dec. 1989, at 14-15. This Article follows the accepted convention of referring to Natives and villages as “Alaska” and “Alaskan” interchangeably. FIELD COMMITTEE REPORT, supra note 3, at i.

10. See H.R. REP. NO. 1045, supra note 8, at 76; BARKER, supra note 6, at 19-22, 73 (Eskimos always have been quick to adapt new technology that makes subsistence safer and more efficient); Wolfe, supra note 5, at 19 (subsistence users have long adopted “appropriate technology” like guns, fish nets, outboard motors, and snowmobiles for use alongside traditional subsistence tools); Robert Wolfe, Tools: A Crucial Difference, ALASKA FISH & GAME, Nov.-Dec. 1989, at 20, 20-23 (describing mix of traditional and modern tools adopted by Yup’ik Eskimos for hunting and fishing along Bering Sea coast); LAEL MORGAN, AND THE LAND PROVIDES 280-316 (1974) (account of Athabascan Indian subsistence using mix of traditional and modern tools).

11. See BERGER, supra note 3, at 52; see generally BARKER, supra note 6, passim (describing subsistence methods used by Yup’ik Eskimos); cf. THOMAS R. BERGER, A LONG AND TERRIBLE SHADOW—WHITE VALUES, NATIVE RIGHTS IN THE AMERICAS 1492-1992, at 129-32 (1991) (suggesting that the subsistence economy of northern Native villages should not, and cannot, ever be replaced by a cash economy); Wolfe, supra note 5, at 19 (subsistence harvests remain essential, but are threatened by new roads, commercial fishing, and laws that restrict access); Terry Haynes & Sverre Pedersen, Development and Subsistence: Life After Oil, ALASKA FISH & GAME, Nov.-Dec. 1989, at 24, 24-27 (economies of
these daily tasks are the family and community structures of the
village. Subsistence is central to coming-of-age rites, ritual food
sharing, and religious ceremonial offerings in Native culture.
Some villagers also view subsistence culture as a bulwark against
urban cultural values and as a key to political self-determination.

Inupiat Eskimos and Athabaskan Indians still depend upon subsistence that is
threatened by restricted access and hunting competition brought by North Slope
oil development. The principal subsistence food is fish, which comprises by
weight some 65 percent of Alaska’s subsistence harvest. Wolfe, supra note 5, at
17. Villagers harvest more weight of subsistence foods per capita than the amount
of fish and meat that other Americans buy, because the villagers substitute these
foods for milk, fruit, vegetables, and grains. See id. at 16; Alaskans’ Per Capita
Harvests of Wild Foods, supra note 9, at 15. In addition to food, the subsistence
economy supplies villagers with material for clothing, fuel, construction; and
housewares. Wolfe, supra note 5, at 16-17. Subsistence also provides material for
saleable handicrafts and customary trade with other regions. See id. at 17-18; cf.
United States v. Alexander, 938 F.2d 942, 945-46 (9th Cir. 1991) (discussing
meaning of “customary trade” within federal definition of subsistence); United
States v. Skinna, 915 F.2d 1250, 1253 (9th Cir. 1990).

12. See Berger, supra note 3, at 55-59 (describing role of subsistence econo-
my in Native village life); see also Wolfe, supra note 5, at 19 (most productive
households contribute to community welfare by regularly sharing subsistence
resources with villagers less able to gather them); Magdanz, supra note 8, at 41,
44 (same); cf. id. at 43 (subsistence is estimated to produce over 40,000,000
pounds of food per year); H.R. Rep. No. 1045, supra note 8, at 181-82 (cultural
and social life of villagers continues to be based on subsistence).

13. See Berger, supra note 3, at 51-55; see also Hannah B. Loon, Sharing:
You are Never Alone in a Village, Alaska Fish & Game, Nov.-Dec. 1989, at
34, 36 (describing different types of equitable, charitable, and ceremonial sharing
of subsistence harvests in Inupiaq Eskimo villages); Barker, supra note 6, at 20,
37, 130 (discussing role of subsistence rituals in religion of contemporary Yup’ik
Eskimo villages); Frank v. State, 604 P.2d 1068, 1069-70, 1072-73 (Alaska 1979)
(describing use of subsistence foods in funeral rituals or “potlach”).

14. See Barker, supra note 6, at 21-22; Berger, supra note 3, at 72, 171-72;
cf. Case, supra note 7, at 1032-35 (advocating co-management of wildlife re-
sources by Native villages and the state); Tungavik Federation of Nunavut &
Ministry of Indian Affairs and Northern Development of Canada, Agreement
Between the Inuit of the Nunavut Settlement Area and Her Majesty the Queen in
Right of Canada §§ 5.1.3, 5.2.1, 5.2.33, 11.4.1, 11.4.5, 11.5.1, 11.5.10, 12.2.2, 12.2.6, 12.4.2, 12.5.6 (signed May 25, 1993) (trea-
ty establishing Eskimo homeland in central Canadian arctic and providing for co-
management of wildlife, and Native participation in land use planning and project
decisions).
The cultural and social benefits of the subsistence economy derive directly from the health of subsistence resources and the land base that supports them.

In ancient times, semi-nomadic Natives used nearly all of Alaska's territory for subsistence, migrating between traditional hunting grounds. Although modern villages are more fixed, residents still follow the cycle of the seasons over vast areas to subsist. As Alaska's population grows, these areas become increasingly subject to development for commercial uses. Mining, logging, oil drilling, and road building destroy wildlife habitats or exclude villagers from traditional hunting grounds. Development also increases motorized access, bringing competition from sport and commercial harvesters of the same wildlife. Lawmakers have acted to protect subsistence users by giving them priority in fish and game management regulations. The villagers' livelihood still depends, however, on whether the landowners develop the land.

Much of this land is controlled by federal agencies. Until

15. See Field Committee Report, supra note 3, at 536-37; Barker, supra note 6, at 18-22, 48, 93; see also Mike Coffing, Bear Boats: Floating Home From Squirrel Camp, Alaska Fish & Game, Nov.-Dec. 1989, at 12, 12-13 (describing a contemporary seasonal migration combining traditional and modern modes of transportation).


20. Currently, over sixty percent of Alaska is federally owned and administered by federal agencies. Specific land ownership is as follows [Area (acres x 1,000,000) / Percentage of Alaska]: Bureau of Land Management [88.7 / 24.2], National Park Service [52.7 / 15.0], Fish & Wildlife Service [75.3 / 20.6], U.S. Forest Service [22.2 / 6.1], Defense, other federal agencies [2.1 / 0.6], State of Alaska [87.4 / 23.9], Private: Native corporations [36.1 / 10.0], Private: other owners [1.0 / 0.3], Total [365.5 / 100.7]
Alaska attained statehood in 1959, nearly all of its approximately 375,000,000 acres was owned by the federal government.\textsuperscript{21} Congress granted the new state the right to select 103,000,000 acres to use for economic development.\textsuperscript{22} State selections threatened to develop lands that Native groups traditionally had claimed as their hunting grounds. In 1971, Congress settled these Native land claims, granting some 44,000,000 acres of land to new Native corporations.\textsuperscript{23} The settlement extinguished ancient Native hunting and fishing rights, and Congress relied on state and federal land managers to protect subsistence.\textsuperscript{24} In 1980, Congress passed the Alaska National Interest Lands Conservation Act ("ANILCA").\textsuperscript{25} The statute formalized federal land holdings under the Park Service, Fish and Wildlife Service, Forest Service, and Bureau of Land Management. Recognizing that its Native claims settlement had
failed to protect subsistence, Congress, in Title VIII of ANILCA, set management rules for subsistence on federal lands. Title VIII broadened these subsistence protections to include all other Alaska rural residents, in addition to Natives, but the rules remain controversial today. Title VIII also included a provision requiring the federal agencies to protect subsistence in their land-development decisions—section 810.


27. See ANILCA §§ 101(c), 801(1), 803(1), 803, 16 U.S.C. §§ 3101(c), 3111(1), 3112(1), 3113 (1994) (referring to rural residents); Kenaitze Indian Tribe v. Alaska, 860 F.2d 312, 313 n.1 (9th Cir. 1988) (Congress broadened Title VIII to include all rural residents so that conflict between state constitution and a Native preference would be avoided), cert. denied, 491 U.S. 905 (1989); see also McDowell v. State, 785 P.2d 1, 9 (Alaska 1989) (ANILCA preference for rural residents violates the state constitution); Smith, supra note 17, at 23-26 (discussing recent controversy centered on Title VIII management requirements).

28. Subsection 810(a) reads:

§ 3120. Subsistence and land use decisions
(a) Factors considered; requirements
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. No such withdrawal, reservation, lease, permit, or other use, occupancy or disposition of such lands which would significantly restrict subsistence uses shall be effected until the head of such Federal agency—

(1) gives notice to the appropriate State agency and the appropriate local committees and regional councils established pursuant to section 3115 of this title;
Section 810 of ANILCA commands any federal agency planning a project on public land to make an initial study of the subsistence impacts and how to avoid them. If the impacts may be "significant," the agency must make a further study, which begins with a hearing. Then it must make three findings about the design of the project. These findings are: (1) subsistence impacts are necessary and consistent with sound management, (2) use of land is minimal, and (3) subsistence impacts will be minimized. If the requirements of section 810 are met, the agency can proceed with development.

Villagers have attempted to enforce section 810 in court, focusing on two issues. The first issue was how an agency should determine whether a project may "significantly" impact subsistence.

(2) gives notice of, and holds, a hearing in the vicinity of the area involved; and
(3) determines that (A) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands, (B) the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and (C) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions.


30. See 16 U.S.C. § 3120(a)(2) (hearing requirement); see also Kunaknana v. Clark, 742 F.2d 1145, 1151 (9th Cir. 1984) [hereinafter Kunaknana] (notice and hearing procedures are required if an agency determines that a project "may significantly restrict subsistence use").


32. See 16 U.S.C. § 3120(d); see also S. REP. No. 413, 96th Cong., 2d Sess. 234 (1980) (clarifying that when the requirements of section 810 are satisfied through land-use planning, a project may proceed even though it harms subsistence uses), reprinted in 1980 U.S.C.C.A.N. 5070, 5178.

33. In some cases, villagers raised another broad issue: the scope of agency
eral section 810 cases, villagers challenged agency definitions of the significance threshold and agency conclusions that impacts would not be significant. Underlying this first issue was the question whether an agency should import law from the National Environmental Policy Act ("NEPA") to define significance within ANILCA.

The second issue raised by the villagers was how an agency, once it determined that there might be significant impacts, should make the three required findings. In one case, where an agency made them, villagers challenged its support in the record and its definitions of the findings. Underlying the second issue was the question whether the findings imposed any substantive requirement for an agency designing a project to protect subsistence.

actions to which section 810 applies. See, e.g., Amoco, 480 U.S. at 554 (considering geographic scope of section 810).


35. See NEPA, 42 U.S.C. §§ 4321-4370d (1994); see also id. § 4332(C) (requiring environmental impact statement for “major Federal actions significantly affecting the environment” (emphasis added)); cf. Kunaknana, 742 F.2d at 1152 (declining to decide as a general matter whether ANILCA’s significance threshold is higher than NEPA’s); Tribal Village of Akutan v. Hodel, 16 Env’tl. L. Rep. (Env’tl. L. Inst.) 20,245 n.1 (D. Alaska Jan. 13, 1986) [hereinafter Akutan I] (the Ninth Circuit no doubt intended courts to draw on NEPA case law as a guideline for determining significance” under section 810), aff’d, 792 F.2d 1376 (9th Cir. 1986), vacated on other grounds, 480 U.S. 943 (1987).


37. Cf. Clough I, 750 F. Supp. at 1421, 1427 (stating that the three findings limit an agency’s choice among alternatives it chooses to study, but do not require it to study any particular alternative); Clough II, 750 F. Supp. at 1432 (third finding imposes substantive duty to “mitigate” harm to subsistence, but does not limit range of alternatives that agency must study); see infra part IV.A. (discuss-
In answering these questions, the courts ratified agency planning that undervalued the subsistence protections in section 810. Congress intended section 810's procedures to inject subsistence into project planning early, and thereby preserve subsistence resources from unnecessary destruction. Although the courts did not permit agencies to ignore these procedures completely, they did accept agency definitions of "significance" that were inconsistent, and that raised barriers to villagers seeking the full protections provided by Congress. Courts also embraced agencies' use of NEPA law to determine the significant impacts threshold under ANILCA. As a result of these rulings, they affirmed agency determinations of non-significance that seemingly violated Congress' intent to make further evaluations readily available under section 810.

In the case where an agency determined impacts might be significant, a court ruled that Congress' three required findings placed substantive limits on the agency's planning. The court did not

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38. See Amoco, 480 U.S. at 544.
40. See Hanlon, 740 F. Supp. at 1450-51 (Forest Service project that increases hunting competition and clearcuts 8 to 21 percent of subsistence game habitat not "significant" if game supply remains sufficient to meet demand); Watt, No. A83-337 CIV, slip op. at 42 (oil leasing project not "significant" unless there is "large" reduction in game supply, "substantial" interference with access, or "major" increase in hunting competition); see also infra parts II.B., III.B. (discussing inconsistencies in agency threshold guidelines and resulting barriers to further subsistence evaluation); cf. Haynes & Pedersen, supra note 11, at 26-27 (describing impacts of development following oil exploration on subsistence users).
42. See infra notes 246, 255-56 and accompanying text (discussing Congress' intent to provide a low threshold to further evaluation of projects that may significantly restrict subsistence).
43. See Clough I, 750 F. Supp. at 1421, 1427. The district court viewed these
enforce such limits, however, because it deferred to the agency’s discretion in interpreting section 810.\textsuperscript{44} Therefore, the agency’s narrow construction of the three findings may have permitted unnecessary destruction of subsistence resources, contrary to Congress’ purpose.

This Article considers the extent of an agency’s duty to protect subsistence uses in planning a public land project under section 810. Part I recounts the legislative history of the section. Part II presents the statutory language that agencies have construed to discern the intent of section 810. Part II also summarizes the internal guidelines that agencies have developed to implement section 810 and the four principal court cases reviewing agency interpretations of the section.

Part III discusses the initial evaluation, section 810’s requirement to determine whether a project’s impact will be “significant,” and how that determination relates to a significance threshold in NEPA. The primary purpose of an initial evaluation is to minimize subsistence impacts early in land use planning. This Article suggests agencies should include subsistence-protective alternatives in developing their projects. Existing agency evaluation guidelines are inconsistent and do not conform with section 810. It is also suggested that agencies develop new regulations defining the “significance” finding at the threshold of further evaluation. In addition, agencies should use a lower threshold for section 810, fulfilling Congress’ intent to make its hearings and findings more readily available than the elaborate procedures of NEPA.

Part IV of this Article discusses the findings an agency must make if impacts are significant, concluding that Congress imposed a substantive requirement for an agency to design project alternatives that protect subsistence. Part V recommends that federal agencies implement new evaluation procedures that reflect Congress’ pur-

limits as limitations only upon an agency’s discretion to choose among the project alternatives that it already had studied. \textit{Id.; cf. infra} note 318 and accompanying text (suggesting that the three findings also limit an agency’s discretion in designing the project alternatives that it will study).

44. \textit{See Clough I}, 750 F. Supp. at 1427-29; \textit{see also Clough II}, 750 F. Supp. at 1432 (reviewing one required finding); City of Tenakee Springs v. Franzel, No. J86-024 CIV, slip op. at 24-26, 28 (D. Alaska 1991) (reviewing all three required findings), \textit{aff’d}, 960 F.2d 776 (9th Cir. 1992).
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pose, agencies integrate habitat protection with game management priorities, and the President order agencies to issue joint regulations standardizing subsistence evaluations. The Article concludes that section 810 can better protect subsistence on public lands if agencies infuse the letter and spirit of ANILCA into their land use planning.

I. THE ENACTMENT OF ANILCA SECTION 810

A. Historical Background

Prehistoric settlers occupied Alaska at least 10,000 years ago.45 Their descendants included the three major Alaska Native groups: Eskimos in the north and west, Aleuts on the Alaska Peninsula and islands in the southwest, and Indians in the interior and southeast.46 These aboriginal Natives subsisted by fishing, hunting, and gathering, employing all of the land in balance with its carrying capacity.47 Europeans first visited Alaska when an expedition commanded by the Russian explorer Vitus Bering put ashore in the Aleutians in 1741.48 Finding a great wealth of furs, succeeding Russian expeditions established settlements and enslaved Aleut villagers to pursue the fur trade. In 1799, the reigning Tsar gave an

45. See Arnold, supra note 19, at 2-7; cf. Berry, supra note 22, at 12 (human traces in Arctic from 8,000 years ago). Archaeologists offer the age of these Alaska settlements as evidence that humans migrated to North America over a land bridge across the Bering Strait. See 2 Lawrence J. Allen, The Trans Alaska Pipeline 14-15 (1976); Roseanne Pagano, Finding Pinpoints Continent's Oldest Camp, Oregonian, March 26, 1993, at A16.

46. See Allen, supra note 45, at 15; William R. Hunt, Alaska—A Bicentennial History 11 (1976); cf. Arnold, supra note 19, at 8 (estimated population of Eskimos, Indians, and Aleuts at time of first European contact was 74,000). The major linguistic groups among the Indians included Athabaskan speakers in the interior and Tlingit and Haida speakers along the southeast coast. Cf. Allen, supra note 45, at 15; Arnold, supra note 19, at 8; William W. Fitzhugh & Aron Crowell, Crossroads of Continents—Cultures of Siberia and Alaska 11 (1988).


48. Hector Chevigny, Russian America—The Great Alaskan Venture 1741-1867, at 28-29 (1965); Ernest Gruening, The State of Alaska 6-8 (1968); Arnold, supra note 19, at 8; Allen, supra note 45, at 15; Hunt, supra note 46, at 22-23.
exclusive trading charter to the Russian-American Company. This company governed Alaska for the next sixty-eight years. The Russians traded with some Native groups but did not govern beyond the coastal areas conquered in the exploration era. By the mid-nineteenth century, Russia was short of funds, regarded the colony as a financial burden, and needed American friendship as a bulwark against British power. By a treaty signed on March 30, 1867, Russia ceded Alaska to the United States for the sum of $7,200,000.

The 1867 Treaty of Cession allowed Russian colonists to become U.S. citizens but left the status of the Natives to later disposition by Congress. Thus began a pattern of deferring decision on Native

49. GRUENING, supra note 48, at 20. The guiding force of the Russian-American Company was Alexander Baranov. See id. at 19; HUNT, supra note 46, at 25; CHEVIGNY, supra note 48, at 78-103. Baranov established the company’s headquarters at New Archangel, now called Sitka. GRUENING, supra note 48, at 19; HUNT, supra note 46, at 25.

50. See FIELD COMMITTEE REPORT, supra note 3, at 429-30; GRUENING, supra note 48, at 19-20; HUNT, supra note 46, at 25-26; ALLEN, supra note 45, at 15; BERRY, supra note 22, at 13. Indeed, there were only a few hundred Russians in Alaska throughout the colonial period. ARNOLD, supra note 19, at 20-21. The first Russian fort at Sitka was destroyed and its occupants killed by Tlingit Indians in 1802. GRUENING, supra note 48, at 19; CHEVIGNY, supra note 48, at 100-03. Although the Indians were forced to retreat and the fort was rebuilt, they remained a threat even to the Russian headquarters throughout the company’s tenure.


52. HUNT, supra note 46, at 31; see GRUENING, supra note 48, at 23. The American negotiator, Secretary of State William H. Seward, conceded the odd $200,000 for a clause disclaiming any residual property rights in the Russian-American Company or the Hudson’s Bay Company. FIELD COMMITTEE REPORT, supra note 3, at 430; see JENSEN, supra note 51, at 77; BERRY, supra note 22, at 14. The Treaty was ratified by the Senate on April 9, 1867, after a close vote. JENSEN, supra note 51, at 104; see also id. at 79-92.

53. See Treaty With Russia, March 30, 1867, art. III, (15 stat. 539, 542 (1867)); ARNOLD, supra note 19, at 25-26; FIELD COMMITTEE REPORT, supra note 3, at 430; CHEVIGNY, supra note 48, at 254. The Treaty actually excluded only the “uncivilized tribes” from the immediate grant of citizenship, but even those Natives who had been governed by the Russian-American Company were
rights that Congress continued for almost a century. For the first seventeen years, there was little influx of whites because Alaska was poorly administered by the military, and federal laws giving land to settlers did not apply. Then Congress provided a civil government and extended the mining claim laws to Alaska in the Act of 1884. Gold discoveries and the growth of a salmon-canning industry by the turn of the century launched a rapid expansion in the white population. Although this expansion led to encroachments on traditional Native hunting and fishing grounds, the government did not create Indian reservations as it had done in the old West. Instead, Congress' then-prevailing policy of assimilating treated by the U.S. as "uncivilized." ARNOLD, supra note 19, at 26.

54. See S. REP. NO. 405, 92d Cong., 1st Sess. 88 (1971); see also Alaska Native Claims Settlement Act of 1971, 43 U.S.C. § 1601(a)(1988) (immediate need for just settlement of aboriginal Native land claims); H. REP. NO. 523, 92d Cong., 1st Sess. 3-4 (1971), reprinted in 1971 U.S.C.C.A.N. 2192, 2193-94 (Congress had simply not acted on great bulk of Alaskan aboriginal title claims); ARNOLD, supra note 19, at 103 (noting that Congress "largely sidestepped" aboriginal claims for 78 years following the Organic Act); Paul v. United States, 20 Cl. Ct. 236, 239-40 (1990) (finding the legal status of Native rights had not been resolved prior to 1971; general application of federal Indian law was ambiguous or had been deferred).

55. Act of May 17, 1884, ch. 53, 23 Stat. 24. Section 8 of the Organic Act barred any immediate ouster of the Natives from lands in their possession, but the terms by which they could acquire title were "reserved for future legislation by Congress." Id. at 26; see FIELD COMMITTEE REPORT, supra note 3, at 431; ARNOLD, supra note 19, at 68-71; BERRY, supra note 22, at 18; ALLEN, supra note 45, at 18-19. The homesteading laws were subsequently extended to Alaska, but were of no use to Natives because they were not citizens, and of little use to whites because the land was unsurveyed and unsuitable for farming. BERRY, supra note 22, at 18-19; ALLEN, supra note 45, at 19.

56. ARNOLD, supra note 19, at 71-72; BERRY, supra note 22, at 19; see NASKE & SLOTNICK, supra note 1, at 69-71, 101-02. By 1900 the population, swollen by gold miners, showed more whites than Natives for the first time. See ARNOLD, supra note 19, at 71; GRUENING, supra note 48, at 121. With the decline of the gold industry, the white and Native populations remained comparable until the white population experienced another period of sustained growth, noted in the census of 1939. See ARNOLD, supra note 19, at 71; FIELD COMMITTEE REPORT, supra note 3, at 429, 435; BERRY, supra note 22, at 22-23. In 1990 there were twice as many Natives as in 1900, but they had fallen to about thirteen percent of Alaska's population. See ALASKA NORTHWEST BOOKS, THE ALASKA ALMANAC 132 (1990).

57. Compare ARNOLD, supra note 19, at 30-36, 48-56 (detailing conquest,
Native peoples into the general population led to the enactment of the Alaska Native Allotment Act of 1906. Federal reservations of public land in the early twentieth century were limited to national forests, parks, monuments, and petroleum reserves.

In 1912, Congress made Alaska a territory with an elected legislature. The President created several Alaska Native reservations by executive order, until Congress revoked this authority in 1919. In 1936, Congress authorized the Department of the Inter-

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58. Act of May 17, 1906, ch. 2469, 34 Stat. 197, amended by Act of Aug. 2, 1956, ch. 891, 70 Stat. 954 (including Aleuts within allotment eligibility) (repealed 1971). The Act, which permitted Natives to select 160 acres of unreserved, non-mineral lands as homesteads held in trust, failed to transfer a significant amount of land to Native title. See ARNOLD, supra note 19, at 80-82; FIELD COMMITTEE REPORT, supra note 3, at 432 (denying the request of Southeast Alaskan Indians for a reservation based on the policy of eradicating traditional customs). One reservation was created at Annette Island in southeast Alaska for the Christianized Metlakahtla Indians who had emigrated from Canada for religious reasons. Id.; see Alaska Pacific Fisheries v. United States, 248 U.S. 78, 86 (1918).

59. The Tongass National Forest was reserved in 1902, the Chugach in 1907, Mt. McKinley National Park in 1916, followed by Katmai National Monument in 1918, and the Naval Petroleum Reserve No. 4 on the Arctic Slope in 1923. BERRY, supra note 22, at 20-21; see ALLEN, supra note 45, at 20. In 1906, Gifford Pinchot, Chief of the U.S. Forest Service, induced President Roosevelt to withdraw Alaska's coal lands from mining to prevent a monopoly; pro-development forces in Alaska burned Pinchot in effigy and denounced him as a communist. HUNT, supra note 46, at 98-102; see GRUENING, supra note 48, at 130-35.

60. Act of Aug. 24, 1912, ch. 387, 37 Stat. 512; see GRUENING, supra note 48, at 150-53, 157. In 1915, the territorial legislature provided a means for some Alaska Natives to become citizens, but it was not until 1924 that Congress granted citizenship to all indigenous peoples on United States territory. Citizenship Act of 1924, ch. 233, 43 Stat. 253; see ARNOLD, supra note 19, at 83; FIELD COMMITTEE REPORT, supra note 3, at 435.

61. Congress had authorized presidential withdrawals for Indian reservations in 1910. See CASE, supra note 9, at 86-88; see generally FIELD COMMITTEE REPORT, supra note 3, at 435 n.38-45 (listing executive orders issued between 1914 and 1917). Between 1925 and 1933, the President also created five revocable
or to designate Native reservations upon consent of their residents. Many Alaskans opposed the reservation policy, and only six reservations were designated during the World War II era. The war brought extensive military development and a new wave of white settlers to Alaska. Some eighty Native villages peti-

“public purpose” reserves for the “vocational training” of Alaska Natives. CASE, supra note 9, at 97-99.


Also, during the Indian Reorganization Act era, the Tlingit and Haida Indians of southeast Alaska successfully lobbied for a jurisdictional act to enable them to receive compensation for the loss of their aboriginal rights in the reservation of the Tongass National Forest. Act of June 19, 1935, ch. 275, § 2, 49 Stat. 388; see Tlingit and Haida Indians of Alaska v. United States, 177 F. Supp. 452, 453-54 (Cl. Ct. 1959); CASE, supra note 9, at 67-68; BERRY, supra note 22, at 23; FIELD COMMITTEE REPORT, supra note 3, at 437; cf. id. at 438-39 (discussing claims for taking of aboriginal title filed by Native groups with the Indian Claims Commission, and noting that as the drive towards Alaskan statehood progressed, recognition of claims decreased).

63. See ARNOLD, supra note 19, at 86-88 (whites objected to locking up development resources, and Natives objected to being confined in small areas); ALLEN, supra note 45, at 21 (whites objected to closure of half of the territory); GRUENING, supra note 48, at 367-68 (whites feared the economic impact that reservation of one-third to one-half of Alaska would have on activities such as mining); BERRY, supra note 22, at 22-23 (noting that some whites, fearing land closures from Native claims, developed racist attitudes that still exist).

64. See GRUENING, supra note 48, at 316; BERRY, supra note 22, at 23; ALLEN, supra note 45, at 21. The military development was given urgency by the capture of two of the Aleutian Islands by the Japanese. See HUNT, supra note 46, at 107-10. The U.S. Army spent nearly 20 million dollars to construct a highway connecting Alaska to the forty-eight states. Id. at 110-12. Total military expenditures in Alaska during the war exceeded one billion dollars. Id. at 107-08, 112. These expenditures and the influx of soldiers and construction workers brought “the biggest boom the territory had ever experienced.” Id. at 112. The boom continued after the war, fueled by military spending for cold war defenses. See id. at 113-15; BERRY, supra note 22, at 23-24. The population of the territory nearly doubled with the influx of new white residents between 1939 and 1950. See AR-
tioned for reservations, but the government shifted away from the self-determination policy of the thirties, and the Interior Department took no action. Defense projects, housing construction, and homesteading on federal lands supported continuing immigration to Alaska in the 1950s. In 1956, a long-running movement for statehood led to the ratification of a proposed constitution by the territory's voters.

After a decade-long battle between local advocates and large corporations that profited from the territorial tax status, Congress acted in 1958, and Alaska became a state on January 3, 1959. To

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65. See ARNOLD, supra note 19, at 88; BERRY, supra note 22, at 22; ALLEN, supra note 45, at 21; FIELD COMMITTEE REPORT, supra note 3, at 437; S. REP. No. 405, supra note 54, at 93. The Alaska reservation policy of the Indian Reorganization Act was founded, in part, on the federal trust responsibility to protect Native subsistence. See CASE, supra note 9, at 101, 107-08, 111. The policy failed when the authority of the Department of the Interior proved inadequate to enforce exclusive Native fishing rights within reservation boundaries. See id. at 101-107 (discussing Hynes v. Grimes Packing Co., 337 U.S. 86 (1949)); cf. GRUENING, supra note 48, at 361-71 (discussing history of reservation effort).

66. See BERRY, supra note 22, at 23-24; HUNT, supra note 46, at 114-15, 127.


assure its economic viability, Congress gave the new state the extraordinary right to select about 103,000,000 acres of land from the federal holdings—more than all other western states combined.\(^6\)

The state waived its right to select lands that might belong to the Natives.\(^7\) Since most of the federal land was unsurveyed and its

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\(^6\) See BERRY, supra note 22, at 27-28; FIELD COMMITTEE REPORT, supra note 3, at 439; S. REP. NO. 405, supra note 54, at 94. The actual grant permitted the state to select up to 400,000 acres of land from the national forest reserves and another 400,000 acres from the public lands for community expansion or recreation, plus 102,550,000 acres from the public lands for any purpose. Alaska Statehood Law, § 6(a)-(b), 72 Stat. 339, 340, reprinted in note preceding 48 U.S.C. § 21. This exceeded the amount of land granted to all of the western states combined. BERRY, supra note 22, at 27. It also exceeded the then total 92,400,000 acres of federal reservations for power, petroleum, forestry, and preservation in Alaska; representing over one-fourth of the total land area of 375,000,000 acres in Alaska. See id. at 29-30; cf. H.R. REP. NO. 97, pt. 1, 96th Cong., 1st Sess., at 382 (1979) (dissenting views of Rep. Morris K. Udall et al. on revised H.R. 39, Alaska National Interest Lands Conservation Act of 1979) (characterizing Statehood Law as “by far the most generous land grants ever made out of the Federal domain”); NASKE & SLOTNICK, supra note 1, at 157 (comparing grants to Alaska with grants to other states). Unlike most states, Alaska was permitted to select lands with known mineral value, Alaska Statehood Law § 6(i), to assume existing oil and gas leases by selecting the underlying federal lands, id. § 6(h), and on remaining federal lands, to receive 90 percent instead of the usual 37.5 percent of mineral revenues. See BERRY, supra note 22, at 28.

\(^7\) The Alaska Statehood Law Pub. L. No. 85-508 § 1, 72 Stat. 339, confirmed the State Constitution adopted by the 1956 Convention, which made no provision for Native land claims. See supra note 67. The Statehood Law itself, however, contained a broad waiver of state title:

As a compact with the United States said State and its people do agree and declare that they forever disclaim all right and title to [retained federal lands] and to any lands or other property (including fishing rights), the right or title to which may be held by any Indians, Eskimos, or Aleuts (hereinafter called natives) . . . except when held by individual natives in fee without restrictions on alienation.

Id. at 339. Congress continued its long-standing policy of deferring consideration of Native land claims, providing in equally broad language that the state’s disclaimer would not “recognize, deny, enlarge, impair, or otherwise affect any claim” and that nothing in the law “authorizes, establishes, recognizes, or confirms the validity or invalidity of any such claim.” Id. The validity and extent of Native claims were left to future action by Congress or the
value unknown, the statehood law provided twenty-five years to complete the state selections.\textsuperscript{71} The state began a slow and systematic process of selecting the lands it would receive.\textsuperscript{72} Early in the 1960s, Native groups, already threatened by state game laws and federal project plans, became concerned that state land patents would foreclose their subsistence activities.

In 1961, Native groups began to file formal protests against proposed state land selections. These protests snowballed, leading the Department of the Interior to impose a “land freeze” in 1966.\textsuperscript{73} The land freeze halted petroleum leasing and most other transfers out of the federal domain, pending resolution of the Native claims. Then, in 1968, the Atlantic-Richfield Company announced a spectacular oil discovery at Prudhoe Bay on the North Slope.\textsuperscript{74} In courts. ARNOLD, supra note 19, at 91; FIELD COMMITTEE REPORT, supra note 3, at 439; cf. BERRY, supra note 22, at 30-32 (a principal concern of the drafters was that future land developers be able to take clear title from the state).

\textsuperscript{71} See Alaska Statehood Law, § 6(a)-(b), 72 Stat. 339, 340.

\textsuperscript{72} See BERRY, supra note 22, at 33; cf. S. REP. NO. 1300, supra note 26, at 390 (supplemental views of Sen. Ted Stevens on H.R. 39) (by the 1970s, the state had a computerized resource assessment, rating every township in Alaska according to eleven criteria, enabling selection of the most valuable lands).

\textsuperscript{73} See FIELD COMMITTEE REPORT, supra note 3, at 440; S. REP. NO. 405, supra note 54, supra note 54, at 96-97. By 1968, forty Native groups had filed protests covering 296,600,000 acres and including most of the state selections to date, the federal public lands, and the federal reserved lands in Alaska. See id. at 96; HUNT, supra note 46, at 160; FIELD COMMITTEE REPORT, supra note 3, at 440, 453. Cf. ARNOLD, supra note 19, at 119 (acreage of protests exceeded area of the state). These Native protests included the potential oil fields in the North Slope petroleum reserve. BERRY, supra note 22, at 44; S. REP. NO. 405, supra note 54, at 97. In 1966, Secretary of the Interior Stewart Udall responded to the protests by suspending oil exploration lease issuance in these areas. Id. In 1967, the Secretary announced that all protested land transfers would be suspended except where suspension would delay actual construction projects. Id.; FIELD COMMITTEE REPORT, supra note 3, at 440. The state sued to enjoin the Secretary to recognize its selections, but was denied summary judgment. Alaska v. Udall, 420 F.2d 938, 940 (9th Cir. 1969), cert. denied sub nom. Alaska v. Hickel, 397 U.S. 1076 (1970); see S. REP. NO. 405, supra note 54, at 97. In 1969, the Secretary formalized the land freeze through an administrative order protecting Native rights pending congressional action. Id. at 98.

