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PROMETHEUS RE-BOUND: HOW ADOPTION OF THE KYOTO PROTOCOL ON CLIMATE CHANGE WOULD DEVASTATE THE WESTERN U.S. COAL INDUSTRY

MICHAEL F. DUFFY*

As it approaches the 21st century, the new millennium, and all that, the U.S. coal industry does not lack for metaphorical models drawn from Greek mythology. Confronted on all sides by acronymed ambuscaders—EPA, IRS, OSM, BLM, MSHA and others—the coal industry might well identify with Hercules in his battle with Hydra, the nine-headed monster capable of growing two new heads for each one the Titan was able to lop off. Sisyphus and his uncooperative boulder provide an apt analogy for the industry's frustration with trying to convince the average American that energy doesn't originate in a wall outlet, that, in fact, over 50% of this nation's electrical energy originates in a coal mine.[1]

In light of the current debate on global climate change and its implications for the future of the coal industry, however, the myth of Prometheus provides a most compelling metaphor. Prometheus, of course, was the Titan who stole fire from heaven and brought it down to earth, much to the displeasure of Zeus. For his audacity the Titan was exiled to Scythia where he was chained to an outcrop on Mount Caucasus. Each day a vulture would feed on his liver; each night the liver would rejuvenate itself.

There is more to the myth of Prometheus than this mere outline of the facts conveys. For example, the name "Prometheus" means "foresight," a virtuous trait that explains the Titan's motive in stealing fire from the gods in the first place. Prometheus and his brother, Epimetheus, were given the task of creating man and the animals:

> Epimetheus accordingly proceeded to bestow upon the different animals the various gifts of courage, strength, swiftness, sagacity; wings to one, claws to another, a shelly covering to a third, etc. But when man came to be provided for, who was to be superior to all other animals, Epimetheus had been so prodigal of his resources that he had nothing left to bestow upon him. In his perplexity he resorted to his brother Prometheus, who, with the aid of Minerva, went up to heaven, and lighted his torch at the chariot of the sun, and brought fire down to man. With this gift man was more than a match for all other animals.[2]

Prometheus' foresight lay in what he knew the gift of fire, i.e., energy, would provide for mankind:

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1. Not long ago at a Washington, D.C. reception, an apparently well-educated gentleman was heard to declare that coal was a primitive, outmoded and irrelevant source of energy. It was his opinion that the U.S. ought to embark on a crash program to convert from coal to a cleaner fuel such as "electricity."

2. THOMAS BULLFINCH, BULLFINCH'S MYTHOLOGY 13 (1979).

> It enabled him to make . . . tools with which to cultivate the earth; to warm his dwelling, so as to be comparatively independent of climate; and finally to introduce the arts and to coin money, the means of trade and commerce.[3]

In Aeschylus' *Prometheus Bound*, the Titan, himself, describes the impact of his action on mankind:

> [T]hey, before as babes,
> By me were roused to reason, taught to think.
> In one short word, then, learn the truth condensed,
> All arts of mortals from Prometheus spring.[4]

If, as is chemically the case, coal is nothing more than stored solar energy, i.e., the "fire" that Prometheus appropriated from the gods in order to make civilization possible, the identification of the coal industry with the mythical Titan is most appropriate. As the title of this Article suggests, however, the coal industry may be facing the same fate as Prometheus.

In December of 1997, over 160 countries, including the United States, negotiated the Kyoto Protocol, a framework for establishing mandatory limits on the emission of greenhouse gases by developed nations.[5] By the terms of the Protocol, some of those nations, designated Annex B countries,[6] would be required to meet specified greenhouse gas emission levels relative to the levels they emitted in 1990.[7] For example, the United States would be required to reduce its greenhouse gas emissions to a level 7% below 1990 levels.[8] Such reductions would have to be achieved between the years 2008 and 2012 with additional reductions thereafter subject to further negotiation.[9]

Because carbon emissions account for 83% of all U.S. greenhouse gas emissions,[10] and since more than 98% of all U.S. carbon emissions can be traced to

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3. *Id.*

4. Aeschylus, *Prometheus Bound*, *in* NINE GREEK DRAMAS 166, 182–84 (Charles W. Eliot ed., 1937).

5. *See* Kyoto Protocol to the United Nations Framework Convention on Climate Change (Mar. 18, 1998) <http://www.unfccc.de/resource/docs/convkp/kpeng.pdf> [hereinafter Protocol].

6. Countries listed in Annex B include: Australia, Austria, Belgium, Belarus, Bulgaria, Canada, Croatia, Czech Republic, Denmark, Estonia, European Community, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Liechtenstein, Lithuania, Luxembourg, Monaco, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, and the United States. United Nations Framework Convention on Climate Change (last modified Oct. 12, 1999) <http://www.unfccc.de/resource/conv/index.html> (hereinafter Framework). Turkey and Belarus declined to pledge reductions in their emissions pursuant to the Kyoto Protocol. OFFICE OF INTEGRATED ANALYSIS AND FORECASTING, U.S. DEPT. OF ENERGY, IMPACTS OF THE KYOTO PROTOCOL ON U.S. ENERGY MARKETS AND ECONOMIC ACTIVITY xi n.2 (1998) [hereinafter EIA IMPACT STUDY].

7. *See* Protocol, *supra* note 5, at art. 3.

8. *See* Protocol, *supra* note 5, at Annex B.

9. *See* Protocol, *supra* note 5, at art. 3.

10. *See* EIA IMPACT STUDY, *supra* note 6, at xii.

the burning of fossil fuels,[11] the production of energy from coal will undoubtedly be a principle focus of emissions reduction efforts should the United States seek to implement the dictates of the Kyoto Protocol. Indeed, both governmental and private organizations have attempted to estimate the economic impact of the Kyoto Protocol on energy production and fuel selection over the next two decades with the coal industry a primary focus of these studies.

This article will focus on the projected impact of the Kyoto Protocol on U.S. coal production in general and western U.S. coal production in particular assuming, of course, that the U.S. Senate elects to ratify the Protocol (to date, the Clinton Administration did not submitted the Protocol for ratification, and, as will be noted below, the Senate has expressed profound reservations with respect to the Protocol in its current form). The discussion will begin with a brief history of the western coal industry, followed by a summary of the evolution of the global warming theory and its acceptance by the international political community, as evidenced by the development of the Kyoto Protocol. That will be followed by an overview of various economic predictions based on the assumption of the implementation of the Kyoto Protocol. The consequential implications for the future use of coal are then discussed. Lastly, the paper will attempt to set forth the issues faced by American decision makers in weighing the pros and cons of adopting the Kyoto Protocol or any other international attempt to address the matter of global climate change.

I. THE RISE OF WESTERN COAL

The first historical record referring to coal in the New World is a map of what is now northern Illinois charted in 1673-1674 by Louis Joliet and depicting the presence of "charbon de terra."[12] Following the discovery of coal near Richmond, Virginia in 1701, an 18th century map of the upper Potomac River refers to several "cole mines" along the current West Virginia-Maryland border.[13] It is well established, however, that Native Americans utilized coal for pottery firing long before the settlers arrived.[14]

The first recorded coal use west of the Mississippi was in 1804 when the Lewis and Clark expedition stopped in present-day North Dakota to construct a blacksmith's forge fueled by lignite.[15] Contemporaneously, coal was used to heat a Spanish fur trader's outpost in what is now Montana.[16] In 1854, the Territorial Legislature of Utah offered a $1,000 reward to anyone who could discover a coal supply within 40 miles of Salt Lake City,[17] while by the early 1860's coal mined near Denver was used to heat that city's homes and businesses.[18] The true

11. *See* Office of Integrated Analysis and Forecasting, U.S. Dept. of Energy, Emissions of Greenhouse Gases in the United States 1997 15 (1998) [hereinafter EIA Emissions Report].

12. *See* Office of Coal, Nuclear, Electric and Alternate Fuels, U.S. Dept. of Energy, Coal Data: A Reference 1 (1995).

13. *See id.*

14. *See* Office of Coal, Nuclear, Electric and Alternate Fuels, U.S. Dept. of Energy, State Coal Profiles 11 (1994) [hereinafter EIA State Coal Profiles].

15. *See id.* at 67.

16. *See id.* at 59.

17. *See id.* at 91.

18. *See id.* at 23.

spur to the development of the western U.S. coal industry, however, was the establishment, expansion and maintenance of the transcontinental railway system.

Beginning in 1835, Congress began granting rights of way to railroads through public lands, a logical outgrowth of rights of way granted for canals in the earlier years of the republic.[19] In 1850, Stephen A. Douglas, of Lincoln-Douglas debate fame, championed land grants beyond traditional rights of way as an added incentive to the construction of railroads on public lands.[20] Those land grants provided readily available resources such as timber and stone for the construction of the rail lines themselves.

The opening of the west as an adjunct to railway development, however, came to full fruition with the passage of two Pacific Railroad Acts. The Act of 1862[21] incorporated the Union Pacific Railroad while the Act of 1864[22] established the Northern Pacific Railroad.[23] In addition to providing 400 foot wide rights of way to the railroads, the statutes also provided land grants of up to 20 sections of land[24] for every mile of railway constructed from Omaha to Missouri.[25] In addition, Congress withdrew up to 25 miles of land on either side of the rights of way and prohibited entry for settlement or homesteading except for those claims already established.[26]

In all, Congress granted nearly 94 million acres of public lands to the railroads themselves and nearly an additional 224 million acres to states for development of lands served by railroad expansion.[27] Of the approximately 320 million acres of total land grants, 30% or 97 million acres were located in those western states now chiefly associated with coal mining: Arizona (18.3 million acres); Colorado (8.2 million acres); Montana (20.7 million acres); New Mexico (16.2 million acres); North Dakota (13.9 million acres); Utah (9.7 million acres); and Wyoming (10.1 million acres).[28]

A condition was placed upon the railroad land grants in the initial 1862 Act, i.e., that "all mineral lands shall be excepted from the operation of this act."[29] That exception was modified in the 1864 Act, however, when Congress provided that the term "mineral lands" was not intended to include coal and iron lands.[30] Thus, Congress expressed its intent that coal and iron, like stone and

19. *See* PAUL W. GATES, PUB. LAND LAW REVIEW COMM'N, HISTORY OF PUBLIC LAND LAW DEVELOPMENT 357 (1968).

20. *See id.*

21. Pacific Railroad Act of 1862, ch. 120, 12 Stat. 489 (1862).

22. Pacific Railroad Act of 1864, ch. 217, 13 Stat. 365 (1864).

23. Subsequent legislation established the Atlantic and Pacific Railroad (Act of July 27, 1866, ch. 278, 14 Stat. 292 (1866)), and the Texas Pacific Railroad (Act of March 8, 1871, ch. 122, 16 Stat. 573 (1871)).

24. A section measures 640 acres.

25. *See* GATES, *supra* note 19, at 364.

26. *See* GATES, *supra* note 19, at 364.

27. *See* GATES, *supra* note 19, at 385.

28. *See* GATES, *supra* note 19, at 385. For purposes of this Article, discussion of "western coal" will be confined to these seven states.

29. Pacific Railroad Act of 1862, ch. 120, § 3, 12 Stat. 489, 492 (1862).

30. *See* Pacific Railroad Act of 1864, ch. 217, § 3, 13 Stat. 365, 367–68 (1864).

timber in the earlier enactments, were meant to be utilized in the construction, expansion, and maintenance of the railway system. That intent was ratified in *Northern Pacific Railway Co. v. Soderberg*,[31] when the Supreme Court acknowledged that both coal and iron were necessary materials to the construction and operation of the railroads.[32]

Contemporaneous to the passage of the initial railroad acts, Congress began addressing the sale of federal coal lands in 1864. As part of the Townsite Act of 1864, Congress provided for the public sale of coal lands pursuant to Presidential order.[33] Such lands were to be sold in tracts of "suitable legal subdivisions" for a minimum of $20 per acre.[34] Thereafter, Congress amended the 1864 Act by allowing entry onto federal lands by those persons "in the business of bona fide actual coal-mining" for purposes of purchasing tracts of up to 160 acres.[35]

The size of acquirable tracts was increased in 1873 with the passage of the Coal Lands Act, which provided that associations of four or more persons could qualify to purchase up to 640 acres of federal coal land if they could show that they had expended at least $5,000 in the development and improvement of the coal mine or mines situated on the land.[36] The 1873 Act further provided that each person or association was entitled to acquire only one tract, and that a minimum price of $20 per acre be set for lands within 15 miles of an existing railroad and $10 per acre for lands beyond the 15 mile swath.[37]

Other than the Act for the Protection of the Lives of Miners in the Territories,[38] which set rudimentary mine safety standards and provided for a coal mine inspector in each Territory, no further significant legislation affecting coal mines was passed until the first decade of this century when Congress adopted the Coal Land Acts of 1909[39] and 1910.[40] Those Acts were passed as a result of President Roosevelt's decision to withdraw federal lands that, in the judgment of the Director of the Geological Survey, contained exploitable coal deposits.[41] From mid to late 1906, the Acting Secretary of the Interior carried out Roosevelt's policy

31. 188 U.S. 526 (1903).

32. *Soderberg*, 188 U.S. at 529–30. Coal, of course, was necessary to the forging of steel to produce rails as well as a fuel for steam–powered locomotives. Thus, for example, the Union Pacific Railroad developed eight mines in Wyoming from 1869 to 1888, and by 1885 that railroad company owned or controlled most of the coal production in Colorado. Thomas E. Root, *Railroad Land Grants from Canals to Transcontinentals* 1987 A.B.A. NATL. RESOURCES SEC., MONOGRAPH SERIES NO.4 70–71.

33. *See* Pacific Railroad Act of 1864, ch. 205, 13 Stat. 343 (1864).

34. *Id.*

35. *See* Act of Mar. 3, 1865, ch. 107, 13 Stat. 529 (1865).

36. *See* Act to Provide for the Sale of the Lands of the United States Containing Coal, ch. 279, 17 Stat. 607 (1873), *superseded by* Mineral Leasing Act of 1920, ch. 85, 41 Stat. 437 (1920).

37. *See id.*

38. *See* ch. 564, 26 Stat. 1104 (1891).

39. *See* 30 U.S.C. § 81 (1994).

40. *See* 30 U.S.C. §§ 83–85 (1994).

41. *See* GATES, *supra* note 19, at 726. Roosevelt's motivation for the withdrawals is believed to have been a growing concern that the provisions of the earlier Coal Lands Acts limiting entries upon coal lands to one per person or one per association were being circumvented through the use of dummy entries, strawmen, or by the acquisition of coal lands under the pretense of acquiring them pursuant to other federal land grant programs such as the various agricultural and homesteading acts. GATES, *supra* note 19, at 726.

by issuing orders withdrawing approximately 66 million acres from coal development.[42]

Congress countered the withdrawals by allowing for entry upon coal lands for agricultural and homesteading purposes, but reserved to the U.S. government the right to prospect, mine, and remove the coal.[43] Finally, in 1920 Congress adopted a comprehensive approach to the development of coal and other resources such as oil, gas, and several nonmetallic minerals, when it passed the Mineral Leasing Act of 1920.[44] That Act provided that coal rights on federal lands would be obtainable only through a leasing system.[45] If exploitable coal reserves were known to exist on a federal parcel, rights to mine the coal would be made subject to competitive bids.[46] If, on the basis of prospecting activity on a federal parcel, a lease applicant was able to demonstrate the presence of previously undiscovered coal reserves in commercial quantities, that lease applicant would be given a preferential right to the coal.[47]

Once the railroads provided a reliable market for readily accessible coal, and federal acquisition procedures were implemented, coal production in the western states grew rapidly from the late 1800's into the early decades of this century.[48] The energy needs of the country during World War I provided an additional spur to production.[49]

A combination of factors, including oil and gas development in the Southwest and Wyoming, the rise of hydroelectric power in the Northwest, and, of course, the devastating effects of the Great Depression resulted in a sharp decline in coal production in the 1920's and 1930's.[50] The demands of World War II sparked a slight resurgence in western production in the first half of the 1940's, but only Utah, at about 7 million short tons produced annually during the 1940's, appreciably exceeded the levels it had reached in the 1920's.[51] In the aggregate, the production for the seven states addressed here totaled only about

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42. GATES, *supra* note 19, at 726.

43. *See* 30 U.S.C. § 81 (1994).

44. *See* ch. 85, 41 Stat. 437 (codified as amended at 30 U.S.C. §§ 181–263 (1994)).

45. *See id.* at § 2, 41 Stat. at 438–39; 30 U.S.C. §184(a).

46. *See id.* at § 2; 41 Stat. at 438; 30 U.S.C.§ 201(a), *repealed by* scattered sections of 30 U.S.C. §§ 181–352 (1994), subject to valid existing rights.

47. *Id.*

48. *See* DEPT. OF ENERGY, *State Coal Profiles* (visited Oct. 15, 1999) <http://www.eia.doe.gov/cneaf/coal/statepro/imagemap/usaimagemap.htm> [hereinafter EIA State Coal Profiles Website].

49. During that period Colorado led coal production in the western states producing 12 million short tons by 1920. Wyoming was a close second producing more than 9 million short tons during World War I. Utah, Montana, and New Mexico, respectively, reached 6 million, 5 million, and 4 million short tons, by 1920, while North Dakota reached production levels of 1 million short tons of lignite during the same period. While Arizona coal utilization dates back to pre–Columbian times, its production levels until the 1970's are negligible in comparison with its fellow western states. EIA STATE COAL PROFILES, *supra* note 14, at 11, 23, 59, 63, 67, 87, 91, 107. *See also* EIA State Coal Profiles Website, *supra* note 48 (illustrating through state–by–state graphs the fluctuations in production).

50. *See* EIA STATE COAL PROFILES, *supra* note 14, at 23, 59, 67, 91.

51. *See* EIA STATE COAL PROFILES, *supra* note 14, at 91.

28 million short tons in 1947.[52] Thereafter, the western coal industry experienced a further precipitous decline in production during the 1950's and early 1960's owing to the railroads' replacement of coal-fired steam locomotives with diesel-powered engines.[53]

Two momentous events in the early 1970's fostered the boom in western coal production that continues to this day: the passage of the Clean Air Act[54] in 1970 and the Arab oil embargo of 1973-1974. The Clean Air Act mandated that stationary sources, such as electricity generating power plants, reduce their emissions of identified pollutants including sulfur oxides.[55] Given the choice between installing scrubbers and shifting to lower sulfur fuel, electric utilities actively sought new fuel sources in the West where the sulfur content of the coal, on the whole, was markedly lower than the sulfur content found in the traditional coal fields of the Midwest and Appalachia.[56]

The Arab oil embargo spurred Congress to enact legislation aimed at reducing America's reliance on foreign and, in many cases, unpredictable supply lines for its ever-expanding energy needs. Through passage of the Energy Supply and Environmental Coordination Act of 1974,[57] and the Powerplant and Industrial Fuel Use Act of 1978,[58] Congress went on record as supporting a switch from oil and natural gas to coal as the preferred fuel for electricity generation. Given the circumstances of international turmoil and domestic agitation for stricter environmental controls, the slumping fortunes of western coal were ripe for rejuvenation.[59]

By the mid-1990's the sleeping giant had indeed awakened. In 1997, the combined tonnages of bituminous, subbituminous, and lignite coal in the states of Arizona, Colorado, Montana, New Mexico, North Dakota, Utah, and Wyoming equaled 446 million short tons or about half of all U.S. production.[60] Wyoming alone accounted for more than a quarter of U.S. production, at 282 million tons.[61] Thus, in a little more than a century the western coal industry increased its

52. *See* EIA State Coal Profiles Website, *supra* note 48.

53. *See* EIA STATE COAL PROFILES, *supra* note 14, at 59, 91.

54. 42 U.S.C. §§ 7401–7671 (1994).

55. *See id.* § 7403(g)(1).

56. *See* EIA STATE COAL PROFILES, *supra* note 14, at 23, 27, 31, 59.

57. *See* Pub. L. No. 93–319, § 2, 88 Stat. 246 (codified at 15 U.S.C. §§ 791–98 (1994)).

58. Pub. L. No. 95–620, 92 Stat. 3289, *repealed in part by* Act of May 21, 1987, Pub. L. No. 100–42, 101 Stat. 310 (1987).

59. One commentator noted the following:

> For more than a century, western coal was the prisoner of geography. It was present in enormous abundance, but lay too far from major markets. Railroads mined a moderate amount for their own use, but that market died with the steam locomotive. Relatively small amounts were produced for western steel mills and other industrial use.
>
> . . .
>
> Finally the sleeping giant of western coal is beginning to awaken. Western coal is low in sulfur content, and that automatically gives it new value in the eyes of midwestern utilities.

E.B. Leisenring, Jr., *Western Coal—The Sleeping Giant*, *in* Nineteenth Annual Proceedings of the Rocky Mountain Mineral Law Institute 1, 6–7 (1974).

60. *See* Dept. of Energy, *Coal Production by State*, (visited Nov. 19, 1999) <http://www.eia.doe.gov/cneaf/coal/html/t1p01p1.html>.

61. *See id.*

yearly output by 430 million tons.[62] Even more astounding, the recoverable reserves at currently producing mines in those states (excluding Arizona) now stand at more than 11 billion short tons.[63]

II. "GLOBAL WARMING" AND THE INTERNATIONAL RESPONSE

The Swedish Nobelist Svante August Arrhenius (1859-1927) is credited with the first articulation of the global warming theory in an Article entitled *On the Influence of Carbonic Acid in the Air Upon the Temperature of the Ground*, in which he argued that variations in the earth's temperature were owing to increases or decreases in the quantity of carbon dioxide (then, "carbonic acid") in the atmosphere.[64] Arrhenius' speculations on the absorptive qualities of atmospheric gases led to the conclusion by others that the earth is not warmed solely by the radiant energy of the sun; rather, the radiant energy reflected back by the earth's surface is absorbed by atmospheric gases which trap heat in the lower atmosphere to create the so-called greenhouse effect.[65]

Were it not for the naturally occurring greenhouse effect, scientists speculate that the average temperature of the Earth's surface would be minus 19 degrees Celsius as opposed to actual average temperature of plus 15 degrees Celsius.[66] The gases most responsible for capturing heat to create the greenhouse effect are: water vapor (H_2O), carbon dioxide (CO_2), methane (CH_4), nitrous oxide (NO), and a number of man-made chemicals called halocarbons, which include chlorofluorocarbons (CFC's) and hydro chlorofluorocarbons (HCFC's).[67]

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62. *See* EIA State Coal Profiles Website, *supra* note 48.

63. *See* Energy Info. Admin., Dept. of Energy, Recoverable Coal Reserves at Producing Mines by State (visited Nov. 19, 1999) <http://www.eia.doe.gov/cneaf/coal/cla/html/t25p01pl.html>.

64. Svante August Arrhenius, *On the Influence of Carbonic Acid in the Air upon the Temperature of the Ground*, PHILOSOPHICAL MAG. 237 (1896), *reprinted* at the Nobel Prize Internet Archive (visited Oct. 12, 1999) <www.almaz.com/nobel/chemistry/1903a.html> with link to excerpted text located at <http://maple.lemoyne.edu/~guinta/Arrhenius.html>. The original article was an extract from a paper presented by Arrhenius to the Royal Swedish Academy of Sciences on Dec. 11, 1895.

65. *See* EIA EMISSIONS REPORT, *supra* note 11, at 1. The greenhouse effect has been explained as follows:

> [Greenhouse gases] are relatively transparent to incoming shortwave radiation, but are relatively opaque to outgoing longwave radiation. The latter radiation, which would otherwise escape to space, is trapped . . . within the lower levels of the atmosphere. The subsequent re-radiation of some of the energy back to the Earth maintains higher surface temperatures than would occur if the gases were absent.

EIA EMISSIONS REPORT, *supra* note 11, at 150.

66. *See* EIA EMISSIONS REPORT, *supra* note 11, at 1–2.

67. *See* EIA EMISSIONS REPORT, *supra* note 11, at 3–5. Water vapor's prevalence in the atmosphere (owing to the continuous process of evaporation condensation and precipitation) dwarfs that of the other greenhouse gases; it accounts for 1% of the atmosphere while carbon dioxide constitutes less than 0.04 percent. *Id.* at 2. Methane, in turn, accounts for 0.005 percent of the atmosphere, while nitrous oxide comprises 0.0009 percent. *Id.* at 1 tbl.1. The halocarbons, measured in parts per trillion versus parts per million for carbon dioxide, methane, and nitrous oxide, have been addressed elsewhere by the international community because of their potentially adverse effect

It is important to keep in mind that the vast percentage of so-called greenhouse gases occurs naturally. For example, of the 157.5 billion metric tons[68] of carbon dioxide released into the atmosphere in 1992, 150 billion metric tons were naturally produced by releases from the oceans (90 billion metric tons), aerobic decay of vegetation (30 billion metric tons), and plant and animal respiration (30 billion metric tons).[69] Accordingly, carbon dioxide attributed to human activity, or anthropogenic carbon dioxide, now amounts to about 4.5% of the total carbon dioxide released on an annual basis.[70]

The theory of global warming postulates that naturally occurring greenhouse gases are maintained in a state of equilibrium by their being absorbed and removed from the atmosphere.[71] For instance, in the carbon-cycle, carbon dioxide is absorbed by plants and through the process of photosynthesis is converted into oxygen, which is released into the atmosphere, and carbon, which becomes part of the plants' biomass.[72] According to one group of experts, the Intergovernmental Panel on Climate Change (IPCC),[73] the increased production of anthropogenic carbon dioxide since the dawn of the industrial age has upset the natural equilibrium of the carbon cycle.[74]

The IPCC was established in 1988 by the WMO and UNEP to assess the scientific, technical, and socio-economic issues associated with climate change.[75] Thereafter, in 1990, the United Nations formed the Intergovernmental Negotiating Committee for a Framework Convention on Climate Change, the work of which culminated in the issuance of the Framework Convention on Climate Change (FCCC) adopted in May of 1992 and presented for signature in Rio de Janeiro in June of that year.[76] The United States was among the 160 nations to sign the agreement referred to as the Rio Treaty, which called for voluntary efforts to reduce emissions of carbon dioxide to 1990 levels by the year 2000.[77]

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on the ozone layer. Montreal Protocol on Substances That Deplete the Ozone Layer, Sept. 16, 1987, 26 I.L.M. 1541, 1551.

68. Unless otherwise indicated, all references to tons are to metric tons. One metric ton is equal to 1.102 short tons. EIA EMISSIONS REPORT, *supra* note 11, at 4 n.5.

69. *See id.* at 2 tbl. 2, 4.

70. The anthropogenic shares of methane and nitrous oxide are more difficult to determine. In a document released in 1995, the Intergovernmental Panel on Climate Change (IPCC), an international body commissioned by the United Nations, estimated that total methane naturally emitted between 1980 and 1990 was within a range of 110–210 million metric tons, while 300–450 million tons could be attributed to human activity. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 1995: THE SCIENCE OF CLIMATE CHANGE 92–93 (1996) [hereinafter IPCC CLIMATE CHANGE 1995].

71. *See* EIA EMISSIONS REPORT, *supra* note 11, at 1–2.

72. *See* EIA EMISSIONS REPORT, *supra* note 11, at 4.

73. *See* text accompanying footnote 75.

74. IPPC CLIMATE CHANGE 1995, *supra* note 70, at 59–60. The Intergovernmental Panel on Climate Change (IPCC) has estimated that carbon dioxide levels in the atmosphere have increased 25% since the dawn of the industrial age owning to anthropogenic activities such as the use of fossil fuels for transportation, electricity generation, and heating, as well as to the removal of carbon dioxide absorbing plants through deforestation. IPPC CLIMATE CHANGE 1995, *supra* note 70, at 59. *See also infra* note 80 and accompanying text.

75. *See* EIA IMPACT STUDY, *supra* note 6, at 2.

76. *See* EIA IMPACT STUDY, *supra* note 6, at 2.

77. *See* EIA IMPACT STUDY, *supra* note 6, at xi.

Thereafter, the FCCC Committee established a Conference of the Parties (COP) to begin implementing the Rio Treaty.[78] In 1995, the COP issued what is referred to as the Berlin Mandate, directing Annex B countries to take "appropriate action" to set overall limitation and reduction targets for greenhouse gases to be implemented in the year 2000 and beyond.[79] Meanwhile, the IPCC, in 1995, issued an Assessment Report, which despite its recognition of significant scientific uncertainties, declared that the "balance of evidence suggests . . . a discernable human influence on global climate."[80] These various activities culminated in the Kyoto Protocol, which established binding emissions targets for the Annex B countries relative to their 1990 emissions levels.[81] Under the Protocol, the established emissions targets must be reached between 2008 and 2012, but demonstrable results must be shown by 2005.[82] The target levels are to be maintained through 2012 and further reductions may be instituted by the COP.[83] The Protocol does not dictate any particular means of reducing emissions but does offer options such as the enhancement of carbon sinks[84] through reforestation and other land use changes, and the encouragement of energy efficiency.[85] The Protocol also provides for emissions trading among Annex B countries, and credits for developed nations that sponsor projects for reducing emissions in developing nations.[86]

Developed countries are allowed to bank Clean Development Mechanisms (CDM) credits achieved prior to 2008 for future use, but they cannot borrow against anticipated allowances.[87] Annex B countries may also join together to create an umbrella or bubble arrangement whereby they can collectively reach their aggregate target through trade-offs among themselves.[88]

Despite the range of options, however, there are innumerable uncertainties as to how the Protocol will actually work. The parties have not yet determined whether and how to account for emissions credits owing to the enhancement of carbon sequestration through carbon sinks and other land use initiatives.[89] Likewise, no system exists for establishing emissions credits and overseeing their

78. *See* EIA IMPACT STUDY, *supra* note 6, at 2.

79. *See* EIA IMPACT STUDY, *supra* note 6, at 2.

80. IPCC CLIMATE CHANGE 1995, *supra* note 70, at 5.

81. *See* EIA IMPACT STUDY, *supra* note 6, at 3.

82. *See* EIA IMPACT STUDY, *supra* note 6, at 3.

83. *See* EIA IMPACT STUDY, *supra* note 6, at xiii.

84. *See* Framework, *supra* note 6, at art. 1. "Carbon sinks" refers to vegetation, such as forests or soil reservoirs that absorb or take up released carbon from another part of the carbon cycle.

85. EIA IMPACT STUDY, *supra* note 6, at 3–4. With respect to the last option, the Protocol establishes a Clean Development Mechanism (CDM) whereby Annex B countries can collect emissions credits for technology transfers to non–Annex B countries that provide demonstrable and long–term reductions in emissions. Such activities are to be evaluated and certified through a mechanism to be developed under the Protocol. EIA IMPACT STUDY, *supra* note 6, at 4.

86. *See* EIA IMPACT STUDY, *supra* note 6, at 4.

87. EIA IMPACT STUDY, *supra* note 6, at 4.

88. EIA IMPACT STUDY, *supra* note 6, at 4. For example, the emissions target for the European Community is 8% below its aggregate 1990 levels, as is the target for each of its members. *Id.* By mutual agreement, however, the members could reallocate their respective responsibilities to meet the umbrella target. Protocol, *supra* note 5, at art. 4.

89. *See* EIA IMPACT STUDY, *supra* note 6, at 4.

trading among developed nations.[90] Further, no system of sanctions for outright nonattainment of targets or misrepresenting efforts to achieve attainment has been developed.[91]

In its current manifestation, the Protocol exempts developing nations from any legal obligation to reduce their greenhouse gas emissions although they may "volunteer" to enter the ranks of Annex B countries through amendment of the Protocol.[92] That exemption was crucial to the acceptance of the Protocol by developing nations that argued that the imposition of emissions targets upon them would stymie their efforts to establish and expand their economies.[93] It should be noted, however, that among the exempted nations are some of America's formidable or potentially formidable trade competitors, e.g., China, India, Mexico, and Brazil.[94] Moreover, unrestrained by the dictates of the Protocol, the developing nations will account for an ever-increasing share of global greenhouse gas emissions.[95] For example, in 1990 the developing nations emitted 25% of global carbon emissions.[96] By 2015, that percentage will rise to more than 50% of the global target anticipated by the Protocol.[97]

III. ECONOMIC IMPACTS OF THE KYOTO PROTOCOL

There is no want of opinion on the impacts of America's implementation of the Kyoto Protocol. The Clinton Administration released three prominent and significantly conflicting scenarios: one by the President's Council of Economic Advisors (CEA);[98] one by the Energy Information Administration (EIA) within the Department of Energy;[99] and a third, also emanating from the Department of Energy, known as the Five Lab Study.[100] Several private sector studies have also been issued, five of which have been selected by the EIA in its own study for purposes of comparison with its projections on economic impact: the WEFA Study,[101] the CRA Study,[102] the MIT Study,[103] the EPRI Study,[104] and the DRI Study.[105]

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90. *See* EIA IMPACT STUDY, *supra* note 6, at xi.

91. *See* EIA IMPACT STUDY, *supra* note 6, at 4.

92. *See* EIA IMPACT STUDY, *supra* note 6, at 4.

93. *See* EIA IMPACT STUDY, *supra* note 6, at 4.

94. *See* Global Warming: The High Cost of the Kyoto Protocol, National and State Impacts, WHARTON ECONOMETRICS FORECASTING ASSOCIATES 10 (hereinafter WEFA).

95. *See id.* at 14.

96. *See id.* This percentage is a close approximation.

97. *See id.*

98. *Administration Economic Analysis: Meeting the Challenge of Climate Change at a Reasonable Cost*, 148 DAILY REP. FOR EXECUTIVES (BNA) T-1 (July 31, 1998). The CEA scenario is also summarized in testimony presented by Dr. Janet Yellen, CEA Chairman, given before the House Commerce Committee's Subcommittee on Energy and Power on March 4, 1998.

99. EIA IMPACT STUDY, *supra* note 6.

100. Dept. of Energy, Interlaboratory Working Group on Energy-Efficient and Low-Carbon Technologies, Scenarios of U.S. Carbon Reductions: Potential Impacts of Energy Technologies by 2010 and Beyond 1.1 (1997).

101. WEFA, *supra* note 94.

102. EIA IMPACT STUDY, *supra* note 6, at 137. Paul M. Bernstein and W. David Montgomery of Charles River Associates are acknowledged as contributors to the comparison study. No formal

The EIA study is, by far, the most comprehensive analysis of the effects of the Kyoto Protocol and will, therefore, serve as the principle analytical source for this discussion.[106] The merits and demerits of the global warming theory are beyond the scope of this Article. So are also the persuasiveness or lack thereof exhibited by the various economic studies that have been produced in the wake of the Kyoto Protocol. The purpose of this Article is to lay before the reader the range of potential impacts thus far identified by the EIA with respect to the use of coal, including western coal, if this country adopts the Kyoto Protocol as currently structured. That said, reference to other studies will be made as appropriate.

IV. THE EIA STUDY

At the behest of the U.S. House of Representatives Committee on Science, the EIA, in October of 1998, issued its study entitled *Impacts of the Kyoto Protocol on U.S. Energy Markets and Economic Activity.*[107] The Committee requested that the EIA consider several possible scenarios involving various potential levels of carbon reduction by the United States in response to the Kyoto Protocol focusing on "U.S. energy use and prices and the economy in the 2008–2012 time frame," i.e., the time frame within which the Protocol directs the developed nations to reach their initial emissions targets.[108]

In preparing its analysis, EIA utilized its National Energy Modeling System (NEMS), a comprehensive integrated computer model capable of simulating all elements of energy supply and demand within the context of the nation's macroeconomy.[109] The NEMS is used to produce EIA's annual American Energy Outlooks that set forth year-by-year projections for U.S. energy production and consumption through the year 2020.[110] The report includes a projection, called the "reference case," which plots the energy-use horizon on the assumption that all existing laws and regulations will be fully implemented, and that no new relevant laws or regulations will be passed during the period under review.[111] The reference case can then serve as a baseline for comparing scenarios that incorporate significant regulatory or policy changes.[112]

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title is given to the CRA Study beyond that acknowledgment. EIA IMPACT STUDY, *supra* note 6, at 137 & n.91.

103. Henry D. Jacoby et al., CO_2 Emissions Limits: Economic Adjustments and the Distribution of Burdens, 1997 ENERGY J. 31.

104. Alan Manne & Richard Richels, *On Stabilizing CO_2 Concentrations—Cost-Effective Emission Reduction Strategies*, 2 ENVTL. MODELING & ASSESSMENT 251–65 (1997).

105. Standard and Poor's DRI, The Impact of Meeting the Kyoto Protocol on Energy Markets and the Economy (1998).

106. EIA IMPACT STUDY, *supra* note 6.

107. EIA IMPACT STUDY, *supra* note 6.

108. EIA IMPACT STUDY, *supra* note 6, at iii.

109. *See* EIA IMPACT STUDY, *supra* note 6, at 6.

110. *See* EIA IMPACT STUDY, *supra* note 6, at 6.

111. *See* EIA IMPACT STUDY, *supra* note 6, at 8.

112. *See* EIA IMPACT STUDY, *supra* note 6, at 6.

Against the reference case, EIA posits six scenarios involving different reduction targets for carbon emissions.[113] The six cases, in reverse order of stringency, are: 1990 + 24% carbon emissions; 1990 + 14% carbon emissions; 1990 + 9% carbon emissions; 1990 carbon emissions; 1990 – 3% carbon emissions; and 1990 – 7% carbon emissions.[114]

The EIA study then determines the costs of achieving each target level. This determination is made by first establishing a "carbon price" and then applying it to the cost of energy.[115] EIA defines a "carbon price" as "the marginal cost of reducing carbon emissions to the specified level or, conversely, the value of consuming the last metric ton of carbon," and likens it to the price that could be established through a carbon emissions permit system.[116] The carbon price in this case, i.e., the price per ton of carbon emissions, is then applied to each of the energy fuels at its point of consumption relative to its carbon content.[117]

In order to arrive at the carbon price for each case, EIA makes certain assumptions, which, while not shared by other analysts, are at least consistent throughout the various scenarios. For example, EIA assumes that carbon sinks and other carbon sequestration activities by the U.S. would result in the absorption of 3% of America's carbon emissions.[118] Second, because the final contours of an international system for trading carbon emissions permits are too uncertain, EIA assumes the creation of an intra-U.S. trading system for auctioning of carbon emissions permits, and assumes that the price achieved through that system would be the same as that achieved through an international system.[119] Third, EIA does not assume that the United States would receive credits for technology transfer programs entered into with developing nations under the CDM provisions of the Protocol.[120] Lastly, EIA does not assume that new nuclear plants would come on line but it does assume that all currently operating units would continue to operate through 2020.[121]

As for the time frames for achieving the emissions targets, EIA's analysis conforms to the expectations of the Protocol: demonstrable steps toward compliance by 2005; attainment of the reduction targets between 2008 and 2012; and, maintenance of the target levels until 2020 or until further reductions are negotiated pursuant to international agreements.[122] Given those assumptions, the EIA

113. *See* EIA IMPACT STUDY, *supra* note 6, at 10.

114. EIA IMPACT STUDY, *supra* note 6, at 10–11. The study concentrates on three of the six scenarios, the 1990 + 24% case, the 1990 + 9% case, and the 1990 – 3% case. EIA IMPACT STUDY, *supra* note 6, at 11. For comparison purposes, the reference case, i.e., business as usual with no mandated reductions, would amount to 1990 + 33% carbon emissions, or 1791 million tons. EIA IMPACT STUDY, *supra* note 6, at 10.

115. EIA IMPACT STUDY, *supra* note 6, at 11.

116. EIA IMPACT STUDY, *supra* note 6, at 12.

117. EIA IMPACT STUDY, *supra* note 6, at 11. The higher the carbon content of a given fuel, the higher the carbon emissions and, in turn, the carbon price. Among its fossil competitors, coal produces the highest carbon emissions, natural gas the lowest, and oil somewhere in between. Nuclear power, hydropower, and other renewables produce no carbon emissions and carry no carbon prices. EIA IMPACT STUDY, *supra* note 6, at 11.

118. *See* EIA IMPACT STUDY, *supra* note 6, at 9.

119. *See* EIA IMPACT STUDY, *supra* note 6, at 13.

120. *See* EIA IMPACT STUDY, *supra* note 6, at 5.

121. *See* EIA IMPACT STUDY, *supra* note 6, at 25.

122. *See* EIA IMPACT STUDY, *supra* note 6, at xiii.

study estimates the carbon price for each case (expressed in 1996 dollars per ton of carbon emissions) as follows:[123]

	2010	**2020**
1990 + 24%	$ 67.00	$ 99.00
1990 + 14%	129.00	123.00
1990 + 9%	163.00	141.00
1990	254.00	200.00
1990 – 3%	294.00	240.00
1990 – 7%	348.00	305.00

With these carbon prices established, EIA proceeds to analyze their effect on the marketability of each energy fuel under each scenario.[124] First, the marketability of coal is severely if not fatally eroded because coal combustion produces more carbon emissions than any of its competitors.[125] No matter how efficient the industry becomes in producing, transporting, and utilizing its product, absent a method for recovering carbon emissions, coal will be saddled with a "carbon tax" that would overwhelm whatever productivity gains it might achieve over the next two decades.[126]

The average delivered price per ton of coal, reflecting the costs of production, transportation, and its "carbon price" for each scenario is shown in the following chart:

123. EIA IMPACT STUDY, *supra* note 6, at xv–xvi tbl. ES1 & tbl. ES2.
124. *See* EIA IMPACT STUDY, *supra* note 6, at 12.
125. *See* EIA IMPACT STUDY, *supra* note 6, at xvi & xix fig. ES9.
126. EIA IMPACT STUDY, *supra* note 6, at xv–xvi.

Coal Prices to Electricity Generators (1996 Dollars/Short-ton)[127]

	2005	2010	2020
Reference Case	23.37	22.20	19.56
1990 + 24%	25.96	57.03	71.95
1990+ 14%	49.51	90.53	85.72
1990 + 9%	64.24	109.56	95.33
1990	69.51	162.69	129.43
1990 - 3%	74.07	185.47	156.60
1990 - 7%	79.18	214.75	197.61

While the relative prices of other fossil fuels also increase in relation to the reference case because they, too, must absorb a carbon price add-on, they do not increase as dramatically as the price of coal owing to their relatively lower carbon content.[128] For example, in the 1990 + 9% case, the average price for delivered coal (base price plus carbon price premium) to electricity generating plants increases 346 to 368 percent over the reference case in the 2008–2012 period, while the price of natural gas increases only 64 to 74 percent, and the price of oil increases only 25 to 29 percent.[129]

Beyond the competitive disadvantage coal would experience vis-à-vis other fossil fuels, it would suffer in comparison with nuclear power and renewable fuels as they would not be subject to any carbon price premium. Consequently, under the 1990 + 9% case, coal's market share in the electricity generating sector falls from nearly 20 quadrillion BTUs to about 5 quadrillion BTUs between 2005 and 2020.[130] Conversely, the 15 quadrillion BTU gap is filled by (in de-

127. *See* EIA IMPACT STUDY, *supra* note 6, at 202–203 tbl. B16. The delivered price per short ton in 1996 is set at $26.45.

128. *See* EIA IMPACT STUDY, *supra* note 6, at 22.

129. *See* EIA IMPACT STUDY, *supra* note 6, at 22.

130. *See* EIA IMPACT STUDY, *supra* note 6, at 29 fig. 22.

scending order of market share) natural gas, nuclear power, hydroelectric power, renewables, and oil.[131]

As coal's competitiveness declines, its annual production also declines, as shown in this chart:

U.S. Coal Production (in Millions of Tons)[132]

	2005	**2010**	**2020**
Reference Case	1,242	1,287	1,376
1990 + 24%	1,182	1,032	805
1990 + 14%	1,090	785	538
1990 + 9%	989	624	405
1990	946	418	207
1990 - 3%	924	369	172
1990 - 7%	867	313	144

A consequence of the decline in production will be a steady and substantial decline in coal mine employment as shown in this chart:

131. *See* EIA IMPACT STUDY, *supra* note 6, at 29 fig. 22.
132. *See* EIA IMPACT STUDY, *supra* note 6, at 202–03 tbl. B16.

Coal Mining Jobs[133]

	2005	2010	2020
Reference Case	75,000	68,519	60,000
1990 + 24%	75,000	58,223	40,000
1990 + 14%	75,000	50,224	37,500
1990 + 9%	75,000	42,531	25,000
1990	75,000	32,053	15,000
1990 - 3%	75,000	29,187	12,500
1990 - 7%	75,000	25,486	11,000

The EIA analysis treats coal as a heterogeneous commodity and distinguishes among ranks, e.g., bituminous, subbituminous and lignite, by BTU output, or by sulfur dioxide and ash content.[134] This treatment makes it somewhat difficult to extrapolate specific consequences for western coal across the various scenarios. EIA does, however, speculate that because, for the most part, western coal must be transported significantly greater distances than its eastern counterpart, it will suffer the disadvantage of having to absorb both its own carbon price as well as that associated with transportation, i.e., the carbon price of fuel for diesel locomotives, barges, and trucks.[135]

Moreover, given the precipitous downturn in demand for coal, EIA anticipates that investment in coal, if there is any, will be in rejuvenating existing older mines rather than in initiating new ones.[136] Because most new mining has

133. *See* EIA IMPACT STUDY, *supra* note 6, at 114 tbl. 23, fig. 109. Coal mine employment as of 1996 is set at 83,462. EIA IMPACT STUDY, *supra* note 6, at 114 tbl. 23, fig. 109. The figures in column "2005" and "2020" are close approximations.

134. *See* EIA IMPACT STUDY, *supra* note 6, at 110.

135. *See* EIA IMPACT STUDY, *supra* note 6, at 110–12.

136. *See* EIA IMPACT STUDY, *supra* note 6, 22–23.

been originating in the West, EIA believes that the West will suffer accordingly.[137]

On the basis of these opinions EIA projects selective consequences specific to western coal in terms of percentage share of U.S. production and coal mine employment, as shown in the following two charts:

Western Coal's Percentage Share of U.S. Production[138]

	1996	**2010**	**2020**
Reference Case	47%	57%	62%
1990 + 24%	47%	54%	45%
1990 + 9%	47%	39%	32%
190 – 3%	47%	28%	19%

137. *See* EIA IMPACT STUDY, *supra* note 6, at xviii.

138. *See* EIA IMPACT STUDY, *supra* note 6, at 112 fig. 106. The figures listed are close approximations.

Western Coal Mining Jobs In 2010[139]

	Reference Case	1990+ 24%	1990 + 9%	1990 - 3%	1990 - 7%
Powder River Basin	5,013	3,827	1,829	844	673
Other West	5,693	4,785	2,254	941	895
Total	10,706	8,612	4,083	1,785	1,568

V. COAL'S DIFFICULTIES BEYOND THE EIA PROJECTIONS

The dire predictions in the EIA study, substantially supported by other analyses undertaken by the private sector, ought to be sufficient cause for the coal industry to dread the imposition of the Kyoto Protocol. Unfortunately, the situation may actually be worse.

First, the emissions target specified for the United States in the Protocol, 7% below the 1990 emissions level,[140] is increasingly irrelevant. U.S. carbon emissions from the combustion of energy fuels reached 1,463 million metric tons in 1996, or 8.7% higher than the 1,346 million tons emitted in 1990.[141] The actual percentage reduction needed to reach the Protocol target is therefore increasing as the United States approaches 2008 to 2012, the period during which we are ostensibly expected to meet the 1990 – 7% target.[142] Thus, in 1996, the percentage reduction needed to meet the Protocol target rose to 15.7 % (7% + 8.7%) and that number continues to climb in a growing economy.[143] For example, EIA's

139. *See* EIA IMPACT STUDY, *supra* note 6, at 114 tbl. 23. "Powder River Basin" includes Wyoming, Montana, and North Dakota, while "Other West" includes Colorado, Utah, Arizona, New Mexico, Alaska and Washington (Alaska's and Washington's shares are negligible). *See* EIA IMPACT STUDY, *supra* note 6, at 114 tbl. 23.

140. *See* EIA IMPACT STUDY, *supra* note 6, at 9.

141. *See* EIA IMPACT STUDY, *supra* note 6, at xii & 208 tbl. B19.

142. *See* EIA IMPACT STUDY, *supra* note 6, at xiii.

143. This phenomenon is noted by the EIA:

> AE095 [the EIA's American Energy Outlook issued in 1995] projected that energy-related carbon emissions would reach 1,471 million metric tons in 2000, a level nearly reached in 1996 when emissions were 1,436 million metric tons. Each subsequent AEO has raised the estimate of carbon emissions, primarily because of

American Energy Outlook in 2000, AEO 2000, states that carbon emissions in the year 2000 are expected to reach 1,552 million metric tons, or 15% above the 1990 level, thereby raising the target to 22% (7% + 15%).[144]

Second, in response to the establishment of the FCCC, the Clinton administration launched the Climate Change Action Plan (CCAP).[145] The CCAP offered several dozen proposals for the reduction of greenhouse gases including voluntary programs, economic incentives, research and development, energy efficiency initiatives, and land use programs.[146] The plan purported to reduce total net emissions of greenhouse gases to their 1990 levels by the year 2000.[147] The CCAP fell short of the mark. For example, instead of achieving a reduction of 95 million tons of emissions through CCAP initiatives by 2000, as the plan projected, EIA estimates that the initiatives might only achieve a reduction of 36 million tons of emissions, and then, not until the year 2010.[148]

Likewise, the EIA discounts other claims of the CCAP on the evidence that certain voluntary programs have proven less successful than anticipated, funding for certain CCAP program has been less than requested, and U.S. economic growth (and therefore, energy demand) has been higher than that expected by the plan's sponsors.[149] The net results of the CCAP show that the Clinton Administration's assumptions regarding the success of domestic actions to reduce carbon emissions were overly optimistic. Indeed, assuming U.S. acceptance of the Protocol, the shortcomings of the CCAP presage an increase in the stringency of measures necessary to reach emissions targets as the implementation period draws near.[150]

Third, fundamental uncertainties regarding the likelihood and efficacy of an international emissions trading system seriously undermine the more optimistic predictions relating to meeting the Protocol targets, and doing so in a relatively painless way. The Protocol itself declares that emissions trading arrangements must be subsidiary to concrete programs for reducing carbon emissions.[151] Moreover, those Annex B countries that may potentially have emissions allocations to trade, principally the former Soviet bloc countries, may choose, instead, to bank their credits against future emissions on the belief that their economies

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lower price projections that encourage energy use and reduce the penetration of renewable sources of energy.

