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**Conflicts between Livestock and Wildlife:
An Analysis of Legal Liabilities Arising from
Reindeer and Caribou Competition on the
Seward Peninsula of Western Alaska**

by

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CONFLICTS BETWEEN LIVESTOCK AND WILDLIFE: AN ANALYSIS OF LEGAL LIABILITIES ARISING FROM REINDEER AND CARIBOU COMPETITION ON THE SEWARD PENINSULA OF WESTERN ALASKA

BY

HARRY R. BADER* AND GREG FINSTAD**

The remarkable, but not well understood, migratory inclination of caribou have precipitated a crisis among the rural, Alaska Native villages located on the Seward Peninsula in western Alaska. Over a century ago, reindeer were imported to this remote country from Eurasia. The intent at the time was to bring about a stable economic activity that would be both ecologically sustainable and culturally compatible with the Yupik and Inupiat peoples that live in the region. Successful management of the Western Arctic Caribou Herd by the Alaska Department of Fish and Game has resulted in an expanding herd population that is now migrating into reindeer ranges. Consequently, the Native herders have suffered grievous economic hardship as caribou and reindeer intermingle. This Article discusses the potential legal liabilities and duties of the state of Alaska, federal agencies, and tribes associated with the reindeer and caribou competition. Although Native American herders may be able to sue the state or federal government based on tort, takings, or Indian trust doctrine, the Article suggests that these actions would not likely result in compensation for the reindeer herders. The state has tremendous discretion in the management of caribou and is protected from litigation by sovereign immunity in discretionary functions. This Article concludes that the best opportunity for herders to receive assistance may be through a statutory mechanism instituting a co-management regime.

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I. INTRODUCTION

On Alaska's Seward Peninsula, a unique social and environmental experiment is unfolding. The federal government, State of Alaska, and tribal entities are cooperating in an attempt to bridge the gap between Euro-centric economics and Native peoples' cultural ties to the natural landscape. Here, where North America bisects the Bering Strait, nearly reaching Siberia, 29,000 reindeer graze, owned by Native American herders on 55 million acres of unfenced federal, state, and private lands. The hope is to maintain a reliable source of revenue for a remote and impoverished region in a manner that avoids environmental degradation and respects local cultural traditions. This Article discusses the legal consequences and the potential for litigation that can erupt when successful state wildlife management enables an indigenous, wild caribou herd to expand its numbers and range, thus colonizing new areas and competing on the tundra with introduced domestic reindeer.

Part II of this Article is a brief introduction to Alaskan reindeer and caribou management. Part III describes recent scientific field research, conducted by the University of Alaska-Fairbanks College of Natural Resources Development and Management, addressing the effect of caribou and reindeer competition posed by expanding caribou populations. Part IV investigates potential legal liabilities and duties associated with reindeer and caribou competition on the Seward Peninsula among federal, state, and tribal sovereigns. Part V concludes by asserting that litigation is ill-suited to address the needs of these competing interests.

II. REINDEER AND CARIBOU MANAGEMENT IN ALASKA

Reindeer are the domesticated brethren of wild caribou. While both are taxonomically the same species, *Rangifer tarandus*, and can therefore freely interbreed, husbandry has brought about a few significant morphological and behavioral differences between reindeer and caribou.¹ Reindeer tend towards shorter stature and lighter pelage than caribou.² Reindeer also birth their calves three to six weeks earlier than caribou, and reindeer bulls develop longer antler stems than their caribou counterparts.³ While caribou are a wildlife species native to North America, reindeer are exotic animals introduced primarily from Russian stock.⁴

A. Reindeer Management

Reindeer herding invokes almost every conceivable natural resource issue that defines Alaska: wilderness, national park and wildlife refuge protection, Native rights and self-determination, governmental paternalism, economic development initiatives, state wildlife management, and federal preemption of state law. All of these issues are superimposed upon the vastness of the Seward Peninsula, a remarkable land with a remarkable history. Bounded by Kotzebue Sound to the north, Norton Sound to the south, and the Bering Strait to the west, this tundra-clad country formed the land bridge between Asia and North America ten millennia ago.⁵ Within this vast wilderness of moose, wolves, grizzly bear, salmon, musk ox, wolverine, fox, resident raven, and migratory birds reside 6000 people.⁶ Approximately 4000 live in Nome, the city of gold rush and Iditarod fame.⁷ The rest live in small, scattered villages. Half of Nome residents and almost all village residents are Alaskan Natives of Inupiat or Yupik ancestry.⁸

By federal law, Alaskan Natives (Inupiat, Yupik, Indian, and Aleut) enjoy preferential treatment in the reindeer industry.⁹ This

¹ Gretchen M. Kerndt, *History of the Alaskan Reindeer Industry and Its Problems with Land Use, Ownership, and Marketing*, 22 *AGROBOREALIS* 22, 22 (1990).

² *Id.*

³ A.D. Mukhachev, *Some Problems of Comparative Morphometric Characteristics of Domesticated and Wild Reindeer*, in *WILD REINDEER OF THE SOVIET UNION* 82-86 (U.S. Dep't of the Interior trans., E.E. Syroechkovskii ed., 1984).

⁴ Kerndt, *supra* note 1, at 22.

⁵ CLAUS-M. NASKE & HERMAN E. SLOTNIK, *ALASKA, A HISTORY OF THE 49TH STATE* 9 (2d ed. 1987).

⁶ NOME CONVENTION & VISITORS BUREAU, *THE NATIVE PEOPLE'S OF ALASKA AND THEIR ESKIMO CULTURE*, at <http://alaska.net/~nome/eculture.htm> (last modified Feb. 4, 2000).

⁷ *Id.*

⁸ *Id.*

⁹ See Reindeer Industry Act of 1937, 25 U.S.C. §§ 500-500n (1994). Pursuant to the statute, the federal government condemned non-Native owned reindeer on the peninsula and began a program designed to transfer the industry to Alaskan Natives.

preferential treatment is designed to protect Native herders from highly capitalized non-Native competitors.¹⁰ Statutory provisions erect considerable barriers to non-Native entry into the industry. Native preferences include free grazing privileges on federal lands, grants from the United States Bureau of Indian Affairs (BIA), and restrictions upon sales of live reindeer to non-Native herders.¹¹ The purpose of these subsidies is to stabilize the economic milieu and foster growth of a dependable source of cash, employment, and food in rural villages; however, the measures have enjoyed only mixed success.¹²

Today, reindeer herding is the most significant component of Alaska's livestock industry. With 29,000 animals, there are more reindeer in Alaska than the total number of cattle, swine, and sheep combined.¹³ Reindeer products—chiefly velvet antler and meat—represent a yearly production value of \$1.2 million.¹⁴ Meat is sold both in Alaska and throughout the United States as a low-fat alternative to beef.¹⁵ Velvet antler is sold to Korean antler buyers, who either resell it to processors, or process the antler themselves.¹⁶ The dried, sliced, and packaged product retails in the United States and throughout the world.¹⁷

Seward Peninsula and nearby island ranges create the heart of the state's reindeer industry.¹⁸ There are thirteen separate ranges on the peninsula; each range consists of one million acres or more.¹⁹ These ranges are unfenced, with geographic barriers, such as mountains, rivers, bays, and lakes, forming natural boundaries that differentiate ranges.²⁰ Particular Alaskan Native families own herds within these ranges, although herds are closely associated with specific villages.²¹

The United States Bureau of Land Management (BLM) retains

id. §§ 500a, 500g. At first, the federal government held the reindeer in trust and loaned them to the herders. *Id.* § 500g; William G. Workman et al., *Economics of Reindeer Rangeland*, 23 *AGROBOREALIS* 5, 10 (1991).

¹⁰ Terese Dillingham, *Playing Reindeer Games: Native Alaskans and the Federal Trust Doctrine*, 26 *B.C. ENVTL. AFF. L. REV.* 649, 650 (1999).

¹¹ See *Williams v. Babbitt*, 115 F.3d 657, 660 (9th Cir. 1997) (describing preferences given to Native herders).

¹² Larry L. Naylor et al., *Socioeconomic Evaluation of Reindeer Herding in Northwestern Alaska*, 33 *ARCTIC* 246, 256 (1980).

¹³ ALASKA AGRIC. STATISTICS SERV. & U.S. DEPT OF AGRIC., *ALASKA AGRICULTURAL STATISTICS 1998 22* [hereinafter AAS].

¹⁴ *Id.*

¹⁵ Ruthann B. Swanson & Marjorie P. Penfield, *Reindeer Meat: Relationship Among Dietary Fat, Flavor, and Acceptability*, 23 *AGROBOREALIS* 15, 15 (1991).

¹⁶ Workman, *supra* note 9, at 7.

¹⁷ *Id.*

¹⁸ AAS, *supra* note 13, at 29.

¹⁹ Workman, *supra* note 9, at 5.

²⁰ Richard O. Stern et al., *Eskimos, Reindeer, and Land*, 59 *AGRIC. EXPERIMENT STATION BULL.* 1, 143 (1980).

²¹ *Id.* at 104.

primary management authority over grazing and is responsible for issuing permits to herd owners.²² The National Park Service (NPS), United States Fish and Wildlife Service (FWS), and the Alaska Department of Natural Resources exercise concurrent jurisdiction on lands owned by the respective agencies.²³ The Alaska National Interest Lands Conservation Act (ANILCA)²⁴ recognizes reindeer grazing as an objective of federal land management on the peninsula, stating that management of the Bering Land Bridge National Preserve is to provide "continu[ing] reindeer grazing use . . . in accordance with sound range management practices."²⁵

The herders have formed a collective organization called the Reindeer Herders Association (RHA), which is funded by the BIA and administered through Kawerak, a Native American organization established to assist the native people of the region.²⁶ BIA assistance also comes in the form of loan animals. The agency makes available federally-owned reindeer to individuals to establish new herds or augment small ones.²⁷ In addition to BIA support, the University of Alaska-Fairbanks College of Natural Resources Development and Management maintains a state-funded applied science research program designed to study tundra ecology, range management, and animal husbandry and physiology relevant to reindeer production.²⁸

For the most part, reindeer herds are free ranging—left alone to wander and forage on the tundra without direct control.²⁹ Herds are rounded up and corralled only twice a year. In June, roundup activities include clipping velvet antler as a renewable crop, which also assists in distinguishing the reindeer from migrating caribou.³⁰ Antler harvests leave the animals alive without any long term health implications. During the June roundup herders also inoculate for

²² Kerndt, *supra* note 1, at 24–25.