\textsuperscript{74} See BERRY, supra note 22, at 86, 91-92, 262; ALLEN, supra note 45, at 10, 71, 114; Naske & Slotnick, supra note 1, at 180, 248. Prior to this discovery, nineteenth century explorers reported natural oil seeps in south central Alaska,
1969, the Department of the Interior formalized its land freeze by administrative order. At the same time, a consortium of oil companies sought land with secure title to build a pipeline 800 miles south to the ice-free port at Valdez—the costliest project ever undertaken by private industry. The land claims threatened to halt the project indefinitely. Spurred by this threat, Congress finally turned to the long deferred Native claims.75

B. The Alaska Native Claims Settlement Act of 1971

The freeze on federal lands united Native groups, the state, the oil industry, and development interests in seeking legislation to settle the Native land claims. There was no agreement, however, on the legal strength and value of those claims.76 Between 1967 and

and explorers reported seeps on the North Slope early in the twentieth century. See HUNT, supra note 46, at 3-4, 116; ALASKA ALMANAC, supra note 56, at 76-77; BERRY, supra note 22, at 86. President Harding had set aside the North Slope as Naval Petroleum Reserve No. 4, and government mapping had confirmed its potential, but had not made any major discoveries. See id. at 87; HUNT supra note 46, at 116. Atlantic Richfield Oil Company made the first commercially important oil discovery in south central Alaska, which by 1968, comprised 60 percent of Alaska’s mineral production. See id. at 87; HUNT supra note 46, at 116; BERRY, supra note 22, at 89. When ARCO announced its major discovery at Prudhoe Bay in 1968, the state was ready to utilize this source of economic growth. See id. at 89-92. In September of 1969, the state auctioned oil leases for some of its land selections in Prudhoe Bay to oil companies for $900,000,000. Id. at 97-100; see ARNOLD, supra note 19, at 131; Paul v. United States, 20 Cl. Ct. 236, 253 (1990).

75. Cf. ARNOLD, supra note 19, at 139-40 (Department of Interior could not issue permit for pipeline until Native claims were settled); BERRY, supra note 22, at 123 (oil companies ultimately agreed that there could be no pipeline until land title was resolved).

76. Compare S. REP. NO. 401, 92d Cong., 1st Sess. 221 (1971) (“Native population has arguable claims to nearly all of Alaska’s territory—as much as 90 percent.”); HUNT, supra note 46, at 161 (Bureau of Indian Affairs argued that Natives should receive all lands that they had hunted or fished); Alaska Native Land Claims: Hearings on S. 2906 and related bills before the Senate Committee on Interior and Insular Affairs, 90th Cong., 2d Sess. 122 (1968) [hereinafter ANCSA Hearings] (state position is that Native claims have “strong moral grounds” regardless of legal basis) with S. REP. NO. 401, supra, at 221, 239-40, 242, 244 (Native claims “have absolutely no legal basis” and are a “give-away program” to a favored minority unsupported by any legal obligation); id. at 189
1971, bills were introduced in Congress to provide cash settlements ranging from $65,000,000 to $1,000,000,000 and Native lands ranging from 100,000 to 60,000,000 acres. In addition to confirming fee title to portions of their ancestral land, some of the proposals also sought to provide Natives with subsistence access to the remainder of Alaska's federal lands. A 1968 report commissioned by the Senate affirmed the importance of subsistence activities. This report of the Federal Field Committee gave a statistical account of Native poverty and the reliance of rural villagers on subsistence. The Alaska Federation of Natives hired former Supreme

(aboriginal claims were extinguished by Russia's treaty of cession and moral claims were extinguished by spending for Native welfare programs); ARNOLD, supra note 19, at 123; BERRY, supra, note 22, at 57; H.R. REP. No. 523, supra note 54, at 53-54, reprinted in 1971 U.S.C.C.A.N. at 2243-44 (dissenting view of Rep. John P. Saylor to H.R. 10367, bill that was basis of enacted claims settlement) Natives have abandoned large portions of their ancestral lands and lack proof to support historic claims that would justify a generous settlement. Id.


78. See ARNOLD, supra note 19, at 120; BERRY, supra note 22, at 62, 125, 151, 173, 184; FIELD COMMITTEE REPORT, supra note 3, at 441; Paul v. United States, 20 Cl. Ct. 236, 252 (1990); see also ANCSA Hearings, supra note 76, at 13 (proposed "aboriginal use and occupancy right" to federal lands extending 100 years from settlement); id. at 77 (same); id. at 505, 508 (proposed fifty year non-exclusive right to hunting, fishing, trapping, and berrying, enforceable against future private owners by a reservation clause in federal grants); id. at 53, 65 (Native explanation that surface access to large areas is needed to preserve nomadic hunting). Congress could have provided expressly such reserved subsistence rights, even on lands open to state selection or private entry. Cf. United States v. Winans, 198 U.S. 371, 378, 381-84 (1905) (Native reservation of fishing access rights in cession of tribal land).

Court Justice Arthur J. Goldberg as its counsel in 1969, and in 1971 it also engaged professional lobbyists. Native efforts and the support of the oil industry finally won the Nixon Administration's backing for a comprehensive claims settlement bill.

On December 18, 1971, the Alaska Native Claims Settlement Act ("ANCSA") became law. ANCSA shielded village lands from state selection while Native groups had an opportunity to select some 40,000,000 acres of land to obtain in fee. Natives also

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80. See ARNOLD, supra note 19, at 132, 138; cf. United States v. Atlantic Richfield Co., 612 F.2d 1132, 1139 (9th Cir. 1980) (canon of statutory construction favoring Indians in case of ambiguity was vitiates because Natives were represented by sophisticated counsel in formulation of Alaska Native claims settlement).


82. To enable the Native selections, ANCSA temporarily withdrew all of the unreserved federal lands surrounding rural Native villages from state selection and private entry. See 43 U.S.C. § 1610. This withdrawal ultimately placed approximately 100,000,000 acres of Alaska off-limits to state land selection until the Native selections could be at least partially completed. See H.R. REP. No. 97, supra note 69, at 164; BERRY, supra note 22, at 227.

Traditional Native villages of at least 25 residents received a priority right to select from the immediately surrounding federal lands. See 43 U.S.C. §§ 1610-1611(a); BERRY, supra note 22, at 209. These village selections would provide fee title patents to the surface estate of up to 22,000,000 acres of land for local use. See 43 U.S.C. §§ 1611(a)-(b), 1613(a)-(b). The state could then proceed with its land selections throughout Alaska. See BERRY, supra note 22, at 209-10. Finally, the regional Native corporations could select an additional 16,000,000 acres from the remaining area around the villages, receiving both surface and subsurface rights for development. See id.; 43 U.S.C. § 1611(b)-(c).

The Interior Secretary also would allocate 2,000,000 acres of the Natives' 40,000,000 acre settlement to preserve cemeteries and historic sites. See 43 U.S.C. § 1613(h). In addition, Native groups received title to about 3,700,000 acres of St. Lawrence Island, Venetie, and other former Indian reservations, bringing the total settlement to nearly 44,000,000 acres. See H.R. 39, 95th Cong., 1st Sess. (1978), SUMMARY SHOWING THE SUBSTITUTE ADOPTED BY THE SUB-
would receive cash payments totalling $962,500,000 over several years. The Act created a system of village corporations and Native regional corporations to receive the lands and payments. To satisfy conservationists, section 17(d)(2) of ANCSA authorized the Interior Secretary to withdraw additional large areas of public lands for possible inclusion in conservation reservations the “d-2 lands.” The price of the Natives’ settlement was a complete ex-

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84. See 43 U.S.C. §§ 1602(g), (j), 1604, 1605(c), 1606, 1607, 1610(b)(1), 1611, 1613. ANCSA provided for twelve Native regional corporations in Alaska’s geographic and ethnographic regions, plus a thirteenth corporation for Natives living outside the state. See 43 U.S.C. § 1606(a), (c); see also ARNOLD, supra note 19, at 164-96 (describing each of the regional corporations). The stock of each regional corporation was to be issued to the Natives then residing in that region. 43 U.S.C. § 1606(g). Subject to required sharing among regional corporations, payments from the claims settlement and profits from the corporate lands were to be distributed to village corporations and to the shareholders. See id. §§ 1605(c), 1606(i)-(m); ARNOLD, supra note 19, at 158-59. Village corporations would select, manage, and convey lands, and operate local businesses. See id. at 159-60, 196-201; 43 U.S.C. §§ 1606(j)-(m), 1607, 1613(a)-(c). Although the Act permitted them to incorporate as nonprofits, id. § 1607(a), all of the villages elected to form corporations for profit, to facilitate distributing benefits to individual Natives. ARNOLD, supra note 19, at 198.

85. “Withdrawal” of public land constitutes labelling it, usually temporarily, as unavailable for specified uses. 1 GEORGE C. COGGINS & ROBERT L. GLICKSMAN, PUBLIC NATURAL RESOURCES LAW § 9.01 (1990). Withdrawals may be made by any branch of government. See id. “Reservation” of withdrawn land,
tinction of aboriginal claims to land, water, hunting, and fishing rights within Alaska. 86

Although Congress recognized the importance of subsistence to Alaska Natives, ANCSA contained no express protection for subsistence in its final form. 87 The Senate version of ANCSA would usually permanent, constitutes affirmatively dedicating it to a federal purpose. Id. Reservations are decreed by Congress, or by the Executive Branch under a congressional delegation of authority. Id. Conservation reservations include national parks and monuments, wildlife refuges, national forests, and wilderness areas. See id. §§ 9.01-9.02. Public lands administered by the Bureau of Land Management (“BLM”) and open to mineral entry are unreserved. See id. § 9.02[4]; cf. ANILCA §§ 401-404, Pub. L. No. 96-487, §§ 401-404, 94 Stat. 2396-98 (1980) (reserving conservation areas on BLM lands); ANILCA § 102(4), 16 U.S.C. § 3102(3) (1994) (defining term “public lands”). But see COGINS & GLICKSMAN, supra, § 9.02[5] (arguing that BLM lands closed to homesteading are “de facto reserved”).

Section 17 of ANCSA provided the Interior Secretary with new grants of authority to withdraw public lands in Alaska from state selection. See 43 U.S.C. § 1616 (1994). Section 17(d)(1) gave the Secretary a three-month window to withdraw an unlimited acreage to protect “the public interest.” Id. § 1616(d)(1). Section 17(d)(2) gave the Secretary a nine-month window to withdraw up to 80,000,000 acres suitable for reservation in the four systems of the national parks, forests, refuges, and scenic rivers. Id. § 1616(d)(2); cf. ANILCA § 102(4), 16 U.S.C. § 3102(4) (1994) (defining term “conservation system unit”). These latter withdrawals became known as the “d-2 lands.” See S. REP. No. 1300, supra note 26, at 107. The Secretary was to recommend within two years which d-2 lands should be permanently reserved; Congress would then have five years to act on the recommendation. See 43 U.S.C. § 1616(d)(2)(C), (D); see also infra note 92 (discussing the actual withdrawals).

86. 43 U.S.C. § 1603(b) (1994); cf. United States v. Atlantic Richfield Co., 612 F.2d 1132, 1135-37, 1139 (9th Cir. 1980) (legislative history shows that extinguishment clause is to be construed broadly; holding that ANCSA retroactively extinguished all trespass claims based upon Natives’ aboriginal title). Whether aboriginal Native subsistence rights to the outer continental shelf (beyond the geographic scope of ANCSA) survive is a subject of continuing litigation. See Village of Gambell v. Hodel, 869 F.2d 1273, 1278-80 (9th Cir. 1989).

87. See H.R. REP. No. 523, supra note 54, at 5, reprinted in 1971 U.S.C.C.A.N. at 2195 (passed in lieu of S. REP. No. 405, supra note 54, at 81-82, 101); cf. 43 U.S.C. § 1601 (1994) (no express policy to preserve opportunity for subsistence activities). International treaties designed to conserve particular animals contained express exemptions permitting Alaska Natives to continue subsistence hunting of these species. See CASE, supra note 9, at 279-86. Shortly after it passed ANCSA, Congress enacted a subsistence exemption for coastal
have directed the Interior Secretary to classify 20,000,000 acres of the public lands for a subsistence priority, and to enforce the priority through emergency closures of these subsistence zones to other users. The Conference Committee intended to protect subsistence, but omitted these directives, reasoning that the Secretary would use existing withdrawal authority backed by state management protections. It appears that the committee’s confidence was


88. Entry by other users during closure of a “Subsistence Use Unit” would have been punishable by fine and imprisonment. Compare S. 35, 92d Cong., 1st Sess. § 21(a)(5) (1971) and S. Rep. No. 405, supra note 54, at 43-44, with id. at 81-82 (declining to confirm Native title to 60,000,000 acres for subsistence protection, but using administrative classification of public lands for subsistence priority to reach same objective).

89. A Joint Statement by the Conference Committee provides:

The Senate amendment to the House bill provided for the protection of the Native peoples’ interest in and use of subsistence resources on the public lands. The [C]onference [C]ommittee, after careful consideration, believes that all Native interests in subsistence resource lands can and will be protected by the Secretary through the exercise of his existing withdrawal authority. The Secretary could, for example, withdraw appropriate lands and classify them in a manner which would protect Native subsistence needs and requirements by closing appropriate lands to entry by non-residents when the subsistence resources of these lands are in short supply or otherwise threatened. The Conference Committee expects both the Secretary and the State to take any action necessary to protect the subsistence needs of the Natives.


The members of the House Committee on Interior and Insular Affairs, in particular, were persuaded that subsistence was already protected, so the Natives could tailor their own land selections to future economic development: “there will be little incentive for the Natives to select lands for subsistence use because during the foreseeable future the Natives will be able to continue their present subsistence uses regardless of whether the lands are in Federal or State ownership.” H.R. Rep. No. 523, supra note 54, at 5, reprinted in 1971
misplaced. The Department of the Interior never made any subsistence land classifications. In addition, State management, confounded by constitutional bars against preferences, proved inadequate to protect subsistence users. As pressure on subsistence increased, federal legislation was needed to restore the Native rights that ANCSA had terminated. ANCSA's provision to withdraw public land for conservation reservations provided the impetus for Congress to revisit subsistence.

Under section 17(d) of ANCSA, Secretary of the Interior Rogers C.B. Morton withdrew most of the public land in Alaska from state selection or private entry in March of 1972. Later in 1972, a


90. See S. Rep. No. 1300, supra note 16, at 432 (supplemental views of Sens. Abourezk, Ford, and Durkin on H.R. 39); Case, supra note 9, at 295; see also supra note 26 (citing criticism of Interior Department’s effort). The problems with state protection of subsistence included state constitutional bars to a racial preference for Natives, political domination of state management by urban sport and commercial harvesting interests, and financing of fish and game management through grants encouraging sport and commercial use. Case, supra note 9, at 295-98; see H.R. Rep. No. 1045, supra note 8, at 184 (subsistence uses threatened by inadequate state and federal action).

91. Case, supra note 9, at 298; cf. H.R. Rep. No. 1045, supra note 8, at 184-85 (federal responsibility to protect subsistence on public lands may be carried out by legislation authorizing state management regulations).

92. Pub. Land Order No. 5179, 37 Fed. Reg. 5579 (1972); S. Rep. No. 1300, supra note 26, at 109; see S. Rep. No. 413, supra note 32, at 129-33, reprinted in 1980 U.S.C.C.A.N. at 5073-78 (summarizing history of ANCSA d-2 land withdrawals); see also supra note 85 (describing authority for the withdrawals). Alaska sought to complete its statehood land selections in January, 1972. See Berry, supra note 22, at 224-25. Interior Secretary Rogers Morton withdrew the full 80,000,000 acres of d-2 lands, however, and with section 17(d)(1) withdrawals and Native selection withdrawals, this blocked state selection on nearly all public lands in Alaska. See id. at 225-27 (Secretary Morton also withdrew 99,000,000 acres to enable Native land selections; foreclosing 44,000,000 acres of the 77,000,000 acres that the state had tried to select); S. Rep. No. 413, supra note 32, at 131, reprinted in 1980 U.S.C.C.A.N. at 5075-76; H.R. Rep. No. 97, supra note 69, at 164; H.R. Rep. No. 1045, supra note 8, at 127-28 (addition-
state suit challenging this action was settled, giving the state a portion of its land selections.\textsuperscript{93} The state remained anxious to complete its selections and retain priority over Native selections and federal reservations. In December of 1973, Secretary Morton made final recommendations for Congress to reserve some 83,000,000 acres of public land in new or expanded conservation areas.\textsuperscript{94} ANCSA required these lands to remain withdrawn from state selection for five years, until December 18, 1978, unless Congress acted to confirm or deny the reservations.

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\item See \textsuperscript{93} S. REP. No. 413, supra note 32, at 132, \textit{reprinted in} 1980 U.S.C.C.A.N. at 5076; S. REP. No. 1300, supra note 26, at 110; EUGENE H. BUCK, ALASKA NATIONAL INTEREST LANDS (D-2) LEGISLATION 4 (Lib. of Cong. Congressional Research Serv. Issue Brief No. IB77110, Dec. 10, 1980), \textit{reprinted in} I ANILCA LEGISLATIVE HISTORY, supra note 82, at 1, 5. One source has suggested that the state brought this suit primarily to facilitate negotiations with the Interior Department. See BERRY, supra note 22, at 227. \textit{But see id. at 9, 211-12} (the language of ANCSA was ambiguous regarding selection priorities). The settlement left the state with 42,000,000, out of the 70,000,000 acres it had selected, toward its total entitlement of 104,000,000 acres. H.R. REP. No. 1045, supra note 8, at 127 (additional views of Reps. Bauman, Young, and Emery). The d-2 land withdrawals made by Secretary Morton in 1972 subsequently were upheld against challenges brought by prospective purchasers of oil and gas leases. See Burglin v. Morton, 527 F.2d 486, 487-89 (9th Cir. 1975).
\end{itemize}
C. The d-2 Lands and the Enactment of ANILCA

Secretary Morton’s section 17(d)(2) withdrawals, the “d-2 lands” freeze, triggered seven years of legislative debates that culminated in Congress’ passage of ANILCA in 1980. During these debates, the principal proponent of d-2 lands legislation was a coalition of conservation organizations, the “Alaska Coalition,” which received support from Natives in return for supporting subsistence. This coalition sought to keep whole ecosystems and complete watersheds within federal control, preserved from development in conservation reservations: parks, wildlife refuges, and wilderness areas. The principal opponents were the State of Alaska and industries favoring commercial development. These opponents sought

95. The Alaska Coalition grew from meetings of Alaskan conservation groups and Alaskan representatives of national environmental organizations. See CAHN, supra note 92, at 10-11, 15. Eventually, the Coalition encompassed over 50 national organizations and 1500 local groups, including conservation, recreation, and trade union interests. It was led by four large organizations: the Wilderness Society, the Sierra Club, Friends of the Earth, and the National Audubon Society. See id. at preface, 15-16; Pourchot, supra note 92, at 26; Alan Berlow, Well-Organized Environmental Lobby Wins a Bout With Development Interests, 37 CONG. Q. 940, 940 (1979).

The Alaska Coalition received support from Alaska Native groups in exchange for supporting their subsistence rights. See CAHN, supra note 92, at 23-24; CASE, supra note 9, at 299. Native corporations had a very practical reason to support enactment of a d-2 lands bill: the d-2 withdrawals impeded patenting their ANCSA land selections. See COMPTROLLER GENERAL, GAO, LAND TITLE SHOULD BE CONVEYED TO ALASKA NATIVES FASTER i, 7, 42-43 app. I (Rep. No. CED-78-130, June 21, 1978) (seven years after ANCSA, regional corporations had obtained only twenty percent, and Native villages had obtained only seven percent of their land entitlements). But see BUCK, supra note 93, at 3-4 (state selections also were stalled by d-2 withdrawals, but state did not support enactment of Alaska Coalition bills).

96. See CAHN, supra note 92, at 24; Pourchot, supra note 92, at 24, 29-30, 35. The opponents formed Citizens for the Management of Alaska Lands (“CMAL”), funded by over seventy organizations doing business in Alaska. Id. at 29. The principal industries involved were the oil, mining, and timber companies. See id. Other opponents included the National Rifle Association and Alaska sport hunting groups organized as the “Real Alaska Coalition.” Id.; CAHN, supra note 92, at 24. CMAL contributed substantial sums of money and professional lobbyists to supplement the funds appropriated by the state to lobby Congress. See id.; BERLOW, supra note 95, at 940.
to delay reservations until the lands' mineral deposits could be
identified and selected or classified for development. If there was to
be legislation, the opponents sought minimal parks and wilderness,
with most acreage managed by the state, the Forest Service, or the
Bureau of Land Management to permit development. Between the
Alaska Coalition and the state was a third interest group: the fed-
eral administrators. In the Congresses following ANCSA, each of
these three groups introduced several d-2 lands bills in both Hous-
es.97

Presidents Nixon and Ford showed no interest in pursuing Secre-
tary Morton's 1973 recommendations to reserve d-2 lands. In 1977,
the Carter Administration took office, and the Alaska Coalition
enlarged its reservation proposals in a new House bill.98 Interior
Secretary Cecil Andrus responded with an administration proposal
that expanded the Morton recommendations; the state countered
with a bill emphasizing multiple-use management.99 During 1977,
a House subcommittee held extensive hearings on the Alaska
lands.100 The House passed a bill in May of 1978, that included

97. See H.R. Rep. No. 1045, supra note 8, at 32-35 (summarizing bills intro-
duced in the House from 1972 to 1978); S. Rep. No. 413, supra note 32, at 134,
reprinted in 1980 U.S.C.C.A.N. at 5078-79 (summarizing bills introduced in the
Senate from 1977 to 1979); cf. Pourchot, supra note 92, at 5-8, 47 (summarizing
most significant d-2 lands proposals from 1973 to 1980).

98. This bill, the original H.R. 39, was introduced in the House by Morris
Udall in January of 1977. See H.R. Rep. No. 97, supra note 69 at 168-69; Cahn,
supra note 92, at 16; Buck, supra note 93, at 20; Pourchot, supra note 92, at 23.
It included some 113,000,000 acres, with over 110,000,000 in parks and refuges.
See Pourchot, supra note 92, at 23, 47 app. C. Wilderness designations would
encompass nearly 150,000,000 acres in the new and existing reservations. Id.

99. The Andrus proposal, announced on September 15, 1977, expanded Secre-
tary Morton's 83,000,000 acre recommendations to 92,000,000 acres, with nearly
87,000,000 in parks and refuges. The proposal also included 43,000,000 acres of
new wilderness designations. See Pourchot, supra note 92, at 6, 25, 47 app. C.

The state's bill, introduced in the Senate by Ted Stevens, called for
82,000,000 acres of reservations, with 18,500,000 in parks and refuges. See
Cahn, supra note 92, at 18; Pourchot, supra note 92, at 6, 47 app. C. No new
wilderness was designated. A majority of the land—nearly 57,000,000
acres—was to be placed in a new system of federal-state cooperative man-
agement. Pourchot, supra note 92, at 6, 47 app. C.

100. H.R. 39 was considered by the House Committee on Interior and Insular
Affairs and Committee on Merchant Marine and Fisheries. H.R. Rep. No. 1045,
much larger reservations than Secretary Andrus had proposed. In the Senate, a d-2 lands bill was reported out of committee but not passed before the ninety-fifth Congress adjourned in October of 1978.

ANCSA stipulated that the d-2 land withdrawals would expire in December, 1978. Consequently, on November 16, 1978, Secretary Andrus withdrew 110,000,000 acres to continue the land freeze for three years, using authority in the Federal Land Policy and Management Act of 1976. On December 1, President Carter pro-

\textit{supra} note 8, at 34-35. Subcommittees on Fisheries and Wildlife Conservation and the Environment, and Oversight and Alaska Lands, conducted extensive hearings in Alaska and in other states. See id. at 34; CAHN, \textit{supra} note 92, at 18-19; Pourchot, \textit{supra} note 92, at 6, 26-27. Over 2,000 witnesses testified, more than on any other bill since the Civil Rights bills in the 1960s. See Pourchot, \textit{supra} note 92, at 26-27.


102. The Senate Committee on Energy and National Resources conducted a record 46 markup sessions, finally reporting out a d-2 lands bill in October of 1978, near the end of the 95th Congress. See Pourchot, \textit{supra} note 92, at 6, 36. Key Senate and House members met in an ad hoc conference committee to produce a compromise acceptable both to the full Senate and to the House. Id. at 7. Compromise appeared close on a bill that included 100,700,000 acres of reservations and designed 50,700,000 acres of wilderness. See H.R. REP. NO. 97, \textit{supra} note 69, at 92. It was blocked, however, by Alaska’s Senator Mike Gravel, who opposed passage of any d-2 lands law. See id.; CAHN, \textit{supra} note 92, at 21-23; cf. Kathy Koch, \textit{Balancing Act: Alaska Lands Developments Leave No Clear Winners}, 38 CONG. Q. 396, 397 (1980) (Secretary Andrus attributes death of 1978 bill to “deliberate obstructionism” by Sen. Gravel); Kathy Koch, \textit{Senate Passes Alaska Lands Legislation}, 38 CONG. Q. 2447, 2447 (1980) (bill was never called up on Senate floor because of Gravel’s threat to filibuster); Kathy Koch, \textit{House Clears the Senate’s Alaska Lands Bill}, 38 CONG. Q. 3377, 3377 (1980) (Sen. Gravel defends his opposition to ANILCA, conceding it cost him his Senate seat).

claimed seventeen new national monuments in Alaska, totalling 56,000,000 acres. But the Senate did not consider a d-2 bill again until July of 1980. In August of 1980, the Senate finally passed a bill that reserved about five-sixths of the land protected by the House bill.

Even


105. On May 16, 1979, a large majority of the House passed the coalition-sponsored Udall-Anderson version of H.R. 39. CAHN, supra note 92, at 24-25; Julia Rose, Conservationists Win in House Alaska Vote, 37 CONG. Q. 939, 939; Pourchot, supra note 92, at 7. It included about 127,500,000 acres, nearly all of it in parks, refuges, and national monuments. See Pourchot, supra note 92, at 7-8; BUCK, supra note 93, at 12-13. The bill also designated 68,600,000 acres of wilderness in new and existing reservations. Id.

106. On August 18, 1980, the Senate voted to invoke cloture on a filibuster by
so, it was substantial: it doubled America’s national parks, trebled the refuges, and quadrupled the area of wilderness. The House did not consider the Senate version until after President Carter was defeated in the general election in November. Then, in a lame duck session, the House bowed to changed political realities and accepted the Senate version. In what may have been his crowning conservation achievement, President Carter signed ANILCA into law on December 2, 1980.

Alaska Senator Mike Gravel. Buck, supra note 93, at 7, 17; Pourchot, supra note 92, at 8, 29; Cahn, supra note 92, at 28-29. The Senate then approved the Tsongas-Jackson-Roth-Hatfield substitute (the new H.R. 39) by a vote of 72 to 16. Cahn, supra note 92, at 29; Buck, supra note 93, at 7, 17. The bill included a total of about 107,000,000 acres of reservations, with some 97,300,000 acres in parks, park preserves, monuments, and wildlife refuges. See Buck, supra note 93, at 10. It also designated 56,400,000 acres of wilderness in new and existing reservations. These totals included approximately 25,700,000 acres less in reservations and 10,800,000 acres less in wilderness than the version of H.R. 39 approved by the House in 1979. Cf. Koch, Senate Passes, supra note 102, at 2448 (comparing acreage of the two bills). Nevertheless, the bill created federal reservations larger in area than the State of California. Alaska Geographic Society, Alaska National Interest Lands, The D-2 Lands, Alaska Geographic, Nov. 4, 1981, at 8.

107. See Koch, House Clears, supra note 102, at 3377-78. The changed realities were: the election of President Reagan, who might not enforce the administrative withdrawals that sequestered the d-2 lands; the election of a Republican Senate; and the shift to a more conservative House. These changes made it unlikely that a future Senate would agree to a bill closer to the one passed by the House in 1979. Id. at 3377-78; Buck, supra note 93, at 7; Pourchot, supra note 92, at 31. On November 12, 1980, the House capitulated, approving the Senate bill on a voice vote. 126 Cong. Rec. H10552 (daily ed. Nov. 12, 1980).

108. See Koch, Senate Passes, supra note 102, at 2448 (President reiterated before passage that enacting ANILCA was his “highest environmental priority”); Alaska National Interest Lands Conservation Act, 16 Weekly Comp. Pres. Doc. 2755, 2758 (Dec. 8, 1980).

The 180-page Act was a hard-won compromise, see 16 U.S.C. § 3101 (1994), the culmination of nine years of debate, some forty bills, and well over 25,000 pages of legislative history. See I-XLI ANILCA LEGISLATIVE HISTORY, supra note 82. Nevertheless, neither side was happy with the Act, and both sides vowed to revisit it with amendments in a future congress. See Koch, House Clears, supra note 102, at 3377. In addition, some of ANILCA’s language was never smoothed by floor debate, and since there was no conference, the Act contained ambiguities affecting its implementation. See Cahn, supra note 92, at 31.
D. Congress' Subsistence Protections: ANILCA Title VIII

The House and Senate each received about ten ANILCA bills in the ninety-fifth Congress of 1977-78, and similar numbers in the ninety-sixth Congress of 1979-80.\textsuperscript{109} Nearly all the bills declared a policy to protect the resources needed for subsistence. This policy was based on Congress' finding that, even after the passage of ANCSA, subsistence uses remained essential to certain Alaskans' existence.\textsuperscript{110} The initial bills included some subsistence

\textsuperscript{109} The Department of the Interior compiled a section-by-section comparison of the texts of the major d-2 lands bills in both the ninety-fifth and ninety-sixth Congresses. See Gary Widman, Associate Solicitor for Conservation and Wildlife, U.S. Department of the Interior, \textit{Introduction to and Summary of Comparable Sections to the Alaska Lands Act} (1980); XL ANILCA LEGISLATIVE HISTORY, \textit{supra} note 82, at 6, 15, 231-92 (comparing major versions of ANILCA Title VIII for subsistence protections).


The House bills of the ninety-sixth Congress are reprinted in III ANILCA LEGISLATIVE HISTORY, \textit{supra} note 82, at 661-839; IV ANILCA LEGISLATIVE HISTORY, \textit{supra} note 82, at 1-209, 210-484, 485-770; V ANILCA LEGISLATIVE HISTORY, \textit{supra} note 82, at 1-281, 282-562, 563-807; VI ANILCA LEGISLATIVE HISTORY, \textit{supra} note 82, at 1-345, 346-967; VII ANILCA LEGISLATIVE HISTORY, \textit{supra} note 82, at 1-357, 358-86, 387-441; X ANILCA LEGISLATIVE HISTORY, \textit{supra} note 82, at 806-28, 829-36. The Senate bills of the ninety-sixth Congress are reprinted in VII ANILCA LEGISLATIVE HISTORY, \textit{supra} note 82, at 442-776; VIII ANILCA LEGISLATIVE HISTORY, \textit{supra} note 82, at 1-195, 196-450, 451-877, 878-1000; IX ANILCA LEGISLATIVE HISTORY, \textit{supra} note 82, at 1-450, 451-897; X ANILCA LEGISLATIVE HISTORY, \textit{supra} note 82, at 1-805.

\textsuperscript{110} See H.R. 39, 95th Cong., 1st Sess. § 701 (Oct. 17, 1977). The findings of this Bill were that subsistence was essential to both Natives and other rural residents, that there was no alternative means to supply food, that the policies of ANCSA required Congress to protect subsistence, and that local people must participate in the management of resources. \textit{Id.}; cf. ANILCA § 801, 16 U.S.C. § 3111 (1994) (enacting these findings, with additional finding that subsistence was threatened by pressure from Alaska's growing population). The policies derived from these findings were that subsistence should be the priority use of renewable resources, that subsistence should receive a preference when conserva-
protections in a title designed to set standards for federal reservation administration.\textsuperscript{111} Then, midway through the ninety-fifth Congress, the bills acquired a separate subsistence title the precursor of ANILCA Title VIII.\textsuperscript{112} The new title included a paragraph on land-use planning that was to become section 810.\textsuperscript{113} Apart from that paragraph, the new title protected subsistence by prescribing requirements for state and federal managers of fish and game on public lands. The principal requirements controlled competition restrictions became necessary, and that cooperative management by landowners should be used to promote subsistence. See H.R. 39, 95th Cong., 1st Sess. § 702 (Oct. 17, 1977). ANILCA enacted these policies with the additional provision that, consistent with conservation, public land management should cause the least possible adverse impact on subsistence users. See ANILCA § 802, 16 U.S.C. § 3112.

From the early bills forward, the scope of the subsistence policy included both Natives and other Alaskans who depended upon subsistence. See H.R. 39, 95th Cong., 1st Sess. § 701(a)(3) (Oct. 12, 1977); H.R. 39, 95th Cong., 1st Sess. § 703(4) (Oct. 17, 1977). Cf. Kenaitze Indian Tribe v. Alaska, 860 F.2d 312, 313 n.1 (9th Cir. 1988) (holding that Congress broadened the preference for protecting only subsistence used by Native Alaskans to include all rural residents at the request of the state), \textit{cert. denied}, 491 U.S. 905 (1989).

\textsuperscript{111} See H.R. 39, 95th Cong., 1st Sess. § 701 (Jan. 4, 1977) (federal regulation, curtailment of competing consumptive uses, consultation with users, reporting); H.R. 2082, 95th Cong., 1st Sess. § 106(g) (Jan. 19, 1977) (discussing federal regulation); H.R. 39, 95th Cong., 1st Sess. § 701(a)-(c) (Oct. 12, 1977) (state regulation, subsistence preference); S. 499, 95th Cong., 1st Sess. § 108 (Jan. 28, 1977) (providing framework for federal regulation); S. 500, 95th Cong., 1st Sess. § 701 (Jan. 28, 1977) (federal regulation, subsistence preference, consultation with users, reporting); S. 1500, 95th Cong., 1st Sess. § 701 (May 12, 1977) (same); S. 1787, 95th Cong., 1st Sess. § 4304 (June 30, 1977) (the state of Alaska shall regulate the taking of fish and game subject to the Act and that subsistence purposes shall be given preference in cases of depletion); S. 2465, 95th Cong., 2d Sess. § 701(a)-(c) (Jan. 31, 1978) (state regulation, subsistence preference).


from non-subsistence users for these resources, and ensured subsistence users' access to federal reservations.