EIA IMPACT STUDY, *supra* note 6, at 9.

144. *See* Energy Info. Admin., Dept. of Energy, Annual Energy Outlook 2000 With Projections to 2010 (visited Oct. 25, 2000) <http://www.eai.doe.gov/oiaf/aeo/issues.html>.

145. *See* EIA IMPACT STUDY, *supra* note 6, at 2.

146. *See* EIA IMPACT STUDY, *supra* note 6, at 2.

147. *See* EIA IMPACT STUDY, *supra* note 6, at 2..

148. *See* EIA IMPACT STUDY, *supra* note 6, at 9.

149. *See* EIA IMPACT STUDY, *supra* note 6, at 9.

150. The Administration's contention that carbon sequestration through sinks and modified land use practices is a case in point. Although the EIA refers several times to U.S. State Department and Council of Economic Advisors' claims that agriculture and land use programs and credits for greenhouse gases other than carbon dioxide may offset carbon dioxide emissions up to 4%, the EIA appears to be somewhat skeptical. "[T]he rules to account for agriculture and forestry emissions and sinks have yet to be developed and are subject to considerable uncertainty." EIA IMPACT STUDY, *supra* note 6, at 9.

151. *See* Protocol, *supra* note 5, at art. 6.

will rebound over the next several decades.[152] More fundamentally, without the experience of an international trading system as a guide, it is impossible to predict how such a system will operate as a practical matter or how it might be compromised by other geopolitical conflicts and tensions.

Similarly, the jury is definitely out as to whether and to what extent significant carbon "credits" might be obtained through technology transfers between Annex B countries and developing countries under the so-called CDM provision in the treaty.[153] Given the American public's inherent skepticism regarding the need for and utility of foreign aid expenditures, it is difficult to comprehend that taxpayers would support additional transfers of money overseas, particularly if that money is being used to finance job growth in new technologies even while U.S. jobs in fundamental industry sectors are being eliminated by cutbacks in domestic energy demand. Conversely, if CDM initiatives are undertaken by the United States in lieu of traditional foreign aid expenditures, developing nations may resent having their discretion to redistribute American largesse circumscribed.

Fourth, and perhaps most importantly, there is a certain irrationality in a system that purports to reduce "global" carbon emissions but exempts the vast majority of countries from having to participate in the enterprise. The equity argument, that the developed nations (most prominently, the United States) emit more greenhouse gases, and therefore, should be exclusively responsible for reducing them, is initially seductive but eventually falls under clear-eyed scrutiny: 1) over the life of the Protocol the emissions that developed nations eliminate will simply be replaced by those of the developing nations as their economies expand such that the campaign against global warming becomes a zero-sum game; moreover, 2) the levels of emissions produced by the developed nations merely reflect the levels of goods and services produced by those nations. In any event, the inconsistent applicability of the Protocol's mandate may serve to undermine public support in the developed countries for unilateral efforts to reduce emissions.

These four issues call into serious question whether a smooth glide path can be taken to reduce U.S. emissions to meet the Protocol's target as certain sectors in the Clinton Administration had suggested. If the options touted for achieving emissions targets do not materialize or prove to be less successful than advertised, the carbon price discussed above will increase and coal-fired energy production will become even less competitive than the EIA analyses predict.

VI. RE-BOUND OR ON THE REBOUND?

Fortunately for the coal industry, the same uncertainties that threaten its survival have also caused concern elsewhere. As a treaty, the Kyoto Protocol will not be binding on the United States until it is ratified by a two-thirds vote of the Senate.[154] That development is highly unlikely in light of the current circumstances. The Senate has by a unanimous vote[155] expressed its will not to ratify the

152. *See* EIA IMPACT STUDY, *supra* note 6, at 9.
153. *See* EIA IMPACT STUDY, *supra* note 6, at xxviii.
154. U.S. CONST. art. II, § 2.
155. *See* EIA IMPACT STUDY, *supra* note 6, at 10.

Protocol until the developing nations are required to participate in the overall effort to reduce greenhouse gases and until it can be shown that U.S. participation in the Protocol will not damage the U.S. economy.[156] Congress has further expressed reluctance to move ahead on climate change by enacting legislation calling for further study of the phenomenon of global warming and the ostensible means of controlling it.[157]

These positions firmly taken by both houses of Congress indicate strong resistance to unilateral actions on the part of the United States until fundamental questions of viability, fairness, and necessity are answered with respect to the entire climate change issue. To that end the EIA projections, outlined above, demonstrate how implementation of the Kyoto Protocol, even in the less stringent scenarios, will have a profoundly negative impact on an industry that has been a fundamentally significant factor in the growth and prosperity of the American West, indeed of the entire nation.

Returning to Prometheus, chained to that desolate crag in Scythia, we are told that the Titan eventually was unbound by Hercules, apparently because Prometheus possessed information crucial to the stability of Zeus's throne.[158] In a similar sense, coal's future rests upon its ability to provide the American public and its leaders with the information necessary to make rational choices with respect to the Kyoto Protocol and its ominous implications—not the least of which is whether the Protocol constitutes a viable and necessary response to a legitimate crisis or a blueprint for the international redistribution of wealth and opportunity on an epic scale.

Coal's challenge is a significant one, but inspiration can be taken from George Noel Gordon, Lord Byron's own salute to Prometheus:

> And, baffled as thou wert from high,
> Still, in thy patient energy
> In the endurance and repulse
> Of thine impenetrable spirit,
> Which earth and heaven could not convulse,
> A mighty lesson we inherit.[159]

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156. The Senate's position was expressed through a resolution sponsored by Senators Robert Byrd (D-WV) and Chuck Hagel (R-NE). *See* EIA IMPACT STUDY, *supra* note 6, at 10.

157. *See, e.g.*, National Climate Program Act, 15 U.S.C. §§ 2901–08 (1994); Global Change Research Act, 15 U.S.C. §§ 2921–61 (1994); and pursuant to Title XXIV of the Food and Agriculture Act of 1990, the establishment of the Global Climate Change Program within the Department of Agriculture, 7 U.S.C. §§ 6701–10 (1994) (asserting that Congress is unwilling to legislate the phenomenon of global warming without further study).

158. *See* BULLFINCH, *supra* note 2, at 18.

159. *Id.* at 19.

THE RIO GRANDE CONVENTION OF 1906: A BRIEF HISTORY OF AN INTERNATIONAL AND INTERSTATE APPORTIONMENT OF THE RIO GRANDE

WILLIAM A. PADDOCK*

I. INTRODUCTION

Late one morning in April 1598, a party of eight armed and mounted men came to the river from the south through heavy groves of cottonwoods. They were emaciated and wild with thirst. On seeing the water they lost their wits, men and horses alike, and threw themselves into it bodily.

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The men drank and drank in the river. They took the water in through their skins and they cupped it to their mouths and swollen tongues and parched throats. When they could drink no more they went to the dry banks and fell down upon the cool sand under the shade of the big trees. In their frenzied appetite for survival itself, they had become bloated and deformed, and they lay sprawled in exhaustion and excess.

* * * *

Their clothes were ragged, their boots were worn through, and their bellies were hungry; for they had come for fifty days through deserts with thorns, mountains with rocks, and nothing to eat but roots and weeds. For the last five days they had not had a drop of water. In finding the river, they not only saved their lives; they fulfilled their assignment—to break a new trail to the Rio del Norte from the south, that would bypass the Junta de los Rios, to bring the colony directly to its New Mexican kingdom.[1]

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1. *See* Paul Horgan, Great River, The Rio Grande In North American History, 160-161 (1984).

Then, as now, survival and prosperity in the western United Sates required water for domestic use, for irrigation of crops, for commercial and industrial purposes, as well as for maintenance of the environment and the biological systems on which life depends. By the turn of the 20th Century, little, if any, unclaimed water remained in the Rio Grande in Colorado, New Mexico, or northern Texas. Interstate and international apportionments were required to allocate the water and maintain peace. These apportionments, including the Rio Grande Convention of 1906[2]; the allocation of water from the Rio Grande Project[3]; and the Rio Grande Compact,[4] are frequently at the center of new disputes over water allocation spurred on by the burgeoning growth in the southwestern United States. Unless one understands these "old" apportionments, and the rights they were intended to create and preserve, it is not possible to make intelligent decisions on today's disputes.

Oliver Wendell Holmes once said "upon this point a page of history is worth a volume of logic."[5] This is equally true for many western water disputes. Accordingly, what follows is a brief history of, and a discussion of the reasons for, the allocation scheme for water from the Rio Grande below Elephant Butte Reservoir in New Mexico and above Fort Quitman, Texas. This is a work more of synthesis than scholarship, and is intended to provide a basis for further legal and historical analysis.

II. PHYSICAL DESCRIPTION OF THE BASIN

The river known as the Rio Grande was preceded by a rift of the same name. The Rio Grande Rift extends from Leadville, Colorado, to Presido, Texas, and Chihuahua, Mexico.[6] In hydrological terms, the Upper Rio Grande Basin extends from the San Luis Valley of south-central Colorado southward through central New Mexico to Fort Quitman, Texas. It includes parts of El Paso and Hudspeth Counties in extreme western Texas, and that part of northern Mexico lying between the Rio Grande and the Sierra de Presido, Sierra de Juarez, and Sierra de la Armargosa. The drainage area (excluding the Closed Basin in the San Luis Valley, see below) is 31,100 square miles; the river is 650 miles long. This basin is naturally divided into three areas: (1) the San Luis Valley in Colorado; (2) the

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2. *See* Convention Between the United States and Mexico Providing for the Equitable Distribution of the Waters of the Rio Grande for Irrigation Purposes, May 21, 1906, U.S.-Mex. 34 Stat. 2953 [hereinafter Rio Grande Convention of 1906].

3. *See* Reclamation Act of 1902, ch. 1093, 32 Stat. 388-90 (codified as amended in scattered sections of 43 U.S.C.); Act of February 25, 1905, ch. 798, 33 Stat. 814. *See generally* Elephant Butte Irrigation Dist. v. Department of the Interior, 160 F.3d 602, 605 (10th Cir. 1998) (describing the Rio Grande Project).

4. *See* Act of May 3, 1939, ch. 155, 53 Stat. 785 (approving Rio Grande Compact).

5. New York Trust Co. v. Eisner, 256 U.S. 345, 349 (1921).

6. W. Scott Baldridge, et al, *Rio Grande Rift: Problems and Perspectives, in* RIO GRANDE RIFT: NORTHERN NEW MEXICO, 1, 1 (W. Scott Baldridge et al. eds., New Mexico Geological Society 1984). The valley between Salida and Leadville, Colorado, while still part of the Rio Grande Rift, was hydrologically separated from the Rio Grande approximately three to five million years ago when the Maysville Uplift pushed up a mountain barrier across the northern end of the San Luis Valley.

Middle Rio Grande in New Mexico; and (3) the Elephant Butte-Fort Quitman section in southern New Mexico, western Texas, and northeast Mexico.

A. *The San Luis Valley*

The San Luis Valley is a high mountain valley extending approximately ninety miles from north to south and fifty miles from east to west. The valley floor ranges in elevation from 7,440 feet to about 8,000 feet and is ringed by mountains between 10,000 feet to 14,390 feet in elevation. The valley's west side is formed by the Conejos Mountains, the San Juan Mountains, and the La Garita Hills; to the north are the Saguache and the Sangre de Cristo Mountains; to the east are the Sangre de Cristo Mountains; and the southern boundary is formed by the San Luis Hills. The Rio Grande's headwaters are in the San Juan Mountains near the Continental Divide, from which it flows southeasterly entering the valley on the west at Del Norte. The river continues southeasterly across the valley through the cities of Monte Vista and Alamosa. At Alamosa, it turns south and runs nearly forty miles, passing through a break in the San Luis Hills, and then entering a deep canyon above the New Mexico state line.

The Closed Basin occupies the northern part of the San Luis Valley. It is hydrologically separated from the rest of the valley by a low divide that extends southeast from near Del Norte to a few miles north of Alamosa and then easterly to the east side of the San Luis Valley. The Closed Basin contains some 2,940 square miles that do not naturally drain to the Rio Grande. The lowest area in the Closed Basin, known locally as the "sump," is located on the east side of the valley at the foot of Mount Blanca. Historically, the sump was a chain of ephemeral lakes. Prior to the Closed Basin Project,[7] practically all water produced by streams flowing into the Closed Basin that was not consumed in irrigation flowed to the sump and was lost through evaporation and transpiration. In addition, all unconsumed irrigation water applied to land in the Closed Basin from ditches off the Rio Grande flowed to the sump area. Today, the Closed Basin Project[8] pumps shallow groundwater from the sump area and delivers it to the Rio Grande below Alamosa.

The Conejos River is the principal tributary of the Rio Grande in Colorado. It rises in the southwest mountains of Colorado, is augmented by the San Antonio and Los Piños Rivers, and flows northeast to join the Rio Grande at Los Sauses. The other tributaries joining the Rio Grande from the west above the Conejos River include La Jara, Alamosa, and Rock Creeks.

The San Luis Valley's southeast area extends east from the Rio Grande to the lower slopes of the Culebra Range of the Sangre de Cristo Mountains and from the New Mexico state line north to the Closed Basin. The principal streams in this area, from north to south, are Trinchera, Culebra, and Costilla Creeks. Costilla Creek rises in New Mexico, flows north and west for about ten miles through Colorado and then turns south and joins the Rio Grande in New Mexico.

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7. *See* Reclamation Project Authorization Act of 1972, Pub. L. No. 92-514, 86 Stat. 964 (codified at 43 U.S.C. § 615aaa (1999) (text omitted from published United States Code)) (authorizing the construction, operation, and maintenance of the Closed Basin Division, San Luis Valley Project, Colorado).

8. *See generally*, Closed Basin Landowners Ass'n v. Rio Grande Water Conservation Dist., 734 P.2d 627 (1987) (describing Closed Basin Project).

Due to upstream reservoirs and extensive irrigation, these streams generally contribute limited amounts to the Rio Grande.

B. *The Middle Rio Grande*

The Middle Rio Grande includes the Rio Grande and its tributaries between the Colorado-New Mexico state line and the San Marcial Narrows at the head of Elephant Butte Reservoir, a distance of about 270 miles. The upper half of this reach is flanked on the east by the Sangre de Cristo Mountains. On the west, the Conejos Mountains extend southward and separate the Rio Grande and the Rio Chama drainages. The Rio Chama joins the Rio Grande near Española, New Mexico. This portion of the Rio Grande and the Rio Chama drainage area contributes most of the water supply for the Rio Grande that originates in New Mexico. The tributary streams south of the Rio Chama are largely torrential, carry a heavy silt load, and supply relatively little of the river's total flow.

The canyon that the Rio Grande enters in southern Colorado gradually deepens as the river flows through northern New Mexico, reaching a depth of more than 1,200 feet at Embudo, seventy miles south of the Colorado-New Mexico state line. In this reach, the principal tributaries are from the east and include the Rio Colorado, the Rio Hondo, the Rio Taos, and Embudo Creek. These streams, rising in the Sangre de Cristo Mountains, provide water for irrigation to the mesa lands lying between the mountains and the river and contribute only flood flows and return flows to the Rio Grande.

Below Embudo, the Rio Grande emerges into the Española Valley, a valley some twenty-five miles long and from one to three miles wide. Here, the Rio Chama joins the Rio Grande from the west and the Rio Santa Cruz joins it from the east. The Rio Chama drains some 3,200 square miles. About thirty miles upstream on the Rio Chama is Abiquiu Reservoir, a flood control and storage reservoir that was completed in 1963 with a capacity of 1.2 million acre-feet. There is some irrigation in the mountain valleys both above and below Abiquiu Reservoir. Another thirty miles further upstream on the Rio Chama are El Vado Reservoir (185,000 acre-feet) completed in 1935, and Heron Reservoir (400,000 acre-feet) completed in 1970. El Vado Reservoir serves the Middle Rio Grande Conservancy District, and Heron Reservoir is part of the San Juan-Chama Project, a transbasin diversion bringing water from the San Juan River Basin into the Rio Grande Basin.[9]

Below the Española Valley, the Rio Grande enters White Rock Canyon, "a narrow tortuous gorge some twenty miles long."[10] At the end of this gorge is Cochiti Dam,[11] a flood control reservoir capable of storing some 500,000 acre-feet, which largely inundates White Rock Canyon. From Cochiti Dam downstream, the Rio Grande enters the long narrow Middle Rio Grande Valley, which extends 150 miles to the San Marcial Narrows. This valley is broken only by the

9. *See generally* Act of June 13, 1962, Pub. L. No. 87-483, 76 Stat. 96 (codified at 43 U.S.C. § 615ii (1999) (text omitted from United States Code)).

10. *See* Natural Resources Committee, Regional Planning, Part VI—The Rio Grande Joint Investigation in the Upper Rio Grande Basin in Colorado, New Mexico and Texas, 1936-1937, 21 (1938) (hereinafter Joint Investigation).

11. *See generally* Act of July 14, 1960, Pub. L. No. 86-645, 74 Stat. 492-93.

narrows at San Felipe, Isleta, and San Acacia, which serve to define the Santo Domingo, Albuquerque, Belen, and Socorro subvalleys. The Rio Grande's principal tributaries in the Santo Domingo Valley are the Santa Fe and Galisteo Creeks, both of which enter the valley from the east. Galisteo Reservoir controls the flood flows of Galisteo Creek. Jemez Creek enters the Rio Grande from the west a few miles below the San Felipe Narrows. Its flows are controlled by Jemez Canyon Reservoir,[12] which has a capacity of some 100,000 acre-feet and is operated for flood and sediment control purposes. The Rio Puerco and Rio Salado enter the Rio Grande from the west just above San Acacia Narrows, some sixty-five miles south of Albuquerque. These streams are largely torrential and only contribute to the Rio Grande at times of flash floods. While the Rio Puerco only drains about 5,000 square miles, contributing 10% or less of the Rio Grande's total flow, it is the source of at least one-half of the river's total sediment load.[13]

C. *The Elephant Butte-Fort Quitman Section*

The Elephant Butte-Fort Quitman section of the Upper Rio Grande Basin covers 250 miles from San Marcial, New Mexico, to Fort Quitman, Texas. In the first sixty-five miles below San Marcial, downstream to the Caballo Narrows, the surrounding hills and mesas are close to the river and there is little valley land. The eastern side of this reach includes the "Jornado del Muerto" (Dead Man's March), a long, flat, tortuous expanse of high desert on which many early settlers perished.[14] Elephant Butte Dam now blocks the river forty miles below the San Marcial Narrows. In periods of plenty, the resulting lake fills the entire valley upstream to San Marcial.

Just below Elephant Butte Dam, the Rio Grande enters the Palomas Valley. At the end of the short Palomas Valley is the Caballo Narrows, now occupied by Caballo Dam,[15] which impounds flood water and water released from Elephant Butte Reservoir. Caballo Dam has a capacity of some 300,000 acre-feet and began partial operations in 1938. Below that dam, the river enters the Rincon Valley, a valley some thirty miles long and, at most, two miles wide. At the head of the Rincon Valley is Elephant Butte Irrigation District's Percha diversion dam, which takes irrigation water from the Rio Grande. The Rincon Valley ends at Selden Canyon, below which the Mesilla Valley begins. That valley extends some fifty-five miles south to "the Pass," four miles above El Paso. It reaches its maximum width of about six miles near Las Cruces, New Mexico. The Elephant Butte Irrigation District's principal diversions in this reach are the Leasburg and Mesilla diversion dams, from which up to 88,000 acres are irrigated.

Below the Mesilla Valley is the El Paso Valley, which is about ninety miles long and four to six miles wide, and extends from El Paso on the north to about ten miles below Fort Quitman, Texas.

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12. *See id.*

13. *See* Robert C. Evler et al., *The Colorado Plateaus: Cultural Dynamics and Paleoenvironment*, 205 SCIENCE 1089 (1979).

14. *See* HORGAN, *supra* note 1, at 168-171.

15. *See* Convention Between the United States of America and Mexico for the Rectification of the Rio Grande, February 1, 1933, U.S.-Mex., 48 Stat. 1621, 1624 (authorizing the construction of Caballo Reservoir).

The land on the Mexican (west) side of the Rio Grande in this reach is called the Juarez Valley. Under the 1906 Convention,[16] it was allocated 60,000 acre-feet of water to irrigate about 25,000 acres. The land on the Texan (east) side of the Rio Grande is included in the El Paso County Water Improvement District No. 1 (the "El Paso District") and the Hudspeth County Conservation and Reclamation District (the "Hudspeth District"). The El Paso District was established to provide irrigation water to some 67,000 acres. The El Paso District formerly used two other principal diversion structures, the International Dam and the Riverside Dam, located downstream of the Acequia Madre. In recent years, diversions for Texas have been increasingly consolidated at the American Dam, upstream of the Acequia Madre. The Hudspeth District typically makes no diversions from the Rio Grande. Instead, it is supplied with tailwater from the El Paso District, delivered by the Tornillo Drain into the Hudspeth Feeder Canal. There are no perennial tributaries to the Rio Grande in the Elephant Butte-Fort Quitman section of the Rio Grande. Rather, the tributaries are dry arroyos subject to flash floods. The principal tributaries enter from the west between San Marcial and the Rincon Valley, and most of them are now regulated by flood and sediment control reservoirs.

III. HISTORY OF EARLY SETTLEMENT

The concentration of runoff caused by the Rio Grande Rift made possible permanent human settlements in the Rio Grande Basin.[17] The available evidence suggests intermittent human occupation of the Rio Grande area for at least 10,000 years.[18] It was not until the first millennium B.C. that corn and squash agriculture appeared on the Rio Grande. The beginning of corn and squash agriculture also marked the beginning of irrigated agriculture in the Upper Rio Grande Basin. The transition from mobile hunting and gathering to agricultural food production required significant social, economic, and technological changes, and the development of settled villages. This change occurred slowly, with the first permanent dwellings appearing about A.D. 400.[19] The principal crops of grains, squash, gourds, maize, and beans were irrigated from ditches drawing from the Rio Grande and its tributaries. By A.D. 850 or 900, the precursors of Indian pueblos appeared.[20] Then, from the twelfth through seventeenth centuries, the Indian population grew and was concentrated in larger communities.[21] By the time Spanish settlers first came in contact with the Indians in the Upper Rio Grande Basin at the end of the 16th Century, there were about 60,000 Indians living in some 130 pueblos. During the first century of Spanish occupa-

16. *See* Rio Grande Convention of 1906, *supra* note 2, at 2954 (distributing 60,000 acre-feet of water to Mexico for irrigation purposes).

17. *See* John A. Ware, *Man on the Rio Grande: Introduction and Overview in* Rio Grande Rift: Northern New Mexico, 271, 271 (W. Scott Baldridge et al. eds., New Mexico Geological Society 1984) [hereinafter Ware].

18. *See id.*

19. *See* Stewart Peckham, *The Anazai Culture of the Northern Rio Grande Rift in* Rio Grande Rift: Northern New Mexico, 275, 276 (W. Scott Baldridge et al. eds., New Mexico Geological Society 1984).

20. *See* Ware, *supra* note 17, at 271-72.

21. *See* Ware, *supra* note 17, at 271-72.

tion, however, the population of the pueblos declined dramatically, to 10,000 in A.D. 1600, and then to fewer than 6,500 in A.D. 1706.

The first Spanish settlers in the Upper Rio Grande Basin above Fort Quitman arrived near El Paso in April 1598. This party, led by Don Juan de Oñate, proceeded up river to colonize New Mexico.[22] It was not until December 8, 1659, that the first permanent Spanish settlement, a mission dedicated to Our Lady of Guadalupe of El Paso,[23] was established at El Paso by Fray Garcia de San Francisco y Zuniga. The settlement was located on the south side of the Rio Grande in present day Ciudad Juarez, Mexico. The population of Spanish settlers in the area above San Marcial increased throughout the 1600's, as did their contacts and conflicts with the Pueblo Indians. In 1680, the Pueblo Indian uprising forced the Spanish leader Otermin and some 1,946 people, including 300 friendly Indians, down river to El Paso.[24] In the years following, El Paso suffered greatly from drought and Indian predation, so that by 1684 or 1685, El Paso was very nearly abandoned.[25] It was not until 1688 when DeVargas began using El Paso as a base of operations for the re-conquest of the Pueblo Indians that El Paso's fortunes improved.[26] DeVargas completed his re-conquest by 1693, and from 1700 to 1800 El Paso served as the gateway to Spain's northern colonies.[27] By 1700, the Spanish population at El Paso was some 3,588, and increased to some 4,394 by 1779.

From the founding of El Paso in 1659 through 1827, there were no houses or cultivated fields on the east side of the river. Rather, all dwellings and all irrigation were located west of the Rio Grande in present day Mexico. In 1827, Juan Maria Ponce de Leon received a land grant of some 200-500 acres on the east side of the river and he took up residence there.[28] Even after Ponce de Leon settled on the river's eastern side, development occurred slowly there until after the Mexican-American War of 1844 to 1846. Thereafter, many new settlers moved to the area and, in 1859, U.S. Army Colonel Anson Mills established the City of El Paso. But even then the population of El Paso was only 300, while across the river the population in and around Juarez was approximately 13,000.[29]

Irrigation was practiced by the Spanish settlers of El Paso from its founding in 1659. The total land area under irrigation west of the river increased markedly after 1680 due to the influx of refugees from upstream settlements. By 1821, the population west of the river was 8,000, and their sustenance required substantial irrigated cropland. By 1881, there were large areas under cultivation on both sides of the river. As reported to President Franklin Pierce by Major Emory, "cultivation extended along the Rio Grande for twenty miles below present-day Juarez," an area estimated to be some 32,000 acres.[30]

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22. *See* HORGAN, *supra* note 1, at 161.
23. *See* S. DOC. NO. 55-229, at 54 (1898).
24. *See* Joint Investigation, *supra* note 10, at 71.
25. *See* Joint Investigation, *supra* note 10, at 71.
26. *See* Joint Investigation, *supra* note 10, at 71.
27. *See* Joint Investigation, *supra* note 10, at 71-72.
28. *See* Joint Investigation, *supra* note 10, at 71-72.
29. *See* Joint Investigation, *supra* note 10, at 72.
30. Joint Investigation, *supra* note 10, at 72.

While settlement was occurring in El Paso, Texas, it was also occurring upstream in the Mesilla, Rincon, and Palomas Valleys, which after 1848 was the United States Territory of New Mexico. By the 1870's, substantial land areas in the Mesilla Valley were irrigated and the Valley's farmers were quite prosperous. The arrival of the railroads in the early 1880's[31] and the pacification of the Indians, however, caused a marked decline in prosperity: the railroads brought agricultural products from the Midwest that competed with local produce; and the pacification of the Indians meant that fewer soldiers were required to protect the population. As the number of soldiers declined, so did the Army's need to buy food and supplies from local farmers and merchants. At that same time, further north, New Mexico and Colorado were experiencing a substantial influx of settlers and a resultant increase in irrigation from the Rio Grande, both of which had profound impacts on the El Paso-Juarez water supply.

IV. TROUBLE OVER THE RIO GRANDE AT EL PASO

Upstream in the San Luis Valley, the first permanent Mexican settlements did not appear until the 1850's.[32] For the next two decades, there was a small, but steady, migration of American settlers to the San Luis Valley. It was not until the late 1870's when the Denver and Rio Grande Railroad reached the San Luis Valley that many people moved to the valley and the large canal-building era began.[33] By 1889, some 1,200 miles of canals had been constructed in the San Luis Valley and were supplying irrigation water to 300,000 acres.[34] By 1880, in New Mexico upstream of San Marcial, the irrigation that the Indians had started and the Spanish settlers had continued had grown to some 183,000 irrigated acres.[35]

The mid-1880's were wetter than average and, as a consequence, the effect of increased irrigation in the basin was not immediately apparent in southern New Mexico and El Paso. With the onset of a series of dry years in the late 1880's, however, water shortages occurred throughout the basin, and the shortages in the El Paso/Juarez area became pronounced and severe.[36]

As a typical western stream, the Rio Grande is fed by snowmelt and late season rains. The bulk of the water supply is available only during the short spring runoff. Late season flows are typically small unless supplemented by infrequent rains. Given the nature of the river, seasonal water supply shortages were neither rare nor unexpected. In 1878, the Hatch Report warned that problems over water would grow in the future because the Rio Grande did not al-

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31. *See* Joint Investigation, *supra* note 10, at 72. The Southern Pacific, the Santa Fe, and the Mexican Central Railroads reached El Paso in 1881, and the Texas Pacific reached El Paso in 1882. *See* Joint Investigation, *supra* note 10, at 72.

32. *See* S. DOC. NO. 55-229, at 54 (1898).

33. *See id.* at 55.

34. *See* NORRIS HUNDLEY, JR., DIVIDING THE WATERS - A CENTURY OF CONTROVERSY BETWEEN THE UNITED STATES AND MEXICO 19 (1966); Douglas Robert Littlefield, Interstate Water Conflicts, Compromises, and Compacts: The Rio Grande, 1880-1938 43 (1987) (unpublished Ph.D. dissertation, University of California (Los Angeles)) (on file with the Denver Public Library).

35. *See* HUNDLEY, *supra* note 34, at 19.

36. *See* HUNDLEY, *supra* note 34, at 20-21; Littlefield, *supra* note 34, at 13-14.

ways carry enough water to irrigate the El Paso Valley.[37] This statement reflected both the history of recurring droughts and the region's growing population. And, it was in 1880, only two years after the report, that citizens of San Elizario and Isleta, Texas, sought government help to offset reduced water supplies blamed on excessive Mexican diversions.[38] The series of wet years in the mid-1880's relieved the shortage, and no further action was taken on these requests.

The issue of water shortages was revived with the onset of the 1888 drought, at which time Colonel Anson Mills of the Army Corps of Engineers proposed construction of a dam just upstream of El Paso to store 1.65 million acre-feet of flood waters to serve both the United States and Mexico. Mills pressed his idea with the Department of State and Congress. As a result, in 1890 Congress passed a joint resolution authorizing President Benjamin Harrison to negotiate with Mexico for the construction of an international dam across the Rio Grande near El Paso and the establishment of a joint international commission to resolve boundary issues.[39]

Little progress was made on negotiations until the severe drought of 1894. At that time, Mexico, with the encouragement and support of El Pasoans, pressed its complaints over water shortages in Washington, D.C. In September of 1894, the Mexican Foreign Minister complained that increased upstream diversions in the United States made farming in Juarez very difficult, if not impossible. With little response from Washington, in October of 1895, Mexico's Foreign Minister wrote Secretary of State Richard Olney to complain of the nearly complete lack of water in 1894 and 1895. He went on to suggest that the 1848 Treaty of Guadalupe-Hildago,[40] the 1853 Gadsden Treaty,[41] the 1884 Convention between the United States and Mexico,[42] and international law were all being violated by the United States' failure to protect the rights of Mexican citizens.[43]

Apparently alarmed by Mexico's claim, Secretary Olney sought the advice of Attorney General Judson Harmon. General Harmon's opinion of December 12, 1895,[44] concluded that the United States had not violated the Treaty of Guadalupe-Hildago because it had not impaired the navigability of the Rio Grande, and that was the only right the treaty created or protected with respect

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37. *See* H.R. Exec. Doc. No. 45-84, at 5-6 (1878).

38. *See* Littlefield, *supra* note 34, at 14.

39. *See id.* at 26-27; HUNDLEY, *supra* note 34, at 21-22.

40. *See* Treaty of Peace, Friendship, Limits, and Settlement between the United States of America and the United Mexican States, Concluded at Guadalupe Hidalgo February 2, 1848, February 2, 1848, U.S.-Mex., *available at* http://www.yale.edu/lawweb/avalon/ diplomacy/ guadhida.htm [hereinafter Treaty of Guadalupe-Hidalgo].

41. *See* Gadsen Purchase Treaty, Dec. 30, 1853, U.S.-Mex., *available at* http://www.yale.edu/ lawweb/avalon/diplomacy/mx1853.htm [hereinafter Gadsden Treaty].

42. *See* Convention Between the United States of America and the United States of Mexico Touching the International Boundary Where it Follows the Bed of the Rio Grande, November 12, 1886, U.S.-Mex., 24 Stat. 1011 [hereinafter 1884 Convention Between the United States and Mexico].

43. *See* S. DOC. NO. 57-154, at 7-9 (1903); HUNDLEY, *supra* note 34, at 22-23; Littlefield, *supra* note 34, at 24, 50.

44. 21 Op. Att'y Gen. 274 (1895).

to the Rio Grande.[45] Concerning international law, he concluded, "[t]he fundamental principle of international law is the absolute sovereignty of every nation, as against all others, within its own territory."[46] While General Harmon concluded that "the rules, principles, and precedents of international law impose no liability upon the United States," he did state that "whether the circumstances make it possible or proper to take any action from considerations of comity," was not an issue within his province.[47] In so stating, he in effect suggested that the President and the Department of State make whatever agreements they felt appropriate as a matter of comity.

A. *The Proposed Solution: An International Dam*

Pressure to resolve the international problem prompted Secretary Olney to act on the Congressional Resolution of April 29, 1890.[48] He negotiated with his Mexican counterpart, Matias Romero, and on May 6, 1896, they entered into a protocol that called upon Colonel Anson Mills and Señor Don F. Javier Osorno, members of the International Boundary Commission (the "I.B.C."),[49] to make an investigation and prepare a report on the water supply. The report was to address: (1) the amount of water taken from the Rio Grande by irrigation canals in the United States; (2) the average amount of water in the Rio Grande, year by year, before and after the construction of those canals; and (3) whether a dam across the Rio Grande near El Paso, or elsewhere, would be the best means to regulate the Rio Grande and secure for the inhabitants of both countries their legal and equitable rights and interests to the water.[50]

The Mills and Osorno report only considered the dam near El Paso. This decision was influenced, at least in part, by growing controversy over a proposed dam near Elephant Butte being promoted by the Rio Grande Dam and

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45. *See id.* at 278; S. DOC. NO. 57-154, 12 (1903); HUNDLEY, *supra* note 34, at 23.

46. *See* 21 Op. Atty. Gen. 274, 281 (1895).

47. *Id.* at 283.

48. *See* HUNDLEY, *supra* note 34, at 24.

49. *See* Littlefield, *supra* note 34, at 53. The International Boundary Commission was first established by the Convention of July 29, 1882, as a temporary commission to resurvey and monument the western land boundary between the United States and Mexico. *See* Convention Between the United States of America, Providing for an International Boundary Survey to Relocate the Existing Frontier Line Between the Two Countries West of the Rio Grande, July 29, 1882, U.S.-Mex., 22 Stat. 986, 988. In 1884, it established rules for determining the boundary when the river changed course. *See* 1884 Convention Between the United States and Mexico, *supra* note 42, at 1011-12. The Commission became a permanent body in 1889, and its duties came to include administration of water. *See* Convention Between the United States of America and the United States of Mexico to Facilitate the Carrying Out of Principles Contained in the Treaty of November 12, 1884, and to Avoid the Difficulties Occasioned by Reason of the Changes Which Take Place in the Bed of the Rio Grande and that of the Colorado River, March 1, 1989, U.S.-Mex., 26 Stat. 1512, 1513. In 1944, its name was changed to the International Boundary and Water Commission. *See* Treaty between the United States of America and Mexico Respecting Utilization of Waters of the Colorado and Tijuana Rivers and of the Rio Grande, February 3, 1944 and November 14, 1944, U.S.-Mex., 59 Stat. 1219, 1221, 1222.

50. U.S. Department of State, Proceedings of the International (Water) Boundary Commission, United States and Mexico: Equitable Distribution of the Waters of the Rio Grande, International (Water) Boundary Commission, United States and Mexico 275 (1903).

Irrigation Company (the "Rio Grande Company").[51] On the previous February 1, 1895, the Department of Interior approved the Rio Grande Company's application for a right of way for a dam near Elephant Butte in the New Mexico Territory.[52] The prospectus for the company stated it would build the world's largest artificial lake to impound 253,370 acre-feet of water to be used for colonization and irrigation of lands downstream to Fort Quitman, Texas. Mexico promptly filed a protest to the proposed dam, and requested that the United States government suspend all work on it.[53] In response, Secretary Olney did secure the suspension of any action on pending applications for rights to use public lands that involved diversion of water from the Rio Grande and its tributaries in Colorado and in the New Mexico Territory.[54] Because the Rio Grande Company's application had previously been approved, however, it was not affected by the suspension.

In November 1896, the I.B.C. made its report recommending the construction of an international reservoir capable of storing some 535,000 acre-feet 3.5 miles above El Paso.[55] Impetus to the treaty negotiations for construction of the dam and enhanced water delivery to Mexico was provided by a January 5, 1897, letter from Mexico's Foreign Minister Romero to Secretary Olney asserting that Mexico had sustained $35 million in damages from increased water diversions in the United States.[56] Included in the letter was a draft convention calling for the prompt construction of an international dam at El Paso, with all costs to be borne by the United States in compensation for past damages to Mexico and its citizens.[57] He suggested that the water stored by the dam be allocated equally between the United States and Mexico.[58]

The difficulty then faced by the United States was the proposed dam at Elephant Butte. If that dam were built, there would not be a reliable water supply for the proposed international dam at El Paso. On the other hand, the international dam would do nothing to alleviate the water shortages experienced by farmers in the Rincon and Mesilla Valleys in New Mexico, and would flood a substantial portion of the Mesilla Valley. Thus, resolution of the disputes with Mexico had serious national implications that first had to be addressed.

In May of 1897, the United States filed suit against the Rio Grande Company to prevent its construction of a reservoir near Elephant Butte.[59] Funding from the Project's backers dried up while the litigation went on, and after five years of litigation and five years without construction, the United States canceled the previously-issued authorization for the dam under its own terms. And, in 1909, the United States Supreme Court sustained the cancellation.[60] While well received in El Paso and Juarez, this development did little to solve the in-

51. *See* HUNDLEY, *supra* note 34, at 25-26.

52. *See* Littlefield, *supra* note 34, at 48.

53. *See* S. DOC. NO. 57-154, at 27-28 (1903).

54. *See* S. DOC. NO. 55-229, at 18 (1898). The suspension was effective December 5, 1896. *See* Littlefield, *supra* note 34, at 57-58.

55. *See* S. DOC. NO. 55-229, at 39, 46 (1898).

56. *See id.* at 179.

57. *See* Littlefield, *supra* note 34, at 58.

58. *See* Littlefield, *supra* note 34, at 58.

59. *See* Littlefield, *supra* note 34, at 58.

60. *See* Rio Grande Dam & Irrigation Co. v. United States, 215 U.S. 266, 278 (1909).

creasingly-bitter disputes over water between farmers in New Mexico and in El Paso. Since water storage was the only practical means to address both problems, the United States essentially put the international dispute on hold while working to solve then domestic dispute between New Mexico and Texas.

B. *The Twelfth International Irrigation Congress—A Deal is Made*

While the United States was litigating with the Rio Grande Company, numerous attempts were made to settle the case, but none were successful. The United States' interest in settlement waned considerably after the Reclamation Act of 1902[61] was enacted: at that time, the newly-created Reclamation Service began studying the relative merits of a dam at Elephant Butte versus an international dam at El Paso.[62] The Reclamation Service concluded that a site a short distance downstream from the Rio Grande Company's proposed reservoir site near Elephant Butte was the preferred location for a large reservoir.[63] Acting on this recommendation, in 1902, the Reclamation Service directed engineer Benjamin Hall to prepare a complete engineering proposal for the dam and reservoir.[64]

While Hall was doing his work and the United States battled the Rio Grande Company, Mexico continued to press its demands for a solution to the Juarez water shortages. On June 3, 1904, the Mexican Ambassador to the United States, M. de Aspiroz, formally protested the continuing water shortage at Juarez. The Ambassador told the new United States Secretary of State, John Hay, that American diversions from the Rio Grande had caused the population of Juarez to decline from 18,630 to some 8,814 by 1896.[65] He reiterated Mexico's claim for $35 million in damages, stated that the damages were continuing to mount, and pressed for a quick solution either by money damages or the international dam's construction.[66]

On the heels of this protest, in October 1904, Hall completed his report on the proposed reservoir near Elephant Butte. The report, titled "A Discussion of Past and Present Plans for Irrigation of the Rio Grande Valley," concluded that a reservoir at Elephant Butte could store 2,000,000 acre-feet, an amount adequate to provide a reliable yield of 600,000 acre-feet during most years.[67] He reported that the water supply could irrigate 180,000 acres, that the dam could store three or four times more water than the international dam, that less water would be lost to spills, and that no farm lands in the Mesilla Valley would be flooded.[68]

Hall's proposal contemplated a new reclamation project to be named the "Rio Grande Project." Its features would include the Elephant Butte Reservoir, a major diversion dam at Leasburg to serve the Mesilla Valley. The Project would also be capable of providing water to El Paso and Mexico.[69] Before the Recla-

61. *See* Reclamation Act of 1902, Pub. L No. 161, 32 Stat. 388 (1902).
62. *See* Littlefield, *supra* note 34, at 88.
63. *See* Littlefield, *supra* note 34, at 88.
64. *See* Littlefield, *supra* note 34, at 127.
65. *See* Littlefield, *supra* note 34, at 128.
66. *See* Littlefield, *supra* note 34, at 128.
67. *See* Littlefield, *supra* note 34, at 129-30.
68. *See* Littlefield, *supra* note 34, at 130.
69. *See* Littlefield, *supra* note 34, at 130.

mation Service could provide water to El Paso, however, it would be necessary to amend the 1902 Reclamation Act to include Texas, and before water could be provided to Mexico, it would be necessary to negotiate an international treaty.[70]

The Reclamation Act of 1902 called for the proceeds from public land sales to be placed in a revolving fund for use in constructing reservoirs. Farmers receiving irrigation water from the reclamation projects would pay for the projects over a term of years, and the funds repaid would be used to build new projects. As the United States, however, acquired no public land when Texas was annexed into the United States in 1845, Texas was not among the states originally included within the 1902 Reclamation Act.

In the months that followed the release of Hall's report, Hall and other Reclamation Service engineers traveled through southern New Mexico and El Paso promoting the plan. Hall was well aware that the International Irrigation Congress, a potent force in securing federal government involvement in the reclamation of arid lands, would hold its Twelfth International Irrigation Congress (the "Irrigation Congress") in El Paso in November 1904.[71] He correctly recognized that support by the Irrigation Congress would be crucial to the success of the Rio Grande Project, and therefore set about securing approval from the organization.[72]

New Mexico, Texas, and Mexico were all well represented at the Irrigation Congress. After extensive private consultations between the Reclamation Service and Texas' representatives, including Congressmen William R. Smith and John H. Stephens, the Texans were convinced that Elephant Butte Dam would meet El Paso's needs,[73] and agreed to support the Reclamation Service's proposal. At the Irrigation Congress, Frederick Newell, Chief Engineer of the Reclamation Service, introduced discussion of the Rio Grande Project.[74] In his remarks, Newell made clear that the Reclamation Service wanted the Project to solve both the dispute between New Mexico and Texas and the international dispute with Mexico.[75]

After Newell's introductory remarks to the Irrigation Congress, Hall described the Rio Grande Project. He emphasized that the plan would apportion the Project's water by providing for the irrigation of some 110,000 acres in New Mexico, 20,000 acres in Texas above El Paso, and 50,000 acres below El Paso on both sides of the river.[76] The allocation of water to Texas would be subject to whatever amount of water was eventually provided to Mexico.[77] Hall claimed that this allocation would still provide the El Paso Valley and Mexico with as much water as would have been provided by the proposed international dam near El Paso.[78]

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70. *See* Littlefield, *supra* note 34, at 130-31.
71. *See* Littlefield, *supra* note 34, at 132.
72. *See* Littlefield, *supra* note 34, at 132.
73. *See* Littlefield, *supra* note 34, at 134-35.
74. *See* Littlefield, *supra* note 34, at 133, 135.
75. *See* Littlefield, *supra* note 34, at 135.
76. Littlefield, *supra* note 34, at 135.
77. *See* Littlefield, *supra* note 34, at 135.
78. *See* Littlefield, *supra* note 34, at 135-36.

Hall, a careful engineer, was aware of the potential connection between groundwater and stream flows. He did not want a dispute over groundwater to delay or defeat the proposed project. Accordingly, in 1904, Hall commissioned a groundwater study by Professor Charles S. Slicther. His report was presented to the Irrigation Congress following Hall's presentation on the Rio Grande Project.[79] Slicther concluded that above "the Pass," the groundwater supply was comprised of water contributed by the river or lost by the river.[80] Since there was little groundwater flow below "the Pass," Hall believed the apportionment to Texas could be based upon surface flows at El Paso.[81]

Both Texans in El Paso and New Mexicans in the Mesilla Valley enthusiastically received Hall's proposal.[82] The president of the El Paso Chamber of Commerce endorsed the plan and declared that an international dam had been superseded by the Reclamation Service's proposal.[83] The New Mexico delegate, after making clear that northern New Mexico did not relinquish any of its claims to divert, store, and use waters of the Rio Grande, introduced a resolution to approve the proposal.[84] The resolution stated, in part, that the Elephant Butte Dam would provide "an equitable distribution of the waters of the Rio Grande with due regard to the rights of New Mexico, Texas, and Mexico."[85] The resolution passed unanimously with the Mexican delegates abstaining because they lacked time to consult with their government.[86]

On the last day of the Irrigation Congress, the Mexican delegates provided a qualified endorsement for the Elephant Butte Reservoir:

> The undersigned Mexican delegates to the Irrigation congress have had no time to make a comparison of the two projects to store the waters of the Rio Grande, the International dam project and Elephant Butte Dam project, but assume, for actual purposes, that the data given by Mr. Hall . . . are correct and that it is thoroughly practicable to bring to the site of the old Mexican dam [the Acequia Madre], above El Paso, the water necessary for the areas that were previously irrigated, and that said quantity of water will be given to Mexico, without cost, at that point, surveys to be made by the engineers of the United States reclamation service to determine the number of acres upon the Mexican side of the Rio Grande which can be irrigated, said surveys to be subject to the approval of the Mexican government. Under those considerations, the Mexican delegation endorses the Elephant Butte Dam project, as explained by Mr. Hall, said endorsement to be subjected to the approval of the Mexican government, as the delegates have no instructions what-

79. *See* Littlefield, *supra* note 34, at 135-36.
80. *See* Littlefield, *supra* note 34, at 135-36.
81. *See* Littlefield, *supra* note 34, at 135-36.
82. *See* Littlefield, *supra* note 34, at 136-37.
83. *See* Littlefield, *supra* note 34, at 137.
84. *See* Littlefield, *supra* note 34, at 137.
85. Littlefield, *supra* note 34, at 137.
86. *See* Littlefield, *supra* note 34, at 137-38.

> ever, as stated yesterday at convention hall by the delegate from Tlaxcala, Sr. Carranza.[87]

The Texas and New Mexico representatives approved the Mexican position.[88] At this point, efforts turned to securing the necessary congressional action to implement the agreement.

The burden of passing legislation to extend the 1902 Reclamation Act to cover Texas fell largely to the Texas delegation because New Mexico, as a territory, had only one non-voting representative in Congress. Accordingly, in January 1905, El Paso Congressman William R. Smith introduced a bill (H.R. 17939) entitled:

> A bill relating to the construction of a dam and reservoir on the Rio Grande, in New Mexico, for the purpose of impounding of the flood waters of said river for the purpose of irrigation, and providing for the distribution of said stored waters among the irrigable lands in New Mexico, Texas and the Republic of Mexico, and to provide for a treaty for the settlement of certain alleged claims of the citizens of Mexico against the United States of America.[89]

This title in and of itself, as observed by Douglas Littlefield, and particularly the phrase: ". . . and providing for the distribution of said stored water among the irrigable lands in New Mexico, Texas, and Mexico" strongly suggested that the intent of the bill was to apportion Rio Grande waters, but subsequent legislative debates clarified that its purpose was to divide the river based on Hall's ideas and the 1904 Compromise.[90]

H.R. 17939 quickly passed out of committee and just as quickly ran into snags in the full House. The chief issues in the House were funding, so-called "prior rights," the interstate dispute between New Mexico and Texas, and the settlement of the Mexican claims.[91] The debates in the House gave Texas Congressmen Albert Burleson and John R. Stephens the opportunity to explain the legislation. Burleson explained that the bill would enact the compromise reached at the 1904 Irrigation Congress. He stated:

> The controversy raged for years and years before the Foreign Affairs Committee. Last year an international irrigation congress was convened in the city of El Paso, and as a result of the action taken by that congress the people of the Territory of New Mexico and the people of the State of Texas living at and below the city of El Paso, and many Mexican citizens who are interested, all united upon the proposition embodied in this bill as the most feasible and practical means of settling this long-drawn-out controversy.[92]

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87. Littlefield, *supra* note 34, at 139-40.
88. *See* Littlefield, *supra* note 34, at 140.
89. *See* Littlefield, *supra* note 34, at 157.
90. Littlefield, *supra* note 34, at 157-58.
91. *See* Littlefield, *supra* note 34, at 158.
92. Littlefield, *supra* note 34, at 161.