²³ *Id.* at 25.

²⁴ 16 U.S.C. §§ 3101–3233 (1994 & Supp. III 1997).

²⁵ National Park Service Organic Act, 16 U.S.C. § 410hh(2) (1994) (cross referenced by 16 U.S.C. § 3191 (1994)).

²⁶ Stern, *supra* note 20, at 176. Kawerak is not a regional nonprofit corporation under the Alaska Native Claims Settlement Act, 43 U.S.C. §§1601–1629a, 1606 (1994 & Supp. IV 1998). Stern, *supra* note 20, at 176. The Alaska Native Claims Settlement Act settled Native American land claims in Alaska by transferring title to 44 million acres and almost one billion dollars to specially created corporations. *Alaska v. Vill. of Venetie Tribal Gov't*, 522 U.S. 520, 524 (1998). These corporations operate along regional, tribal, and village lines and include both profit making corporations and non-profit public service corporations. 43 U.S.C. §§ 1606–1607 (1994 & Supp. III 1997). Shareholder membership is restricted to Alaskan Natives. *Id.* In the settlement, tribal councils and organizations surrendered all claims to territorial sovereignty, but maintained subject matter jurisdiction over tribal members. *Vill. of Venetie Tribal Gov't*, 522 U.S. at 532–34.

²⁷ Stern, *supra* note 20, at 98.

²⁸ *Id.*

²⁹ *Id.* at 142.

³⁰ *Id.* at 147.

brucellosis, take blood samples to determine animal health, measure fawn weights, ear tag for individual identification, fit radio tracking collars for monitoring grazing patterns, and castrate bulls.³¹ Winter roundup activity in January and February chiefly involves slaughtering animals for meat production, as well as separating mingled herds and obtaining additional population counts.³²

Roundups are expensive and time consuming, in part due to the remoteness of the region. Only three roads penetrate the peninsula, providing access to only two of the thirteen ranges.³³ The remaining reindeer can be reached only by aircraft, boat, snow machine, or some other all terrain vehicle.³⁴ Summer herding of the animals is usually accomplished by small helicopter.³⁵ Fixed-wing aircraft assist as spotters to help locate herds.³⁶ Helicopter time is the most expensive element of handling reindeer.

Men from the village most closely associated with the particular range provide the labor for the roundups.³⁷ Seasonal employment from handling reindeer can provide an important cash infusion into local village economies.³⁸ Often, a festival-type environment accompanies the roundup activity.³⁹ Many villagers travel to the corral to participate, watch, and enjoy the spectacle made by thousands of animals.⁴⁰

Herd owners do not derive the majority of their income from reindeer herding.⁴¹ However, the industry plays a major role in some villages, achieving, at least partially, the program's initial goals. Reindeer were first located on the Seward Peninsula a century ago because of the favorable conditions of a high quality range and an absence of significant numbers of resident caribou.⁴² Today, the caribou have arrived.

B. Caribou Management

The Alaska Department of Fish and Game successfully manages the twenty-five distinct caribou herds that grace the state. One such herd, the Western Arctic Caribou Herd, now numbers

³¹ Alexander K. Prichard et al., *Lactation in Yearling Alaskan Reindeer: Implications for Growth, Reproduction, and Survival*, 19 RANGIFER 77, 78 (1999).

³² Stern, *supra* note 20, at 11-12, 145.

³³ *Id.* at 143.

³⁴ *Id.*

³⁵ *Id.* at 147.

³⁶ *Id.* at 158.

³⁷ See *id.* at 119-25 (describing the role of reindeer herder as village employer).

³⁸ *Id.* at 119-21.

³⁹ *Id.* at 120.

⁴⁰ *Id.*

⁴¹ *Id.* at 125.

⁴² Kerndt, *supra* note 1, at 22.

almost 465,000 animals, comprising one of the largest wild caribou herds in the world.⁴³ Reasons for its growth, from less than 75,000 animals in the 1970s, are not entirely understood.⁴⁴ This herd migrates over 400 miles yearly between its calving grounds on the arctic coastal plain, west of the Colville River, to its winter foraging grounds, found primarily in the region between the Selawik, Koyukuk, and Unalakleet rivers.⁴⁵

State management objectives for the Western Arctic Caribou Herd include maintaining a post calving population of at least 200,000 animals to provide subsistence and recreational hunting opportunities on a sustained yield basis, protecting components of the natural ecosystem upon which the herd depends, perpetuating wild carnivore populations that utilize the caribou herd, and maintaining opportunities to view and engage in the scientific study of the herd.⁴⁶ To realize these objectives, the management plan calls for monitoring the age and sex composition of the herd population.⁴⁷ It also requires harvest regulation and habitat degradation prevention.⁴⁸ Herd management prescriptions include minimizing conflict between caribou and the reindeer industry.⁴⁹

The Western Arctic Caribou Herd is an important resource for fifty subsistence-dependent communities in northern and interior Alaska.⁵⁰ Of the approximately 23,000 animals harvested from this herd each year, all but about 3000 are taken by local rural residents.⁵¹

Alaska's conservation of the Western Arctic Caribou Herd is a success story of international significance. Although caribou have largely been absent from the Seward Peninsula during the twentieth century, the recent growth phase of this herd has resulted in ever increasing intrusions into areas of the peninsula.⁵²

⁴³ ALASKA DEPT OF FISH AND GAME, AERIAL SURVEY (1996) [hereinafter AERIAL SURVEY], available at <http://www.state.ak.us/adfg/wildlife/geninfo/hunting/stats/car-map1.gif> (last modified March 8, 2001).

⁴⁴ ALASKA DEPT OF FISH AND GAME, WESTERN ARCTIC CARIBOU HERD STRATEGIC MANAGEMENT PLAN A-1 (1984) [hereafter WAC MANAGEMENT PLAN].

⁴⁵ See AERIAL SURVEY, *supra* note 43 (map of caribou ranges).

⁴⁶ WAC MANAGEMENT PLAN, *supra* note 44, at 1.

⁴⁷ *Id.* at 3.

⁴⁸ *Id.* at 3-4.

⁴⁹ *Id.* at 2.

⁵⁰ Press Release, Alaska Dep't of Fish and Game, Alaska's Largest Caribou Herd Declines Slightly (July 12, 2000), available at <http://www.state.ak.us/adfg/wildlife/geninfo/news/7-12-00.htm> (last modified March 8, 2001).

⁵¹ ALASKA DEPT OF FISH AND GAME, THE WESTERN ARCTIC CARIBOU HERD: HAS IT PEAKED? 4 (1996) (on file with authors).

⁵² *Id.*; ALASKA DEPT OF FISH AND GAME, ALASKA WILDLIFE HARVEST SUMMARY 1999-2000, at 5, available at <http://www.state.ak.us/adfg/wildlife/geninfo/hunting/harvest.htm> (last modified March 3, 2001).

III. REINDEER AND CARIBOU COMPETITION

The University of Alaska Reindeer Research Program (RRP) cooperates with the Reindeer Herders Association (RHA) in an intensive effort to assess the extent of reindeer and caribou co-mingling. This effort involves the integration of low altitude aircraft visual reconnaissance, use of aerial telemetry and radio collars on reindeer and caribou, satellite monitoring of caribou and reindeer fitted with special GIS collars, and data collected during corralling of reindeer.⁵³

A loss estimate, based upon expected herd growth rate, was determined using a model developed from the Davis Herd, near Nome, which is presently unaffected by caribou incursions.⁵⁴ Reindeer survival rates were derived from mark and recapture methods.⁵⁵ From this data, a potential reindeer herd growth rate was calculated at eight percent per year.⁵⁶ Given the current reindeer population and trends, calculations suggest that, since 1987, reindeer and caribou intermingling has resulted in the disappearance of over 12,000 reindeer, estimated at a total value of thirteen million dollars.⁵⁷

In the autumn of 1996, about 90,000 caribou crossed the Darby Mountains onto the Seward Peninsula, reaching as far west as the Kougarak Road, where hunters harvested caribou for the first time in sixty years.⁵⁸ Biologists fear that such incursions and contact with reindeer may alter the caribou gene pool.⁵⁹ Recent research, however, suggests that hybridization is probably not a problem because hybrids are less likely to survive than pure blood caribou.⁶⁰ First, reindeer calving precedes caribou calving; thus reindeer would be dropped during the height of spring migration, when most pregnant caribou cows are still enroute to the calving grounds.⁶¹ This would prove detrimental to both the newborn reindeer calf and the cow.⁶² Also, synchronous calving is a strongly selected trait in caribou, which satiates predators during a short

⁵³ Greg L. Finstad et al., *Conflicts Between Reindeer Herding and an Expanding Caribou Herd in Alaska*, 13 RANGIFER (spec. ed. forthcoming 2001) (manuscript at 4, on file with authors).

⁵⁴ Prichard, *supra* note 31, at 78.

⁵⁵ *Id.* at 81; Gary C. White & Kenneth P. Burnham, *Program MARK: Survival Estimation from Populations of Marked Animals*, 46 BIRD STUDY 120, 120 (1999).

⁵⁶ Prichard, *supra* note 31, at 81.

⁵⁷ Finstad, *supra* note 53 (manuscript at 6).

⁵⁸ *Id.* (manuscript at 5).

⁵⁹ Alfred M. Bailey & Russell W. Hendee, *Notes on the Mammals of Northwestern Alaska*, 7 J. MAMMALOGY 9, 22-23 (1926).

⁶⁰ Finstad, *supra* note 53 (manuscript at 7-8).