The new title controlled competition by giving subsistence users a preference, in times of shortage, over users "taking" the same resources for other consumptive uses.114 Although early bills pro-

114. See H.R. 39, 95th Cong., 1st Sess. §§ 702(1), 706(b)(2) (Oct. 17, 1977); S. 2944, 95th Cong., 2d Sess. § 702(2) (Apr. 19, 1978). This subsistence preference was present even in some bills that preceded the creation of a separate subsistence title. See H.R. 39, 95th Cong., 1st Sess. § 701(b) (Jan. 4, 1977); H.R. 39, 95th Cong., 1st Sess. § 701(a)(5) (Oct. 12, 1977); S. 500, 95th Cong., 1st Sess. § 701(b) (Jan. 28, 1977). The preference was enacted as one of three items of subsistence policy in section 802 of ANILCA:

(2) nonwasteful subsistence uses of fish and wildlife and other renewable resources shall be the priority consumptive uses of all such resources on the public lands of Alaska when it is necessary to restrict taking in order to assure the continued viability of a fish or wildlife population or the continuation of subsistence uses of such population, the taking of such population for nonwasteful subsistence uses shall be given preference on the public lands over other consumptive uses . . . .


The other two items of policy were: to cause the least possible impact on subsistence users consistent with conservation of resource populations, and to utilize cooperative land management. Id. § 3112(1), (3). ANILCA does not define which "other consumptive uses" are subject to the subsistence preference. See 16 U.S.C. §§ 3102, 3113. A few of the early bills listed the subordinated uses as "recreational, sport, or other consumptive uses." S. 2944, 95th Cong., 2d Sess. § 702(2) (Apr. 19, 1978); S. 1500 amend. no. 2176, 95th Cong., 2d Sess. § 802(2) (May 16, 1978); H.R. 39, 95th Cong., 2d Sess. § 702(2) (received in Senate May 23, 1978); H.R. 3636, 96th Cong., 1st Sess. § 102(5) (Apr. 10, 1979).

The subsistence preference policy was implemented in section 804 of ANILCA: "Except as otherwise provided the taking on public lands of fish and wildlife for nonwasteful subsistence uses shall be accorded priority over the taking on such lands of fish and wildlife for other purposes." 16 U.S.C. § 3114. The term "taking" is defined broadly. See ANILCA § 102(18), 16 U.S.C. § 3102(18); H.R. 12625, 95th Cong., 2d Sess. § 103(5) (May 9, 1978) (same definition in earlier bills); see also infra part V (B) (discussing analogy to Endangered Species Act, where regulation includes significant habitat modification within definition of a taking).

In most Senate versions of section 804 the favored status of subsistence was labelled a "preference," and that term is used here. See, e.g., H.R. 39 amend. no. 1961, Senate Calendar No. 442, 96th Cong., 2d Sess. § 804 (Aug.
posed federal administration of this preference, Title VIII of ANILCA gave the state an option to regulate subsistence on federal lands, subject to federal oversight. The early bills also confined the subsistence preference to "subsistence zones" designated by the

6, 1980). But see, e.g., S. 1500, 95th Cong., 2d Sess. § 804(c)(3) (May 16, 1978) (earlier Senate bill referring to subsistence "priority"). In enacting section 804, however, Congress changed the wording from a subsistence "preference" to a subsistence "priority." See H.R. Con. Res. 452, 96th Cong., 2d Sess ¶ (34) (passed by House Nov. 21, 1980; passed by Senate Dec. 1, 1980). This does not appear to be a substantive change: the words "priority" and "preference" are sometimes used in defining one another. See BLACK'S LAW DICTIONARY 1178, 1193-94 (6th ed. 1990); WEBSTER'S THIRD NEW INTERNATIONAL DICTIONARY 1787, 1804 (Philip B. Gove ed., 1986).


The provisions for federal monitoring, ANILCA §§ 806, 816(b), 16 U.S.C. §§ 3116, 3126(b), and for federal court enforcement of the preference by subsistence users, in particular, ANILCA § 807, 16 U.S.C. § 3117, were controversial. See 126 CONG. REC. S15, 131 (daily ed. Dec. 1, 1980) (statement of Sen. Stevens); 126 CONG. REC. H21, 111-15 (daily ed. Nov. 21, 1980) (statement of Rep. Udall). The State was concerned about federal intrusion on state prerogatives in the management of fish and game, and about fragmenting management of natural habitats along political boundaries. See Alaska National Interest Lands: Hearings on H.R. 39, H.R. 2219 before the Subcomm. on Fisheries and Wildlife Conservation and the Env't of the House Comm. on Merchant Marine and Fisheries, 96th Cong., 1st Sess. 413-14, 417-20, Serial No. 4 (Feb. 26, 1979) (statements of Dr. Ronald O. Skoog, Commissioner, Alaska Department of Fish and Game). Subsistence groups, citing previous failures to protect subsistence, were willing to accept state management of federal lands only with federal oversight. See id. at 674-76, 679-81, 695 (comments of Donald Mitchell, Counsel, Alaska Federation of Natives); id. at 679 (comments of Morris Thompson, President, Alaska Federation of Natives). Even after the Senate finally passed a d-2 lands bill late in the ninety-sixth Congress, the preference enforcement section was overhauled again before it was enacted as ANILCA section 807. See H.R. Con. Res. 452, 96th Cong., 2d Sess. ¶ (30), at 7-9 (1980) (passed by House Nov. 21, 1980; passed by Senate Dec. 1, 1980); see also XL ANILCA LEGISLATIVE HISTORY, supra note 82, at 258-63 (comparing different versions of preference enforcement clause).
Interior Secretary. Later bills eliminated the subsistence zones, applying the preference broadly to all of Alaska’s federal lands. Some bills supplemented the broad preference over non-subsistence users with abatement priorities among subsistence users during acute shortages. The subsistence preference and abatement pri-


118. Bills introduced before the advent of a separate subsistence title did not contain subsistence abatement priorities. See, e.g., H.R. 39, 95th Cong., 1st Sess. § 701(b) (Jan. 4, 1977); S. 500, 95th Cong., 1st Sess. § 701(b) (Jan. 28, 1977); cf. S. 1787, 95th Cong., 1st Sess. § 4304 (June 30, 1977) (preference for subsistence taking in case of wildlife shortage to be granted to “local residents”). Some of these early bills used factors to determine eligibility for subsistence similar to the factors that would later be used to determine abatement priorities among subsistence users. See H.R. 39, 95th Cong., 1st Sess. § 701(a)(3) (Oct. 12, 1977) (customary and direct dependence on subsistence as mainstay of livelihood, area of domicile, availability of alternative resources); S. 1500, 95th Cong., 1st Sess. § 701(c) (May 12, 1977) (primary and direct dependence on local resources); S. 2465, 95th Cong., 2d Sess. § 701(a)(3) (Jan. 31, 1978) (customary and direct dependence, area of domicile, availability of alternative resources). With the introduction of a separate subsistence title, the bills provided abatement priorities among subsistence users, in the event that the preference over other consumptive uses was insufficient to preserve the resource. See H.R. 39, 95th Cong., 1st Sess. § 709(b) (Oct. 17, 1977). Initially, the priority favored Alaskan Natives, see id., but a race-neutral formula soon appeared, giving three criteria for fixing the priority among subsistence users:

Whenever it is necessary to restrict the taking of populations of fish and wildlife on [federal] lands for subsistence uses in order to protect the continued viability of such populations, or to continue such uses, such preference shall be based on-
orities sought to prevent over-harvesting, thereby promoting Congress' policy of conserving wildlife on federal lands.\textsuperscript{119} Congress enacted both the subsistence preference and conservation priorities in section 804 of ANILCA.

While section 804 became the most controversial,\textsuperscript{120} other sec-

(1) customary and direct dependence upon the populations as the
mainstay of livelihood;
(2) local residency; and
(3) the availability of alternative resources.

At the same time these d-2 bills were introduced in Congress, Alaska
enacted similar subsistence abatement priorities under state law. See Madison
v. Alaska Dep't of Fish & Game, 696 P.2d 168, 174 (Alaska 1985). Imposed
only after non-subsistence uses were curtailed, these restrictions on lower pri-
ority subsistence uses came to be called "tier-II" restrictions. See id.; Smith,
\textit{supra} note 17, at 25-27. Tier-II restrictions enforcing abatement priorities un-
der ANILCA section 804 are the subject of intense popular debate in Alaska.
See id. They should not be confused with the "tier-II evaluation" under
ANILCA section 810, which is required if an agency finds that a development
project may significantly restrict subsistence uses. See \textit{Hanlon}, 740 F. Supp.
at 1448; \textit{infra} parts III.B., IV.

119. From the start, one policy of the d-2 lands bills was to preserve "sound
populations of, [and] habit for, resident and nonresident wildlife species." H.R.
39, 95th Cong., 1st Sess. § 1(a) (Jan. 4, 1977) (pre-dating inclusion of subsis-
tence title); S. 1500, 95th Cong., 1st Sess. § 2(b) (May 12, 1977) (same); see
H.R. 39, 95th Cong., 1st Sess. § 102(1)(d) (Oct. 17, 1977) (including similar
policy statement, and introducing full subsistence title); S. 2944, 95th Cong., 2d
Sess. § 2(b) (Apr. 19, 1978) (same). To serve this policy, the bills restricted
subsistence uses when curbing other uses was not enough to conserve the re-
("necessary curtailments on consumptive uses of wildlife shall be imposed first
upon other consumptive uses and only as a last resort upon subsistence uses to
the extent necessary for the prevention of waste and the continued viability of the
wildlife resource").

120. See Smith, \textit{supra} note 17, at 22-24 (discussing section 804, 16 U.S.C.
§ 3114). The state undertook to implement section 804's subsistence preference
on federal lands, and Interior Secretary James Watt certified that this program
was in compliance with ANILCA § 805(d) in 1982. \textit{See} Kenaitze Indian Tribe v.
Alaska, 860 F.2d 312, 314 (9th Cir. 1988), \textit{cert. denied}, 491 U.S. 905 (1989). In
1989, however, the Alaska Supreme Court held that the subsistence program's
rural preference, required by ANILCA, violated equal access provisions of the
state's constitution. See McDowell v. State, 785 P.2d 1, 9 (Alaska 1989). Cam-
paigns to amend the constitution to rescue the state's subsistence laws failed. See
tions of Title VIII also arose from Congress' policy of minimizing subsistence impacts from land management. Section 811 guaranteed subsistence users' access to federal lands and their right to employ motor vehicles on these lands. Other sections of the title required wildlife managers to consult with subsistence users.\textsuperscript{121} Sections


\textsuperscript{121} The bills included a congressional finding that continued subsistence required people with personal knowledge to have "a meaningful role in the management of fish and wildlife and of subsistence uses on the public lands in Alaska." \textit{S.} 2944, 95th Cong., 2d Sess. § 701(6) (Apr. 19, 1978); \textit{see H.R.} 39, 95th Cong., 1st Sess. § 701(5) (Oct. 17, 1977) (similar language); \textit{see also} ANILCA § 801(5), 16 U.S.C. § 3111(5) (1994) (same language). Two early House bills expressly included wildlife habitat within the list of resources to be managed under this finding, \textit{H.R.} 39, 95th Cong., 1st Sess. § 701(5) (Oct. 17, 1977); \textit{H.R.} 39, 95th Cong., 1st Sess. § 701(5) (Oct. 28, 1977). Although they retained the finding of a need for a local role in wildlife management, later bills and ANILCA did not contain the reference to habitat. \textit{See H.R.} 39, 95th Cong., 1st Sess. § 701(5) (Oct. 15, 1978); \textit{S.} 2944, 95th Cong., 2d Sess. § 701(6) (Apr. 19, 1978); ANILCA § 801(5), 16 U.S.C. § 3111(5); \textit{see also id.} § 3120(a)(1) (provision in section 810 requiring notice to local subsistence committee when federal land development will significantly restrict subsistence use); \textit{id.} § 3115 (local committees to suggest regulations; regional councils to evaluate resources and
806 and 816 required federal monitoring and oversight of these wildlife managers' decisions. Section 802 required federal agencies to cooperate with non-federal landowners in managing contiguous wildlife habitat. All of these sections promoted the basic policy of Title VIII, expressed in sections 801 and 802, to preserve users' opportunities for subsistence.

The policy of Title VIII, in turn, was a fundamental element of Congress' scheme to establish new federal reservations in ANILCA. One of the broad purposes articulated in Title I of ANILCA was to enable Alaskans engaged in a "subsistence way of life" to continue.\(^2\) In Titles II and III, Congress implemented this purpose by designating subsistence among the uses that agencies would promote in new parks and refuges.\(^3\) Titles IV through VII relied on regulations, subsistence managers to follow recommendations of regional councils unless they are unsupported).

122. In section 101, Congress gave four broad purposes for enacting ANILCA: (1) to create new conservation reservations; (2) to preserve natural values; (3) to protect the subsistence way of life; and (4) to balance conservation with economic development. See 16 U.S.C. § 3101(a)-(d) (1994). Within its first two purposes, sections 101(a) and 101(b) included "cultural . . . and wildlife values," "sound populations of, and habitat for, wildlife," and "resources related to subsistence needs" among the things to be protected in new reserves. See id. § 3101(a)-(b).

The third purpose of ANILCA was to enable "rural residents engaged in a subsistence way of life to continue to do so." Id. § 3101(c). The only caveat was that subsistence had to remain consistent with scientific wildlife management and the purposes for which Congress had dedicated each reservation. See id. The fourth purpose of ANILCA also promoted subsistence, but less directly. This purpose was to avoid further legislation by achieving "a proper balance" between preservation and more intensive use of natural resources to promote economic development. See id. § 3101(d). Subsistence straddled that balance because it required agencies to protect wildlife while permitting users a harvest that satisfied their "economic and social needs." See id.

123. Title II of ANILCA added or expanded thirteen units in the national park system, expressly including subsistence among the purposes for which eight of them were designated. See 16 U.S.C. §§ 410hh(1)-(3), (4)(a)-(b), (d)(ii), (7)(a), (9), 410hh-1(3)(a), (1994) (permitting subsistence uses by local residents and/or listing "protect the viability of subsistence resources" among designated purposes of eight parks and park preserves); see also id. § 410hh(8)(a), (10) (not listing subsistence, but listing habitat protection among purposes for two more preserves); id. § §410hh-2 (permitting subsistence generally in preserves); cf. id. §§ 410hh(5), 410hh-1(1)-(2) (not mentioning subsistence among designated purposes of one park and two monuments); id. § 410hh-4 (permitting commercial
prior law to assign the uses for new recreation, forest, scenic river, and wilderness areas. These titles did not designate uses for each area, relying instead on the management sections of Title

fishing in one of these monuments). See generally id. §§ 3118, 3125, 3126(a), 3201, 3202 (1994) (prescribing management authority for subsistence in park system units). In addition to protecting subsistence resources, some of the other listed uses of park units included preserving geological features, conserving native fish and wildlife, researching natural processes, studying archaeological sites, and permitting reindeer grazing. See, e.g., id. § 410hh(1)-(2). Congress did not completely determine each federal agency's priorities, but instead listed the uses that are to be promoted "among others." See id.

Title III added or expanded sixteen units in the national wildlife refuge system, expressly including subsistence among the listed purposes for all but one of them. See Pub. L. No. 96-487 §§ 302(1)(B)-(9)(B), 303(1)(B)-(3)(B), 303(5)(B)-(7)(B), 94 Stat. 2385-88, 2390-93 (1980) (listing "the opportunity for continued subsistence uses," consistent with wildlife conservation and conservation treaties, among purposes for which Fish and Wildlife Service is to manage refuges); see also id. § 303(4)(B) (not listing subsistence, but listing conservation of wildlife and their habitats, and "wildlife-oriented recreation," among purposes for expanding one refuge). In addition to protecting subsistence uses, other listed purposes of the refuges included conserving a natural diversity of fish and wildlife and habitats, fulfilling international fish and wildlife treaties, and supplying clean water. See, e.g., id. § 302(1)(B); see also id. § 302(8)(B) (adding educational purposes to the list); id. § 303(1)(B) (adding scientific research purpose to list).


VIII to provide the subsistence opportunities that ANCSA had failed to protect.

Congress drafted section 810, like the management sections, to protect subsistence on all of Alaska’s federal lands. Unlike the management sections, however, section 810 sought to supply fish and wildlife to subsistence users for the long term, by conserving habitats. Congress addressed habitats by injecting subsistence into federal agencies’ land use and project planning decisions. The language of section 810 required agencies to evaluate the impacts of project plans on subsistence and, if they were significant, to minimize those impacts.

II. LANGUAGE AND CONSTRUCTION OF SECTION 810

A. The Language of Section 810

Section 810 began as a single paragraph in the 1977 House bill that first introduced a full subsistence title. Its drafters intended

L. 96-487 §§ 503(h)(3)(B), 505 (food-fish, wildlife, and habitats included in environmental study and regulation of mine in national forest monument); 16 U.S.C. § 460mm-4(a) (1994) (“fish and wildlife, and other values” among management priorities for recreation area); id. § 3202 (fish and wildlife management on new reservations to conform with state and federal law); id. § 3203(b) (Forest Service may permit hatcheries to promote fish production in national forest wilderness); id. § 3204(a) (agencies may permit temporary campsites that support fishing and hunting on new reservations).


127. The section, and Title VIII, were first introduced by the staff of the House Interior and Insular Affairs Committee as amendments to the original Alaska Coalition bill prior to markup. See 1 ANILCA LEGISLATIVE HISTORY, supra note 82, at 372 (handwritten introduction to bill). The full original text of the section was as follows:

SUBSISTENCE AND LAND-USE DECISIONS

§ 714. In determining whether to withdraw, reserve, lease or otherwise permit the use, occupancy or dispositions of public lands in any regional [subsistence] zone under any provision of law authorizing such actions, the Secretary or his designee shall evaluate the subsistence
this paragraph to add subsistence to the list of factors that federal agencies considered in making land-use decisions. They institut-

needs of the persons affected, the availability of nonsubsistence lands for the purposes sought to be achieved, and other alternatives which would reduce or eliminate the requirement of any taking of lands needed for subsistence uses. No withdrawal, reservation, lease, permit, or other use, occupancy, or disposition of such lands authorized under the laws of the United States which would significantly restrict subsistence uses shall be effected until after notice and a hearing in the general vicinity of the area involved, and a determination by the agency that a limitation of subsistence uses is necessary and unavoidable. H.R. 39, 95th Cong., 1st Sess. § 714 (Oct. 17, 1977), reprinted in 1 ANILCA LEGISLATIVE HISTORY, supra note 82, at 475-76. Earlier d-2 land bills had a policy to protect subsistence in wildlife management but did not address agencies’ land use decisions. See, e.g., H.R. 39, 95th Cong., 1st Sess. §§ 1(b), 701 (Jan. 4, 1977). The land use decisions section, and the subsistence title, were not introduced in the Senate until six months after the House bill. See S. 2944, 95th Cong., 2d Sess. § 707 (Apr. 19, 1978); S. 1500 amend’t no. 2176, 95th Cong., 2d Sess. § 807 (May 16, 1978).

128. Telephone Interview with Donald Mitchell, Counsel, Alaska Federation of Natives/Anchorage (Apr. 16, 1993). The section including subsistence in land use decisions was inspired by proposed BLM regulations under the Federal Land Policy and Management Act of 1976, 43 U.S.C. § 1712 (1988), which would have included a subsistence impacts review in public lands classification decisions. Mitchell Interview, supra. The section was intended to assure that subsistence would be a “relevant factor” within the requirement that agencies consider all such factors in adjudicating land use proposals. Id.; see Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402, 416 (1971) (citing Administrative Procedure Act, 5 U.S.C. § 706(2)(A) (1992)). Although NEPA requires agencies to consider environmental impacts, long term productivity, and irreversible commitments of resources, it does not expressly include subsistence as an environmental factor. See 42 U.S.C. § 4332(2)(C) (1994).

ed the broad requirement that agencies consider subsistence impacts “[i]n determining whether to withdraw, reserve, lease, or otherwise permit the use, occupancy, or disposition of public lands . . . under any provision of law.”

Congress ultimately enacted the paragraph incorporating subsistence in land use decisions as subsection 810(a) of ANILCA. Like the bills that introduced it, subsection 810(a) specified two levels of subsistence evaluation in its first and second sentences. The courts subsequently labelled these two levels “tier-I” and “tier-II.”

Congress made no material changes to the language of tier-I between its introduction and its enactment three years later. Tier-I thus included three factors: (1) subsistence impacts, (2) alternative sites for a project, and (3) alternatives to the project itself. These factors imposed a duty that was procedural because they determined what an agency must evaluate without setting standards for the allowable extent of subsistence impacts.

Tier-II did establish such standards, but it applied to a narrower category of land use decisions. From its origin, the bills defined the category by requiring an agency to complete tier-II for any new use “which would significantly restrict” subsistence uses. Through this definition, Congress required an agency to make a threshold determination of the significance of project impacts, to see whether it must complete tier-II. ANILCA did not define “significant,”

129. See supra note 127; see also ANILCA § 810(a), 16 U.S.C. § 3120(a) (1994) (same language in enacted bill).
130. See Akutan II, 792 F.2d at 1377; Hanlon, 740 F. Supp. at 1448; Clough I, 750 F. Supp. at 1424-25.
132. 16 U.S.C. § 3120(a) (first sentence).
134. See Kunaknana, 742 F.2d at 1151. The Act never defined what would be
and in most of the cases raising section 810 claims, subsistence users argued that agencies erred in their threshold findings of no significant restriction.\textsuperscript{135} Although the agencies never developed "significance" definitions consistent with section 810, courts were reluctant to mandate tier-II, according—perhaps excessive—deference to their planning role.\textsuperscript{136}

If an agency is required to complete tier-II, it must give notice, hold a local hearing, and make specified findings about its project design. In the original bills, the required findings were that a new subsistence restriction was "necessary and unavoidable.\textsuperscript{137} Congress' only material change to the language before it enacted tier-II in subsection 810(a) was to expand an agency's duty by requiring three findings:

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\textsuperscript{135} See, e.g., Kunaknana, 742 F.2d at 1149, 1152; Hanlon, 740 F. Supp. at 1449, 1451-52; Clough I, 750 F. Supp. at 1425.

\textsuperscript{136} See, e.g., Hanlon, 740 F. Supp. at 1449-52, 1454-55, 1458-59 (holding that Forest Service used wrong legal standards to determine "significance," but denying injunction because agency contended that restriction was insignificant and subsistence users did not establish irreparable harm).

(A) such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands,
(B) the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition, and
(C) reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions.138

Unlike the tier-I procedure and tier-II hearing, the words “necessary,”139 “minimal,”140 and “minimize”141 in the tier-II findings


139. The agency must determine that “such a significant restriction of subsistence uses is necessary, consistent with sound management principles for the utilization of the public lands.” ANILCA § 810(a)(3)(A), 16 U.S.C. § 3120(a)(3)(A) (1994). Committee reports clarify that this finding has two subparts: the agency must determine that the subsistence restriction is “necessary and consistent with sound management principles.” S. REP. No. 413, supra note 32, at 274, reprinted in 1980 U.S.C.C.A.N. at 5218; H.R. REP. No. 97, supra note 69, at 286 (emphasis added).

The finding’s use of sound management principles echoes Congress’ reliance throughout Title VIII on scientific management to conserve fish and wildlife populations. See 16 U.S.C. §§ 3112(1), 3114, 3115(b), 3118(b), 3122, 3123, 3125(1), 3124(3), 3126(b); see also id. § 3101(c) (general intent of Act to protect subsistence “consistent with management of fish and wildlife in accordance with recognized scientific principles” and each reservation’s purpose); id. § 3101(b) (general intent to maintain “sound populations of, and habitat for, wildlife species . . . ” and to protect subsistence resources); cf. H.R. 39, 95th Cong., 1st Sess. § 706(b)(1) (Oct. 28, 1977) (state management program for federal lands must have “as its central element the maintenance of the optimum sustainable population of the fish and wildlife species utilized by subsistence users”); Seattle Audubon Soc’y v. Evans, 952 F.2d 297, 299-302 (9th Cir. 1991) (applying regulation at 36 C.F.R. § 219.19 that required Forest Service to maintain “viable populations” of fish and wildlife). Although it did not directly reference section 810, the Senate Committee on Energy and Natural Resources did provide guidance to agencies managing subsistence resources:

The Committee intends the phrase “the conservation of healthy populations of fish and wildlife” to mean the maintenance of fish and wildlife resources and their habitats in a condition which assures stable
and continuing natural populations and species mix of plants and animals in relation to their ecosystems, including recognition that local rural residents engaged in subsistence uses may be a natural part of that ecosystem; minimizes the likelihood of irreversible or long-term effects upon such populations and species; and ensures maximum practicable diversity of options for the future. The greater the ignorance of the resource parameters, particularly the ability and capacity of a population or species to respond to changes in its ecosystem, the greater the safety factor must be.

The Committee recognizes that the management policies and legal authorities of the National Park System and the National Wildlife Refuge System may require different interpretations and application of the “healthy population” concept consistent with the management objectives of each system.


140. The agency must find that “the proposed activity will involve the minimal amount of public lands necessary to accomplish the purposes of such use, occupancy, or other disposition.” ANILCA § 810(a)(3)(B), 16 U.S.C. § 3120(a)(3)(B) (1994). One of the drafters of Title VIII has noted that this finding followed familiar public land law patterns wherein special set-asides from federal reservations are confined to “the smallest area compatible” with the purpose of the set-aside, Antiquities Act of 1906, 16 U.S.C. § 431 (1994); or “the smallest practicable tract,” ANCSA § 3(e), 43 U.S.C. § 1602(e) (1988). Telephone Interview with Stan Sloss, Counsel, Subcommittee on National Parks, House Committee on Natural Resources (April 29, 1993). Mr. Sloss was on the legislative staff of the House subcommittee that drafted Title VIII. See Alaska National Interest Lands Conservation Act: Markup Session on H.R. 39 Before the Subcomm. on General Oversight and Alaska Lands of the House Committee on Interior and Insular Affairs, 95th Cong., 2d Sess. 799-800 (Jan. 30, 1978), reprinted in XXVIII ANILCA LEGISLATIVE HISTORY, supra note 82, at 21-22; Mitchell Telephone Interview, supra note 128. The first Senate version phrased this finding differently, requiring the agency to determine that its subsistence restriction “minimizes the land and impacts on subsistence uses involved.” S. 2944, 95th Cong., 2d Sess. § 707(3) (Apr. 19, 1978).

141. The agency must find that “reasonable steps will be taken to minimize adverse impacts upon subsistence uses and resources resulting from such actions.” ANILCA § 810(a)(3)(C), 16 U.S.C. § 3120(a)(3)(C) (1994). Most of the House bills would have required an agency to take “adequate” impact-minimizing steps, rather than “reasonable” steps. See, e.g., H.R. 12625, 95th Cong., 2d Sess.
established subsistence protection standards for land use decisions. In the sole case that reviewed tier-II findings, *City of Tenakee Springs v. Clough*, the district court recognized that these substantive standards limited the discretion of an agency, the Forest Service, to approve a logging project. The court did not require the agency to redesign its project in *Clough*, however, because it de-


Unlike the other tier-II findings, the third finding is prospective: “reasonable steps will be taken to minimize adverse impacts.” 16 U.S.C. § 3120(a)(3)(C) (emphasis added). Section 810 does not specify who must take these future steps. See id.; see also S. Rep. No. 413, supra note 32, at 234, reprinted in 1980 U.S.C.C.A.N. at 5178 (“steps which the head of a Federal agency must take”); cf. Clough II, 750 F. Supp. at 1432 (dictum that agency may delegate responsibility for its “mitigation measures” to state agencies, providing a finding that reasonable steps to be taken are not arbitrary and capricious).

142. See Clough I, 750 F. Supp. at 1427 (discussing “necessary” finding); cf. Franzel, No. J86-024 CIV, slip op. at 25 (“necessary” finding permits agency to reasonably consider and reject subsistence-protective alternatives).
ferred to the agency's factual conclusion that logging was necessary and to the legal construction of what the three findings required.

In addition to the paragraph that became subsection 810(a), a Senate bill late in the ninety-fifth Congress added language that became subsections 810(b) and 810(c). Subsection 810(b) required an agency to report its tier-II evaluation in an environmental impact statement if NEPA required it to write such a statement. Congress may have sought by this provision to reduce paperwork, ceasing the reporting of separate environmental and subsistence evaluations. Subsection 810(c) addressed the long-delayed land selection process by exempting state and Native corporations' selections from subsistence evaluation. Agencies incorporated subsection 810(b) in their section 810 guidelines, and expanded upon it by integrating the subsistence evaluation even when NEPA required only an envi-

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143. See H.R. 39 amend. no. 4742, Senate Calendar No. 1215, 95th Cong., 2d Sess. § 710(b)-(c) (Oct. 15, 1978). The House picked up the language of subsections 810(b) and 810(c) three months later in its first d-2 lands bill of the ninetieth Congress. See H.R. 39, 96th Cong., 1st Sess. § 705(b)-(c) (Jan. 15, 1979).

144. Subsection (b) reads:

(b) Environmental impact statement
If the Secretary is required to prepare an environmental impact statement pursuant to [NEPA], he shall provide the notice and hearing and include the findings required by subsection (a) of this section as part of such environmental impact statement.

16 U.S.C. § 3120(b) (1994). Subsection 810(b) cited NEPA section 102(2)(C), 42 U.S.C. § 4332(2)(C) (1994), for the environmental impact statement ("EIS") requirement. The subsection did not expressly require an agency to integrate its subsistence evaluation if an environmental assessment ("EA") or categorical exclusion was all NEPA required. See 16 U.S.C. § 3120(b). But see Penfold II, 857 F.2d at 1313 n.11 (noting that an EIS or an EA must include the subsistence evaluation).

Subsection 810(b) referred to "notice and hearing" and "findings," but not to tier-I's requirement to "evaluate" subsistence impacts, suggesting to one court that § 810(b) did not mandate including tier-I in an EIS. See Watt, No. A83-337 CIV, slip op. at 57-59 (holding that an agency need not recite a tier-I FONSR in its EIS). But see infra note 175 (agency had to disclose its tier-I determination if users were to play a meaningful role in subsistence management).
Subsection 810(b) engendered little litigation, and subsection 810(c) spawned none.\textsuperscript{146} A House bill early in the ninety-sixth Congress added the final language: subsection 810(d).\textsuperscript{147} This subsection allowed an agency to go forward with a project "[a]fter compliance with the procedural requirements of this section and other applicable law."\textsuperscript{148} A


\textsuperscript{146} Cf. Watt, No. A83-337 CIV, slip op. at 57-59 (810(b) requires an EIS to contain tier-II findings, but not to contain a tier-I determination of no significant restriction); Dinyea Corp., 90 Int. Bd. Land App. 163, 166-67, 1986 IBLA LEXIS 282 at *7-*10 (1986) (Interior Board of Land Appeals) (citing 810(c) policy of unimpeded state land selection in dismissing Native corporation's claim that BLM ignored subsistence impacts when it opened a utility corridor to allow state, but not Natives, to select the land).

\textsuperscript{147} See H.R. 39 Union Calendar No. 40, 96th Cong., 1st Sess. § 810(d) (Apr. 18, 1979) (Rep. Udall). The Senate adopted the language of subsection 810(d) in a bill introduced some three months later in the same term. See H.R. 39 amend. no. 626, Senate Calendar No. 442, 96th Cong., 1st Sess. § 710(d) (Nov. 15, 1979) (Sen. Tsongas). After adding subsection 810(d), Congress enacted section 810 with no further changes.

\textsuperscript{148} Subsection (d) reads:

(d) Management or disposal of lands

After compliance with the procedural requirements of this section and other applicable law, the head of the appropriate Federal agency may manage or dispose of public lands under his primary jurisdiction for any of those uses or purposes authorized by this Act or other law.
Senate report sought to clarify subsection 810(d) by stating that an agency could approve a project even if its evaluation showed harm to subsistence.149 One agency, the Forest Service, later contended that subsection (d) meant section 810 was purely procedural, imposing no limits on agency discretion. The courts have not resolved whether subsection 810(d) vitiated the substantive language of subsection 810(a), and agencies' section 810 guidelines did not address the question.150 Congress' language in the tier-II findings did, however, appear to limit agency discretion by its plain meaning. The Forest Service interpretation that subsection 810(d) withdrew the substantive mandates of subsection 810(a) was also inconsistent with Congress' purpose in Title VIII to minimize subsistence impacts of land management.151

16 U.S.C. § 3120(d) (1994); see also id. § 3125 (1994) (savings clause for other applicable laws). Because the other applicable law has both procedural and substantive requirements, see, e.g., id. (citing the Endangered Species Act of 1973, 16 U.S.C. §§ 1531-1543 (1994) and other federal wildlife statutes), the grammar of subsection 810(d) suggests that section 810's requirements are solely procedural. See 16 U.S.C. § 3120(d); cf. H.R. 39, 96th Cong., 1st Sess. § 706(a) (May 24, 1979) (House bill in which subsection containing tier-I and tier-II subsistence review requirements is entitled "Evaluation"); H.R. 3651, 96th Cong., 1st Sess. § 706(a) (Apr. 23, 1979) (same); H.R. 3636, 96th Cong., 1st Sess. § 706(a) (Apr. 10, 1979) (same). But cf. H.R. 39 amend. no. 4742, Senate Calendar No. 1215, 95th Cong., 2d Sess. § 710(a) (Oct. 15, 1978) (earlier Senate bill in which same subsection is entitled "Other Uses, Etc.").

149. According to Senate Report No. 413, subsection 810(d) clarifies that the requirements of Section 810 are 'procedural' in that until the requirements of the section have been satisfied the proposed action may not proceed, but once the requirements of the section are satisfied and incorporated into existing land use planning processes the proposed action may proceed even though its effect may be adverse to subsistence uses.


150. See Clough I, 750 F. Supp. 1427; see also FOREST SERVICE GUIDELINES, supra note 145, § 1.4-2 (no discussion of meaning of § 810(d)); INTERIOR DEPARTMENT GUIDELINES, supra note 145, § III.D.2. (same); PARK SERVICE GUIDELINES, supra note 145, § III.D.2. (same); BLM GUIDELINES, supra note 145, § IV.D.2. (same); FISH AND WILDLIFE GUIDELINES, supra note 145, § IV.D.2. (same).

151. See 16 U.S.C. § 3112(1); see also infra part IV (discussing tier-II requirements in greater detail).
B. Administrative Construction of Section 810

Most of Alaska's federal lands are administered by the Department of the Interior or agencies within it: the National Park Service, the Fish and Wildlife Service, and the Bureau of Land Management ("BLM"). The nation's two largest national forests, managed by the Forest Service in the Department of Agriculture, are also subject to section 810. Some agencies began conducting subsistence evaluations when ANILCA went into effect in 1981, but they had no formal procedures for these evaluations.