Likewise, Representative Stephens, formerly a strong proponent of the international dam and an equally strong opponent of the original Elephant Butte Dam, explained the bill's purpose as follows:

> I will state that the irrigation congress held last year at El Paso, the delegates from New Mexico, composed of Mr. [Bernard S.] Rodey, the governor, and other prominent citizens of New Mexico, and a committee from El Paso and old Mexico met in that congress and agreed upon and adopted a series of resolutions [namely, the 1904 Compromise]. The main features have been embodied in this bill. The Delegate from New Mexico [Rodey] has been before the committee—the committee reporting this bill—frequently, and I know that he has expressed himself as favoring its passage. I was a member of the irrigation congress at El Paso last November, and was present at the discussions when these agreements were made, and I wish to state that a full understanding was reached by all the parties at interest.[93]

The allocation of water to Mexico was so controversial that it was not included in the bill finally passed by the House. The bill did, however, contain language calling for the recognition of "prior rights."[94] The New Mexicans were alarmed by the prior rights language because they feared the bill would abrogate the 1904 Compromise and result in more water being delivered to senior water users in Texas and Mexico.[95] Although they strenuously protested this language, they found no allies for their cause, and H.R. 17939 passed the House with the recognition of the prior rights language intact.[96]

In the Senate, however, New Mexico found a powerful ally against the recognition of prior rights in Colorado Senator Henry M. Teller. Senator Teller was more than sympathetic to New Mexico's concerns because, at that time, Colorado was being sued by Kansas in the United States Supreme Court for alleged improper depletions to the Arkansas River, an interstate stream arising in Colorado.[97] Colorado, as the site of the headwaters of at least four major interstate streams, had no interest in legislation recognizing downstream prior water rights. In fact, Colorado's defense against Kansas relied, in part, on the opinion of Attorney General Harmon declaring that a sovereign had total control over any stream within its borders.[98]

Teller's efforts to change the bill in the Senate were successful. He secured the passage of an amendment to H.R. 17939 that deleted everything after the enacting clause and replaced it with his own bill that did not include recognition of prior rights.[99] The amended bill, which extended the 1902 Reclamation Act to the project lands in Texas, was passed by the Senate, concurred in by the House,

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93. Littlefield, *supra* note 34, at 162.
94. Littlefield, *supra* note 34, at 163.
95. *See* Littlefield, *supra* note 34, at 163-64.
96. *See* Littlefield, *supra* note 34, at 171.
97. *See* Kansas v. Colorado, 206 U.S. 46, 47 (1907).
98. *See* S. DOC. NO. 57-154, 12-13 (1903).
99. *See* Littlefield, *supra* note 34, at 171.

and signed into law on February 25, 1905 by President Theodore Roosevelt.[100] That bill stated:

> That the provisions of the reclamation act approved June seventeenth, nineteen hundred and two, shall be extended for the purposes of this act to the portion of the State of Texas bordering upon the Rio Grande which can be irrigated from a dam to be constructed near Engle, in the Territory of New Mexico, on the Rio Grande, to store the flood waters of that river, and if there shall be ascertained to be sufficient land in New Mexico and in Texas which can be supplied with the stored water at a cost which shall render the project feasible and return to the reclamation fund the cost of the enterprise, then the Secretary of the Interior may proceed with the work of constructing a dam on the Rio Grande as part of the general system of irrigation, should all other conditions as regards feasibility be found satisfactory.[101]

The bill, while apparently simple, contained important provisions. Douglas Littlefield summarized its effect:

> First, when construed with the bill's legislative history, the Reclamation extension act gave congressional authority to the 1904 National Irrigation Congress compromise to build Elephant Butte Dam and to water irrigable lands along the Rio Grande below the dam. Second, the act provided that if the secretary of the interior determined there were enough lands in New Mexico, and Texas that would benefit from Elephant Butte Dam and that the cost of building the dam and irrigation works would be returned to the Reclamation Fund, he could proceed with the project "should all other conditions as regards feasibility be found satisfactory. . . . The feasibility requirement also meant that the irrigable lands would have to be precisely fixed by Reclamation Service surveys, and the specific lands to be watered would be identified by the secretary of the interior based on those surveys. In effect this created an interstate apportionment between New Mexico and Texas based on Hall's Irrigation Congress proposal. . . . That Congress intended to sanction such an apportionment is all the more apparent from the legislative debates leading up to the new law's enactment.[102]

C. *Negotiations With Mexico—The 1906 Convention*

Senator Teller's amendment to H.R. 17939 did not address the allocation of water to Mexico. Under the 1904 Compromise, however, whatever water was allocated to Mexico would come directly from the overall allocation to Texas.[103] The Reclamation Service's estimates of irrigable acreage below El Paso did not specify the amount of acreage in Mexico or Texas, but the Mexican delegation to the Irrigation Congress had deferred to the Reclamation Service for determination of irrigable acreage in Mexico.[104]

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100. *See* Littlefield, *supra* note 34, at 170.
101. *See* 33 Stat. 798 (1905).
102. *Littlefield*, *supra* note 34, at 170-71.
103. *See* Littlefield, *supra* note 34, at 170-71.
104. *See* Littlefield, *supra* note 34, at 170-71.

The federal government was slow to address the allocation of water to Mexico; this, in turn, delayed the Rio Grande Project. Residents of the El Paso area had a great interest in speeding up the Project due to the continuous insecurity in their water supply. Accordingly, H.D. Slater, one of El Paso's leading citizens and editor of the *El Paso Herald*, began to press for a prompt treaty with Mexico.[105]

Mr. Slater did not lack self-confidence. In the face of indecision by the United States government, he wrote to Frederick Newell, the Reclamation Service's Chief Engineer, with his ideas for an international treaty, and volunteered to assist with the international discussions.[106] Newell did not encourage Slater; nevertheless, undeterred, Slater sent Morris Bien, the Reclamation Service's legal counsel, his suggestions for a treaty, along with a draft explanatory letter to Secretary of the Interior, Ethan A. Hitchcock. In that draft letter, Slater argued that comity and good will required that some water be provided to Mexico.[107] He argued that Elephant Butte Dam could serve 180,000 acres, 110,000 in New Mexico and 70,000 "south of the New Mexico line."[108] He suggested that Mexico receive a water supply of 2.5 acre-feet per acre for 22,000 acres, or approximately 55,000 acre-feet.[109] Finally, Slater argued that the deliveries to Mexico should be without charge to compensate for past damages.[110]

Bien asked Benjamin Hall for his thoughts on Slater's proposal for a treaty. Bien also asked Hall to prepare a tentative schedule of deliveries of water to Mexico based upon the assumptions contained in Slater's proposal for a treaty.[111] In response, Hall prepared a table of deliveries to Mexico proportional to the deliveries contemplated for the New Mexico and Texas lands to be watered by the Project.[112]

With the imprimatur of Bien and Hall, Slater began *informal* negotiations with his contacts from Mexico. Mexico responded that the proposed treaty generally conformed to the agreement reached at the Irrigation Congress.[113] Mexico also informed Slater that it would not pay anything toward the proposed dam or the water it would provide.[114] Moreover, Mexico thought its allocation should be based upon a survey of irrigable lands in Mexico, as had been agreed at the Irrigation Congress.[115]

Slater realized that a survey of irrigable lands in Mexico would further delay the Project. Accordingly, he pressed for a settlement based upon the 1896 Report of the International Boundary (Water) Commission.[116] That report had concluded that before large-scale upstream development in the United States, the

105. *See* Littlefield, *supra* note 34, at 188-89.
106. *See* Littlefield, *supra* note 34, at 188.
107. *See* Littlefield, *supra* note 34, at 189.
108. Littlefield, *supra* note 34, at 189.
109. *See* Littlefield, *supra* note 34, at 190.
110. *See* Littlefield, *supra* note 34, at 190.
111. *See* Littlefield, *supra* note 34, at 191.
112. *See* Littlefield, *supra* note 34, at 191-192
113. *See* Littlefield, *supra* note 34, at 192.
114. *See* Littlefield, *supra* note 34, at 192.
115. *See* Littlefield, *supra* note 34, at 192-193.
116. *See* Littlefield, *supra* note 34, at 193.

Mexican canals near Juarez had a combined capacity of 300 cubic feet per second and irrigation for about 100 days annually.[117] This translated into nearly 60,000 acre-feet—an amount remarkably close to Slater's original proposal.

As revised by Bien, the draft treaty called for the United States to build Elephant Butte Reservoir and to deliver 60,000 acre-feet annually to Mexico in the bed of the Rio Grande.[118] The deliveries to Mexico were to be in the same proportion as deliveries to the El Paso side of the Rio Grande, except in the case of drought, when the United States and Mexico would share equally in any reductions.[119] The draft treaty also stated that the delivery of water to Mexico was not a recognition of Mexico's claims, and in exchange for the water, Mexico waived all claims to damages and all claims to waters of the Rio Grande above Fort Quitman.[120]

Bien's draft treaty was approved by Secretary of State Elihu Root and, in late 1905, it was sent to the Mexican Ambassador to the United States, Joaquin D. Casasus.[121] In March 1906, Casasus replied by requesting the annual delivery of 75,000 acre-feet to be measured at the head of the Acequia Madre, and that Mexico be guaranteed one-half of all stream flows from reservoir spills, excess releases, or inflow between Juarez and Fort Quitman.[122] The United States refused to yield on these points, and by late May 1906, the Mexican Ambassador had, nevertheless, signed the treaty.[123] The Senate advised ratification of the treaty on June 26, 1906;[124] the President ratified it on December 26, 1906; and after the exchange of ratifications, the treaty was proclaimed by the President on January 16, 1907.

The treaty itself is quite short, consisting of only six articles and states:

> The United States of America and the United States of Mexico being desirous to provide for the equitable distribution of the waters of the Rio Grande for irrigation purposes, and to remove all causes of controversy between them in respect thereto, and being moved by considerations of international comity, have resolved to conclude a Convention for these purposes and have named as their Plenipotentiaries:
>
> The President of the United States of America, Elihu Root, Secretary of State of the United States; and
>
> The President of the United States of Mexico, His Excellency Señor Don Joaquín D. Casasús, Ambassador Extraordinary and Plenipotentiary of the United States of Mexico at Washington;

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117. *See* Littlefield, *supra* note 34, at 193.

118. *See* Littlefield, *supra* note 34, at 193.

119. *See* Littlefield, *supra* note 34, at 193.

120. *See* Littlefield, *supra* note 34, at 193-194.

121. *See* Littlefield, *supra* note 34, at 194.

122. *See* Littlefield, *supra* note 34, at 194.

123. *See* Littlefield, *supra* note 34, at 196. In 1907, Congress appropriated one million dollars toward the construction of Elephant Butte Dam for the purpose of providing water to Mexico. *See* 34 Stat. 2918 (1907).

124. *See* Rio Grande Convention of 1906, *supra* note 2, at 2953.

Who, after having exhibited their respective full powers, which were found to be in good and due form, have agreed upon the following articles:

ARTICLE I

After the completion of the proposed storage dam near Engle, New Mexico, and the distributing system auxiliary thereto, and as soon as water shall be available in said system for the purpose, the United States shall deliver to Mexico a total of 60,000 acre-feet of water annually, in the bed of the Rio Grande at the point where the head works of the Acequia Madre, known as the Old Mexico Canal, now exist above the city of Juarez, Mexico.

ARTICLE II

The delivery of the said amount of water shall be assured by the United States and shall be distributed through the year in the same proportions as the water supply proposed to be furnished from the said irrigation system to lands in the United States in the vicinity of El Paso, Texas, according to the following schedule, as nearly as may be possible:

	Acre-Feet Per Month	Corresponding Cubic Feet of Water
January	0	0
February	1,090	47,480,400
March	5,460	237,837,600
April	12,000	522,720,000
May	12,000	522,720,000
June	12,000	522,720,000
July	8,180	356,320,800
August	4,370	190,357,200
September	3,270	142,441,200
October	1,090	47,480,400
November	540	23,522,400
December	0	0
Year Total	60,000	2,613,600,000

In case, however, of extraordinary drought or serious accident to the irrigation system in the United States, the amount delivered to the Mexican Canal shall be diminished in the same proportion as the water delivered to lands under said irrigation system in the United States.

ARTICLE III

The said delivery shall be made without cost to Mexico, and the United States agrees to pay the whole cost of storing the said quantity of water to be delivered to Mexico, of conveying the same to the international line, of measuring the said water, and of delivering it in the river bed above the head of the Mexican Canal. It is understood that the United States assumes no obligation beyond the delivering of the water in the bed of the river above the head of the Mexican Canal.

ARTICLE IV

The delivery of water as herein provided is not to be construed as a recognition by the United States of any claim on the part of Mexico to the said waters; and it is agreed that in consideration of such delivery of water, Mexico waives any and all claims to the waters of the Rio Grande for any purpose whatever between the head of the present Mexican Canal and Fort Quitman, Texas, and also declares fully settled and disposed of, and hereby waives, all claims heretofore asserted or existing, or that may hereafter arise, or be asserted, against the United States on account of any damages alleged to have been sustained by the owners of land in Mexico, by reason of the diversion by citizens of the United States of waters of the Rio Grande.

ARTICLE V

The United States, in entering into this treaty, does not thereby concede, expressly or by implication, any legal basis for any claims heretofore asserted or which may be hereafter asserted by reason of any losses incurred by the owners of land in Mexico due or alleged to be due to the diversion of the waters of the Rio Grande within the United States; nor does the United States in any way concede the establishment of any general principle or precedent by the concluding of this treaty. The understanding of both parties is that the arrangement contemplated by the treaty extends only to the portion of the Rio Grande which forms the international boundary from the head of the Mexican Canal down to Fort Quitman, Texas, and in no other case.

ARTICLE VI

The present Convention shall be ratified by both contracting parties in accordance with their constitutional procedure, and the ratifications shall be exchanged at Washington as soon as possible.

IN WITNESS WHEREOF, the respective Plenipotentiaries have signed the Convention both in the English and Spanish languages and have thereunto affixed their seals.

Done in duplicate at the City of Washington, this 21st day of May, one thousand nine hundred and six.

ELIHU ROOT [Seal]

JOAQUIN D. CASASUS [Seal][125]

Article II, the heart of the international apportionment, contains the schedule for delivery of water to Mexico. It calls for the delivery of 60,000 acre-feet between February and November "distributed throughout the year in the same proportions as the water supply proposed [for] . . . the lands in the United States in the vicinity of El Paso, Texas. . . ."[126] Article II appears to be the combined work product of H.D. Slater, Morris Bien, and Benjamin Hall. Slater apparently conceived the basis for the quantification, based upon the 1896 I.B.C. Report on an international dam at El Paso. Hall devised the schedule and place of delivery, and Bien authored the provisions for sharing shortages in times of drought.[127]

Article III provides that the water deliveries are at the United States' cost and the water is to be delivered in the Rio Grande at the head of the Mexican Canal.[128] This means that the United States (the Rio Grande Project) bears all delivery losses (if any), but has no obligation to ensure further delivery to the Acequia Madre.[129]

Articles IV and V contain the parties' legal disclaimers. In Article IV, the United States denies the treaty is a recognition of claim by Mexico to waters of the Rio Grande. Mexico, meanwhile, waives any and all claims to water from the Rio Grande between the headgate of the Mexican Canal downstream to Fort Quitman and any damage claims on account of diversions from the Rio Grande by citizens of the United States.[130]

Article V contains the United States' denial of any legal basis for any claims that had been asserted or could thereafter be asserted by reason of any losses incurred by Mexican landowners on account of diversions from the Rio Grande within the United States.[131] It also contains the United States' denial that the treaty establishes any sort of general principle or precedent.[132] Finally, it makes clear that the treaty only covers the portion of the Rio Grande from the international boundary downstream to Fort Quitman, Texas, and nothing else.[133]

While the treaty itself is quite simple, it contains no discussion for the bases of the quantification or the distribution of deliveries. The basis for these provisions seems clear enough from the underlying historical documents. The meaning of the terms in Article II concerning proportional reduction in water deliveries, apparently drafted by Bien, is more elusive. The language of Article II does not define "extraordinary drought." On its face, the treaty appears to con-

125. Rio Grande Convention of 1906, *supra* note 2, at 2953-56.
126. Rio Grande Convention of 1906, *supra* note 2, at 2954.
127. *See* Rio Grande Convention of 1906, *supra* note 2, at 2954.
128. *See* Rio Grande Convention of 1906, *supra* note 2, at 2954-55.
129. *See* Rio Grande Convention of 1906, *supra* note 2, at 2954-55.
130. *See* Rio Grande Convention of 1906, *supra* note 2, at 2954-55.
131. *See* Rio Grande Convention of 1906, *supra* note 2, at 2955.
132. *See* Rio Grande Convention of 1906, *supra* note 2, at 2955.
133. *See* Rio Grande Convention of 1906, *supra* note 2, at 2955-56.

template a proportional reduction in deliveries. Since the Project lands receive more than the 2.5 acre-feet per acre that formed the basis for the allocation to Mexico, the threshold question is whether the proportional reduction in deliveries occurs when the Project lands receive anything less than a full supply, or only when the Project land would otherwise receive less than the 2.5 acre-feet per acre at the river headgate that was allocated to Mexico. The term "extraordinary drought" and the underlying impetus for of the treaty, namely comity, favor the latter interpretation.

V. COMPLETING THE NEW MEXICO–TEXAS APPORTIONMENT

The ratification of the 1906 Treaty preceded completion of plans for the Rio Grande Project. The federal legislation authorizing the Project did not specify the precise lands to be irrigated in New Mexico or Texas.[134] Thus, once the treaty with Mexico was concluded, the task of identifying the lands to be supplied water in New Mexico and Texas remained, as did the final configuration of the Project's diversion dams and conveyance channels.

To formalize the water supply for the Rio Grande Project, on January 3, 1906, Hall notified the New Mexico Territorial Irrigation Engineer of the Reclamation Service's intent to appropriate 730,000 acre-feet annually for the Rio Grande Project to be stored in Elephant Butte Reservoir.[135] Two years later, the Reclamation Service increased its request by seeking all of the then-unappropriated water of the Rio Grande.[136]

The Rio Grande Project presented an enormous opportunity for profit from speculative land sales, and land speculation was rife throughout the Mesilla and Rincon Valleys in advance of the Project.[137] The owners of lands to be flooded by Elephant Butte Reservoir sought such large sums for their land that in many cases the United States was required to condemn the land.[138] Water user associations were formed both in New Mexico and Texas to contract for water deliveries and Project repayment. Eager landowners in New Mexico pledged to bring 124,000 acres of land into irrigation by the Project, while their counterparts in Texas pledged to bring 59,000 acres of land into the Project.[139] While these pledges were more than sufficient to support a determination that the Project was feasible, they also began the posturing over water allocation.[140]

Land without water in the Elephant Butte-to-Fort Quitman section of the Rio Grande was worth very little compared to lands to be served by the Project.[141] What lands would be served by the Project was, of course, a function of how the Reclamation Service decided to deliver Project water. If the river channel and irrigation canals from the river were the method used, less land could be served

134. *See* Littlefield, *supra* note 34, at 207.
135. *See* Littlefield, *supra* note 34, at 174.
136. *See* Littlefield, *supra* note 34, at 174.
137. *See* Littlefield, *supra* note 34, at 209.
138. *See* Littlefield, *supra* note 34, at 208.
139. *See* Littlefield, *supra* note 34, at 173-74.
140. *See* Littlefield, *supra* note 34, at 174.
141. *See* Littlefield, *supra* note 34, at 208-11.

than by canals built on the mesas above the valleys.[142] The Rio Grande Company had recognized this fact back in 1895, and had proposed the construction of a "high-line" canal to serve the mesa lands. That canal had a total service area of some 530,000 acres of lands on the mesas and in the river valley.[143]

The land speculators, alleged to be real estate companies in New Mexico and Texas, knew their land values would vastly increase if served by the Rio Grande Project.[144] Thus, they relentlessly pressured the Reclamation Service to include a high-line canal in the Project. They argued that the revenue from hydro-electric power generation along such a canal would more than offset its added cost of getting water to the mesas.[145] The Reclamation Service was skeptical of the scheme, perhaps because it viewed it simply as a vehicle for further land speculation. Nonetheless, to satisfy public pressure, it twice commissioned engineering studies of a high-line canal to assess its feasibility.[146]

The first such study was performed by a board of engineers appointed by Newell.[147] The board considered a high-line canal from the Leasburg Diversion Dam down the east side of the Mesilla Valley southeast of Las Cruces, New Mexico, at which point the fall would permit the generation of hydro-power and some water could be returned to the river for downstream irrigation.[148] Water not released there would be carried in the canal to a point near El Paso, where it would again generate power, and the remaining water would be returned to the river.[149]

The board of engineers rejected this high-line canal proposal.[150] They concluded that use of a high-line canal would leave the river dry for years at a time, causing substantial deterioration of the channel.[151] Such channel deterioration would mean that in years of high flows the channel could not carry the water and there would be substantial damage to Project lands and facilities. The only way to prevent this, without the substantial cost of building and maintaining an artificial channel, was to use the river as the means to deliver Project water.[152] Thus, in their December 1913 report to Newell, the board of engineers rejected the high-line canal and recommended the river be used to carry Project water.[153]

The board's recommendations did not lay the matter to rest. By the spring of 1914, New Mexico water users began pressing Project Manager, L.M. Lawson, to consider building a high-line canal along a new route.[154] Their request was apparently motivated by the fear that without a high-line canal, New Mexico

142. S. Doc. No. 55-229, at 6 (1898).
143. *See id.* at 6-7.
144. *See* Littlefield, *supra* note 34, at 216.
145. *See* Littlefield, *supra* note 34, at 210-11.
146. *See* Littlefield, *supra* note 34, at 217-18.
147. *See* Littlefield, *supra* note 34, at 214.
148. *See* Littlefield, *supra* note 34, at 214-15.
149. *See* Littlefield, *supra* note 34, at 214-15.
150. *See* Littlefield, *supra* note 34, at 218.
151. *See* Littlefield, *supra* note 34, at 217
152. *See* Littlefield, *supra* note 34, at 218.
153. *See* Littlefield, *supra* note 34, at 218.
154. *See* Littlefield, *supra* note 34, at 218.

would not get the acreage contemplated in the 1904 Compromise.[155] The Reclamation Service's response was twofold. First, it advised New Mexico water users that under their contract with the Secretary of the Interior, the Reclamation Service was entitled to determine the lands actually to be irrigated.[156] Second, it asserted that the contract entitled the Secretary of Interior to limit the area served by the Project.[157] Thus, the Reclamation Service would determine the lands to be provided Project water based upon the economic location of canals and the land area that could be served with the Project's water supply.[158]

The next effort to revive a high-line canal came from El Paso. The City of El Paso, in cooperation with other water users, submitted a new engineering proposal for a high-line canal to the Reclamation Service in 1914.[159] That proposal would have increased the Project's service area to 225,000 acres and permitted the delivery of 22,400 to 44,800 acre-feet annually to the City of El Paso.[160] In response, a new board of engineers was appointed by the Reclamation Service and requested to study the proposal.[161]

In November 1919, this board reported that a high-line canal and associated power plants were not economically feasible.[162] The board also rejected supplying water to the City of El Paso because the board estimated that El Paso ultimately might need 45,000 acre-feet annually, or some 8.7% of the Project's water supply.[163] To meet that demand, a corresponding decrease of 13,500 acres to the Project's service area would be required.[164] Last, but not least, the board concluded that the anticipated safe annual yield of Elephant Butte Reservoir was only 720,000 acre-feet.[165] This was only enough water to supply 155,000 acres in the United States. When the 60,000 acre-feet for irrigation of 25,000 acres in Mexico was considered, the total acreage to be served was 180,000, which was the amount Hall had estimated for the entire Rio Grande Project.[166] Thus, without taking land out of irrigation, no Project water could be provided to El Paso.

While this decision finally laid to rest the high-line canal issue, it did not resolve the acreage allocation between New Mexico and Texas. That allocation was not resolved until some years later, when the Elephant Butte Reservoir District ("EBID") (for New Mexico), and the El Paso Water Improvement District No. 1 (for Texas) ("El Paso District"), entered into agreements approving an allocation of Project costs and irrigable acreage between them.[167] The first of three agreements was made in 1929, arising from the need to authorize additional funds to complete portions of the Rio Grande Project.[168] The 1929 agree-

155. *See* Littlefield, *supra* note 34, at 218-19.
156. *See* Littlefield, *supra* note 34, at 220.
157. *See* Littlefield, *supra* note 34, at 220.
158. *See* Littlefield, *supra* note 34, at 220.
159. *See* Littlefield, *supra* note 34, at 222.
160. *See* Littlefield, *supra* note 34, at 224-26.
161. *See* Littlefield, *supra* note 34, at 224-26.
162. *See* Littlefield, *supra* note 34, at 224-26.
163. *See* Littlefield, *supra* note 34, at 224-26.
164. *See* Littlefield, *supra* note 34, at 228.
165. *See* Littlefield, *supra* note 34, at 228.
166. *See* Littlefield, *supra* note 34, at 228.
167. *See* Littlefield, *supra* note 34, at 236.
168. *See* Littlefield, *supra* note 34, at 236.

ment confirmed that EBID would have 88,000 irrigable acres and the El Paso District would have 67,000 irrigable acres.[169] When the 25,000 acres allocated to Mexico were included, the total irrigable land was 180,000 acres, essentially equal to Hall's estimate.[170]

In 1938, a new interdistrict agreement was made to facilitate the 1938 Rio Grande Compact.[171] The 1938 agreement, according to Douglas Littlefield, was intended by the Rio Grande Compact Commissioners to cover the apportionment of the Rio Grande below Elephant Butte Reservoir so that that issue did not have to be addressed in the Rio Grande Compact.[172] The 1938 agreement fixed the districts' respective irrigated acreage and apportioned the water and costs on the basis of 88,000 acres or 56.8% to EBID and 67,000 acres or 43.2% to the El Paso District.[173] This allocation is essentially the same agreement the 1904 Compromise from the Irrigation Congress that formed the basis for the authorization of the Rio Grande Project.[174]

VI. CONCLUSION

At the end of the 19th Century, most of the increase in water demand on the Rio Grande occurred in Colorado and was for irrigation use. In the last two decades of the 20th Century, the explosive growth in the Upper Rio Grande Basin has been in the urban areas, including Las Cruces, El Paso, and Juarez. That growth is taxing the region's limited water supply and causing serious conflict between municipal water utilities, agricultural water users, and state and federal governments over the use and control of the Rio Grande Project facilities and water supply. In addition, the region has increasingly relied upon groundwater to meet its current water demands, resulting in a material groundwater overdraft with all of its attendant problems. The divergent interests of the EBID, the El Paso District, the states of Colorado, New Mexico, and Texas, the United States, and the Republic of Mexico complicate the adjustment of these water supply problems. It appears, however, that the fundamental bases for resolving these disputes are found in the 1906 Convention and the allocation of water between Texas and New Mexico that made possible the 1906 Convention.

While the fray continues downstream of Elephant Butte Reservoir, upstream water users in New Mexico and Colorado cast a wary eye on their brethren below Elephant Butte Reservoir. They have learned through hard experience that downstream water users prefer to solve their problems at the cost of those upstream. The history and present state of water development in the Upper Rio Grande make clear that eternal vigilance is the price for owning a water right.

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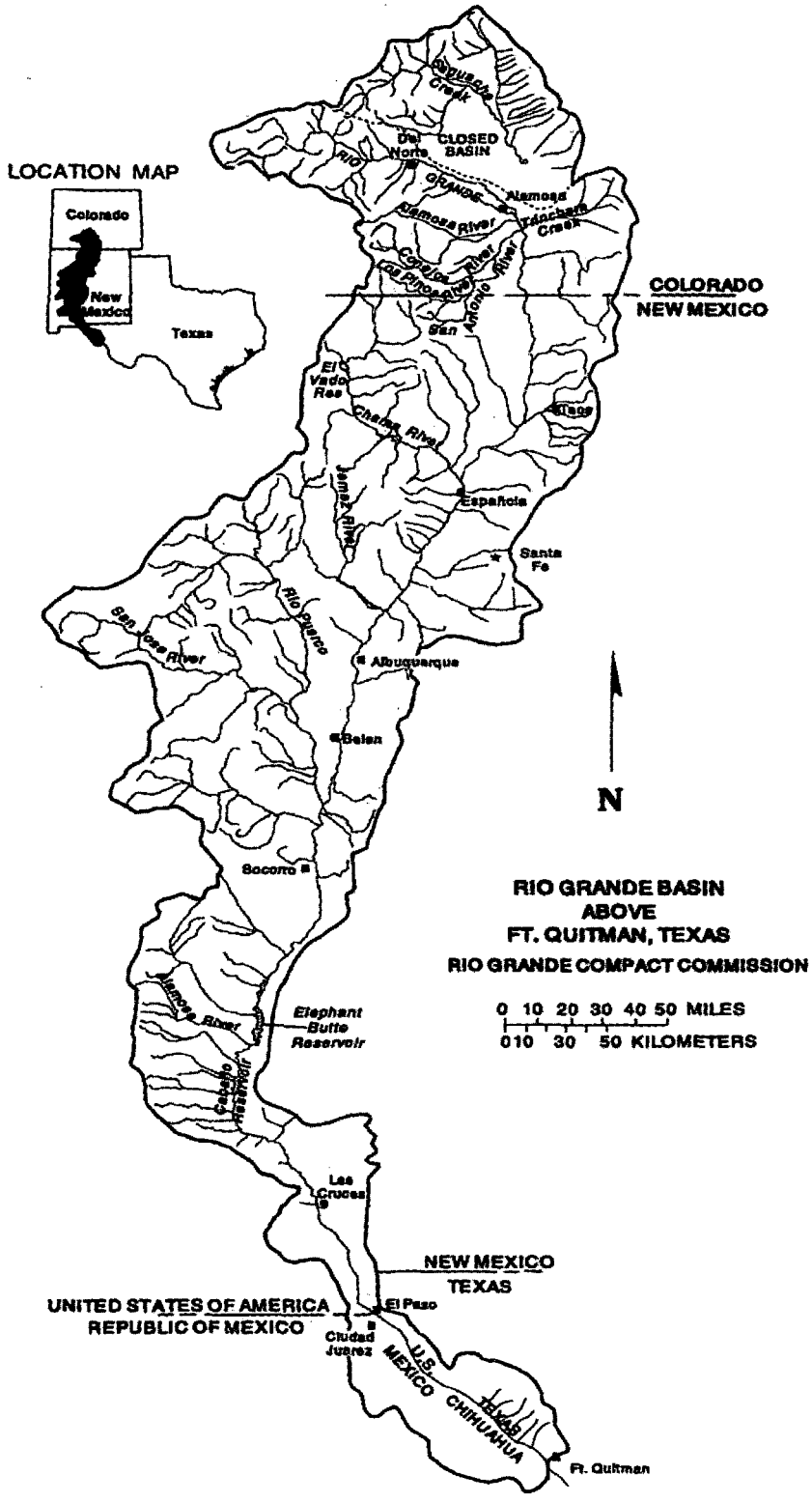
169. *See* Littlefield, *supra* note 34, at 238.
170. *See* Littlefield, *supra* note 34, at 238.
171. *See* 53 Stat. 785-92 (1939).
172. *See* Littlefield, *supra* note 34, at 239.
173. *See* Littlefield, *supra* note 34, at 251.
174. *See* Littlefield, *supra* note 34, at 251.


LOCATION MAP
Colorado
New Mexico
Texas
COLORADO
NEW MEXICO
Conejos River
Rio Grande
Del Norte
CLOSED BASIN
Alamosa
Alamosa River
Trinchera Creek
La Garita
Los Pinos River
Los Pinos River
San Antonio River
El Vado Res
Chama River
Jemez River
Taos
Española
Santa Fe
Rio Puerco
San Jose River
Albuquerque
Belen
Socorro
N
RIO GRANDE BASIN
ABOVE
FT. QUITMAN, TEXAS
RIO GRANDE COMPACT COMMISSION
0 10 20 30 40 50 MILES
0 10 30 50 KILOMETERS
Alamosa River
Elephant Butte Reservoir
Caballo Reservoir
Las Cruces
NEW MEXICO
TEXAS
UNITED STATES OF AMERICA
REPUBLIC OF MEXICO
El Paso
Ciudad Juarez
U.S.
MEXICO
TEXAS
CHIHUAHUA
Ft. Quitman

MIGRATORY BIRD TREATY ACT: STRICT CRIMINAL LIABILITY FOR NON-HUNTING, HUMAN CAUSED BIRD DEATHS

LARRY MARTIN CORCORAN*

PROLOGUE

You operate an electrical utility in remote, treeless areas of the American Southwest. Migratory birds find your electrical distribution poles convenient surrogates for trees. Unfortunately, 38 of the birds manage to electrocute themselves over the course of two and one-half years. You are convicted of a federal crime, violation of the Migratory Bird Treaty Act (MBTA),[1] on account of the birds' deaths.[2]

Over 5000 migratory birds are found dead at the base of your radio transmission towers in the middle of the Great Plains. The birds were attracted by lights on the towers. The birds died when they collided with the towers and tower guy wires which were obscured by fog and blowing snow.[3] You are not prosecuted, and some courts have expressed misgivings about any effort being made to prosecute you.

I. INTRODUCTION

Congress enacted the Migratory Bird Treaty Act in 1918 in order to protect and preserve populations of migratory birds.[4] No migratory bird may be killed

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The views expressed in this article are solely those of the author and do not reflect the views of the Department of Justice or of any other agency.

1. 16 U.S.C. §§ 703-712 (1994 & Supp. IV 1998). *See also* Migratory Bird Conservation Act, 16 U.S.C. § 715(j) (1994 & Supp. IV 1998) (defining "migratory birds" for the MBTA); 50 C.F.R. § 10.13 (2000) (listing all species of migratory birds protected by the MBTA).

2. This situation arose in the case of the *Moon Lake Electrical Association* in Colorado. *See* United States v. Moon Lake Elec. Ass'n, 45 F. Supp.2d 1070, 1071 (D. Colo. 1999).

3. The described incident actually occurred on the night of January 22, 1998. *See* THE TOPEKA CAPITAL JOURNAL (Jan. 30, 1998), (revisited on Feb. 13, 2001) <http://www.cjponline.com/stories/013098/kan_birds.html>.

4. For a discussion of the origins of the MBTA and a detailed description of its requirements, see Larry Martin Corcoran & Elinor Colbourn, *Shocked, Crushed and Poisoned: Criminal*

unless authorized by the Secretary of the Interior.[5] Violations of the MBTA are criminal offenses;[6] most are strict liability misdemeanors.[7]

Pursuant to the MBTA, millions of migratory birds are lawfully killed annually by hunters[8] pursuant to regulations or permits issued by the United States Fish and Wildlife Service (FWS).[9] However, it is estimated that hundreds of millions of additional migratory birds are killed annually, without any legal authority.[10] Some of the causes of such deaths have been prosecuted, *e.g.*, deaths caused by illegal hunting, by ingestion of pesticides or poisons,[11] and by electrocution. However, other, more destructive causes of migratory bird deaths have not been prosecuted, *e.g.*, deaths caused by impacts with automobiles, airplanes, and towers. Some courts have even suggested that prosecution of such killings may not be brought under the MBTA.[12]

After a brief summary, in Part II, of the consistent judicial interpretation of the MBTA as a strict liability criminal statute, Part III discusses the meaning of strict criminal liability, and the ambiguities inherent in use of it or other conclusory terms to describe the scienter requirements of any criminal statute.

Enforcement In Non-Hunting Cases Under the Migratory Bird Treaties, 77 DENV. U. L. REV., 361, 361-79 (Parts I and II) (2000).

5. 16 U.S.C. § 703(a). Sections 704 and 712 of the MBTA authorize the Secretary of the Interior to promulgate regulations to implement the MBTA and its underlying conventions.

6. *See id.* § 707. As one federal judge stated, "My experience at the bar was that one jail sentence was worth 100 consent decrees and that fines are meaningless because the defendant in the end is always reimbursed by the proceeds of his wrongdoing or by his company down the line." Steven Zipperman, Comment, *The Park Doctrine – Application of Strict Criminal Liability to Corporate Individuals For Violation of Environmental Crimes*, 10 UCLA J. ENVTL. L. & POL'Y 123, 153 (1991) (citing Barry C. Groveman & John L. Segal, *Pollution Police Pursue Chemical Criminals*, 55 BUS. SOC'Y REV. 39, 42 (1985)).

7. *See* 16 U.S.C. § 707(a) & (c). Commercial violations and certain baiting violations are not strict liability offenses. *See id.* §§ 704(b) (baiting violations), 707(b) (commercial transactions). For cases holding the MBTA is a strict liability statute, see *infra* Part II (MBTA Misdemeanor's Held to Be Strict Liability Crimes).

8. Hunters killed an estimated 16.57 million ducks, 3.13 million geese, and 369,000 coots during the 1998 waterfowl season. ELWOOD M. MARTIN & PAUL I. PADDING, U. S. FISH AND WILDLIFE SERV., OFFICE OF MIGRATORY BIRD MANAGEMENT, ADMINISTRATIVE REPORT, Harvest Surveys Section (July, 1999). Ducks, geese, and coots are only some of the birds legally killed pursuant to permits. Those numbers reported by Martin and Padding are comparable to data reported by Banks for the late 1960s and early 1970s, at which time he estimated that hunting accounted for about 60 percent of total migratory bird mortality, while impacts with human constructions accounted for approximately 31.6 percent, and poison or pollution accounted for only 1.8 percent. *See* RICHARD. C. BANKS, HUMAN RELATED MORTALITY OF BIRDS IN THE UNITED STATES, U.S. FISH AND WILDLIFE SERV. SPECIAL SCIENTIFIC REPORT-WILDLIFE 215, 14, tbl. 10 (1979) (120,539,500 birds taken by hunting out of a total of 196,887,810 human caused fatalities). In light of more recent estimates of non-hunting bird fatalities, it appears the number of non-hunting fatalities is much higher and, consequently, a larger percentage of the total number of migratory bird deaths are caused by humans. *See infra* Part VII.A (Foreseeable bird deaths).

9. *See* Migratory Bird Hunting regulations, 50 C.F.R. Part 20 (2000). *See also* Migratory Bird Permits, 50 C.F.R. Part 21 (2000).

10. *See* BANKS, *supra* note 8, at 5; *infra* Part VII.A (Foreseeable bird deaths).

11. *See, e.g., infra* Part V (Judicial Uneasiness With Strict Criminal Liability). *See also* Corcoran & Colbourn, *supra* note 4, at 389-391 (Part III.B.1.).

12. *See, e.g., infra* Part V (Judicial Uneasiness With Strict Criminal Liability).

Part IV describes judicial acceptance of strict criminal liability, especially by the United States Supreme Court, even for felonies and even in its strictest form, that in which the defendant neither knows of nor intends the circumstances which make him or her criminally liable.

Part V describes the uneasiness often expressed when courts are called upon to enforce strict criminal liability, while Part VI describes various means courts have used to limit and ameliorate its effects. Part VI also discusses the limitations and deficiencies in the theories and defenses used by courts to limit strict criminal liability, including the theory of proximate causation put forward by recent court opinions. The theories generally incorporate requirements of foreseeability, avoidability, and voluntary assumption of risks.

Part VII presents data which demonstrates that the circumstances in which courts have expressed reluctance to apply strict criminal liability under the MBTA (*e.g.*, impacts with automobiles, aircraft, and fixed objects) are more foreseeable and avoidable than are many other forms of indirect migratory birds deaths caused by humans for which courts have imposed MBTA liability (*e.g.*, electrocution and poisoning by pesticides).[13]

Part VIII describes ongoing administrative initiatives under the authority of the MBTA to reduce foreseeable and avoidable deaths of migratory birds caused by impacts with human constructions.

The data and analysis in this article lead to a conclusion that the courts' efforts to limit strict liability, including the suggested use of proximate causation, is misguided policy-making that is based upon erroneous factual assumptions and that is better left to the democratic processes of legislation and regulation.

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13. Birds are killed by other non-hunting trauma, including logging and farming. This article focuses on traumatic bird deaths for which data exists that can be compared with courts' expressions of concern about MBTA application. However, there is no reason to believe that, were data available, the conclusions of this article would not be equally applicable to other common sources of traumatic bird deaths. For a discussion of issues relating to bird deaths caused by timber harvesting, see Corcoran & Colbourn, *supra* note 4 at 319-393 (Part III.B.2 and 3).

II. MBTA MISDEMEANORS HELD TO BE STRICT LIABILITY CRIMES[14]

That the MBTA imposes strict criminal liability was first affirmed in 1939, in *United States v. Reese*.[15]

> There appears no sound basis here for an interpretation that the Congress intended to place upon the Government the extreme difficulty of proving guilty knowledge . . . on the part of persons violating the express language of the applicable regulations promulgated pursuant to the statute [MBTA]; but it is more reasonable to presume that Congress intended to require that hunters shall investigate at their peril conditions surrounding the fields in which they seek their quarry.[16]

Since 1939, the federal courts of appeal have almost uniformly held the misdemeanor provision of the MBTA, Section 707(a), to be a strict liability criminal statute.[17]

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14. For policy arguments for and against strict liability under the MBTA, *compare* Steven Margolin, *Liability Under the Migratory Bird Treaty Act*, 7 ECOLOGY L. Q. 989, 996-999 (1979) (advocating strict liability), *with* M. Lanier Woodrum, *The Courts Take Flight: Scienter and the Migratory Bird Treaty Act*, 36 WASH. & LEE L. REV. 241, 243-48 (1979) (opposing a strict liability interpretation). Woodrum's premise, that Congress did not intend the MBTA to be a strict liability crime, has since been disproved by Congress in its statements in connection with amendments to the felony and the baiting provisions of the MBTA. *See* S. REP. NO. 99-445, at 16 (1986), *reprinted in* 1986 U.S.C.C.A.N. 6113, 6128 ("Nothing in this amendment [to the felony provision] is intended to alter the 'strict liability' standard for misdemeanor prosecutions under 16 U.S.C. § 707(a), a standard which has been upheld in many Federal court decisions."); S. REP. NO. 105-366, at 1-2 (1998) ("General Statement and Background") (when Congress added the scienter requirement for MBTA felony offenses it "expressly reinforced the strict liability standard for misdemeanors . . . ."); S. REP. NO. 105-366, at 2-3 (1998) ("Summary and Objectives of the Legislation") ("The elimination of strict liability, however, applies only to hunting with bait or over baited areas, and is not intended in any way to reflect upon the general application of strict liability under the MBTA."). Nevertheless, the force of the policy arguments against imposing strict liability remain.

15. 27 F. Supp. 833 (W.D. Tenn. 1939).

16. *Reese*, 27 F. Supp. at 835.

17. *See, e.g.*, United States v. Corrow, 119 F.3d 796, 805 (10th Cir. 1997); United States v. Engler, 806 F.2d 425, 431 (3d Cir. 1986) ("Scienter is not an element of criminal liability under the Act's misdemeanor provisions."); United States v. Manning, 787 F.2d 431, 435 n.4 (8th Cir. 1986) ("[I]t is not necessary to prove that a defendant violated the Migratory Bird Treaty Act with specific intent or guilty knowledge."); United States v. Chandler, 753 F.2d 360, 363 (4th Cir. 1985) ("[A] hunter is strictly liable for shooting on or over a baited area."); United States v. Catlett, 747 F.2d 1102, 1104-05 (6th Cir. 1984) (holding that scienter is not a required element for a conviction under the MBTA). Limited exceptions to the uniform affirmation of strict criminal liability under the MBTA were the Sixth Circuit's rejection of the original MBTA strict liability felony provision and the Fifth Circuit's rejection of strict liability for hunting over or with the aid of bait. *See* United States v. Wulff, 758 F.2d 1121, 1125 (6th Cir. 1985); United States v. Delahoussaye, 573 F.2d 910, 912-13 (5th Cir. 1978). Although no other Circuit joined the Sixth or Fifth Circuits, in each instance Congress amended the MBTA to require scienter. *See* 16 U.S.C.A. § 704(b) (2000) (baiting provisions); 16 U.S.C.A. § 707(b) (felony provision) (2000).

III. MEANING OF STRICT LIABILITY

A. *Classic Description of Strict Liability*

> "Ordinarily, a criminal offense requires both a voluntary act (actus reus) and a culpable state of mind (mens rea)."[18]

The Supreme Court has observed that "[t]he existence of a mens rea is the rule of, rather than the exception to, the principles of Anglo-American criminal jurisprudence."[19]

However, for some crimes a culpable mental state, or mens rea, is not required for a conviction. One category of such crimes is known under the name of "strict liability." Examples of strict liability crimes include sales of alcohol to vulnerable groups, sales of impure or adulterated food or drugs, narcotics transactions, and child pornography.[20] In recent years, the list has expanded to include reporting violations.[21]

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18. Laurie L. Levenson, *Good Faith Defenses: Reshaping Strict Liability Crimes*, 78 CORNELL L. REV. 401, 402 (1993) (citing Gerhard O.W. Mueller, *On Common Law Mens Rea*, 42 MINN. L. REV. 1043, 1052 (1958)). *See also* Morissette v. United States, 342 U.S. 246, 251-52 (1952) ("Crime, as a compound concept, generally constituted only from concurrence of an evil-meaning mind with an evil-doing hand, was congenial to an intense individualism and took deep and early root in American soil."). *But see* Bryan v. United States, 524 U.S. 184, 193 (1998) ("[T]he background presumption that every citizen knows the law makes it unnecessary to adduce specific evidence to prove that 'an evil-meaning mind' directed the 'evil-doing hand.'"). "Primitive English law 'started from a basis bordering on absolute liability.'" Dennis Jenkins, *Criminal Prosecution and the Migratory Bird Treaty Act: An Analysis of the Constitution and Criminal Intent in an Environmental Context*, 24 B.C. ENVTL. AFF. L. REV. 595, 596 n.5 (1997) (quoting Francis B. Sayre, *Mens Rea*, 45 HARV. L. REV. 974, 977 (1932)). The need for an actus reas has a Constitutional foundation in the Cruel and Unusual Punishment Clause. *See* Powell v. Texas, 392 U.S. 514, 533 (1968) ("[C]riminal penalties may be inflicted only if the accused has committed some act, . . . has committed some actus reas") (interpreting Robinson v. California, 370 U.S. 660 (1962)).

19. Staples v. United States, 511 U.S. 600, 605 (1994) (quoting United States v. United States Gypsum Co., 438 U.S. 422, 436 (1978) (quoting Dennis v. United States, 341 U.S. 494, 500 (1951))).

> The contention that an injury can amount to a crime only when inflicted by intention is no provincial or transient notion. It is as universal and persistent in mature systems of law as belief in freedom of the human will and a consequent ability and duty of the normal individual to choose between good and evil.

Morissette 342 U.S. at 250. *See also* Liparota v. United States, 471 U.S. 419, 426 (1985) ("[C]riminal offenses requiring no mens rea have a 'generally disfavored status.'") (quoting *United States Gypsum*, 438 U.S. at 438).

20. *See* Levenson, *supra* note 18, at 406, n.29. Much of Levenson's footnote is derived from a 1933 list of strict liability public welfare offenses by Francis B. Sayre. *See id. supra* note 18, at 406, n.29 (citing Francis B. Sayre, *Public Welfare Offenses*, 33 COLUM. L. REV. 55, 73 (1933)). *See also* Robert J. Jossen, *Strict Liability in Criminal Cases—The Present Day Implications of Dotterweich and Park*, *in* CRIMINAL LAW AND URBAN PROBLEMS 1985, at 33, 39-40 (PLI Litig. & Admin. Practice Course Handbook Series No. C4-4174, Dec. 16, 1985) (citing other examples of strict liability crimes including transportation of dangerous products, dumping of hazardous wastes, fishing in international waters, Occupational Health and Safety Act violations).

21. *See* Levenson, *supra* note 18, at 413 n.76 (citing the Tobacco Adjustment Act of 1984, 7 U.S.C. § 509 (Supp. II 1990) (imposing imprisonment up to five years for failure to comply with tobacco manufacturer's reporting requirements)). It has been said that felony murder is a form of strict criminal liability in that criminal liability is imposed regardless of whether or not deaths were a

Strict criminal liability means criminal prosecution without proof of mens rea, without proof of guilty knowledge or of evil or wrongful purpose—the defendant may not even know the facts that subject him or her to criminal liability.[22] Strict criminal liability has also been described as a no-fault crime, allowing conviction without proof of any fault on the part of the defendant.[23] In this sense, strict liability is absolute liability.[24] Absolute criminal liability can convict the morally blameless or "innocent"[25] and, perhaps, has been best described by the statement that, "If a principle is at work here, it is the principle of 'tough luck.'"[26]

B. *Ambiguities In Strict Criminal Liability Overlap with Other Mens Rea*

A more accurate description of strict criminal liability is that it removes the requirement of proof of the defendant's knowledge of one or more key or "mate

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foreseeable consequence of the illegal crimes being committed. Levenson, *supra* note 18, at 423 n.113; *id.* at 425 n.125.

22. *See also* Zipperman, *supra* note 5, at 127 (strict criminal liability can hold one "liable, although he is not only not charged with moral wrongdoing, but has not even departed in any way from a reasonable standard of intent or care.") (quoting W. PAGE KEETON, PROSSER AND KEETON ON THE LAW OF TORTS § 75, at 536 (5th ed. 1984)). *See, e.g.*,United States v. Balint, 258 U.S. 250, 252-53 (1922); Jossen, *supra* note 20, at 35.

23. *See, e.g.*, United States v. Freed, 401 U.S. 601, 610 (1971) (quoting *Balint*, 342 U.S. at 254) (explaining that strict liability may expose those who are "innocent" actors to a criminal penalty).