⁶¹ David R. Klein, *Conflicts Between Domestic Reindeer and Their Wild Counterparts: A Review of Eurasian and North American Experience*, 33 ARCTIC 739, 745 (1980).

⁶² *Id.*

window of vulnerability.⁶³ Thus, hybridized calves that are dropped outside of this window would be conspicuous and subject to predation. Another reason that reindeer and caribou hybridization may be minimized, is that male reindeer are less aggressive during the rut, and therefore, are out-competed by caribou males.⁶⁴ Results from a recent genetic study supports the hypothesis that reindeer and caribou hybridization is minimal.⁶⁵ The study concluded that specific allele frequencies differed considerably between reindeer and caribou, which suggests a limited gene flow.⁶⁶

IV. POTENTIAL LEGAL LIABILITIES AND OBLIGATIONS

Caribou are wildlife, and therefore, are subject to the ancient common law doctrine of *ferae naturae*. An animal *ferae naturae* cannot be owned by any individual.⁶⁷ All direct legal interests in wildlife rest with the state, which manages wildlife as a sovereign, rather than as a proprietor.⁶⁸ One of the state wildlife management obligations is to determine the legal method by which an individual may reduce *ferae naturae* to possession and thereby acquire a legal interest in the animal.⁶⁹

To reduce an animal *ferae naturae* to possession, an individual must perform an overt act of transformation acknowledged by the state. This transforming process may involve measures such as a) killing wildlife by prescribed means and within established seasons; b) assuming control over the animal through capture, confinement, care, and training; or c) husbandry that transforms the animal through specialized breeding and culling regimes.⁷⁰ Once reduced to possession, an individual obtains legal interests in the wild animal subject to continuing state conditions.⁷¹

Under Alaskan statute, reindeer are domestic mammals.⁷² As free ranging livestock, reindeer remain the lawful property of a herder, so long as the owner maintains a registered brand or

⁶³ *Id.* Because all caribou calves are born within a short period of time, the entire calf population is vulnerable to predation only during this short window. Predators can only eat a portion of the calves before becoming satiated, and once this initial satiation passes, the caribou calves are less vulnerable to continued predation. *Id.*

⁶⁴ Klein, *supra* note 61, at 745.

⁶⁵ Matthew A. Cronin et al., *Genetic Variation in Domestic Reindeer and Wild Caribou in Alaska*, 26 ANIMAL GENETICS 427, 427 (1995).

⁶⁶ *Id.*

⁶⁷ Pierson v. Post, 3 Cal. R. 175, 175 (N.Y. Sup. Ct. 1805).

⁶⁸ Lacosta v. La. Dep't of Conservation, 263 U.S. 545, 549 (1924).

⁶⁹ Jones v. Metcalf, 119 A. 430, 432 (Vt. 1923).

⁷⁰ E.A. Stephens & Co. v. Albers, 256 P. 15, 16-17 (Colo. 1927); Koop v. United States, 296 F.2d 53, 59-60 (8th Cir. 1961).

⁷¹ People v. Zimberg, 33 N.W.2d 104, 106 (Mich. 1948).

⁷² ALASKA STAT. §§ 3.40.010-3.40.080 (Michie 2000), implemented by 5 ALASKA ADMIN. CODE tit. 5, § 92.029 (2000).

mark.⁷³ Therefore, reindeer are subject to the doctrine of *ferae domesticae* unless a herder fails to properly exercise control over the animal.⁷⁴ *Ferae domesticae* are those animals that are tame from time immemorial and accustomed to human association so that they submit to a person's will.⁷⁵ Although domestic animals are considered property of the individual, property is not an absolute right; it is subject to a sovereign's police powers to promote the public safety, health, and welfare.⁷⁶

For purposes of tort liability and damage compensation, the three traditional legal definitions for animals are important: 1) *ferae naturae*, 2) wild animals reduced to possession, and 3) *ferae domesticae*. Tremendous differences in liability are associated with each of these legal definitions.⁷⁷ There is no personal liability for damage-causing animals *ferae naturae* in common law.⁷⁸ Whereas, a negligence standard applies to animals *ferae domesticae* that possess no known dangerous propensities,⁷⁹ and strict liability applies to wild animals reduced to possession, as well as to animals *ferae domesticae* having dangerous qualities.⁸⁰

States are the primary sovereign responsible for the management of wildlife (*ferae naturae*).⁸¹ This authority stems from the states' inherent sovereignty and their attendant police powers, which are attributes of sovereignty grounded in the common law.⁸² Though difficult to define precisely, these police powers are extensive, elastic, and constantly evolving to meet new and increasing demands for the preservation of public peace, security,

⁷³ *Id.*

⁷⁴ *Id.* § 16.05.940(10) (Michie 2000). Domestic mammals include musk-ox, bison, elk, and reindeer lawfully owned. *Id.* "[B]ig game animal' means moose, caribou, mountain sheep, mountain goat, feral reindeer, deer, elk, bison, walrus, or musk-ox." *Id.* § 16.30.030(1).

⁷⁵ *Gallick v. Barto*, 828 F. Supp. 1168, 1173 (M.D. Pa. 1993).

⁷⁶ *See Miller v. Shoene*, 276 U.S. 272, 279-80 (1928) (holding that the state could destroy one class of private property to protect another class of property, which the legislature determined was of greater value to the public); *Vill. of Euclid v. Ambler Realty Co.*, 272 U.S. 365, 387 (1926) (holding that comprehensive zoning is within the state police power); *Johnson v. Atlanta Humane Soc'y*, 326 S.E.2d 585, 587 (Ga. Ct. App. 1985) (holding that county's animal adoption ordinance was a proper exercise of the state police power).

⁷⁷ *See Palumbo v. Fla. Game and Fresh Water Fish Comm'n*, 487 So. 2d 352, 353 (Fla. Dist. Ct. App. 1986) (holding landowner not liable for injuries caused by nonindigenous animals not reduced to possession); *Glave v. Mich. Terminix Co.*, 407 N.W.2d 36, 37 (Mich. Ct. App. 1987) (holding no personal liability for injuries from *ferae naturae*, unless the animal is reduced to possession); *Holland v. Buckley*, 305 So. 2d 113, 119 (La. 1974) (holding owner of domestic animal subject to strict liability).

⁷⁸ *Glave*, 407 N.W.2d at 37.

⁷⁹ *Tamburello v. Jaefer*, 184 So. 2d 544, 547 (La. 1966).

⁸⁰ *Id.* at 544.

⁸¹ *Mountain States Legal Found. v. Hodel*, 799 F.2d 1423, 1426 (10th Cir. 1986).

⁸² *Rogers v. State*, 491 So. 2d 987, 990 (Ala. Crim. App. 1985); *State v. Ivey*, 474 S.E.2d 501, 505 (W. Va. 1996).

safety, morals, health, and welfare.⁸³ In managing wildlife, the state exercises its sovereignty by representing the common interests of its citizenry, and providing for the conservation and equitable use of the wildlife resource.⁸⁴

Assertions that a state may be liable for damages have commonly arisen in four general circumstances. The two less frequent claims fall under tort theory. Parties have advocated that the state has a duty to warn of known dangerous conditions, such as the presence of wildlife on the state's property.⁸⁵ Under a second tort theory, parties have alleged a state obligation to compensate for damages when the state created an artificial condition that led wildlife to cause harm.⁸⁶ Most frequently, parties have claimed an unconstitutional taking without compensation arising from two situations. The first occurs when there is a prohibition against the destruction of wildlife that kills livestock.⁸⁷ The second situation arises when wildlife causes a depredation of crops and forage.⁸⁸ However, in all of these situations, a state may claim immunity either under the discretionary functions doctrine or under public trust responsibility.⁸⁹

A. Tort Liability for Wildlife-Caused Damages

If one has never asserted dominion over a wild animal, then one cannot be held accountable for the damage those animals may cause.⁹⁰ Because the sovereign has no ownership, control, or possession over *ferae naturae*, there is nothing in the common law that indicates that a state has a duty to prevent wild animals from damaging privately owned property.⁹¹ If the state were held liable for damages caused by *ferae naturae*, it would lead to the impossible situation of the state having to continually impound or confine wildlife, and restrict or interfere with migration and other habits of

⁸³ *Ivey*, 474 S.E.2d at 505.

⁸⁴ *State v. Bartee*, 894 S.W.2d 34, 41-42 (Tex. 1994); *Ex parte Blardone*, 115 S.W. 838, 840 (Tex. Crim. App. 1909).

⁸⁵ See, e.g., *Carlson v. State*, 598 P.2d 969, 973 (Alaska 1979) (claiming that the state had a duty to warn of the possibility of bear attacks on state-owned property).

⁸⁶ See *Arroyo v. State*, 40 Cal. Rptr. 2d 627, 629 (Cal. Ct. App. 1995) (arguing that state program to protect mountain lion created a dangerous artificial condition on state lands).

⁸⁷ See *Christy v. Hodel*, 857 F.2d 1324, 1327 (9th Cir. 1988) (arguing that federally protected bears killing sheep amounted to an unconstitutional taking).

⁸⁸ See *Mountain States Legal Found. v. Hodel*, 799 F.2d 1432, 1423, 1424 (10th Cir. 1986) (arguing that federally protected wild horses that consumed forage on private lands effectuated a taking).

⁸⁹ See discussion *infra* Part IV.C-D.

⁹⁰ *Sickman v. United States*, 184 F.2d 616, 618 (7th Cir. 1950).

⁹¹ *Leger v. La. Dep't of Wildlife and Fisheries*, 306 So. 2d 391, 394 (La. Ct. App. 1975).

wild animals.⁹² Therefore, no state is liable under common law tort for the depredations and damages to private property caused by wildlife.