Subsistence users first challenged a subsistence evaluation in court when they sued the BLM in Kunaknana v. Watt in 1983. Perhaps as a result of that suit, the BLM issued internal guidelines for conducting subsistence evaluations in May of 1984. Work Group number I of ANILCA’s state-federal Alaska Land Use Council ("ALUC") built on the BLM draft, adopting section 810

152. See supra note 20; see also ALASKA ALMANAC 96 (similar tabulation); see generally Alaska Geographic Society, supra note 106, at 13 (map of respective agencies holdings).


154. Telephone Interview with Robert King, Senior Cultural Resource Program Manager, U.S. Department of the Interior—Bureau of Land Management, Alaska Region (Jan. 11, 1994); see also Watt, No. A83-337 CIV, slip op. at 33 (BLM had not developed section 810 guidelines at time of suit); cf. infra note 155 (discussing issuance of BLM and Forest Service guidelines).

procedures later in 1984,\textsuperscript{156} and the Interior Department promulgated similar guidelines as minimal standards for all of its agencies.\textsuperscript{157} Work Group number II of ALUC drafted methods for collecting and analyzing subsistence data in February of 1985, but the agencies ended their participation in 1990 without approving these methods.\textsuperscript{158} The BLM revised its internal section 810 guidelines in 1986. Neither the BLM nor the other federal agencies ever issued formal section 810 regulations, which suggests they did not seek public involvement in defining their responsibilities under the section.

All of the major federal land agencies eventually did adopt internal section 810 guidelines, based on ALUC’s recommendations or the BLM’s later revision.\textsuperscript{159} Each agency’s guidelines defined the

\textsuperscript{156} See \textit{Alaska Land Use Council, Recommended Guidelines for Compliance with ANILCA Section 810 § I} (Nov. 19, 1984), reprinted in 1985 Section 806/813 Report, \textit{supra} note 155, at app. J-1; \textit{see also} at V-17 (discussing working group history); King Telephone Interview, \textit{supra} note 154 (same); \textit{cf.} 16 U.S.C. § 3181 (establishing ALUC with sunset in 1990). The U.S. Fish and Wildlife Service adopted the ALUC guidelines verbatim. See \textit{Fish and Wildlife Service Guidelines, supra} note 145.

\textsuperscript{157} See \textit{Interior Department Guidelines, supra} note 145; \textit{see also} Memorandum from William P. Horn, Deputy Under Secretary, U.S. Department of the Interior to Assistant Secretaries re. Subsistence and Land Use Decisions Policy (June 19, 1984) (transmitting Interior Department guidelines and authorizing individual agencies to develop supplemental guidelines) (on file with John W. Hiscock, Subsistence Manager, Alaska Regional Office, National Park Service, 2525 Gambell St., Rm. 107, Anchorage, AK 99503-2892).


\textsuperscript{159} See King Telephone Interview, \textit{supra} note 154. An exception was the
significantly restrict subsistence uses" threshold that determined whether the agency must make a tier-II evaluation of a project. Each definition of "significance" used factors such as the extent to which a project reduced game abundance, redistributed game, or interfered with subsistence hunters' access. Different definitions, however, weighted these factors differently. Some guidelines, for example, required a "major" game redistribution or "substantial"
bar to access for "significance," while others did not.161 The guidelines thus created inconsistencies in the conditions, leading different agencies to do tier-II evaluations. Such inconsistencies arguably were contrary to Congress' policy of protecting the opportunity for subsistence on all federal lands.

In applying the section 810 guidelines, agencies focused their tier-I evaluations on whether projects exceeded the significance threshold that triggered tier-II. This focus on significance was consistent with tier-I's first evaluation factor—the extent of a project's subsistence impacts, because the impacts are a key determinant of "significance." Congress included two other factors in tier-I, however, that went beyond the significance determination. Congress apparently designed its second factor—whether other lands were available—to help an agency avoid subsistence impacts in siting a project.162 The third tier-I factor—whether other projects were available—likewise helped an agency define more protective al-

161. Compare Forest Service Guidelines, supra note 145, § 05(B) (restriction significant if it results in "substantial" reduction in subsistence through reduced abundance or "major" redistribution of game, "substantial" interference with access, or "major" non-subsistence competition); id. § 3.2 (adding comments that reduction must be "large," or redistribution be more than "occasional," to be significant); BLM Guidelines, supra note 145, § IV(B)(2), app. 8 (same "substantial," "major," and "large" requirements); Fish and Wildlife Service Guidelines, supra note 145, § IV(B) (same except no comment that reduction of game must be "large" or increase in competition be "substantial") with Interior Department Guidelines, supra note 145, § III(A)(1) (tier-I evaluation addresses game abundance, redistribution, and access, without requiring conditions to be "substantial" or "major" to be significant) (not mentioning competition); Park Service Guidelines, supra note 145, § III(A)(1), app. ANILCA Section 810 Background 1, app. ANILCA Section 810 Format V (finding restriction significant if it changes abundance, distribution, access, or competition, without requiring change to be "substantial" or "major" and adding "habitat loss" as another factor that can make a restriction significant).

162. Some agencies' guidelines appear to recognize Congress' intent to avoid subsistence impacts in tier-I, because they provide practical information for an agency to use in relocating its projects to non-subsistence lands. See BLM Guidelines, supra note 145, § IV(A)(2) (agency must examine whether "other lands" are suitable, available, and designated for uses compatible with proposed project); Fish and Wildlife Service Guidelines, supra note 145, § IV(A)(2) (same); Forest Service Guidelines, supra note 145, § 1.1(2) (same, except no directive to examine land ownership in determining availability).
ternatives. While tier-I did not require agencies to reduce subsistence impacts already below the threshold, Congress clearly intended them to consider such reductions in planning a project. Further, the second and third tier-I factors commanded agencies to develop subsistence-protective alternatives at the inception of planning. In confining tier-I evaluations to the "significance" finding, agencies neglected the primary purpose of tier-I: injecting subsistence protection into each project at an early stage.

For tier-II, agency guidelines all recited the three findings that subsection 810(a)(3) required, without further explanation.\(^\text{163}\) In Clough, the only case that interpreted tier-II, the Forest Service issued its tier-II findings as bare conclusions, without any analysis showing how they were supported by subsistence data.\(^\text{164}\) Never-
theless, the purpose of section 810, to protect subsistence resources from unnecessary destruction, required the agency to formulate a range of protective alternatives. The words of tier-II, "necessary," "minimal," and "minimize," then required the agency to compare the subsistence impacts of these alternatives. To ensure that its planners formulated and compared the alternatives properly, the Forest Service should have had detailed tier-II procedures in its section 810 guidelines. The absence of tier-II procedures may
have compromised Congress’ scheme by allowing the agency to omit subsistence-protective alternatives from its evaluation.\textsuperscript{166}

Administrative construction of section 810 has produced a lack of emphasis on protective alternatives in tier-I, inconsistent definitions of “significant” restriction, and weakly supported findings in tier-II. While agencies might eventually resolve these issues individually, subsistence management would be improved immediately if there were generally-applicable regulations to make every evaluation consistent with the purposes of section 810. Judicial review of agency evaluations has not generated such consistency to date.

C. Judicial Construction of Section 810

The courts have decided only a few challenges to agencies’ tier-I evaluations, and only one challenge to a tier-II evaluation.\textsuperscript{167}

\begin{footnotesize}
\begin{itemize}
\item \textsuperscript{166} Cf. ALASKA PULP 1989 SEIS, \textit{supra} note 164, ch. 4, at 20 (amount of winter range for deer remaining after logging would be similar for all alternatives), ch. 4, at 28 (proposed timber harvest alternatives would have approximately the same effect on all wildlife habitats). \textit{But see id.} ch. 4, at 84 (preferred alternative is projected to cause greatest impact on deer habitat).
\end{itemize}
\end{footnotesize}
These cases discussed the geographic scope of section 810, its two-tiered structure, the significance threshold, tier-II findings, and remedies for deficient evaluations. Four decisions had particularly important effects on agencies’ construction of section 810: Kunaknana v. Clark, Sierra Club v. Penfold, Amoco Production Company v. Village of Gambell, and the extended series of opinions in Hanlon v. Barton and City of Tenakee Springs v. Clough.169

1. Kunaknana

Kunaknana v. Clark, the first judicial review of a subsistence evaluation, was important because it examined the two-tiered structure of section 810 and the significant restriction threshold. The case arose from an appropriations bill, which Congress passed shortly after ANILCA in 1980, commanding the BLM to lease lands for oil exploration in the National Petroleum Reserve-Alaska (“NPR-A”).170 The BLM made an environmental impact statement (“EIS”), ranked the subsistence values of 500 tracts in the NPR-A, and selected tracts to lease.171 In 1983, subsistence users sued to

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168. See Amoco, 480 U.S. at 547, 554 (section 810 does not extend to outer continental shelf); Angoon, 803 F.2d at 1028 (section does not extend to private lands adjacent to public land); NRDC v. Lujan, 768 F. Supp. at 883-84 (section does not extend to Arctic National Wildlife Refuge until Congress authorizes Interior Department to develop it).

169. These cases are listed in roughly chronological order in note 167, supra. The Clough case was an outgrowth of the litigation in Hanlon. See Clough III, 915 F.2d at 1309-10 (discussing history of the case).

170. See Kunaknana, 742 F.2d at 1147, 1149-51 (citing Naval Petroleum Reserves Production Act Amendments of 1980, 42 U.S.C. § 6508 (1994)).

171. The district court’s opinion described the leasing process. See Watt, No. A83-337 CIV, slip op. at 29-32.
enjoin the leases, claiming the BLM had not made a required tier-II evaluation under section 810.\textsuperscript{172} The agency issued a modified record of decision, finding that leasing would not significantly restrict subsistence so no tier-II evaluation was required. The district court upheld the agency's decision to proceed without a tier-II evaluation, and, in 1984, the Ninth Circuit affirmed that holding.\textsuperscript{173}

The principal issues in \textit{Kunaknana} were whether Congress required an agency to complete tier-II for every project, and if not, what kind of projects did trigger it. Subsection 810(a) mandated tier-II evaluation for a new use "which would significantly restrict subsistence." The Ninth Circuit held that this language invoked tier-II, not for every project, but only for those where an agency made a finding of significant restriction.\textsuperscript{174} The district court also held that subsection 810(b) did not demand tier-II for every project that required an EIS.\textsuperscript{175} These holdings, that tier-II was triggered only by a "significant" restriction, were consistent with the plain meaning of subsections 810(a) and 810(b).

In \textit{Kunaknana}, after affirming that tier-II was triggered only by a significant restriction, the Ninth Circuit examined this "significance" threshold. The Court of Appeals concluded that an agency must complete tier-II if it finds that a project "may" significantly restrict subsistence.\textsuperscript{176} The court possibly derived this "may" test

\begin{footnotesize}
\begin{enumerate}
\item \textsuperscript{172} See \textit{id.} at 5, 10. The BLM had no guidelines for complying with section 810 at the time of the suit. See \textit{id.} at 33. The agency was apparently confused at first about what ANILCA required, and made some efforts to provide the hearing and findings of tier-II. See \textit{id.} at 5-8, 33-34, 37-38.
\item \textsuperscript{173} \textit{Kunaknana}, 742 F.2d at 1152.
\item \textsuperscript{174} \textit{Id.} at 1151.
\item \textsuperscript{175} See \textit{Watt}, No. A83-337 CIV, slip op. at 53-57. While the court's reading of the tier-II requirement was reasonable, it went overboard in holding that the BLM need not disclose making a FONSR in tier-I. See \textit{id.} at 57-60. Congress found, in enacting Title VIII, that the national interest required giving local subsistence users "a meaningful role in the management . . . of subsistence uses." 16 U.S.C. § 3111(5) (1994). Users could not play a meaningful role if they were excluded from an agency's threshold evaluation whether a project would significantly restrict subsistence. Whether or not subsection 810(b) required including it in an EIS, Congress' purpose to involve users required an agency to publish its FONSR if it determined not to provide the protections of tier-II. \textit{But see Watt}, No. A83-337 CIV, slip op. at 60 (suggesting subsistence users "must presume" FONSR if an EIS lacks tier-II findings).
\item \textsuperscript{176} See \textit{Kunaknana}, 742 F.2d at 1151; see also \textit{Hanlon}, 740 F. Supp. at 1452-
\end{enumerate}
\end{footnotesize}
from NEPA law, because Congress did not use the word "may" in ANILCA subsection 810(a). NEPA law, in contrast, does require an EIS if a project "may" have a significant impact on the environment. Congress did not refer to NEPA in subsection 810(a), and the court declined to compare the NEPA and ANILCA thresholds in 

Agencies subsequently construed ANILCA’s "would significantly restrict" language as demanding a higher probability of impacts than the court had required—a "likelihood"—before tier-II was triggered. The Ninth Circuit then rejected a "likelihood" standard in favor of Kunaknana’s "may" test. The court’s con-
struction was supportable on two grounds, independent of NEPA law.

First, subsection 810(a) prohibited an agency from approving a project that would cause significant restriction unless it made a tier-II evaluation. By wording tier-II in the form of a prohibition, Congress required an agency to find no probable significance before it proceeded with a project that lacked tier-II findings. Congress required an agency to find no probable significance before it proceeded with a project that lacked tier-II findings. Kunaknana's "may" test was consistent with the prohibitive language because it required tier-II if an agency found some probability of significant restriction.

In addition to tier-II's language, the "may" test was consistent with Congress' purpose in tier-II and Title VIII. In tier-II, Congress' purpose was to protect subsistence resources from unnecessary destruction. The "may" test promoted this purpose by protecting subsistence resources if there was any possibility that a project would significantly harm them. In Title VIII, one of Congress' purposes was to involve subsistence users in managing resources. When triggered, tier-II required an agency to hear these users to determine whether it could reduce its destruction of resources. Setting the trigger low increased an agency's burden by requiring more hearings, but increased subsistence users' involvement by providing more tier-II evaluations. The Ninth Circuit's "may" test thus followed both the language and purpose of section 810.

Ninth Circuit's rejection of the "likely" test, the federal agencies have retained it in their section 810 guidelines. See supra note 178.

180. Congress has not authorized an agency to proceed without tier-II evaluation even if a significant restriction is unlikely. Congress prohibited an agency from creating any significant restriction until it completed tier-II, perhaps with the understanding that tier-II would not impose the burdens of an environmental impact statement. Cf. Bill No. S. 9, S. 222, H.R. 39 Alaska National Interest Lands Conservation Act (d-2 lands): Markup Session on S.9, The Alaska Lands Bill Before the Senate Committee on Energy and Natural Resources, 96th Cong., 1st Sess. 41 (Oct. 9, 1979) (statement of Sen. Stevens) ("there is no intent to create any new kind of a priority that places subsistence uses into a category that could lead to sort of a what some people called a new type of NEPA statement").

181. See 16 U.S.C. § 3111(5) (1994); see generally Case, supra note 7, at 1015-21 (discussing problems with state implementation of ANILCA's subsistence priority and user involvement provisions during the 1980s).
In *Kunaknana*, however, the Ninth Circuit implicitly imported other law from NEPA besides the "may" test. The court accepted the BLM’s finding of no significant restriction based in part on the agency’s mitigation efforts—a NEPA concept.\(^{182}\) The Ninth Circuit thus began a line of cases that relied on NEPA law to define ANILCA’s significance threshold. This wholesale importation of NEPA law was inappropriate because Congress enacted ANILCA with different language and a different purpose: to add subsistence protections beyond those of existing law.

2. Penfold

Decided in 1987, three years after *Kunaknana*, *Sierra Club v. Penfold* was important because the district court expressly relied on NEPA law to define a "significant" restriction. In *Penfold*, subsistence users and environmental groups again challenged the BLM, this time for permitting mining on four wild and scenic rivers without evaluating effects on subsistence and the environment.\(^{183}\) Sediment from several mines had combined to destroy subsistence fisheries and drinking water supplies. The subsistence users sought to enjoin the agency from permitting large mines, and from failing to control small mines that required no permits.

The district court reasoned that NEPA cases were “helpful in interpreting” section 810.\(^{184}\) Based on NEPA’s requirement for cu-

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182. See *Kunaknana*, 742 F.2d at 1151 (“the agency removed certain lands, such as [c]aribou calving areas and [b]lack [b]rant molting areas, from potential leasing and included stipulations . . . in order to preclude future restrictions on subsistence uses”); cf. *Greenpeace Action v. Franklin*, 982 F.2d 1342, 1353-54 (9th Cir. 1992) (agency may support NEPA finding of no significant impact with “significant measures” to mitigate project impacts); 40 C.F.R. § 1508.20 (1995) (NEPA regulations defining “mitigation”). The *Kunaknana* court also accepted the BLM’s reliance on cumulative impacts analysis, another NEPA concept. 742 F.2d at 1151; cf. 40 C.F.R. § 1508.27(b)(7) (1995) (project is “significant” under NEPA “if it is reasonable to anticipate a cumulatively significant impact on the environment”). The Ninth Circuit’s deference to BLM interpretations of ANILCA under NEPA law, see 742 F.2d at 1150, was questionable in view of the fact that BLM was only one of many agencies required to enforce section 810. Cf. *Hanlon*, 740 F. Supp. at 1455 n.50 (pointing out that Forest Service interpretation of cumulative impacts requirement conflicted with BLM interpretation).


184. *Penfold I*, 664 F. Supp. at 1307. The district court derived this NEPA
mulative impacts evaluation, the court ordered the BLM to address such impacts by completing tier-II of ANILCA. The court delayed its injunction, however, to protect miners’ investments. In failing to weigh the impact of that delay on subsistence users, the district court overlooked Congress’ purpose in section 810: to protect those users.

The Ninth Circuit Court of Appeals analyzed in *Penfold* whether the BLM had a duty to monitor small mines. The court concluded that such monitoring was a “marginal federal action” beyond the scope of NEPA and section 810.\(^{185}\) The court apparently misinterpreted NEPA regulations, which required an EA for all actions to determine whether they were “major [f]ederal actions” that demanded an EIS. Further, Congress did not limit ANILCA to major federal actions. Instead, it applied section 810 to new uses “under any provision of law,” thereby requiring a subsistence evaluation for any use of public land an agency could regulate. The court should have required the BLM to evaluate subsistence impacts of small mines because the agency had authority to control those mines.\(^{186}\) Both courts in *Penfold* thus blurred their treatment of NEPA and


\(^{186}\) See 16 U.S.C. § 3120(a) (1994) (agency’s mandate to complete subsistence evaluation before permitting “use, occupancy, or disposition” of public lands under any provision of law); see also 43 U.S.C. § 1714 (1994) (authority of Interior Department to withdraw public lands from entry); S. REP. NO. 1300, supra note 26, at 431-32 (supplemental views of Sen. Abourezk, Ford, and Durkin) (“we still expect the [Interior] Secretary to take any action necessary to protect the subsistence needs of (Alaska) Natives”).
ANILCA in considering the requirements, remedy, and scope of section 810. Congress must have expected agencies to do more than NEPA required, however, because NEPA had been in force for a decade when it enacted section 810.

3. *Amoco*

*Amoco Production Company v. Village of Gambell* is an important case because it provides the only Supreme Court interpretation of section 810. The Court decided *Amoco* in 1987, although the conflict began shortly after ANILCA took effect in 1980. It stemmed from an Interior Department plan to lease outer continental shelf ("OCS") lands under the Bering Sea for oil exploration. The Department of the Interior bypassed section 810 because it interpreted ANILCA not to apply to the OCS. Native villagers, who subsisted on marine mammals and fish from the OCS, sued to enjoin the leases, claiming they violated both aboriginal hunting and fishing rights and section 810.

The district court denied both claims, holding that neither aboriginal rights nor ANILCA reached the OCS. Interior issued the leases and oil companies began exploration. In 1984, the Ninth Circuit reversed the district court. Reasoning that the OCS was "in Alaska" under both statutes, the Court of Appeals held that ANCSA extinguished aboriginal rights to the OCS, but ANILCA replaced them with section 810 protections. On remand, the district court found the leases violated section 810, but denied an injunction based on lack of harm to subsistence, too much harm to oil explorers, and the public interest in developing the OCS. In 1985, the Ninth Circuit reversed again and ordered an injunction. The Court of Appeals held that Interior's violations created a presumption of irreparable injury, and the public interest in subsistence superseded the public interest in development. The Supreme Court reversed once more, on two grounds. The Court held that ANILCA did not

188. See Hodel, 774 F.2d at 1419-20.
189. See Clark, 746 F.2d at 573.
190. See id. at 575-76, 579-82.
191. See Hodel, 774 F.2d at 1422-23, 1425-26.
mandate an injunction for violations, and that section 810 did not extend to the OCS.\(^{192}\)

The Court based its first holding on the interpretation that ANILCA preserved judicial discretion whether to issue an injunction. The Court also examined whether an injunction was required to meet Congress’ purpose “to protect Alaskan subsistence resources from unnecessary destruction.”\(^{193}\) Dividing the oil project into stages—planning, leasing, exploration, and production—the Court saw no need to enjoin exploration because Interior found that threats to subsistence would not arise until production. Balancing the equities, the Court reasoned exploration presented no imminent threat to subsistence, while an injunction would immediately cost oil companies seventy million dollars. Absent an immediate threat, the Court held, the public interest in oil exploration outweighed protecting subsistence.\(^{194}\) The holding did not remove agencies’ duty to complete tier-II because the Court’s analysis was confined to injunctive remedies for tier-II violations.

In fact, throughout its first holding, the Court assumed Interior did violate section 810. This assumption was consistent with ANILCA, which invoked tier-II for every lease leading to a significant restriction. NEPA law, in contrast, permitted an agency to defer its environmental impact statement until after the leasing stage of an oil project.\(^{195}\) Although it denied an injunction in Amoco, the Court’s assumption of a section 810 violation conformed with Congress’ design to give subsistence protection beyond what NEPA afforded. The second holding also was consistent with

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192. See Amoco, 480 U.S. at 544-46, 546-55. Two concurring justices observed that ruling section 810 inapplicable to the OCS disposed of the case, so ruling that ANILCA violations did not mandate an injunction would be superfluous. See id. at 555-56 (concurring opinion by Justices Stevens and Scalia).

193. Id. at 544.

194. See id. at 545-46; see also id. at 542 (court of equity must balance competing claims of injury and give “particular regard” to the public interest).

195. See Village of False Pass v. Clark, 733 F.2d 605, 614-17 (9th Cir. 1984) (agency need not consider worst case spill in off-shore production when it is only at the stage of selling oil exploration leases); see also 40 C.F.R. §§ 1500.4(i), 1508.28(b) (encouraging agencies to “tier” EIS for early stage of a project to a supplement or an EA for later stage of same project).
the important role ANILCA provided for tier-II in early project planning.

The Court's second holding in Amoco was that section 810 did not apply to OCS lands. The Court construed the term "in Alaska" to limit ANILCA and ANCSA to the political boundaries of the state.196 Reasoning that the OCS was beyond these boundaries, the Court held neither ANILCA's subsistence protections nor ANCSA's extinguishment of aboriginal rights applied there. This holding potentially gave the villagers greater offshore subsistence protections than section 810, if they could establish their aboriginal rights to the OCS.197

With respect to inland waters, the Ninth Circuit recently rejected a claim that, under Amoco, ANILCA's protections included all navigable rivers "in Alaska."198 The Court of Appeals did rule,

196. The Court reasoned that the term "in Alaska" excluded the OCS by its plain meaning because the continental shelf was not within the state's political boundaries. See Amoco, 480 U.S. at 546-48. The Court found nothing in the legislative history to refute this plain meaning interpretation. See id. at 553-54. Although the Court acknowledged the Ninth Circuit's reliance on the canon of statutory construction that ambiguities must be resolved in favor of Natives, it found no ambiguity to invoke the canon. See id. at 555. According to the Court, the "clearly expressed intent of Congress" was to limit section 810 evaluations to onshore lands. See id. But see Twitchell, supra note 7, at 662-64 (suggesting Congress intended ANCSA to settle Native claims to the OCS and intended ANILCA to substitute Title VIII protections there).

197. See Village of Gambell v. Hodel, 869 F.2d 1273, 1278-80 (9th Cir. 1989) (plain meaning in ANCSA of phrase "in Alaska" limits scope of extinguishment of aboriginal rights to political boundaries of state), dismissed sub nom. Village of Gambell v. Babbitt, 999 F.2d 403, 406-08 (9th Cir. 1993) (villagers' claims now moot because oil companies have explored and relinquished leases, and also unripe because no further leases are contemplated, thus no federal jurisdiction exists).

however, that ANILCA included those navigable rivers in which the federal government had reserved water rights. This ruling potentially extended the protections of section 810 to important inland fishing grounds. Thus, although Amoco held section 810

sistence hunting on public lands, concluded it could not protect subsistence fishing because the navigable waters within the park belonged to the state, so they were not "public lands." See id., slip op. at 24-25, 27.

In Amoco, the Supreme Court had observed in a footnote that the United States might "hold title" to an interest in the OCS, even if the OCS did not otherwise fit within ANILCA's definition of public lands. See Amoco, 480 U.S. at 548 n.15. The Mentasta villagers sought to build on this dictum, arguing that a navigable river was "public land" subject to ANILCA because the United States "held title" to its navigation servitude. See John, slip op. at 35-39. The Ninth Circuit rejected this argument, holding that the servitude was not a property interest to which the United States could hold title. Alaska v. Babbitt, 54 F.3d at 553. Therefore, the Ninth Circuit held, the navigation servitude did not convert Alaskan rivers into "public lands" within the meaning of ANILCA. See id. (citing City of Angoon v. Hodel, 803 F.2d 1016, 1027 n.6 (9th Cir. 1986), cert. denied, 484 U.S. 870 (1987)).

199. See Alaska v. Babbitt, 54 F.3d at 554. In making a reservation, such as a park, from the public lands, the United States may reserve sufficient unappropriated water to fulfill its purpose. See id. at 553-54; cf. Winters v. United States, 207 U.S. 564, 576-77 (1908) (originating doctrine of implied reservation of water rights in context of Indian reservation). The Ninth Circuit reasoned the United States must have reserved some water in making its Alaska reservations, and therefore "held title" to a property interest in some Alaskan rivers. See Alaska v. Babbitt, 54 F.3d at 554. The court left the agency administering each reservation with the responsibility of identifying which rivers had implied reservations of water rights, and therefore were "public lands" subject to ANILCA. Id. Although the Mentasta villagers sought a subsistence preference under ANILCA section 804, see id. at 550, a river with federal reserved water rights would also be subject to the protections of section 810, because it too applies to "public lands." See 16 U.S.C. § 3120(a). But see Totemoff v. State of Alaska, 1995 Alas. LEXIS 85, *24-*37 (Alaska Aug. 7, 1995) (holding that neither navigation servitude nor federal reserved water rights brings inland waters within ANILCA definition of public lands, thus "federal government has no authority to regulate hunting and fishing in Alaska's navigable waters").

200. See John, slip op. at 30 (when Interior Department proposed to leave subsistence regulation in navigable waters to the state, many individuals commented that most subsistence resources lie in those waters); id. at 41 (navigable waters are the most productive for subsistence users); see also Alaska Lands: Hearings on H.R.39 Before the Subcomm. on Fisheries and Wildlife Conservation and the Env't of the House Comm. on Merchant Marine and Fisheries, 95th
neither mandated injunctions nor covered the OCS, the Supreme Court's decision preserved avenues for subsistence users to protect the resources of both the OCS and inland waters.

4. Hanlon and Clough

The fourth important section 810 case produced several court decisions reviewing Forest Service management of the vast Tongass National Forest in southeast Alaska. Of special interest are the district court's opinions in Hanlon v. Barton, because the court applied ANILCA's "significant restriction" threshold, and City of Tenakee Springs v. Clough, because it contains the only review to date of an agency's tier-II findings. Although these district court decisions sought to interpret section 810, they resolved neither its meaning nor the underlying dispute about logging policies because the Ninth Circuit decided them on other grounds.

The litigation arose from a 1956 contract in which the Forest Service agreed to supply timber to the Alaska Pulp Corporation ("APC") for fifty years.\(^{201}\) The agency's purpose was to induce

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\(^{201}\) See Clough I, 750 F. Supp. at 1410; see also Hanlon, 740 F. Supp. at 1446 (giving date of contract formation as 1957). The Forest Service originally formed the contract with APC's predecessor, Alaska Lumber & Pulp Co., see City of Tenakee Springs v. Block, 778 F.2d 1402, 1404 (9th Cir. 1985), to give the company an incentive to build a pulp mill that would create jobs in Sitka. See
APC to build a pulp mill that would benefit the local economy by granting it exclusive logging rights to a large area of old growth forest. Following the enactment of NEPA, the Forest Service began to write timber operating plans supported by EISs at five-year intervals. The agency's NEPA responsibilities expanded in 1976, when the National Forest Management Act ("NFMA") mandated broad-scale land-use planning. Pursuant to this mandate, the Forest Service approved a ten-year Tongass Land Management Plan supported by a programmatic EIS in 1979. In 1980, the agency approved an operating plan for the APC contract area in the period 1981 to 1986, supported by a site-specific EIS "tiered" to the programmatic EIS.

Congress also enacted ANILCA in 1980, including in the statute a compromise on the controversial issue of Tongass land use.

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203. See Block, 778 F.2d at 1403-04; cf. 40 C.F.R. § 1508.28 (1995) (defining "tiering" of environmental impact statements).

204. See Drais, *supra* note 201, at 324-28; S. REP. NO. 413, *supra* note 32, at
This compromise preserved about a third of the forest's land area and timber base in wilderness areas and monuments. To assist the timber industry, Congress provided a fund of $40,000,000 per year to support Forest Service timber production at a specified level.\textsuperscript{205}

Under ANILCA's policies, the Forest Service continued a logging and road-building program that had adverse impacts on the fisheries and wildlife that supported subsistence.\textsuperscript{206}

In 1984, residents of the non-Native village of Tenakee Springs, in the APC logging area, challenged Forest Service construction of a new road.\textsuperscript{207} The following year, in \textit{City of Tenakee Springs v. Block}, the Ninth Circuit agreed that the 1981 to 1986 operating plan EIS lacked sufficient detail, and ordered a preliminary injunction against the logging road. Late in 1986, the Forest Service approved a new operating plan for the period 1986 to 1990—the first such plan to include a section 810 review. In 1987, in \textit{City of Tenakee Springs v. Courtright}, the district court enjoined some road construction and logging under this new plan because the agency's supporting EIS did not comply with NEPA.\textsuperscript{208}

\textsuperscript{205} See Drais, \textit{supra} note 201, at 329 (citing ANILCA § 705(a), 16 U.S.C. § 539d(a)); cf. O'Toole, \textit{supra} note 201, at 32 (Forest Service budget process rewards managers for losing money on timber sales); K.A. Soderberg & Jackie Durette, \textit{People of the Tongass—Alaska Forestry Under Attack} 277-79 (1988) (timber industry compromised, by accepting wilderness designations and reduced harvest quota, to obtain automatic funding of intensive management program through Tongass Timber Supply Fund).

\textsuperscript{206} See, e.g., Drais, \textit{supra} note 201, at 348-59; Kruse, \textit{supra} note 165, at 5-6, 16; Robert F. Schroeder & Matthew Kookesh, \textit{Alaska Dept. of Fish and Game, Subsistence Harvest and Use of Fish and Wildlife Resources and the Effects of Forest Management in Hoonah, Alaska} 138-46, 229-34 (1990); \textit{cf. The Wilderness Society, The Alaska Lands Act: A Broken Promise} 41-44 (1990) (arguing that logging costs and subsistence and environmental impacts justify congressional reform of ANILCA to reduce logging).

\textsuperscript{207} See \textit{City of Tenakee Springs v. Block}, 778 F.2d 1402, 1403-04 (9th Cir. 1985) (docket no. 84-3883, indicates case filed in 1984).

\textsuperscript{208} No. 86-024 CIV, 1987 WL 90272, at *4 (D. Alaska June 26, 1987). The court declined to address the city's section 810 claims because individual subsistence users with standing to raise those claims had not yet joined as plaintiffs. \textit{Id}.
In 1988, in Hanlon v. Barton, the district court reviewed section 810’s “significance” threshold when subsistence hunters from the nearby Native village of Hoonah challenged the new operating plan. Hoonah’s villagers faced competition from outsiders for deer stocks depleted by Native corporations logging nearby. New Forest Service clearcuts would further reduce deer habitat by eight to twenty-one percent, and the accompanying roads would increase outsiders’ access. The Hoonah villagers contended that the 1986 to 1990 Forest Service plan violated both NEPA and ANILCA.

In Hanlon, the Forest Service based its finding of no significant restriction on an understanding that harm must be “likely” before it could trigger tier-II. The district court rejected this interpretation, following an adapted form of the Kunaknana “may” test to evaluate the “significant possibility” of a restriction. The district court also followed Kunaknana in holding that the agency must evaluate the cumulative impacts of future logging on subsistence. The Hanlon court accepted, however, the agency’s finding that the impact of increased logging competition alone would be insignificant because total game supply would continue to exceed forecast demand throughout the 5-year period under evaluation. This hold-
ing appeared counter to Congress' purpose because it excused the Forest Service from providing the protections of tier-II.\textsuperscript{213}

Congress' purpose was to protect subsistence users by involving them in planning and by setting limits for habitat-destroying projects. \textit{Kunaknana}'s "may" test required the Forest Service to provide these protections in \textit{Hanlon} if its logging plans raised a threat of significant restriction. The agency acknowledged that logging would reduce deer habitat and numbers locally, and increase hunting pressure. Furthermore, the game redistribution threatened traditional clan allocations of hunting territory.\textsuperscript{214} Even if enough deer were available elsewhere, the forecast shortage at Hoonah threatened to make hunting more difficult locally, creating a need for the impact-minimizing standards of tier-II.\textsuperscript{215} These local impacts to subsistence indicated a need for users to participate in planning. The facts in \textit{Hanlon} required the Forest Service to find a threat of significant restriction, because its project created the kind of impacts Congress sought to reduce in tier-II.

Nevertheless, the district court in \textit{Hanlon} accepted the agency's argument that the total game supply was adequate, and found no irreparable harm to support a preliminary injunction. Rather than appeal this denial, the villagers of Hoonah joined the plaintiffs from Tenakee Springs in an interim settlement requiring the Forest Service to supplement its EISs.\textsuperscript{216} Late in 1989, the agency issued a

\textsuperscript{213} In theory, competition could restrict a user's traditional \textit{methods} of taking game, even if the total game supply remained sufficient. \textit{Cf. Hanlon}, 740 F. Supp. at 1452 (acknowledging FONSR might be invalid because it failed to consider impacts on harvest methods, but refusing to hear claim because of lack of development by plaintiff).

\textsuperscript{214} See \textit{SCHROEDER \& KOOKESH, supra} note 206, at 151-52, 155; \textit{Johnson Telephone Interview, supra} note 209.