24. *See* United States v. Ayo-Gonzalez, 536 F.2d 652, 660 (5th Cir. 1976); Levenson, *supra* note 18, at 417. "Absolute liability" means criminal liability without regard to the defendant's knowledge or intentions and may be a technically accurate description of a strict liability crime, but it probably is generally not an accurate description of what a prosecutor is willing to prosecute. *See id.* at 417 n.86 (suggesting "absolute liability" more precisely describes situations in commonwealth countries in which Parliament expressly states that no mens rea is required *and* that no defense based on mens rea will be permitted) (citing C.B. Cato, *Strict Liability and the Half-Way House*, 1981 N.Z. L.J. 294, 294 n.6 (1981)). *But see* Levenson, *supra* note 18, at 415 ("The prosecution proposed to hold Keating 'responsible for an offense which, no matter how careful, no matter how honest, no matter how decent and law abiding he may be, he could not by the most diligent effort know about.'") (quoting prosecution argument in Respondent's Brief at 18-20, People v. Keating, No. BA 025236 (Cal. Super. Ct. 1991)). Strict liability in tort is rarely absolute. *See* KEETON, *supra* note 22, § 79, at 559-60.

25. *See* Levenson, *supra* note 18, at 413 (listing convictions of persons without knowledge of their own wrongdoing, including a widow convicted of adultery after being erroneously informed that her husband was dead, Regina v. Tolson, 23 Q.B.D. 168 (1889), and also a farmer convicted of trespass after relying on faulty government survey report, State v. Gould, 40 Iowa 372 (1875)). *See generally* KEETON, *supra* note 22, § 75, at 535 (distinguishing the criminal law "fault" connotation of moral blame from tort law "fault" which means only a departure from a required standard of conduct even if innocent or beyond defendant's control).

26. Stanford H. Kadish, *Excusing Crime*, 75 CAL. L. REV. 257, 267 (1987). *See also* Mark Kelman, *Strict Liability: An Unorthodox View, in* 4 ENCYCLOPEDIA OF CRIME & JUST. 1512, 1515 (Standford H. Kadish ed., 1983) ("[T]here is no reason to believe that he is anything worse than unlucky, and no reason to single him out for disapproval.").

rial" elements of the crime.[27] The requirement for some knowledge distinguishes strict liability from absolute liability. Strict liability crimes are also kin to the related doctrines of vicarious criminal liability[28] and responsible corporate officer[29] which can impose a duty to ascertain relevant facts and to undertake action to prevent violations.[30]

Strict criminal liability is similar to negligent crimes in that negligent crimes do not require any particular state of mind on the part of the defendant[31] but,

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27. *See* Levenson, *supra* note 18, at 418 n.90 (citing MODEL PENAL CODE §§ 2.02(4), 2.05 (1962)). In the course of rejecting a strict criminal liability interpretation of the National Firearms Act 26 U.S.C. §§ 5801-5872 (1994), the Supreme Court stated that "the term 'strict liability' is really a misnomer," and that, in interpreting public welfare offenses, it has generally "avoided construing criminal statutes to impose a rigorous form of strict liability." Staples v. United States, 511 U.S. 600, 607 n.3 (1994). In *Staples*, the Court stated expressly that "different elements of the same offense can require different mental states." *Id.* at 609. Courts have also interpreted a strict criminal liability provision of the Resource Conservation and Recovery Act, 42 U.S.C. § 6928(d)(2) (1994), to include a knowledge component. *See* Zipperman, *supra* note 5, at 159 n.257. Strict liability in tort also requires some amount of knowledge. Prosser and Keeton observe that, absent a contrary statutory provision:

> [S]trict liability will never be found unless the defendant is aware of the abnormally dangerous condition or activity, and has voluntarily engaged in or permitted it. Mere negligent failure to discover or prevent it is not enough, although it may, of course, be an independent basis of liability . . . . What is meant is that he is liable although (1) he did not intend an invasion on the basis of which liability could be imposed and (2) he was not negligent in proximately causing the harm.

27. KEETON, *supra* note 22, § 79, at 559 (footnote omitted).

28. *See* KEETON, *supra* note 22, § 81, at 582 (stating that "[v]icarious liability is now quite generally recognized as a form of strict liability" in torts.) (footnote omitted); Levenson, *supra* note 18, at 417 n.86 ("Vicarious liability refers to a respondeat superior notion that a supervising individual or corporation may be criminally liable for another's act without knowledge of the wrongful conduct of the responsible party.") (citations omitted).

29. *See Ayo-Gonzalez*, 536 F.2d at 661-62 (relying on responsible corporate officer analysis in United States v. Park, 421 U.S. 658, 676 (1975)).

30. *See infra* notes 53-57 and 66-67, and accompanying text (discussing Unites States v. Park, 421 U.S. 658 (1975), and United States v. Dotterweich, 320 U.S. 277 (1943)).

31. *See* Levenson, *supra* note 18, at 420 n.98. The negligent defendant may be totally unaware of risks created by his or her activities, but the law holds him or her responsible for his or her disregard of the rights of and risks to others. *See* Levenson, *supra* note 18, at 420 n.97.

> Again where one deals with others and his mere negligence may be dangerous to them, as in selling diseased food or poison, the policy of the law may, in order to stimulate proper care, require the punishment of the negligent person *though he be ignorant of the noxious character of what he sells.*

United States v. Balint, 258 U.S. 250, 252-53 (1922) (emphasis added) (citation omitted) (affirming strict criminal liability for narcotics sale). In terms of the defendant's lack of knowledge, the negligence described by the *Balint* court is indistinguishable from a strict liability crime, but the burden of proof and the defenses available differ for strict criminal liability and for negligent crimes.

"*Park* established that the failure of a manager to act, when he or she had the authority and responsibility to act, will result in a violation. This description of duty and breach invites a standard negligence analysis." Zipperman, *supra* note 5, at 132 (citing *Park*, 421 U.S. at 671). Still, "[t]he *Park* doctrine contains an inherent ambiguity as to whether a corporate officer is strictly liable merely because he or she possesses the power to correct a violation, or whether the prosecution must show the violation of a negligence standard." Zipperman, *supra* note 5, at 133.

"Thus, any differences between the theories of negligence and strict liability are insignificant in practice." *Id.* at 134. "In practice, negligence statutes frequently become the

rather, only require a failure to meet a standard of conduct that is expected of the defendant regardless of his or her state of mind.[32]

In the end, the phrase "strict liability" is misleading and overused. Descriptive phrases such as "absolute liability," "strict liability," "negligence," "knowingly," "general intent," "wilfully" and "specific intent" give a mistaken impression that there are discrete levels of *mens rea* or criminal intent, analogous to physical quantum states, into which any given crime may be placed without overlapping adjacent, but separate, levels of *mens rea*. Instead, different levels of criminal *mens rea* are more numerous and, in practice, tend to merge into a continuum of mental states.[33] On one end of the continuum are crimes for which the prosecution must prove the defendant acted with knowledge that the results were prohibited by a statute of which the defendant knew and which he or she intended to violate.[34] At the other end of the continuum are crimes, much more common in theory than in practice, for which the defendant need only be proven to have caused a prohibited result, regardless of the defendant's knowledge, intention, ability to avoid the result, or even extraordinary efforts to prevent and avoid the result.

An example of the overlap in terminology, and consequential ambiguities, is in the use of "knowingly" and "willfully" to describe *mens rea*.[35] In different contexts, "willfully" means anything from an act simply done "voluntarily and intentionally" without any bad purpose or knowledge of illegality,[36] to an act

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functional equivalent of strict liability statutes. When the public welfare is at stake, courts often apply strict liability, but call it negligence." Zipperman, *supra* note 5, at 148.

32. One authority has stated that the difference between strict criminal liability and negligent crimes "is that, as long as the crime is a non-strict liability crime [i.e., negligence], the issue is decided by a tribunal which both hears the evidence and sets the standard [of conduct] in the defendant's case." Levenson, *supra* note 18, at 420 n.102 (quoting Alan Saltzman, *Strict Criminal Liability and the United States Constitution: Substantive Criminal Law Due Process*, 24 WAYNE L. REV. 1571, 1584 (1978)). Apparently, the Supreme Court agrees. *See* United States v. Morissette, 342 U.S. 246, 263 (1952) ("The purpose and obvious effect of doing away with the requirement of a guilty intent is to ease the prosecution's path to conviction . . . and to circumscribe the freedom heretofore allowed juries.").

33. *See* United States v. Engler, 806 F.2d 425, 432 n.2 (3d Cir. 1986) (describing a "continuum of strict liability crimes"). The United States Sentencing Guidelines describe a portion of the continuum in the policy statement on regulatory offenses which describes four categories of technical recordkeeping offenses: failure to fill out a form intentionally but without knowledge or intent that substantive harm result; the same failure may carry a substantial likelihood of harm or make the harm more likely; the failure may have actually led to substantive harm; and the failure may have been intended to conceal harm that had occurred. *See* U.S. SENTENCING GUIDELINES MANUAL § 1A4(f) (1999).

34. *See generally* United States v. Moskowitz, 883 F.2d 1142, 1149-50 (2d Cir. 1989) (finding that a willful violation of the Hazardous Materials Transportation Act, 49 U.S.C. § 1472(h)(2), required both knowing acts (voluntary and intentional and not accidental), and knowledge that the regulations prohibited the acts).

35. "Much confusion exists over the precise meaning of mens rea today because 'not all lawyers and judges assign the term . . . a normative meaning.'" Jenkins, *supra* note 18, at 596 n.8 (citing Susan F. Mandiberg, *The Dilemma of Mental State in Federal Regulatory Crimes: The Environmental Example*, 25 ENVTL. L. 1165, 1167 n.10 (1995)).

36. 8TH CIR. CRIM. JURY INSTR. 7.02 cmt. (1996); 9TH CIR. CRIM. JURY INSTR. 5.5 cmt. (1997) ("willfulness" as a description of an "intentional mental state" connotes an act "done on purpose; it does not suggest the act was committed for a particular purpose, evil in nature") (quoting

done with knowledge of wrongfulness but not of illegality,[37] to an act done "voluntarily and intentionally with the purpose of violating a known legal duty," as in tax cases,[38] or even an act done knowing the actions were illegal.[39] Similarly, "knowingly" means anything from an act done without any bad purpose or knowledge of illegality,[40] to a possessory act done with knowledge of the nature of the material possessed (*e.g.*, the age of persons depicted in sexually explicit material) but not necessarily knowledge of its illegality,[41] to an act done knowing it was forbidden by law, albeit the defendant may not have known the particular law.[42] The Ninth Circuit has observed that "the difference [between willfully and knowingly] appears to be more one of semantics than actual substance."[43] Similarly, courts use the term "strict liability" to describe a continuum of mental states also described by the terms "absolute liability," "negligence,"[44] and "knowingly."[45]

Appellate courts' pattern jury instructions discourage use of ambiguous terminology such as "general intent," "specific intent," and "willfully."[46] Properly, a court should focus on the *mens rea* required for each individual element of the offense.[47] Nevertheless, courts continue to characterize statutes as a whole. Consequently, the degree of concern that a court may show for the imposition of

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S. REP. NO. 95-605, at 58-59 (1977)). *See also* 9TH CIR. CRIM. JURY INSTR. 5.5 cmt. (1997) ("In many cases, . . . the concept of willfulness will be adequately explained in other instructions defining 'knowingly,' 'intentionally,' or 'deliberately.'"). "The word 'willful,' even in criminal statutes, means no more than that the person charged with the duty knows what he is doing. It does not mean that, in addition, he must suppose that he is breaking the law." 9TH CIR. CRIM. JURY INSTR. 5.5 cmt. (1997) (quoting Judge Learned Hand in American Surety Co. v. Sullivan, 7 F.2d 605, 606 (2nd Cir. 1925)).

37. *See, e.g.*, Bryan v. United States, 524 U.S. 184, 192-93 (1998) (proof of knowledge of the law is not required because of the "background presumption that every citizen knows the law").

38. *See* 8TH CIR. CRIM. JURY INSTR. 7.02 cmt. (1996); 9th Cir. Crim. Jury Instr. 5.5 cmt. (1997).

39. *See* 9TH CIR. CRIM. JURY INSTR. 5.5 cmt. (1997) (in context of 31 U.S.C. § 5324 (1994)).

40. *See* 8TH CIR. CRIM. JURY INSTR. 7.03 cmt. (1996); 9th Cir. Crim. Jury Instr. 5.6 cmt. (1997).

41. *See* 8TH CIR. CRIM. JURY INSTR. 7.03 cmt. (1996) (citing United States v. X-Citement Video, Inc., 513 U.S. 64 (1994)).

42. *See* 8TH CIR. CRIM. JURY INSTR. 7.03 cmt. (1996) (citing Liparota v. United States, 471 U.S. 419, 434 (1985)).

43. *See* 9TH CIR. CRIM. JURY INSTR. 5.5 cmt. (1997) (quoting United States v. Sirhan, 504 F.2d 818, 820 n.3 (9th Cir. 1974)).

44. *See, e.g.*, United States v. Balint, 258 U.S. 250, 252 (1922).

45. Courts uncomfortable with strict liability often adopt defenses and burdens of presenting evidence normally applicable to negligent crimes. *See infra* Part VI (Defenses, Limitations, and Ameliorations to Strict Liability).

46. 9TH CIR. CRIM. JURY INSTR. 5.4 cmt. (1997) ("recommends avoiding instructions that distinguish between 'specific intent' and 'general intent'"); *id.* at 5.5 (recommends no instruction defining willfully); *id.* at 5.6 (instruction may be appropriate but it is reversible error to give knowingly instruction in money laundering cases); 8TH CIR. CRIM. JURY INSTR. 7.01 cmt. (1996) (no specific intent instruction recommended), *id.* at 7.02 (no willfully instruction recommended except in tax cases and odometer fraud cases), *id.* at 7.03 (no knowingly instruction recommended).

47. *See, e.g.*, 9TH CIR. CRIM. JURY INSTR. 5.4 cmt. (1997) ("Accordingly, the judge should determine the requisite mental state as to each element of the charged offense and instruct thereon."); Staples v. United States, 511 U.S. 600, 607 n.3 (1994) (public welfare offenses eliminate the requirement of *mens rea* with respect to *an* element of a crime).

strict criminal liability depends on what form of "strict liability" it is imposing from the outset.

IV. JUDICIAL ACCEPTANCE OF STRICT CRIMINAL LIABILITY

Strict criminal liability has been upheld by courts,[48] including the United States Supreme Court, in even its strictest forms. Although the Supreme Court has described strict criminal liability as "generally disfavored,"[49] it does not "invariably offend constitutional requirements."[50]

The Supreme Court has endorsed the application of strict criminal liability in which absolutely no *mens rea* was required,[51] *i.e.*, absolute liability. At other times the Supreme Court has affirmed criminal liability under statutes that omitted the *mens rea* requirement for one or more elements of the offense but not for all the elements. It described some of those cases as "strict liability" offenses and others as "knowing" offenses but the results were similar for the defendants. The point of these cases is that Congress may Constitutionally omit the requirement for *mens rea* from criminal statutes, regardless of whether the offenses are or are not characterized as "strict liability" crimes. Cases in which the Supreme Court has upheld the omission of *mens rea* from criminal statutes include the following:[52]

> *United States v. Park*,[53] reinstated a misdemeanor[54] conviction of a "responsible corporate officer" for adulterated food stored in a contaminated warehouse. Although there was evidence that the defendant knew of the problem, the Supreme Court stated, without reservations, that the Act did not condition criminal liability upon the defendant's "awareness of some wrongdoing" or "conscious fraud."[55] The defendant need only have been in a position with responsibility and authority to pre-

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48. *See, e.g.*, United States v. Ayo-Gonzalez, 536 F.2d 652, 657-58 (5th Cir. 1976); United States v. Engler, 806 F.2d 425, 435-36 (3d. Cir. 1986). *See also supra* Part II (MBTA Misdemeanors Held To Be Strict Liability Crimes).

49. United States v. United States Gypsum Co., 438 U.S. 422, 437-38 (1978).

50. United States Gypsum Co., 438 U.S. at 437.

51. *See, e.g.*, United States v. Balint, 258 U.S. 250, 252 (1922).

52. Except as otherwise noted, the maximum penalties described for the listed Supreme Court cases are taken from *Engler*, 806 F.2d at 435.

53. 421 U.S. 658 (1975). One commentator has argued that reliance on *Park* or *Dotterweich*, in the context of strict liability, as opposed to vicarious liability crimes, is misplaced since the question involved in those cases was extension of existing strict liability under the FDCA rather than the initial imposition of strict liability. *See* Woodrum, *supra* note 14, at 249 n.81 (describing *Park* and *Dotterwiech* as cases of vicarious liability in which the liability happened to be strict liability). However, one can also argue that, instead of being held vicariously liable for the violations of their subordinates, the corporate officers were being held strictly liable for failing to perform a statutory duty of their own, such as to prevent the violations. *See* Zipperman, *supra* note 6, at 129.

54. The maximum possible imprisonment for a federal misdemeanor conviction is one year, and it may be less. *See* 18 U.S.C. § 3559(a)(6)-(8) (1994) (classification of misdemeanor offenses); *id.* § 3581(b)(6)-(8) (maximum terms of imprisonment for misdemeanors).

55. United States v. Park, 421 U.S. 658, 672-73 (1975) (citing United States v. Dotterweich, 320 U.S. 277 (1943)).

vent or correct the violation and failed to do so.[56] The statute imposed "a positive duty to seek out and remedy violations . . . [and] a duty to implement measures that will insure that violations will not occur."[57]

United States v. International Minerals & Chemical Corp.,[58] reinstated an information which failed to charge a "'knowing violation' of the regulation"[59] that required hazardous materials to be listed on shipping papers. Relying on *Balint* and *Freed*, the Court stated that the probability of regulations is so great that anyone aware of his or her possession of hazardous materials "must be presumed to be aware of the regulation."[60] The Court also held that the defendant would not be guilty if, in good faith, the defendant thought it was shipping an innocuous substance such as distilled water.[61]

United States v. Freed,[62] reinstated an indictment, charging possession of an unregistered destructive device, specifically hand grenades, that had no allegation that the defendant knew them to be unregistered.[63] The maximum penalty was $10,000, ten years in prison, or both.

United States v. Wiesenfeld Warehouse Company,[64] reinstated an information charging the defendant with holding food under unsanitary conditions, the court observing that "[i]t is settled law in the area of food and drug regulation that a guilty intent is not always a prerequisite to the imposition of criminal sanctions."

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56. *See, e.g.*, *Park*, 421 U.S. at 673-74. *Park* specified two requirements for criminal responsibility of persons not directly responsible for the criminal act: (1) the superior must occupy a position of "responsibility and authority" with regard to the act, and (2) must have had the power to prevent it through the exercise of the "highest standard of foresight and vigilance." *Developments in the Law—Corporate Crime: Regulating Corporate Behavior Through Criminal Sanction*, 92 HARV. L. REV. 1243, 1262-63 (1979) (quoting *Park*, 421 U.S. at 672-674).

57. *Park*, 421 U.S. at 672.

58. 402 U.S. 558 (1971).

59. *International Minerals*, 402 U.S. at 559.

60. *Id.* at 565. The Supreme Court also recited the maxim that "ignorance of the law is no excuse." *Id.* at 562. The Supreme Court does not explain why, if ignorance of the law is truly no excuse, there is any need for a presumption of knowledge of regulations based on the knowing possession of "dangerous or deleterious devices or products . . . ." *Id.* at 565. *Cf.* Lambert v. California, 355 U.S. 225, 228 (1957) (finding a due process notice requirement is a precondition "where a person, wholly passive and unaware of any wrongdoing, is brought to the bar of justice for condemnation in a criminal case."). *International Minerals* illustrates the converse of the paradox described by Jenkins: "Although the criminal law generally sought to punish only the morally blameworthy, the law, in a confusing and ill-defined paradox, also generally held that ignorance of the law was no excuse from criminal liability." Jenkins, *supra* note 18, at 597.

61. *International Minerals*, 402 U.S. at 563-64. Although the Court expressly distinguished *International Minerals* and *Freed* from strict liability offenses, both the *International Minerals* and *Freed* decisions presumed knowledge of regulations, based upon the defendant's knowledge of the nature of the items possessed, and dispensed with any requirement to prove the defendant acted with a bad or guilty intent.

62. 401 U.S. 601 (1971).

63. Only the manufacturer or importer could register. *Freed*, 401 U.S. at 603-604.

64. 376 U.S. 86, 91 (1964). The issue in *Wiesenfeld Warehouse* was whether the statute was vague and whether the District Court had correctly interpreted the statute. *See id* at 89-91. Consequently, the Supreme Court's discussion of the requisite intent was *dicta*.

Williams v. North Carolina,[65] affirmed a conviction for bigamy, with no proof that the defendants knew that North Carolina would not recognize their Nebraska divorces. The maximum penalty was ten years in prison.

United States v. Dotterweich,[66] reinstated a misdemeanor conviction for misbranded and adulterated drugs. The defendant's *mens rea* was not an issue in the Supreme Court but the Court described the statute under which he was convicted as being of a type that "dispenses with the conventional requirement for criminal conduct--awareness of some wrongdoing."[67]

United States v. Balint,[68] reinstated an indictment, charging selling of a derivative of opium, that had no allegation that the defendant knew it to be a prohibited drug. The maximum penalty was five years in prison.

Chicago, Burlington, & Quincy Ry. v. United States,[69] affirmed a penalty for failure to properly maintain rail car couplers and brakes, even though the defendant exercised reasonable care, had no knowledge the cars were out of repair, and had no intention to violate the law.[70] Although the case was a *civil* proceeding, the reasoning of the Supreme Court did not distinguish between civil and criminal proceedings.[71]

Shevlin-Carpenter Company v. Minnesota,[72] affirmed a conviction for trespass, in the form of timber cutting, even though the defendant "had reasonable ground for believing authority had been granted, and honestly acted on such belief."[73] The penalty for the corporate defendant

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65. 325 U.S. 226 (1945).

66. 320 U.S. 277 (1943); *see also supra* note 53 (discussing whether *Park* and *Dotterweich* are appropriate precedents for interpreting strict criminal liability).

67. United States v. Dotterweich, 320 U.S. 277, 281 (1943).

68. 258 U.S. 250 (1922). *See also* United States v. Behrman, 258 U.S. 280, 288 (1922) (reinstating indictment for unlawful selling of narcotics by a physician writing prescriptions; "If the offense be a statutory one, and intent or knowledge is not made an element of it, the indictment need not charge such knowledge or intent.").

69. 220 U.S. 559 (1911).

70. *See id.* at 569.

71. "The power of the legislature to declare an offense, and to exclude the elements of knowledge and due diligence from any inquiry as to its commission, cannot, we think, be questioned." *Chicago, Burlington & Quincy Ry.*, 220 U.S. at 578 (citations omitted). *See also id.* at 579.

72. 218 U.S. 57 (1910).

73. *Shelvin-Carpenter*, 218 U.S. at 64 (quoting State v. Shevlin-Carpenter Co., 102 Minn. 470, 479, 113 N.W. 634, 638 (1907)). In *Shevlin-Carpenter*, the Supreme Court articulated a conclusive argument that "innocence cannot be asserted of an action which violates existing law, and ignorance of the law will not excuse." *Id.* at 68. The problem in the *Shevlin-Carpenter* reasoning is that the defendant was reasonably mistaken as to the factual status of his permit, not the legal consequences of those facts. The Court did not rely on the reasoning of *Shevlin-Carpenter* in its *Balint* decision, in which it described potential "innocent" sellers of drugs, something impossible under the *Shevlin-Carpenter* reasoning that there can be no "innocent" law-breakers. *See Balint*, 258 U.S. at 254 (describing potential "innocent" sellers of drugs).

was double damages in the amount of $14,664.12[74] but the penalty for an individual could include up to two years in prison.[75]

Certain themes, not always consistent, can be derived from the Supreme Court cases. The offenses were often labeled as public welfare, safety, or morals statutes.[76] The Court was usually but not always of the opinion that the affected public either should have been aware that there would be laws or regulations that should be consulted,[77] or had knowingly assumed a risk.[78] The Court has

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Note however that, today, environmental and wildlife permits are treated as an extension of regulatory law and, as such, their interpretation are matters of law and not of fact. *See, e.g.*, United States v. Weitzenhoff, 35 F.3d 1275, 1287 (9th Cir. 1993).

74. *Shelvin-Carpenter*, 218 U.S. at 64.

75. *See id.* at 62 n.1.

76. *See, e.g.*, United States v. Freed, 401 U.S. 601, 609 (1971) (public safety); Williams v. North Carolina, 325 U.S. 226, 238 (1945) ("public policy . . . bearing upon the integrity of family life . . . ."); United States v. Dotterweich, 320 U.S. 277, 280 (1943) ("phases of the lives and health of people which . . . are largely beyond self-protection"); *Balint*, 258 U.S. at 252-53 ("maintenance of a public policy" by police power to control a "noxious" substance); *Shevlin-Carpenter*, 218 U.S. at 68 ("the public welfare has made it necessary to declare a crime"). *See also* Staples v. United States, 511 U.S. 600, 607 (1994) (describing "public welfare offenses"); United States v. Ayo-Gonzalez, 536 F.2d 652, 660 (5th Cir. 1976) ("the Act is based on strong policy considerations").

77. *See, e.g.*, United States v. International Minerals & Chem. Corp., 402 U.S. 558, 565 (1971) ("[A]nyone who is aware that he is in possession of [dangerous materials] . . . must be presumed to be aware of the regulation."); *Freed*, 401 U.S. at 609 ("[O]ne would hardly be surprised to learn that possession of hand grenades is not an innocent act."). *See also Balint*, 258 U.S. at 254 ("Doubtless considerations as to the opportunity of the seller to find out the fact" were included by Congress in its calculus in electing strict criminal liability); United States v. Engler, 806 F.2d 425, 435-36 (3d Cir. 1986) ("The capture and sale of species protected by the MBTA is not 'conduct that is wholly passive,' but more closely resembles conduct 'that one would hardly be surprised to learn . . . is not innocent.'") (quoting Missouri v. Holland, 252 U.S. 416, 435 (1920)); *Ayo-Gonzalez*, 536 F.2d at 660 ("[L]awmakers clearly thought it highly unlikely that purely innocent violations would occur."). *See also Staples*, 511 U.S. at 611 (possession of guns, even though arguably "dangerous," would not alert owners to likelihood of strict regulation). The Supreme Court has had a similar focus - on the likelihood that a defendant might know regulations exist - in its decisions that decline to interpret criminal statutes as imposing strict liability. *See, e.g.*, Liparota v. United States, 471 U.S. 419, 432-33 (1985) (distinguishing a strict liability public welfare offense as one in which "Congress has rendered criminal a type of conduct that a reasonable person should know is subject to stringent public regulation and may seriously threaten the community's health and safety"); Lambert v. California, 355 U.S. 225, 227 (1957) (finding strict criminal liability violated due process "where no showing is made of the probability of such knowledge" that a felon must register if remaining in Los Angeles more than five days).

Recently, two Supreme Court justices have expressed a desire to limit the application of the public welfare doctrine to individual factual situations arising under the criminal statutes instead of to the statutes as a whole. *See* Hanousek v. United States, 528 U.S. 1102 (2000) (Justices Thomas and O'Connor dissenting from denial of certiorari). Justice Thomas authored the *Staples* opinion that declined to apply the public welfare doctrine to regulation of admittedly dangerous implements, such as guns, if the implements were in common use. *See Staples*, 511 U.S. at 611. Justice O'Connor authored a concurring opinion in *Sweet Home* that elaborated the use of proximate causation to limit strict criminal liability. *See* Babbit v. Sweet Home Chapter of Communities for a Great Oregon, 515 U.S. 687, 708-714 (1995) (Justice O'Connor, concurring).

78. "The requirements of foresight and vigilance imposed on responsible corporate agents are beyond question demanding, and perhaps onerous, but they are no more stringent than the public has a right to expect of those who voluntarily assume positions of authority in business enterprises whose services and products affect the health and well-being of the public that supports them." United States v. Park, 421 U.S. 658, 672 (1975); *Balint*, 258 U.S. at 252-54 (defendant to act

consistently held that Congress may balance the possible injustice of subjecting an innocent actor to criminal liability against the evil of exposing innocent members of the public to the danger being regulated. "In the interest of the larger good it puts the burden of acting at hazard upon a person otherwise innocent but standing in responsible relationship to a public danger."[79] The same rationale supports omission of a *mens rea* requirement in other areas of government regulations, including environmental and wildlife regulation.[80]

The Supreme Court has also accepted the difficulty of proving scienter as an appropriate consideration in the calculus by Congress.[81] In general, the Court has not seen the role of courts to be protection of the innocent persons swept up in

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(selling) and to ascertain facts "at his peril"); *Shevlin-Carpenter Co.*, 218 U.S. at 69 ("When the permit was issued, plaintiffs in error knew the limitations of it, and they took it at the risk and consequences of transgression"). The requirement that the defendant subject to strict liability voluntarily assume a position of responsibility for a foreseeable risk is also a foundation for strict liability in tort. *See* KEETON, *supra* note 22, § 79, at 559.
("It is quite conceivable that Congress, contemplating the inevitable hardship of such injuries [caused by the prohibited conduct], and hoping to diminish the economic loss to the community resulting from them, should deem it wise to impose their burdens upon those who could measurably control their causes, instead of upon those who are in the main helpless in that regard.").

See Morissette v. United States, 342 U.S. 246, 256 (1952) ("The accused, if he does not will the violation, usually is in a position to prevent it with no more care than society might reasonably expect . . . from one who assumed his responsibilities."). *But see Liparota*, 471 U.S. at 432-33 (describes most "public welfare offenses" as having "rendered criminal a type of conduct that a reasonable person should know is subject to stringent public regulation and may seriously threaten the community's health or safety"). The *Liparota* characterization may be difficult to square with *Williams*, 325 U.S. at 227, 239, which upheld a felony conviction for bigamous cohabitation in North Carolina following valid Nevada divorces.

79. United States v. Wiesenfeld Warehouse Co., 376 U.S. 86, 91 (1964) (quoting *Dotterweich*, 320 U.S. at 281). *See, e.g., Dotterweich*, 320 U.S. at 285 ("Balancing relative hardships, Congress has preferred to place it upon those who have at least the opportunity of informing themselves of the existence of conditions imposed for the protection of consumers before sharing in illicit commerce, rather than to throw the hazard on the innocent public who are wholly helpless.").

Balint, 258 U.S. at 254 ("Congress weighed the possible injustice of subjecting an innocent seller to a penalty against the evil of exposing innocent purchasers to danger from the drug, and concluded that the latter was the result preferably to be avoided. Doubtless considerations as to the opportunity of the seller to find out the fact and the difficulty of proof of knowledge contributed to this conclusion."). *See also Chicago, Burlington, & Quincy Ry.*,, 220 U.S. at 575 ("its harshness is no concern to the courts").

Perhaps the reader's most intimate experience with strict criminal liability is with driving faster than the speed limit, inadvertently of course, for which it is particularly apt to say that the risks of the illegal conduct "include the possibility of physical or moral harm, and the possibility that a culpable defendant would escape punishment by feigning ignorance or mistake." Levenson, *supra* note 18, at 424.

80. *See Dotterweich*, 320 U.S. at 282-83 & n.2 (in the context of drug regulation, Congress has observed that, for regulations enforced only by fines, "[c]orporations carrying on an illicit trade would be subject only to . . . a 'license fee' for the conduct of an illegitimate business.") (citing H.Rep. No. 2139, 75th Cong., 3d Sess., p.4).

81. *See, e.g., Balint*, 258 U.S. at 254 ("Doubtless considerations as to the opportunity of the seller to find out the fact . . . " were weighed by Congress); *Shevlin-Carpenter Co.*, 218 U.S. at 69 ("[W]hether wilful, accidental, or involuntary [is] equally difficult to establish . . . ."). *See also Ayo-Gonzalez*, 536 F.2d at 660 ("Moreover, it is appropriate to note that prosecutions under section 1081 would be extremely difficult if the government had to prove willfulness or even negligence.").

the net that Congress cast.[82] Quite the contrary, the Court has emphasized the primacy of implementing the intent of Congress.[83]

The ripple, or perhaps the rapids, in the smooth flow of the Supreme Court's opinions was its decision in *United States v. Morissette*.[84] In *Morissette*, the Supreme Court reversed a conviction for taking $84 worth of spent shell casings from a posted artillery range.[85] Without contradiction, Morissette denied any criminal intent in taking the casings, which he believed to be abandoned.[86] The Supreme Court reversed the conviction.[87] In a frequently quoted passage, the Supreme Court described strict criminal liability cases as ones in which "penalties commonly are relatively small,"[88] a demonstratively inaccurate description

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82. *But see infra* Part VI. (Defenses, Limitations and Ameliorations to Strict Liability).

83. *See, e.g., Balint*, 258 U.S. at 252-53 (whether scienter is an element of a statutory criminal offense "is a question of legislative intent to be construed by the court"). *See also Liparota*, 471 U.S. at 424 ("The definition of the elements of a criminal offense is entrusted to the legislature, particularly in the case of federal crimes, which are solely creatures of statute.") (citing to United States v. Hudson, 11 U.S. 32 (1812)); United States v. Engler, 806 F.2d 425, 431 (3d Cir. 1986) ("We agree with the district court that to supply an element of specific intent here would be impermissible 'judicial legislation.'"); Stepniewski v. Gagnon, 732 F.2d 567, 571 (7th Cir. 1984) ("A state's decisions regarding which actions or activities will give rise to strict criminal liability rest within that state's sound legislative discretion."); *Ayo-Gonzalez*, 536 F.2d at 658 ("The question, then, is primarily one of legislative intent, but the result must comport with fundamental constitutional standards.").

84. 342 U.S. 246 (1952).

85. *See Morissette*, 342 U.S. at 247, 276.

86. *See id.* at 248-49.

87. *See id.* at 276.

88. *Id.* at 256.

> The industrial revolution multiplied the number of workmen exposed to injury from increasingly powerful and complex mechanisms . . . . Traffic of velocities, volumes and variety unheard of came to subject the wayfarer to intolerable casualty risks . . . . Congestion of cities and crowding of quarters called for health and welfare regulations . . . . [W]ide distribution of goods became an instrument of wide distribution of harm . . . . Such dangers have engendered increasingly numerous and detailed regulations which heighten the duties of those in control of particular industries, trades, properties or activities that affect public health, safety or welfare.

Id. at 253-254.

> [L]awmakers, whether wisely or not, have sought to make such regulations more effective by invoking criminal sanctions . . . aptly called 'public welfare offenses' . . . . Many of these offenses are not in the nature of positive aggressions or invasions, with which the common law so often dealt, but are in the nature of neglect where the law requires care, or inaction where it imposes a duty. Many violations of such regulations result in no direct or immediate injury to person or property but merely create the danger or probability of it which the law seeks to minimize . . . . In this respect, whatever the intent of the violator, the injury is the same, and the consequences are injurious or not according to fortuity. Hence, legislation applicable to such offenses, as a matter of policy, does not specify intent as a necessary element. The accused, if he does not will the violation, usually is in a position to prevent it with no more care than society might reasonably expect and no more exertion than it might reasonably exact from one who assumed his responsibilities. Also, penalties commonly are relatively small, and conviction does no grave damage to an offender's reputation.

Id. at 254-56. For examples of cases and authorities citing or quoting *Morissette*, see Levenson, *supra* note 18, at 419 n.93; United States v. Wulff, 758 F.2d 1121, 1123 (6th Cir. 1985); *Ayo-Gonzalez*, 536 F.2d at 657-58.

of the Supreme Court's own affirmations of strict criminal liability in the cases listed above.[89] In fact, the *Morissette* decision turned not on the magnitude of the criminal penalties, for Morissette was convicted of a misdemeanor violation,[90] but rather on statutory interpretation.[91] The Supreme Court treated the offense as one based on common law antecedents, for which the Court will not dispense with *mens rea* absent a clear intent by Congress to do so, rather than a public welfare offense.[92] Thus, properly interpreted, *Morissette* is an expression of courts' reluctance to interpret ambiguous criminal statutes as imposing strict liability; it is not an expression of a limit on the power of Congress to impose strict liability.

V. JUDICIAL UNEASINESS WITH STRICT CRIMINAL LIABILITY

The justification for strict criminal liability is that it shifts the risks of dangerous activity to those best able to prevent a mishap.[93] As Dean Roscoe Pound

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Sometimes, the reliance on *Morissette* appears to be deliberately selective. For example, the Supreme Court in *Staples* cited and relied upon the *Morissette* description of commonly small penalities, and with citations to numerous state court cases, but ignored the many Supreme Court affirmations of strict criminal liability, with the exception of a single "but see" citation to *Balint*. *See* Staples v. United States, 511 U.S. 600, 616-619 (1994).

89. *See supra* Part IV (Judicial Acceptance of Strict Criminal Liability). *See also* Levenson, *supra* note 18, at 404 n.16 ("Furthermore, the Supreme Court has fostered a misperception that culpability is irrelevant because of the absence of severe penalties."); *id.* at n.17 (listing federal and state strict criminal liability felony cases in which maximum sentences could have been as much as five or ten years in prison for narcotics, pornography, securities fraud, bribery, bank loan, and criminal syndicalism offenses). Furthermore, as many have observed, even a misdemeanor conviction can have a significant effect upon one's reputation. *See* United States v. Engler, 806 F.2d 425, 434 (3rd Cir. 1986) ("The differences between the objective penalties of the misdemeanor and felony provisions of the Act is, for due process purposes, de minimus.").

90. *See Morissette*, 342 U.S. at 248. Morissette was sentenced to two months imprisonment or a fine of $200. *Id.* The maximum penalty provided by the statute was one year imprisonment or a fine of up to $1000. *See id.* n.2.

91. *See id.* at 263-73. *See also*, Jenkins, *supra* note 18, at 620 (stating that *Morissette* stands for the proposition that Congressional intent must be determined when criminal intent is omitted); Stepniewski v. Gagnon, 732 F.2d 567, 570 (7th Cir. 1984) (stating that the *Morissette* Court enunciated factors as general policy concerns which explain the historical development of strict liability crimes). *Morissette* established an interpretative presumption that crimes having their origin in the common law will not be construed as eliminating the element of a mens rea absent a clear intent by Congress to eliminate the element. *See* United States v. United States Gypsum Co., 438 U.S. 422, 437 (1978). *See also Morissette*, 342 U.S. at 265 ("[I]t is significant that we have not found, nor has our attention been directed to, any instance in which Congress has expressly eliminated the mental element from a crime taken over from the common law.").

92. *See Morissette*, 342 U.S. at 252-53 ("However, the *Balint* and *Behrman* offenses belong to a category of another character, with very different antecedents and origins. The crimes there involved depend on no mental element but consist only of forbidden acts or omissions.").

93. This rationale for strict criminal liability parallels the rational for strict tort liability. The foundation for strict liability in tort is that the defendant has possession and power to control. *See* KEETON, *supra* note 22, at 541 (discussing strict liability for damages caused by trespassing livestock). In the case of strict liability in tort, the public policy at play is that the person who brought into the community an unusual, abnormal, or unnatural activity should bear the costs of misadventure regardless of fault. *See id.* § 75, at 536-537.

said: "'[Strict liability] statutes are not meant to punish the vicious will but to put pressure upon the thoughtless and inefficient to do their whole duty in the interest of public health or safety or morals.'"[94] The Supreme Court has voiced a similar rationale:

> The accused, if he does not will the violation, usually is in a position to prevent it with no more care than society might reasonably expect and no more exertion than it might reasonably exact from one who assumed his responsibilities.[95]

It is frequently argued, with good cause, that sweeping up the innocent[96] with the guilty, as is the case for strict liability without defenses, does not serve the objective of shifting risks to those best able to prevent mishap, nor does it serve any other reasonable societal purpose.[97]

Whatever value strict criminal liability may have against those with the ability to prevent harm, there is no utility when all reasonable means and care have been taken *and* the activities are commonly accepted as necessary to modern society.[98] Therefore, "[s]trict liability laws are inefficient because they tend

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Strict liability in tort is essentially a cost-shifting provision that does not depend upon the degree of care but simply on the defendant's choice to undertake the activity. *See id.* § 78, at 556 ("The point is that certain conditions and activities may be so hazardous to another or to the public generally and of such relative infrequent occurrence to justify allocating the risk of loss to the enterpriser engaging in such conduct as a cost of doing business."). Thus, even in the absence of culpability on the part of the defendant, a rational societal purpose is served. In contrast, strict criminal liability does not shift the burden of misadventure from the victim to the initiator of the activity. If there is also no means by which even the most careful defendant could have avoided misadventure, then strict criminal liability serves no purpose other than to frighten citizens into avoiding activities that are useful or even necessary to a modern society.

94. Levenson, *supra* note 18, at 419 n.95 (quoting ROSCOE POUND, THE SPIRIT OF THE COMMON LAW 52 (1921)).

95. United States v. Park, 421 U.S. 658, 671 (1975) (quoting *Morissette*, 342 U.S. at 256).

96. For examples of "innocent" defendants in strict criminal liability cases, see Levenson, *supra* note 18, at 403 n.6 (citing cases concerning reliance on state licensed personnel, and long-standing practices and directions by a supervisor in the defendant's government office). Although beyond the scope of this article, corporate officers and supervisors without knowledge of their subordinates' wrongdoing are not "innocent." One of the most succinct explanations for why they are not innocent was given in an early English criminal case against corporate directors who were ignorant of illegal disposal of waste. "'[I]f persons for their own advantage employ servants to conduct works, they must be answerable for what is done by those servants.'" Zipperman, *supra* note 6, at 125 (quoting Rex v. Medley, 172 Eng. Rep. 1246, 1250 (K.B. 1834)). *See also* United States v. Parfait Powder Puff Co., 163 F.2d 1008, 1010 (7th Cir. 1947) (a responsible party may not avoid criminal liability by delegating responsibility to a subordinate).

97. *See* Levenson, *supra* note 18, at 425 ("Opponents of the strict liability doctrine argue that its justifications are inconsistent with both utilitarian and retributivist theories of punishment."). The statement assumes that retribution remains an acceptable basis for punishment. In *Morissette*, discussing the historical requirement for scienter, the Supreme Court quoted its previous observation that: "'Retribution is no longer the dominate objective of the criminal law . . . . We also there referred to a prevalent modern philosophy of penology that the punishment should fit the offenders and not merely the crime." *Morissette*, 342 U.S. at 251 n.5 (quoting Williams v. New York, 337 U.S. 241, 247 (1949)).

98. Levenson observed: "If the defendant crosses those limits, intentionally or unintentionally, society will seek to punish the defendant's behavior. The strict liability doctrine thereby serves an important function of setting firm limits on conduct that society is loath to tolerate." Levenson, *supra* note 18, at 424. That may be true in the instance Levenson gives as an example, felony

to over-deter individuals' behavior."[99] In addition, strict criminal liability reverses the classic principle of the common law that "it is better that ten guilty persons escape than one innocent person suffer."[100] For these reasons, many courts have expressed misgivings about the application of strict criminal liability,[101] including under the MBTA.[102] Perhaps most frequently cited concerning the extent of MBTA strict liability are the Second Circuit decision in *United States v. FMC Corp.*,[103] and two federal district court cases.[104]

In *FMC Corp.*, the court affirmed MBTA misdemeanor convictions for bird deaths resulting from FMC's discharge of wastewater, from pesticide manufacturing, into a pond that attracted migratory birds.[105] After migratory birds were found dead at the pond, FMC attempted various measures to scare the birds

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murder, but for felony murder, the defendant normally undertakes to commit some felony requiring a wrongful intent. In other cases, the quoted rationale misses the point that, in the course of seeking to brand conduct society is loath to tolerate, Congress may also punish activity that is useful and necessary to a modern society that may inevitably kill some birds regardless of the degree of care and attention exercised by those undertaking the activity.

99. Levenson, *supra* note 18, at 426, 427 n.137 (quoting Herbert L. Packer, *Mens Rea and the Supreme Court*, 1962 SUP. CT. REV. 107, 109). While it may be true that strict criminal liability may overdeter, the objection does not address the question of whether it is for Congress to make the policy judgment or for the courts.

100. Levenson, *supra* note 18, at 427 (quoting WILLIAM BLACKSTON, OXFORD DICTIONARY OF QUOTATIONS 73 (2d ed. 1972)); *see* Zipperman, *supra* note 6, at 140-41 (same).

101. *See Morissette*, 342 U.S. at 256 (Courts have construed public welfare statutes that are silent as to intent as dispensing with the intent requirement but "[t]his has not, however, been without expressions of misgiving.").

102. For example, the Seventh Circuit, in *United States v. Van Fossan*, affirmed a conviction for poisoning pigeons that the city authorities had ordered the defendant to remove. *See* United States v. Van Fossan, 899 F.2d 636 (7th Cir. 1990). The Court observed that:

> People who assault federal officers commit a federal crime without knowing that the victim is a federal officer . . . perhaps those who assault birds need not know the victims are migratory. On the other hand, an attack on a person is presumptively criminal, and the offender has no compelling interest in which body of law supplies the penalty.

Van Fossan, 899 F.2d at 639 (citation omitted). The Sixth Circuit, in the course of affirming a conviction for hunting on a baited field, observed that strict liability is a harsh rule, which can ensnare the subjectively innocent, but that it is for Congress and the Secretary of the Interior to change it. *See* United States v. Catlett, 747 F.2d 1102, 1105 (6th Cir. 1984) ("We concede that [strict liability] is a harsh rule and trust that prosecution will take place in the exercise of sound discretion only."). *See also* United States v. Brandt, 717 F.2d 955, 958 (6th Cir. 1983) ("The hunter is therefore placed in a precarious position. He must determine the intent of the individual who seeded the area before undertaking the hunt and, if he errs in that determination, he is criminally responsible. A subjectively 'innocent' person can unwittingly run afoul of the regulation.").

103. 572 F.2d 902 (2nd Cir. 1978). For discussions of *United States v. FMC Corp.*, see George Cameron Coggins & Sebastian T. Patti, *The Resurrection and Expansion of the Migratory Bird Treaty Act*, 50 U. COLO. L. REV. 165, 188-89, 191-92, 196 (1979), Scott Finet, *Habitat Protection and the Migratory Bird Treaty Act*, 10 TUL. ENVTL. L. J. 1, 17 nn.72-73, 18 nn.75-76 (1996), and Benjamin Means, *Prohibiting Conduct, Not Consequences: The Limited Reach of the Migratory Bird Treaty Act*, 97 MICH. L. REV. 823, 825 nn.11-13 (1998).

104. *See* United States v. Rollins, 706 F. Supp. 742, 744 (D. Idaho 1989); United States v. Corbin Farm Serv., 444 F. Supp. 510, 536 (E.D. Cal.), *aff'd*, 578 F.2d 259 (9th Cir. 1978). For discussions of *Corbin Farm*, see Coggins & Patti, *supra* note 103, at 185-87, 191-92; Finet, *supra* note 103, at 16 n.69, 18 n.75, and Means, *supra* note 103, at 825 nn.11-12.

105. *See FMC Corp.*, 572 F.2d at 905, 908.

away from the pond, including Styrofoam floats, loud cannon explosions, and guards.[106] Neighbors complained of the noise, and the guards fell asleep and neglected their duties.[107] "FMC argue[d] that it had no intention to kill birds, that it took no affirmative act to do so, possessed no scienter, and thus should not be held liable under the Act."[108]

The Second Circuit rejected FMC's arguments, quoting from *Morissette* that, "[t]he criminal law may punish 'neglect where the law requires care, or inaction where it imposes a duty.'"[109] Analogizing to strict liability in tort, the court noted that FMC was engaged in the manufacture of a dangerous pesticide and, therefore, Congress in the MBTA reasonably held such persons strictly accountable for unforeseeable consequences of this extra-hazardous activity.[110] Nonetheless, the court was careful to note that "[i]mposing strict liability on FMC in this case does not dictate that every death of a bird will result in imposing strict criminal liability on some party."[111] The court also noted that "[c]ertainly construction that would bring every killing within the statute, such as deaths caused by automobiles, airplanes, [or] plate glass modern office buildings . . . would offend reason and common sense."[112] The court noted that, in any event, "'(a)n innocent technical violation . . . can be taken care of by the

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106. *See id.* at 905.

107. *See id.*

108. *Id.* at 906.

109. *Id.* at 907 (quoting United States v. Morissette, 342 U.S. 246, 255 (1952)).

110. *See FMC Corp.*, 572 F.2d at 907-08. The Supreme Court's opinion in *Staples v. United States* described "'deleterious devices or products or obnoxious waste materials' [as things that] put their owners on notice that they stand 'in responsible relation to a public danger.'" Staples v. United States, 511 U.S. 600, 610-11 (1994) (quoting United States v. International Minerals & Chem. Group, 402 U.S. 558, 565 (1971) and United States v. Dotterweich, 320 U.S. 277, 281 (1943)). However, dangerousness alone is not sufficient to assume that Congress intended to impose strict liability. The appropriateness of the things to their neighborhood is also important to strict liability analysis because, as the Supreme Court stated, "[e]ven dangerous items can, in some cases, be so commonplace and generally available that we would not consider them to alert individuals to the likelihood of strict regulation." *Id.* at 611. Curiously, in light of the MBTA's strict criminal liability for hunting violations, the Supreme Court held that the destructive potential of guns does not put their owners on notice of potential regulations. *See id.* at 610-11.

The real meaning of *Staples* is that guns will not be treated as drugs were treated in *Balint*, no matter how destructive they may be. A defendant need not know the nature of drugs he or she possesses but he or she must know the nature of any firearm in order to be criminally liable for violating any regulations applicable to the type of firearm. *Compare Staples*, 511 U.S. at 611, *with Balint*, 258 U.S. at 254 ("[The Narcotic Act's] manifest purpose is to require every person dealing in drugs to ascertain at his peril whether that which he sells comes within the inhibition of the statute, and if he sells the inhibited drug in ignorance of its character, to penalize him."). The logic of the distinction may be lost on a generation that grew up with widespread use of both drugs and guns, and with frequent debates over whether to increase or loosen the regulation of each, as it would have been lost on those who grew up in an era (not long before the Court issued its decision in *Balint*) devoid of any regulation of drugs.