As the cause of wildlife conservation swept the nation at the beginning of the twentieth century, courts were frequently called upon to determine whether state protective management spawned legal liability for the damage to private property caused by rebounding wildlife populations. In *Barrett v. State*,⁹³ one of the clearest decisions at the time, New York's Court of Appeals answered this question with an emphatic "no."⁹⁴ At issue was the state's beaver reintroduction and protection program. Noting that beaver are an important and valuable natural resource, the court concluded that the restoration program was a valid exercise of the state's inherent police powers.⁹⁵ The court determined that the state may limit private conduct by prohibiting both the harassment of beavers, and the destruction of their houses and dams.⁹⁶ The court also commented that to protect a public resource of value for all society, it may be necessary that a few citizens be disproportionately burdened, but that burden alone did not invalidate the state's actions.⁹⁷ Finally, the court concluded that because a state did not own beaver and other wild animals in a proprietary sense, the state could not be held liable for the harm caused by animals receiving state protection.⁹⁸

Federal courts have made similar rulings under the Federal Tort Claims Act.⁹⁹ In *Sickman v. United States*,¹⁰⁰ the Seventh Circuit ruled that the federal government was not negligently liable for the trespass of *ferae naturae* because wild animals exist in a state of nature and have not been reduced to the possession of anyone.¹⁰¹ Management and protection does not constitute possession; thus, the federal government was not subject to tort liabilities for the depredations of wild geese.¹⁰²

State liability, then, must rest on some other tort theory. Plaintiffs have pursued two alternate avenues. One is the idea that a state may be liable if it breached a duty to warn of a known danger caused by wildlife. A second is the argument that a state may breach its duty to the public if it creates an unnatural condition that exacerbates the danger posed by wildlife.

⁹² *Id.*

⁹³ 116 N.E. 99 (N.Y. 1917).

⁹⁴ *Id.* at 100.

⁹⁵ *Id.* at 101.

⁹⁶ *Id.*

⁹⁷ *Id.* at 100.

⁹⁸ *Id.* at 102.

⁹⁹ Federal Tort Claims Act of 1946, 28 U.S.C. §§ 1346, 2671-2680 (1994).

¹⁰⁰ 184 F.2d 616 (7th Cir. 1950).

¹⁰¹ *Id.* at 618.

¹⁰² *Id.*

1. Failure to Warn of a Known Danger

Alaska common law permits a person to challenge a property owner for negligently failing to warn of a known dangerous condition on his property. Under this theory, a person can assert that the state is liable for a dangerous condition, if the state knew it was dangerous, and the dangerous condition caused injury to someone lawfully upon state property.

Only one case reported in Alaska discusses this issue in a wildlife management context, although the court ultimately focused on the discretionary functions doctrine for its ruling. In *Carlson v. State*,¹⁰³ Alaska was sued for negligent failure to warn of the potential dangers posed by bears at a state-maintained roadside trash receptacle.¹⁰⁴ The court reviewed several relevant cases from different jurisdictions as instructive.

The court concluded that *Wamser v. St. Petersburg*¹⁰⁵ was most on point.¹⁰⁶ In *Wamser*, an injured swimmer argued that the city had a duty to warn of shark dangers in state waters.¹⁰⁷ Rejecting the plaintiff's claim, the Florida court held that the city had no duty to warn of sharks because it had no specific or reasonably foreseeable knowledge of potential shark attacks.¹⁰⁸ Indeed, the court went further, stating that the city had no duty to seek information about the likelihood of an attack.¹⁰⁹

In line with *Wamser*, the Alaska court also cited *Mann v. State*.¹¹⁰ In that case, a motorist, who struck a deer, complained that the state had a duty to post warnings, but because the state had no actual or constructive notice of a dangerous situation, the state had no obligation to warn.¹¹¹ However, the Alaska court also mentioned *Morrison v. State*,¹¹² which held that when deer habitually cross a particular section of highway, a duty to warn may arise.¹¹³

The *Carlson* court also found consistent legal reasoning in two federal cases involving bear attacks.¹¹⁴ In *Rubenstein v. United States*,¹¹⁵ because NPS had no specific knowledge of potentially dangerous bears in the vicinity of a campground, the government

¹⁰³ 598 P.2d 969, 973 (Alaska 1979).

¹⁰⁴ *Id.*

¹⁰⁵ 339 So. 2d 244 (Fla. Dist. Ct. App. 1976).

¹⁰⁶ 598 P.2d at 974.

¹⁰⁷ 339 So. 2d at 246.

¹⁰⁸ *Id.*

¹⁰⁹ *Id.*

¹¹⁰ 47 N.Y.S.2d 553 (N.Y. Ct. Cl. 1944).

¹¹¹ *Id.* at 553.

¹¹² 123 N.Y.S.2d 105 (N.Y. Ct. Cl. 1952).

¹¹³ *Id.* at 105.

¹¹⁴ *Carlson v. State*, 598 P.2d 969, 974 (Alaska 1979).

¹¹⁵ 338 F. Supp. 654 (N.D. Cal. 1972), *aff'd*, 488 F.2d 1071 (9th Cir. 1973).

did not have a duty to warn visitors.¹¹⁶ However, in *Claypool v. United States*,¹¹⁷ because NPS did know of previous raids by a particular problem bear, the agency was held liable for a subsequent attack against a camper.¹¹⁸

Without ruling on the state's liability, the *Carlson* court concluded that the bear-mauling victim had grounds to assert that the state created a dangerous condition at the highway pullout trash-barrel, and that the state failed to warn of possible bear attack, resulting from that condition.¹¹⁹ It is the state's failure to warn, *not the state's theoretical control over the bear*, that serves as a valid, legal cause of action. The court stated that "if a landowner knows that a wild animal is creating a dangerous situation on his property, he has a duty either to remove the danger or to warn people who may be threatened by the danger."¹²⁰

2. Artificial Conditions

A second possible tort action stems from the nature of the dangerous condition itself. Alaskan courts have not spoken directly to this issue. However, other state courts have determined that a state can only be subject to liability if the state directly contributed to the danger by creating an unnatural condition that exacerbated the danger. In *Arroyo v. State*,¹²¹ a California court was called upon to decide whether state wildlife management had created an artificially high population of mountain lion, which posed a danger to wildlands recreational users.¹²² The plaintiff argued that the state's moratorium on mountain lion hunting had increased the population of the animals to the point that their population was an artificial condition, thereby increasing the potential for dangerous contacts between the lions and the public.¹²³ Relying on a statute, the California court concluded that the intent of wildlife management was to restore natural populations of animals native to California.¹²⁴ Declaring that wild animals are a natural condition on unimproved public lands, the court decided that the state was not liable.¹²⁵

¹¹⁶ *Id.* at 656.

¹¹⁷ 98 F. Supp. 702 (S.D. Cal. 1951).

¹¹⁸ *Id.* at 704.

¹¹⁹ 598 P.2d at 973 (rejecting the state's attempt to shield itself under discretionary functions doctrine).

¹²⁰ *Id.* at 974. Some jurisdictions have even held that the state has no duty to warn of known dangers posed by wildlife. For example, the Iowa Supreme Court held that no duty existed to post a highway warning sign at an area of frequent deer crossings. *Metier v. Cooper Transp. Co.*, 378 N.W.2d 907, 913-14 (Iowa 1985).

¹²¹ 40 Cal. Rptr. 2d 627 (Cal. Ct. App. 1995).

¹²² *Id.* at 629.

¹²³ *Id.* at 632.

¹²⁴ *Id.* at 631-32.

¹²⁵ *Id.*

In *Andrews v. Andrews*,¹²⁶ an isolated case with which most other jurisdictions disagree, a North Carolina court determined that an individual may be held liable for creating an artificial condition that induces wildlife to cause harm to another's property.¹²⁷ The construction of an artificial pond and the provision of feed on private property both attracted unusual concentrations of migratory waterfowl. The ducks and geese consumed copious quantities of a neighbor's crops and in general, were injurious to the neighbor's property.¹²⁸ The court concluded that these conditions were not created by a natural state, but rather were artifices of human endeavor, thus constituting the tort of nuisance.¹²⁹

However, individuals should not look to courts for comfort when they are damaged by wildlife under intensive state management. Over the past century, courts consistently have been hostile towards holding a state liable for damage to private property that results from the state stewardship of wildlife.¹³⁰

B. Takings Doctrine and the Management of Wildlife

Another potential source for state liability may arise under takings doctrine. However, like tort liability, courts have tended to be inimical toward this legal theory as a basis for state liability. A taking occurs when a state appropriates private property for a public purpose without providing just compensation.¹³¹ The issue in most takings cases focuses upon the character and degree of sovereign intrusion into private property right expectations. A taking cause of action may arise under either a state or federal constitution.¹³² The Fifth Amendment of the United States Constitution applies to the federal government directly and to the states through the Due Process Clause of the 14th Amendment.¹³³ Takings can occur as a result of direct appropriation of private property, damage to private property as a result of a government act, or because of significant government restrictions on the use of private property.¹³⁴

¹²⁶ 88 S.E.2d 88 (N.C. 1955).

¹²⁷ *Id.* at 93.

¹²⁸ *Id.* at 92.

¹²⁹ *Id.* at 92-93.

¹³⁰ *See, e.g., Green Acres Land & Cattle v. Missouri*, 766 S.W.2d 649, 652 (Mo. 1988) (holding that a wildlife refuge was not an unreasonable use of land or a nuisance); *Barrett v. State*, 220 N.Y. 423, 427 (1917) (holding that the state was not liable for damage caused by beavers protected under state law).

¹³¹ *KLK, Inc. v. United States Dep't of Interior*, 35 F.3d 454, 455 (9th Cir. 1994).

¹³² *See, e.g., Christy v. Hodel*, 857 F.2d 1324 (9th Cir. 1988) (addressing federal takings claim for wildlife-caused damage to private property); *State v. Hammer*, 550 P.2d 820 (Alaska 1976) (addressing takings claim arising under Alaska's constitution).

¹³³ U.S. CONST. amend. V; U.S. CONST. amend. XIV, § 1.