\textsuperscript{215} See \textit{Hanlon}, 740 F. Supp. at 1450, 1452-53. The court in \textit{Hanlon} excluded subsistence users' evidence of impacts on their activities as a challenge to the substantive validity of the Forest Service's FONSR, absent a showing that the agency failed to consider this evidence when evaluating environmental impact. \textit{See id.} Because the purpose of the significance threshold was merely to pass through projects that posed no threat, however, the users' bare allegation of a threat should have been sufficient to meet the "may" test. \textit{See Greenpeace Action v. Franklin}, 982 F.2d 1342, 1351 (9th Cir. 1992) (to meet NEPA's threshold, plaintiff need merely have "alleged facts which, if true, show that the proposed project \textit{may} significantly degrade" the environment).

\textsuperscript{216} See \textit{Clough III, 915 F.2d} at 1310; \textit{see also Clough I, 750 F. Supp.} at 1410
new EIS construing the fifty-year contract as requiring that the agency offer a large amount of timber to APC and carry over that offer to the next five-year planning period. The resulting "availability constraint" forced the 1989 EIS to recommend clear-cutting the disputed areas intensively, even though APC could not use all of the timber previously offered. The Forest Service conceded that its new plans might significantly restrict subsistence in some areas, and it therefore included tier-II evaluations of these areas in its 1989 EIS. Subsistence users of both villages challenged the EIS, contending it violated NEPA, NFMA, the Clean Water Act, and section 810.

In 1990, the district court denied a preliminary injunction in City of Tenakee Springs v. Clough, finding only "technical deficiencies" under NEPA. Reviewing the Forest Service's section 810 evaluation, the court rejected the agency's contention that tier-II imposed no substantive limits on its discretion to approve development. Instead, the district court held that section 810 required the agency to select a project that permitted valid tier-II findings. The court

(listing dates of EISs). The Forest Service did ultimately acknowledge that its projects threatened a significant restriction of wildlife resources. See ALASKA PULP 1989 SEIS, supra note 164, ch. 4, at 125.

217. See Clough III, 915 F.2d at 1310, 1311 (finding it "not at all clear that the contract requires the government to make available to APC hundreds of millions more board feet than it could possibly cut during the five year period"); cf. Drais, supra note 201, at 329 (Forest Service interpreted ANILCA's harvest goal as a mandate, and overspent timber supply fund to meet it, even though "substantially less" timber was actually sold). Notwithstanding public controversy and congressional intervention subsequent to Clough, the Forest Service still attempts to provide extra timber "as a buffer to market volatility" today. See NORTHWEST BARANOF 1995 DEIS, supra note 164, ch. 4, at 58 ("the Forest Service attempts to provide an opportunity for the industry as a whole to accumulate a supply of purchased but unharvested timber (i.e., volume under contract) equal to about three years of timber consumption").

218. See Clough I, 750 F. Supp. at 1429; cf. id. at 1409 n.2 ("[w]here counsel indulge every marginally colorable claim or argument[,] their zealous advocacy disserves the interests of justice by diluting debate on more important questions"). Three weeks later, the district court issued a second memorandum in Clough II, reiterating its finding that a preliminary injunction should be denied because deficiencies in the EIS were merely technical. See 750 F. Supp. at 1432.

omitted, however, to take the next logical step and require the agency to design alternatives specifically to protect subsistence. The absence of subsistence-protective alternatives undermined the project decision in Clough because the agency lacked a baseline to measure subsistence impacts.

The tier-II findings in Clough also were unsupported by any analysis separate from NEPA's: they were wholly conclusory. Nevertheless, the district court upheld these findings because the subsistence hunters could not prove from the agency's record that they were irrational. The court's holding vitiated the tier-II evaluation procedure by allowing the Forest Service to make subsistence a secondary consideration in its land use planning. Further, the court reduced the effectiveness of Congress' subsistence protections

Technically, the Service is correct that ANILCA does not circumscribe its discretion to designate the project's purpose or to disregard alternatives which do not promote that purpose. However, where an agency fails to consider and select an alternative that can be certified as both "necessary" and "consistent with sound management" the agency proceeds at its peril, for the failure to satisfy this statutory prerequisite bars the agency from proceeding with its proposed disposition of the public lands.

Clough 1, 750 F. Supp. at 1427.

220. The findings recited the language of tier-II, listed all of the titles of the statutes with which the restriction was "consistent," suggested that logging alternatives all represented "a balance" between maintaining subsistence habitat and contract commitments, and referred to "mitigation measures" specified for each timber sale. They did not, however, cite any subsistence evaluation with more-protective alternatives that could test the "necessity" of restriction, cite any method of determining compliance with the land management statutes, cite the method of determining the land area "balance," or cite impact-minimizing steps the agency had evaluated and rejected as ineffective. In short, the Forest Service presented its tier-II findings without drawing any rational connection between its environmental studies and the range of alternatives it chose to consider. See ALASKA PULP 1989 SEIS, supra note 164, ch. 4, at 132-33. More recent Forest Service practice reflects a greater attempt to provide rational support for tier-II findings, but a continuing emphasis on accomplishing the primary purpose of a project at the expense of subsistence. See NORTHWEST BARANOF 1995 DEIS, supra note 164, ch. 4, at 58-59.

221. Cf. supra note 166 and accompanying text (all logging alternatives studied had approximately the same impact, rather than a range of subsistence-protective alternatives with variable logging).
because it declined to enforce the tier-II findings as substantive limits on agency discretion.

Later in 1990, the Ninth Circuit reversed the *Clough* decision, ordering a preliminary injunction because the Forest Service had not adequately reviewed its timber "carryover" and the cumulative impacts of logging. The Court of Appeals equated ANILCA’s requirements with NEPA’s, however, omitting to analyze the agency’s construction of tier-II. The same year, Congress enacted the Tongass Timber Reform Act ("TTRA"), which removed ANILCA’s timber quota and timber supply fund. In 1991, the district court decided *City of Tenakee Springs v. Franzel*, rejecting all the villagers’ claims on the merits. This time, the Court of Appeals affirmed, under the new reasoning that Congress examined the adequacy of agency plans when it enacted the TTRA. This final decision in the eight-year challenge satisfied neither the villagers nor the Forest Service.

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222. See *Clough III*, 915 F.2d at 1311-14; see also supra note 217 and accompanying text (Forest Service forced to use intensive logging by "availability constraint" resulting from its broad reading of its timber "carryover" responsibility under APC contract). The Forest Service never did review these impacts. See *City of Tenakee Springs v. Franzel*, 960 F.2d 776, 780 (9th Cir. 1992) (Norris, J., dissenting).


224. The Ninth Circuit held that the Forest Service’s inadequate EIS did not warrant enjoining the timber sales because Congress had imposed new environmental standards for future sales in the TTRA. See *Franzel*, 960 F.2d at 778-79; but see id. at 779-80 (Norris, J., dissenting) (arguing Congress did nothing in the TTRA to ameliorate the impacts of previously-authorized sales because the legislation was prospective). Interestingly, the district court had rejected subsistence users’ argument that the agency must modify its previously-authorized sales to meet TTRA standards, because the legislation was prospective. See *City of Tenakee Springs v. Franzel*, No. J86-024 CIV, slip op. at 4-5 (D. Alaska May 24, 1991). Thus, the sales escaped environmental review because the district court held they were not subject to TTRA, and the Ninth Circuit held they were reviewed by TTRA. *Id.*

225. See Telephone Interview with James Pierce, U.S. Forest Service Group
findings, the Ninth Circuit left alive the controversy whether the agency correctly interpreted ANILCA.

III. TIER-I EVALUATION AND THE SIGNIFICANT RESTRICTION THRESHOLD

A. The Purposes of Tier-I

One of ANILCA’s overarching objectives, expressed in sections 101, 801, and 802, was to protect subsistence resources from development projects. Section 810 included subsistence broadly in projects that an agency planned “under any provision of law.” In the first sentence of section 810, Congress included subsistence in each project by requiring an agency to evaluate three factors: (1) the effect on subsistence uses, (2) availability of substitute lands, and (3) less-harmful project alternatives. The courts termed this evaluation “tier-I.” Although the district court in cases such as Hanlon only required agencies to assess the threat of significant restriction, the statute’s language suggests Congress had three purposes in tier-I.

The first purpose was to inject subsistence into an agency’s planning early, to make it pro-active in protecting resources. Congress conveyed this purpose through its mandate to study “other lands,” which could enable an agency to avoid subsistence impacts. Similarly, the command to study “other alternatives” could help an agency protect subsistence by eliminating or modifying a project

Leader for Evaluation of Timber Resources, Former Leader of Interdisciplinary Team for Clough EISs, Tongass National Forest, Juneau (Mar. 18, 1994); Telephone Interview with Bruce Rene, U.S. Forest Service Documents Coordinator for Tongass Land Management Plan, Juneau (Apr. 12, 1994); Telephone Interview with Robert Buck Lindekugel, Conservation Director, Southeast Alaska Conservation Council, Juneau (Oct. 1, 1992); Telephone Interview with Joseph Johnson, Counsel, Alaska Legal Services, Anchorage (Aug. 25, 1994); Johnson Telephone Interview, supra note 209.

226. See 16 U.S.C. § 3120(a); see also supra note 28 (citing text of statute). The agency must research “the availability of other lands for the purposes sought to be achieved,” suggesting Congress’ purpose was to relocate a project where possible, rather than relocating subsistence activities. See id.; see also FOREST SERVICE GUIDELINES, supra note 145, § 1.1(2) (in deciding what “other lands” to consider, agency must demonstrate that candidate sites are suitable, available, and properly designated for proposed project); BLM GUIDELINES, supra note 145, § IV(A)(2) (similar criteria).
with adverse impacts. Neither other lands nor other alternatives would assist an agency striving to determine whether the impacts of a proposed project were "significant." Nevertheless, in cases such as Clough, the agencies focused their tier-I evaluation on the significance finding, perhaps interpreting it as the sole purpose of tier-I.

In Clough, the Forest Service declined to study subsistence-protective alternatives yielding less timber than it believed necessary to fulfill its long-term logging contract. The agency based its tier-I evaluation on NEPA law, which permitted an agency to include only alternatives promoting its project purpose. In bypassing more protective alternatives, the Forest Service overlooked the express requirement of tier-I to study "other alternatives," as well as the agency's own guidelines. Based on the language included in tier-I, Congress evidently expected an agency to consider a redesign, broadening its project purpose to encompass subsistence protection.

227. The "other alternatives" study could encompass substituting a completely different agency project with lesser impact on subsistence. See 16 U.S.C. § 3120(a); see also FOREST SERVICE GUIDELINES, supra note 145, ¶ 1.1(3) ("other alternatives" evaluation includes both other ways to implement a proposed project and "other actions" that are "reasonable, physically and technically possible, and economically feasible"); BLM GUIDELINES, supra note 145, ¶ IV(A)(3) (similar criteria).

228. See Clough I, 750 F. Supp. at 1421 ("ANILCA, like NEPA, does not require affected agencies to consider project alternatives which do not achieve the purpose contemplated for the proposed action"); see also City of Angoon v. Hodel, 803 F.2d 1016, 1021 (9th Cir. 1986), cert. denied, 108 S. Ct. 197 (1987) ("[w]hen the purpose is to accomplish one thing, it makes no sense to consider the alternative ways by which another thing might be achieved").

229. See 16 U.S.C. § 3120(a); see also FOREST SERVICE GUIDELINES, supra note 145, ¶ 1.1(3) (alternatives to be evaluated include both other ways to implement same action and other actions); cf. Lumber, Prod. & Indus. Workers Log Scalers Local 2058 v. United States, 580 F. Supp. 279, 283 (D. Or. 1984) (stating in dictum that different Forest Service Manual provision is "internal management guideline" rather than "rule affecting important substantive rights," so not binding on agency); Foundation For North Amer. Wild Sheep v. U.S. Dep't of Agric., 681 F.2d 1172, 1182 (9th Cir. 1982) (codified Forest Service regulation is binding on agency); GEORGE C. COGGINS ET AL., FEDERAL PUBLIC LAND AND RESOURCES LAW 284 (3d ed. 1993) (considering question: "[I]s an agency bound by its own manual?").
Although tier-I requires an agency to consider subsistence protection, it contains no substantive language compelling the agency to redesign its project. Even though tier-I does not limit agency discretion, the Administrative Procedure Act does require an agency to weigh tier-I factors against other, substantive requirements of ANILCA.\textsuperscript{230} These include section 802's directive to cause "the least adverse impact possible" and section 804's requirement to discontinue taking fish and wildlife for other uses if there is a shortage of those resources needed for subsistence. In \textit{Clough}, the logging plans threatened to cause a shortage of game by consuming forest habitat, so sections 802 and 804 potentially applied to these plans.\textsuperscript{231} To meet the substantive requirements of those sections, the Forest Service should have considered whether more subsistence-protective locations and projects were feasible. The first purpose of tier-I was to serve as the vehicle for that consideration, and

\textsuperscript{230} Administrative Procedure Act ("APA") § 706, 5 U.S.C. § 706 (1994), provides that a reviewing court must set aside agency findings that are "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law." \textit{Id.} § 706(2)(A); \textit{see} Citizens to Preserve Overton Park v. Volpe, 401 U.S. 402, 413-14 (1971). The Supreme Court has held that this APA provision requires a court to make a narrow inquiry into whether an agency has considered "the relevant factors" and whether it has made "a clear error of judgement." \textit{See id.} at 416; \textit{cf.} Zygmunt J.B. Plater & William L. Norine, \textit{Through the Looking Glass of Eminent Domain: Exploring the "Arbitrary and Capricious" Test and Substantive Rationality Review of Government Decisions}, 16 B.C. Env'tl. Aff. L. Rev. 661, 715-25 (1989) (discussing courts' application of APA review standards to agencies' choices among alternatives).

\textsuperscript{231} \textit{See, e.g., ALASKA PULP 1989 SEIS, supra note 164, ch. 4, at 28-32, 83-86, 115-20, 125, 132; cf.} George C. Coggins & Michael E. Ward, \textit{The Law of Wildlife Management on the Federal Public Lands}, 60 OR. L. Rev. 59, 71 n.51 (1981) (all land uses that impact wildlife are "consumptive," particularly uses that directly kill a species); \textit{infra} part V.B. (discussing analogy between habitat protections under ANILCA and Endangered Species Act.) Section 802's policy of "least adverse impact possible" and section 804's subsistence "preference" may have also applied in \textit{Clough} because new Forest Service logging roads threatened to increase competition for game from non-subsistence hunters, thus harming subsistence uses. \textit{See, e.g., Hanlon, 740 F. Supp. at 1449-50.}
to report its results.\textsuperscript{232} The agency failed to fulfill the first purpose when it declined to study more protective alternatives.

Congress' juxtaposition of tier-I with tier-II in subsection 810(a) suggested it had a second purpose. The three tier-I evaluation factors—subsistence uses, other lands, and other alternatives—were well calculated to support an agency's three tier-II findings that (1) a restriction was necessary, (2) the project used minimal land, and (3) subsistence impacts were minimized. All three of these tier-II findings could incorporate the first tier-I factor—subsistence uses and needs—as the baseline for measuring alternative projects' impacts. In addition, the tier-I study of the second factor—availability of other lands—could help support an agency's tier-II finding that it used minimal land by eliminating the possibility of relocation.\textsuperscript{233} Finally, the third tier-I factor, other alternatives, could help justify tier-II findings that a restriction was necessary and impacts were minimized by demonstrating the absence of other options.\textsuperscript{234} These correlations with tier-II indicated Congress' second purpose for tier-I was to support an agency's tier-II evaluation.

\footnotesize
\textsuperscript{232} But see Alaska v. United States, No. J87-012 CIV, slip op. at 14, 17 (D. Alaska Sep. 17, 1991) (tier-I evaluation need not be timely prepared because tier-I does not require any public input); Watt, No. A83-337 CIV, slip op. at 59-60 (agency need not ever make public its tier-I FONSR); cf. Alaska Wilderness v. Morrison, 67 F.3d 723, 730 (9th Cir. 1995) (agency could not freely consider alternatives while APC contract was in force).

\textsuperscript{233} This is not a perfect correspondence: the tier-I factor goes more to the availability of other sites, while the tier-II finding goes to minimizing the area of a particular site. Cf., e.g., BLM GUIDELINES, supra note 145, § IV(A)(2) (evaluation criteria for "other lands" in tier-I). Nevertheless, the tier-I evaluation would help an agency make its tier-II finding by demonstrating that there was no other site available that could reduce the area of subsistence land used by a given project.

\textsuperscript{234} The tier-I study of "other ways to accommodate the proposed action" would validate an agency's tier-II finding that there were no reasonable impact-minimizing measures beyond those it adopted in its project. See id. § IV(A)(3) (evaluation criteria for "other alternatives" in tier-I). The tier-I study of "other actions" would help support an agency's tier-II finding that a restriction was "necessary" if it showed the subsistence impacts of alternative projects were even greater. See id. The tier-II findings that a restriction is "necessary" and impacts are "minimized" must be closely linked, because an impact cannot be "necessary" if an agency can readily reduce it further.
To support tier-II findings, a tier-I evaluation had to include an adequate range of alternatives. Each tier-II finding required an agency to make a comparison showing it could not replace its chosen alternative with a more protective one. To make these comparisons, an agency had to examine the feasibility of alternatives found to better protect subsistence in tier-I. In Clough, the district court held that section 810 did not dictate anything about the alternatives an agency must study. This holding overlooked both Congress’ requirement for comparison standards in tier-II and its purpose to provide baseline data in tier-I. The district court’s holding was also inconsistent with Congress’ first tier-I purpose—early planning—because an agency could do early subsistence planning only if it included protective alternatives in tier-I.

The third purpose of tier-I was to enable an agency to determine whether a project threatened a “significant” restriction, triggering tier-II. Tier-I cases focused on this third purpose almost exclusively, perhaps because villagers found it easier to challenge an agency’s finding of no significant restriction as “arbitrary” than to identify its failure to study better alternatives. Agency guidelines also implied that the significance determination was the sole objective of tier-I. Congress did not even mention “significance”

235. See 16 U.S.C. § 3120(a)(3)(A) (finding that significant restriction of subsistence is “necessary”—suggesting agency has compared alternatives with lesser restriction and found them incapable of meeting project purpose); id. (significant restriction is “consistent” with sound management—suggesting agency has compared alternatives with lesser restriction and found them in no greater conformance with mandate to maintain wildlife); id. § 3120(a)(3)(B) (project involves “minimal amount” of public lands—suggesting agency has compared alternatives with lesser land area and found them incapable of meeting project purpose); id. § 3120(a)(3)(C) (agency will take reasonable steps to “minimize” subsistence impacts—suggesting agency has compared alternatives with additional protective steps and found them ineffective in reducing subsistence impacts or incapable of meeting project purpose).

236. See FOREST SERVICE GUIDELINES, supra note 145, §§ 1.1, 1.2, 3.2 (no mention of Congress’ other tier-I purposes); BLM GUIDELINES, supra note 145, §§ IV(A), IV(B), app. 5, app. 6, app. 7, app. 8 (same); INTERIOR DEPARTMENT GUIDELINES, supra note 145, §§ III(A), III(B) (same); PARK SERVICE GUIDELINES, supra note 145, §§ III(A), III(B), ANILCA Section 810 Background, ANILCA Section 810 Format (same); FISH AND WILDLIFE SERVICE GUIDELINES, supra note 145, §§ IV(A), IV(B) (same); cf. PARK SERVICE GUIDELINES, supra
among its tier-I study factors, and its "other lands" and "other alternatives" factors did not relate logically to the significance threshold. On the other hand, the tier-I factor, requiring an agency to examine "subsistence uses and needs," did provide a foundation for its significance determination. More telling was Congress' integration of tier-I and tier-II in succeeding sentences of subsection 810(a). Their proximity justified the agencies' interpretation that one purpose of tier-I was to enable an agency to make the threshold significance finding.

The definition of a "significant" restriction is explored below because it was the principal issue in Kunaknana and later tier-I cases. It should be emphasized, however, that the significance finding was not the only purpose of tier-I. The language of subsection 810(a) commanded an agency to study other lands and alternatives before raising the significance issue at the threshold of tier-II. In tier-I, Congress expected an agency to include subsistence in the course of planning for the new land uses that ANILCA authorized. As prerequisites to the significance finding, tier-I required an agency to plan early and develop alternatives consistent with Congress' overall goal of protecting subsistence. An agency that made its significance finding without these prerequisites could not fully comply with section 810.

B. The "Significantly Restrict" Threshold

1. Hanlon and its Probability Threshold

In tier-II, Congress provided that an agency could make "[n]o . . . disposition of [federal] lands which would significantly restrict subsistence" until it held a hearing and made three findings.\(^ {237} \) Unless it eliminated all significant restrictions at the threshold, this language required an agency to complete tier-II for every land disposition. In Kunaknana, faced with the problem of deciding whether its project met the threshold, the BLM concluded that only a project that "may" significantly restrict subsistence trig-

\(^ {237} \) ANILCA § 810(a), 16 U.S.C. § 3120(a) (1994).
The Ninth Circuit deferred to the BLM's construction of the statute. In *Akutan*, the Court of Appeals retained the "may" test, rejecting the Interior Department's contention that a significant restriction must be "likely" to trigger tier-II. None of the land agencies revised its guidelines, however, and, apart from the BLM, they retained the "likely" standard rejected by *Akutan* in 1986.

In *Hanlon*, the Forest Service applied its "likely" standard in evaluating a proposal to log eight to twenty-one percent of the local habitat of the main subsistence resource—deer. Based on a computer model of deer populations, the agency found a significant restriction unlikely and used that finding as its reason to bypass tier-II. The district court rejected the "likely" standard and purported to follow the "may" test, but actually invented a new analysis. This new analysis in *Hanlon* divided section 810's "significance" threshold into the probability of a subsistence restriction and the extent of the restriction if it occurred. The district court held that the probability must rise to a "significant possibility" of significant restriction to reach the tier-II threshold. In *dictum*, the court observed that a forty-nine percent probability was sufficient to reach the threshold, while a one percent probability was "clearly insignificant." The district court's analysis departed from the language of the statute, and from Ninth Circuit precedent, in several ways.

First, the language of section 810 included no authority for a court to erect a "probability" threshold in tandem with its "significantly restrict" threshold. The court's new barrier was inconsistent with Congress' purposes of expanding participation through the

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238. *See* *Kunaknana*, 742 F.2d 1145.
239. *See* *Akutan II*, 792 F.2d at 1378-79 (citing *Kunaknana*, 742 F.2d at 1151; *Hodel*, 774 F.2d at 1422).
241. *See* id. at 1450-52; *see also* id. at 1453-55 (discussing cumulative impacts on deer population); *cf. Alaska Pulp 1989 SEIS*, *supra* note 164, III consolidated appendix, at E-1 (presenting Sitka black-tailed deer "habitat capability model" used to predict populations of game).
243. *Id.* at 1449.
244. *Id.*
hearing, and protecting resources through the standards, of tier-II. Congress enacted section 810 to protect subsistence uses, not to reduce the burden that planning imposed on agencies. To make its probability analysis in *Hanlon*, the Forest Service had to divert effort from planning subsistence protections into avoiding such protections. That diversion conflicted with Congress' purpose of minimizing subsistence impacts of land management because it diluted the agency's protective efforts. Instead of holding tier-II hearings and designing protective plans, the agency produced an elaborate rationalization of why the acknowledged game impacts would not be significant.

The language of section 810 also provided no foundation for the "significant possibility" standard in the *Hanlon* court's "probability" threshold. That language required an agency to complete tier-II for every project that "would" significantly restrict subsistence. The Ninth Circuit's "may" test was a practical means to comply because it triggered tier-II for every project that threatened a significant restriction. *Hanlon*’s "significant possibility" test, in contrast, allowed even a project that threatened a severe restriction to bypass tier-II when an agency judged the probability low. If the agency’s

245. *See Kruse*, supra note 165, at 16-22, 26-30 (draft of elaborate procedure based on computer models of game production to determine whether restriction may be "significant" in tier-I). *But see id.* at 22-25 (procedure for producing maps that may be useful in obtaining comments from local users and redesigning projects to avoid subsistence impacts); *cf.* Kruse Telephone Interview, supra note 165 (Forest Service has actually changed alternatives based on response to such maps at tier-II hearings); Telephone Interview with Dale Kanen, U.S. Forest Service Subsistence Coordinator, Chatham Area, Tongass National Forest, Sitka, Alaska (Oct. 21, 1993).

246. *See Hanlon*, 740 F. Supp. at 1449-51 (Forest Service determines that project will reduce game and increase non-subsistence competition, but argues that it should not have to complete tier-II); *id.* at 1452-55 (Forest Service determines that cumulative impacts on game population will become substantial, but argues that it should not have to consider future conditions or complete tier-II); *cf.* ALASKA PULP 1989 SEIS, supra note 164, ch. 4, at 17-39 (elaborate evaluation of impacts of logging alternatives on wildlife habitat without consideration of alternatives that reinterpret, terminate, suspend, or amend logging contract); Clough III, 915 F.2d at 1311-12 (questioning agency’s interpretation and application of contract).

judgment erred, it would violate section 810 because a known restriction would result without tier-II protections.248

Finally, Hanlon’s “significant possibility” standard was inconsistent with the Ninth Circuit’s “may” test because it gave agencies no useful guidance whether to complete tier-II. Contrary to the district court’s dictum, an event with “merely” one percent probability may occur.249 In the range above one percent, the court left the Forest Service to specify what numerical probability a “significant possibility” required. A numerical probability would have been meaningless, however, because the number computed by the agency would have depended upon its qualitative definition of a “significant” restriction.250 In Hanlon, the Forest Service’s proba-

248. The consequence could be a project that destroyed subsistence resources or their habitat, without design input from local users and without an effort by the agency to determine whether the restriction was necessary, whether the project could use less land, and whether it could take measures to reduce subsistence impacts. Cf. 16 U.S.C. § 3111(3) (1994) (Congress’ finding that continuation of subsistence lifestyle already is threatened by development).

249. The Forest Service disagreed: “[i]t is inconceivable that Congress would have required agencies to hold hearings and make findings when there is no significant possibility of a restriction on subsistence.” Appellees’ Joint Brief at 44, City of Tenakee Springs v. Franzel, 960 F.2d 776 (9th Cir. 1992) (Nos. 91-35520, 91-35522). While the agency’s position was superficially reasonable, it was contradicted by Congress’ language: “No . . . disposition of such lands which would significantly restrict subsistence uses shall be effected . . . .” 16 U.S.C. § 3120(a) (1994) (emphasis added). Further, the Forest Service’s application of the “significant possibility” standard illustrated how malleable a criterion it was. The agency immediately proposed to clearcut eight to twenty-one percent of the habitat of the principal subsistence game. See Hanlon, 740 F. Supp. at 1450. While the Forest Service was confident there would be enough game left to satisfy demand, see id., it appears evident that such a massive project could have some significant impact. The agency erected the “significant possibility” standard as an additional barrier to tier-II, beyond Congress’ requirement that any threatened restriction be “significant.” See id. at 1449. The Ninth Circuit’s “may” test better expressed the meaning of Congress’ language: if there is a threat of significant restriction, ensure that no project proceeds without the protections of tier-II.

250. In other words, an agency that considered ten starving villagers a “significant” restriction would compute a lower probability of that event for the same project than another agency that defined a “significant” restriction as five starving villagers. Compare, e.g., BLM GUIDELINES, supra note 145, app. 8, at 9-3 (suggesting restriction is not “significant” unless number of users barred from subsistence is “a major proportion of active subsistence harvesters”) with PARK SER-
bility computation also depended on its computer model, which was
based on gross estimates of deer reproduction and future growth in
subsistence uses. In short, the district court’s “significant possi-
bility” test provided no useable standard for when an agency must
complete tier-II. The court neglected the purpose of section 810
because it left an agency with complete discretion whether to pro-
vide the protections Congress included in tier-II.
Agencies should use the Ninth Circuit’s “may” test because it
effectuates the language of section 810 without requiring a proba-
bility analysis like that in Hanlon. Had it followed the “may” test
initially, the Forest Service could have completed tier-II without the
Hanlon litigation, because the agency ultimately conceded that its
project threatened a significant restriction. Under section 810, an
agency that foresees a possibility of significant restriction should
move on to tier-II, so no such impact evades the protections Con-
gress provided. Had Congress intended to hedge those

VICE GUIDELINES, supra note 145 (no such criterion for number of affected us-
ers). The district court’s compounding of Congress’ discretion-filled “significantly
restrict” standard with another discretion-filled “significant possibility” standard
made findings of no significant restriction essentially non-reviewable. See Hanlon,
740 F. Supp. at 1449. While the Ninth Circuit’s “may” test hardly car-
ries scientific precision, it better conveys an agency’s duty to complete tier-II if a
project threatens subsistence. See Akutan II, 792 F.2d at 1378-79 (rejecting Forest
Service’s “likely” standard).

See KRUSE, supra note 165, at 8-10, 16-18, 22 (assuming loss of under
ten percent of community’s nutrition is insignificant, assuming forest cover data
produce accurate deer population statistics from habitat capability model, assum-
ing ten percent of deer population can be harvested annually, assuming reported
deer harvest statistics are accurate, assuming deer demand tracks user population,
assuming low estimate of user population growth is accurate, assuming there will
be no significant restriction if total game demand is less than total predicted sup-
ply, and assuming that usage of other resources can be approximated by areas of
land harvested); see also id. at 9, 17 (actual number of deer present in analysis
area at any time could be significantly different from model predictions; present
harvest demand statistics may reflect invalid survey data); cf. Kruse Telephone
Interview, supra note 165 (forest cover data are reasonably good, habitat capa-
bility model is fairly simple and may be good because users have not attacked it,
major impacts on subsistence are not from individual timber sales but from cu-
mulative effects of Tongass Land Management Plan); ALASKA PULP 1989 SEIS,
supra note 164, III Consolidated Appendix, at app. E-1 (providing further details
of deer habitat capability model in use by Forest Service at the time of Hanlon).

252. Cf. INTERIOR DEPARTMENT GUIDELINES, supra note 145, § III(B)(1)
protections with a “significant possibility” requirement, it would not have mandated tier-II for every project significantly restricting subsistence. The sole barrier to tier-II should be the “significantly restrict” finding—what the Hanlon court called the “extent” of restriction—because that was the only threshold Congress specified in section 810.

2. The “Extent-of-Restriction” Threshold

The different agencies’ definitions of the kind of restriction that meets the “significance” threshold in section 810 are inconsistent. In Kunaknana, for example, the Ninth Circuit accepted a BLM definition that required a “substantial” reduction in subsistence, and the Fish and Wildlife Service and Forest Service guidelines now include this “substantial” extent requirement. In contrast, the Park Service and Interior guidelines require only a reduction or limitation of subsistence, without demanding that it be “substantial.” All of the guidelines expand the extent-of-restriction threshold into alternative tests for (1) reduced game abundance, (2) game redistribution, (3) reduced subsistence user access, or (4) competition from non-subsistence users. Only the BLM, Fish and Wildlife

(combining “reasonably foreseeable” with rejected “likely” standard); PARK SERVICE GUIDELINES, supra note 145, § III(B)(1) (same); BLM GUIDELINES, supra note 145, app. 8, at 9-1 (“first a restriction must be foreseen, then the magnitude of the restriction must be evaluated”). A restriction may result from a project that forces a change in subsistence methods, even if total subsistence resources remain adequate. In the Hanlon project, for example, game redistributions may have worked a foreseeable restriction because the Natives observed a cultural prohibition against using other families’ traditional hunting grounds. Johnson Telephone Interview, supra note 209.

253. See Watt, No. A83-337 CIV, slip op. at 42; BLM GUIDELINES, supra note 145, § IV(B)(2) app. 8; FISH AND WILDLIFE SERVICE GUIDELINES, supra note 145, § IV(B); FOREST SERVICE GUIDELINES, supra note 145, § 05(B).

254. See PARK SERVICE GUIDELINES, supra note 145, § III(A)(1), ANILCA Section 810 Background, ANILCA Section 810 Format V; INTERIOR DEPARTMENT GUIDELINES, supra note 145, § III(A)(1).

255. See Forest Service Guidelines, supra note 145, §§ 05(B), 3.2; BLM GUIDELINES, supra note 145, § IV(B)(2), app. 8; FISH AND WILDLIFE SERVICE GUIDELINES, supra note 145, §§ IV(A), IV(B); see also PARK SERVICE GUIDELINES, supra note 145, § III(A)(1), ANILCA Section 810 Background, ANILCA Section 810 Format (adding “habitat loss” as an alternative element of the test for
Service, and Forest Service guidelines, however, require "major" redistribution, "substantial" reduction of access, or "major" competition to have a significant restriction. These semantic differences may have little practical effect on whether the agencies will complete tier-II. On the other hand, the guidelines potentially direct the BLM, Fish and Wildlife Service, and Forest Service to avoid tier-II for some projects, because they require a greater restriction than the Park Service does to support the "substantial" or "major" finding. These agencies should use the same guidelines as the Park Service because Congress did not distinguish among agencies in allocating its tier-II protections.

There are other inconsistencies, such as the absence of a test for non-subsistence competition in the Interior guidelines. This deficiency could raise Interior's threshold, avoiding tier-II in a case like Hanlon where an agency expected competition to increase. The Park Service guidelines add a test for habitat loss, lowering that agency's threshold and potentially leading it to do more tier-II evaluations. The BLM guidelines refer to "a major proportion" of subsistence users, suggesting that impacts on an individual or small group cannot rise to a significant restriction. The Park Service and Interior guidelines lack this language—a further inconsistency among the extent-of-restriction thresholds.

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reduced game abundance); cf. INTERIOR DEPARTMENT GUIDELINES, supra note 145, § III(A)(1) (omitting test for competition from non-subsistence users).

256. See, e.g., Hanlon, 740 F. Supp. at 1449-50, 1452 (Forest Service recognized its project would increase hunting competition, redistribute game, and reduce game abundance, but made FONSR because game would still be "adequate" and subsistence users' travel would not be "greatly increased"); cf. Tulkisarmute Native Community Council, Int. Bd. Land App. 85-487, at 5-6, 21-22, 88 IBLA 210, at 212, 219 (1985) (section 810 imposed no duty on BLM to review gold miners' plan to relocate fish stream into channel 120 feet wide and 6300 feet long and dredge streambed, because environmental assessment concluded that the agency had mitigated impacts enough to avoid "significant" restriction).