111. *FMC Corp.*, 572 F.2d at 908.

112. *See id.* at 905. Expressions of concern over the complexity of the law, prosecutorial discretion, and *mens rea* or scienter requirements are a frequent theme in environmental criminal law. The relationship of the myths to empirical reality has recently been examined by Kathleen F. Brickey, *The Rhetoric of Environmental Crime: Culpability, Discretion, and Structural Reform*, 84 IOWA L. REV. 115 (1998).

imposition of a small or nominal fine' [and] [s]uch situations properly can be left to the sound discretion of prosecutors and the courts."[113]

Commentators have observed that the Second Circuit relied upon the ultra hazardous nature of pesticide manufacture, and that in future MBTA cases the Second Circuit may not deem criminal seemingly less-hazardous activities that result in unintended deaths of migratory birds.[114] However, as noted by at least one authority, the Second Circuit's list of presumably non-hazardous activities itself is subject to question. For example, "a motor vehicle is a dangerous instrumentality and its operation is a task demanding constant alertness; if the motorist's attention wanders, the death of a bird or other living thing is not a bizarre occurrence."[115]

In *United States v. Rollins*,[116] Rollins had sprayed a field of alfalfa using a registered pesticide, Furadan, which he had used before without problem.[117] Unfortunately, on the instance at issue, geese ingested alfalfa and pesticide and died.[118] The District Court focused on the reasonableness of Rollin's actions and the foreseeability of the outcome.[119] The court concluded that the MBTA was vague and failed to give Rollins fair notice that poisoning migratory birds by pesticide, used in accordance with label instructions, is a crime.[120] *Rollins* clearly turned on the court's view that the outcome of the defendant's actions was not foreseeable rather than whether the outcome of "dead birds" was a violation of the MBTA.

In *United States v. Corbin Farm Service*,[121] the United States charged a pesticide dealer, his employee, an aerial spray operator, and the owner of the field sprayed, with 10 counts for bird deaths resulting from the single application of pesticides to an alfalfa field.[122] In considering pretrial motions to dismiss, the court held that:

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113. *FMC Corp.*, 572 F.2d at 905 (quoting United States v. Schultze, 28 F. Supp. 234, 236 (W. D. Ky. 1939)).

114. *See, e.g.*, MICHAEL J. BEAN & MELANIE J. ROWLAND, THE EVOLUTION OF NATIONAL WILDLIFE LAW 76-78 (3d ed. 1997); Coggins & Patti, *supra* note 103, at 190-92; Margolin, *supra* note 14, at 992-6, 999-1001; Betsy Vencil, *The Migratory Bird Treaty Act—Protecting Wildlife on Our National Refuges—California's Kesterson Reservoir, a Case in Point*, 26 NAT. RESOURCES J. 609, 616-25 (1986); Woodrum, *supra* note 14, at 248-52.

115. Coggins & Patti, *supra* note 103, at 192. *See also infra* Part VII (Bird Deaths Caused By Instrumentalities of Modern Civilization Are Foreseeable and Avoidable). Lower courts are not alone in their solicitude to automobile drivers. In *Staples*, the Supreme Court suggested that it would not accept strict criminal liability for automobile emission control violations absent a clear expression of Congressional intent. *See Staples*, 511 U.S. at 614. The Court's suggestion in *Staples* is inconsistent with the prevalence of strict criminal liability for speeding violations and with the Court's decision in *Chicago, B., & Q. Ry. v. United States*, in which it held that the defendant's reasonable care and ignorance of deficiencies in train car repairs was no defense to an enforcement action. *See* Chicago, Burlington, & Quincy Ry. v. United States, 220 U.S. 559, 568-70, 579 (1911).

116. 706 F. Supp. 742 (D. Idaho 1989).

117. *See Rollins*, 706 F. Supp. at 743.

118. *See id.*

119. *See id.* at 743-44

120. *See id.* at 744-45.

121. 444 F. Supp. 510 (E.D. Cal. 1978), *aff'd*, 578 F.2d 259 (9th Cir. 1978).

122. *See* Corbin Farm Serv., 444 F. Supp. at 515.

> The instant case is one in which the guilty act alone is sufficient to make out the crime. When dealing with pesticides, the public is put on notice that it should exercise care to prevent injury to the environment and to other persons; a requirement of reasonable care under the circumstances of this case does not offend the Constitution. If defendants acted with reasonable care or if they were powerless to prevent the violation, then a very different question would be presented.[123]

Thus, the District Court in *Corbin Farm* based its decision on the known hazards of pesticides and the foreseeable consequences, as had the Second Circuit in *FMC Corp.* It made explicit the reasonable care standard implicit in *Rollins*, thereby raising the possibility of a due care defense.[124]

VI. DEFENSES, LIMITATIONS, AND AMELIORATIONS TO STRICT LIABILITY

In an effort to ameliorate the harsh effects of strict criminal liability with respect to the "innocent," courts have relied upon a number of theories and defenses, including reinterpretation of the statute,[125] due process, proximate causation,[126] minimal punishment, good faith, due care, impossibility, and relying on prosecutorial discretion.[127] Often courts use defenses to obtain "justice" in indi-

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123. *Id.* at 536 (citing United States v. Wiesenfeld Warehouse Co., 376 U.S. 86, 91-92 (1964)).

124. *See* BEAN, *supra* note 114, at 76-78; Coggins & Patti, *supra* note 103, at 186-87; Margolin, *supra* note 14, at 994-96, 999-1001; Woodrum, *supra* note 14, at 252-53.

125. *See* Levenson, *supra* note 18, at 429 & n.148 (citing examples of cases reading an intent requirement in statutory crimes).

126. *See infra* Part VI.C (Proximate Causation).

127. *See* Levenson, *supra* note 18, at 432-33. Arguably, still other defenses could be raised. For example, the Cruel and Unusual Punishment Clause might be invoked to bar particularly severe punishment of a defendant the court views as innocent of wrongdoing. *See, e.g.*, Stepniewski v. Gagnon, 732 F.2d 567, 571 n.3 (1984) (the Cruel and Unusual Clause "proscribes punishment grossly disproportionate to the severity of the crime . . . .") (quoting Ingraham v. Wright, 430 U.S. 651, 667 (1977)). The ambiguity of the terms "severe punishment" and "innocence" leave a great deal of room for creativity. *See, e.g.*, Lambert v. California, 355 U.S. 225, 227, 229 (1957) (describing a $250 fine and three years probation as "heavy criminal penalties").

In at least two situations, the Supreme Court has observed that a number of related theories have been used independently and together to adjust the balance between protecting the innocent and convicting the corrupt.

> The doctrines of actus reus, mens rea, insanity, mistake, justification, and duress have historically provided the tools for a constantly shifting adjustment of the tension between the evolving aims of the criminal law and changing religious, moral, philosophical, and medical views of the nature of man. This process of adjustment has always been thought to be the province of the States.

Montana v. Egelhoff, 518 U.S. 37, 56 (1996) (quoting Powell v. State of Texas, 392 U.S. 514, 535-36 (1968)). One might add good faith to the list.

An additional defense to strict liability in tort is performance of a public duty. *See* KEETON, *supra* note 22, § 79, at 567. An analogous issue under the MBTA remains undecided, that being whether government contractors share the federal government's immunity from prosecution. *See* Sierra Club v. Martin, 110 F.3d 1551, 1555 (11th Cir. 1997) ("It [the MBTA] does not apply to the federal government."); Newton County Wildlife Ass'n v. United States Forest Serv., 113 F.3d 110, 115 (8th Cir. 1997) ("MBTA does not appear to apply to the activities of federal government agencies."); Curry v. United States Forest Serv., 988 F. Supp. 541, 548 (W.D. Pa. 1997) ("The MBTA, by its plain language, does not subject the federal government to its prohibitions").

vidual cases while still upholding a strict liability interpretation of the criminal statute.[128]

A. *Reinterpretation*

Although most courts have consistently held the MBTA criminal provisions to be strict liability crimes, some courts have struggled with whether to read an intent requirement into the MBTA criminal provisions.

In the course of rejecting a due process challenge to the MBTA, the Third Circuit held that, if there were a due process problem, it would be "impermissible 'judicial legislation'" to correct the statute by adding an intent element to the MBTA felony provision.[129] On the other hand, in reviewing a misdemeanor conviction for violation of baiting regulations, the Fifth Circuit chose to part company with every other Circuit Court of Appeals and to interpret MBTA regulations as requiring elements of intent.[130] Significantly, in both instances in which a federal circuit court expressed objections to the absence of scienter in a MBTA prosecution, Congress has amended the statute, even when the weight of judicial authority supported strict criminal liability under the MBTA.[131]

However, in a recent decision, the Court of Appeals for the District of Columbia held that the MBTA does apply to federal government officials, at least in some instances. *See* Humane Soc'y of the United States v. Glickman, 217 F.3d 882 (D.C. Cir. 2000) (MBTA prohibitions against harming birds apply to the federal government but the criminal sanctions do not).

128. Apparently even the most ardent supporters of the MBTA among environmentalists are not prepared to argue for strict criminal liability in all instances. For example, environmentalists have challenged the FWS for not restricting loggers but has not argued for an elimination of bird mortality, instead arguing for a significant reduction. *See, e.g.*, Submission to the Commission on Environmental Cooperation Pursuant to Article 14 of the North American Agreement on Environmental Cooperation, submitted by Alliance for the Rockies, *et al.*, November 17, 1999, Section 6, page 17 (ID: SEM-99-002) ("FWS has the flexibility to craft regulations that implement and enforce the MBTA in a way that significantly reduces the impacts of logging operations on migratory birds while allowing logging, an activity that the Submitting Parties recognize as an economically valuable use of forests."), <http://www.cec.org/citizen/guides_registry/registrytext.efm?%varlan=english&documentid=220>.

129. United States v. Engler, 806 F.2d 425, 431 (3d Cir. 1986) (quoting United States v. Engler, 627 F. Supp. 196, 199 (M. D. Pa. 1985).

130. *See* United States v. Delahoussaye, 572 F.2d 910, 912 (5th Cir. 1978). The Fifth Circuit's decision was based in part on a desire not to see judges as defendants in MBTA prosecutions. *See Delahoussaye*, 573 F.2d at 912-13 ("Any other interpretation would simply render criminal conviction an unavoidable occasional consequence of duck hunting and deny the sport to those such as, say, judges who might find such a consequence unacceptable."). At least one court has also read an intent requirement into the MBTA in instances of indirect action modifying habitat, such as, logging. *See* Mahler v. United States Forest Serv., 927 F. Supp. 1559, 1579 (S.D. Ind. 1996) ("The MBTA does not apply to other activities [other than those intended to harm birds] that result in unintended deaths of migratory birds."). However, other courts addressing logging have not relied upon the defendant's intention, but, instead, rely solely on the purported indirect nature of the harm to birds. *See, e.g.*, Seattle Audubon Soc'y v. Evans, 952 F.2d 297, 303 (9th Cir.1991) ("[Precedent does] not suggest that habitat destruction, leading indirectly to bird deaths, amounts to the 'taking' of migratory birds within the meaning of the Migratory Bird Treaty Act.").

131. *Compare* Emergency Wetlands Resources Act of 1986, Section 501, Pub. L. No. 99-645, 100 Stat. 3582, 3590 (1986) (amending 16 U.S.C. § 707(b) felony provision to include requirement for knowledge), *with supra* note 17 (cases affirming strict MBTA criminal liability).

B. *Due Process*

> The Due Process Clause contains basically four requirements for criminal statutes. Due process: (1) prohibits statutes from shifting burdens of proof onto defendants; (2) prohibits the punishment of wholly passive conduct; (3) protects against vague and overbroad statutes; and (4) requires that statutes give fair warnings of prohibited conduct. 'The due process clause imposes little other restraint on the state's power to define criminal acts.' . . . Essentially, the more a regulation prohibits what an average citizen would consider wholly innocent behavior, the more likely a legislature must require knowledge of the law as an element of the crime.[132]

Due process challenges to strict criminal liability have focused on the second (punishment of passive conduct) and fourth (fair warning) requirements of due process.

Perhaps the leading case for the due process defense to strict criminal liability was *Lambert v. California*.[133] Lambert was a resident of Los Angeles for over seven years and, during that time, she was convicted of forgery, a felony.[134] The Los Angeles Municipal Code made it unlawful for any felon to stay in Los Angeles for more than five days without registering,[135] which Lambert failed to do.[136] She was convicted of failing to register, fined $250, and placed on probation for three years.[137] The Supreme Court characterized Lambert's conduct as "wholly passive—mere failure to register. It is unlike the commission of acts, or the failure to act under circumstances that should alert the doer to the consequences of his deed."[138] Stating that a requirement of notice is engrained in the concept of due process, the Court held that the registration requirement violated due process, in the absence of either proof that the defendant had actual knowledge of the requirement or that she had an opportunity to register and avoid criminal penalties once she learned of the ordinance.[139] One might ask whether the result would

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132. Jenkins, *supra* note 18, at 600-01 (internal citations omitted); *accord Stepniewski*, 732 F.2d at 571. *But see* United States v. Wulff, 758 F.2d 1121, 1125 (6th Cir. 1985) (MBTA felony provision was a strict liability crime but, as such, it violated due process because the penalty was not "relatively small" and a conviction might "gravely besmirch" the defendant's reputation). Taking exception to the Sixth Circuit's conclusions, the Third Circuit found no due process problem with strict criminal liability. *See Engler*, 806 F.2d at 433. Significantly, affirming the strict criminal liability, the Third Circuit rejected the prosecution's concession that the absence of a scienter requirement in the MBTA felony provision violated due process. *See id.*

133. 355 U.S. 225 (1957).

134. *Lambert*, 355 U.S. at 226.

135. *See id.*

136. *See id.*

137. *See id.* at 227.

138. *Id.* at 228.

139. *See id.* at 228-29. In a subsequent opinion, the Supreme Court described its *Lambert* decision as holding "that a person could not be punished for a 'crime' of omission, if that person did not know, and the State had taken no reasonable steps to inform him, of his duty to act and of the criminal penalty for failure to do so." Powell v. Texas, 392 U.S. 514, 535 n.27 (1968). Although not mentioned by the Court in the quoted passage, in *Lambert*, the Court's concern that the defendant, upon learning of the registration requirement, was unable to register without risking a criminal penalty suggests Fifth Amendment self-incrimination issues were coupled with the due process

have been the same if Lambert had moved into Los Angeles (active conduct) after conviction of a felony, or if her felony conviction had been for child molesting.[140]

In *United States v. Engler*,[141] the Third Circuit reviewed a conviction under the original, strict liability felony provision of the MBTA, for sale of bird parts. In a very thoroughly reasoned opinion, the Third Circuit observed that the Supreme Court has repeatedly affirmed felony convictions in strict liability criminal prosecutions.[142] From its review of the Supreme Court cases, the Third Circuit discerned criteria for distinguishing permissible and impermissible use of strict liability in criminal cases, particularly in light of *United States v. Freed.*

> There [in *Freed*], the Court distinguished two types of strict liability crimes. Strict liability for omissions which are not "per se blameworthy" may violate due process because such derelictions are "'unlike the commission of acts, or the failure to act under circumstances that should alert the doer to the consequences of his deed.'" By contrast, due process is not violated by the imposition of strict liability as part of "a regulatory measure in the interest of public safety, which may well be premised on the theory that one would hardly be surprised to learn that [the prohibited conduct] is not an innocent act."[143]

In *Lambert* terms, Engler's conduct was active and such that Engler should have known there would be regulations governing his trade.

C. *Proximate Causation*

The Supreme Court has observed that:

> In a philosophical sense, the consequences of an act go forward to eternity, and the causes of an event go back to the dawn of human events, and beyond. But any attempt to impose responsibility upon such a basis would result in infinite liability for all wrongful acts, and would 'set society on edge and fill the courts with endless litigation.'[144]

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notice problem. *See Lambert*, 355 U.S. at 229 ("this appellant . . . was given no opportunity to comply with the law and avoid its penalty, even though her default was entirely innocent.").

140. *See* 42 U.S.C.A. § 14072(i) (Supp. 2000) (knowing failure of certain sexual offenders to register with the FBI is punishable by up to one year in prison and, for second offenses, by up to 10 years). Justice Frankfurter, writing in dissent in *Lambert*, said "I feel confident that the present decision will turn out to be an isolated deviation from the strong current of precedents—a derelict on the waters of the law." *Lambert*, 355 U.S. at 232 (Frankfurter, J., dissenting).

141. 806 F.2d 425 (3d Cir. 1986).

142. *See Engler*, 806 F.2d at 433-36 (citing United States v. Freed, 401 U.S. 601 (1971) (possession of unregistered firearm); Williams v. North Carolina, 325 U.S. 226 (1945) (bigamous cohabitation); United States v. Dotterweich, 320 U.S. 277 (1943) (shipment of misbranded or adulterated drugs; felony for subsequent offenses); United States v. Balint, 258 U.S. 250 (1922) (unlawful drug sale); Shevlin-Carpenter Co. v. Minnesota, 218 U.S. 57 (1910) (cutting timber on state lands)).

143. *Engler*, 806 F.2d at 435 (quoting United States v. Freed, 401 U.S. 601, 608, 609 (1971)) (internal citations omitted).

144. Holmes v. Securities Investor Protection Corp., 503 U.S. 258, 266 n.10 (1992) (quoting KEETON, *supra* note 22, § 41, at 264 (quoting North v. Johnson, 58 Minn. 242, 245, 59 N.W. 1012 (1894))).

Proximate causation is a tool courts use to "limit a person's responsibility for the consequences of that person's own acts."[145]

In *Babbitt v. Sweet Home*,[146] an Endangered Species Act (ESA)[147] case, proponents of logging challenged ESA regulations which expanded the statutory definition of harm to include significant "habitat modification or degradation where it actually kills or injures wildlife."[148] In responding to the dissent's contention that the ESA provisions could encompass remote and unforeseeable consequences, the majority of the Supreme Court suggested that proximate causation would be required.[149]

> We do not agree with the dissent that the regulation covers results that are not "even foreseeable . . . no matter how long the chain of causality between modification and injury." Respondents have suggested no reason why either the "knowingly violates" or the "otherwise violates" provision of the statute — or the "harm" regulation itself — should not be read to incorporate ordinary requirements of proximate causation and foreseeability.[150]

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145. *Holmes*, 503 U.S. at 268. *Holmes* listed three reasons for requiring proximate causation in civil cases, two of which also have application to criminal case: "First, the less direct the injury is, the more difficult it becomes to ascertain the amount of a plaintiff's damages attributable to the violation, as distinct from other, independent factors . . . . And, finally, the need to grapple with these problems [of remote causation] is unjustified by the general interest in deterring injurious conduct . . . ." *Holmes*, 503 U.S. at 269.

146. 515 U.S. 687 (1995). For discussion of the *Sweet Home* decision and its implications, *see generally* Tara L. Mueller, *Babbitt v. Sweet Home Chapter of Communities: When Is Habitat Modification A Take?*, 3 HASTINGS W.N.W. J. ENVTL. L. & POL'Y 333 (1996).

147. Endangered Species Act, 16 U.S.C. §§ 1531- 1544 (1994). The ESA includes a general intent crime requiring knowing conduct. *See Sweet Home*, 515 U.S. at 696 n.9 (citing 16 U.S.C. §§ 1540(a)(1), (b)(1)). The ESA also includes a strict liability civil penalty provision applicable to "any person who otherwise violates" the Act. *See Sweet Home*, 515 U.S. at 696 n.9 (citing 16 U.S.C. § 1540(a)(1)).

148. *Sweet Home*, 515 U.S. at 691-92.

149. *See id.* at 696 n.9. The foreseeability (and avoidability) analysis introduced by proximate cause analysis relates to outcomes of actions and is distinct from the foreseeability of the existence of regulations by one possessing or using deleterious materials. *See supra* Part IV (Judicial Acceptance of Strict Criminal Liability) (discussing rationales used by courts affirming strict criminal liability).

150. *Sweet Home*, 515 U.S. at 696 n.9. *See also id.* at 700, n.13 (the regulation is subject to "ordinary requirements of proximate causation and foreseeability"). Justice O'Connor, in a concurring opinion, agreed that criminal liability is limited by proximate causation. *See id.* at 709 (O'Connor, J., concurring) ("the regulation's application is limited by ordinary principles of proximate causation, which introduce notions of foreseeability."). Writing in dissent, Justice Scalia, joined by two others, agreed that criminal liability is limited by proximate causation under the ESA but he differed as to the meaning of proximate cause. *See id.* at 732 (Scalia, J., dissenting) ("In fact 'proximate' causation simply means 'direct' causation.") (citing BLACK'S LAW DICTIONARY 1103 (5th ed. 1979)).

Additional insight into the thinking of the Supreme Court on proximate cause can be gotten by examining its decision in *Jerome B. Grubart, Inc. v. Great Lakes Dredge & Dock Company*, 513 U.S. 527 (1995), an admiralty tort case. Justice O'Connor authored the *Grubart* opinion. She also wrote a concurring opinion in *Sweet Home* that discussed proximate causation at length. *See Sweet Home*, 515 U.S. at 708-14 (O'Connor, J., concurring). The Court did not explain the limits imposed by proximate causation but, in *Grubart*, it did describe those limits as being *less*

Recently, in *United States v. Moon Lake Electrical Ass'n.*,[151] an MBTA case involving arguably unintended bird deaths, a district court invoked proximate causation. Moon Lake was charged with electrocution of migratory birds, caused by Moon Lake's failure to install inexpensive protective devices on 2,450 power poles.[152] Although the court affirmed that the MBTA imposes strict liability, the court went on to state "the government must prove that Moon Lake's power lines constitute the cause in fact, as well as the proximate cause, of death."[153]

> [T]he government must prove proximate causation, also known as "legal causation," beyond a reasonable doubt. In this context, "proximate cause" is generally defined as "that which, in a natural and continuous sequence, unbroken by any efficient intervening cause, produces the injury and without which the accident could not have happened, if the injury be one which might be reasonably anticipated or foreseen as a natural consequence of the wrongful act."[154]

Application of proximate causation (foreseeability) to MBTA offenses is an avenue courts may use to solve the dilemma of "absurd and unintended results"[155] that may "offend reason and common sense."[156] For the traditional direct harm cases, such as hunting, poaching, and trapping, harm is intended and, therefore, extremely foreseeable. For the indirect harm cases, proximate causation analysis provides a method for distinguishing foreseeable harms, for which defendants may reasonably be held accountable, from unforeseeably remote harms, for which some courts do not believe persons may reasonably be held accountable.[157]

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stringent than those proposed by Grubart which were that the harm be close in time and space to the activity that caused it: that it must occur "reasonably contemporaneously" with the negligent conduct and within reach of the device causing the harm. *Grubart*, 513 U.S. at 536.

151. 45 F. Supp. 2d 1070 (D. Colo. 1999).

152. *See Moon Lake*, 45 F. Supp. 2d at 1071.

153. *Id.* at 1077.

154. *Id.* at 1085 (quoting BLACK'S LAW DICTIONARY 1225 (6th Ed. 1990)). The court in *Moon Lake* relied upon the Supreme Court's decision in *Sweet Home*. *See id.* at 1077 (citing *Sweet Home*, 515 U.S. at 692).

155. *Moon Lake*, 45 F. Supp. 2d at 1085.

156. United States v. FMC, 572 F.2d 902, 905 (1978). Related to proximate cause is the absence of the actus reas, as when the defendant acted involuntarily. *See* Levenson, *supra* note 18, at 431 (giving as an example an epileptic's actions during a seizure). Levenson states that British courts have used the absence of an actus reas to avoid strict liability for serious crimes, for example when another slips narcotics into the defendant's bag without the defendant's knowledge). *See* Levenson, *supra* note 18, at 431 n.156 (citing Regina v. Warner, [1968] 2 W.L.R. 1303, 1345 (Eng.)). *See also* KEETON, *supra* note 22, § 79, at 563-64 (defendant is not strictly liable in tort for forces of nature and independent actions of third persons or animals not reasonably foreseeable).

157. Notwithstanding that MBTA crimes have no requirement for scienter, a proximate causation requirement introduces an element of knowledge. A person's knowledge or opportunities for knowledge become very relevant to the ability to foresee and avoid bird mortality. The following are some examples of evidence that might be available to prove a defendant's knowledge and opportunities for knowledge: government, educational, or industry training programs; announcements and articles in publications and trade journals; prior experience and reports, including accident and incident reports; discussions or inquiries with regulatory authorities; and permits and permit applications.

The court in *Moon Lake* indicated that it would observe the same limits on the MBTA as the Second Circuit in *FMC Corp.*, albeit under the different theory of proximate causation.

> Because the death of a protected bird is generally not a probable consequence of driving an automobile, piloting an airplane, maintaining an office building, or living in a residential dwelling with a picture window, such activities would not normally result in liability under § 707(a), even if such activities would cause the death of protected birds. Proper application of the law to an MBTA prosecution, therefore, should not lead to absurd results.[158]

To the extent that proximate cause limits criminal liability to reasonably foreseeable and avoidable consequences,[159] it adds nothing to the many alternative theories for limiting strict criminal liability, *e.g.*, due process, due care, etc. The theory offers no new criteria for distinguishing reasonably foreseeable migratory bird deaths caused by cars, planes, and towers from unexpected bird deaths caused by other less predictable causes such as the pesticides used by the defendant in *FMC*. Fundamentally, proximate causation is "in the eye of the beholder."[160] After all is said and done, proximate cause is as much a policy decision to cut off the chain of causation as it is a determination of "proximate" as opposed to "remote" causes.[161] As a policy decision, proximate causation en-

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158. *Moon Lake*, 45 F. Supp. 2d at 1085. *See* Margolin, *supra* note 14, at 1007 (endorsing "the Model Penal Code proposal that the actual result be a 'probable consequence of the actor's conduct'"). *See also infra* note 201 (probability of bird death or injury was only 0.0064 per pole per year).

159. For a description of different proximate cause tests, see Stephen Scallan, *Proximate Cause Under RICO*, 20 S. ILL. U. L.J. 455, 458-59 (1996) (analyzing "last human wrongdoer test," "cause and condition test," "justly attachable test," and *Palsgraf* foreseeability analysis).

Judge Andrews' dissent in *Palsgraf* argued that one owes a duty not to individual foreseeable victims, but to the public at large:

> Due care is a duty imposed on each one of us to protect society from unnecessary danger, not to protect A, B, or C alone . . . . Every one owes to the world at large the duty of refraining from those acts that may unreasonably threaten the safety of others. . . . Not only is he wronged to whom harm might reasonably be expected to result, but he also who is in fact injured, even if he be outside what would generally be thought the danger zone.

Palsgraf v. Long Island R.R. Co., 162 N.E. 99, 102-03 (1928) (Andrews, J., dissenting).

160. Mueller, *supra* note 146, at 338-39 (observing that proximate causation is especially in the eye of the beholder when framed in terms of "foreseeability" rather than "duty" or "remote" cause, and that the close connection between the erosion and the death of fish in the *Sweet Home* case would have been obvious to anyone with a minimal understanding of basic ecology). For a mind-bending essay on how dependent criminal liability is upon perception, or what the author calls "path-dependence," see Leo Katz, *Proximate Cause in Michael Moore's Act and Crime*, 142 U. PA. L. REV. 1513 (1994). Among other things, Mr. Katz describes the dramatically different treatment we accord deaths caused by "ducking" and deaths caused by "shielding." *See id.* at 1516-17 (describing and quoting Christopher Boorse & Roy A. Sorensen, *Ducking Harm*, 85 J. PHIL. 115 (1988)). An example is the different treatment accorded death caused by a bear capturing a camper left by her faster companion and death caused by a camper throwing his companion to the bear in order to save himself. *Id.* (citing Boorse & Sorensen at 115-16).

161. *See* Holmes v. Securities Investor Protection Corp., 503 U.S. 258, 268 (1992) ("At bottom, the notion of proximate cause reflects 'ideas of what justice demands, or of what is administratively possible and convenient.'") (quoting KEETON, *supra* note 22, § 41, at 264)). Although *Holmes* was a civil case, its description of proximate cause is equally applicable to strict criminal liability. "[T]he

croaches on the prerogative of Congress to make national policy[162] or the discretion of the prosecutor to enforce the law.

D. *Minimal Punishment*

One way to mitigate the injustice of strict criminal liability, in the absence of defenses to weed out the "innocent," would be to exercise discretion in sentencing. Such an approach has been recommended by several commentators[163] although even minimal punishment is cold consolation for the defendant who could not reasonably foresee the criminal liability or was powerless to prevent it.[164]

The reliance on light punishment, or prosecutorial discretion, is often invoked by courts, *United States v. FMC Corp.*,[165] and by Congress but it has not been universally persuasive. In *United States v. Rollins*,[166] the United States District Court for Idaho expressly rejected the reasoning of the Second Circuit in *FMC Corp.* with the observation that, "[w]ith deference to the respected tradition of the Second Circuit, a violation of due process cannot be cured by light punishment."[167]

The definition of minimum and severe criminal penalties is highly subjective. For example, in *Lambert*, the U.S. Supreme Court described a $250 fine and three-year probation as "heavy criminal penalties."[168] In order to eliminate the subjectiveness and the disparity in sentences, Congress enacted the United States Sentencing Guidelines.[169] The Guidelines attempt to foreclose sentencing discretion for most federal crimes,[170] albeit not for MBTA strict liability offenses,[171] in part because the Guidelines understandably assume that those awaiting sentencing after conviction are *not* innocent.[172]

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proximate cause inquiry is based on an unpredictable . . . policy analysis, performed on a case-by-case basis. Relying on such a policy-based analysis to limit liability for harm is inappropriate when Congress has already made the hard policy choice . . . ." Mueller, *supra* note 146, at 341. As used in torts, proximate cause is also ordinarily a policy limitation. *See* KEETON, *supra* note 22, § 79, at 560.

162. *See* Mueller, *supra* note 146, at 340-41 (in the context of the ESA and the *Sweet Home* decision, but equally applicable to the judicial limits on MBTA strict liability: "Congress has already made the hard policy choice . . . it is improper for the courts to arrogate to themselves the authority to limit an individual's liability . . . .").

163. *See* Levenson, *supra* note 18, at 433 n.168.

164. *Cf.* Robinson v. California, 370 U.S. 660, 667 (1962) ("Even one day in prison would be a cruel and unusual punishment for the 'crime' of having a common cold.").

165. 572 F.2d 902 (2d Cir. 1978). For a discussion of *FMC*, *see supra* notes 103-115 and accompanying text.

166. 706 F. Supp. 742 (D. Idaho 1989).

167. *Rollins*, 706 F. Supp. at 745.

168. Lambert v. California, 355 U.S. 225, 229 (1957).

169. United States Sentencing Commission, *Guidelines Manual* (Nov. 1998).

170. *See* U.S.S.G. § 1A3 (1998).

171. MBTA strict liability offenses are petty offenses to which the Guidelines do not apply. *Compare* Migratory Bird Treaty Act, 16 U.S.C. § 707(a) (1994 & Supp. IV 1998) (maximum sentence for MBTA strict liability misdemeanors is 6 months), *with* 18 U.S.C. § 3559(a)(7) (1994) (defining as Class B misdemeanors offenses for which the maximum sentence is 6 months) *and* U.S.S.G. § 1B.1.9 (Guidelines are not applicable to Class B misdemeanors).

172. The Sentencing Commission treated technical and administrative regulatory offenses as being of four types, beginning with failure to comply without knowledge or intent, and progressing

E. *Good Faith, Due Care, and Impossibility*

Good faith is not generally recognized as a defense to strict criminal liability.[173] Although not used as a defense in MBTA cases, good faith or due care has been suggested as a defense in *dicta*.[174] Introduction of a good faith defense shifts strict criminal liability in the direction of negligence because it makes the reasonableness of the defendant's actions and omissions an issue.[175]

An extreme form of a "due care" defense is impossibility. The U.S. Supreme Court implicitly recognized a "powerless to protect against" defense to strict criminal liability in *United States v. Wiesenfeld Warehouse Co.*[176] The Court did not discuss or rule on the possible defense other than to state that "it involves factual proof to be raised defensively at a trial on the merits"[177] and, therefore, was not before the court.

In *United States v. Park*,[178] the U.S. Supreme Court expressly recognized an affirmative defense of objective impossibility.

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to violations with knowledge or intent of consequences. *See* U.S.S.G. § 1A4(f) (Regulatory Offenses). The Guidelines make no reference to inadvertent offenses or offenses that occurred notwithstanding the exercise of due care or even extreme care by the defendant.

For environmental offenses, the Sentencing Guidelines expressly assume knowing conduct and, for misdemeanors, allow an unlimited reduction of the sentence in cases involving negligent conduct. *See id.* § 2Q1.3, comment (n.3). There is not a similar provision for wildlife offenses or environmental felonies. *See id.* §§ 2Q1 (Environment), 2Q2.1 (Offenses Involving Fish, Wildlife, and Plants).

173. *See, e.g.*, United States v. White Fuel Corp., 498 F.2d 619, 622-23 (1st Cir. 1974) (looking at the Refuse Act, 33 U.S.C. § 407, prosecution: "we reject the existence of any generalized 'due care' defense that would allow a polluter to avoid conviction on the ground that he took precautions conforming to industry-wide or commonly accepted standards"); Levenson, *supra* note 18, at 417 (stating that because liability is imposed irrespective of the defendant's knowledge or intentions, "the strict liability doctrine traditionally rejects even a reasonable mistake of a fact or circumstance material to a finding of guilt"). Arguably, one could distinguish *White Fuel* in a future case in which a defendant exceeded commonly accepted standards and took all reasonable steps to use extraordinary care.

For a case in which good faith was recognized as a defense to strict criminal liability, *see* United States v. United States Dist. Court, 858 F.2d 534 (9th Cir. 1988) (*Kantor*). *Kantor* was a child pornography case and was unique in that the absence of a good faith defense raised serious First Amendment issues. *Id.* at 540-42. The Ninth Circuit observed that the case involved an actress who "allegedly engaged in a deliberate and successful effort to deceive the entire industry . . . ." *Id.* at 543. For a thorough discussion of Kantor and of a proposal for application of a good faith defense to strict liability crimes, *see* generally Levenson, *supra* note 18.

174. *See, e.g.*, United States v. Corbin Farm Serv., 444 F. Supp. 510, 519 (E.D. Cal.), *aff'd on other grounds*, 578 F.2d 259 (9th Cir. 1978). *See* discussion of *Corbin Farm*, *supra* notes 121-124 and accompanying text.

175. *See* Levenson, *supra* note 18, at 405 n.22 ("The good faith defense essentially transforms a strict liability crime into a negligence offense, in which the defendant must prove reasonable conduct under the circumstances."). Strict criminal liability with a good faith defense would differ from a negligence offense in that the defendant would bear the burden of presenting evidence of his or her good faith even in the absence of any prosecution evidence of negligence while, for a negligence offense, the prosecution must present a *prima facie* case of negligence that necessarily denies the defendant's good faith. *Id.* at 405-06.

176. 376 U.S. 86, 91 (1964).

177. *Id.*

178. *See* United States v. Park, 421 U.S. 658 (1975).

> The theory upon which responsible corporate agents are held criminally accountable for "causing" violations of the Act permits a claim that a defendant was "powerless" to prevent or correct the violation to "be raised defensively at a trial on the merits." [But] the defendant has the burden of coming forward with evidence . . . .[179]

A few lower court decisions have considered and rejected the impossibility defense in opinions elaborating the high hurdle a defendant must clear to present the defense.[180] In *United States v. Gel Spice Co., Inc.*[181] the court noted that "impossibility is an affirmative defense,"[182] available only to individuals and not to corporations,[183] and that: "To establish the impossibility defense the corporate officer must introduce evidence that he exercised extraordinary care, but was nevertheless unable to prevent violations of the Act."[184]

In a pair of 1976 cases,[185] the Ninth Circuit accepted the concept of an affirmative defense of impossibility[186] but held that the defendants had failed to present sufficient evidence to submit the defense to the fact finder.[187] In *United States v. Y. Hata*, the court held that (1) "the duty . . . to 'remedy violations when they occur' includes the duty to consider and experiment'" with commonplace devices "long before" government inspections uncover violations,[188] and (2) the defendants failed to offer proof that "they planned and attempted to install" corrections or that those plans and attempts were frustrated by their inability to obtain materials.[189] In other words, the "defendant could have attempted to prevent the injury earlier."[190]

In *United States v. Starr*, the court held that the "duty of 'foresight and vigilance' requires the defendant to foresee and prepare" for natural and artificial occurrences.[191] For example, an infestation of mice fleeing freshly plowed fields could be anticipated with "a minimum of foresight," and, consequently,

179. *Park*, 421 U.S. at 673 (quoting *Wiesenfeld Warehouse Co.*, 376 U.S. at 91). *Park* described the impossibility defense as resting on the responsible corporate officer theory. The theory for criminal liability for responsible corporate officers is essentially the same as the rationale for strict criminal liability of individuals. *See supra* note 29 and accompanying text. Consequently, the impossibility defense should be available to individuals who are not corporate officers.

180. *See, e.g.*, United States v. Gel Spice Co., 601 F. Supp. 1205 (E.D.N.Y. 1984).

181. 601 F. Supp. at 1207 (involving the prosecution of company, its president, and its vice-president for rodent contamination of warehoused food).

182. *Gel Spice*, 601 F. Supp. at 1213 n.7.

183. *Id.* at 1212-13.

184. *Id.* at 1213.

185. United States v. Y. Hata & Co., 535 F.2d 508 (9th Cir. 1976) (affirming conviction related to bird infestation in food warehouse); United States v. Starr, 535 F.2d 512 (9th Cir. 1976) (affirming conviction for mice infestation and contamination in warehoused food caused when plowing of adjacent field drove out mice).

186. *See Hata*, 535 F.2d at 510 (requiring "sufficient appropriate facts" before allowing the defense of "objective impossibility"); *Starr*, 535 F.2d at 515 (placing an additional burden on government only if defendant offers to prove impossibility).

187. *See Hata*, 535 F.2d at 511; *Starr*, 535 F.2d at 515.

188. *Hata*, 535 F.2d at 511 (citation omitted) (finding a large wire mesh enclosure is a common device) (quoting United States v. Park, 421 U.S. 658, 672 (1975)).

189. *Id.* at 511-512.

190. Jossen, *supra* note 20, at 41.

191. *Starr*, 535 F.2d at 515 (quoting *Park*, 421 U.S. at 673).

preventing the infestation was not objectively impossible.[192] Responding to the defendant's complaint that he was the victim of a janitor's failure to carry out the defendant's instructions, the court stated, "The standard of 'foresight and vigilance' encompasses a duty to anticipate and counteract the shortcomings of delegees."[193]

It has been said that, as applied to indirect actors such as corporate supervisors, the impossibility defense converts strict criminal liability into a "standard of extraordinary care."[194]

F. *Prosecutorial Discretion*

Courts have expressly relied upon prosecutorial discretion to ameliorate the harsh results that might result from rigid application of strict criminal liability. "In such matters the good sense of prosecutors, the wise guidance of trial judges, and the ultimate judgment of juries must be trusted. Our system of criminal justice necessarily depends on 'conscience and circumspection in prosecuting officers.'"[195]

Reliance on prosecutorial discretion is often invoked by courts and Congress, but it has not been universally persuasive nor accepted without misgivings.[196] That courts have, in some cases, rejected strict criminal liability is evi-

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192. *Id.* at 515. For a case that recognized the possibility of a defense based on intervening acts of third parties, arguably a form of an impossibility defense, see United States v. White Fuel Corp., 498 F.2d 619, 623-24 (1st Cir. 1974) (rejecting due care as a defense to Refuse Act, 33 U.S.C. § 407, strict criminal liability but, in *dicta,* recognizing defenses based on intervening acts of third parties as a defense).

193. *Starr*, 535 F.2d at 515-16.

194. *See Developments in the Law—Corporate Crime: Regulating Corporate Behavior Through Criminal Sanction*, 92 HARV. L. REV. 1243, 1264-65 (April 1979). Some commentators have argued that *Park* creates a standard of negligence which must be shown before the defendant can be prosecuted under strict liability theory. *See Park*, 421 U.S. at 678-79 (Stewart, J., dissenting); Jossen, *supra* note 20, at 41-42 (citing Robinson, *Imputed Criminal Liability*, 93 YALE L.J. 609, 670-71 (1984)). However, the impossibility defense is an affirmative defense. Then again, if *Park* introduces a standard of negligence, the burden of coming forward with the evidence of due care or impossibility is on the defendant. *See Park*, 421 U.S. at 673.

195. United States v. Dotterweich, 320 U.S. 277, 285 (1943) (quoting Nash v. United States, 299 U.S. 373, 378 (1913)). *See also* United States v. FMC Corp., 572 F.2d 902, 905 (2d Cir. 1978) (stating that innocent technical violations can be handled through prosecutorial and court discretion).

> The propriety of eliminating scienter or mens rea in statutes designed to serve a regulatory purpose has again been recognized by the Supreme Court . . . . An expansive statute under which the prosecution encounters such reduced obstacles imposes a heavy responsibility upon the prosecutor. Many are his potential targets and few are the standards by which the exercise of his discretion can be measured. . . . Whatever his decision, it is likely to be one in keeping with the political realities within which he functions. This is a part of the price that this type of statute compels us to pay.

Zipperman, *supra* note 6, at 135 (quoting United States v. Charnay, 537 F.2d 341, 357 (9th Cir.) (Sneed, J., concurring), *cert. denied*, Davis v. United States, 429 U.S. 1000 (1976)).

196. *See, e.g.*, United States v. Moon Lake Elec. Ass'n, 45 F. Supp.2d 1070, 1084 (D. Colo. 1999) ("While prosecutors necessarily enjoy much discretion, proper construction of a criminal statute cannot depend upon the good will of those who must enforce it."). For other factors limiting unreasonable prosecutions, *see* Margolin, *supra* note 14, at 1006-1009 (allocation of burden of proof, causation, judicial and prosecutorial discretion, jury nullification).

dence that they could not and did not rely on prosecutorial discretion.[197] However, whatever may be the validity of the misgivings, it must be recognized that, to date, prosecutorial discretion alone has prevented the bringing of prosecutions for the very situations that have given courts the most pause under the MBTA, *i.e.*, migratory birds killed by automobiles, aircraft, and towers.

VII. BIRD DEATHS CAUSED BY INSTRUMENTALITIES OF MODERN CIVILIZATION ARE FORESEEABLE AND AVOIDABLE

Whatever theories the more *restrictive* courts use to limit strict criminal liability, be they due process, proximate cause, due care, impossibility, etc., the underlying requirements to imposition of strict criminal liability are that (1) the consequences of the acts for which a defendant is to be held criminally liable must (a) be foreseeable, and (b) be avoidable, and (2) the defendant must have voluntarily assumed the risk of the consequences by volitional act or omission. Objective data indicates that these criteria *are met* for human-caused non-hunting migratory bird deaths, including those as to which courts have expressed reservations concerning MBTA liability.

A. *Foreseeable*

Empirical data does not support statements that migratory bird deaths are not a probable or foreseeable consequence of operating an automobile, an airplane

197. Levenson observes that "[m]uch of strict liability law, including the *Kantor* case, has evolved from unrestrained prosecutorial discretion." Levenson, *supra* note 18, at 432. Levenson attributes lapses in the quality of prosecutorial discretion to intense public scrutiny and to the desire of prosecutors for a favorable "conviction box score." *Id.* at 433. While such factors may influence prosecutors to make decisions they would not otherwise make, it is just as likely that those factors will deter difficult or unpopular prosecutions of serious wrongs. Any effort to limit discretion will harm those who are presently protected by exercise of that discretion. Consider, for example, the widespread dissatisfaction of federal judges with the limits imposed on their discretion by the United States Sentencing Guidelines. *See, e.g.*, John M. Dick, *Allowing Sentence Bargains to Fall Outside of the Guidelines Without Valid Departures: It Is Time For the Commission To Act*, 48 HASTINGS L.J. 1017, 1034 (1997); Doris Marie Provine, *Too Many Black Men: The Sentencing Judge's Dilemma*, 23 L. & SOC. INQUIRY 823, 827, 833, 841 (1998) (stating that "judicial dismay with current policy is widespread and sincere[;]" that judicial criticism is based on the limitation of judicial discretion, the inducement to circumvent, the privacy of key decisions, and disparate and harsh results; and that a 1996 Federal Judicial Center survey found over two-thirds of judges said the mandatory guidelines were unnecessary); Jack B. Weinstein, *A Trial Judge's Second Impression of the Federal Sentencing Guidelines*, 66 S. CAL. L. REV. 357, 365, 366 (1992) (stating that "[o]ne would think that most Americans, judges and legislators as well as members of the Sentencing Commission, would be embarrassed by this implacable urge to incarcerate, by the overwhelming desire to ignore the good that people have done and probably will do" and that "use of the guidelines does tend to deaden the sense that a judge must treat each defendant as a unique human being").

The author's experience is that prosecutorial discretion is most often exercised to require more than the minimum required proof, *e.g.*, proof of knowledge of the facts for a MBTA strict liability offense, and proof of knowledge of the legal requirements for "knowing" offenses such as ESA offenses or most environmental crimes. *See* U.S. DEP'T OF JUSTICE, U. S. ATTORNEY'S MANUAL, § 9-27.220 cmt (2000) (Principles of Federal Prosecution—Grounds for Commencing or Declining Prosecution) (Federal prosecutors are not to initiate a prosecution unless they believe that "admissible evidence probably will be sufficient to obtain and sustain a conviction" but that "does not mean that he/she necessarily should initiate or recommend prosecution.").

or a tower.[198] Empirical data shows such bird deaths are foreseeable, and that some are more numerous[199] than are bird deaths from causes for which courts have imposed MBTA strict liability, *e.g.*, pesticide applications[200] and power lines.[201] The following are conservative or even very conservative estimates of bird mortality from different causes other than habitat degradation and destruction.[202]

> Domestic and feral cats: 100's millions per year. A four year study by the University of Wisconsin found that domestic cats killed between 7.8 and 219 million birds each year in just the rural areas of that State.[203]

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198. In addition, bird fatalities caused by modern instrumentalities other than firearms are not only foreseeable, they are also a significant concern to regulatory authorities charged with protecting migratory bird species.

"Regarding the big picture, we are most concerned about the cumulative impacts of all towers on birds, combined with all the other things that kill them: habitat degradation and loss, pesticides, glass windows, domestic cats, power lines, wind generators, cars, aircraft, oil spills, and such." Dr. Albert M. Manville II, quoted by Chris Tollefson, *Service to Host Workshop on Fatal Bird Collisions with Communications Towers* (revisited on Feb. 13, 2001) <http://www.fws.gov/r9extaff/pr9951.html>.

199. That something is a foreseeable consequence of action does not mean that it is a probable outcome. When courts speak of probable consequences and probable cause, they are applying a value judgment. In terms of scientific risk analysis, probability is a statistical measure of the number of times an outcome will occur for a given number of times a causative action takes place. *See generally.*, ROBERT E. MEGILL, AN INTRODUCTION TO RISK ANALYSIS, Penn Well Books, Tulsa, Oklahoma (2d ed. 1984) (defining probability and distinguishing outcomes with discrete distributions from continuous or nondiscrete distributions such as occur in instances of bird collisions). For example, a jet engine failure may occur once in every 20,000 hours of operation or an auto accident may occur once in every 40,000 miles of operation. A given, objective, statistical probability of an outcome may be subjectively "probable" to one court but unlikely to another.

The bird kills from different causes listed in the subsequent text of this article represent totals and not probabilities. Nevertheless, they illustrate the relative magnitude of the threat presented by different causes of bird deaths. The objective of the MBTA was to preserve bird populations. For some probability calculations, *see infra* note 201 (probability of bird death or injury upon which criminal liability was established in *Moon Lake* was 0.0064 birds per pole per year) and note 230 (probability of fatal bird collision with a communication tower is 82 birds per tower per year).

200. *See* United States v. FMC Corp., 572 F.2d 902 (2d Cir. 1978).

201. *See* United States v. Moon Lake, 45 F. Supp.2d 1070 (D. Colo. 1999). The *Moon Lake* case is unique in providing sufficient information to calculate the probability of bird death or injury. The prosecution was based on the death or injury of 38 birds by 2450 unprotected poles during 29 months. *See id.* at 1071. Consequently, the probability of a bird being killed or injured by any one pole in any year was only 0.0064, or about two-thirds of one percent. That is an understatement of the probability, inasmuch as the prosecution was limited to bird deaths or injuries that could be conclusively proven, but it is the probability relied upon by the court. *See, e.g.*, Ted Williams, *Zapped!*, AUDUBON MAGAZINE, Jan./Feb. 2000, at 32, 34 (reporting at least 170 raptor carcasses were recovered under Moon Lake lines over an unspecified period). Data to be developed as part of the plea agreement will allow a more accurate calculation of a presumably higher probability. *See infra* notes 262-63 and accompanying text (describing *Moon Lake* plea agreement and MOU).

202. Most of the data in the text of this section were located by Albert M. Manville II, Ph.D, and John Trapp, Wildlife Biologists, United States Fish and Wildlife Service, whose assistance the author gratefully acknowledges.

203. *See* John S. Coleman and Stanley A. Temple, *On the Prowl*, Wisconsin Natural Resources Magazine (Dec. 1996) (revisited Feb. 14, 2001) <http://www.wnrmag.com/stories/1996/dec96/cats.htm> (intermediate estimate was that cats kill 38.7 million birds per year in rural Wisconsin).