¹³⁴ *Christy*, 857 F.2d at 1329-30; *Mountain States Legal Found. v. Hodel*, 799

Alaska's constitution provides elevated protection for property owners from regulatory takings.¹³⁵ While the federal takings calculus does not allow for compensation for lost profits, Alaska law does.¹³⁶ Also, Alaska law requires an inquiry into the legitimacy and importance of the government's goals advanced by the regulation.¹³⁷ This is a noticeably more difficult test for the state to meet than under federal takings doctrine. However, even under these circumstances, it is unlikely that a plaintiff can prevail.

1. Prohibitions on Killing Depredating Wildlife

Absent an explicit statute to the contrary, individuals cannot destroy wildlife that is damaging their private property.¹³⁸ In Alaska, such a statute exists, but it is doubtful if it allows herders to harass or kill caribou to prevent mingling with reindeer.¹³⁹

The leading federal takings case on this issue is *Christy v. Hodel*.¹⁴⁰ Mr. Christy owned 1700 sheep on land leased from the Blackfeet Indian Tribe adjacent to Glacier National Park. His sheep became the subject of nightly grizzly bear raids, which in the span of several nights, killed eighty-four of Christy's animals. At first, he cooperated with federal wildlife officers' attempt to control the bears, but these efforts proved fruitless. Eventually, he shot and killed a bear that was in the act of destroying sheep.¹⁴¹ Mr. Christy was prosecuted for violating the Endangered Species Act,¹⁴² which

F.2d 1423, 1429-31 (10th Cir. 1986).

¹³⁵ ALASKA CONST. art. I, § 18; see 8960 Square Feet, More or Less v. State, 806 P.2d 843, 845 (Alaska 1991) (holding loss of visibility is compensable where the reduced visibility results from changes made to land taken by the state); DeLisio v. Alaska Super. Ct., 740 P.2d 437, 440-41 (Alaska 1987) (holding professional services constitute property subject to Alaska's takings provision).

¹³⁶ *Hammer*, 550 P.2d at 826.

¹³⁷ *Homeward Bound, Inc. v. Anchorage Sch. Dist.*, 791 P.2d 610, 614 (Alaska 1990).

¹³⁸ *United States v. Darst*, 726 F. Supp. 286, 288 (D. Kan. 1989); but see *Cross v. State*, 370 P.2d 371 (Wyo. 1962). In *Cross*, the Wyoming Supreme Court considered whether the legislature can, pursuant to police power, prohibit a man from protecting his property from the depredations of wild animals. 370 P.2d at 327. The court found that it could not, stating that a citizen has the constitutional right to protect his property from damage-causing wildlife by killing the offending animals, but only if the use of force is reasonably necessary and is a last resort after all other reasonable means have been exhausted. *Id.* at 378.

¹³⁹ See ALASKA STAT. § 11.81.320 (Michie 2000), implemented by ALASKA ADMIN. CODE tit. 5, § 81.375 (2000) (regulation allows taking game in defense of life or property when the necessity is not caused by harassment or improper trash disposal and all other practicable means have been first exercised); *Jordan v. State*, 681 P.2d 346, 350 n.3 (Alaska Ct. App. 1984) (regulations address individual's right to kill wildlife, but they do not support a takings claim).

¹⁴⁰ 857 F.2d 1324 (9th Cir. 1988).

¹⁴¹ *Id.* at 1326.

¹⁴² Endangered Species Act of 1973, 16 U.S.C. §§ 1531-1544 (1994).

protects the grizzly bear as a threatened species.¹⁴³ Christy argued that the prohibition against protecting his private property from damage was an unconstitutional taking without compensation.¹⁴⁴

The court ruled against Mr. Christy, stating that “the right to kill federally protected wildlife in defense of property is not ‘implicit in the concept of ordered liberty’ nor so ‘deeply rooted in this Nation’s history and tradition’ that it can be recognized by [this court] as a fundamental right guaranteed by the Fifth Amendment.”¹⁴⁵ Therefore, the prohibition against the destruction of grizzly bears was not subject to strict scrutiny; it was instead reviewed under the standard of rational basis, which the court determined the statute survived.¹⁴⁶ A subsequent lower court decision followed the *Christy* rationale, holding that a “[d]efendant has no unconditional or absolute right to kill federally protected birds in defense of his property.”¹⁴⁷ This lower court opinion addressed the issue of trapping great horned owls that were attacking a farmer’s chickens.¹⁴⁸

Alaskan courts have not directly addressed the issue of whether the state’s own constitutional protection of private property may permit the killing or harassment of depredating wildlife. Dicta indicates, however, that the Alaskan courts would rule in a fashion consistent with the *Christy* rationale.¹⁴⁹

2. Destruction of Private Property by Wildlife as Government Taking

As in the tort cases, courts have stated that wildlife are only regulated by the state; one cannot claim that wild animals are instruments of state action. Case law rejecting takings claims for damage caused by wildlife has been consistent over the past three decades. Thus, takings claims for the consumption of private hay by

¹⁴³ *Christy*, 857 F.2d at 1326-27.

¹⁴⁴ *Id.* at 1327.

¹⁴⁵ *Id.* at 1330.

¹⁴⁶ *Id.* at 1330, 1322-34.

¹⁴⁷ *United States v. Darst*, 726 F. Supp. 286, 288 (D. Kan. 1989).

¹⁴⁸ *Id.* at 287.

¹⁴⁹ *Jordan v. State*, 681 P.2d 346, 350 n.3 (Alaska Ct. App. 1984) (citations omitted). The case concerned the killing of a black bear to prevent the bear from consuming a legally harvested moose carcass and the court stated:

To the extent that the regulations infringe upon their right to kill the bear in defense of property, the Jordans argue, they were deprived of their property without due process of law and without compensation. We disagree. The state regulation did not result in either a “taking” or an injury to the Jordans’ property. They simply regulated the Jordans’ right to shoot a bear. The Jordans did not suffer a loss of property without due process of law because their loss was incidental to the state regulation that was enacted to protect game.

wild horses¹⁵⁰ and for the forage consumed by artificially introduced elk were both rejected.¹⁵¹ While there are no reported Alaska cases, federal and other state jurisdictions are clear.

Mountain States Legal Foundation v. Hodel is the controlling federal case. There, private rangeland owners in Wyoming complained that federally protected wild horses were consuming significant quantities of forage grown on private lands.¹⁵² The ranchers asserted that the protection of wild horses prevented them from protecting their property, and that the loss of valuable forage constituted a taking in violation of the Fifth Amendment.¹⁵³

The federal court pointed out that while wild horses are progeny of domesticated animals, they are wildlife under federal law, and therefore, must be considered no less the wild animal than are the bears that roam the national parks.¹⁵⁴ The court then opined that it is well settled that wild animals are under the control of no one.¹⁵⁵ Therefore, the ranchers were incorrect to allege that the "wild horses are, in effect, instrumentalities of the federal government whose presence constitutes a permanent governmental occupation of the Association's property."¹⁵⁶ Looking to previous state and federal decisions on the matter, the court found that the majority view rejected takings claims for damage caused by protected wildlife.¹⁵⁷ In addressing the effect of the legislation protecting the horses, the court admitted that the grazing habits of wild horses diminished the value of the plaintiffs' properties. However, the court pointed out that a mere reduction in the value of property as a result of government regulation pursuant to statute does not necessarily constitute a taking.¹⁵⁸

Recently, in *Moerman v. State*,¹⁵⁹ a California court reached a similar conclusion. A landowner alleged that he was entitled to compensation for damage to his property caused by elk that the state wildlife agency relocated near his ranch.¹⁶⁰ Under a wildlife restoration program, the state moved tule elk from their natural grazing area to a region where the elk had been extirpated nearly a century before.¹⁶¹ The elk destroyed the landowner's fences and consumed forage intended for his livestock.

In an opinion consistent with *Christy*, the court reasoned the

¹⁵⁰ *Mountain States Legal Found. v. Hodel*, 799 F.2d 1423, 1431 (10th Cir. 1986).

¹⁵¹ *Moerman v. State*, 21 Cal. Rptr. 2d 329, 334 (Cal. Ct. App. 1993).

¹⁵² *Mountain States Legal Found.*, 779 F.2d at 1424.

¹⁵³ *Id.*

¹⁵⁴ *Id.* at 1426.

¹⁵⁵ *Id.*

¹⁵⁶ *Id.* at 1428.

¹⁵⁷ *Id.* at 1429.

¹⁵⁸ *Id.* at 1431.

¹⁵⁹ 21 Cal. Rptr. 2d 329 (Cal. Ct. App. 1993).

¹⁶⁰ *Id.* at 331.

¹⁶¹ *Id.*

elk were wild animals that naturally roam across private and public property, and the state cannot own or control wild animals that have not been reduced to possession.¹⁶² The court considered it immaterial that the state wildlife agencies captured, tagged, released, and monitored the elk.¹⁶³ The animals remained *ferae naturae*, and therefore, the government did not owe compensation for the damage to private property caused by the elk.¹⁶⁴

C. State Immunity Under Discretionary Functions Doctrine

Under common law, a state enjoys sovereign immunity from suit by an individual.¹⁶⁵ States may choose, however, to voluntarily submit to liability through general statutory waivers.¹⁶⁶ Both states and the federal government have maintained an exception to this waiver of immunity through the discretionary functions doctrine.¹⁶⁷ Thus, even if a state or federal government is negligent in some way in the management of wildlife, the doctrine may bar a plaintiff from seeking redress.

The discretionary functions doctrine maintains sovereign immunity for injuries caused by government agencies and employees acting within the scope of their employment in the exercise, or failure to exercise, a discretionary act.¹⁶⁸ The purpose of this waiver exception is to protect certain governmental activities from exposure to suit by private individuals.

In *Tippett v. United States*, a federal wildlife management case, the Tenth Circuit stated the two-prong test for applying the doctrine. First, the court must decide whether the action complained of involved a matter of choice for the government employee.¹⁶⁹ Second, the court must decide whether the exception is intended to apply to that type of choice.¹⁷⁰ The type of choices that are shielded by the exception are those that involve balancing competing policy considerations.¹⁷¹ If a statute, regulation, or policy specifically prescribes a particular course of action under certain circumstances, the exception cannot be applied.¹⁷²

At issue in *Tippett* was a decision by a ranger in Yellowstone

¹⁶² *Id.* at 332-33 (citations omitted).