257. See BLM GUIDELINES, supra note 145, app. 8, p. 9-3; cf. PARK SERVICE GUIDELINES, supra note 145, § III(A)(1), ANILCA Section 810 Background, ANILCA Section 810 Format; INTERIOR DEPARTMENT GUIDELINES, supra note 145, § III(A)-(B). The Forest Service and Fish and Wildlife Service take a middle ground, cautioning the official making the significance determination to "be sensitive to localized, individual restrictions created by any action". FOREST SERVICE GUIDELINES, supra note 145, § 05(B); FISH AND WILDLIFE GUIDELINES,
Despite the discrepancies among agency guidelines, the Ninth Circuit has not revisited the BLM “substantial” restriction threshold it affirmed in Kunaknana. In Hanlon, the district court did review a new Forest Service requirement that a restriction had to lower the supply of game below subsistence users’ demand in order to be “significant.” The agency’s new requirement raised the tier-I significance threshold by adding the “unmet demand” criterion to each of the guidelines’ four tests. In Hanlon, this higher significance threshold proved determinative. Although its project substantially reduced deer and displaced users from traditional hunting grounds, the Forest Service found the restriction insignificant, absent proof of unmet demand. The district court upheld that finding based on its deference to the agency’s construction of “significance.” This holding is surprising because elsewhere in the same decision, the court was concerned by inconsistency among interpretations of section 810. Specifically, the court rejected the Forest Service’s tier-I evaluation, which omitted cumulative impacts, in part because the BLM had included such impacts in Kunaknana. Under the same reasoning, the district court should have rejected the Forest Service’s “unmet demand” requirement because the BLM had no such barrier in its threshold in Kunaknana. Had the court demanded such consistency in Hanlon, it would have helped ensure that agencies drafted uniform definitions of the “significance” threshold.

Section 810 does not, by its terms, apply differently to different federal agencies. Inconsistent threshold tests may harm subsistence users’ livelihoods by making tier-II protections less available on some public lands. Although an agency may perceive advantage in tailoring a threshold to its own resources, Congress intended section 810 to benefit subsistence users, not to justify disparate treatment of similar uses for administrative convenience. The feasibility

supra note 145, § IV(B).

258. See Hanlon, 740 F. Supp. at 1450; cf. FOREST SERVICE GUIDELINES, supra note 145, §§ 05(B), 3.2 (no requirement that total resource demand be greater than supply to have a “significant” restriction); KRUSE, supra note 165, at 18, 21-22, (suggesting Forest Service base “significance” on demand-greater-than-supply criterion).


260. See 16 U.S.C. § 3112(1) (purpose of ANILCA Title VIII is to preserve
of standardizing procedures is demonstrated by NEPA regulations, which require all agencies to conduct standard environmental studies. For section 810 evaluations, the planning horizon, sampling methods, confidence limits of statistical studies, and basic concepts like whether an individual can suffer a "significant" restriction, should be uniform for all agencies. In order to reduce inconsistency in determining when tier-II studies are required, all agencies should operate under the same rules.

All the federal land agencies should adopt a low significance threshold to give effect to the language and purpose of section 810. A low threshold will not increase an agency's procedural burden, beyond requiring a hearing, as an agency should gather the data to support its tier-II findings in tier-I. A low threshold will more frequently require tier-II findings, adding the substantive burden of designing only projects with necessary and consistent restrictions, minimal land, and minimal subsistence impacts. This burden will not be onerous with a low threshold because a low threshold brings projects with smaller impacts into tier-II. With smaller subsistence impacts to start with, the burden of minimizing these impacts will also be small, taking less effort than an elaborate analysis of whether the threshold is met. Furthermore, the burden of a low threshold is balanced by the benefits of requiring an agency to focus on planning its projects to protect subsistence, consistent with opportunity for subsistence users). But see Telephone Interview with James Kurth, Deputy Assistant Regional Director for Subsistence, U.S. Fish and Wildlife Service, Anchorage, Alaska (May 7, 1993) (state of Alaska is so vast it is hard to generalize subsistence evaluations; different agencies also have different management mandates); Telephone Interview with Helen Clough, U.S. Fish and Wildlife Service, Dillingham, Alaska (Apr. 21, 1994) (uniform regulations are good in theory but agency activities vary greatly; for example, subsistence evaluations of a logging project and a river recreation project would be quite different).

261. Cf. supra notes 240, 241, 245 and accompanying text (describing the Forest Service's use of elaborate computer model and analysis to avoid completing tier-II hearing and findings in Hanlon). Smaller subsistence impacts should be easier to justify as "necessary," and "consistent" with sound wildlife management, and "minimal" in area because fewer subsistence users will be displaced and more subsistence lands will remain to support them. Smaller impacts should also be easier to justify as "minimized" because fewer steps will be available for an agency to test as "reasonable."
the purpose of section 810. Through tier-II hearings, subsistence users will gain the participatory role in land management that Congress intended. To make the tier-II findings, agencies will plan projects for the "least adverse impact" that Congress intended. The burdens of uniformly applying a low threshold are not excessive; they merely effect the subsistence protections that Congress provided in tier-II.262

To implement a low threshold, agencies should standardize both tier-I procedures and their definitions of "significant." In 1984, the Alaska Land Use Council proposed protocols for using survey data in subsistence evaluations.263 These protocols should form the basis of standard tier-I procedures specifying how all agencies assess available lands and alternatives, survey biological and social conditions, and set statistical limits to predict subsistence impacts. Standard tier-I procedures will limit the broad discretion agencies currently have under their sketchy and inconsistent guidelines. Using standard tier-I procedures to assess subsistence impacts, and a standard definition of the threshold, agencies will fulfill Congress' intent to make accessible the protections of tier-II.

C. Contrasts: The Thresholds in ANILCA and NEPA

1. The Purposes of ANILCA and NEPA

Agencies should use different thresholds for ANILCA and NEPA because "significance" serves a different purpose in each statute. In Amoco, the Supreme Court held that the purpose of ANILCA section 810 is to protect subsistence resources from "unnecessary destruction."264 A finding of significant restriction triggers tier-II, which serves this purpose in two ways. First, tier-II requires a local hearing, which places a minor procedural burden on an agency, but allows subsistence users to participate in designing a project with

262. Cf. Hanly v. Kleindienst, 471 F.2d 823, 836-38 (2d Cir. 1972) (Friendly, C.J., dissenting) (arguing that NEPA threshold should be low, and the agency's significance determination informal to avoid expending elaborate procedures in the "grey area" where a project may be significant; and to further ensure that the agency gets full tier-II information needed to make considered choice among project alternatives).
263. See supra note 158.
264. Amoco, 480 U.S. at 544.
minimal impacts. Second, tier-II requires an agency to make three findings that impose substantive limits on its land use planning. Under these substantive limits, an agency may significantly restrict subsistence only so far as is “necessary” to install another use approved by Congress. The tier-II findings require an agency to make land use decisions that are “wise” in the sense that they minimize subsistence impacts.

The Supreme Court has held that NEPA has two purposes: requiring an agency to consider significant environmental effects in approving a project, and disclosing its environmental analysis to the public. A project that meets the NEPA threshold by “significantly affecting the . . . environment” triggers the major procedural burden of making an EIS. An EIS promotes NEPA’s two purposes by ensuring that an agency is fully informed of environmental concerns and by distributing agency deliberations for public comment. In contrast to ANILCA, however, the Supreme Court has held that the requirement to make an EIS imposes no substantive limits on an agency’s project. NEPA thus requires an agency to do informed, but not wise, planning. An agency can avoid the EIS requirement if it makes an environmental assessment (“EA”) leading to a “finding of no significant impact” (“FONSI”). Unlike the ANILCA threshold, the NEPA threshold and the procedures for completing an EA/FONSI or EIS have been formalized in regulations issued by the Council on Environmental Quality (“CEQ”).

265. Id. at 536 n.2.
266. Id.
267. Id. at 544.
269. Id. at 90 n.1.
270. See id. at 97-98, 100-01, 108.
272. See 40 C.F.R. § 1504.3; Seattle Community Council Fed’n v. Federal Aviation Administration, 961 F.2d 829, 832 (9th Cir. 1992). A third alternative is for the agency to determine that its action is of a type that normally does not implicate environmental concerns—that is, does not require either an EIS or an EA, but is subject to a “categorical exclusion” from NEPA evaluation. See 40 C.F.R. § 1508.4; Jones v. Gordon, 792 F.2d 821, 827 (9th Cir. 1986).
273. See 40 C.F.R. §§ 1500-1508 (1995); see also Exec. Order No. 11,514
Courts have resorted to the CEQ regulations and NEPA case law to define the significance threshold under ANILCA. For example, in *Kunaknana*, its first ANILCA case, the Ninth Circuit cited with approval the BLM’s cumulative impact analysis—an analysis derived from NEPA cases and regulations. In its 1986 *Akutan* decision, the district court referred to NEPA case law as a “guideline” for defining ANILCA’s threshold. In *Penfold*, decided the following year, the same court imported cumulative impacts analysis from NEPA into its ANILCA threshold. In *Hanlon*, in 1988, the district court required the Forest Service to follow NEPA cumulative impact regulations in its ANILCA tier-I evaluation. Although cumulative impacts may create a significant restriction, this similarity does not authorize an agency to graft NEPA’s entire threshold onto section 810, because the two statutes have different purposes. The courts’ confusion of the two thresholds is unfortunate because it contradicts the language and purpose of ANILCA.

Congress enacted the language of ANILCA section 810, a decade after NEPA, to increase subsistence protection. The tier-II hearing provision expands NEPA’s public participation requirement, serving Congress’ purpose of involving subsistence users in planning. The tier-II findings have no NEPA analog, but promote Congress’ purpose of minimizing subsistence impacts of federal management. These purposes would be poorly served if ANILCA used the NEPA significance threshold, because that threshold serves as a screen to prevent agencies from having to write EISs for all categories of


274. See *Kunaknana*, 742 F.2d at 1151; see also 40 C.F.R. § 1508.27(7) (including cumulative impacts in NEPA regulation defining significance); *id.* § 1508.7 (defining cumulative impact); *id.* § 1508.25(c) (including cumulative impacts in EIS); cf. Kleppe v. Sierra Club, 427 U.S. 390, 413-14 (1976) (cumulative impacts require comprehensive EIS, but geographic scope of EIS is at discretion of agency).


federal actions.\textsuperscript{278} The ANILCA threshold, in contrast, only serves to screen from tier-II study actions that pose no threat of restricting the livelihoods of subsistence users. To protect these users from agencies' varying development policies, Congress must have intended ANILCA's threshold to be lower than NEPA’s.

A low ANILCA threshold need not disrupt an agency's planning because ANILCA's tier-II imposes a smaller burden than NEPA's EIS requirement. Holding a local subsistence hearing adds minimal effort, and supplies data to support an agency's tier-II findings.\textsuperscript{279} The remaining data should be provided by the subsistence alternatives that an agency is required to study in tier-I. If an agency seeks to minimize subsistence impacts starting in tier-I, it will merely have to document its selection of alternatives in tier-II—a much smaller effort than undertaking an EIS. Because tier-II imposes a lower burden and promotes Congress' protective purposes, agencies should use a lower "significance" threshold for ANILCA. Congress must have intended agencies to define this threshold through orderly rule-making to ensure consistent protection on all federal lands. The application of NEPA law to this ANILCA rule-making process is discussed below.

\textsuperscript{278} See 16 U.S.C. § 3120(a) (applying ANILCA threshold to any disposition of public lands which would significantly restrict subsistence uses); see also 42 U.S.C. § 4332(2)(C) (applying NEPA threshold to "proposals for legislation and other major [f]ederal actions significantly affecting the quality of the human environment"); 40 C.F.R. § 1508.18 (in NEPA, "major federal action" means the same as "significantly affecting the . . . environment"); cf. Penfold II, 857 F.2d at 1314 (holding that BLM approval of "notice" mines is not a major federal action, so neither the NEPA nor the ANILCA threshold is met).

\textsuperscript{279} Cf. Clough I, 750 F. Supp. at 1425-26 (rejecting subsistence users' claim of inadequate notice and opportunity for participation in tier-II hearings); Kanen Telephone Interview, supra note 245 (Forest Service now makes major changes in locations of logging units based on tier-II hearings); Rene Telephone Interview, supra note 225 (same; timing of hearings is always difficult for subsistence users; hearing comments contain less substance than meetings with community leaders); Kruse Telephone Interview, supra note 165 (tier-II hearings generate good will; subsistence maps enable users to make valuable comments on local timber sales; hearings on individual sales do not allow users to comment on real issue: the forest-wide timber harvest level); Clough Telephone Interview, supra note 260 (Forest Service NEPA filings, written to avoid legal challenge, lack information comprehensible to subsistence users).
2. Inapplicability of NEPA to ANILCA's Threshold

CEQ regulations establish NEPA's threshold by defining the word "significantly" through factors that assess the social, economic, and geographic "context," and "intensity" of a project's effects. In the Ninth and D.C. Circuits, the context has not been at issue in NEPA findings, and it has even less relevance to the ANILCA threshold because ANILCA defines the context. Three CEQ "intensity" factors—(1) highly controversial effects, (2) unknown risks, and (3) cumulative impacts—have been important in Ninth and D.C. Circuit NEPA cases. The usefulness of these three NEPA intensity factors as models for defining the ANILCA threshold is discussed in the next section of this Article. Other CEQ intensity factors have played small parts in the NEPA decisions and have little relevance to the ANILCA threshold.

Beyond the intensity factors, other CEQ regulations delineate the NEPA threshold by permitting mitigation measures, tiered review, categorical exclusions, and a single purpose for an agency's range of project alternatives. CEQ regulations define "mitigation" and provide that an agency must describe its measures to reduce envi-

280. 40 C.F.R. § 1508.27(a), (b) (1995).
281. See 40 C.F.R. § 1508.27(b)(1) (impacts that may be both beneficial and adverse); id. § 1508.27(b)(2) (impacts on public health or safety); id. § 1508.27(b)(3) (impacts on culturally unique or ecologically critical areas); id. § 1508.27(b)(6) (decisions that establish a precedent); id. § 1508.27(b)(8) (impacts on historic sites); id. § 1508.27(b)(9) (impacts on protected or endangered species); id. § 1508.27(b)(10) (threatened violations of environmental law); see also Marsh v. Oregon Nat'l Resources Council, 490 U.S. 360, 374 n.20 (1989) (listing factors); cf. Sierra Club v. U.S. Forest Serv., 843 F.2d 1190, 1195 (9th Cir. 1988) (violation of water quality standards); Los Angeles v. National Highway Traffic Safety Admin., 912 F.2d 478, 490 (D.C. Cir. 1990) (violation of Clean Air Act plan); Public Citizen v. National Highway Traffic Safety Admin., 848 F.2d 256, 268 (D.C. Cir. 1988) (no Clean Air Act violation; no precedent); Friends of Endangered Species v. Jantzen, 760 F.2d 976, 979-80, 983, 986-87 (9th Cir. 1985) (no zoning violations; beneficial impacts, protected species); Greenpeace Action v. Franklin, 982 F.2d 1342, 1345 (9th Cir. 1992) (protected species); Jones v. Gordon. 792 F.2d 821, 823 (9th Cir. 1986) (protected species); Committee For Auto Responsibility v. Solomon, 603 F.2d 992, 1001 n.35 (D.C. Cir. 1979) (beneficial impacts); Foundation on Economic Trends v. Heckler, 756 F.2d 143, 148-49, 153-55 (D.C. Cir. 1985) (public health).
 Vollage impacts in any required EIS. Both the Ninth Circuit and the D.C. Circuit interpret these regulations to allow an EA containing enforceable mitigating conditions to support a FONSI. To avoid an EIS, the D.C. Circuit has held, mitigation must completely compensate for all significant impacts. The Ninth Circuit, in contrast, has not required complete mitigation.

The Supreme Court, in *Robertson v. Methow Valley Citizens Council*, held that an EIS need not have a complete mitigation plan because NEPA imposes no substantive mitigation requirement. The Court's ruling, that an EIS does not require full mitigation, may support the Ninth Circuit's relaxed view of the measures required to support an EA.

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283. See *LaFlamme v. FERC*, 852 F.2d 389, 399 (9th Cir. 1988); *The Steamboaters v. FERC*, 759 F.2d 1382, 1394 (9th Cir. 1985); Cabinet Mountains Wilderness v. Peterson, 685 F.2d 678, 682 (D.C. Cir. 1982).

284. The complete compensation requirement was based on the D.C. Circuit's view that a mitigated FONSI remained a finding of no significant impacts. See *Cabinet Mountains Wilderness*, 685 F.2d at 682; see also *Sierra Club v. Peterson*, 717 F.2d 1409, 1415 (D.C. Cir. 1983) (if "any 'significant' environmental impacts might result," agency must prepare EIS).

285. "[S]o long as significant measures are undertaken to 'mitigate the project's effects,' they need not completely compensate for adverse environmental impacts." *Greenpeace*, 982 F.2d at 1353; see *Jantzen*, 760 F.2d at 987 (rejecting "strict standard" of mitigation in D.C. Circuit). But cf. *Conner v. Burford*, 848 F.2d 1441, 1450 (9th Cir. 1988) (although NEPA does not require complete compensation, "an EIS must be prepared as long as 'substantial questions' remain as to whether the measures will completely preclude significant environmental effects").

In *Kunaknana*, the Ninth Circuit accepted the BLM’s mitigation measures as support for its finding of non-significance under ANILCA. The NEPA rule allowing an agency to avoid “significance” through mitigation is inappropriate to ANILCA, however, because tier-II’s third finding expressly requires an agency to minimize any restriction that is significant. Congress’ inclusion of this “minimize” requirement in tier-II suggests it did not intend agencies to avoid tier-II by mitigating significant restrictions in tier-I.  

Agencies certainly should investigate a range of protective alternatives in tier-I, but if any alternative threatens subsistence, they should proceed to tier-II. That interpretation is consistent with Congress’ policy to involve users in subsistence management, because tier-II hearings provide such involvement.

Other CEQ regulations permit “tiered” NEPA review of a project that will occur in distinct stages. This “tiered” review allows an agency to defer detailed study of the environmental impacts of a later stage until it is ready to approve that stage. In an oil project, for example, an agency may wish to satisfy NEPA with an EA at the leasing stage, and avoid an EIS for the greater impacts of exploration, development, and production stages unless oil actually is discovered. The danger is that the agency will make uninformed decisions at the early stage that become commitments to later ac-

287. An important purpose of tier-I is to require agencies to include subsistence protections early in their land use planning. But if an agency’s range of alternatives includes one that may significantly restrict subsistence, it must proceed to tier-II, because Congress intended it to minimize the threat. In completing tier-II, an agency will provide greater protection because tier-II requires positive steps to minimize subsistence impacts. See 16 U.S.C. § 3120(a)(3)(C). Agencies have sought to avoid tier-II. See Telephone Interview with Clarence Summers, Subsistence Specialist, National Park Service, Anchorage, Alaska (Apr. 5, 1994) (when Park Service finds during public review that one alternative threatens significant restriction, it alters project to avoid having to make finding of significant restriction); cf. Telephone Interview with Leslie Kerr, Chief, Planning Section, U.S. Fish and Wildlife Service, Anchorage, Alaska (Jan. 14, 1994) (if Fish and Wildlife Service ever discovered threat of significant restriction, it would delete that project from its refuge); King Telephone Interview, *supra* note 154 (only “reasonably important” BLM evaluations should receive public comment because agency conducts many, has developed expertise, and would be hampered in dealing with extensive input).

288. *See* 40 C.F.R. §§ 1500.4(i), 1501.7(a)(3), 1502.4(d), 1502.20, 1508.28.
tion, for example, through the investment of large resources in an oil strike. The Ninth Circuit has held an agency must do an EIS for an on-shore oil lease, unless it retains power to prevent harm to sensitive areas until they are studied. For offshore leasing, NEPA permits an agency to defer its EIS because the government retains greater control over the later stages of these projects.

In Amoco, the Supreme Court declined to enjoin Interior's "tiered" subsistence evaluation of off-shore leases, but this holding should not signal the extension of "tiered" review from NEPA to ANILCA. The Court's analysis was directed to the remedy, not whether the agency complied with ANILCA. Tier-II of section 810 specifically applied to a "lease, permit, or other use," showing Congress intended an agency to grapple at the lease stage with restrictions that could result at a later stage. A "tiered" ANILCA review would violate Kunaknana's threshold by allowing an agency to defer tier-II if a later stage (such as oil development) is "unlikely," even though it clearly may cause significant restrictions if it occurs. "Tiered" review also would devalue subsistence users' participation by deferring tier-II hearings on a project until its design is substantially complete.

289. Cf. Sierra Club v. Marsh, 872 F.2d 497, 503-04 (1st Cir. 1989) (agency may develop institutional commitment to project it approves at early stage without adequate study, but substantive standards of ANILCA enable court to fashion a remedy).

290. See Bob Marshall Alliance v. Hodel, 852 F.2d 1223, 1227-28 (9th Cir. 1988), cert. denied sub nom. Kohlman v. Bob Marshall Alliance, 489 U.S. 1066 (1989); Conner v. Burford, 848 F.2d 1441, 1443-51 (9th Cir. 1988); cf. Cabinet Mountains Wilderness v. Peterson, 685 F.2d 678, 682-84 (D.C. Cir. 1982) (mitigation measures sufficient to avoid threat of significant impact at lease-exploration stage; not requiring agency to exclude lessor from occupying lease in order to escape EIS at early stage); Park County Resource Council v. United States Dep't of Agric., 817 F.2d 609, 621-24 (10th Cir. 1987) (same).

291. See Village of False Pass v. Clark, 733 F.2d 605, 608-09, 614-17 (9th Cir. 1984) (citing Secretary of the Interior v. California, 464 U.S. 312 (1984)).

292. Amoco also addressed leases off-shore, where the Court concluded section 810 did not apply. See 480 U.S. at 544-46; see also id. at 534 n.1 (not reaching question whether discrete stages of oil project on OCS have implications for ANILCA review of leases on OCS).

293. Cf. Akutan II, 792 F.2d at 1378-79 (rejecting "likely" threshold for significant restriction as inconsistent with Kunaknana's "may" test).

294. See Kruse Telephone Interview, supra note 165 (subsistence evaluation of
guage and purpose in ANILCA, an agency must complete its section 810 evaluation at the outset, even if a project will occur in stages over time.

In addition to the tiered review of a project's evolving stages, the CEQ regulation permits an agency to split its NEPA evaluation into a general EIS for a whole program, and smaller EAs or EISs for specific sites. In *Alaska v. National Parks and Conservation Association*, the Alaska district court suggested that ANILCA might permit an agency to split its subsistence evaluation into programmatic and site-specific studies. Such a split evaluation is, however, barred by ANILCA because every tier-I evaluation must have both a programmatic study of other lands and alternatives and a site-specific study of subsistence uses. Although Congress encouraged early subsistence planning, an agency should do a tier-I evaluation late enough that the impacts of each alternative are predictable. A project must go beyond its conceptual stage for an agency to assess its impact on subsistence uses and needs, adaptability to other lands, comparison with other alternatives, or threat of significant restriction. This practical requirement of tier-I prevents an agency from splitting off programmatic evaluation of projects under ANILCA.

NEPA law permits an agency to use mitigation or tiering to avoid an EIS, but with a "categorical exclusion" it can avoid even the lesser burden of making an EA. For a categorical exclusion from NEPA, CEQ regulations require an agency to find that its project falls into a predetermined category of activities that normally require neither an EIS nor an EA. Although the courts have not

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295. See 40 C.F.R. §§ 1500.4(i), 1502.4, 1502.20, 1508.28(a).

296. See No. J87-012 CIV, slip op. at 18 (D. Alaska Sept. 11, 1991) (rejecting agency's argument that ANILCA requires subsistence evaluation only for individual permit application); see also BLM GUIDELINES, supra note 145, app. 1 (recommending programmatic subsistence evaluations for mining plans in areas of low subsistence use or new mineral entry).

297. See 40 C.F.R. §§ 1500.5(k), 1501.4(a)(2), 1508.4. An agency also must find that there are no extraordinary circumstances that may cause the normally-insignificant action to have significant impacts. See Jones v. Gordon, 792 F.2d 821, 827-29 (9th Cir. 1986).
yet considered whether NEPA's categorical exclusion law extends to ANILCA, the BLM's section 810 guidelines do make categorical exclusions from section 810 for fire suppression planning and issuing subsistence permits that merely preserve the status quo. The National Park Service's guidelines create de facto exclusions for issuing individual subsistence permits, recreation permits, or emergency closures, because these are "minor or routine," or preserve the status quo. The Forest Service's NEPA guidelines appear to permit it to categorically exclude actions from ANILCA, in conjunction with exclusions from NEPA. The Interior and Fish and Wildlife Service guidelines make no mention of categorical exclusions from section 810.

The language of section 810 contains no authority to make categorical exclusions, and sweeps broadly over agencies permitting "the use, occupancy, or disposition of public lands under any provision of law." Subsection 810(c) contains Congress' only exclusions: state and Native corporation land selections. In *Chevron, U.S.A, Inc. v. Natural Resources Defense Council*, the Supreme Court held that an agency has no discretion if Congress has unambiguously expressed its intent. Given the clear intent of subsection 810(c) to define section 810's categorical exclusions, there is no discretion for agencies to create others. A "minor" exclusion for issuing subsistence permits is unjustified because, as section 804 demonstrates, some subsistence uses restrict others. The burden of evaluating a "minor" action should be light if its subsistence impacts are minimal. Because the language of subsection 810(c) is unambiguous and the burden of section 810 is light, agencies may not create categorical exclusions from its evaluation requirements.

Beyond categorically excluding an action from NEPA, an agency can limit NEPA review to a narrow range of alternatives by defining the purpose of its project narrowly. CEQ regulations require an EIS to cover all reasonable alternatives to a proposal, including alternatives that mitigate project impacts. The Supreme Court has held, however, that an agency can eliminate alternatives that are "remote and speculative." In *City of Angoon v. Hodel*, the

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298. See BLM GUIDELINES, supra note 145, app. 2, app. 3; cf. id. § II(B)(3), app. 4 ("[T]here are no categorical exclusions for 810 at this time").


300. Vermont Yankee Nuclear Power Corp. v. NRDC, 435 U.S. 519, 551
Ninth Circuit expanded the Court’s analysis, reasoning that an agency must only study NEPA alternatives that promote a project’s purpose as the agency defines it. In City of Tenakee Springs v. Clough, the district court applied Angoon’s NEPA analysis to a project where the Forest Service defined its purpose as logging enough timber to satisfy its Alaska Pulp contract. This purpose constrained the agency to plan only the most concentrated logging alternatives. The court held that NEPA allowed the agency to bypass alternatives like modifying the contract because they did not serve the project purpose.

In Clough, the district court held that ANILCA, like NEPA, allowed an agency to ignore any alternative outside its project purpose. The court reasoned that ANILCA did not affect what alternatives an agency prepared, although tier-II placed substantive limits on an agency’s choice among its alternatives. Considering those substantive limits, the district court reasoned that to be “necessary” under ANILCA, a subsistence restriction merely had to promote any one permissible land use. The court’s reasoning, however, was flawed because ANILCA requires an agency to include another use—subsistence—with the new use, in every project’s purpose. Rationally, an agency should find it “necessary” to restrict subsistence to promote a new use only if it examines how much the new use would have to be restricted to protect subsistence.

In Amoco, the Supreme Court ruled that subsistence is “a public interest” that an agency must reconcile, if possible, with competing land uses. Following the Court’s logic, there must be at least

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301. 803 F.2d 1016, 1021 (9th Cir. 1986), cert. denied, 484 U.S. 870 (1987), cf. 40 C.F.R. §§ 1500.4(g), 1501.7(a)(2), (3), 1502.2(c), 1502.4(a), 1508.25(b)(2) (allowing agency to determine “scope” of EIS, but not authorizing it to restrict scope by defining purpose of project).

302. See Clough I, 750 F. Supp. at 1420. The Ninth Circuit did not agree. See Clough III, 915 F.2d at 1312 (even if Alaska Pulp contract required Forest Service to make available full harvest, agency should have explored alternative of amending contract); cf. 40 C.F.R. § 1502.14(a), (c) (EIS must evaluate “all reasonable alternatives,” including alternatives not within jurisdiction of lead agency).


304. See Amoco, 480 U.S. at 546 (referring to agency’s desired uses as public
two uses in the purpose of every project, and subsistence must be one of them. The Forest Service did not have to protect subsistence completely in *Clough*, because Congress did not make subsistence uses paramount, but neither did Congress make the logging contract paramount. The agency rationally had to go beyond “full satisfaction of the logging contract” and consider the other part of its purpose: protecting subsistence. ANILCA required it to develop a range of alternatives that balanced these competing uses, compromising the logging contract as well as subsistence. ANILCA demanded these subsistence-protective alternatives because, unlike NEPA, ANILCA contained the substantive requirements of tier-II.

Tier-II requires an agency selecting its preferred alternative to find that (1) any significant restriction is necessary, (2) the alternative uses minimal land, and (3) the agency will minimize subsistence impacts. A restriction can be “necessary” only if there is no feasible alternative that avoids it; land use is “minimal” only if there is no available alternative that uses less; and impacts are “minimized” only if there are no reasonable alternatives that reduce them.\(^{305}\) Tier-II thus defines its requirements for the preferred alternative relative to the subsistence impacts of other alternatives. An agency can rank the relative impacts rationally only if it designs some alternatives to protect subsistence.\(^{306}\) In *Amoco*’s reconciling interests).

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305. *See, e.g., Webster’s Third New International Dictionary 1510 (Philip B. Gove ed., 1971) (defining “necessary” as “unavoidable,” or without further alternative); id. at 1438 (defining “minimal” as “least possible,” i.e., without further alternative); id. (defining “minimize” as “reduce to the smallest possible . . . extent,” or without further alternative); id. at 63 (defining “alternative” as “situation offering a choice”); see also Kunaknana, 742 F.2d at 1151 (when interpreted in conjunction with the statute requiring leasing program, section 810 required BLM to rank the subsistence impacts from leasing different tracts and compare their relative desirability for the program); cf. Vermont Yankee Nuclear Power Corp. v. NRDC, 435 U.S. 519, 551 (1978) (“the concept of alternatives must be bounded by some notion of feasibility”).

306. Unless it designs some alternatives with additional subsistence protections, an agency cannot determine whether it has effectively minimized subsistence impacts in its other alternatives. The Forest Service did not provide such a range of alternatives in *Clough*. *See Alaska Pulp 1989 SEIS, supra* note 164, ch. 4, at 20, 28 (amount of habitat for main subsistence species remaining after project would be similar for all alternatives examined); Kruse Telephone Interview, *supra*
process, an agency has discretion to decide which is the most protective alternative that remains feasible, but it must study each alternative to have a basis for that judgment. NEPA's range of alternatives is not adequate because NEPA does not, like ANILCA, mandate that an agency discover the most protective alternative. Of the two statutes, only ANILCA contains substantive standards that cabin an agency's range of permissible choices.

3. NEPA: Useful Models for ANILCA

The NEPA threshold, while it does not apply directly, contains two useful models for ANILCA: the burden of showing that impacts are "significant" and the intensity of impacts required to reach the threshold. In NEPA cases, the courts have allocated the burden of showing significant impacts between an agency and the public. In the Ninth Circuit, an agency must do an EIS if there are "substantial questions" whether impacts may rise to the NEPA threshold. It is an agency's burden initially to assess impacts. If it issues a FONSI, an opponent has the burden of raising "substantial questions" by alleging facts that, if true, would show a project may significantly harm the environment. Although the D.C. Circuit has not expressly adopted this Ninth Circuit "substantial questions" inquiry, it places a similar burden on opponents of a FONSI.

Both the Ninth Circuit and the D.C. Circuit review a FONSI under the deferential "arbitrary or capricious" standard of the Administrative Procedure Act ("APA"). In the Ninth Circuit, if an

note 165 (Forest Service approach of including same timber volume in all alternatives neutralizes effectiveness of section 810); cf. ALASKA PULP 1989 SEIS, supra note 164, ch. 4, at 84-85 (preferred alternative number 3, is projected to cause the greatest drop in subsistence game).

307. See, e.g., Greenpeace Action v. Franklin, 982 F.2d 1342, 1351 (9th Cir. 1992) (quoting LaFlamme v. FERC, 852 F.2d 389, 397 (9th Cir. 1988) (an agency must prepare an EIS if "substantial questions are raised as to whether a project . . . may cause significant degradation of some human environmental factor").

308. See 40 C.F.R. § 1501.4 (1995); see also City of Davis v. Coleman, 521 F.2d 661, 671 (9th Cir. 1975) (stating that it is the responsibility of the federal agency, not environmental action groups or local government to investigate environmental effects).

opponent raises "substantial questions," an agency must give a "convincing statement of reasons" why there will be no significant impact.\textsuperscript{310} The D.C. Circuit reviews a FONSI by examining whether the agency (1) took a hard look at the project, (2) identified the relevant environmental concerns, (3) made a "convincing case" for its FONSI, and (4) minimized all significant impacts through mitigation measures.\textsuperscript{311} In practice, the D.C. Circuit has deferred more to a "convincing case" than the Ninth Circuit has to a "statement of reasons," but both courts have enjoined projects until agencies completed satisfactory EA/FONSIs.\textsuperscript{312}

\begin{itemize}
\item formerly reviewed a FONSI under the slightly less deferential "reasonableness" standard, recently adopted the APA standard. See \textit{Greenpeace Action}, 982 F.2d at 1349-50 (citing \textit{Marsh v. Oregon Natural Resources Council}, 490 U.S. 360 (1989)). The APA standard requires a court to ensure an agency has taken a "hard look" at impacts and made a decision based on a reasoned evaluation of the "relevant factors," while deferring to the agency's discretion on matters of fact. See \textit{id.} at 1350. The D.C. Circuit has long employed the APA standard in reviewing a FONSI. See, \textit{e.g.}, \textit{Los Angeles v. NHTSA}, 912 F.2d 478, 490 (D.C. Cir. 1990); \textit{Maryland-Natl Capital Park & Planning Comm'n v. U.S. Postal Serv.}, 487 F.2d 1029, 1035 (D.C. Cir. 1973).
\item See \textit{Seattle Community Council Fed'n v. FAA}, 961 F.2d 829, 832 (appling "reasonableness" standard).
\item \textit{See Los Angeles v. NHTSA}, 912 F.2d at 499-500 (Wald, C.J., dissenting); \textit{NRDC v. Herrington}, 768 F.2d 1355, 1430 (D.C. Cir. 1985). The "hard look" part of the four-part test was derived from prior circuit court created law. See \textit{NRDC v. Morton}, 458 F.2d 827, 838 (D.C. Cir. 1972) (citing \textit{WAIT Radion v. FCC}, 135 U.S. App. D.C. 317 (1964)). The "relevant areas" part was apparently derived from the Supreme Court's opinion in \textit{Citizens to Preserve Overton Park v. Volpe}, 401 U.S. 402, 416 (1971). The "convincing case" part was the court's own innovation. See \textit{Maryland-Natl'}, 487 F.2d at 1040 n.10. The "sufficiently minimized" part was derived directly from NEPA's inclusion of a significance threshold, and reflects the D.C. Circuit's "complete" mitigation perspective. See \textit{id.} at 1040.
\item The "convincing case" element of the D.C. Circuit's four-part test resembles the Ninth Circuit's "convincing statement of reasons" for why a FONSI is justified. Compare \textit{Maryland-Natl'}, 487 F.2d at 1040 with \textit{Seattle Community Council}, 961 F.2d at 832. The D.C. Circuit, however, has deferred to an agency's "primary responsibility" to determine whether an action significantly effects the environment. See \textit{Foundation on Economic Trends v. Heckler}, 756 F.2d 143, 151 (D.C. Cir. 1985). The D.C. Circuit has ordered a few projects enjoined as a result of defective underlying FONSIs. See \textit{id.}, 756 F.2d at 157-58; \textit{Sierra v. Peterson}, 717 F.2d 1409, 1415 (D.C. Cir. 1983); \textit{cf. Maryland-Natl'}, 487 F.2d at 1041-43
\end{itemize}
Courts reviewing ANILCA cases also have used the "arbitrary or capricious" standard, but seem to have placed a greater burden on plaintiffs to show significant impacts on subsistence. In Kunaknana, for example, the Ninth Circuit reviewed the BLM's finding of no significant restriction ("FONSR") for oil leases under a standard that approximated the four-part test used by the D.C. Circuit in NEPA cases. Unlike its own NEPA cases, however, the Ninth Circuit did not inquire whether the ANILCA plaintiffs raised substantial questions that shifted the burden of making a "convincing statement" to the agency. In Hanlon, the district court rejected users' claims that logging would restrict subsistence because they offered their evidence after the agency completed its FONSR. Under NEPA law, even without their evidence, the plaintiffs could have used the agency's record to raise "substantial questions." A "substantial questions" inquiry might have led the court to enjoin the project, because the Forest Service later found sufficient evidence of restrictions to trigger tier-II.