Building window impacts: 97 million to 970 million per year at a rate of one to ten per building per year.[204] "[B]irds do not recognize glass as a barrier."[205]

Pesticide ingestion: 67 million per year.[206]

Cars and trucks: 57 million in the contiguous United States, or one per car every three years.[207]

Communication tower impacts: 4-5 million per year.[208] This estimate may be low by an order of magnitude, *i.e.*, the actual fatalities may be 40 to 50 million birds each year.[209]

Coleman and Temple estimated that there are between 1.4 and 2.0 million feral cats in rural Wisconsin alone. *See id. See also* John .S. Coleman et al., *Cats and Wildlife: A Conservation Dilemma* (revisited on Feb. 14, 2001) <http://wildlife.wisc.edu/extension/catfly3.htm> ("Worldwide, cats may have been involved in the extinction of more bird species than any other cause, except habitat destruction."). Coleman and Temple identified a number of advantages enjoyed by domestic cats and some feral cats, especially that supplemental feeding by humans means cat populations and predation will not fall as bird prey are exterminated. *See id.* Cats also harm predatory animals by reducing the number of their prey, *i.e.*, reducing their food supply. *See id.*

204. Daniel Klem, Jr., *Collisions Between Birds and Windows: Mortality and Prevention*, 61 J. FIELD ORNITHOL., Winter 1990, at 120, 123-25 (reporting that at least one-half of all bird strikes against windows are fatal to the birds, regardless of size) [hereinafter *Collisions*]. *See also* T. O. Connell, *Glass Windows and Bird Deaths*, Proceedings N. Am. Ornithological Conference, St. Louis, Missouri. (Apr. 8, 1998) (describes study consistent with Klem's results and gives reasons why his own results may have under-reported actual bird deaths) (on file with author); Erica H. Dunn, *Bird Mortality from Striking Residential Windows in Winter*, 64 J. FIELD ORNITHOL., Summer 1993, at 302, 308 (estimates a range of window kills per home per year between 0.65 and 7.70, suggesting Klem's range of 1 to 10 birds per building per year is realistic); Daniel Klem, Jr., *Bird-Window Collisions*, 101 THE WILSON BULLETIN, December 1989, at 606, 620 (describing factors contributing to birds' collisions with windows) [hereinafter *Bird-Window Collisions*].

205. *See* Klem, *Collisions*, *supra* note 204, at 124.

206. David Pimentel *et al.*, *Environmental and Economic Costs of Pesticide Use*, 42 BIOSCIENCE 750, 757 (Nov. 1992).

207. *See* BANKS, *supra* note 8, at 10 (between 2.7 and 96.25 birds are killed per mile of road per year, with an estimated median value of 15.1, on 3,786,713 miles of road in 1972); Federal Highway Administration, Office of Highway Policy Administration, *1996 Highway Statistics* (revisited Feb. 14, 2001) <http://www.fhwa.dot.gov/ohim/1996/section5.html> (Tables HM-10, 12 and 20 state that there were 3,933,985 miles of road in 1996, and Table VM-1 states that there were 210,236,393 registered vehicles with an average of 11,807 miles per year driven by each vehicle). The calculation assumes that the incidence of bird strikes and kills by cars was the same in 1996 as Banks found in 1972.

More recently, Al Manville has received anecdotal reports of thousands of Cedar Waxwings killed in the East and Northeast, purportedly because of an attraction to fruiting exotic plants (e.g., Autumn olive) planted on highway median strips. Interviews with Albert M. Manville II, Ph.D, Wildlife Biologist, at FWS, Migratory Bird Office (Dec. 21, 1999, Jan. 21, 2000).

208. W.R. Evans and A.M. Manville II (eds.), 2000, *Avian Mortality at Communications Towers*, Transcripts of Proceedings of the Workshop on Avian Mortality at Communication Towers, August 11, 1999, Cornell University, Ithaca, NY, (revisited Feb. 14, 2001) <http://migratorybirds.fws.gov/issues/towers/agenda.html>. *See also USA Towerkill Summary* (revisited Feb. 14, 2001) <http://www.towerkill.com/issues/consum.html> ("it is not hard to imagine that annual bird mortality at communications towers could be over five million birds a year," but the scarcity of long-term studies, the total absence of studies at shorter towers, and scavengers removing kills before discovery means "the annual mortality could be much larger").

Oil spills and other industrial accidents: variable. Taking the *Exxon Valdez* oil spill as an example, more than 36,000 birds representing at least 90 species were retrieved and stored in the morgue in Valdez following the spill.[210] Retrieved specimens probably represented only 10 to 30 percent of the actual bird mortality,[211] meaning a total of 120,000 to 360,000 were killed.[212] Richard Banks estimated, in 1972, that such "large" spills occur only semi-annually, and result in only tens of thousands of birds killed, but that oil sumps or waste pits kill an estimated 1.5 million birds per year.[213]

Fishing bycatch: hundreds of thousands of seabirds are conservatively estimated to die each year by drowning, strangulation, or injury from fishing hooks and longlines.[214] Illegal use of gill nets adds to the toll.[215] Members of 61 different bird species have been killed, of which 25 species (41 percent) have been classified as "threatened" by the World Conservation Union.[216] Some species will not survive if the situation continues, *e.g.*, the Southern Albatross.[217] "Governments, non-governmental organizations, and commercial fishery associations are petitioning for measures to reduce the mortality of seabirds in longline fisheries in which seabirds are incidentally taken."[218]

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209. Interview with Albert M. Manville II, Ph.D., Wildlife Biologist, at FWS, Migratory Bird Office (Dec. 21, 1999).

210. Albert M. Manville, II, *Cleaning Up an Oil Spill: Some Biological Tools in the Chest of Cleanup Options*, 1 J. CLEAN TECH. AND ENVTL. SCI. 123, 124 (1991) (in September 1989 alone, FWS retrieved 36,470 dead birds representing 90 species).

211. John F. Piatt et al., Immediate Impact of the "Exxon Valdez" Oil Spill on Marine Birds, 107 THE AUK 387, 395 (Apr. 1990).

212. *See id.* (estimating total Exxon Valdez bird kill at 100,000 to 300,000, and that it would have been greater if it had occurred in summer or autumn); Manville, *supra* note 210, at 124-25 (subsequent government studies indicated that 350,000 to 390,000 birds died and Manville believed the cumulative total would exceed 500,000.).

213. BANKS, *supra* note 8, at 12.

214. Interview with Albert M. Manville II, Ph.D., Wildlife Biologist, at FWS, Migratory Bird Office, (Feb. 10, 2000) (referencing Constituent Briefing). A single commercial longliner may deploy as many as 35,000 hooks each day. NIGEL P. BROTHERS *ET AL.*, THE INCIDENTAL CATCH OF SEABIRDS BY LONGLINE FISHERIES: WORLDWIDE REVIEW AND TECHNICAL GUIDELINES FOR MITIGATION, FOOD AND AGRICULTURE ORGANIZATION, FISHERIES CIRCULAR, NO. 937, 1, 1 (1999). Note that the estimated bird loses due to fishing bycatch are global, unlike the losses from other causes listed in the text which are in the United States.

215. Manville, *supra* note 214.

216. Manville, *supra* note 214.

217. Manville, *supra* note 214; BROTHERS *ET AL.*, *supra* note 214, at 26 ("Based on evidence to hand . . . populations of several species of albatrosses, giant petrels and Whitechinned Petrels, were not sustainable . . . .").

218. United Nations Food and Agriculture Organization (FOA), Fisheries Department, *The International Plan of Action for the Reduction of Incidental Catch of Seabirds in Longline Fisheries*, Introduction, paragraph 1, *republished in*, National Marine Fisheries Service, *Draft National Plan of Action for the Reduction of Incidental Catch of Seabirds in Longline Fisheries*, Appendix I (revisited Feb. 14, 2001) <http://www.fakr.noaa.gov/protectedresources/draftnpa.htm>. *See also* 64 Fed.Reg. 73017 (Dec. 29, 1999) (announcing availability of National Plan of Action and inviting comments).

Electrocutions[219] and power line impacts: thousands to tens of thousands per year.[220] The electric power industry has been aware, for over a century, of the danger posed to birds by its power lines and, for the last 25 years, has promulgated voluminous suggested practices to minimize bird fatalities.[221]

Wind generator impacts: several thousand per year[222] but the potential for more kills increases as the industry grows.[223]

The Federal Aviation Administration and the National Wildlife Research Center have documented an average of over 2500 bird strikes by civilian aircraft each year in the United States and estimate that the actual number is five

219. Bird electrocutions occur on electric distribution lines that carry 34,500 volts or less, and not on larger transmission towers, because wires are close enough to each other or to conductors for the birds to short circuit the lines. *See* Williams, *supra* note 201, at 32, 34. There are presently 116,532, 289 distribution poles in the United States. *See id.* at 36. The introduction of steel poles in place of present wooden poles is expected to aggravate the problem. *See id.* at 38.

Power distribution poles are not the only cause of bird electrocutions. For example, California installed high-voltage fences around its prisons to reduce staffing costs but, as a result, executed more than 3000 birds in the first five years. *See* Jack Fischer, *Prison Fence Nets Ensure No Birds Are Executed*, San Jose Mercury News, April 8, 1998, at 1A, available through <http://www.newslibrary.com>. California officials had not considered the impact of the fences on birds. Pursuant to an agreement with FWS, California agreed to protect the fences and the birds with netting. *See id.* The nets were described as 90 percent effective. *See id.* Although the nets would cost $3.4 million, the fences were estimated to save California $40 million annually in staff salaries. *See id.*

220. *Briefing Statement* by A.M. Manville II, Jan. 10, 2000 (file name WPFILES:birddeat.bri.wpd) (on file with author). *See also* John L. Trapp, *Bird Kills at Towers And Other Human-Made Structures: An Annotated Partial Bibliography (1960-1998)* (revisited Feb. 14, 2001) <http://migratorybirds.fws.gov/issues/tower.html>.

221. *See* R.R. Olendorff *et al.*, SUGGESTED PRACTICES FOR RAPTOR PROTECTION ON POWER LINES: THE STATE OF THE ART IN 1996, AVIAN POWER LINE INTERACTION COMM. AND EDISON ELEC. INST., 1 (1996) (citing investigations of electrocution of eagles in 1970s and subsequently, "[o]ver the last 25 years, those efforts have led to a detailed understanding of the biological factors that attract raptors to power lines, and those harmful interactions that lead to electrocution."); W.M. Brown *et al.*, MITIGATING BIRD COLLISIONS WITH POWER LINES: THE STATE OF THE ART IN 1994, AVIAN POWER LINE INTERACTION COMM. AND EDISON ELECTRIC INST., at 1 (1994) (describing studies of dead birds under telegraph wires as early as 1876, and birds killed by impacts with power lines as early as 1904).

222. Interview with Albert M. Manville, Ph.D., Wildlife Biologist, at FWS, Migratory Bird Office (Feb. 23, 2000) (extrapolation based, in part, on NATIONAL RENEWABLE ENERGY LABORATORY, A PILOT GOLDEN EAGLE POPULATION STUDY IN THE ALTAMONT PASS WIND RESOURCE AREA, CALIFORNIA, NREL/TP-441-7821, U.S. DEPT. ENERGY (1995)). *See also* Lisa Vonderbrueggen, *Agencies Say Windmill Firms Should Pay for Bird Habitat Protection*, CONTRA COSTA TIMES, Oct. 29, 1998, (from 1992 through January of 1998, 1,025 birds were killed at Altamont Pass by windmill blades or electrocution; proposal to replace existing wind generators with 85 percent fewer generators of a more efficient and bird friendly design).

223. *Briefing Statement, supra* note 220. *See also Enron Agrees to Move LA Windmills Away From Condors' Flight Path*, SEATTLE-DAILY J. COM., Nov. 5, 1999 (revisited Feb. 14, 2001) <http://www.djc.com/news/enviro/10060302.html> (in response to National Audubon Society objections that 200 foot high windmills threatened the 49 remaining wild condors, Enron dropped plans to build 53 windmills north of Los Angeles in exchange for a lease on land about 20 miles away).

times greater, *i.e.*, over 12,500 per year.[224] Some impacts involve many birds.[225] In addition, the Air Force reports its aircraft average an additional 2,600 birds strikes each year.[226]

Communication towers have been an especially foreseeable problem, having first been documented in the late 1940s.[227] Bird kills at lighthouses had been noted for centuries and bird kills at tall television towers began to be documented as soon as they began to be constructed in the 1940s.[228] In the 1970s, the FWS estimated bird kills at communications towers to be 1.4 million per year based on the 1,100 towers then in existence.[229] Today, with nearly 49,000 towers taller than 200 feet, scientists estimate that more than 4 million birds die in impacts with communications towers in North America.[230] The industry estimates that

224. NWRC-Ohio Field Station, FAA Wildlife Strikes to Civil Aircraft in the United States (revisited Feb 14, 2001) <http://www.lrbcg.com/nwrcsandusky/strike.html>. *See* also Edward C. Cleary et al., Wildlife Strikes to Civil Aircraft in the United States 1991-1997. FAA Wildl. Aircraft Strike Database Ser. Rep. 4 (Sept. 1998), at 1-3 (2,421 strikes/year) (revisited Feb. 14, 2001) <http://www.faa.gov/arp/pdf/strkrpt.pdf>.

225. *See, e.g.*, Transport Canada Transport, *Near-Crashes* (revisited Feb. 14, 2001) <http://www.tc.gc.ca/aviation/aerodrme/wildlife/d/d3.htm>.

Transport Canada has documented over 100 fatal airplane crashes caused by impacts with aircraft and other crashes for which bird strikes are suspected. *See Aircraft Crashes and Loss of Life* (revisited Feb. 14, 2001) <http://www.tc.gc.ca/aviation/aerodrme/birdstke/wildlife/ d/d2.htm>. Obviously, there are many other bird strikes fatal only to the birds.

226. *See* Tamar A. Mehuron, *Bird Strike!*, 81 AIR FORCE MAG. 6 (June 1998) (revisited Feb. 14, 2001) <http://www.afa.org/magazine/chart/0698chart.html>.

227. *See* Towerkill.com, *Brief Historical Overview* (revisited Feb. 14, 2001) <http://www.towerkill.com/issues/intro.html>. *See also* Trapp, *supra* note 220.

228. Albert M. Manville II, Ph.D., *The ABC's of Avoiding Bird Collisions At Communication Towers: The Next Steps*, Introduction, presented at the Electric Research Institute's Avian Interactions Workshop, Dec. 2, 1999, Charleston, S.C. (currently in press) published on the internet at (revisited Feb. 14, 2001) <http://migratorybirds.fws.gov/issues/towers/abcs.html>; Towerkill.com, *Brief Historical Overview* (revisited Feb. 14, 2001) <http://www.towerkill.com/issues/intro.html>.

229. Chris Tolleson, *Service To Host Workshop On Fatal Bird Collisions With Communications Towers*, FWS August 2, 1999 News Release announcing August 11, 1999 Workshop at Cornell University (revisited Feb. 14, 2001) <http://www.fws.gov/r9extaff/pr9951.html>. *See also* BANKS, *supra* note 8, at 10, 11 (stating that three studies between 1967 and 1973 found estimated annual mortalities per tower between 2,121 and 2,843; the author rounded the number to 2,500 but assumed only one-half of the towers resulted in bird kills). One million, four hundred thousand bird deaths from 1,100 towers per year works out to a mortality rate of 1,273 bird deaths for each tower each year.

230. FWS August 2, 1999 News Release announcing August 11, 1999 Workshop at Cornell University (revisited Feb. 14, 2001) <http://www.fws.gov/r9extaff/pr9951.html>. *See also* discussion *supra* notes 208-209 and accompanying text (estimating birds killed by impacts with communications towers); Towerkill.com, *USA Towerkill Summary* (revisited Feb. 14, 2001) <http://www.towerkill.com/issues/consum.html> (Federal Aviation Administration Digital Obstacle File lists 39,530 towers over 200 feet but some towers close together get counted as one). Four million bird deaths from 49,100 towers per year works out to a mortality rate of 82 bird deaths for each tower each year. *Compare with supra* note 201 (probability of bird death or injury in *Moon Lake* was only 0.0064 per pole per year).

It is unknown whether linear extrapolation of mortality figures is appropriate. Dr. Charles Kemper speculates that a recently documented drop in bird mortality at towers may be due to the dispersal of a fixed population of birds among a greater number of towers. *See* Wendy K. Weisensel,

> there will be as many as 100,000 *new* towers in the next decade. Because of Federal Communication Commission mandates to digitalize all television stations by 2003, at least 1,000 of the new towers will be over 1000 feet high.[231] Taller towers create a greater threat to birds because they require more lights and guy wires, increasing the probability of fatal bird impacts.[232] Federal Aviation Administration requirements for red pilot warning lights on all towers taller than 200 feet increase the risk because red pulsating lights attract birds more than do white stobes.[233]

Of growing concern are not only the impacts of individual mortality factors on birds (*e.g.*, tower collisions), but the combined or cumulative impacts of all mortality factors on bird populations. Currently, more than 200 species of migratory birds (of our 836) are in trouble, 90 listed under ESA (75 endangered, 15 threatened), and 124 on the Service's [FWS] list of non-game species of management concern. Some populations are declining precipitously.[234]

B. *Avoidable*

In addition to being foreseeable, migratory bird deaths caused by impacts with human constructions, and other "unintended" causes of bird deaths, are avoidable.

Cat predation on birds can be reduced by keeping cats indoors.[235] Even when cats must be allowed outdoors as, for example, on farms to control rodents, the cats can be kept neutered and well fed, bird feeders and other bird attractions can be kept away, food sources for strays can be eliminated, and unwanted cats can be disposed of, rather than being released.[236]

Numerous measures are available to reduce or virtually eliminate bird strikes against windows, including: interior covering with translucent material;[237] removal of attractants such as feeders, watering areas, and nutritious and aesthetic vegetation in front of windows;[238] placing netting in front of windows;[239]

Battered by the Airwaves?, WIS. NAT. RESOURCES MAG. (February 2000) (revisited Feb. 14, 2001) <http://www.wnrmag.com/stories/2000/feb00/birdtower.htm>. On the other hand, Dr. Kemper observes that scavenging by predators is an alternative explanation for the absence of bird carcasses at towers. *See id.*

231. FWS August 2, 1999 News Release, *supra* note 229.

232. *Id. See also USA Towerkill Summary*, *supra* note 230.

233. FWS August 2, 1999 News Release, *supra* note 229.

234. *Briefing Statement* (by A.M. Manville), *supra* note 220.

235. *See, e.g.*, Coleman, *Cats and Wildlife*, *supra* note 203 (section titled "What you can do").

236. *See* Coleman, *Cats and Wildlife*, *supra* note 203 (section titled "What you can do").

237. *See* Klem, *Collisions*, *supra* note 204, at 123. Although not discussed in the literature, one might expect tinted glass to protect birds by making the glass visible.

238. *See* Klem, *Collisions*, *supra* note 204, at 126; Alternatively, Klem suggests placing attractants within one foot of windows because birds are drawn first to the attractant and, when taking flight, have not built up sufficient momentum to sustain serious injury. *See* Klem, *Collisions*, *supra* note 204, Dunn, on the other hand, prefers moving attractants far from windows. *See* Dunn, *supra* note 204, at 309.

239. *See* Dunn, *supra* note 204, at 309 ("installation of plastic garden-protection netting about 25 cm from the window essentially solved . . . severe window-strike problems. . . . The mesh did not block views substantially.").

placement of vertical strips in front of windows;[240] and installation of windows at an angle to reflect solid objects, such as the ground, instead of surrounding habitat or sky.[241] These solutions and others are being promoted by the Canadian based Fatal Light Awareness Program (FLAP),[242] which is being actively promoted by the National Audubon Society, Cats Indoors!, and the American Bird Conservancy.[243]

Bird impacts with towers can be reduced by co-locating equipment on existing facilities, building towers without guy wires, and eliminating lighting or using lighting less attractive to birds.[244] Even a layperson can read the reports of bird strikes with communications towers and identify possible ways to reduce the carnage.[245] Elimination of guy wires and adjustment of lighting are obvious solutions.

Numerous measures have been suggested to reduce longline bycatch of seabirds in fisheries, including both technical measures (increase sink rate of bait, thaw bait, and use of line-setting machine, bait casting machine, below-water setting chute or funnel, bird-scaring devices, water cannon) and operational measures (reduce visibility of bait by night setting, reduce attractiveness of vessels to seabirds, and area and seasonal closures).[246] One can reasonably anticipate additional solutions as international efforts continue.[247]

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240. *See* Klem *Collisions*, *supra* note 204, at 126.

241. *See* Klem *Collisions*, *supra* note 204, at 127.

242. FLAP, *How To Make Your Home, Cottage & School Safe For Birds* (revisited Feb. 14, 2001) <http://www.flap.org/how2.htm> (offering the suggestions to hang ribbons, hang silhouettes so they move, etch images onto exterior glass, use spider web decals). *See also* Weisenel, sidebar titled "Prevent bird collisions at home, " *supra* note 230.

243. *See* Audubon, *Cats Indoors!* (revisited Feb. 14, 2001) <http://www.audubon.org/bird/cat/>.

244. Tolleson, *supra* note 229 (quoting Albert M. Manville, Ph.D.). *See also* Weisensel, *supra* note 230 (section titled "Changing lights, heights and designs to make towers less of an attraction").

> Certainly, collisions of birds with tall, lighted buildings is of the greatest concern, with single buildings (*e.g.* skyscrapers) sometimes accounting for hundreds or thousands of bird mortalities/year.) Two different types of problems - birds in daylight disoriented by reflections of plate glass windows, nocturnal migrants disoriented by interior or exterior lighting of tall buildings, especially in foul weather; both result in collision with windows or building and death due to blunt trauma. Both types of mortality can be prevented or minimized.

Email communication from John Trapp, FWS, (Dec. 28, 1999) (on file with author). *See also* Towerkill.com, *Towerkill Mechanisms* (revisited Feb. 14, 2001) <http://www.towerkill.com/issues/mech.html>; Paul Kerlinger, Ph.D., *Avian Mortality At Communication Towers: A Review of Recent Literature, Research and Methodology*, March 2000, published on the internet at (visited Feb. 14, 2001) <http://migratorybirds.fws.gov/issues/tblcont.html>.

245. *See, e.g.*, The Topeka Capital Journal, *Thousands of Birds Fly To Their Deaths Around Radio Towers* (Jan. 30, 1998) <http:/www.cjonline.com/stories/013098/kan_birds.html> (reporting death of between 5,000 and 10,000 Lapland longspurs from crashing into guy wires, obscured in fog and snow, after being drawn by bright lights around radio transmission tower near Syracuse, Kansas on January 22, 1998).

246. United Nations Food and Agriculture Organization (FOA), Fisheries Department, *The International Plan of Action for the Reduction of Incidental Catch of Seabirds in Longline Fisheries*, Technical note on some optional technical and operational measures for reducing the incidential catch of seabirds, Section II (Technical measures), *republished in*, National Marine Fisheries Service, *Draft National Plan of Action for the Reduction of Incidental Catch of Seabirds in Longline Fisheries*, Appendix VI (Future Conferences and Events Related to Seabird-Fishery Interactions)

The *Moon Lake* decision was premised on the fact that the bird deaths could have been avoided. In 1996 the electric power industry said: "[E]lectrocution at power facilities remains a legitimate concern. Such mortalities *can* be addressed by a variety of mitigation measures, through design and retrofitting of existing lines."[248] The industry produced a 125 page publication of specific recommendations for siting of power lines and design of power poles to minimize the risk of electrocution to raptors, a migratory bird.[249] The industry also published a 78 page report containing detailed instructions to reduce deaths caused by migratory bird impacts.[250]

Existing windmills can be and are being replaced by more efficient and bird-friendly designs.[251] Bird strikes on highways can also often be prevented by adjustments in siting of the roads and bird attractions such as crossing, feeding and nesting sites.[252]

Finally, the causes and frequency of bird strikes with aircraft have been plotted and bird avoidance procedures developed.[253]

(visited Feb. 14, 2001) <http://www.fakr.noaa.gov/protectedresources/draftnpa.html>. *See also* 64 Fed.Reg. 73017 (Dec. 29, 1999) (announcing availability of National Plan of Action and inviting comments). For a technical note on some optional technical and operational measures for reducing the incidental take of seabirds, see Brothers, *supra* note 214, at 44-84.

247. A series of international meetings were scheduled. United Nations Food and Agriculture Organization (FOA), Fisheries Department, *The International Plan of Action for Reducing Incidental Catch of Seabirds in Longline Fisheries*, Introduction, paragraph 1, *republished in*, National Marine Fisheries Service, *Draft National Plan of Action for the Reduction of Incidental Catch of Seabirds in Longline Fisheries*, Appendix I <http://www.fakr.noaa.gov/protectedresources/draftnpa.htm> (listing Wilhelmshaven, Germany on March 17-19, 2000; Darmouth, Nova Scotia, Canada in April 2000; Honolulu, Hawaii, USA, May 8-12, 2000).

248. R.R. OLENDORFF, *supra* note 221, at 6 (emphasis added).

249. *See* R.R. OLENDORFF, *supra* note 221.

250. *See* W.M. BROWN ET AL., *supra* note 221.

251. Vonderbrueggen, *supra* note 222 (bird friendly wind turbines have larger but slower turning blades, are placed on taller towers above the birds' hunting patterns, and have perching spots eliminated).

252. BANKS, *supra* note 8, at 9 (citing English studies showing "black spots" of high mortality associated with open gates, breaks in hedges or walls, and proximity of feeding and resting sites; and a Texas study showing one-third of all road deaths occurred between daybreak and 8 a.m.).

253. Transport Canada, *Aircraft Crashes And Loss Of Life* (revisited Feb. 14, 2001) <http://www.tc.gc.ca/aviation/aerodrme/birdstke/wildlife/d/d2.htm>; *Near Crashes, id.*, at <...d/d3.htm>; *Species Involved, id.* at <...d/d14.htm> (noting, among other facts, that birds of prey may attack aircraft while waterfowl generally avoid aircraft); *see also* Air Force News, *Whiteman Reduces Bird Strike Hazard* (Nov. 18, 1997) (revisited Feb. 14, 2001) <http://www.af.mil/news/Nov1997/n19971118_971462.html> (reporting successful efforts at Whiteman Air Force Base to avoid bird strikes between B-2 bombers and a flock of 125,000 Redwing Blackbirds); FAA Aeronautical Information Manual, Ch. 7, Sect. 4-2 (Reducing Bird Strike Risks) (Jan. 25, 2001) (revisited Feb. 14, 2001) <http://www.faa.gov/ATPubs/AIM>; Mehuron, *supra* note 226 (describing use of falcons to drive off large flocks and of remote-controlled model aircraft broadcasting bird of prey sounds to drive off big birds).

VIII. THE NEED FOR AN ADMINISTRATIVE SOLUTION

Court opinions have suggested that a distinction may exist between hunting and non-hunting human-caused bird deaths based on foreseeability, avoidability and the presence or absence of a volitional act or omission. Objective data indicates that the distinction does not exist and, especially, the distinction does not exist between non-hunting deaths for which courts have recognized MBTA criminal liability (*e.g.*, pollution, pesticides, and electrocution) and those for which courts have expressed reservations (*e.g.*, automobiles, airplanes, towers, and windows).[254] Consequently, an intellectually honest, and reasonably objective basis for distinguishing appurtenances of modern society cannot be found in any of the defenses and theories of criminal law commonly put forward as potential limitations on strict criminal liability, *i.e.*, a basis for distinction cannot be found in theories of proximate causation, impossibility, good faith or due care, etc. In addition, the efforts of the courts to fashion such a limitation is an undemocratic interference in the processes of representative government.

If the solution is not to be found in theories or defenses put forward by the courts, where is it to be found?[255] Three examples illustrate a range of democratic options.

One option is for FWS (the Secretary of the Interior to be precise) to issue regulations pursuant to the notice and comment, or alternative requirements of the Administrative Procedure Act,[256] just as the Secretary now authorizes killing of migratory birds.[257] By regulation, FWS may, with the collaboration of the

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254. One reason courts may discount bird deaths caused by impacts is that the deaths are usually infrequent and few at any single location. Brothers, *et al.*, addressed this perceptual problem in the context of seabird bycatch by longline fishing.

> Prior to 1988 . . . [f]ishers had no concept (and many still do not) of bird populations and the consequences of catching a few individuals. After all, each fishing vessel may catch only one or two birds a day, sometimes none for many days and each day the impression is of just as many birds flying around the ship. It is understandable that fishers had no perception of a problem. Further, they have little understanding of the population biology of seabirds and why their practice threatens the survival of albatrosses. Concepts such as delayed maturity, year-long breeding cycles, biennial breeding and long life spans were not known.

BROTHERS, *ET AL.*, *supra* note 214, at 46.

255. Coggins & Patti, *supra* note 103, at 192, suggest criteria for strict criminal liability that build on and go beyond the decided cases: an act must (1) be purposeful (though not necessarily the consequences), (2) involve potentially lethal agents (poisons, chain saws, guns, power lines, fire, etc.), (3) involve some degree of "culpability," and (4) be a reasonably foreseeable cause of bird mortality in the event the operation goes astray, whether by negligence or by accident. The proposed criteria do not contribute to a solution. The element of "culpability" is undefined and makes the criteria rather circular. The other elements seem redundant.

256. 5 U.S.C. §§ 551-559 (1994 & Supp. IV 1998) (Administrative Procedure Act); 5 U.S.C. §§ 561-570 (1994 & Supp. IV 1998) (negotiated rulemaking procedure); 5 U.S.C. §§ 571-583 (1994 & Supp. IV 1998) (alternative means of dispute resolution in the administrative process).

257. *See* 16 U.S.C.A. §§ 704(c), 712 (Supp. 2000) (authorizing Secretary of the Interior to issue implementing regulations). The court in *Moon Lake* acknowledged the need for reasonable regulations. *See* United States v. Moon Lake Electric Ass'n, Inc., 45 F. Supp. 2d 1070, 1085 (D. Colo. 1999) ("Reasonable regulation by the Secretary, in conjunction with proper application of the law, which includes requiring the prosecution to prove proximate cause beyond a reasonable doubt under § 702(a), can effectively avoid absurd and unintended results."). *But see* Alaska Fish & Wildlife Fed'n & Outdoor Council v. Dunkle, 829 F.2d 933, 940-41 (9th Cir. 1987) (stating that

affected public, define and distinguish those migratory bird deaths that are an unavoidable consequence of the instrumentalities of our modern society,[258] and those that are both foreseeable and reasonably avoidable. Similarly, permits can be obtained for many situations not anticipated in the regulations.[259] In the course of applying for such a permit a dialog can also take place. The reasonableness of any regulation or permit may be reviewed by the courts.[260] If there were such a regulatory scheme in place, anyone who chose to ignore the lawful regulatory alternatives would act at his or her own peril.

A second, more focused approach is discussion and negotiation with individual industries. As discussed in the preceding Part,[261] the electric power industry has been studying the problem and producing recommended practices in cooperation with FWS for over 25 years. Prosecution arose because Moon Lake chose not to use technology readily available to minimize bird deaths. Following the *Moon Lake* decision, the defendant entered a plea of guilty. As part of the plea agreement, a Memorandum of Understanding (MOU) was executed that obligated Moon Lake to develop and implement an "Avian-Protection Plan" to protect raptors from electrocution and to report and collect birds that might be electrocuted either during the Plan's implementation or notwithstanding the best efforts of the Plan.[262] The MOU states that so long as Moon Lake is in compliance with the agreement, neither it nor its officers or employees will be subject to administrative, civil, or criminal prosecution for migratory bird deaths ("unlawful takings of avian species") that may occur.[263] The Moon Lake MOU is

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regulations must comport with the most restrictive provisions of the migratory bird conventions). Because the Canadian convention does not allow taking of game birds during closed seasons nor of insectivorous birds at any time, one might argue no permits can be issued for "incidental takings" caused by human constructions.

258. That the instrumentalities are necessary to modern society is implicit in the regulations of the FCC and FAA which necessitate tall towers with lights that attract birds. *See supra* notes 231-233 and accompanying text. The primary issue is not whether the instrumentalities are necessary, nor whether bird fatalities are foreseeable. Rather, the issue is the extent to which bird fatalities are avoidable and how many can be saved.

259. *See* 50 C.F.R. § 21.27 (2000) (Special Purpose Permits, usually for actions benefiting the species or research). Although permits can, arguably, be issued for situations not otherwise anticipated in migratory bird regulations, FWS does not issue permits for bird strike fatalities, relying instead on cooperation and discretionary enforcement. Interview with Susan Lawrence, FWS, (Jan. 24, 2000). *See also* Heckler v. Chaney, 470 U.S. 821, 831 (1985) ("This Court has recognized on several occasions over many years that an agency's decision not to prosecute or enforce, whether through civil or criminal process, is a decision generally committed to an agency's absolute discretion.").

260. *See* 5 U.S.C. §§ 701-706 (1994) (judicial review of agency decisions). One hurdle that a regulatory solution must overcome is the Ninth Circuit decision in *Dunkle*. *See* sources and text cited *supra* note 257 (describing *Dunkle*).

261. *See* discussion *supra* Part VII.A (Foreseeable bird deaths) and, especially, notes 219-221 and accompanying text.

262. August 16, 1999 Memorandum of Understanding (MOU), Sections III and IV. The MOU also contains provisions relating to nests (Section V) and record-keeping (Section VI). In addition to monitoring compliance, record-keeping could be used for scientific purposes. *See* Klem, *supra* note 204, at 127 (describing recovered window-kills as a "valuable but largely neglected ornithological resource" for anatomical and plumage studies, and for study of geographic distributions and migration routes).

263. MOU at Section IV.A.2.

analogous to a permit although, strictly speaking, it is an exercise of agency enforcement discretion.

Similarly, for communication towers, the FWS is exploring with industry methods to reduce migratory bird deaths.[264] Although in early stages, the FWS anticipates a process of informal discussions, possible research into the problem and mitigating measures, and guidance memoranda.[265] Canada, which also administers the Migratory Bird Treaty of 1918, is also exploring solutions to "incidental" migratory bird deaths, perhaps analogous to Endangered Species Act Habitat Conservation Plans.[266]

A third alternative is for Congress to amend the MBTA. Ultimately, Congress may find it necessary to step in with statutory distinctions among different means of human-caused bird deaths, just as it did when it added requirements of knowledge to the MBTA baiting provisions. However, for now it has not, perhaps in recognition of the intensely technical nature of the issues and of the reasonableness of the present collaborative processes employed by FWS, which assure a thorough exchange of information *and* encourage full exploration of and experimentation in what is technically possible with still evolving technology.

IX. CONCLUSIONS

The uneasiness that courts and commentators have expressed with strict criminal liability generally is reasonable but courts often fail to distinguish the individual cases and crimes swept up in the single term. A different matter are the anticipatory concerns for MBTA enforcement against some forms of non-hunting, human-caused bird deaths, specifically, impacts with human constructions. There is substantial evidence of a serious threat to migratory birds which could be reduced by intelligent design, if only the affected industries would undertake to examine the problem and identify solutions.[267]

A substantial portion, perhaps the majority of all migratory bird deaths caused by people are caused by impacts with human constructions. Although a number of courts have expressed reservations about applying the MBTA to bird deaths resulting from impacts with human constructions, none of the courts has articulated any factual distinctions between deaths caused by impacts and deaths caused by pesticides, pollution, or electrocution. Court's conclusory statements that impact deaths are not foreseeable or proximately caused are inconsistent with available data.

Data demonstrate that migratory bird deaths caused by impacts are many times more common, foreseeable, and avoidable than are deaths caused by pesticides, pollution, or electrocution, each of which causes of bird deaths courts

264. *See, e.g.*, Tolleson, *supra* note 229; *Avian Mortality at Communications Towers*, Brochure announcing August 11, 1999 Workshop at Cornell University as part of the 117th Meeting of the American Ornithological Union <http://www.fws.gov/r9mbmo/aou_brochure.html>.

265. Interview with Jon Andrew, Chief, FWS Office of Migratory Bird Management (Dec. 17, 1999).

266. Interview with Steve Wendt, Canadian Wildlife Service (Nov. 9, 1999).

267. *See* discussion *supra* Part VII (Bird Deaths Caused by Instrumentalities of Modern Civilization Are Foreseeable and Avoidable).

have accepted as creating MBTA liability. Consequently, the theories put forward to limit strict criminal liability are inapplicable because the mistaken premise of each is that the resulting deaths were unforeseeable, unavoidable, or both. Furthermore, the theories put forward to limit strict criminal liability are inherently policy judgments which, in a democratic society, are properly made by the elected branches of government.

Administrative authorities are presently engaged in cooperative efforts to minimize migratory bird deaths caused by impacts with human constructions. Those efforts depend upon the sanction of criminal enforcement for those who refuse to prevent avoidable bird deaths.

That those responsible for migratory bird deaths may chose to ignore the problem is not a reasonable ground for courts to fashion theories or defenses that might bar prosecutions. That every last bird death may not be avoidable is not a reasonable ground to excuse a failure to reduce the number of avoidable bird deaths. Courts should have no reservations upholding MBTA strict criminal liability for traumatic migratory bird deaths which data shows are foreseeable and avoidable.

SHOCKED, CRUSHED AND POISONED: CRIMINAL ENFORCEMENT IN NON-HUNTING CASES UNDER THE MIGRATORY BIRD TREATIES

LARRY MARTIN CORCORAN AND ELINOR COLBOURN*

I. THE MIGRATORY BIRD TREATIES AND CONVENTIONS

At the beginning of the Twentieth Century, market hunters or "pot hunters" killed migratory birds on a vast scale for profit;[1] "[s]ome massacred birds for the sheer hell of it."[2] "In danger of extermination" were many bird species valued as food as well as for their role in destroying insects that damaged vital food crops.[3] Sportsmen, farmers, and the general public supported protection of migratory birds primarily for economic but also for aesthetic reasons.[4]

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1. *See* United States v. Moon Lake Elec. Ass'n., 45 F.Supp. 2d 1070, 1080 (D. Colo. 1999) (quoting remarks of eight different Senators and Congressmen); *see also* 55 CONG. REC. 7441 (daily ed. June 6, 1918) (statement of Rep. Miller).

2. George Cameron Coggins & Sebastian T. Patti, *The Resurrection and Expansion of the Migratory Bird Treaty Act*, 50 U. COLO. L. REV. 165, 168 (1979). Coggins' account of the historical evolution of the MBTA is derived from P. MATTHISSEN, WILDLIFE IN AMERICA (1959); J. TREFETHAN, AN AMERICAN CRUSADE FOR WILDLIFE (1975); and Lund, *Early American Wildlife Law*, 51 N.Y.U. L. REV. 703 (1976). *See* Coggins & Patti, at 167 n.18. *See also* 56 CONG. REC. 7370 (daily ed. June 4, 1918) (statement of Rep. Raker) ("promiscuous slaughter"); David G. Lombardi, *The Migratory Bird Treaty Act: Steel Shot Versus Lead Shot For Hunting Migratory Waterfowl*, 22 AKRON L. REV. 343 (1989).

3. Convention between the United States and Great Britain for the Protection of Migratory Birds, August 16, 1916, preamble, 39 Stat. 1702 (1916) [hereinafter Canadian Convention].

4. *See* S. REP. NO. 65-27, at 2 (1917). The House Report expressed similar concerns and support. *See* H.R. REP. NO. 65-243, at 2 (1918); *see also* 16 U.S.C. § 711 (1994) (allowing regulated breeding and sale of migratory birds "for the purpose of increasing the food supply" - the only explicit *statutory* exception to the general prohibitions of the act); discussion *infra* Part II.A (MBTA Enactment). The need to feed American soldiers engaged in combat in the Great War was also cited as a reason for preserving the birds. H.R. REP. NO. 65-243, at 2 (1918) ("it will thus contribute immensely to enlarging and making more secure the crops so necessary to the support and maintenance of the brave men sent to the battlefield by this Republic").

A. *The Migratory Bird Act of 1913*

In response to the pressures and concerns described above, Congress enacted the Migratory Bird Act in 1913.[5] The Act provided that all "migratory game and insectivorous birds [that] . . . do not remain permanently the entire year within the borders of any State or Territory, shall hereafter be deemed to be within the custody and protection of the Government of the United States, and shall not be destroyed or taken contrary to regulations."[6] The Act authorized and directed the Department of Agriculture to adopt suitable regulations for closed hunting seasons and also made violations of the regulations petty misdemeanors.[7]

The 1913 Act was challenged immediately as an unauthorized intrusion into matters reserved to the states by the United States Constitution. Two courts rejected claims that the Act was authorized by the Commerce Clause of the Constitution.[8] The position of the government could not have been helped by its advocacy. In the first case, *United States v. Shauver*, the government initially conceded that the act could not "be sustained under the commerce clause."[9] In the second case, *United States v. McCullagh*, the court believed the government should not have placed reliance on the commerce clause.[10] The appeal of *Shauver* to the Supreme Court was withdrawn, after having been argued twice,[11] when the Migratory Bird Treaty Act (MBTA) became law.[12]

B. *Treaty Power as the Solution*

Secretary of State Robert Lansing and Senator Elihu Root conceived a constitutional solution to the need for federal protection of migratory birds by invoking the treaty power[13] and negotiating the first of what would become four

5. *See* Act of March 4, 1913, ch. 145, 37 Stat. 828, 847-48 (1918). The Act consisted of four paragraphs inserted into the Bureau of Biological Survey portion of the Department of Agriculture appropriations bill.

6. *Id.* at 847.

7. *See* id. at 847-48; *see also* Carey v. South Dakota, 250 U.S. 118, 119-20 (1919) (citing 38 Stat 1960 (1913), *as amended by* 38 Stat. 2024 (1914) and 38 Stat. 2032 (1914)).

8. *See* United States v. McCullagh, 221 F. 288, 292 (D. Kan. 1915); United States v. Shauver, 214 F. 154, 160 (E.D. Ark. 1914). More recently, the Supreme Court has said that "the underlying assumption that the national commerce power does not reach migratory wildlife is clearly flawed." Andrus v. Allard, 444 U.S. 51, 64 n.19 (1979) (citing Hughes v. Oklahoma, 441 U.S. 322 (1979)).

9. *Shauver*, 214 F. at 160; U.S. CONST. art.I, § 8, cl. 3 (" The Congress shall have the Power . . . to regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes").

10. *See McCullagh*, 221 F. at 291.

11. MICHAEL J. BEAN AND MELANIE J. ROWLAND, THE EVOLUTION OF NATIONAL WILDLIFE LAW, 17-18 (3d ed. 1997). Chapter 2 of BEAN & ROWLAND presents an informative discussion of the development of wildlife law from Roman times to the present.

12. *See* Coggins & Patti, *supra* note 1, at 169. Pessimism over the prospects for the *Shauver* appeal may have been unfounded. In 1919, the Supreme Court affirmed a conviction under state law for transportation of wild ducks. *See Carey*, 250 U.S. at 122. The defendant argued that state law had been abrogated by the 1913 federal Migratory Bird Act. *Id.* at 120. The Supreme Court's opinion never questioned the validity of the 1913 Act but, instead, upheld the state conviction on the ground that the "provision of the state law is obviously not inconsistent with the federal law." *Id.* at 121.

13. The treaty power is found in Article 2, Section 2, Clause 2 of the United States Constitution which provides that: "He [the President] shall have Power, by and with the Advice and

bilateral treaties for the protection of migratory birds.[14] On July 7, 1913, the Senate adopted a resolution requesting the President to negotiate treaties for the protection of migratory birds.[15] The first treaty, the Canadian Convention, was concluded and ratified in 1916 and sought to protect birds migrating between the United States and Canada.[16] Three further conventions followed with Mexico (1936),[17] Japan (1972),[18] and the former Soviet Union (1976).[19]

C. *The Treaties*

The MBTA, which implements these treaties, expressly cites to the conventions for identification of birds covered by the Act,[20] limits on implementing regulations,[21] the scope of misdemeanor criminal violations,[22] and limits on state or territorial regulations.[23] Therefore, before addressing the MBTA itself, it is

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Consent of the Senate, to make Treaties, provided two thirds of the Senators present concur;" S. REP. NO. 65-27, at 2 (1917) (August 17, 1916 letter, Sen. Lansing to the President).

14. *See* Coggins & Patti, *supra* note 2, at 169; *see also* BEAN & ROWLAND, *supra* note 11, at 17-18 (noting Department of Agriculture urged the Department of State to conclude a treaty).

15. *See* S. REP. NO. 65-27, at 2 (1917).

16. *See* Canadian Convention, *supra* note 3. On December 14, 1995, the United States and Canada signed a Protocol amending the Canadian Convention. *See* S. TREATY DOC. NO. 104-28, August 2, 1996 (Message transmitting Protocol with Protocol attached) [hereinafter Protocol]. The Senate ratified the Protocol on October 23,1997, but the Protocol does not go into effect until the Parties exchange instruments of ratification. *See* Protocol, art. II. Although the Protocol was drafted to ensure conformity with aboriginal rights in Canada and with subsistence use by indigenous inhabitants of Alaska, the Protocol effectively rewrote the Convention in order to update it. The revisions redrafted the list of migratory birds by using current taxonomic classifications (Article I), added conservation principles to be used in management of migratory bird populations (Article II), added provisions for preservation and enhancement of the environment (Article IV), and added educational and other purposes as permissible purposes for taking nests and eggs (Article V). The Protocol did not alter Article VII of the original Convention which allows either party to issue permits to kill migratory birds that become seriously injurious to agriculture or to other interests of any particular community.

17. *See* Convention between the United States of America and Mexico for the Protection of Migratory Birds and Game Mammals, Feb. 7, 1936, 50 Stat. 1311 [hereinafter Mexican Convention].

18. *See* Convention between the Government of the United States of America and the Government of Japan for the Protection of Migratory Birds and Birds in Danger of Extinction, and Their Environment, March 4, 1972, 25 U.S.T. 3329 [hereinafter Japanese Convention].

19. *See* Convention between the United States of America and the Union of the Soviet Socialist Republics Concerning the Conservation of Migratory Birds and Their Environment, November 19, 1976, 29 U.S.T. 4647 [hereinafter Soviet Convention].

20. *See* 16 U.S.C. § 703 (1994) (referring explicitly to the conventions entered into between the United States with Great Britain, Mexico, Japan, and the Soviet Union); *see also id.* § 715(j) (defining "migratory birds" for purposes of the MBTA by reference to the conventions).

21. *See id.* § 704 (referencing different limitations as "[s]ubject to the provisions and . . . compatible with the terms of the conventions"); *see also id.* § 712 (authorizing regulations as necessary to implement the conventions but without the explicit limitations on compatibility written into 16 U.S.C. § 704).

22. *See id.* § 707 ("any person . . . who shall violate or fail to comply with any regulation made pursuant to this subchapter shall be deemed guilty of a misdemeanor").

23. *See id.* § 708.

well to review the provisions of the underlying conventions and particularly the more significant differences among these provisions.[24]

1. Reasons for the Conventions.

The preamble to the Canadian Convention cited only economic factors as reasons for its execution, such as the value of migratory birds as food or as predators of insects that were injurious to crops and to public forests.[25] The Mexican Convention cited a broader need to utilize migratory birds rationally "for purposes of sport, food, commerce, and industry."[26] The later Japanese and Soviet Conventions broadened the list of reasons even further to include non-economic aesthetic, scientific, and cultural purposes.[27] The evolution of reasons for the Conventions continues with the recent Canadian Protocol which lists "conservation principles" to guide actions taken pursuant to that Convention.[28] However, the "conservation principles" of the Protocol still have a distinctly economic flavor, speaking of restoring and maintaining populations and habitat of healthy migratory bird populations to maintain a variety of "sustainable uses" and "harvesting needs."[29]

2. Areas of Applicability.

Neither the Canadian Convention nor the Mexican Convention contains any provisions specifying their geographic coverage. The Japanese and Soviet Conventions expressly define the areas subject to the Conventions as those areas under the jurisdiction of the respective parties.[30] The Soviet Convention goes further in one respect. Article IV.3 of the Soviet Convention allows the parties to agree on areas of special importance to migratory birds, including areas not within the jurisdiction of either the United States or the Soviet Union.[31] The parties are required to ensure that any person subject to their respective jurisdictions

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24. *See generally* Migratory Bird Treaty With Russia: Continued International Wildlife Protection, 7 ENVTL. L. REP. 10026 (Feb. 1977) (discussing similarities and differences in the various treaties); see Cyril De Klemm, The International Law of Migratory Species, Migratory Species in International Law, 29 NAT. RESOURCES J. 935 (1989) (discussing international treaties which protect migratory species of fish, birds, and terrestrial animals).

25. *See* Canadian Convention, *supra* note 3 ("whereas" paragraphs). In upholding the constitutionality of the MBTA, the Supreme Court described the Canadian Convention as being intended to protect birds as a source of food and as consumers of insect pests. *See* Missouri v. Holland, 252 U.S. 416, 435 (1920).

26. Mexican Convention, *supra* note 17, art. I; *see also* Canadian Convention, *supra* note 3 ("whereas" paragraphs).

27. *See* Japanese Convention, *supra* note 18 (referring specifically in introductory paragraphs to migratory birds as a recreational, aesthetic, scientific, and economic natural resource); *see* Soviet Convention, *supra* note 19 (referring in the introductory paragraphs to recreational, aesthetic, scientific, economic, cultural, and ecological values).

28. *See* Protocol, *supra* note 16, art. II.

29. See *id.*

30. *See* Japanese Convention, *supra* note 18, art. I; *see* Soviet Convention, *supra* note 19, art. I.4.