¹⁶³ *Id.* at 333.

¹⁶⁴ *Id.*

¹⁶⁵ *Seminole Tribe of Fla. v. Florida*, 517 U.S. 44, 72-73 (1996).

¹⁶⁶ *See, e.g., ALASKA STAT. § 09.50.250* (Michie 2000) (Alaska Tort Claims Act generally waives sovereign immunity for tort claims against the state).

¹⁶⁷ *Tippett v. United States*, 108 F.3d 1194, 1196 (10th Cir. 1997); *Brady v. State* 965 P.2d 1, 16 (Alaska 1998).

¹⁶⁸ *Tippett*, 108 F.3d at 1196.

¹⁶⁹ *Id.*

¹⁷⁰ *Id.*

¹⁷¹ *Id.* at 1198.

¹⁷² *Id.* at 1197.

National Park not to remove a moose that had been threatening snowmobilers during the course of a winter day.¹⁷³ When a particularly unfortunate snowmobile rider tried to go around this recalcitrant ungulate, the moose charged and kicked Mr. Tippett, breaking his neck. Mr. Tippett sued, claiming that NPS was negligent.¹⁷⁴

The court rejected the claim, applying the discretionary functions exception to the waiver of sovereign immunity.¹⁷⁵ Finding that no specific regulations addressed confrontations between wildlife and snowmobiles in Yellowstone, the court stated that park rangers are entrusted with the discretion to balance between the conservation of wild animals and visitor safety.¹⁷⁶ Consequently, Mr. Tippett could not sue the federal government.¹⁷⁷

Alaska has statutorily consented to being sued for certain torts.¹⁷⁸ Like most states, Alaska has also stipulated that it cannot be sued for actions arising from discretionary functions.¹⁷⁹ In Alaska, the exception is narrower than in federal law because application of the discretionary functions exception is based upon the "planning-operations" test.¹⁸⁰

Carlson v. State evaluated whether a particular decision not to collect trash at a roadside turnout in winter was a discretionary function.¹⁸¹ As previously discussed, a bear grievously mauled Carlson at the rubbish-strewn turnout. The legal question was if the decision to allow the garbage to pile up was discretionary. Under the planning-operational test, the question became whether the decision complained of rises to the level of policy making or planning; such acts cannot result in tort liability.¹⁸² Because the state did not have a policy concerning winter garbage collection, the decision to ignore the roadside pullout's cleanliness was operational in nature and not subject to the exception.¹⁸³ Thus, Carlson could claim that the state negligently failed to warn of a known danger of bears at its roadside.¹⁸⁴

¹⁷³ *Id.* at 1196.

¹⁷⁴ *Id.* at 1195.

¹⁷⁵ *Id.* at 1198-99.

¹⁷⁶ *Id.*

¹⁷⁷ *Id.*

¹⁷⁸ ALASKA STAT. § 09.50.250 (Michie 2000).

¹⁷⁹ *Id.* ("[A]n action may not be brought under this section if the claim [is] based upon the exercise or performance or the failure to exercise or perform a discretionary function.").

¹⁸⁰ *Brady v. State*, 965 P.2d 1, 16 (Alaska 1998).

¹⁸¹ *Carlson v. State*, 598 P.2d 969, 973 (Alaska 1979).

¹⁸² *Id.* at 972.

¹⁸³ *Id.* at 973.

¹⁸⁴ *Id.* at 975.

D. State Wildlife Responsibilities Under the Public Trust Doctrine

In addition to being limited by takings doctrine and tort theory, a state's police power to manage wildlife is also circumscribed by the common law doctrine of public trust. The public trust doctrine has had profound limiting effects on Alaska's management of wildlife. Fish, wildlife, and the beds of navigable waters are public trust resources in Alaska,¹⁸⁵ and the public trust doctrine imposes both an affirmative duty and a proscription upon exercises of state police powers over trust resources.¹⁸⁶ Under its affirmative duty, the state must guarantee equality of opportunity to gain access to public trust resources for public trust uses.¹⁸⁷ Likewise, the public trust doctrine prohibits state abrogation of its duties as trustee.¹⁸⁸

An implied corollary to the public trust doctrine is the notion that the state possesses a mandatory duty to protect wildlife and ensure the perpetuation of all wildlife species.¹⁸⁹ One such duty may be to prevent both genetic pollution in wildlife from domestic animals and transmission of infectious disease or parasites.¹⁹⁰ Management proscriptions pursuant to trust doctrine obligations that limit use of private property are immune from takings challenges because of an implied trust easement that predates private title.¹⁹¹ Courts in Alaska use the strictest level of scrutiny to review public trust doctrine challenges to state management of wildlife,¹⁹² making the doctrine one of the most significant limitations upon state wildlife management discretion in Alaska.

E. Federal Trust Responsibilities to Native Americans

Federal authority is quite different from state power. The federal government possesses no inherent police power because, under the U.S. Constitution, it is a government with limited, delegated

¹⁸⁵ See *Brooks v. Wright*, 971 P.2d 1025, 1033 (Alaska 1999) (holding that legislature lacks exclusive law-making authority over wildlife management); *Pullen v. Ulmer*, 923 P.2d 54, 61 (Alaska 1996) (holding that salmon may not be appropriated by initiative because they are assets of the state); *McDowell v. State*, 785 P.2d 1, 8 (Alaska 1989) (declaring statute unconstitutional because it granted natural residents preference over fish and game for subsistence purposes); *Owsichuk v. State*, 763 P.2d 488, 496 (Alaska 1988) (holding statute granting hunting guides exclusive use of areas unconstitutional); *CWC Fisheries, Inc. v. Bunker*, 755 P.2d 1115, 1118-20 (Alaska 1988) (applying the public trust doctrine to tidelands).

¹⁸⁶ *Owsichuk*, 763 P.2d at 494-96; *CWC Fisheries*, 755 P.2d at 1117-19; *Pullen*, 923 P.2d at 60-61.

¹⁸⁷ *Owsichuk*, 763 P.2d at 494-96; *CWC Fisheries*, 755 P.2d at 1117-19.

¹⁸⁸ *Pullen*, 923 P.2d at 60-61.

¹⁸⁹ *In re Steuart Transp. Co.*, 495 F. Supp. 38, 40 (E.D. Va. 1980); *Puerto Rico v. S.S. Zoe Colocotroni*, 628 F.2d 652, 671 (1st Cir. 1980).

¹⁹⁰ *Pac. Northwest Venison Producers v. Smitch*, 20 F.3d 1008, 1013 (9th Cir. 1994); *Maine v. Taylor*, 477 U.S. 131, 148-51 (1986).

¹⁹¹ *Orion Corp. v. State*, 747 P.2d 1062, 1080-82 (Wash. 1987).

¹⁹² *Owsichuk*, 763 P.2d at 492.

authority. This does not, however, appreciably limit federal ability to manage wildlife when it does so pursuant to one of its delegated powers. These powers are derived from expansive interpretations of the U.S. Constitution's Commerce Clause,¹⁹³ Property Clause,¹⁹⁴ and Treaty Clause.¹⁹⁵ When the federal government exercises police-like power pursuant to any of these clauses, the federal action preempts conflicting state law under the U.S. Constitution's Supremacy Clause.¹⁹⁶

A special relationship exists between the United States Congress and Native Americans.¹⁹⁷ This relationship includes a mixture of legal duties, moral obligations, and assumptions that apply to the interpretation of statutes and treaties. Under certain circumstances, the relationship approximates a trusteeship, with the United States serving as the trustee and Native Americans the beneficiaries.¹⁹⁸ The exact demarcation of the duties and obligations held by the federal government, however, is not exact and may be context-specific.

Federal agencies that have been delegated authority to work with tribal governments must act on behalf of the best interests of Native Americans when implementing statutes that touch upon the federal and Indian relationship.¹⁹⁹ Even federal agencies that have no direct relationship to Indian tribes are encumbered by a duty to execute a trust mandate for the benefit of Native Americans. However, the extent of this obligation—as it relates to agencies not specifically established to address Indian policy—is not well developed under the law. Thus, considerable uncertainty exists as

¹⁹³ U.S. CONST. art. I, § 8, cl. 3; *see also* *United States v. Helsley*, 615 F.2d 784, 786 (9th Cir. 1979) (holding that Congress had authority under the Commerce Clause to regulate airborne hunting).

¹⁹⁴ U.S. CONST. art. IV, § 3, cl. 2; *see also* *Kleppe v. New Mexico*, 426 U.S. 529, 540–44 (1976) (holding that Congress has authority under the Commerce Clause to regulate the public lands and the wildlife thereon).

¹⁹⁵ U.S. CONST. art. I, § 10, cl. 1; *see also* *Missouri v. Holland*, 252 U.S. 416, 432 (1920) (holding Congress had authority under the Treaty Clause to regulate migratory birds).

¹⁹⁶ U.S. CONST. art VI, cl. 2; *see also* *Hunt v. United States*, 278 U.S. 96, 100 (1928) (holding that United State's decision to kill deer in Grand Canyon preempted state hunting laws).

¹⁹⁷ *See, e.g.,* *United States v. Mitchell*, 463 U.S. 206 (1983) (holding that comprehensive statutes and regulations giving federal government responsibility to manage Indian resources and property established a fiduciary relationship); *Morton v. Mancari*, 417 U.S. 535 (1974) (holding that Native American hiring preference in BIA did not violate the Equal Protections Clause); *Lone Wolf v. Hitchcock*, 187 U.S. 553 (1903) (holding the United States has a duty of protection to the Indian Tribes arising from the power that the federal government possesses over Tribal property); *Cherokee Nation v. Georgia*, 30 U.S. 1 (1831) (stating that the relationship between the federal government and Indian Tribes is unique, and that Tribes look to the government for protection).

¹⁹⁸ *Mitchell*, 463 U.S. at 224.