Reducing users' burden would improve their ability to participate in development decisions and give them greater access to tier-II hearings. The burden shift also would help prevent an agency from overlooking a threat of restriction, and ensure it made the substan-

(remanding for reconsideration whether injunction should issue). The Ninth Circuit will defer to an agency’s analysis of the record only if it is “fully informed and well considered.” See Seattle Community Council, 961 F.2d at 832; Friends of Endangered Species, Inc. v. Jantzen, 760 F.2d 976, 986 (9th Cir. 1985); cf. Vermont Yankee Nuclear Power Corp. v. NRDC, 435 U.S. 519, 558 (1978) (employing same phrase). The Ninth Circuit has ordered injunctions for several projects supported by defective FONSI’s. See LaFlamme v. FERC, 852 F.2d 389, 403 (9th Cir. 1988); Sierra Club v. U.S. Forest Service, 843 F.2d 1190, 1195-96 (9th Cir. 1988); Thomas v. Peterson, 753 F.2d 759, 761, 765 (9th Cir. 1985).

313. See Kunaknana, 742 F.2d at 1151 (agency "conducted an extended analysis" of restrictions, "examined the relevant factors," articulated a "rational connection" between the facts it found and its FONSR, and included protective lease conditions "to preclude future restrictions on subsistence") (emphasis deleted).

314. See Hanlon, 740 F. Supp. at 1449-52 (Forest Service acknowledged increased competition, reduced game population, decreased habitat, and changed game distribution, but did not proceed to tier-II evaluation); see also Clough I, 750 F. Supp. at 1425 (following Hanlon, agency retained FONSR for only one analysis area of project); cf. Clough III, 915 F.2d at 1310 (project had a total of four areas).
tive findings of tier-II when required. Subsistence users lack the legal and technical expertise to build a tier-I record, while an agency has both the personnel and the duty to analyze subsistence impacts. The burden shift is even more appropriate to ANILCA than to NEPA because it is less difficult for an agency to complete a tier-II evaluation than an EIS. NEPA’s “substantial questions” model that allocates the burden of proving significant impacts is thus appropriate to meet Congress’ purpose of minimizing restrictions in ANILCA.

In addition to its allocation of burdens, NEPA’s impact “intensity” factors are useful in defining ANILCA’s significant restriction threshold. Three intensity factors in the CEQ definition of “significance” have been important in Ninth Circuit NEPA cases: (1) “highly controversial” effects, (2) “unknown risks,” and (3) “cumulative impacts.” Under the CEQ regulations, if project impacts are likely to be “highly controversial,” they may exceed the NEPA threshold. While the Ninth Circuit recently held that, absent widespread opposition, two FONSIs were not highly controversial, in two other cases the court overturned FONSIs because they were highly controversial. The D.C. Circuit has not applied this

315. See 16 U.S.C. § 3120(a) (duty to evaluate impacts); id. § 3112(1) (Congress’ policy to minimize subsistence impacts); 36 C.F.R. §§ 242.5, 242.10(a) (Interior and Agriculture Departments must accord preference to subsistence uses on public lands); 50 C.F.R. §§ 100.5, 100.10(a) (same); see also BERGER, supra note 3, at 47A-47X, 55-59 (depicting limited cash resources and subsistence economy of contemporary, rural Native villages).

316. “The following should be considered in evaluating intensity . . . . (4) The degree to which the [proposed project’s] effects on the quality of the human environment are likely to be highly controversial.” 40 C.F.R. § 1508.27(b)(4). “Controversial” refers to “cases where a substantial dispute exists as to the size, nature, or effect of the major federal action rather than to the existence of opposition to a use.” Foundation For North Amer. Wild Sheep v. U.S. Dep’t of Agric., 681 F.2d 1172, 1182 (9th Cir. 1982) (citing Rucker v. Willis, 484 F.2d 158, 162 (4th Cir. 1973)); LaFlamme v. FERC, 852 F.2d 389, 400-01 (9th Cir. 1988); Sierra Club v. U.S. Forest Serv., 843 F.2d 1190, 1193 (9th Cir. 1988). The “substantial dispute” must exist at the time the agency is deciding whether effects are significant. See Greenpeace Action v. Franklin, 982 F.2d 1342, 1353-54 (9th Cir. 1992).

317. In two recent cases, the Ninth Circuit held effects were not controversial because plaintiffs’ experts failed to object before the FONSI, see Greenpeace Action, 982 F.2d at 1352-53, or were opposed by all other parties after extensive
NEPA intensity factor. A project is more likely to meet ANILCA’s threshold if its effects are highly controversial because some users have judged it will create a significant restriction. An agency should afford these users the opportunity to review the project through a tier-II hearing because Congress identified such participation as one of its purposes in ANILCA.

Another intensity factor that defines NEPA significance is whether project impacts are “highly uncertain or involve unique or unknown risks.” The Ninth Circuit overturned FONSIs for projects with “unknown risks” in three NEPA cases, and the D.C. Circuit applied this factor in one case. Under ANILCA, a project is more likely to meet the significance threshold if it contains unknown risks because the extent of the restriction may be greater than an agency anticipates. Although NEPA’s “highly controversial” and “unknown risks” factors are difficult to quantify, both can

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318. See 40 C.F.R. § 1508.27(b)(5). The Ninth Circuit overturned FONSIs in three cases that addressed both the “unknown risks” factor and the “highly controversial” factor. See Sierra Club v. U.S. Forest Serv., 843 F.2d at 1194; Jones, 792 F.2d at 829; Wild Sheep, 681 F.2d at 1182 n.47. In other cases, the court upheld FONSIs against challenges that involved unknown risks, without expressly invoking this CEQ factor. Cf. Greenpeace Action, 982 F.2d at 1351-54 (agency need not prove EA used best scientific method, resolved disagreement over effects, or showed effectiveness of mitigation measures); Jantzen, 760 F.2d at 983, 985-86 (agency may base FONSI on biological study with known limitations if plaintiffs provide no better data). The D.C. Circuit relied upon the “unknown risks” factor in one case where it rejected an agency’s FONSI. See Foundation on Economic Trends v. Heckler, 756 F.2d 143, 155 (D.C. Cir. 1985).
assist agencies in defining when a project’s impacts reach the ANILCA significance threshold.

The final intensity factor that courts have reviewed in NEPA threshold cases is “cumulative impacts.” In Kleppe v. Sierra Club, the Supreme Court reasoned that an agency must include the “cumulative or synergistic” impacts of related projects in an EIS. The CEQ regulations now include an intensity factor for projects related to others that have foreseeable, “individually insignificant but cumulatively significant” impacts. The Ninth Circuit relied on cumulative impacts in holding that one project exceeded the NEPA threshold, and it was a contributor in two other cases requiring agencies to issue EISs. The D.C. Circuit has reviewed cumulative impacts in one NEPA case, affirming a FONSI.

In reviewing ANILCA threshold findings, courts have applied only the “cumulative impacts” factor, among all the NEPA intensity factors. The Ninth Circuit approved a FONSR based partly on a cumulative impacts study in Kunaknana, and affirmed that ANILCA required an agency to study cumulative subsistence impacts in Penfold and Clough. The district court required cumulative impacts studies under ANILCA in Penfold, and extended this requirement to include “reasonably foreseeable future” subsistence impacts in Hanlon. Although there is no express requirement to study cumulative impacts in ANILCA, the courts’ adoption of this NEPA factor is logical because such impacts increase the extent of subsistence restrictions. Thus, NEPA’s “cumulative impacts” factor

319. See Kleppe, 427 U.S. 390, 410 (1976); see also 40 C.F.R. § 1508.27(b)(7) (CEQ intensity factor); id. § 1508.7 (defining “cumulative impact”); cf. id. §§ 1508.25(a)(1), 1508.25(a)(2) (including “connected actions” and “cumulative actions” within scope of project that must be covered in a single EIS).

320. In Thomas v. Peterson, the Ninth Circuit used EIS scope regulations to require a cumulative EIS. See 753 F.2d 754, 758-61 (9th Cir. 1985). In two other cases that used the “highly controversial” intensity factor, the Ninth Circuit cited the CEQ definition of a cumulative impact and applied it in practice as an intensity factor. See LaFlamme, 852 F.2d at 401-02; Sierra Club, 843 F.2d at 1194-95. The court also followed Thomas in relying on the CEQ definitions of “connected actions” and “cumulative impacts” to overturn a Forest Service EA/FONSI in Save the Yaak Committee v. Block, 840 F.2d 714, 719-21 (9th Cir. 1988).


322. See Kunaknana, 742 F.2d at 1151; Penfold II, 857 F.2d at 1319-23; Clough III, 915 F.2d at 1312-13.
also serves as a useful model for agencies defining the ANILCA significance threshold.

The three intensity factors important for NEPA do not exhaust those an agency could use for ANILCA, because the two thresholds serve different purposes. The CEQ factors fail to address important facets of ANILCA, including its focus on subsistence uses and its requirement to study alternative projects that protect subsistence. Agencies defining the ANILCA threshold should specify subsistence-specific evaluation factors such as the relative resource dependence of different communities, availability of substitute resources, cultural and social aspects of resource sharing, and feasibility of other sites or alternative projects.\(^3\) To ensure uniformity, all federal land agencies should join in rule-making to define the ANILCA "significance" threshold.

IV. TIER-II EVALUATION

A. The Tier-II Findings: Substance or Procedure

The principal issue raised by tier-II is whether the three findings—(1) a restriction is "necessary" and "consistent" with sound management, (2) a project will use "minimal" land, and (3) an agency will "minimize" subsistence impacts—impose substantive limits on agency discretion.\(^3\) Although some commentators question its practical value, the substance-procedure distinction has loomed large in NEPA cases, and the Supreme Court has concluded NEPA contains no substantive limits.\(^3\) If tier-II is substantive,

323. \textit{Cf. supra} note 134 (referring to Alaska Land Use Council Work Group I proposal for definitions of "significance" under ANILCA); \textit{supra} notes 158 and accompanying text (referring to ALUC Work Group II proposal for standard methods of data collection and analysis to support subsistence evaluations).

324. \textit{See} Kerr Telephone Interview, \textit{supra} note 287; Rene Telephone Interview, \textit{supra} note 225; Pierce Telephone Interview, \textit{supra} note 225. A separate issue concerns the effort an agency should expend to comply with the hearing procedure of tier-II. \textit{Cf. Clough I}, 750 F. Supp. at 1425-26 (rejecting subsistence users' claims that notices and hearings were inadequate); \textit{ALASKA PULP 1989 SEIS}, \textit{supra} note 164, 1 Consolidated Appendix, app. B-1 Angoon, at 12, 16 (criticizing Forest Service for holding hearing when subsistence users were away); \textit{id.}, app. B-3 Hoonah, at 11, 30, 37, 53, 67 (same); \textit{id.} app. B-10 Tenakee Springs, at 6-7 (same). An agency must design its notice and hearing procedures to take full advantage of the expertise of local subsistence users.

ANILCA will require an agency to design subsistence-protective alternatives, and to select the most protective alternative that is practicable.

The plain language of the three findings appears to impose substantive standards on any agency that approves a project. The words in subsection 810(a)(3) do not give an agency numerical limits, but they do require it to rank its alternatives according to their subsistence impacts. The tier-II language also gives an agency project design criteria: each alternative must avoid unnecessary restrictions, be consistent with sound management, use minimal land, and include steps to minimize impacts. On the other hand, the language of subsection 810(d) refers to the evaluation requirements of subsection 810(a) as “procedural.” One agency, the Forest Service, has argued that tier-II is purely procedural, and therefore places no limit on its discretion to design and select alternatives.326

The Supreme Court’s 1987 decision in Amoco focused on whether, given a violation, ANILCA mandated an injunction. The Court’s analysis, developed in the prior case of Weinberger v. Romero-Barcelo, found no inescapable inference that Congress intended to mandate injunctions for ANILCA violations.327 The Court held that the “underlying substantive policy” of ANILCA was to protect subsistence resources from unnecessary destruction.328

(1989) (finding that although other statutes may impose substantive obligations on federal agencies, NEPA merely prohibits uninformed agency action); see also David C. Shilton, Is the Supreme Court Hostile to NEPA? Some Possible Explanations for a 12-0 Record, 20 ENVTl. L. 551, 564-66 (1990) (noting that the Supreme Court has refused to engage in substantive review in NEPA cases; there is no way to translate NEPA’s environmental goals into judicially manageable standards); Nicholas C. Yost, NEPA’s Promise—Partially Fulfilled, 20 ENVTl. L. 533, 534, 539-49 (1990) (Supreme Court has prevented agencies from implementing substantive protections Congress intended); cf. Coggins & Van Dyke, supra note 286, at 650-51 (noting that “procedure is not easily severed from substance, and even strictly procedural requirements inevitably have substantive consequences”).

327. See Amoco, 480 U.S. at 541-44 (citing Weinberger v. Romero-Barcelo, 456 U.S. 305, 311-15 (1982)) (courts retain equitable discretion to grant or deny injunction unless Congress withdraws it expressly or by “necessary and inescapable inference”).
328. Id. at 544. The Amoco Court agreed with the district court that no injunc-
The holding did not resolve the nature of tier-II because the Court did not address whether this policy imposed any substantive duty on an agency. Because its discussion in *Amoco* assumed the Interior Department *did* violate ANILCA, the Court did not explore how far an agency could restrict subsistence without a violation.

Two years after the Court decided *Amoco*, the First Circuit discussed the requirements of ANILCA to distinguish it from NEPA. In *Sierra Club v. Marsh*, the court suggested an injunction was the proper remedy for an agency’s inadequate EIS.\(^3\)\(^2\)\(^9\) The First Circuit reasoned that a NEPA violation was less likely to be reparable because NEPA lacked substantive standards like those a court could use to repair a project violating ANILCA.\(^3\)\(^3\)\(^0\) The court’s interpretation that tier-II findings “curtail[ ] the range” of agency choices seems to accord with the language of ANILCA.\(^3\)\(^3\)\(^1\) The Ninth Circuit, however, has never commented on the First Circuit’s *dictum* that tier-II is substantive.

The Ninth Circuit has had the opportunity to review actual tier-II findings only in *Clough*, where it failed to discuss whether it interpreted tier-II as substantive.\(^3\)\(^3\)\(^2\) The Forest Service findings in *Clough*’s EIS each contained one short paragraph reciting the tier-II language and referring generally to other EIS chapters. The district court reasoned that the agency had a substantive duty to make these findings true in selecting among its project alternatives. According to the court, however, the agency had no predicate duty to include subsistence in the initial design of its alternatives. Based on the
Forest Service's narrow range of alternatives, and on deference to the conclusions that resulted, the court upheld all of the tier-II findings. The district court's analysis was flawed because an agency must design alternatives that protect subsistence before it can select one that conforms with tier-II.

Tier-II does not expressly limit an agency's discretion to design alternatives, but finding (A) requires that any restriction flowing from the one it chooses be "necessary" to make the new use feasible. To be rational, then, the agency must show that the new use would fail, whether for economic, engineering, or ecological reasons, if it selected another alternative that better protected subsistence. Findings (B) and (C) require that the agency's chosen alternative take the minimal area of land and cause minimal impacts, consistent with the feasibility of the new use. Again, a rational choice must show that the new use would not be feasible under an alternative that further reduced land area and subsistence impacts.

To support such a choice, an agency must design alternatives that reduce the subsistence restriction, land area, and impacts, and then determine whether these alternatives will compromise the feasibility of its new use. The agency must rank the alternatives that are compatible with the new use to determine which causes the least restriction, as required in the tier-II findings. In Clough, for example, the Forest Service should have defined the limit of subsistence protection by reducing logging to protect varying levels of subsistence, and determining the greatest protection that allowed logging to remain feasible. The district court's deference to the


334. Even if the Forest Service had complied with NEPA's requirement to study a "no action" alternative, that would not have satisfied tier-II of ANILCA. Tier-II requires an agency to choose an alternative that maximizes subsistence protection, consistent with completing its project; not merely to study a theoretical alternative that eliminates the project. See Amoco, 480 U.S. at 546 (Congress established section 810 as "a framework for reconciliation, where possible, of competing public interests"). But cf., e.g., 2 U.S. DEPT. OF AGRICULTURE FOREST SERVICE, TONGASS LAND MANAGEMENT PLAN REVISION—SUPPLEMENT TO THE DRAFT ENVIRONMENTAL IMPACT STATEMENT, ch. 3, at 764 (Aug. 1991) (rept. R10-MB-149) (finding restriction "necessary" to meet forecast demand for timber, without studying any alternative free of impact on subsistence).
agency's definition of its project was misplaced. The Forest Service had no discretion to ignore protective alternatives because tier-II imposed a substantive requirement to minimize subsistence impacts.

The interpretation that tier-II imposes substantive requirements is not inconsistent with subsection 810(d)'s reference to "procedural" ones. Congress drafted section 810 to reflect the holding of Citizens to Preserve Overton Park v. Volpe,335 in which the Supreme Court applied the substantive standard "no feasible and prudent alternative" restricting federal highways through parks.336 In Overton Park, the Court halted a highway because an agency did not consider all of the "relevant factors." Like the highway statute in Overton Park, but unlike NEPA, section 810 requires an agency to select the alternative that causes the least harm to certain resources. To fulfill this requirement, the agency must consider a relevant factor: whether some feasible alternative can better protect subsistence. Like the highway statute, tier-II includes its "necessary," "minimal," and "minimize" requirements in an agency's project review procedure. Although the agency must satisfy that procedure in tier-II, Congress designed the process to achieve the substantive outcome of minimizing a project's impact on subsistence. The substantive requirements of tier-II, and Clough's interpretation of each finding, are discussed below.

B. Finding (A): Restriction is Necessary and Consistent

The first tier-II finding is that the subsistence restriction caused by a project is "necessary, consistent with sound management principles for the utilization of the public lands." Although both "necessity" and "consistency" with sound management are elements of finding (A), these two elements impose separate duties on an agency.

1. The Finding of Necessity

In *Clough*, subsistence users argued it was not “necessary” for the Forest Service to restrict subsistence merely to meet a contract, and that a project must promote more of Congress’ land use objectives than a single timber contract to be necessary. The district court reasoned that no project could promote the objectives of every statute, thus an agency need only find a restriction necessary to promote one of the uses Congress designated for a reservation. The court was partially correct in its interpretation of finding (A), but it did not go far enough in reviewing the agency’s “necessity” analysis to effectuate Congress’ scheme.

To manage the public lands, agencies had to have some discretion to select the best use for each tract. Congress recognized this need for flexibility through the “necessary” requirement in finding (A), which stopped short of making subsistence the paramount use. Instead, this language commanded agencies to balance existing subsistence uses in each reservation against other uses Congress designated as permissible. Congress provided a process—the tier-I evaluation and the tier-II hearing—to that each agency would involve subsistence users and obtain information to minimize new restrictions. At the end of this process, the tier-II findings imposed substantive standards on an agency balancing other uses against subsistence.

In *Clough*, tier-II did not bar the agency making that balance from satisfying private interests at the same time it served the public interest. The Forest Service made a lawful policy choice to promote timber harvesting because that was a use Congress intended in the Tongass National Forest. Tier-II imposed duties on the For-

338. See *City of Tenakee Springs v. Franzel*, No. J86-024 CIV, slip op. at 24 (D. Alaska May 24, 1991) (“Congress refrained from using the word ‘unavoidable’ which would impose an absolute duty on federal agencies, and opted for the word ‘necessary’”); cf. *Overton Park*, 401 U.S. at 411-13 (stating that statutes excluding highway unless there was no “feasible” and “prudent” alternative raised park protection to paramount importance, but still permitted highway in case of “truly unusual factors,” costs reaching “extraordinary magnitudes,” or “unique problems”); *supra* notes 137-39 and accompanying text (tracing Congress’ adoption of the word “necessary”).
339. See ANILCA §§ 703, 705, 706, 16 U.S.C. §§ 539d, 1132, 539c (mandat-
est Service to minimize the use of subsistence lands and take reasonable steps to minimize subsistence impacts. Provided it met those duties, the agency could find a subsistence restriction "necessary" to satisfy a private timber contract.\(^3\)\(^4\) As far as it went, the court's analysis accepting that agency purpose did no violence to Congress' scheme, but the court omitted a second, essential step.

Finding (A) demands that a restriction, not just a project, be "necessary." A restriction is the product of both the project purpose and the means that an agency chooses to effect it. The means are determined, in part, by section 810, because tier-I requires an agency to look at all its land to locate subsistence uses and alternate project sites. Further, tier-II requires an agency to rank the subsistence value of each site, to support its findings.\(^3\)\(^4\)\(^1\) If some lands are more highly valued for subsistence, it is irrational to select those sites for a new project that is feasible elsewhere. Only if the lands most valued for subsistence are the ones needed to make a project feasible is it "necessary" to take valuable subsistence land. ANILCA's protection is thus similar to the highway act in *Overton*...
Park, which allows an agency to take park land only if there is no feasible and prudent alternative. If there is a feasible alternative, ANILCA requires an agency to find it unnecessary to use valuable subsistence land.

In Clough, the Forest Service’s choice of means is troubling because it suggests the subsistence restriction was not “necessary.” The agency justified logging prime subsistence lands based on its interpretation that the contract required it to sell timber—more than the buyer could cut. Under section 810, the agency had a duty to minimize subsistence restrictions from its land management by taking a hard look at the constraints it placed on project planning. It had amended its logging contract before. If there was an alternative to using highly-valued subsistence land, such as reinterpreting the contract or amending it again, the restriction was not necessary. In that event, the court should have held that the agency’s “necessary” finding violated section 810.

2. The Finding of Consistency with Sound Management

In addition to the “necessary” finding, an agency must find a restriction “consistent with sound management principles for the utilization of the public lands.” This consistency requirement must be interpreted in light of Congress’ directives throughout ANILCA for agencies to conserve healthy populations of subsistence species by applying scientific game management methods. In enacting these directives, Congress recognized that conserving subsistence species required agencies to protect their habitats, in addition to managing the game. Accordingly, in making tier-II’s consistency finding,

342. See Clough III, 915 F.2d at 1311 (“not at all clear that the contract requires the government to make available to APC hundreds of millions more board feet than it could possibly cut during the five-year period”).

an agency must determine that its land use planning for habitat supports existing, scientific game management prescriptions.

The principal game management prescriptions are invoked by section 804, which accords subsistence uses “priority over the taking on [public] lands of fish and wildlife for other purposes.” Under section 804, game managers have imposed prescriptions—hunting seasons and bag limits—to prevent subsistence shortages by regulating non-subsistence hunters. Federal land agencies, however, have never specified that a project must be consistent with these game management regulations in their section 810 guidelines. This omission may have arisen from the original separation between game management by the state and public land management by federal agencies, but it ignores Congress’ intent to integrate habitat protection with sound game management. Further, the absence of game management prescriptions from section 810 consistency findings is now particularly egregious because the section 804 priority is administered by a federal subsistence board. To provide Congress’ full protections, tier-II evaluations must specify how a

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345. See 36 C.F.R. § 242.10(a), (c)(3); 50 C.F.R. § 100.10(a), (c)(3); see also infra part V (discussing role of Federal Subsistence Board and opportunity to integrate habitat and game management by regulation); cf., e.g., NORTHWEST BARANOF 1995 DEIS, supra note 164, ch. 4, at 23, 45-46, 51-53, 55-59 (referring to deer shortage and need to manage non-subsistence hunting, but making “consistency” finding without specifying measures to accommodate game management to habitat loss induced by project).
project's subsistence restriction is consistent with existing game management prescriptions, or how the agency will amend those prescriptions to prevent a shortage as required by section 804. If a project creates a subsistence shortage, the consistency finding must specify how the agency will implement the abatement priority among subsistence users that section 804 also requires.

In Clough, the only consistency finding litigated to date fell short of Congress' standards. The Forest Service finding provided a list of statutes and a pro forma statement that the preferred alternative was consistent with them. The agency's record, however, showed existing problems with game management prescriptions, and anticipated that its project would necessitate amended regulations for both non-subsistence and subsistence hunters. The Forest Service also acknowledged it had not ensured that state law management prescriptions would be amended. Given the failure to integrate land management with game management, the district court should have remanded the tier-II consistency finding rather than deferring to the agency. Further, given Congress' emphasis on protecting subsistence, the court should have required the Forest Service to investigate alternatives with lesser habitat destruction before finding its project consistent under ANILCA.

C. Finding (B): Project Takes the Minimal Area of Public Lands

The second tier-II finding is that an agency will use "the minimal amount of public lands necessary to accomplish the purposes" of its project. In Clough, the Forest Service determined that its lands most highly valued for subsistence were also most valuable for its

346. See ALASKA PULP 1989 SEIS, supra note 164, ch. 4, at 20-32, 80-85, 115-120, 123-125; see also Hanlon, 740 F. Supp. at 1453 (Forest Service projected that cumulative impacts of logging would drop deer population "substantially below the level necessary to meet expected harvest demand" by the year 2080). The Forest Service recommended that the state amend its management regulations to compensate for federal development of habitat, but acknowledged that it did not know whether the state would respond. See Clough II, 750 F. Supp. at 1432.

logging project. The agency interpreted finding (B) to require the sacrifice of these subsistence lands, to minimize its overall use of public land. The district court recognized that minimizing the use of subsistence lands would be more consistent with the purpose of section 810, but held that it was bound by ANILCA's definition of "public lands" which included all federal lands in Alaska. The court's decision permitting the agency to log the best subsistence lands to save non-subsistence lands was contrary to the language, purpose, and legislative history of section 810.

The purpose of section 810 is to preserve subsistence resources by protecting their habitat from unnecessary destruction, and Congress designed the language and structure of subsection 810(a) to promote this purpose. Tier-I requires an agency to evaluate "public lands" with reference to any public lands it considers for disposition, but tier-II requires it to evaluate "such lands" with apparent reference to the immediately preceding clause: "public lands needed for subsistence purposes." Consistent with this statutory struc-

348. See Clough I, 750 F. Supp. at 1428; see also ALASKA PULP 1989 SEIS, supra note 164, ch. 4, at 28-32, 84-85, 119-120 (preferred alternative number 3, causes greatest habitat loss for principal subsistence species). Subsistence users construed finding (B) to require an agency to minimize its use of subsistence land rather than its overall use of public land. See Clough I, 750 F. Supp. at 1428. Thus, unlike findings (A) and (C), the dispute in finding (B) concerned a pure question of law. See id.; cf. Hanlon, 740 F. Supp. at 1455 n.50 (judicial deference to Forest Service inappropriate where its construction conflicted with clear intent of Congress). The agency's interpretation of finding (B) may have evolved subsequent to Clough. See 1 U.S. DEPT. OF AGRICULTURE FOREST SERVICE, CENTRAL PRINCE OF WALES FINAL ENVIRONMENTAL IMPACT STATEMENT—KETCHIKAN PULP COMPANY LONG-TERM TIMBER SALE CONTRACT ch. 3, at 316 (July 1993) (report R10-MP-229a) (statement in tier-II finding (B) that agency made effort "to protect the highest value subsistence areas"); see also NORTHWEST BARANOF 1995 DEIS, supra note 164, ch. 4, at 41, 45 (preferred alternative number 1, had least impact on game of four action alternatives, and also lowest total acreage of public lands used).

349. See Clough, 750 F. Supp. at 1428; see also id. at 1429 (minimizing use of subsistence lands is more consistent with the purpose of section 810); cf. 16 U.S.C. § 3102(3) (defining public lands as federal lands in Alaska); Amoco, 480 U.S. at 547-49 (construing definition of public lands narrowly).

350. Compare tier-I (applying section to "disposition of public lands under any provision of law") with tier-II (following tier-I search for alternatives to reduce "disposition of public lands needed for subsistence," agency must complete tier-II
ture, finding (A) requires that restrictions flowing from a use of subsistence land be necessary, finding (B) that a use of subsistence land be minimal in area, and finding (C) that a use of subsistence land be conditioned to minimize its impacts. The district court in Clough overlooked this natural reading of subsection 810(a) when it referred to the definition section of ANILCA to ascertain the meaning of “public lands.”

The court’s interpretation of finding (B) also undermined Title VIII’s protective purpose by affirming the sacrifice of highly valued subsistence lands. Congress could not have intended that result when it cautioned agencies to “cause the least adverse impact possible” on subsistence users. It is highly unlikely that Congress envisioned a situation where minimizing the development of public lands would aggravate the loss of subsistence land. Finding (B) simply does not seem artful in its use of the defined term “public lands” because the structure and purpose of the section show Congress sought to protect subsistence lands, not public lands in general.

If there is any ambiguity in finding (B), reference to its legislative history is appropriate. The House bills with the first versions of section 810 applied it only within subsistence zones, so

findings for any “disposition of such lands which would significantly restrict subsistence uses”). 16 U.S.C. § 3120(a) (emphasis added). Under the Forest Service’s proposed construction, it would have made no sense for Congress to refer, in tier-II to “such lands,” because it could have simply said “public lands.” See id.; cf. Clough, 750 F. Supp. at 1428 (“public lands” is always term of art).

351. See 16 U.S.C. § 3112(1); see also id. § 3101(c) (purpose of ANILCA to provide opportunity to continue subsistence lifestyle, consistent with wildlife conservation and other reservation purposes).

352. See Chevron, U.S.A., Inc. v. NRDC, 467 U.S. 837, 842-43 (1984) (if Congress’ intent is clear, there is no reason to resort to agency interpretation or legislative history). The district court found no reason to apply the canon of construction that interprets ambiguities in favor of Natives, in laws enacted to benefit them. See Clough I, 750 F. Supp. at 1428; cf. Amoco, 480 U.S. at 555 (finding no ambiguity in definition of public lands, under same canon). If there was ambiguity in finding (B), the purpose of title VIII as Native legislation, the inclusion of Native villagers in Clough, and the status of the agency as one of several administering section 810 should have offset the court’s deference to a Forest Service interpretation. See Village of Gambell v. Clark, 746 F.2d 572, 581-82 (9th Cir. 1984) (canon of construction applied to Title VIII).
minimizing non-subsistence lands was not an issue.\textsuperscript{353} New bills deleted the subsistence zones, making section 810 applicable to all federal lands, and added tier-II’s finding (B).\textsuperscript{354} It could be argued that these amendments fundamentally changed section 810 to protect subsistence by protecting all public lands, but the actual changes in wording were minor. Tier-I still requires an agency to evaluate “other lands,” referring to lands with fewer “subsistence uses and needs.” Tier-II still requires an agency to develop only those subsistence lands that are “necessary,” and to “minimize” subsistence impacts. Tier-I and findings (A) and (C) thus remain consistent with Congress’ original scheme in the subsistence zone era—they protect subsistence lands. This history suggests that finding (B) has the same purpose: to minimize development of subsistence lands. In \textit{Clough}, the district court thwarted this purpose when it held finding (B) to protect overall public land at the expense of subsistence land.

D. Finding (C): Agency Will Minimize Impacts

Section 810 requires that “reasonable steps will be taken to minimize” a project’s subsistence impacts. In \textit{Clough}, the district court upheld the steps—thinning trees, closing minor roads, training loggers to avoid bears, and asking the state to change hunting regulations—that the Forest Service proposed to minimize impacts. In approving these steps, the court rejected subsistence users’ claims that the word “reasonable” required the agency to take all reason-

\textsuperscript{353} See H.R. 10888, 95th Cong., 2d Sess. § 601(b), (j) (Feb. 9, 1978) (review applies in “subsistence management zones” in new reservations); see also H.R. 39, 95th Cong., 1st Sess. §§ 703(3), 704(a), 714 (Oct. 17, 1977) (review applies in “regional subsistence zones” that include all subsistence lands in Alaska along boundaries of the 12 Native regional corporations); H.R. 39, 95th Cong., 1st Sess. §§ 703(3), 704(a), 714 (Oct. 28, 1977) (same). In these early versions, one tier-I review factor was the availability for the project of “lands outside a subsistence management zone.” See H.R. 10888, 95th Cong., 2d Sess. § 601(j) (Feb. 9, 1978); see also H.R. 39, 95th Cong., 1st Sess. § 714 (Oct. 17, 1977) (review factor is availability to project of “non-subsistence lands”); H.R. 39, 95th Cong., 1st Sess. § 714 (Oct. 28, 1977) (same).

able impact-minimizing steps, and that these steps must be adequate to protect subsistence. The court also rejected the users’ contention that the word “minimize” required the agency to reduce subsistence impacts to their smallest value.\(^3\) The court summarily deferred to the agency, accepting its legal interpretation of finding (C), but this interpretation recognized only part of Congress’ design in section 810.