31. *See* Soviet Convention, *supra* note 19, art. IV.3 (list number II on the "Migratory Bird Habitat" Appendix).

will act in accordance with the Convention's principles regarding such "migratory bird habitat."[32]

3. Protected Birds.

Each Convention addresses the problem of defining exactly which birds are protected somewhat differently. The Canadian Convention defines "migratory birds" simply as: migratory game birds, migratory insectivorous birds, and migratory non-game birds.[33] For game birds, the Canadian Convention lists five families, and for each family it lists the common names of groups or species included in the family.[34] For insectivorous and non-game birds, however, the Convention lists the groups or species, but not the families.[35]

The Mexican Convention similarly lists families of birds that "shall be considered migratory," distinguishing migratory game birds from migratory non-game birds.[36] Unlike the Canadian Convention, however, the Mexican Convention does not elaborate upon the species included in the listed families.[37] Although the restrictive provisions of the Mexican Convention include a specific prohibition against killing migratory insectivorous birds,[38] does not define this group or list any families of insectivorous migratory birds.[39]

The Japanese and Soviet Conventions take a different approach to defining migratory birds. Both define migratory birds to mean species "for which there is positive evidence of migration between the two countries."[40] The Japanese Convention also includes species or subspecies common to both countries, even in the absence of migration.[41] In contrast, the Soviet Convention includes species or subspecies common to both countries only if they share a common migration area, even if the common area is in a third country.[42] In addition, both Conventions include a list of individual species that the parties have determined meet the definition of "migratory birds."[43]

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32. *Id.*

33. *See* Canadian Convention, *supra* note 3, art. I.1, 2, 3.

34. *See id.* art. I.1(a) (listing Families Anatidae or waterfowl, Gruidae or cranes, Rallidae or rails, Limicolae or shorebirds, and Columbidae or pigeons).

35. *See id.* arts. I.2, 3.

36. *See* Mexican Convention, *supra* note 17, art. IV.

37. See id.

38. *See id.* art. II(E).

39. *See id.* art. IV. Pursuant to Article IV of the Mexican Convention, the United States and Mexico subsequently identified additional migratory birds covered by the Convention but made no distinction between insectivorous and other migratory birds. *See also* Coggins & Patti, *supra* note 2, at 172 n. 55 (stating that by regulation, the birds were "treated as nongame birds, and protected from hunting").

40. Japanese Convention, *supra* note 18, art. II.1 (a); Soviet Convention, *supra* note 19, art. I.1 (a).

41. *See* Japanese Convention, *supra* note 18, art. II.1 (b).

42. *See* Soviet Convention, *supra* note 19, art. I.1 (a)-(b).

43. *See* Japanese Convention, *supra* note 18, art. II.2 and Annex; Soviet Convention, *supra* note 19, art. I.3 and app. Alone among the Conventions, the Soviet Convention expressly provides for either party to implement more protective measures for listed *and* unlisted species. *See* Soviet Convention, *supra* note19, art. VIII (unlisted species), IX (stricter domestic measures).

4. Restrictions and Exceptions.

Each Convention makes some type of provision for closed seasons and for prohibitions on killings and/or nest or egg collection.[44] Certain exceptions from the hunting prohibitions appear in three of the Conventions for certain indigenous persons.[45] The Mexican and Japanese Conventions also provide an exception for "private game farms."[46]

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44. *See* Canadian Convention, *supra* note 3, art. II (establishing certain "close [sic] seasons" on hunting). For migratory game birds, the Canadian Convention provides for a closed season from March 10 through September 1, except for certain shorebirds for which the closed season is from February 1 through August 15. The Canadian Convention also prescribes two special, transitional closed seasons for species in need of a recovery period, one of 10 years and one of five years. *See* Canadian Convention, *supra* note 3, art. III (10-year closed season for certain listed species) and art. IV (5-year closed season *or* other appropriate regulations for wood duck and eider duck). The Protocol retains a single closed season from March 10 through September 1 for migratory game birds. *See* Protocol, *supra* note 16, art. I.1 (a).

The Canadian Convention also prohibits the taking of nests and eggs, except for regulated scientific or propagative purposes. *See* Canadian Convention, *supra* note 3, art. V. The Protocol does not explicitly retain the prohibition on the taking of nests and eggs; it only prohibits their offer for sale. *See* Protocol, *supra* note16, art. II.2. However, its express exceptions for the taking of eggs by indigenous Alaskans and aboriginal Canadians suggests an implicit prohibition on taking eggs. *See* Protocol, *supra* note16, art. II.4. In addition, the U.S. regulatory definition of "migratory bird" presently includes "any part, nest, or egg of any such bird." 50 C.F.R. § 10.12 (1998).

The Canadian Convention and the Protocol both allow the parties to prescribe hunting seasons restricted to not more than three and one-half months. *See* Canadian Convention, *supra* note 3, art. II.1; Protocol, *supra* note 16, art. II.1.(a).

The Mexican Convention requires the parties to establish closed seasons, during which the taking of migratory birds, nests, and eggs is prohibited. *See* Mexican Convention, *supra* note 17, arts. II.A, D. Unlike the Canadian Convention, the Mexican Convention does not set forth any specific closed season, except for wild ducks. *See* Mexican Convention, *supra* note 17, art. II.D. The Mexican Convention requires the parties to limit hunting seasons to a maximum of four months, and the parties agree to prohibit hunting from aircraft. *See* Mexican Convention, *supra* note 17, arts. II.C, F. Under the Mexican Convention the taking of insectivorous migratory birds is prohibited without any provision for hunting, which effectively creates an all-year closed season, similar to the Canadian Convention, but it makes no mention of nests or eggs of insectivorous birds. *See* Mexican Convention, *supra* note 17, art. II.E. However, the Mexican Convention does not define insectivorous migratory birds. *See supra* note 39 and accompanying text.

As in other respects, the restrictions and exceptions in the Japanese and Soviet Conventions follow a different model from the Canadian and Mexican Conventions. Neither the Japanese nor the Soviet Convention specifies closed seasons. Instead, each contains a general prohibition on the taking, sale or exchange of migratory birds and eggs followed by a list of exceptions. *See* Japanese Convention, *supra* note 18, art. III.1 (a)-(e); Soviet Convention, *supra* note 19, art. II.1(a)-(d) (includes a prohibition against the disturbance of nesting colonies). Both Conventions include exceptions allowing indigenous peoples of Alaska, Siberia, or Pacific Trust Territories to take birds for personal needs. *See* Japanese Convention, *supra* note 18, art. III.1 (e); Soviet Convention, *supra* note 19, art. II.1 (c). Both Conventions also excepted regulated hunting during hunting seasons. *See* Japanese Convention, *supra* note 18, art. III.1 (c); Soviet Convention, *supra* note 19, art. II.1 (b). Instead of setting a maximum duration for the hunting season, the Japanese and Soviet Conventions simply require that the hunting seasons be established to maintain migratory bird populations. *See* Japanese Convention, *supra* note 18, art. III.2 (also requires that hunting seasons be established to avoid principal nesting season); Soviet Convention, *supra* note 19, art. II.2.

45. *See* Japanese Convention, *supra* note 18, art. III.1 (e); Soviet Convention, *supra* note 19, art. II.1 (c) (exceptions for indigenous peoples of Alaska, Siberia, or Pacific Trust Territories to take

The Conventions all provide some type of exception from the taking prohibitions for scientific, propagative, and in some cases educational purposes.[47] The Canadian and Mexican Conventions also allow action to be taken against injurious birds,[48] and both the Japanese and the Soviet Conventions permit the regulated taking of migratory birds or eggs to protect persons or property.[49]

5. Transportation.

Each of the Conventions contains provisions restricting or regulating the transportation of migratory birds, eggs, and their parts. The Canadian Convention prohibits the interstate (or inter-province) shipment of migratory birds and parts during the closed season, except for scientific or propagative purposes, and prohibits the international trafficking in any birds or eggs taken either during the closed season or at any time in violation of state or provincial law.[50] The Canadian Convention also requires shipment between the countries of migratory birds, parts, or eggs to be labeled.[51]

The Mexican Convention prohibits transportation of migratory birds and parts during the closed season except pursuant to regulations, from private game farms or when used for scientific purposes, propagative, or museum use.[52] Unlike the Canadian Convention, the transportation restrictions of the Mexican Convention are not limited to interstate transportation.[53] The Mexican Convention also requires a permit for transportation of migratory birds and parts between the countries without restriction to the closed season.[54]

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birds for personal needs); Canadian Convention, *supra* note 3, art. II.1 ("Indians may take at any time scoters for food but not for sale"), II.2 (noting that for migratory insectivorous and non-game birds the closed season is all year, except that Eskimos and Indians may take at any season, for personal use (not for sale), certain specified non-game birds), II.3 (describing non-game closed season and exception for Eskimos and Indians to take auks, auklets, guillemots, murres and puffins). The Protocol retains the all-year "close" season on insectivorous and non-game migratory birds. *See* Protocol, *supra* note 16. However, the Protocol expands the exception for hunting and egg gathering by Alaska residents and removes the exception allowing Indians to take scoters. *See* Protocol, *supra* note 16.

46. Mexican Convention, *supra* note 17, arts. II.A, E; Japanese Convention, *supra* note 18, art. III.1 (d).

47. *See* Canadian Convention, *supra* note 3, art. II; Mexican Convention, *supra* note 17, art. II.A; Japanese Convention, *supra* note 18, art. III.1(a); Soviet convention, *supra* note 19, art. II.1(a).

48. *See* Canadian Convention, *supra* note 3, art. VII. (allowing regulated taking, "under extraordinary conditions," of birds "seriously injurious to the agricultural or other interests of any particular community."); Mexican Convention, *supra* note 17, art. II.E (allowing killing of insectivorous migratory birds "when they become injurious to agriculture and constitute plagues"). The Mexican Convention does not express any exception for non-insectivorous birds, *i.e.*, all those listed in the Convention. *See supra* note 39 and accompanying text (describing the absence of any insectivorous birds in the Mexican Convention migratory bird listing).

49. *See* Japanese Convention, *supra* note 18, art. III.1 (b); Soviet Convention, *supra* note 19, art. II.1 (d).

50. *See* Canadian Convention, *supra* note 3, art. VI.

51. *See* Canadian Convention, *supra* note 3, art. VI.

52. *See* Mexican Convention, *supra* note 17, art. II.A.

53. *See* Mexican Convention, *supra* note 17, art. II.A.

54. *See* Mexican Convention, *supra* note 17, art. III.

The Soviet Convention prohibits the importation and exportation of migratory birds, nests, eggs, and parts, subject to the regulated exceptions allowed for taking of the same.[55]

The only transportation restrictions in the Japanese Convention relate to birds in danger of extinction,[56] a category distinct from migratory birds.[57] As to birds in danger of extinction, the parties are required to control their importation and exportation.[58]

6. Habitat.

The Convention provisions relating to habitat are becoming increasingly important as issues are litigated regarding the scope of activities intended to be prohibited under the MBTA.[59] As with the purposes of the Conventions, over time the desire to protect both the birds *and* their habitats became explicit.

The Canadian Convention has no provisions relating to migratory bird habitat. The Mexican Convention contains only an agreement to establish "refuge zones in which the taking of such birds will be prohibited."[60] However, both the Japanese and the Soviet Conventions have a number of provisions relevant to habitat.

The Japanese and Soviet Conventions obligate the parties to establish refuges and to undertake to preserve *and* enhance the environment of migratory birds.[61] Both Conventions specify steps the parties are to take to protect and enhance the environment of migratory birds, including restricting the importation of live animals and plants injurious to the birds or their environments,[62] *i.e.*, exotic species.

The Soviet Convention also requires the parties together to identify and list breeding, wintering, feeding, and moulting areas of special importance in their jurisdictions.[63] In addition, the Soviet Convention requires the parties to create lists of "migratory bird habitat" of special importance that are within or outside their jurisdiction.[64] As to the later habitats, the parties are to "undertake measures necessary to ensure that any citizen or person subject to its jurisdiction will act in accordance with the principles of this Convention in relation to such areas."[65]

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55. *See* Soviet Convention, *supra* note 19, art. II.1.

56. *See* Japanese Convention, *supra* note 18, art. IV.3.

57. *See* Japanese Convention, *supra* note 18, art. V.2 (referring to "migratory birds and birds in danger of extinction," as two distinct categories).

58. *See* Japanese Convention, *supra* note 18, art. IV.3.

59. *See infra* Part III.B.2 (Habitat Modification by Timber Harvest - No Problem).

60. *See* Mexican Convention, *supra* note 17, art. II.B.

61. *See* Japanese Convention, *supra* note 18, arts. III.3 ("sanctuaries"), VI (both as to Article III migratory birds and Article IV birds in danger of extinction); Soviet Convention, *supra* note 19, arts. IV.1, VII ("preserves, refuges, protected areas").

62. *See* Japanese Convention, *supra* note 18, arts. VI (b)-(c); Soviet Convention, *supra* note 19, art. IV.2 (b).

63. *See* Soviet Convention, *supra* note 19, art. IV.2(c).

64. *See* Soviet Convention, *supra* note 19, arts. IV.2(c) ("list number I"), IV.3 ("list number II").

65. Soviet Convention, *supra* note 19, art. IV.3.

7. Endangered Birds and Research.

Again showing the gradual expansion in breadth of the Conventions, the later Japanese and Soviet Conventions, in contrast to the earlier Canadian and Mexican, have provisions relating to birds in danger of extinction.[66] The later Conventions require the parties to identify and report to each other species in danger of extinction.[67] The Japanese Convention requires the parties to control the importation and exportation of endangered species but does not specify the nature of the controls.[68] The Soviet Convention requires the parties to take into account the management plans for any endangered species.[69]

II. MBTA IMPLEMENTATION OF THE CONVENTIONS

A. *MBTA Enactment*

The Conventions were not perceived to be self-executing[70] and Congress has implemented all four Conventions primarily through the MBTA.[71]

Proponents of the original MBTA focused, as did the initial Conventions, primarily on the economic benefits derived from migratory birds, including their value "as a source of food or in destroying insects."[72] Opponents of the Act generally did not dispute the economic value of migratory birds nor even the need to conserve them. Instead, opposition arose from a belief that the Act violated

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66. *See* Japanese Convention, *supra* note 18, art. IV. *See also* Japanese Convention, *supra* note 18, art. V.2 (discussing both "migratory birds *and* birds in danger of extinction") (emphasis added).

67. *See* Japanese Convention, *supra* note 18, art. IV.2; Soviet Convention, *supra* note 19, art. V.2.

68. *See* Japanese Convention, *supra* note 18, art. IV.3.

69. *See* Soviet Convention, *supra* note 19, art. V.3. Birds in danger of extinction now receive protection under the Endangered Species Act of 1973, 16 U.S.C. §§ 1531 – 1544 (1994 & Supp. 1998), and the Convention on International Trade in Endangered Species of Wild Fauna and Flora, March 3, 1973, 27 U.S.T. 1087.

70. For a discussion of the extent to which international treaties are self-executing, see *generally* Comment, *The Migratory Bird Treaty: Another Feather in the Environmentalist's Cap*, 19 S.D. L. REV. 307, 312-16 (1974) (observing that with the exception of Article VII, every reference in the Canadian Convention to implementing laws or regulations refers to an exception to the prohibitions of the Convention, and in 1951, a State Department memorandum used the MBTA as an example of a self-executing treaty).

71. The MBTA was enacted in 1918 and amended in 1936, 1960, 1969, 1974, 1978, 1986, 1989, and 1998. In 1939, responsibility for enforcing the statute was shifted to the U.S. Department of the Interior from the U.S. Department of Agriculture. *See* 1939 Reorganization Act Plan No. II, § 4(f), 53 Stat. 1431, 1434. The MBTA is presently codified at 16 U.S.C. §§ 703-712. Subsequently other statutes were enacted, in whole or in part, to implement the migratory bird conventions. *See* Migratory Bird Conservation Act, 16 U.S.C. §§ 715-719c (1994 & Supp. 1998) (providing for the implementation of the Migratory Bird Convention); Endangered Species Act, 16 U.S.C. §§ 1531-44 (1994 & Supp. 1998); Bald and Golden Eagle Protection Act, 16 U.S.C. §§ 668 *et seq.* (1994).

72. S. REP. NO. 65-27, at 2 (1917); H.R. REP. NO. 65-243, at 2-3 (1918); 55 CONG. REC. 7448 (1918) (statement of Rep. Robbins) (acknowledging the importance of "insectivorous migratory birds" in protecting food crops).

states' rights under the constitution,[73] and from concerns over the warrantless search provisions of the Act as originally proposed.[74]

Congress gave only limited attention to the scope of the MBTA's protection, now perhaps its most controversial aspect.[75] Opponents charged that the Act would reach general killings of birds.[76] Proponents did not contest the opponents broad reading[77] but, instead, argued that broad powers were needed for effective enforcement,[78] and that any harshness would be tempered by prosecutorial discretion and judicial lenity.[79]

After modifying the bill to require warrants for searches,[80] Congress enacted the MBTA on July 3, 1918.[81] Since that time, Congress has amended the Act to implement each of the three succeeding Migratory Bird Conventions with Mexico, Japan, and the former Soviet Union.[82] The Supreme Court has held that the

73. *See* 56 CONG. REC. 7360-81 (1918); *id.* at 7446-47 (statement of Rep. Tillman); *id.* at 7449 (statement of Rep. Caraway); *id.* at 7450-51 (statement of Rep. Mondell); *id.* at 7452 (statement of Rep. Huddleston). *See also id.* at 7445 (statement of Rep. Bland) (questioning the constitutionality of delegation of authority to define illegal actions by regulation). *But see id.* at 7448 (statement of Rep. Robbins) (arguing the need for consistent enforcement and hunting seasons from state to state).

74. *See* 65 CONG. REC. at 7440-61 (1918). Opponents warned that federal officers "will pin the bottom of an oyster can upon their coats and invade the homes of free citizens." *Id.* at 7449 (statement of Rep. Caraway); *id.* at 7447 (statement of Rep. Tillman) ("Such a person may come with the end of a tomato can appended to the lapel of his coat as his badge of authority. . . .").

75. *See* United States v. Moon Lake Elec. Ass'n, 45 F.Supp. 1070, 1079-82 (D. Colo. 1999) (providing a thorough presentation of the legislative history of the MBTA).

76. "When you kill any kind of bird . . . you will kill it by permission of the Secretary of Agriculture . . . ." 65 CONG. REC. 7364 (1918) (statement of Rep. Huddleston); *see id.* at 7453 (statement of Rep. Green) ("The effect of this is to put the whole thing absolutely in the power of the Secretary of Agriculture to make regulations . . . .").

77. Proponents did contest one extreme reading. Opponents of the Act raised specters of a "barefoot boy" who kills a songbird or takes a robin's egg, suggesting that he would be "hauled before a court, sent to jail, or fined the heavy fine provided by this bill." *Id.* at 7364 (statement of Rep. Huddleston); *see id.* at 7455 (statement of Rep. Mondell). *See id.* at 7447 (statement of Rep. Tillman) (stating bill would make "mollycoddles" and "sissies" of our boys). Proponents of the Act suggested such concerns were fanciful. *See id.* at 7456 (statement of Rep. Dempsey) ("to imagine [such prosecutions] and to spend time in talking about them would be bad enough if it were done in sport"); *id.* at 7367 (statement of Rep. Platt) ("Now, of course, it is utter nonsense to talk about the little boy going to school with birds' eggs in his hands to show the scholars. He would come under the provisions of the bill in regard to providing eggs for scientific purposes.").

78. *See id.* at 7441 (statement of Rep. Miller); *id.* at 7454 (statement of Rep. Lea) (arguing that effective enforcement requires discretionary power to prescribe appropriate regulations).

79. *See id.* at 7441 (statement of Rep. Miller) (explaining that advice and cooperation of game commissions will temper any "high-handed or arbitrary" actions by the Department); *id.* at 7444 (statement of Rep. Dowell) (stating punishment will be solely a matter for the courts, not for the Department); *id.* at 7452 (statement of Rep. Flood) (rejecting notion that maximum fine of $500 and maximum imprisonment of one day is severe); *id.* at 7457 (statement of Rep. Cooper) (suggesting that maximum penalties are not severe).

80. *See* 16 U.S.C. § 706 (1994).

81. 40 Stat. 755 (1918); *see* 16 U.S.C. § 706.

82. *See* 16 U.S.C. §§ 703, 712; BEAN & ROWLAND, *supra* note 11, n.43 (observing "[n]otwithstanding the many differences among them, the ratification of each new convention did not result in a major overhaul of the Act but only in technical amendments that merely added appropriate references to each subsequent convention").

conventions "establish *minimum* protections for wildlife; Congress could and did go further in developing domestic conservation measures" (*i.e.*, the MBTA).[83]

B. *Constitutional Challenges*

Rooted in the exercise of treaty powers, the MBTA, unlike the Migratory Bird Act of 1913, withstood judicial scrutiny. First and most importantly, the Supreme Court upheld the constitutionality of both the MBTA and the Canadian Convention as valid exercises of treaty powers.[84] The Court observed that, "[h]ere a national interest of very nearly the first magnitude is involved."[85]

The Supreme Court later held that MBTA prohibitions on the sale of bird parts are not Fifth Amendment "takings" of property.[86] The MBTA "taking" (*i.e.*, hunting) prohibitions also were held not to constitute a Fifth Amendment taking, even when private lands are consequently closed to hunting.[87] "Numerous cases have considered, and rejected, the argument that destruction of private property by protected wildlife constitutes a governmental taking."[88] Moreover, a property owner has no unconditional or absolute right to kill federally-protected wildlife, including migratory birds, in defense of his property. The Ninth Circuit stated,

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83. Andrus v. Allard, 444 U.S. 51, 62 n.18 (1979) (emphasis added). *But see* BEAN & ROWLAND, *supra* note 11, n.43 ("Thus, to the extent that the new features of the later conventions cannot be subsumed within the general language of the Act, those features remain unimplemented by domestic legislation.").

84. *See* Missouri v. Holland, 252 U.S. 416, 435 (1920). The Supreme Court's reliance on the Federal government's treaty powers contrasts with its reliance on commerce clause powers to validate subsequent environmental legislation. Its reliance on treaty powers derived from a more restrictive view of the scope of the Commerce Clause in 1913 than just 25 years later, by which time the judicial climate had changed markedly. In *Cerritos Gun Club v. Hall*, 96 F.2d 620, 624 (9th Cir. 1938), a suit to enjoin prosecution under the MBTA for luring migratory game fowl, the Ninth Circuit said,"[w]e are fully in accord with Judge Evans' opinion and the government's contention that these birds may be regulated by Congress as subject of [sic] interstate commerce." Similarly, in *Cochrane v. United States*, 92 F.2d 623, 627 (7th Cir. 1937), the Seventh Circuit, in reviewing MBTA convictions, opined, "[o]ur conclusion therefore is that the legislation was authorized by the Commerce Clause, as well as by the treaty." *See also Andrus*, 444 U.S. at 63 n.19 ("the underlying assumption that the national commerce power does not reach migratory wildlife is clearly flawed") (citing Hughes v. Oklahoma, 441 U.S. 322 (1979)).

85. *Holland*, 252 U.S. at 435.

86. *See Andrus*, 444 U.S. at 64, 67-68; *see also* United States v. Richards, 583 F.2d 491, 496 (10th Cir. 1978) (stating that defendant's possession of sparrow hawks pursuant to state permits prior to federal regulation did not create property rights; therefore, the subsequent federal regulations prohibiting sale of the birds did not cause an unconstitutional deprivation of property).

87. *See* Lansden v. Hart, 168 F.2d 409, 412 (7th Cir. 1948) (observing that the Presidential Proclamation closed land to hunting around State game preserve); Bailey v. Holland, 126 F.2d 317, 324 (4th Cir. 1942) (noting that the regulation closed private lands to hunting around federal wildlife refuge); Bishop v. United States, 126 F. Supp. 449, 452 (Ct. Cl. 1954) (holding that the United States was not liable for a taking in relation to the damage caused by the prohibition against hunting on private lands).

88. Christy v. Hodel, 857 F.2d 1324, 1334 (9th Cir. 1988) (citing, for example, Mountain States Legal Foundation v. Hodel, 799 F.2d 1423, 1428-29 (10th Cir. 1986) (summarizing decisions of courts rejecting compensation demands under different legal theories), *cert. denied*, 480 U.S. 951 (1987)), *cert. denied*, 490 U.S. 1114 (1989). *See also* Sickman v. United States, 184 F.2d 616, 619 (7th Cir. 1950) (noting that depredation by protected wildlife is compensable under Federal Tort Claims Act), *cert. denied*, 341 U.S. 939 (1951).

"we decline plaintiff's invitation to construe the fifth amendment as guaranteeing the right to kill federally-protected wildlife in defense of property."[89] Instead, "regulations require landowners to seek the assistance of a governmental official who is expected to act in the public interest."[90]

Finally, the MBTA has survived at least one challenge alleging that it was unconstitutionally vague and overbroad.[91] Other courts have found vagueness in particular regulations or applications.[92] However, reflecting the struggle courts encounter in applying the MBTA's strict liability standard, discussed *infra* Part III. B.

C. *Structure of the MBTA*

The MBTA in many ways acts as a skeleton upon which the implementing regulations necessarily place the flesh. For example, the MBTA initially sets forth a sweeping prohibition against taking, killing or possessing "at any time, by any means or in any manner," migratory birds, parts, nests, eggs or products thereof.[93] While it is seemingly overreaching on its face, this prohibition was written in contemplation of modifying its regulations. Under Section 704 of the MBTA, the Secretary of the Interior is

> authorized and directed . . . to determine when, to what extent, if at all, and by what means, it is compatible with the terms of the conventions to allow hunting, taking, capture, killing, possession, sale, purchase, shipment, transportation, carriage, or export of any such bird, or any part, next, or egg thereof, and to adopt suitable regulations permitting and governing the same . . . .[94]

The Secretary also is explicitly authorized (though not directed) to issue implementing regulations related to the Conventions.[95] These implementing

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89. *Christy*, 857 F.2d at 1330.

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

91. *See* United States v. Smith, 29 F.3d 270, 273 (7th Cir. 1994) (ruling that the ban on the possession of bald eagle feathers was neither vague nor overbroad based on the "plain language" of the statute).

92. *See* United States v. Chew, 540 F.2d 759, 761 (4th Cir. 1976) (holding that the definition of "bag limit" was vague, ambiguous, and overbroad, but the conviction was upheld because there was no ambiguity as to "killing," with which defendant was charged); United States v. Rollins, 706 F. Supp. 742, 744-45 (D. Idaho 1989) (holding that the MBTA criminal provision was unconstitutionally vague as applied where, *inter alia*, pesticides were used in accordance with the instructions on the label).

93. 16 U.S.C. § 703 (1994). For the exact language of this prohibition, *see infra* Part II.D.

94. *Id.* § 704.

95. *See id.* § 712(2). Section 712 also provides specific authorization for the Secretary to issue regulations "to assure that the taking of migratory birds and the collection of their eggs by the indigenous inhabitants of the State of Alaska shall be permitted for their own nutritional and other essential needs . . . ." *Id.* § 712(1). This statutory provision has not been used following the Ninth Circuit's decision in Alaska Fish & Wildlife Fed'n & Outdoor Council v. Dunkle, 829 F.2d 933, 945 (9th Cir. 1987) (holding that the regulations must comport with the most restrictive provisions of the Conventions). Because the Canadian Convention did not contain an exemption that would comport with this statutory provision, implementing regulations for Section 712 are not in effect. The still-pending Canadian Protocol may remove this impediment by permitting such takes by indigenous peoples. *See infra* Part III.A.2 (Exclusion of Non-Native Species) for discussion of the exclusion of

regulations, discussed in relevant part *infra*, delineate hunting seasons and methods, provide complete exemptions for certain limited activities by limited groups of people, and provide for permits for other types of activities, rendering the initial flat prohibition eminently workable.

The MBTA also includes a prohibition against the transportation or importation of certain migratory birds, parts, eggs or nests thereof, depending on the manner and place of previous acquisition and possession.[96] States and Territories are explicitly free to make and enforce laws and regulations that provide even further protection to migratory birds, nests and eggs, consistent with the MBTA and the Conventions.[97] The MBTA also provides for seizure and forfeiture of birds, parts, nests, or eggs thereof that are, in some manner, found to have been obtained or handled contrary to the provisions of the MBTA.[98]

Finally, and for our present purposes most importantly, the MBTA sets forth the parameters for both felony and misdemeanor criminal violations of the general prohibition of Section 703.[99]

D. *General Prohibitions*

The general MBTA proscription states:

> Unless and except as permitted by regulations made as hereinafter provided, . . . it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, . . . sell, . . . barter, . . . purchase, . . . ship, . . . or . . . transport . . . any migratory bird, any part, nest, or eggs of any such bird, . . . included in the terms of the conventions between the United States and Great Britain . . . [Mexico] . . . Japan . . . [and the Soviet Union].[100]

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non-native species from the conventions; *infra* Part III.C.1 (Rights Under the Conventions) for discussion of Native Americans' rights under the Conventions.

96. *See* 16 U.S.C. § 705.

97. *See id.* § 708.

98. *See id.* § 706.

99. *See id.* § 707. The remaining MBTA provisions relate to appropriations and arrest and search warrant powers. *Id.* §§ 706, 709a.

100. *Id.* § 703. Section 703 also prohibits attempts or offers to do most of the prohibited activities. In 1998, Congress added a new prohibition on the use of bait:

> (b) It shall be unlawful for any person to -
>
> (1) take any migratory game bird by the aid of baiting, or on or over any baited area, if the person knows or reasonably should know that the area is a baited area; or
>
> (2) place or direct the placement of bait on or adjacent to an area for the purpose of causing, inducing, or allowing any person to take or attempt to take any migratory game bird by the aid of baiting on, or over the baited area.

Section 102(b), Migratory Bird Treaty Reform Act of 1998 (enacting 16 U.S.C. § 704(b)). Note that the Reform Act makes it a crime to take either (1) by aid of baiting, or (2) on or over any baited area, terms that are more fully described by regulation. *See* 64 Fed. Reg. 29799, 29804 (June 3, 1999) (promulgating 50 C.F.R. § 20.11(j) (1998) (baited area) and (k) (baiting)). The new crime for placement of bait does not appear to apply to placement of bait in aid of hunting that is not conducted on or over the baited area even though the hunting itself is illegal. A full discussion of issues related to migratory game bird hunting, including baiting, is beyond the scope of this article.

As noted above, these broad prohibitions of the MBTA[101] are circumscribed by the regulations contemplated therein.[102]

E. *Regulatory Exceptions*

Definitions of terms used in the MBTA are contained both in the migratory bird hunting and permit regulations,[103] and begin the process of qualifying the broad prohibitions, and in the general regulations.[104] The hunting regulations establish hunting season exceptions to the prohibitions, including season lengths and bag limits, which are revised annually.[105] Permanent migratory game bird regulations specify tagging and identification requirements, prohibit certain hunting methods, and address related matters.[106]

In addition to the exceptions for hunting, the regulations provide all-important exceptions for otherwise-prohibited activities.[107] Each of the exceptions generally requires either (1) that the person undertaking the otherwise-prohibited activity fall into a particular job category, or act with regard to only captive-reared species; or (2) that a permit authorizing the activity in question be obtained in advance of the activity.[108]

1. Permit-less Exceptions

The first, permit-less type of exception encompasses Department of Interior enforcement personnel who must, to perform their official duties, take, acquire, possess, transport or "dispose of migratory birds, or their parts, nests or eggs."[109] A similar job-related exception applies to "[s]tate game departments, municipal game farms or parks, and public museums, public zoological parks, accredited members of the American Association of Zoological Parks and Aquariums and

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101. The MBTA itself does contain one restriction on the breadth of this prohibition when it provides that "[n]othing in this subchapter shall be construed to prevent the breeding of migratory game birds on farms and preserves and the sale of birds so bred under proper regulation for the purpose of increasing the food supply." 16 U.S.C. § 711. However, even that limitation is again dependent on "proper regulation." *Id.*

102. For a brief description of experience with regulations in the first 60 years of the MBTA, before the advent of regulatory challenges by environmentalists, *see* Coggins & Patti, *supra* note 2 at 197. The regulations have not been revised to reflect the recent, December 14, 1995, Protocol with Canada.

103. *See* 50 C.F.R. §§ 20.11 (Migratory Bird Hunting definitions), 21.3 (Migratory Bird Permits definitions). The major difference between Part 20 and Part 21 is that Part 20 was meant to, and largely does apply only to migratory game birds. *Compare id.* § 20.1(a) *with id.* § 21.1.

104. *See id.* §§ 10.11, 10.12. For example, "*Take* means to pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to pursue, hunt, shoot, wound, kill, trap, capture, or collect." *Id.* § 10.12. However, "barter" and "sale" are defined in neither the MBTA nor in the implementing regulations.

105. *See id.* §§ 20.100-.110 (Part 20, subpart K). A discussion of migratory bird hunting regulations is beyond the scope of this article.

106. *See id.* §§ 20.21, 20.36, 20.81, 20.131-.134 (Part 20, subparts A through J and L).

107. *See id.* §§ 21.11, 21.12.

108. The regulations maintain a clear distinction between game and non-game migratory birds (*see id.* §§ 10.12, 20.11), as did the Canadian and Mexican conventions. Game bird hunting and related activities are regulated by *id.* § 20 (Part 20, Migratory Bird Hunting).

109. *Id.* § 21.12(a).

public scientific or educational institutions."[110] This exemption allows them to acquire migratory birds, their parts, nests, eggs, or progeny, without a permit but only where the person from whom they receive the item legally acquired it pursuant to a permit or under Section 21.12(a).[111] A further general exception is granted for the acquisition, possession and transportation of lawfully acquired and properly marked captive-reared migratory waterfowl, and is extended to include sale, trade, disposition and donation where the waterfowl in question are mallard ducks.[112] Finally, any person may sell or barter the feathers of migratory *waterfowl*[113] "killed by hunting, . . . or seized and condemned by Federal or State game authorities" for the making of fishing flies, bed pillows, mattresses, and similar commercial uses.[114] They may not be used for millinery or ornamental use, nor for mounted specimens of birds taken.[115]

2. Exceptions Requiring a Permit.

a. Common Permits

Of greater significance with relation to enforcement of the United States' treaty obligations under the MBTA are exceptions that require prior acquisition of a permit, especially for takings of migratory birds by private citizens.[116] Several of the possible permits address pre-existing interests and industries affected by the prohibitions of the MBTA. For example, a permit can be obtained authorizing "taxidermy services on migratory birds or their parts, nests or eggs."[117] Permits are available for scientific collecting activities and falconry activities, including raptor propagation.[118] Complementing the exceptions established for captive-reared migratory waterfowl, permits are also available to authorize the sale, trade, donation or other disposal of "captive-reared and properly marked migratory waterfowl or their eggs."[119]

Many of these possible permits are conditioned on the permittee maintaining records of their activities. For example, a person holding a taxidermist permit is required to keep accurate records on a yearly basis "showing the names and addresses of persons from and to whom migratory birds or their parts, nests or eggs were received or delivered, the number and species of such, and the dates of receipt and delivery," as well as records documenting his legal "acquisition of any captive reared" migratory waterfowl from a holder of a current waterfowl

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110. *Id.* § 21.12(b).

111. *See id.* § 21.12(b).

112. *See id.* §§ 21.13, 21.14.

113. Waterfowl is a synonym for the bird family Anatidae. *See* Canadian Convention, *supra* note 3, art. I(a).

114. 50 C.F.R. § 20.91

115. See id.

116. *See id.* §§ 21.21-.28, 21.30.

117. *Id.* § 21.24

118. *See id.* §§ 21.23, 21.28, 21.30. Note that persons engaged in falconry may also be affected by the Endangered Species Act, 16 U.S.C. §§ 1531-1544, the Lacey Act, 16 U.S.C. §§3371-3378, the Bald and Golden Eagle Protection Act, 16 U.S.C. §§668-668d. Persons must possess a permit in order to take, possess, sell, etc. any raptor for falconry. *See id.* § 21.28. For a discussion of federal falconry regulations, *see* Robert F. Kennedy, Jr., *Falconry: Legal Ownership and Sale of Captive-Bred Raptors*, 4 PACE ENVTL. L. REV. 349, 358-60 (1987).

119. 50 C.F.R. § 21.25.

sale and disposal permit.[120] Such records, and even just the requirement that they be created and maintained, can significantly enhance enforcement capabilities and can be an effective deterrent to potential violators.

b. Special Purpose Activities Permits

Two additional types of permits are of significant interest. First, special purpose permits may be issued for "special purpose activities related to migratory birds, their parts, nests, or eggs."[121] Such permits are a catchall intended to address circumstances in which a proposed activity would benefit the migratory bird resource, or is justified by "important research reasons, reasons of human concern for individual birds, or other compelling justification[s]."[122] Over the years special purpose permits have come to be used for six identifiable categories of activities: (1) wildlife rehabilitation, (2) special purpose possession (i.e., educational purposes), (3) captive-bred migratory game bird activities[123], (4) Indian religious uses (other than eagle parts which are addressed under 50 C.F.R. Part 22), (5) salvage of dead birds, and (6) miscellaneous activities such as, historically, airport safety.[124]

c. Depredation Permits and Orders

Second, and perhaps most importantly, permits are available for the taking, possession or transportation of migratory birds for depredation control purposes.[125] Permit applications for taking depredating migratory birds must describe the area where depredations occur, the nature of the interests injured, the extent of the injury, and the particular migratory bird species committing the injury.[126] While the regulations list the basic information that must be included for this type of permit application, there is no guidance for what circumstances

120. *Id.* § 21.24(d)(1); *see also* §§ 21.23(c)(4) (requiring reports on scientific collection activities), 21.24(d)(1) (requiring annual reports from holders of waterfowl sale and disposal permits).

121. *Id.* § 21.27.

122. *Id.*

123. At least those captive-bred migratory game birds, such as sandhill cranes, not already covered under the provisions addressing captive-bred migratory waterfowl, *id.* §§ 21.14, 21.25, as discussed above.

124. The MBTA regulations are periodically revised, including those governing the special purposes permits. It is anticipated at this time that some of the most common categories of special purposes permits, such as those issued for wildlife rehabilitation, will be addressed separately under the proposed revised regulations rather than continuing under the old catchall special purpose regulations. Interview with George Allen, United States Fish and Wildlife Service (Oct. 13-14, 1999).

125. *See* 50 C.F.R. § 21.41. "Depredation" is not explicitly defined in the regulations. *See, e.g., id.* §§ 10.12 (general definitions), § 21.3 (Migratory Bird Permit definitions). No permit is required for activities that merely herd or scare depredating migratory birds, except threatened or endangered species, or bald or golden eagles, for which permits are required under the Endangered Species Act, 16 U.S.C §§ 1531-1544, and the Bald and Golden Eagle Protection Act, 16 U.S.C. §§ 668-668d. *See id.* § 21.2(b).

126. *See id.* § 21.41(b). *See also id.* Part 13 (General Permit Procedures), which specifies additional permit application requirements.

would allow proper issuance of the depredation permit.[127] Thus, the regulations effectively grant broad discretion to issue such depredation permits with the respective Regional Directors of the United States Fish and Wildlife Service.[128]

Some instruction as to the circumstances in which takings of depredating migratory birds could be expected to be authorized may be gleaned from analogous regulations. Regulations authorize the Director of the USFWS to issue standing depredation orders in the Federal Register "[u]pon the receipt of evidence clearly showing that migratory game birds have accumulated in such numbers in a particular area as to cause or about to cause serious damage to agricultural, horticultural, and fish cultural interests."[129] Such standing orders, as opposed to permits, are used in circumstances involving chronic and well-documented instances of depredation to authorize persons to kill, without a depredation permit, particular species of birds found depredating in particular locations. For example, in March 1998, the Service promulgated regulations authorizing until April 30, 2005 (unless specifically revoked earlier), under certain conditions, the killing of double-crested cormorants when the cormorants were found committing or about to commit depredations to aquaculture stocks on premises used for the production of such stocks.[130]

To ensure that depredation permits are not abused, birds killed pursuant to a depredation permit, or a depredation order, must be disposed of in accordance with the law. This usually requires turning the birds over to a Fish and Wildlife Service representative for disposition to a charitable or similar institution.[131] The birds can be used for food by charitable or other institutions, or in some cases provided to a scientific or educational institution, but are not to enter commercial trade or otherwise conflict with the intentions and goals of the Migratory Bird Treaties entered into by the United States.[132]

F. *Criminal Provisions*

The MBTA provides for both felony and misdemeanor offenses. The types of activities that can form the basis of a felony offense are more limited than the types that can form the basis of a misdemeanor. In addition, a felony offense includes a basic *mens rea* requirement of knowledge.

1. Felony Offenses

Where no exception applies and no permit has been obtained, the MBTA, 16 U.S.C. § 707(b), provides:

> Whoever, in violation of this subchapter shall *knowingly*
>
> (1) take by any manner whatsoever any migratory bird with intent to sell, offer to sell, barter or offer to barter such bird, or

127. *See id.*§ 21.41(b). *See also* 50 C.F.R. § 2.1 (describing responsibility of various field installations for performing program operations of the FWS).

128. *See id.* §21.41. *See also id.* §§ 2.1 (describing responsibility of various field installations for performing program operations of the FWS), 2.2 (listing locations and geographic jurisdiction of seven FWS regional offices).

129. *Id.* § 21.42.

130. *See id.* § 21.47.

131. *See id.* § 21.41(c)(4).

132. *See id.*; 16 U.S.C. §§ 704, 712 (1994) (authorizing regulations).

> (2) sell, offer for sale, barter or offer to barter, any migratory bird shall be guilty of a felony . . . .[133]

[Emphasis added.][134]

Thus, felony offenses are reserved for activities involving an element of commerce, that is, sale or barter, as well as knowledge[135] The maximum penalties for a felony violation are two years imprisonment, a $250,000 fine for an individual ($500,000 for an organization), or both.[136]

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133. The person committing the violation must have knowledge that he or she is conducting the activity giving rise to the violation but need not know the law. That is, the government must show that the defendant's actions were intentional but need not show that the defendant knew they were illegal.

> It is not intended that proof be required that the defendant knew the taking, sale, barter or offer was a violation of the subchapter, nor that he know the particular bird was listed in the various international treaties implemented by this Act.

United States v. Pitrone, 115 F.3d 1, 5 (1st Cir. 1997) (quoting S. Rep. 99-445 (1986), *reprinted in* 1986 U.S.C.C.A.N. 6113, 6128). *See also Pitrone*, 115 F.3d at 6 (contrasting "knowingly" with "'willfully' - a word which is conspicuously absent from Section 707 (b) - [and which] sometimes has been construed to require a showing that the defendant knew his behavior transgressed the law.").

134. 16 U.S.C. § 707(b). Although not made explicit, the MBTA felony provision also includes trafficking in bird parts. *See* 50 C.F.R. § 10.12 ("'migratory bird' means any bird . . . including any part, nest, or egg of any such bird, or any product"); *Pitrone*, 115 F.3d at 8-9 (MBTA felony conviction of taxidermist for unpermitted sale of mounted waterfowl).

135. Congress did not add the "knowing" scienter requirement to the felony provision until 1986. Title V, § 501 of Pub. L. No. 99-645, 100 Stat. 3582, 3590 (1986). It did so in response to the Sixth Circuit holding that when creating a crime which carries a substantial penalty, "Congress must require the prosecution to prove the defendant acted with some degree of scienter." United States v. Wulff, 758 F.2d 1121, 1125 (6th Cir. 1985). The procedures leading to the *Wulff* decision were curious. The original indictment alleged the defendant "knowingly" violated the MBTA. *See Wulff*, 758 F.2d at 1122. The defendant moved to strike the word "knowingly" as surplusage, to which the prosecution agreed. *See id.* The defendant then moved to dismiss the indictment as a violation of due process because the MBTA did not require guilty knowledge, a motion the trial court granted following the defendant's conviction at trial. *See id.* The Sixth Circuit held that Congress intended the MBTA to be a strict liability statute and the court refused to read a scienter requirement into the Act. *See id.* at 1124. Consequently, the court held that the failure to require proof of some degree of scienter in the MBTA felony provision violated due process. *See id.* at 1125.

Immediately after Congress amended the MBTA in response to the *Wulff* decision, the Third Circuit rejected the reasoning of *Wulff*. *See* United States v. Engler, 806 F.2d 425, 435 (3d Cir. 1986). The Third Circuit agreed with the Sixth Circuit that the MBTA violations, including the felony violation, were strict liability offenses and that the court could not supply a scienter requirement not intended by Congress. *See Engler*, 806 F.2d at 431-32. Nevertheless, in a very thoroughly reasoned opinion, the Third Circuit observed that the Supreme Court repeatedly affirmed felony convictions in strict liability criminal prosecutions. *See id.* at 433-35. Significantly, in reaching its result, the Third Circuit rejected the prosecution's concession that the absence of a scienter requirement in the MBTA felony provision violated due process. *See id.* at 433.

136. *See* 16 U.S.C. § 707(b) (stating two year imprisonment); 18 U.S.C. § 3571(b)(3), (c)(3) (providing fine amount). Alternative fines equal to twice the pecuniary gain or loss caused by the offense are also available. *See id.* § 3571(d). The MBTA does not set minimum fines. For non-petty offenses, including all felonies, the Sentencing Guidelines do set minimum fines depending on the severity of the offense. *See* U.S. SENTENCING GUIDELINES MANUAL §§ 5E1.2(c) (1998) (setting

2. Misdemeanor Offenses

The MBTA provides that:

> any person, association, partnership, or corporation who shall violate any provisions of said conventions or of this subchapter, or who shall violate or fail to comply with any regulation [50 C.F.R. Parts 20 and 21] made pursuant to this subchapter shall be deemed guilty of a misdemeanor . . . .[137]

In contrast to the felony offense, no knowledge is required for a misdemeanor conviction under the MBTA—it is a strict liability offense.[138]

For offenses committed before October 30, 1998, the maximum penalties were six months imprisonment, a $5,000 fine for an individual ($10,000 for an organization), or both.[139] As of October 30, 1998, Congress increased the maximum fine to $15,000 for both individuals and organizations.[140]

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minimum fines for individuals), 8C2.4(a) (setting "base fines" for organizations); 18 U.S.C. § 19 (petty offenses defined) (1994).

137. 16 U.S.C. § 707(a).

138. *See infra* note 206.

139. *See* 16 U.S.C. § 707(a) (specifying maximum imprisonment); 18 U.S.C. § 3559(a)(7) (defining a Class B misdemeanor); *id.* §§ 3571(b)(6), (c)(6) (setting alternative maximum fines for Class B misdemeanors). As with felonies, a fine equal to twice the pecuniary gain or loss caused by the offense, whichever is greater, is available as an alternative fine for any MBTA misdemeanor offense. *Id.* § 3571(d). In contrast to MBTA felonies, the Sentencing Guidelines do not set minimum fines for MBTA misdemeanors because, with the exception of the new misdemeanor for placing bait, the maximum sentence for MBTA misdemeanors is not greater than six months, making them Class B misdemeanors. *See id.* § 3559 (7) - (9) (defining Class B and C misdemeanors and infractions - offenses punishable by six months or less, i.e., petty offenses); U.S. SENTENCING GUIDELINES MANUAL § 1B1.9 (1994) (explaining that sentencing guidelines do not apply to Class B or C misdemeanors or to an infraction).

The district court for each judicial district may, for petty offenses, by local rule, provide that "a fixed sum may be accepted in suitable cases in lieu of appearance and as authorizing the termination of the proceedings." FED. R. CRIM. P. 58(d)(1). Many MBTA violations are resolved by such "forfeiture of collateral," a process analogous to paying a traffic ticket without appearing in court.

140. *See* 16 U.S.C. § 707(a); Migratory Bird Treaty Reform Act of 1998, Pub. Law No. 105-312, § 103 (amending 16 U.S.C. § 707(a) (defining the maximum fine)). Although the maximum MBTA misdemeanor fine exceeds that specified by the statutory definition of a petty offense ($5,000 for individuals and $10,000 for organizations), *see* 18 U.S.C. §§ 19, 3559(a)(7), 3571(b)(6), & (c)(6), at least one court has held, in the context of the Endangered Species Act, that a maximum fine as great as $25,000 does not alter the otherwise "petty" classification of an offense (with a maximum prison term of 6 months or less) for the purposes of the Sixth Amendment right to trial by jury. *See* United States v. Clavette, 135 F.2d 1308, 1310 (9th Cir. 1998). *See also* S. REP. NO. 105-366.

III. ENFORCEMENT ISSUES

A. *What is Protected*

The scope of the MBTA in terms of the types of birds it protects is quite broad. It has been said that the regulatory "list of migratory birds entitled to protection includes almost all native North American birds."[141]

Evidence of actual migration between the United States and treaty countries is not required. Birds bred and raised in captivity are included if they are members of listed species[142] although the regulations create exceptions for captive-reared migratory waterfowl.[143] Birds acquired before the MBTA prohibitions were enacted, known as "pre-Act" birds, as well as their parts and products may also be subject to the Act's prohibitions.[144] The MBTA protects some species not listed in the Conventions [145] and, in some respects, the coverage of the MBTA

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141. Coggins & Patti, *supra* note 2, at 180 ("but excludes some non-migratory species such as quail, prairie chickens, and turkeys, and introduces ('exotic') species such as starlings, house sparrows, and ring-necked pheasants").