¹⁹⁹ *Inter-Tribal Council of Ariz. v. Babbitt*, 51 F.3d 199, 203 (9th Cir. 1995).

to the exact nature of the trust duty owed to Native Americans by agencies such as NPS.

Some legal scholars and litigators expound the theory that agency responsibility for the trust toward Indian tribes must take priority over policies that arise from the exercise of administrative discretion if a conflict exists between policy and Indian welfare.²⁰⁰ They argue that only an express congressional directive to the contrary overrides this fiduciary duty.²⁰¹ This position, though, seems contrary to a recent United States Supreme Court decision in which the Court indicated that agencies have the liberty to balance trust considerations with their normal responsibilities, so long as the decisions are made in good faith and without animus towards tribes.²⁰²

One could argue that NPS, in its supervision of Bering Land Bridge, is involved in the direct management of reindeer, which are the property of Native herders. Consequently, the agency has a primary, not incidental, relationship with tribal government and Natives, making it answerable to the more robust trust analysis.²⁰³ Because Congress has expressly directed NPS, through ANILCA, to manage the preserve in a manner consistent with providing a continued reindeer herding opportunity,²⁰⁴ an express trust duty automatically attaches to agency decisions that may adversely affect the reindeer because federal agencies incur specific, not general, fiduciary responsibilities when the agency manages Indian resources.²⁰⁵

At a minimum, one can argue that federal agencies have a duty not to cavalierly destroy Indian natural resources and property. Indeed, federal agencies ought to protect Indian property when at all possible.²⁰⁶ However, the Supreme Court has recognized that federal agencies with primary duties not directly related to Indian welfare need not adhere to the strict standards of a trustee when carrying out their statutory obligations.²⁰⁷

²⁰⁰ Reid P. Chambers, *Judicial Enforcement of the Federal Trust Responsibility to Indians*, 27 STAN. L. REV. 1213, 1232-34 (1975) ("[W]hen actions or projects of federal agencies conflict with the trust responsibility to Indians, the non-Indian federal activity should be operated so as to avoid interference with Indian trust property."); Dillingham, *supra* note 10, at 680 (arguing that the Reindeer Industry Act's primary purpose is to protect Native American subsistence).

²⁰¹ Chambers, *supra* note 200, at 1248.

²⁰² *Lincoln v. Vigil*, 508 U.S. 182, 194-95 (1993) (holding that the trust relationship does not limit agency discretion to reorder its priorities from serving a subgroup to serving a broader class of Native Americans).

²⁰³ Dillingham, *supra* note 10, at 678-80.

²⁰⁴ 16 U.S.C. § 410hh(2) (1994).

²⁰⁵ *Inter-Tribal Council of Ariz. v. Babbitt*, 51 F.3d 199, 203 (9th Cir. 1995).

²⁰⁶ *Pyramid Lake Paiute Indians v. Morton*, 354 F. Supp. 252, 256 (D.D.C. 1972).

²⁰⁷ *Nevada v. United States*, 463 U.S. 110, 127-28 (1983).

F. National Park Service Duty to Protect Caribou

Congress has spoken about the management of the National Park System. In the National Park Service Organic Act (Organic Act or Act),²⁰⁸—creating NPS—Congress stated that the agency was

[To] promote and regulate the use of the Federal areas known as national parks, monuments, and reservations . . . by such means and measures as conform to the fundamental purpose of said parks, monuments and reservations, which purpose is to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.²⁰⁹

In subsequent amendments to the Organic Act, Congress explained that the promotion and regulation of the National Park System shall be consistent with the protection of park resources, and shall not be exercised in derogation of these values except as specifically provided for by Congress.²¹⁰ In this regard, subsequent park unit legislation is seen as augmenting the Organic Act, not repealing its preservation mandates.²¹¹

The Organic Act and its amendments require management of park areas so as not to compromise the park's natural resources.²¹² However, the Act is silent as to how NPS is to achieve protection of park resources.²¹³ Congress has placed specific emphasis on the preservation and conservation of natural resources within park units.²¹⁴ Indeed, the desire to observe wildlife for purely aesthetic purposes in national parks is a cognizable user interest within the definition of park use and enjoyment.²¹⁵ Congress has repeatedly made clear that it does not consider consumptive uses of park resources to be compatible within park units unless otherwise specifically provided for by statute.²¹⁶

Under the Organic Act, NPS has been given the difficult task of balancing uses and protection of park resources.²¹⁷ To achieve this difficult enterprise, NPS has broad discretion to determine what

²⁰⁸ 16 U.S.C. §§ 1-18f-3 (1994 & Supp. II 1996).

²⁰⁹ *Id.* § 1.

²¹⁰ *Id.* § 1a-1.

²¹¹ *Mausolf v. Babbitt (Mausolf IV)*, 125 F.3d 661, 668 (8th Cir. 1997).

²¹² *Alaska Wilderness Alliance v. Jensen*, 108 F.3d 1065, 1072 (9th Cir. 1997).

²¹³ *Nat'l Wildlife Fed'n v. Nat'l Park Serv.*, 669 F. Supp. 384, 391 (D. Wyo. 1987).

²¹⁴ *Mich. United Conservation Clubs v. Lujan (MUCC)*, 949 F.2d 202, 206 (6th Cir. 1991); *Bicycle Trails Council of Marin v. Babbitt (BTCM)*, 82 F.3d 1445, 1452 (9th Cir. 1996).

²¹⁵ *Wyo. Farm Bureau Fed'n v. Babbitt*, 987 F. Supp. 1349, 1360 (D. Wyo. 1997), *rev'd on other grounds*, 199 F.3d 1224 (10th Cir. 2000).

²¹⁶ *MUCC*, 949 F.2d at 207.

²¹⁷ *Nat'l Wildlife Fed'n*, 669 F. Supp. at 390.

uses of park resources are proper, and what proportion of the park's resources are available for each use.²¹⁸ In carrying out its preservation mission, NPS need not wait for damage to actually occur before taking action to protect wildlife and other natural attributes.²¹⁹ Exotic species such as wild horses, however popular, may be removed when their continued existence in the park poses a potential threat to preserving the park's ecological integrity.²²⁰

As to the question of whether NPS may permit activities within national parks that permanently impair unique park resources, the answer is "no."²²¹ NPS's mandate permits only those uses that are consistent with preservation and inconsistent with significant, permanent impairment.²²² Under ANILCA, the preservation mandate is refined to mean that management of wildlife is to maintain natural and healthy populations.²²³ While NPS has not yet promulgated regulations to implement the "natural and healthy" statutory language, it is likely that Alaskan national parks, monuments, and preserves have less discretion in balancing uses with preservation than their counterparts in other parts of the nation.

G. Federal Agency Obligation to Provide for Subsistence Opportunity

Related to a potential federal obligation to manage caribou for natural and healthy populations is a legal argument that could be detrimental of the reindeer industry on the Seward Peninsula. This legal action stems from the subsistence provisions contained in ANILCA.

Under ANILCA, all federal agencies must provide for the continuation of subsistence opportunity on federal land for local rural residents.²²⁴ Any decision that may interfere with subsistence activity is reviewed pursuant to procedures stipulated within the text of the statute.²²⁵ If either BLM or NPS assists reindeer herders in limiting caribou incursions onto the Seward Peninsula, a local rural resident may argue that the management activity interferes with the resident's opportunity for subsistence harvest of the

²¹⁸ *BTCM*, 82 F.3d at 1454; *Nat'l Wildlife Fed'n*, 669 F. Supp. at 391.

²¹⁹ *Wilkins v. Sec'y of Interior*, 995 F.2d 850, 853 (8th Cir. 1993); *New Mexico State Game Comm'n v. Udall*, 410 F.2d 1197, 1201 (10th Cir. 1969).

²²⁰ *Wilkins*, 995 F.2d at 852-53.

²²¹ *S. Utah Wilderness Alliance v. Dabney*, 222 F.3d 819, 829 (10th Cir. 2000) ("We agree that permitting 'significant permanent impairment' would violate the Act's mandate that the NPS provide for the enjoyment of the parks 'in such a manner and by such means as will leave them unimpaired for the enjoyment of future generations.'").

²²² 16 U.S.C. § 1a-1 (1994); *S. Utah Wilderness Alliance*, 222 F.3d at 829.

²²³ 16 U.S.C. § 3125 (1994 & Supp. III 1997).

²²⁴ *Id.* §§ 3111-3126.

²²⁵ *Id.* § 3120(a) (1994).

caribou. It may well be that federal agencies would be prohibited, under the subsistence provisions of ANILCA, from rendering the type of active assistance that causes marked departures from current migration patterns exhibited by the Western Arctic Caribou Herd. At the very least, a potentially aggrieved party could demand strict adherence to the subsistence impact assessment process provided by ANILCA.

Analysis of federal land management programs must consider possible effects on subsistence opportunity.²²⁶ This analysis is a two-step process. First, the land manager must determine if the contemplated agency action may significantly restrict subsistence opportunity.²²⁷ If the answer is yes, then the agency must complete a thorough review assessing alternative actions and effective mitigation.²²⁸ The trigger for the second level of analysis is not a "likely" significant impact, but rather, a "credible threat" of a significant impact.²²⁹

Significant interference with subsistence use may result from 1) a reduction in availability of harvestable resources due to a population decline, 2) a reduction in availability of harvestable resources caused by an alteration in behavior, location, or habitat, and 3) limitation on access to harvestable resources.²³⁰ In determining if a particular management activity may significantly impact subsistence activity, ANILCA requires evaluation of cumulative impacts from related management activities upon the subsistence opportunity.²³¹

Agency cooperation in aggressive management techniques that deter caribou from entering the Seward Peninsula creates the possibility of a cause of action by subsistence hunters, under the second criterion listed above. At a minimum, this would automatically trigger the administrative process necessitating the impact assessment. Once the assessment process has begun, the federal activity in question may only proceed if the Department of Interior finds that the effects on subsistence opportunity are necessary and consistent with sound public lands management, and all reasonable steps to minimize the adverse effects on subsistence use have been taken.²³² Such a standard may be difficult to satisfy.