A land manager must have discretion to trade off factors in a planning decision, and the adjective “reasonable” allows an agency to decide what steps will minimize subsistence restrictions. The word “reasonable” in finding (C) neither requires an agency to take all available steps nor cabins an agency’s choice of protective steps with a substantive standard.\(^3\) The word “minimize,” however, does supply a substantive standard for the level of subsistence protection an agency must provide. “Minimize” goes beyond the familiar environmental standard—“mitigate”—and requires an agency to do more than just reduce a project’s impacts.\(^3\) It must reduce the

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355. See Clough I, 750 F. Supp. at 1429; see also City of Tenakee Springs v. Franzel, No. J86-024 CIV, slip op. at 27-28 (D. Alaska May 24, 1991) (rejecting subsistence users’ argument that “minimizing” steps must reduce impacts to their smallest degree, in contrast to “mitigation” measures which reduced impacts’ severity); Appellants’ Joint Brief at 33, City of Tenakee Springs v. Franzel, 960 F.2d 776 (9th Cir. 1992) (Nos. 91-35520, 91-35522) (subsistence users’ argument that “minimize” is more substantive standard than “mitigate”); Appellants’ Reply Brief at 19, City of Tenakee Springs v. Franzel (Nos. 91-35520, 91-35522) (same). The subsistence users’ principal contentions were that the Forest Service failed to consider cutting less timber, closing its logging roads to reduce competition from non-subsistence hunters, or using timber harvest techniques developed by its biologists under its “New Perspectives” program. See id. at 19-21; Appellants’ Joint Brief at 33-35, Franzel, supra.

356. Cf. Sierra Club v. Marsh, 872 F.2d 497, 503 (1st Cir. 1989) (suggesting that tier-II requires an agency to modify project if it “unreasonably harms” subsistence). Early bills used the word “adequate” in finding (C), but Congress substituted the more familiar legal standard of reasonableness. See supra note 141 (Senate report suggests “reasonable” and “adequate” are functionally equivalent).

357. See supra note 305; see also 40 C.F.R. § 1508.20(b) (1995) (NEPA regulation treating “minimizing impacts” as a specific type of “mitigation,” separate from avoiding, rectifying, reducing over time, or compensating for, impacts). Although “minimize” and “mitigate” clearly have different meanings, there has been much confusion of the two terms, even in the courts. See Akutan II, 792 F.2d at 1377-78 (using terms interchangeably in describing tier-II); Clough II,
impacts to a definite end point: the smallest subsistence restriction the new use can cause and still remain feasible. An agency need not employ heroic measures, but when it has chosen how to minimize subsistence impacts, it must continue to add steps to further reduce a restriction as long as they remain reasonable. The difficulty for an agency arises from Congress’ use of the flexible word “reasonable” to implement the substantive “minimize” standard.

An agency’s inquiry into what is “reasonable” raises two questions. First, an agency must determine which of the potential steps it knows of are “reasonable.” In this context, the “minimize” standard suggests it must take all known steps that reduce a restriction. An agency may, after study, reject a step that will not ef-

750 F. Supp. at 1432 (Forest Service “mitigation measures” that comply with finding (C)); cf. BLM GUIDELINES, supra note 145, app. 10 (suggesting tier-II format as: “the following mitigation measures . . . will be used to minimize adverse impacts”).

358. ANILCA’s use of this “minimize” standard is not unique. The highway statutes in Overton Park required an agency to use “all possible planning to minimize harm.” Citizens to Preserve Overton Park, Inc. v. Volpe, 401 U.S. 402, 404 n.2, 405 n.3 (1971). Regulations implementing section 404 of the Clean Water Act, 33 U.S.C. § 1344(a), require an agency permitting discharge of dredged or fill material into navigable waters to ensure “appropriate and practicable steps have been taken which will minimize” the impacts. See 40 C.F.R. § 230.10(d) (1995); see also id. § 230.12(a) (1995) (agency may impose permit conditions to minimize impacts). These examples illustrate that “minimize” can be an enforceable, substantive standard. See Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 351-53 (1989) (highway statute in Overton Park “may impose substantive environmental obligations on federal agencies”).

359. That is, an agency that has designed a project and evaluated its subsistence impacts must further study the effectiveness of all measures it knows may reduce those impacts. An agency need not use all available measures because some may be redundant, detrimental in combination with others, or destructive to the feasibility of a project. Rather, it must evaluate the effectiveness of all protective measures it knows of. The district court evidently overlooked this distinction when it held “[t]he Forest Service is not required to consider ‘all’ reasonable alternatives.” City of Tenakee Springs v. Franzel, No. J86-024 CIV, slip op. at 28 (D. Alaska May 24, 1991). An agency is required to consider all measures it knows of, and to decide what combination it can use most effectively, before it can conclude rationally that it has minimized subsistence impacts.

360. This duty must be bounded by feasibility of the subsistence-protective step, feasibility of the project after the agency implements the step, and the re-
fectively reduce subsistence impacts as an unreasonable waste of effort. If a step reduces impacts, however, an agency cannot avoid that effort by implementing a cost-benefit analysis because Congress recognized non-economic values in protecting subsistence. An agency can only avoid an effective step if that step would render its new use infeasible, because Congress made subsistence co-equal with the other uses it designated for the federal lands.

The second question facing an agency is how hard it must look to find unknown impact-minimizing steps. Clearly, an agency must consider steps disclosed by public comment under tier-II and NEPA, and must investigate whether each will be effective. If an agency rejects a suggestion, it has the burden of showing the step would be ineffective, because finding (C) requires it to minimize project impacts. Congress could not have expected users to prove the efficacy of proposed steps because the limited income produced by their subsistence economy cannot support research. An agency must also search for unknown impact-minimizing steps, beyond those suggested in public comments, because Title VIII expresses Congress' mandate to protect subsistence. Judicial over-

quirements of other laws. See 16 U.S.C. § 3120(d) (agency must comply with other applicable laws); see also Vermont Yankee Nuclear Power Corp. v. NRDC, 435 U.S. 519, 551 (1978) (under NEPA, "the concept of alternatives must be bounded by some notion of feasibility"); cf. Methow Valley Citizens, 490 U.S. at 352-53 (unlike NEPA, a substantive statute may demand that an agency fully develop a plan to mitigate harm before it acts).

361. The district court took the opposite view: "plaintiffs have failed to carry their burden of proving the existence of viable, preferable, ascertainable mitigation alternatives, or of showing why the [Forest] Service's proposal is 'arbitrary and capricious.'" Clough I, 750 F. Supp. at 1429. A party challenging an agency does have the burden of showing its finding irrational, but the court overlooked the agency's predicate burden: to "examine the relevant data and articulate a ... rational connection between the facts found and the choice made."" Motor Vehicle Mfrs. Ass'n of the United States v. State Farm Mut. Auto. Ins. Co., 463 U.S. 29, 43 (1983) (citations omitted). If an agency makes its choice of impact-minimizing steps without evaluating a suggested measure, its finding is not "'based on a consideration of the relevant factors'" and cannot stand. Id. (quoting Bowman Transp. v. Arkansas-Best Freight Sys., Inc., 419 U.S. 281, 285 (1974)); cf. City of Davis v. Coleman, 521 F.2d 661, 671 (9th Cir. 1975) (compliance with NEPA should not depend on proof, by plaintiffs with limited resources, that project will have particular effects, because it is federal agency's duty to evaluate project's effects).
sight of that open-ended search should be circumspect, but an agency must respond to Congress' command to "minimize" impacts on subsistence.

In Clough, there were sharp factual disputes between the Forest Service and subsistence users over three impact-minimizing steps, but the foregoing framework suggests the appropriate analysis if the details were available. The first dispute concerned the number of logging roads the agency would close to reduce competition from non-subsistence hunters. The agency reasoned that it should leave major roads open to aid hunters. Subsistence users contested this choice, however, arguing that non-subsistence hunters were motorized, while they hunted from boats. The court should have analyzed the dispute as an agency's avoidance of a known impact-minimizing step. The Forest Service could have readily learned the efficacy of closures because it had subsistence use surveys and models of deer availability. The agency had the burden of showing that any closure it rejected would not have protected subsistence. Had it demanded that showing, the court could have reviewed whether additional road closures were a "reasonable" step. Only if additional closures were unreasonable was the agency's finding valid.

362. Compare Appellants' Joint Brief at 33-35, City of Tenakee Springs v. Franzel, 960 F.2d 776 (9th Cir. 1992) (Nos. 91-35520, 91-35522), and Brief for Hanlon Appellants at 38-41, Clough III, 915 F.2d 1308 (9th Cir. 1990) (Nos. 90-35516, 90-35527) with Consolidated Opposition to Plaintiffs' Motions for Summary Judgment and Reply to Opposition to Federal Defendants' Motion for Summary Judgment at 19-27, City of Tenakee Springs v. Franzel (D. Alaska May 24, 1991) (No. J86-024 CIV). In addition to the factual disputes, there was a fundamental disagreement whether the Forest Service must consider amending its long-term contract to permit less logging and lower impacts. See Appellants' Joint Brief at 33, City of Tenakee Springs v. Franzel, supra; Memorandum of Federal Defendants in Support of Motion for Summary Judgment on Amended Complaint of Hanlon Plaintiffs and Opposition to Motion for Preliminary Injunction Sought by Hanlon Plaintiffs at 7-11, Clough I, 750 F. Supp. 1406 (No. J86-024 CIV); Clough III, 915 F.2d at 1311-13.

363. The Forest Service did decide to close spur logging roads, but not main roads. See Clough I, 750 F. Supp. at 1429. Although the agency considered the merits of road closures, it did not use its available data to quantify the subsistence impacts. See ALASKA PULP 1989 SEIS, supra note 164, ch. 2, at 28-29, 38, 45, ch. 4, at 80, 123-25, 131-32, 134, 136, 137-38.

364. The issue of road closures was related to another disputed issue—whether
The second factual dispute was over the method of logging the Forest Service employed. The agency contended that it made an appropriate tradeoff among known methods to harvest timber and protect wildlife, while subsistence users argued that techniques of "new forestry" would reduce impacts further. If new forestry had unknown effectiveness, the court should have employed the reasonableness inquiry for steps unknown to an agency. Under that inquiry, the court should have determined whether the agency conducted an evaluation within the time and budget limits of its project. The court had to accept the agency's account of those limits if there was support in the record, but common sense suggests the agency should have tested techniques that might be useful later in a fifty-year contract. Only if new forestry had proved

the Forest Service could delegate its impact-minimizing steps to the state—because the agency proposed state game regulation as the solution to non-subsistence hunting competition created by road access. See ALASKA PULP 1989 SEIS, supra note 164, ch. 4, at 123-24. If road closure and game regulation could each accomplish the same protection, the agency had discretion to choose which step it preferred. If both steps together would further protect subsistence, however, the agency was required to use both, because the "minimize" standard required it to employ all effective steps. See supra note 369 and accompanying text; see also infra note 356 and accompanying text (discussing agency's duty to implement its suggestions for game management).


366. The agency argued that it had incorporated new forestry into timber sale planning under its "New Perspectives" program. See Consolidated Opposition to Plaintiffs' Motions at 25-27, City of Tenakee Springs v. Franzel (D. Alaska May 24, 1991) (No. J86-024 CIV). Subsistence users argued that the agency had incorporated more effective steps recommended by its own experts into another timber sale, but not into the Clough sale. See Appellants' Reply Brief at 19-20, City of Tenakee Springs v. Franzel, 960 F.2d 776 (9th Cir. 1992) (Nos. 91-35520, 91-35522).

367. See Marsh v. Oregon Natural Resources Council, 490 U.S. 360, 385 (1989) (if the agency took a hard look, it was permitted to conclude that new scientific evidence did not merit supplemental EIS); cf. O'TOOLE, supra note 201,
ineffective at reducing impacts or had foreclosed the logging contract, should the court have validated the agency's finding (C).

The third factual dispute was over a Forest Service suggestion that the state might need to impose management regulations to control competition from nonsubsistence hunters. The Forest Service reasoned that it had no jurisdiction to control hunting because the state, at that time, had the power and duty to enforce the subsistence preference.368 The Forest Service also argued that it had taken other measures to "mitigate" habitat damage from logging, even if the state failed to issue the regulations. In opposition, subsistence users contended that the Forest Service's suggestions to the state were too vague, and finding (C) required an agency itself to take steps, rather than delegating these steps to the state.369 The court reasoned that the Forest Service could properly delegate its impact-minimizing steps, unless the users showed that reliance on the delegation was irrational. The court held that, irrespective of any delegation, the Forest Service had properly asserted that its own ac-

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368. See Memorandum of Federal Defendants in Support of Motion for Summary Judgment on Amended Complaint of Hanlon Plaintiffs and Opposition to Motion for Preliminary Injunction Sought by Hanlon Plaintiffs at 28-29, Clough I, 750 F. Supp. 1406 (No. J86-024 CIV) (deer harvest exceeds pre-logging capacity of area and key to reducing competition is not road closures but state game bag limits). Following the federal takeover of subsistence management in 1990, the Forest Service continued to argue it could not control hunting because it had only one of five seats on the Federal Subsistence Board. See Consolidated Opposition to Plaintiffs' Motion at 22-23, City of Tenakee Springs v. Franzel (D. Alaska May 24, 1991) (No. J86-024 CIV).

369. See Brief for Hanlon Appellants at 39-41, Clough III, 915 F.2d 1308 (9th Cir. 1990) (Nos. 90-35516, 90-35527); see also ALASKA PULP 1989 SEIS, supra note 164, ch. 4, at 123-24 ("at some point, the Alaska Board of Game may have to use its authority to further regulate non-subsistence harvest of deer due to the competition ... They may also have to prioritize the harvest of deer among [subsistence users]"); id. at 136 ("[s]tate regulatory opportunities for establishing seasons, bag limits, access permits, and licensing were evaluated as good for ... subsistence concerns, but are outside the Forest Service authority").
tions minimized subsistence impacts. The holding suggests that the court made an unduly narrow interpretation of finding (C).

The court should have analyzed this third dispute as a challenge to an agency's avoidance of a known impact-minimizing step. The court's legal conclusion, that an agency could delegate steps to a reliable actor, was supportable. The Clough case, however, contained factual questions that undermined the propriety of the Forest Service delegation. Users questioned the specificity of its proposals, and the Forest Service was uncertain whether the state would follow them, negating its claim of proper delegation. The fact that it had no power over state regulation did not excuse the Forest Service from its duty because it had independent authority to regulate hunting directly, or could have obtained a commitment from the state. Any Forest Service delegation to the state had to be enforceable, because finding (C) required that impact-minimizing steps "will be taken." If hunter regulation was an effective impact-minimizing step, the court should have held that the agency's failure to ensure regulation invalidated its finding (C).

In summary, Congress' purpose—protecting subsistence resources from unnecessary harm—requires an agency to give tier-II a more expansive interpretation than the Forest Service afforded it in Clough. Finding (A) requires an agency to determine there is no other feasible means to install a new use before finding a restriction "necessary." Finding (A) also requires an agency to determine a

371. The agency would remain responsible for defining how it would enforce the delegation because finding (C) gave it the duty to minimize project impacts. See 16 U.S.C. § 3120(a)(3)(C); cf. The Steamboaters v. FERC, 759 F.2d 1382, 1394 (9th Cir. 1985) (under NEPA, if an agency relies on mitigating measures to support a FONSR, it must specify how it will enforce those measures); LaFlamme v. FERC, 852 F.2d 389, 399-400 (9th Cir. 1988) (same); CASE, supra note 9, at 291 (citing Togiak v. United States, 470 F. Supp. 423, 428 (D. D.C. 1979)) (suggesting federal agencies also have a trust responsibility to maintain subsistence).
372. See 16 U.S.C. § 3125(3) (agency may restrict non-subsistence fishing and hunting only to protect fish and wildlife or subsistence); id. § 3126(b) (agency may close lands to fishing and hunting for game conservation); see also id. § 3116 (Interior Department has duty to monitor regulation and report exercise of federal "closure or other administrative authority to protect subsistence"); cf. id. § 551 (Forest Service may regulate occupancy and use of national forests).
restriction's consistency with other laws, including game management prescriptions that effect the subsistence preference of section 804. Finding (B) requires an agency to minimize its use of valuable subsistence land, even if it must employ a greater area of other federal land. Finding (C) requires it to take all known steps that increase subsistence protection, to justify rejecting other steps suggested by the public, and to develop new impact-minimizing steps. A reviewing court must scrutinize the factual basis for an agency's tier-II findings, and ensure its legal interpretations remain consistent with Congress' scheme to protect subsistence.

V. RECOMMENDATIONS

A. Section 810: Agency Implementation

The first recommendation is that federal land agencies develop new procedures that conform subsistence planning to Congress' protective purpose. Congress clearly sought to remedy deficiencies in public land management under ANCSA when it enacted Title VIII of ANILCA. Although subsistence users have rarely had the data to prove need for an injunction, they have shown that agency planning under section 810 is inadequate. The agencies must act to protect subsistence now because existing section 810 guidelines are not consistent, binding, or effective in making subsistence co-equal with other uses. In Hanlon, for example, the district court held a Forest Service tier-I study deficient, and in Clough, the Ninth Circuit rejected a tier-II evaluation. To comply with ANILCA, agencies should implement new procedures for the tier-I evaluation, threshold "significance" determination, and tier-II findings.

New tier-I procedures should evaluate a range of protective alternatives because an important purpose of tier-I is to avoid subsistence impacts early in project planning. To define these alternatives, an agency should research subsistence use and needs, other available sites, and project alternatives. The procedures should draw standard methods for surveying and data analyses from the recom-

373. See Hanlon, 740 F. Supp. at 1448-49, 1452-55; Clough III, 915 F.2d at 1311-14; cf. Daugherty, supra note 153, at 1597-98 (as a result of Forest Service projects, many areas of the Tongass will be unable to meet demand for the principal subsistence species within five decades).
mendations made by the Alaska Land Use Council.\textsuperscript{374} The research should rely on those most knowledgeable about the resources to be protected: the subsistence users. New tier-I procedures should also require an agency to document its study fully, to support its “significance” determination and any required tier-II evaluation.

New significance threshold procedures should incorporate the “may” test and present factors that define the extent of restriction. The factors should relate to subsistence, rather than the generic concerns of the NEPA regulations. The threshold finding should be a practical assessment of the threat to users’ livelihoods, not an effort to protect a project schedule from tier-II requirements through complex analysis. The procedures should establish ANILCA’s significance threshold lower than NEPA’s because Congress sought to make the user participation and substantive provisions of tier-II readily available. Whether or not it finds a threat of significant restriction, an agency should disclose its threshold finding to enable timely comment by subsistence users.

New tier-II procedures should implement the substantive language of the tier-II findings, providing more detailed instructions than the statute or the existing guidelines that parrot it. Agencies should interpret strictly the requirement that resource destruction be “necessary” because Congress’ purpose was to minimize significant restrictions of subsistence. New procedures should affirm that an agency can rationally find a restriction “necessary” only if it has studied a range of more protective alternatives that proved infeasible. Agencies must also document a project’s consistency with section 804’s wildlife management prescriptions before making the “consistent with sound management” finding. In addition, tier-II procedures should ensure that projects take minimal subsistence land by requiring an agency to rank the subsistence values of the lands studied in each alternative. Agencies must also investigate

\textsuperscript{374} See \textit{supra} note 158 and accompanying text (ALUC Working Group II recommendations for subsistence evaluation methods, never adopted); \textit{cf. supra} notes 134, 156 (Working Group I recommendations for subsistence definitions with little restraint on agency discretion, adopted as guidelines by Fish and Wildlife Service); \textit{Schroeder & Kookesh, supra} note 206, at 319-26 (suggesting approach for subsistence evaluation of logging programs in Tongass).
what measures are available to minimize subsistence impacts, implement all those steps that are effective, and monitor their continued effectiveness. Putting together all of these requirements, new procedures must effect Congress' fundamental purpose: selecting the most subsistence-protective alternative that allows a new use to remain feasible.

A related recommendation is that agencies use the discretion that inevitably remains in their new procedures to zealously protect subsistence. Although project schedules and budgets may invite agencies to treat subsistence as an afterthought, section 810 exists to promote forethought. The highest Alaska administrator in each agency should monitor planning, integrate section 810 into agency culture, and ensure that each project includes protective alternatives. While this protection weighs heaviest on multiple use agencies—the Forest Service and BLM—they should rise to the task because their lands are critical for subsistence. Further, subsistence is compatible with other desired uses: watershed, wildlife, recreation, and wilderness. Beyond making new procedures to achieve minimal compliance with section 810, agencies should strive to promote Congress' purpose of preserving the lands that give cultural, religious, and social necessities, and a livelihood to subsistence users.

B. Sweet Home: Land Use Planning and Game Management

A further recommendation is that agencies integrate land use with resource management on the public lands. Congress recognized that in order to maintain a game population, an agency must protect habitat at the same time it controls hunting and fishing.375 In Clough, however, tier-II findings revealed the Forest Service had divorced its land use planning from game management. One model for integrating the two aspects of game conservation may be found in the Endangered Species Act ("ESA").376

In Babbitt v. Sweet Home Chapter of Communities for a Great Oregon, the Supreme Court upheld an ESA regulation that sought to protect endangered species habitat at the same time it protected

animals from direct harm.\textsuperscript{377} ESA barred any person from taking a protected animal, and defined “taking” broadly to encompass several actions that would injure or kill, including “harm.”\textsuperscript{378} In \textit{Sweet Home}, the disputed regulation defined “harm” to include “significant habitat modification . . . that actually kills or injures wildlife.”\textsuperscript{379} The Court upheld this definition as a reasonable construction of the “taking” prohibition, consistent with Congress’ purpose. The decision offered agencies a means to better protect subsistence because Congress’ definition of “taking” in ANILCA was quite similar to its definition in ESA, and included the term “harm.”\textsuperscript{380}

Both ESA and ANILCA protect wildlife populations, but for different purposes. ESA seeks to save declining species from extinction, so it bars their taking entirely. ANILCA seeks to conserve surpluses of game species for subsistence users to harvest, and also for sport hunters and fishers, and commercial fishers, if the numbers permit.\textsuperscript{381} Accordingly, ANILCA allows taking game, but

\begin{itemize}
\item \textsuperscript{377} 115 S. Ct. 2407, 2412-14, 2418 (1995); see also \textit{id.} at 2418-21 (O'Connor, J., concurring) (rejecting facial challenge to regulation under assumption that “taking” prohibition includes implied requirement of proximate cause); \textit{cf. id.} at 2421-31 (Scalia, J., dissenting) (arguing that expansion of taking prohibition to include modification of privately-owned habitat exceeds authority of Fish and Wildlife Service).
\item \textsuperscript{378} \textit{See} ESA § 9(a)(1)(B), 16 U.S.C. § 1538(a)(1)(B) (unlawful to take any endangered species). ESA defines a taking as follows: “[t]he term ‘take’ means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” \textit{Id.} § 1532(19).
\item \textsuperscript{379} \textit{See} 50 C.F.R. § 17.3 (1994) (defining “harm” to include “significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering”).
\item \textsuperscript{380} \textit{See} ANILCA § 102(18), 16 U.S.C. § 3102(18) (defining “take” or “taking” to include “pursue, hunt, shoot, trap, net, capture, collect, kill, harm, or attempt to engage in any such conduct”); \textit{cf. supra} note 378 (ESA definition contains same terms in different order, except ANILCA deletes “harass,” and adds “net”).
\item \textsuperscript{381} That is, ANILCA seeks to maintain a “healthy population” of each game species, so there will be a harvestable surplus above the base population required for the species to continue to exist. \textit{See} 16 U.S.C. § 3112(1), (2); \textit{see also supra} note 139 (quoting Senate report defining requirements for healthy populations); \textit{cf. Madison v. Alaska Dep’t of Fish & Game}, 696 P.2d 168, 174 (Ala. 1985) (discussing former state law establishing priority system to assure taking fish on a
section 804 gives subsistence "priority over the taking . . . of fish and wildlife for other purposes." To provide section 804's subsistence priority, when necessary in times of shortage, agencies have restricted only sport/commercial users. The Supreme Court's holding in Sweet Home suggests that agencies should also restrict land use projects that "take" game by significantly modifying habitat.

New ANILCA regulations should include significant habitat modification in section 804's "taking" priority, so that agencies will combine land use planning with game management. Under such regulations, if the game surplus exceeds subsistence needs, a federal land agency will allocate it between sport/commercial taking and any new project taking game by modifying habitat. This allocation must involve the state, which ordinarily regulates sport/commercial uses. If a project takes the available game surplus, the agency must curtail sport/commercial uses to protect subsistence under section 804's priority. Some projects will be cancelled because of strong public support for sport and commercial uses in Alaska. Public involvement will also assist an agency in designing new projects to protect both sport/commercial uses and subsistence. Allocating the available game will focus an agency's efforts on Amoco's process of reconciling competing public interests in subsistence, sport/commercial uses, and development projects.


383. See id. See also, e.g., Kenaitze v. Alaska, 860 F.2d 312, 313-14 (9th Cir. 1989) (describing section 804 priority without reference to evaluation of land use); cf. Hanlon, 740 F. Supp. at 1449-51, 1453-55 (describing section 810 evaluation of land use without reference to section 804 priority). The administration of the subsistence priority is complicated by the fact that the state now sets only sport/commercial seasons on public lands. The Federal Subsistence Board has taken over setting subsistence seasons and administering the priority for subsistence users in times of shortage. See infra note 387 and accompanying text.

384. See Amoco, 480 U.S. at 546 (Congress declared subsistence a public interest and established section 810 as framework for agencies to reconcile competing interests); cf. Daugherty, supra note 153, at 1598 n. 134 (reporting claim that Forest Service is already restricting non-subsistence hunters to accommodate resource taking by projects, and to "conceal adverse effects of clear-cutting on subsistence").
Even if there is no game surplus to allocate, section 804 will not bar a project because *Amoco* holds new uses co-equal with subsistence.\footnote{See Amoco, 480 U.S. at 548. If an agency simply defined significant habitat modification as a “taking” for purposes of ANILCA, section 804 potentially could bar a project that reduced habitat where there was no game surplus to support subsistence. To avoid making subsistence the paramount use in contravention of *Amoco*, an agency could draft its definition of harm (taking) to include significant habitat modification “except where necessary to effect another use designated by Congress for the lands in question.” Cf. 16 U.S.C. § 3120(a)(3)(A) (requiring that subsistence restriction be “necessary” to purpose of project, for agency to complete tier-II evaluation).} A project taking game needed for subsistence will force an agency to apply section 804’s second tier of priority favoring certain classes of subsistence users over other classes. Again, the requirement to allocate the game in advance will focus an agency’s project design on minimizing subsistence impacts.

Regulations including habitat modification in section 804 priorities also will clarify an agency’s duties under section 810. An agency making the tier-II finding that a project is “consistent with sound management” will have to amend its game management to account for the project’s game taking.\footnote{See Amoco, 480 U.S. at 534 n.2.} An agency making the finding that it will “minimize” subsistence impacts will also have to review game management, if total game takings cause adverse impacts. The taking definition will thus lead an agency to integrate project design with game management in completing its section 810 evaluation. The integrated planning will minimize the destruction of subsistence resources—the overarching purpose of section 810. To accomplish this purpose, the taking definition should be incorporated in joint regulations that apply to all federal land managers in Alaska.

**C. Joint Regulations: Executive Action**

A final recommendation is that the Executive Branch improve land agencies’ conformance with section 810 by placing them under uniform regulations. Currently, subsistence evaluations are governed by internal guidelines of each agency that are not consistent, current, readily available to the public, or uniformly followed. The
Department of the Interior cannot remedy this situation unilaterally because one important agency, the Forest Service, is part of the Department of Agriculture. The President, however, can issue an executive order requiring all agencies to follow uniform regulations, and there is precedent for this approach under NEPA. To address the shortcomings in agency guidelines, the President should direct the agencies to develop and implement joint regulations for subsistence evaluations.

The President should designate the Federal Subsistence Board to prepare these joint regulations. The Board is comprised of the Alaska regional heads of the major federal land agencies, and thus includes viewpoints encompassing preservation, recreation, subsistence, and resource development. Following judicial invalidation of the state's subsistence preference in 1990, agencies created the Board by regulation to assume management of subsistence hunting on federal lands. This management of subsistence resources will benefit if integrated with management of their habitats under section 810. The Board receives staff support from the Fish and Wildlife Service, which provides expertise in game management. If the President assigns the Board to be the leading body,
the section 810 regulations it prepares will be accorded deference in the courts.

When the Federal Subsistence Board drafts joint regulations, the state should participate, as should Native organizations and the public at large. The state will bring broad experience gained from its years of managing subsistence on federal, state, and private lands. Further, the state should continue to manage subsistence on state and private lands, and non-subsistence hunting and fishing on all lands. The state produced the baseline subsistence use surveys and has a continuing stake in the welfare of all its rural residents. Native organizations represent the interests of a large fraction of villagers and the accumulated knowledge from centuries of subsistence. The public should also be involved in drafting the joint regulations because of the public interest in the lands. The Board should seek advice from subsistence users, Native corporations, other private landowners, development interests, commercial fishers, sport fishers and hunters, and conservation groups. The drafters should provide the notice and comment required for informal rule making under the APA. To increase participation, the Board should conduct hearings on federal land use planning for subsistence throughout Alaska.

The regulations that result from this process should incorporate the foregoing recommendations. They should be flexible enough to impose minimal burdens on small projects, while ensuring full pro-

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See Clough Telephone Interview, supra note 260 (also noting Fish and Wildlife Service is not as well funded as other agencies). But see Kurth Telephone Interview, supra note 260 (state is too vast and agency mandates too diverse for uniform section 810 regulations); Telephone Interview with Susan Detwiler, Chief of Staff Committee Coordination and Legal Issues Branch, Fish and Wildlife Service, Anchorage, Alaska (Jan. 3, 1994) (uniform section 810 regulations are "politically unfeasible" and would devolve into agencies' battle over habitat management); cf. Telephone Interview with Tina Cunning, State of Alaska Subsistence Division (Sept. 29, 1992) (subsistence evaluations have been ineffective in protecting small communities and motorized access).

390. Some 60 percent of rural residents now are non-Native and there is considerable public pressure for the state to reassume subsistence management on public lands. Telephone Interview with Susan Detwiler, Chief of Staff Committee Coordination and Legal Issues Branch, Fish and Wildlife Service, Anchorage, Alaska (Jan. 14, 1993); see also supra note 9 (about 55 percent of those legally qualified to use subsistence are non-Natives).
tection for those that affect substantial areas of habitat. Further, they should specify who in each agency will do subsistence evaluations and how those responsible will assess a project's impacts. Responsibility should rest at a high enough level so that subsistence gets a priority equal to new uses, as Congress intended. The evaluations, however, should be conducted by project personnel from various disciplines who have direct involvement in the design of a project. To ensure projects minimize subsistence impacts, the regulations should provide for plenary review of every evaluation by the Federal Subsistence Board. Joint regulations and supervisory review will reduce inconsistencies in policy among federal land agencies. The new regulations will also remove ambiguities that have sparked conflicts between the agencies and the subsistence users Congress sought to protect in section 810.

CONCLUSION

Subsistence on the public lands is essential to villagers in Alaska. Congress enacted ANILCA Title VIII to remedy agencies' failure to protect subsistence, and included section 810 because projects were destroying habitat that supported game. In tier-I, Congress sought to inject subsistence into land use planning early. Beyond

391. The majority of subsistence evaluations involve small amounts of land or insignificant threats, while a few clearly demand extensive planning to minimize conflicts between new projects and existing subsistence uses. See Letter from Terry L. Haynes, Statewide Coordinator, Division of Subsistence, Alaska Department of Fish and Game, to Joris Naiman (Feb. 23, 1996) (on file with the Fordham Environmental Law Journal).

392. Cf. William Funk, NEPA at Energy: An Exercise in Legal Narrative, 20 ENVTL. L. 759, 763-65 (1990) (portraying ineffective implementation of NEPA in agency where high level office preparing environmental statements had no involvement with project design).

393. Although subsistence evaluations might be more consistent if they were all prepared by the Board, that would disassociate the reviewers from project management, and would be considered intrusive by land management agencies. See Detwiler Telephone Interview, supra note 390. Instead, the Board should provide detailed methods for subsistence evaluations, and act as a consultant when requested. All agencies' subsistence evaluations should conclude with a review by the Board. Following this review, the Board should halt any project that does not include the full subsistence protections Congress provided in section 810.
requiring an agency to study a project's impacts, tier-I also requires it to evaluate other sites and alternatives, to reduce those impacts. In tier-II, Congress went further, requiring an agency to provide a hearing and substantive findings before significantly restricting subsistence use. Congress' intention was to make sure an agency devised and selected the alternative that best protected subsistence without foreclosing the project.

Unfortunately for the villagers, agencies did not rise to Congress' challenge. Rather than protective alternatives, their tier-I studies focused on justifying findings of no significant restriction in order to avoid completing tier-II. Agencies also provided weak and inconsistent guidance to project designers on how to evaluate subsistence impacts. Despite the different goals of the statutes, agencies imported the higher "significance" threshold of NEPA, and erected the "significant possibility" test as barriers to ANILCA's tier-II protections. In the sole case reviewing tier-II findings, the agency construed each finding to give itself the most discretion, rather than giving subsistence the most protection. Fifteen years of implementation suggest that agencies have sought to minimize the burden of complying with section 810, rather than using it to make better land use decisions. To fulfill Congress' original intention, agencies must change their methods of subsistence evaluation.

First, agencies must develop complete, consistent procedures to guide project designers in an evaluation. Procedures should also require an agency to consider a range of protective alternatives early, rather than justifying a pre-made choice with a standard finding. At the same time, tier-I should use standard techniques to fairly assess subsistence impacts. The procedures also must define the tier-II threshold, combining the Ninth Circuit's "may" test with a practical assessment of the extent of a restriction. Section 810 requires an agency to err on the side of caution, providing Congress' tier-II participation and findings if an alternative threatens to harm subsistence.

New tier-II procedures must instruct an agency to select the least harmful alternative that remains feasible. An agency's record must also show that its choice takes the least valuable subsistence land, discloses the protective steps available, and implements all steps that effectively reduce subsistence impacts. To meet Congress'
intent fully, an agency must develop game management prescriptions and integrate them with its land use planning in tier-II.

Beyond the agencies' separate jurisdictions, the President should order the Federal Subsistence Board to create section 810 regulations binding all federal agencies. These joint regulations should collect the wisdom of subsistence users, the procedures developed by the agencies, and the interests of the public in land use and game management. They should lead an agency to choose the project alternative that best protects subsistence. With consistent regulations, and willing enforcement by land management agencies, section 810 will help protect the subsistence way of life for future generations in rural Alaska.