²²⁶ *Kunaknana v. Clark*, 742 F.2d 1145, 1151 (9th Cir. 1984).

²²⁷ *Id.* at 1151.

²²⁸ *Id.*

²²⁹ *Hanlon v. Barton*, 740 F. Supp. 1446, 1449 (D. Alaska 1988).

²³⁰ *Kunaknana*, 742 F.2d at 1152.

²³¹ *Sierra Club v. Penfold*, 857 F.2d 1307, 1321 (9th Cir. 1988).

²³² 16 U.S.C. § 3120(a)(3) (1994).

V. CONCLUSION

Reindeer herders in Alaska have suffered tremendous losses because of new migration patterns by the Western Arctic Caribou Herd. As the caribou colonize the Seward Peninsula, reindeer herds have been decimated and herders have gone out of business. Yet, this analysis of available case law indicates that there is little likelihood that the herders would be successful pursuing either tort or constitutional takings claims for compensation. Indeed, there is some indication in the reviewed materials to support the notion that wildlife advocacy groups could sue state or federal agencies to demand more restrictive regulation of the reindeer industry to prevent potential deleterious impacts to caribou by reindeer herders. The situation cries out for a balanced legislative solution that fairly addresses the needs and obligations of all concerned.

Neither the State of Alaska nor the federal government own or control caribou. Caribou are wild animals subject to the doctrine of *ferae naturae*. Consequently, the state has no liability for the actions taken by caribou, even though by exercising of its police powers the state can manage and prescribe the means and conditions under which an individual may reduce a caribou to personal possession. Like the beaver in *Barrett* or the geese in *Sickman*, the state has no duty to control the migration and other behaviors of caribou.

Instead, herders may argue that it is not the caribou that caused the loss of reindeer. Rather, the harm resulted from the federal government's or state's failure to warn herders that migrating caribou, while on public lands east of the Seward Peninsula, were poised to enter reindeer ranges. Had herders received warning of the imminent caribou incursion, the reindeer owners could have taken steps to herd reindeer away from lichen corridors and thereby protect them from being overwhelmed by caribou.

Both state and federal governments are in a reasonable position to know caribou location because the Western Arctic Caribou Herd is closely monitored with both radio and satellite collars by the Alaska Department of Fish and Game and FWS.²³³ This monitoring is a regular part of those agencies' normal research and management activity. Arguably, the agencies have a duty to warn because the agencies now know that caribou, when migrating through reindeer ranges, tend to incorporate reindeer, causing permanent loss to the herders. Just as the plaintiff in *Carlson* was entitled to sue Alaska for failing to warn of the dangerous condition posed by possible bears at a dumpsite, a herder could sue for the government's failure to warn of the caribou encroachment.

There are three major flaws to this approach in tort. First, it is

²³³ WAC MANAGEMENT PLAN, *supra* note 44, at B-10.

unlikely that caribou constitute an inherently dangerous condition on public property for tort purposes. A bear habituated to garbage is an obvious danger. A caribou, gently grazing on lichen, sedges, and willow boughs is a relatively benign presence on public land. Indeed, only the exceptional circumstances of reindeer herders make them susceptible to loss when caribou pass through the peninsula. If the danger is not severe, obvious, and imminent, there probably is no duty to warn. The second problem is that public agencies could easily terminate grazing permits to reindeer holders in order to limit agency exposure to liability. Loss of grazing privileges on public land would cause a more deleterious blow to the reindeer industry than the loss of reindeer to migrating caribou. Even the threat of suit may be enough to cause agencies to be more hostile to reindeer herding. Finally, the decision not to warn herders may be the product of balancing competing policy choices and therefore, immune from suit under the discretionary functions doctrine.

It would be even more difficult to argue that Alaska has created an artificial condition on its land by creating an overly abundant caribou population that now spills into reindeer ranges on the Seward Peninsula. The management plan for the Western Arctic Caribou Herd primarily involves monitoring, allowing natural conditions such as predators, protecting habitat, and determining whether to regulate the ungulate population.²³⁴ State and federal agencies have done nothing in western Alaska akin to the activities in *Andrews*. No effort has been expended to increase the carrying capacity of the habitat of the Western Arctic caribou, and no particular predator control program has been implemented to specifically bolster caribou populations on the Seward Peninsula. Caribou are by nature migratory and their herd populations throughout the state experience wide variations in numbers over time.

An argument championing the claim of a constitutional taking of herders' property would likewise fail. Loss of reindeer to caribou is not unlike the loss of forage to elk in *Moerman*, or the loss of sheep to grizzly bears in *Christy*. Because caribou are not under the active control of the state, they cannot be considered instrumentalities of state action.

Equally as important is the recognition that herders probably do not possess a right of self-help to harass caribou to drive them off the peninsula and away from the reindeer. Given the dicta of *Jordan* and the rulings in *Christy* and *Darst*, any attempt to herd caribou by snow machine or aircraft would probably violate state law. As was discussed in *Christy*, the government's prohibition on activity protecting one's property does not rise to the level of a takings

²³⁴ *Id.* at 1-4.

claim.²³⁵

A potentially promising claim for reindeer herders may rest in the trust duty that the federal government owes to Native Americans. It may be possible for herders to argue that federal agencies such as BLM, NPS, and FWS have, at a minimum, a duty to warn reindeer herders of caribou incursions, so as to afford herders the opportunity to sequester and protect reindeer from mingling with caribou. Herders can point to language in the Reindeer Act and the establishment of Bering Land Bridge National Preserve in ANILCA, which indicate that Native Americans are to be provided with special treatment to promote and protect Indian reindeer herding. Indeed, the broad purpose of the Reindeer Act expresses a clear congressional intent that there should be a reindeer industry in Alaska that benefits Natives financially.²³⁶

Federal land management agencies must at least ensure that their decisions in the administration of their conservation duties do not substantially damage the interests of Alaskan Native reindeer herders.²³⁷ Warning herders and assisting them in predicting caribou incursion paths onto the Seward Peninsula does not unreasonably interfere with the normal management obligations of federal agencies. Given the special relationship of federal executive agencies to Indians, the intent of the Reindeer Act, and the special provision in ANILCA, it is reasonable to assume that federal agencies should cooperate in the protection and maintenance of an Alaskan Native reindeer industry on the Seward Peninsula.

The Department of the Interior may have a persuasive argument against imposing a federal duty to warn and assist to reindeer herders with the problems of reindeer and caribou mingling. Some legal scholars have argued that the *Williams* decision interprets the Reindeer Act as outside the special trust relationship owed by the federal government to Native Americans.²³⁸ However, it is probable that such an argument would run afoul of the canon of construction that states that ambiguous statutes regarding Native Americans must be interpreted on behalf of that Native Americans' best interests.²³⁹

The herders may find that they are the targets of litigation. One could argue that current herding methods result in violations of either the state public trust doctrine or ANILCA. Under the public trust doctrine, a state has an affirmative duty to engage in wildlife stewardship on behalf of the state's residents. In addition to providing equal opportunity to gain access to wildlife for public trust

²³⁵ *Christy v. Hodel*, 857 F.2d 1324, 1334-35 (9th Cir. 1988).

²³⁶ See *Williams v. Babbitt*, 115 F.3d 657, 665 (9th Cir. 1997) (holding that the Reindeer Act erected barriers to non-Native participation in reindeer herding).

²³⁷ *Id.* at 665-66.

²³⁸ *Dillingham*, *supra* note 10, at 666.

²³⁹ *Williams*, 115 F.3d at 660.

uses, a state must ensure the health and quality of its wildlife populations. If the co-mingling of reindeer and caribou on the Seward Peninsula results in "genetic pollution," the herders may be forced to amend their herding practices and avoid oncoming caribou at their own expense. The same is true if co-mingling changes the behavior or migratory patterns of caribou. Under the public trust doctrine, the state may be sued by a third party and forced to restrict reindeer grazing activity.

If reindeer herding practices interfere with state public trust doctrine obligations, NPS may also be under a duty, pursuant to ANILCA, which mandates the management of national parks, monuments, and preserves for natural and healthy populations of wildlife. If genetic mixing through hybridization between caribou and reindeer is documented as being significant, or if new research confirms that reindeer exacerbate brucellosis among caribou, NPS may have no choice but to restrict the reindeer industry.²⁴⁰ The same result may transpire under the affirmative subsistence mandates in ANILCA.

Given the local importance of the Seward Peninsula reindeer industry, the need to respect and foster Native American entrepreneurship, the important public trust interests of the State of Alaska, and the preservation mandate of NPS, a legislative solution may be required to prevent years of litigation. Indeed, litigation is probably quite unproductive because it would stymie investment in reindeer herding, complicate wildlife management planning with uncertainty, and sow distrust among local residents and government agencies. The best solution may be joint federal and state legislation.

One possible form such legislation can take is to create a state and federal fund managed by BIA, the proceeds from which would be used to monitor caribou populations, assist herders in the costs of moving reindeer out of harm's way, and compensate them for the losses when reindeer and caribou do make contact. Such a fund could also be used to continue studies of reindeer and caribou interaction to accurately determine the extent of hybridization, the effect on tundra from grazing pressure, and improved reindeer handling practices.

It would be unfortunate if the current crisis precipitated hostile litigation that unraveled years of co-management. Proactive legislation may serve to foster and continue this tradition. It is important to put together a stable plan before third parties initiate

²⁴⁰ See *Am. Horse Prot. Ass'n v. Lyng*, 812 F.2d 1, 7 (D.C. Cir. 1987) (remanding case for further consideration by Secretary of Interior because the Secretary's refusal to amend horse "soring" regulations was not reasonable under the applicable act, which sought to end the practice). An agency may be sued to carry out its affirmative mandatory obligations, if the agency inaction is characterized as an enforcement discretion decision; however, there is no standing to sue. *Heckler v. Chaney*, 470 U.S. 821, 854-55 (1983).

litigation that could threaten the collaborative atmosphere, which has characterized the management of natural resources in western Alaska.