142. *See* 50 C.F.R. § 10.12 (1998) (defining "migratory bird" as: "whatever its origin, whether or not raised in captivity"); United States v. Richards, 583 F.2d 491, 495 (10th Cir. 1978) ("[t]he fact that captive birds do not migrate is immaterial."); United States v. Lumpkin, 276 F. 580, 584 (N.D. Ga. 1921) (setting forth jury instruction to determine if the birds which the defendant shot were migratory birds); s*ee also* 50 C.F.R. § 21.3 (defining "captivity"). *But see* United States v. Connors, 606 F.2d 269, 272 (10th Cir. 1979) (holding that captive-reared ducks are not included in the treaties). The *Connors* decision purported to interpret an ambiguity in the treaties, the first two of which include only *wild* ducks and the last of which includes ducks without any limitation. *See Connors*, 606 F.2d 272. The decision, however, relied upon the regulatory definition of migratory *game* birds, as an agency interpretation of an ambiguity. *See* 50 C.F.R. § 20.11 (1998). *Connors* was probably erroneous when decided and of even less weight in light of subsequent amendments to the regulations and to the Canadian Convention, for the following reasons: (1) Connors was charged with hunting migratory birds, not migratory *game* birds, therefore, the migratory *game* bird definition in the regulations, upon which the court relied, was not the agency's interpretation of the meaning of migratory bird; (2) Even the definition of migratory *game* birds, 50 C.F.R. § 20.11, upon which the court relied, no longer limits its scope to only *wild* ducks, *Connors*, 606 F.2d at 271; and (3) Section 712 of the MBTA authorizes the Secretary "to issue such regulations as may be necessary to implement the provisions of the conventions." 16 U.S.C. § 712. Presently, the Secretary defines migratory birds to include captive-raised birds. *See* 50 C.F.R. § 10.12. The definition, which is broader than that of the Conventions, recognizes that wild and captive-breed birds are indistinguishable and regulation of both is necessary to assure that wild birds are protected. Thus, the regulatory definition is necessary to implement the protections of the Conventions. *See also* BEAN & ROWLAND, *supra* note 11, at 92-93 (arguing that *Connors* is clearly wrong in light of Andrus v. Allard, 444 U.S. 51 (1979)).

143. *See* 50 C.F.R. §§ 21.13 & 21.14. *See also id.* §§ 21.28 through 21.30 (Falconry).

144. *See* 50 C.F.R. § 21.2(a) (stating that pre-Act birds, but not their off-spring, may be possessed or transported but not sold, imported, bartered, etc.); *Andrus*, 444 U.S. at 60-61, 63.

145. *See* Coggins & Patti, *supra* note 2, at 172 ("Raptors such as hawks and owls, formerly considered shootable pests, are now protected by the MBTA even though they were listed in neither the 1916 nor the 1936 Convention."). Although not listed in any convention when first regulated, some raptors were listed in the subsequent Japanese and Soviet Conventions. *See* Japanese Convention, *supra* note 18, annex (listing Osprey, Gyrfalcon, Peregrine Falcon, and miscellaneous hawks); Soviet Convention, *supra* note 19, appendix (listing Gyrfalcon, Peregrine Falcon, Merlin, and Osprey). A better example of species not listed in the Conventions but regulated by the MBTA may be captive-raised birds. *See infra* note 192.

extends beyond migratory birds. For example, MBTA Section 705 makes it illegal to transport any bird, bird part, nest, or egg, taken or carried contrary to the law of the State, Territory, Province of Canada, or District in or from which it was taken or carried.[146] Section 705 is not limited to migratory birds.[147]

Although the coverage appears broad, the issue of which particular species of birds are covered under the Act is the subject of some difference of opinion.[148] Nevertheless, the issue has been litigated only once, in a recent, unreported decision.[149] The MBTA prohibitions refer to the terms of the Conventions[150] and Congress has defined migratory birds as those which are such under the Conventions;[151] however, as explained above, the four Conventions cited by the MBTA define migratory birds differently.[152] For example, the Canadian Convention defined migratory game birds by taxonomic families and by common names of included species or groups of birds,[153] while the Mexican Convention lists families without listing included species.[154] The Japanese and Soviet Conventions each define migratory birds as those species, common to each respective country, that migrate between the countries or, in the case of the Soviet Convention, migrate to a common area in a third-country.[155]

Guidance on the precise scope of protected species may be found in several places.

1. The Implementing Regulations

Pursuant to his authority under Section 704 of the MBTA, the Secretary of Interior has undertaken to define "migratory birds" falling within the protection of the MBTA.[156] Originally, the regulatory definition of migratory birds mimicked the definition of the MBTA and cited to the Canadian and Mexican Conventions and bird family lists.[157]

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146. *See* 16 U.S.C. § 705.

147. *See id.*

148. *See* BEAN & ROWLAND, *supra* note 11, at 71 ("[T]here has even been controversy over what species are protected by the various conventions.").

149. The United States District Court for the District of Columbia recently dismissed a *pro se* lawsuit to compel the Secretary of the Interior to list the mute swan as a migratory bird under the MBTA. Joyce M. Hill v. Babbitt, Memorandum Opinion (D. D.C. Civ. No. 1:99CV01926, Sept. 27, 2000). *See infra* note 202 (discussing the *Hill* decision).

150. *See* 16 U.S.C. § 703.

151. *See id.* § 715j ("Migratory birds" defined). Section 715j is not part of the MBTA, but its definition is applicable to the MBTA. *See id.*; *see also* 50 C.F.R. § 20.11 (1998) (defining migratory *game* birds). The MBTA and the definition of "migratory bird," 16 U.S.C. § 715j, cite the original Canadian, Mexican, Japanese, and the Soviet Conventions, but not the December 14, 1995 Protocol, which substituted an updated list of migratory birds for that contained in the Canadian Convention.

152. *See* text, *supra* Part I.C.3 (Protected Birds) (comparing the different definitions of migratory birds in the four Conventions).

153. *See* Canadian Convention, *supra* note 3, art. I.1.

154. *See* Mexican Convention, *supra* note 17, art. IV.

155. *See* Japanese Convention, *supra* note 18, art. II; Soviet Convention, *supra* note 19, art. I. The Japanese and Soviet Conventions also list each individual species of migratory bird covered by each Convention. *See* Japanese Convention, *supra* note 18, annex; Soviet Convention, *supra* note 19, appendix.

156. *See* 50 C.F.R. §§ 10.12-.13.

157. *See id.* § 10.1(1961).

Between 1950 and 1970, however, the Department of the Interior issued a series of eight publications on "Birds Protected by Federal Law" as *Wildlife Leaflets*, "official" publications of the Bureau of Sport Fisheries and Wildlife of the Fish and Wildlife Service.[158] Those eight publications, which were predecessors to the present regulatory list of migratory birds, consistently excluded exotic species. By 1968 the regulations contained two overlapping definitions. Part 1 of Subchapter A, containing general definitions, defined migratory birds with a simple, unqualified list of family names.[159] Part 10 of Subchapter B, dealing with hunting and possession of wildlife, defined migratory birds within the conventions as "all those species of wild birds which (a) are indigenous to the United States and (b) belong to one of the following listed families of birds: (1) *Migratory game birds* (i) Anatidae . . ."[160] Those twin regulatory definitions remained unchanged until 1972 when, as part of a reorganization of the hunting regulations, the Subchapter B definition of migratory birds was deleted and a new definition of migratory game bird was added which simply listed family names, omitting the previous requirement that they be indigenous to the United States.[161] The following year, 1973, a further reorganization of the regulations deleted the general definition in Subchapter A, moved the Subchapter B definition of migratory game birds, and added a new definition of migratory birds.[162]

Beginning with the regulatory list of protected birds promulgated in 1973, the regulations have listed protected birds by species, using both their common and scientific names. The regulatory list has always excluded species, even within families designated in the Conventions, that are not native to the United States.[163] However, the definition of migratory bird as set forth in the 1973 regulations simply cited to the MBTA for the terms of the Conventions.[164]

Presently, Department of the Interior regulations define protected birds only in terms of the list of migratory bird species.[165]

The significance of this definitional history is that although the regulatory definitions expressly, or through the Conventions, defined migratory birds by families, the Secretary of the Interior never interpreted the Conventions to include every species within each family and, in particular, never interpreted the Conventions to include species not native to the United States.

When the definitions were promulgated, there was no suggestion that the changes reflected any change in the Secretary's long-standing interpretation of the Conventions—protecting only indigenous species of the listed bird

158. *Wildlife Leaflet* Nos. 327 (1950), 432 (1961), 455 (1963), 469 (1965), 472 (1966), 475 (1967) 486 (1969), and 494 (1970). John T. Trapp of the United States Fish and Wildlife Service provided this information.

159. *See* 50 C.F.R. § 1.11 (1968).

160. *Id.* § 10.1 (1968) (emphasis in original).

161. *See* 37 Fed.Reg. 13472 (July 8, 1972) (promulgating 50 C.F.R. § 10.11 (1972)).

162. *See* 38 Fed.Reg. 22015 (August 15, 1973) (promulgating 50 C.F.R. § 10.12 (definitions)).

163. *See* 38 Fed.Reg. 22015 (August 15, 1973) (promulgating 50 C.F.R. § 10.13 (1974) ("List of migratory birds")).

164. *See* 38 Fed.Reg. 22015, 22016 (August 15, 1973) (promulgating 50 C.F.R. § 10.12 ("Definitions")).

165. *See* 50 C.F.R. § 10.12 (1998) (defining migratory birds in terms of the 50 C.F.R. § 10.13 ("List of migratory birds")).

families.[166] Public comments on the 1977 revisions focused exclusively on which birds should be listed within the meaning of the treaties.[167] There was no suggestion that the Conventions protected all species of each family of birds listed in the Conventions. In particular, there was no suggestion that the Conventions included non-native birds that were introduced into the United States, and for which the United States had not been a normal part of their range.[168]

The need for a specific list of protected birds arises from latent ambiguities in the Conventions, individually and collectively. In his 1985 revisions to the migratory bird list, the Secretary of the Interior described some of the ambiguities and other factors influencing his interpretations of the Conventions, concluding that "[b]ecause of taxonomic changes over the years, there is a need to better define and interpret the species intended to be afforded protection under the various migratory bird treaties."[169] He also noted that many of the scientific "names appearing in the treaties are no longer in use."[170] In addition, new data and the review of old data demonstrated the need for the addition of some birds of regular occurrence in the United States, the deletion of some bird species because the records had been disavowed and because their occurrence was deemed accidental, *i.e.*, the United States is outside the species' normal range and occurrence was deemed infrequent and irregular.[171] Similar concerns motivated the previous revision of the migratory bird list in 1977, when the present regulatory definition of "migratory bird" was adopted.[172]

2. Exclusion of Non-Native Species

It has been the policy of the United States for at least 22 years to restrict the introduction of non-native or exotic species into ecosystems of the United States.[173] The policy has been expressly premised [174] on the National Environ-

166. *See* 38 Fed. Reg. 22,015 (August 15, 1973); 37 Fed. Reg. 13,472 (July 8, 1972).

167. *See* 42 Fed. Reg. 59,358 (November 16, 1977) (amending 50 C.F.R. § 10.12 ("migratory bird definition") and 50 C.F.R. § 10.13 ("List of migratory birds")).

168. *See* 50 Fed. Reg. 13,708-22 (April 5, 1985); 42 Fed. Reg. 59,358-62 (November 16, 1977).

169. 50 Fed. Reg. 13,708 (April 5, 1985) ("Revised List of Migratory Birds").

170. *Id.* An example of ambiguities resulting from differences in nomenclature and changes in scientific understanding are found with the swans, family Anatidae. The Canadian and Mexican conventions listed simply Anatidae. The Japanese convention listed the Whooper swan, and the Soviet convention listed the Whooper, Whistling, and Bewick's. However, federal regulations presently list only the Whooper, Tundra, and Trumpeter, not Whistling nor Bewick's. The explanation for the seeming discrepancy is found in changing nomenclature and scientific understanding. The Tundra swan is also known as the Whistling swan, both Tundra and Whistling being described by the scientific name *Cygnus columbianus*. *Compare* Soviet Convention, *supra* note 19, appendix (listing scientific name for Whistling swan), *with* 50 C.F.R. § 10.13 (1998) (listing scientific name for Tundra swan). Bewick's swan was once listed as a separate species with its own scientific name, *Cygnus Bewickii*, but present scientific classification includes it in the same species with Whistler and Tundra swans, *Cygnus columbianus*. *See* 50 Fed. Reg. 13708, 13,709 (April 5, 1985) ("Cygnus Bewickii is included in Cygnus columbianus").

171. *See* Revised List of Migratory Birds, 50 Fed. Reg. 13,709.

172. *See* Revised List and Definition of Migratory Birds, 42 Fed. Reg. 59,358 (November, 16, 1977) (to be codified at 50 C.F.R. pt. 10) (amending 50 C.F.R. § 10.12 (migratory bird definition), and 50 C.F.R. § 10.13 (migratory bird list)).

173. *See* Exec. Order No. 11,987, 42 Fed. Reg. 26,949 (May 24, 1977); Exec. Order No. 13,112, 64 Fed. Reg. 6,183 (February 3, 1999) (Section 2(a)(3) of which orders each federal agency "not [to] authorize, fund, or carry out actions that it believes are likely to cause or promote the

mental Policy Act of 1969,[175] for the entirely logical reason that one cannot protect the environment of the United States if one allows the entry of injurious non-native species[176] into our environment.[177] If one were to read the migratory bird Conventions to protect non-native species of migratory birds, a conflict would arise between the MBTA and current national policy. A close examination of the Conventions supports a conclusion that they do not protect non-native species.

By their terms, the Japanese and Soviet Conventions only protect species and subspecies that migrate between the two countries and the United States.[178] In addition, both Conventions list every species of bird protected by the Conventions.[179] An examination of those lists reveals that all of the listed species exist naturally, from wild origin, within the United States and its territories.[180] In addition, at least one species common to both countries, the mute swan, is not included, presumably because, while it is a native wild bird in Japan, it is only a feral or captive non-native bird in the United States.[181]

Similarly, each particular species or group of species listed under the Canadian Convention is native to North America.[182] However, the listed families (as opposed to species) in that Convention encompass additional species or groups of species that are not individually listed in the treaty, but those omitted species and groups of species are not native to North America.[183] Thus, examples of the

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introduction or spread of invasive species in the United States."). Executive Order 13,112 supersedes Executive Order 11,987. *See* Exec. Order No. 13,112, 64 Fed. Reg. 6,186 (Section 6(b) revoked the 1977 Executive Order); *see also* Aquatic Nuisance Prevention and Control Act of 1990, 16 U.S.C. §§ 4701 – 4751 (undertaking to prevent unintentional introduction and dispersal of non-indigenous species into waters of the United States, especially from ballast water of ships).

174. *See* Exec. Order No. 11,987, 42 Fed. Reg. 26,949 (May 24, 1977) ("in furtherance of the purposes and policies of . . . the National Environmental Policy Act of 1969"); Exec. Order No. 13,112, 64 Fed. Reg. 6183 (February 3, 1999).

175. 83 Stat. 852 (1970) (codified at 42 U.S.C. § 4321 *et seq.*(1994)).

176. *See, e.g.*, 16 U.S.C. § 4702(2) (Supp. 1998) (stating "'aquatic nuisance species' means a non-indigenous species that threatens the diversity or abundance of native species or the ecological stability of infested waters"); Exec. Order No. 13,112, 64 Fed. Reg. 6,183 (Section 1(g) defining "Native species" as one present "other than as a result of an introduction").

177. *See* 16 U.S.C. § 4701(a)(2) (Supp. 1998) ("when environmental conditions are favorable, non-indigenous species become established, may compete with or prey upon native species of plants, fish, and wildlife, may carry diseases or parasites that affect native species, and may disrupt the aquatic environment and economy of affected nearshore areas"); National Environmental Policy Act of 1969, 42 U.S.C. § 4321 (declaring: "to promote efforts which will prevent or eliminate damage to the environment and biosphere").

178. Japanese Convention, *supra* note 18, art. II.1; Soviet Convention, *supra* note 19, art. I.1.

179. *See* Japanese Convention, *supra* note 18, art. II.1; Soviet Convention, *supra* note 19, art. I.3(a).

180. *See* Exhibit 8 in support of the United States Motion for Summary Judgment, Declaration of Robert J. Blohm [Chief, Branch of Surveys and Assessments, Office of Migratory Bird Management, United States Fish and Wildlife Service], at ¶ 11, Hill v. Babbitt, et al., Civ. No. 1:99CV01926 (HHK), D. D.C. [hereinafter Blohm Declaration].

181. *See* Blohm Declaration, *supra* note 180, at ¶ 12.

182. *See* Blohm Declaration, *supra* note 180, at ¶¶ 7, 9.

183. *See* Blohm Declaration, *supra* note 180, at ¶¶ 7-9.

family Limicolae[184] (shorebirds) listed in the Convention include those groupings of species with examples native to North America, e.g., avocets, but not the groupings of shorebirds that are exclusively non-native, e.g., thick-knees and pratincoles.[185]

The Canadian Convention's listing of migratory insectivorous birds also strongly suggests that only native species were intended to be covered. The list of migratory insectivorous birds in the Convention consists of common name groupings of species, e.g., warblers.[186] All of those groupings include species native to North America.[187] "However, the Convention does not include any of the many similar groupings of migratory insectivorous birds native exclusively to areas outside of North America."[188] Furthermore, the "Canadian Convention expressly limits its application" to only "wild" birds for some listed types.[189] Thus, for the purposes of the Canadian Convention, "the Anatidae (waterfowl) include only brant (which have not been domesticated),"[190] "wild ducks, geese, and swans,"[191] and the Columbidae (pigeons) "include only doves and 'wild pigeons.'"[192]

Despite the apparent intention of the parties to exclude from protection under the conventions and the MBTA non-native or exotic species, a debate over protection of non-native species nevertheless can arise from the language of the Mexican Convention and the decision of the Ninth Circuit in *Alaska Fish and Wildlife Federation and Outdoor Council v. Dunkle*.[193] In 1987, the Ninth Circuit

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184. *See* Blohm Declaration, *supra* note 180, at ¶¶ 7-9 n.1. ("Since the Convention was adopted, formal classification of birds has changed significantly, such that the shorebirds then grouped together as the Limicolae have been split several separate taxonomic families, now grouped in the Order Charadriiformes and including more than 50 species . . . in North America.").

185. *See* Blohm Declaration, *supra* note 180, at ¶ 8. ("Similarly, the examples of the Gruidae (cranes) listed in the Convention are limited to two species native to North America: little brown or sandhill cranes, and whooping cranes. None of the 13 species of cranes not native to North America is listed.").

186. *See* Canadian Convention, *supra* note 3, art. I.2.

187. *See* Blohm Declaration, *supra* note 180, at ¶ 9.

188. Blohm Declaration, *supra* note 180, at ¶ 9.

189. Blohm Declaration, *supra* note 180, at ¶ 10; *see also* Act of March 4, 1913, ch. 145, 37 Stat. 828, 847 (1918) (protecting "All wild geese, wild swans, brandt, wild ducks, . . . wild pigeons, and all other migratory game and insectivorous birds which . . . do not remain permanently the entire year within the borders of any State or Territory").

190. Blohm Declaration, *supra* note 180, at ¶ 10.

191. Canadian Convention, *supra* note 3, art. I.1(a).

192. Canadian Convention, *supra* note 3, art. I.1(e). Although the Conventions protect only "wild" birds, the Secretary of the Interior is free to extend protection to domestic or captive-raised birds if doing so furthers the purposes of and is consistent with the Conventions. *See* 16 U.S.C. § 712(2) (authorizing regulations as may be necessary to implement the Conventions). Because of the impossibility of distinguishing wild and captive-bred birds, and the consequential difficulties in enforcing the prohibitions of the Conventions, the Secretary has defined migratory birds to include captive-raised birds of the listed species. *See* 50 C.F.R. § 10.12 (1998) (defining migratory birds).

193. 829 F.2d 933 (9th Cir. 1987). In *Dunkle*, the Ninth Circuit reviewed a challenge to a Fish and Wildlife Service agreement with Alaska natives under which the Service had been allowing natives to take migratory birds and eggs in violation of the MBTA. In order to limit and control the technically illegal hunting, the Service had negotiated agreements with native organizations to, in effect, regulate the illegal hunt. *See Dunkle*, 829 F.2d at 935-36. The Ninth Circuit found that,

held, in *Dunkle*, that the MBTA required implementing regulations to be compatible with the most restrictive of the conventions.[194]

The Mexican Convention defines migratory birds by listing the scientific names of bird families,[195] as does the Canadian Convention.[196] However, unlike the Canadian Convention, the Mexican Convention does not list species or groups of birds included within the families.[197] Thus, in applying the *Dunkle* decision, it may be argued that, notwithstanding the exclusion of non-native species by the Canadian, Japanese and Soviet Conventions, the listing of families by the Mexican Convention without identifying particular species within those families and without explicitly excluding non-native species, provides MBTA protection for all species and subspecies within those families regardless of whether they are native to the United States or North America.

Under the Ninth Circuit's *Dunkle* analysis, the Mexican Convention may be the most restrictive in that it arguably protects the broadest scope of birds, and the regulations therefore must be compatible with those restrictive terms. On the other hand, the Soviet Convention requires the parties to control the "establishment in the wild of live animals . . . that may be harmful to migratory birds or their environment."[198] Such harmful animals commonly include non-native species of birds that compete with native species for resources within the same ecological niche. Thus, reading the Mexican Convention to protect non-native species of listed families of migratory birds, even if harmful to native species, would create a conflict with the Soviet Convention. Such a situation arose with the mute swan in the Chesapeake Bay.

The mute swan is a non-native, introduced species of Anatidae,[199] a family listed in the Mexican Convention.[200] "The mute swan occup[ies] habitat and consume[s] food used by migratory, endangered, and threatened species, which the federal government is obligated to preserve."[201] Control of mute swans is thus called for under the express terms of the Soviet Convention. To effectively implement that intent and the provisions of all of the Conventions, the MBTA regulatory provision relied upon by the Ninth Circuit should be read as it is written, not as the Ninth Circuit interpreted in *Dunkle*. In other words, regula-

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because only some and not all of the Conventions provided for native hunting, the Service could not enter into the agreements it had made. *See id.* at 940-41, 945.

194. *See id.* at 941. The Ninth Circuit found the Canadian Convention the most restrictive, and it did not allow for the out-of-season native hunting at issue. *See id.* Nevertheless, the Ninth Circuit held that the principle of unreviewable enforcement discretion allowed the Service to continue to decline prosecution of illegal hunting by Alaska natives. *See id.* at 938. Consequently, the Fish and Wildlife Service could allow totally uncontrolled illegal hunting but not controlled hunting.

195. *See* Mexican Convention, *supra* note 17 art. IV.

196. *See* Canadian Convention, *supra* note 3, art. I.

197. *See* Mexican Convention, *supra* note 17, art. IV.

198. Soviet Convention, *supra* note 19, art. IV.2(b).

199. *See* Exhibit 1 in support of United States Motion for Summary Judgment, Declaration of Keith M. Weaver [Supervisory Refuge Operations Specialist at the Blackwater National Wildlife Refuge complex with the United States Fish and Wildlife Service], ¶¶ 5-8, Hill v. Babbitt, Civ. No. 1:99CV01926 D. D.C. [hereinafter Weaver Declaration].

200. *See* Mexican Convention, *supra* note 17, art. IV.

201. Weaver Declaration, *supra* note 199, at ¶ 16.

tions must be "compatible with the terms of the conventions," plural, *i.e.*, *all* the Conventions.[202]

B. *Scope of Prohibited Activity*

A second area of dispute important to those seeking to enforce the MBTA, and one which has been extensively litigated but not yet resolved, is the precise scope of activities prohibited by the MBTA. Historically, criminal prosecutions under the MBTA have focused, as did the original treaties, on hunters, poachers and other related activities.[203] Beginning in the 1970's, this began to change.[204] Both federal prosecutors and private citizens[205] brought cases in which persons or federal agencies were accused of violating the MBTA through activities such as

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202. 16 U.S.C. § 704 (Supp. 1998); *see also id.* § 712(2) (also listing all four conventions); *supra* note 192, (discussing secretary's authority under 16 U.S.C. § 712(2) to regulated non-treaty birds if necessary to implement the Conventions).

The United States District Court for the District of Columbia recently denied a request to compel the Secretary of the Interior to list the mute swan as a migratory bird protected under the MBTA. Hill v. Babbitt, Memorandum Opinion (D. D.C. Civ. No. 1:99CV01926, Sept. 27, 2000). The court found that the Canadian and Mexican conventions do protect all swans, but that the Japanese and Soviet treaties do not protect mute swans. *See Hill*, Memorandum Opinion at 8-10. Relying on "deductive logic" and a simple hypothetical, the court reasoned that a hypothetical mute swan migrating from Russia through Canada to the United States would create a conflict between application of the Russian and Canadian treaties. *See id.* at 13. The district court treated the conflict in the treaties as an ambiguity to be analyzed using the two step analysis of Chevron v. Natural Resources Defense Council, 467 U.S. 837, 842-43 (1984). *See Hill* at 11. Reading the law in an effort to determine Congress's intent, the court did not find persuasive arguments that MBTA protection is limited to "wild," native birds. *See id.* at 12-13. Relying instead on the provision authorizing the Secretary to prescribe hunting regulations, and without further explanation, the court found the Secretary could reasonably exclude mute swans from MBTA protection. *See id.* at 13 (citing 16 U.S.C. § 704). The court did not address the Ninth Circuit's *Dunkle* holding, which requires application of the most restrictive convention. *See* Alaska Fish & Wildlife Fed'n & Outdoor Council v. Dunkle, 829 F.2d 933, 941 (9th Cir. 1987). The plaintiff in *Hill* has appealed the dismissal of her lawsuit. *See* Joyce T. Hill v. Babbitt, D.C. App. No. 00-5432.

203. See Scott Finet, Habitat Protection and the Migratory Bird Treaty Act, 10 TUL. ENVTL. L.J. 1 (1996).

204. *See* Coggins & Patti, *supra* note 2, at 174, 196 (arguing that the original intent of the drafters of the Canadian Convention and of Congress was to protect migratory birds from more than just hunting and poaching); Mickell Jimenez, *Sierra Club v. Martin: The Eleventh Circuit's Interpretation of the Migratory Bird Treaty Act*, 18 J. LAND RESOURCES & ENVTL. L. 159, 160 (1998) ("Congress intended primarily to protect migratory birds from swamp drainage and hunters." (citing H. R. Rep. No. 64-1430, at 2 (1917)); Steven Margolin, *Liability under the Migratory Bird Treaty Act*, 7 ECOLOGY L. Q. 989, 997 n. 72 (1979) (quoting 49 CONG. REC. 1485 (1913)). *But see* Benjamin Means, *Prohibiting Conduct, Not Consequences: The Limited Reach of the Migratory Bird Treaty Act*, 97 MICH. L. REV. 823, 824 (1998) ("This Note argues, however, that the MBTA covers only activity that is directed at wildlife, and that absent such purposive conduct, no violation exists."). It should be noted that H.R. Rep. No. 64-1430 incorporated a letter from Secretary of State Robert Lansing. It is the letter alone that referred to the impact of draining on migratory birds: "[T]he extension of agriculture, and particularly the draining on a large scale of swamps and meadows, together with improved firearms and a vast increase in the number of sportsmen, have so altered conditions that comparatively few migratory game birds nest within our limits." H.R. Rep. No. 64-1430, at 2 (1917) (August 17, 1916, letter, Secretary of State Robert Lansing to the President, submitting the treaty for transmission to the Senate).

205. Issues relating to ability of private citizens to bring suit under the MBTA, either directly or through the APA, are beyond the scope of this article.

pesticide use, wastewater discharge, timber harvest, and the maintenance of power poles. Inextricably intertwined with, and informing the issue of whether the MBTA addressed such non-hunting, and in some cases indirect, takings, was the fact that the MBTA is, for such activities, a strict liability statute.[206]

1. Must Not Poison

First, a series of cases were decided between 1973 and 1975 in which companies were prosecuted under the MBTA for migratory bird deaths associated with oil sump pits operated by companies.[207] The courts regularly found the

206. The MBTA as a strict liability statute was first affirmed in 1939, in *United States v. Reese*, 27 F. Supp. 833, 835 (W.D. Tenn. 1939), where the court stated:

> There appears no sound basis here for an interpretation that the Congress intended to place upon the Government the extreme difficulty of proving guilty knowledge of bird baiting on the part of persons violating the express language of the applicable regulations promulgated pursuant to the statute [MBTA]; but it is more reasonable to presume that Congress intended to require that hunters shall investigate at their peril conditions surrounding the fields in which they seek their quarry.

See Reese, 27 F. Supp. at 835. Since 1939, the federal courts of appeal have almost uniformly held the misdemeanor provision of the MBTA, Section 707(a), to be a strict liability criminal statute. *See* United States v. Corrow, 119 F.3d 796, 805 (10th Cir. 1997) (quoting United States v. Manning, 787 F.2d 431, 435 n.4 (8th Cir. 1986)); United States v. Engler, 806 F.2d 425, 431 (3d Cir. 1986) ("Scienter is not an element of criminal liability under the Act's misdemeanor provisions"); *Manning*, 787 F.2d. at 435 n. 4 ("it is not necessary to prove that a defendant violated the Migratory Bird Treaty Act with specific intent or guilty knowledge."); United States v. Chandler, 753 F.2d 360, 363 (4th Cir. 1985) ("a hunter is strictly liable for shooting on or over a baited area."); United States v. Catlett, 747 F.2d 1102, 1105 (6th Cir. 1984) (holding that "scienter is not required for a conviction" under the MBTA).

In *Morissette v. United States*, the Supreme Court discussed reasons for strict criminal liability for "public welfare offenses"— offenses that "are not in the nature of positive aggressions or invasions, with which the common law so often dealt, but are in the nature of neglect where the law requires care, or inaction where it imposes a duty." Morissette v. United States, 342 U.S. 246, 255 (1952).

For policy arguments both for and against strict liability under the MBTA, *compare* Margolin, *supra* note 204, at 996-99, *with* M. Lanier Woodrum, *The Courts Take Flight: Scienter and the Migratory Bird Treaty Act*, 336 WASH. & LEE L. REV. 241, 250-51 (1979) (arguing that Congress did not intend the MBTA to impose strict criminal liability). To the extent that Woodrum argued that Congress did not intend the MBTA to impose strict liability, Congress subsequently proved Woodrum wrong. *See* S. REP. NO. 99-445, at 16 (1986), *reprinted in* 1986 U.S.C.C.A.N. 6113, 6128 (stating that, when Congress added the *scienter* requirement for MBTA felony offenses, "[n]othing in this amendment is intended to alter the 'strict liability' standard for misdemeanor prosecutions under 16 U.S.C. § 707(a), a standard which has been upheld in many Federal court decisions."); S. REP. NO. 105-366, at 2 (1998) (when enacting the *scienter* requirement for baiting offenses, Congress said, "[t]he elimination of strict liability, however, applies only to hunting with bait or over baited areas, and is not intended in any way to reflect upon the general application of strict liability under the MBTA.").

207. *See* Coggins & Patti, *supra* note 2, at 183-85 (citing United States v. Stuarco Oil Co., 73-CR-129 (D. Colo. 1973) (company charged and pled *nolo contendere* to 17 counts under the MBTA for deaths of birds resulting from company's failure to build oil sump pits in a manner that could keep birds away); United States v. Union Tex. Petroleum, 73-CR-127 (D. Colo. 1973) (prosecution of oil company for maintenance of oil sump pit); United States v. Equity Corp., Cr. 75-51 (D. Utah 1975) (company charged with and plead guilty to 14 counts under the MBTA for deaths of 14 ducks caused by the company's oil sump pits); United States v. Union Pac. R.R., CR-1-90-8 (N.D. Tex. May 1, 1990)).

companies strictly liable for the migratory bird deaths caused by the operation of these sump pits.[208]

Then, in January of 1978, the Eastern District of California, in *United States v. Corbin Farm Service*,[209] expressly found that the MBTA prohibited acts other than just hunting-related acts and acts specifically intended to kill migratory birds. In *Corbin Farm*, the United States charged a pesticide dealer, his employee, an aerial spray operator, and the owner of the field sprayed, with 10 counts for bird deaths resulting from the single application of pesticides to an alfalfa field.[210] Pointing to the language in § 703 of the MBTA that it shall be unlawful at any time, "*by any means or in any manner*" to take migratory birds, the court determined that such take by poisoning was a prohibited activity under the strict liability MBTA misdemeanor take prohibitions.[211]

In applying the MBTA prohibitions to such indirect poisoning actions, however, the Court, in *Corbin Farm*, was concerned with the issue of scienter. The issue was, and remains, that if the MBTA applies to more than just hunting and poaching, and if it truly provides for strict liability, are there any limits to liability if even the most apparently innocuous action resulted in the take of a migratory bird? Hypotheticals repeatedly heard in this debate include striking a migratory bird while driving a car, or putting a picture window in a building into which a migratory bird flies.[212] The District Court in *Corbin Farm* dealt with such concerns in part, and significantly, by noting in its discussion that "[w]hen dealing with pesticides, the public is put on notice that it should exercise care to prevent injury to the environment and to other persons; a requirement of reasonable care under the circumstances of this case does not offend the Constitution."[213] The court seemed to feel it could borrow from tort law to justify strict application of the MBTA to various inherently dangerous activities such as hunting and pesticide poisoning.[214]

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208. *See* Coggins & Patti, *supra* note 2, at 183-85.

209. 444 F. Supp. 510 (E.D. Ca. 1978), *aff'd on other grounds*, 578 F.2d 259 (9th Cir. 1978).

210. *Corbin Farm Serv.*, 444 F. Supp. at 515.

211. *Id.* at 532 (emphasis added).

212. *See* Coggins & Patti, *supra* note 2, at 192 (referring to a car and building); United States v. FMC Corp., 572 F.2d 902, 905 (2d Cir. 1978) (referring to a car, plane, and building); *Corbin Farm Serv.*, 444 F. Supp. 510, at 535 (referring to a car); United States v. Moon Lake Electric Ass'n., 45 F.Supp.2d 1070, 1084 (D. Colo. 1999) (quoting Mahler v. United States Forest Serv., 927 F. Supp. 1559, 1582-83 (S.D. Ind. 1996)).

213. *Corbin Farm Serv.*, 444 F. Supp. at 536.

214. An issue inherent in many MBTA prosecutions, and particularly those involving less immediate consequences, such as poisonings, is the determination of the appropriate "unit of prosecution," e.g., is the number of violations determined by the number of bird deaths, the number of causative actions, or the number of species taken. *See* United States v. Corbin Farm Serv., 578 F.2d 259, 260 (9th Cir. 1978).

The "unit of prosecution" in different cases has varied; but, in most cases, the appropriateness of the "unit of prosecution" was not raised. *See, e.g., Corbin Farm Serv.*, 578 F.2d at 260 (providing one count per transaction resulting in bird deaths); *FMC Corp.*, 572 F.2d at 903 (noting one count per species per day); United States v. Rogers, 367 F.2d 998, 999 (8th Cir. 1966) (one count per day); United States v. Stuarco Oil Co., 73-CR-129 (D. Colo. 1973) (one count per bird); *see* Coggins & Patti, *supra* note 2, at 183-85 (citing United States v. Equity Corp., Cr. 75-51 (D. Utah 1975) (one count per bird)). *Compare* United States v. Tempotech Indus. Inc., 1996 WL 14056 (2d Cir.) *with* Jackson v. United States, 517 U.S. 1192 (1996) (describing a Lacey Act

The following month, the Second Circuit, in *United States v. FMC Corporation*,[215] used related logic to affirm MBTA misdemeanor convictions for bird deaths resulting from FMC's discharge of wastewater from pesticide manufacturing into a pond that attracted migratory birds.

"FMC argue[d] that it had no intention to kill birds, that it took no affirmative act to do so, possessed no scienter, and thus should not be held liable under the Act."[216] The court rejected FMC's argument, quoting from *Morissette* that "[t]he criminal law may punish 'neglect where the law requires care, or inaction where it imposes a duty.'"[217] Wrestling with the same concerns as the *Corbin Farm* court, the Second Circuit took that court's rationale one step further and analogized expressly to the body of tort law that holds persons engaged in inherently dangerous activities should be held strictly liable for damages caused by those activities.[218] Nonetheless, the court was careful to note that "[i]mposing strict liability on FMC in this case does not dictate that every death of a bird will result in imposing strict criminal liability on some party."[219]

The FMC court also stated, "[c]ertainly construction that would bring every killing within the statute, such as deaths caused by automobiles, airplanes, plate glass modern office buildings or picture windows in residential buildings into which birds fly, would offend reason and common sense."[220] The court noted that, in any event, "[s]uch situations properly can be left to the sound discretion of prosecutors and the courts" and that "an innocent technical violation . . . can be taken care of by the imposition of a small or nominal fine."[221]

Following the logical progression of these cases, in the early 1990's three district courts found that cyanide leaching processes, used in mining operations to extract precious metals, created cyanide-laced tailings or settlings ponds that

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prosecution that grouped violations into five counts by year, "[s]o long as the method of aggregating offenses is reasonable — and here it was, given the ongoing multi-year nature of the scheme — the government need not charge a defendant with the smallest 'unit of prosecution' available.").

Only in *Corbin Farm* did the court discuss and enter a holding concerning the appropriate "unit of prosecution." The Ninth Circuit adopted the opinion of the District Court which examined historical charging practices and legislative history. *See Corbin Farm Serv.*, 578 F.2d at 260; *Corbin Farm Serv.*, 444 F. Supp. at 527-29, 531. The appropriate "unit of prosecution" remains unsettled, although the *Corbin Farm* decisions provide one well-reasoned alternative. For a discussion of the *Corbin Farm* decisions' treatment of the "unit of prosecution," *see* Margolin, *supra* note 204, at 1001-04.

215. 572 F.2d 902 (2d Cir. 1978).

216. *FMC Corp.*, 572 F.2d at 906.

217. *Id.* at 907 (quoting Morissette v. United States, 342 U.S. 246, 255 (1952)).

218. *See id.* (citing Rylands v. Fletcher, Hurl. & C. (1856, L.R. 1 Ex. 265 (1866), L.R. 3 H.L. 330 (1868)); *see also* United States v. Van Fossan, 899 F.2d 636, 637-39 (7th Cir. 1990) (holding that the MBTA prohibited poisoning of migratory birds by strychnine-laced grain). *But see*, United States v. Rollins, 706 F. Supp. 742, 744-45 (D. Idaho 1989) (where a farmer applied pesticides in what the court found not to be a reckless manner, the court found that the MBTA was unconstitutionally vague as applied to the farmer, but not that the MBTA was limited to hunting and poaching related activities).

219. *FMC Corp.*, 572 F.2d at 908.

220. *Id.* at 905.

221. *Id.* (quoting United States v. Schultze, 28 F. Supp. 234, 236 (W.D. Ky 1939)). *But see Rollins*, 706 F. Supp. at 745 ("With deference to the respected tradition of the Second Circuit, a violation of due process cannot be cured by light punishment.").

attract and kill migratory birds, thereby exposing operators to criminal liability under the MBTA.[222] Similarly, Exxon Corporation and Exxon Shipping Company, owners and operators of the oil tanker *Exxon Valdez*, were found criminally liable under the MBTA for migratory bird mortalities caused by an accidental oil spill when the vessel ran aground in Prince William Sound and discharged oil.[223] In perhaps the most extreme example of an indirect taking, EPA registration of a pesticide under FIFRA[224] was found to have violated the taking prohibition of the MBTA when migratory birds died from ingestion of strychnine-laced grain.[225]

One might then conclude that it has been generally established that, scienter issues notwithstanding, the MBTA prohibition against taking applies to takings attributable to other than just traditional hunting and poaching activities. This is not quite so.[226]

2. Habitat Modification by Timber Harvest—No Problem

In 1991, the first of a series of citizen suit cases held that the MBTA did not prohibit at least indirect takings resulting from habitat modification caused by timber harvest. Departing from the inherently dangerous activity type of analysis used in the poisoning cases, these Courts reasoned primarily that timber activities do not constitute a taking of migratory birds within the meaning of the MBTA,[227] because the MBTA "was intended to apply to individual hunters and poachers."[228] In justifying this conclusion, the Ninth Circuit, in *Seattle Audubon*,

222. *See* United States v. Kennecott Communications Corp., No. N-90-16M (D. Nev. Mar. 8, 1990); United States v. Echo Bay Minerals Co., No. CR N-90-52-HDM (D. Nev. 1990); United States v. Nerco-Delamar Co. (a.k.a Delamar Silver Mine), No. CR 91-032-S-HLR (D. Idaho Apr. 21, 1992).

223. United States v. Exxon Corp., No. A90-015 CR (D. Alaska, sentencing April 24, 1991).

224. Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. §§ 136-136y (1994).

225. *See* Defenders of Wildlife v. Adm'r EPA, 688 F. Supp. 1334, 1354-55 (D. Mn. 1988), *rev'd on other grounds*, 882 F.2d 1294 (8th Cir. 1989).

226. *See also* Coggins & Patti, *supra* note 2, at 193-94 (describing possible impact on other wildlife statutes of construing "kill" or "take" to include negligent or hazardous activity with foreseeable consequences).

227. In MBTA challenges to timber harvesting, a number of courts have also held that the MBTA is not applicable to the federal government, but those holdings have recently been called into question. *See* cases cited *infra* note 238. In the closing days of his administration, President Clinton signed an Executive Order requiring federal agencies to implement the spirit of the MBTA, if not the letter of the law. *See* Executive Order No. 13,186, 66 Fed. Reg. 3853 (Jan. 17, 2001) (Section 3(a) of which requires agencies "taking actions that have, or are likely to have a measurable negative affect on migratory bird populations" to enter into agreements with the FWS to "promote the consevation of migratory bird populations").

228. Citizens Interested in Bull Run, Inc. v. Edrington, 781 F. Supp. 1502, 1510 (D. Ore. 1990); *see* Newton County Wildlife Ass'n v. United States Forest Serv., 113 F.3d 110, 115 (8th Cir. 1997) ("the ambiguous terms 'take' and 'kill' in 16 U.S.C. § 703 mean 'physical conduct of the sort engaged in by hunters and poachers'") (quoting Seattle Audubon Soc'y v. United States Forest Serv., 952 F.2d 297, 302 (9th Cir. 1991)); *Seattle Audubon Soc'y*, 952 F.2d at 303 (finding that the MBTA definition of take describes physical conduct of the sort engaged in by hunters and poachers), *cert. granted on other grounds*, 501 U.S. 1249 (1991); Mahler v. United States Forest Serv., 927 F. Supp. 1559, 1583 (S.D. Ind. 1996) ("The better reading of the statute is to find that the prohibitions apply only to activity that is intended to kill or capture birds or to traffic in their bodies and parts."); Curry v. United States Forest Serv., 988 F. Supp. 541, 549 (W.D. Penn. 1997) ("the loss of migratory birds as a result of timber sales of the type at issue in this case do not constitute a 'taking'

found it significant that the definition of take under the MBTA, and thus the scope of prohibited activity, differs from that set forth in the Endangered Species Act of 1973.[229] The MBTA definition of take does not include the terms "harass" and "harm."[230] The court reasoned that this difference showed that the MBTA had not addressed habitat modification problems, unlike the expanded scope of the ESA that included takes (harassing or harming animals) caused by habitat modification.[231] The court made no attempt to reconcile its holding with, for example, cases where habitat was modified by the introduction of oil instead of the removal of trees.

3. Must Not Fold, Spindle, or Mutilate the Occupied Tree

Thus, the issue of whether the MBTA applies at least to direct takings caused by non-hunting related activities, including habitat modification, is still somewhat open to debate. At least two district courts have found that a violation of the MBTA would result from timber harvesting, even though it is not a hunting-related activity, but only where the harvesting is demonstrated to directly kill migratory birds.[232] In other words, although the MBTA might be read to not apply to habitat modification such as timber harvest that indirectly may kill migratory birds, it could prohibit the direct taking of a bird or a nest and eggs even though they were taken by means of tree-cutting rather than collection or shooting.[233] This rationale comports with the Ninth Circuit's reasoning in *Seattle*

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or 'killing' within the meaning of the MBTA") (citing *Newton County Wildlife Ass'n*). "[T]he MBTA applies to activities that are intended to harm birds or to exploit harm to birds, such as hunting and trapping, and trafficking in birds and bird parts. The MBTA does not apply to other activities that result in unintended deaths of migratory birds." *Mahler*, 927 F. Supp. at 1579. *But see* Humane Soc'y v. Glickman, 217 F.3d 882, 888 (D.C. Cir. 2000) (discussing without deciding whether the MBTA applies to timber harvesting).

229. *See* 16 U.S.C. § 1532(19) (1994).

230. *See* Seattle Audubon Soc'y, 952 F.2d at 303.

231. *See id.* Three of the four treaties address the need for refuges and habitat protection. *See* Mexican Convention, *supra* note 17, art. II.B; Japanese Convention, *supra* note 18, arts. III.3, VI; Soviet Convention, *supra* note 19, arts. IV, VII. However, the general prohibitions of the MBTA do not address habitat destruction or preservation. *See* 16 U.S.C. § 703.

232. *See* Sierra Club v. Martin, 933 F. Supp. 1559, 1565 (N.D. Ga. 1996) (finding plaintiffs seeking injunctive relief had shown a likelihood of success on the merits of their underlying MBTA claim, where the Forest Service authorized timber harvest that had been demonstrated would result in the deaths of thousands of migratory songbirds), *reversed on other grounds*, 110 F.3d 1551 (11th Cir. 1997) (finding the MBTA did not apply to federal government agencies). *See also* Jimenez, *supra* note 204, at 159 (discussing the decision in Sierra Club v. USDA, No. 94-CV-4061-JPG (S.D. Ill. Sept. 25, 1995), which remanded a Management Plan to the Forest Service for further consideration of whether the plan would violate the MBTA, where the Plan allowed logging during the nesting season).

233. *See* 16 U.S.C. § 703 (stating that it is unlawful to traffic in "any migratory bird, any part, nest, or egg of such bird, or any product . . . "); *see also* Canadian Convention, *supra* note 3, art. V ("The taking of nests or eggs of migratory game or insectivorous or nongame birds shall be prohibited, . . ."); Mexican Convention, *supra* note 17, art. II.A ("parties agree to establish laws, [and] regulations . . . [for] '[t]he establishment of close seasons, which will prohibit . . . the taking of migratory birds, their nests or eggs . . .'"); Japanese Convention, *supra* note 18, art. III.1 ("The taking of the migratory birds or their eggs shall be prohibited."); Soviet Convention, *supra* note 19, art. II.1 ("Each Contracting Party shall prohibit the taking of migratory birds, the collection of their nests and eggs and the disturbance of nesting colonies."). The 1995 Protocol amending the Canadian

Audubon Society as well. The Ninth Circuit, in *Seattle Audubon Society*, stated, "[c]ourts have held that the Migratory Bird Treaty Act reaches as far as direct, though unintended, bird poisonings from toxic substances. . . . Habitat destruction causes 'harm' to the owls under the ESA but does not 'take' them within the meaning of the MBTA."[234]

4. Must Not Shock—Electrocution.

More recently, the issue of the application of the MBTA to non-hunting activities has been exhaustively analyzed in *United States v. Moon Lake Electric Association*.[235] In *Moon Lake* the question was whether the MBTA applied to the deaths of migratory birds that were killed by the defendants' electric power poles.[236] Deaths of migratory birds due to electric towers, television towers, and other man-made structures have been documented since the 1950s. In some incidents thousands of migratory birds have died in a single night from collisions with smokestacks or television towers.[237] In *Moon Lake*, a rural electric distribution cooperative was operating some 2,450 power poles without installing inexpensive equipment on the poles that could have prevented the deaths of some 38 birds of prey caused by the poles.[238]

Convention expands the limited scientific and propagation exceptions to include educational and other purposes consistent with the principles of the Protocol. *See* Protocol, *supra* note 16, art. V.

234. *Seattle Audubon Soc'y*, 952 F.2d at 303 (citations omitted). *But see* BEAN & ROWLAND, *supra* note 11, at 81 (explaining that the basis of the *Seattle Audubon Society* decision was that "the conduct simply did not fall within the Treaty Act's prohibitions. The decision thus would appear to preclude criminal prosecution of a logger or timber company under the Treaty Act even if the logger or timber company intended to kill birds by logging.").

235. 45 F. Supp. 2d 1070 (D. Colo. 1999).

236. *See Moon Lake*, 45 F. Supp. 2d at 1071.

237. See John L. Trapp, Bird Kills at Towers And Other Man-Made Structures: An Annotated Partial Bibliography (1960-1998) (visited Nov. 8, 1999) <http://www.fws.gov/r9mbmo.html>.

238. *See Moon Lake*, 45 F. Supp. 2d at 1071. One cannot help but wonder whether the outcome would have been the same had such an inexpensive solution not been available. The government's prosecution of the electric company in *Moon Lake* and its defense of the U.S. Forest Service timber harvest activities (including those that cause direct take) are reconcilable in that it had been the position of the government (and the prevailing case law) that the MBTA does not apply to the federal government. *See* Sierra Club v. Martin, 110 F.3d 1551, 1555 (11th Cir. 1997) ("The MBTA . . . does not subject the federal government to its prohibitions."); Newton County Wildlife Ass'n v. United States Forest Serv., 113 F.3d 110, 115 (8th Cir. 1997) (stating "that MBTA does not appear to apply to the actions of federal government agencies."); Curry v. United States Forest Serv., 988 F. Supp. 541, 548 (W.D. Penn. 1997) ("The MBTA, by its plain language, does not subject the federal government to its prohibitions.").

Whether the government will persist in arguing that the MBTA civil provisions do not apply to the federal government is uncertain in light of a recent decision of the United States Court of Appeals for the District of Columbia in Humane Soc'y v. Glickman, 217 F.3d 882 (D.C. Cir 2000) (challenge to USDA takings, without a MBTA permit, of specimens of exploding population of non-migrating Canada geese in the Chesapeake Bay area). The court observed that the Department of the Interior's longstanding position prior to 1997 had been that the MBTA restricted federal agencies in the same manner as it restricted private citizens. *See Humane Soc'y*, 217 F.3d at 884. The court also observed that the USDA did obtain a permit for similar destruction of migratory birds in other parts of the country, *e.g.*, Puget Sound. *See id.* at 884 n.2. The court reasoned that section 703 of the MBTA, which prohibits unpermitted harm to migratory birds, does not turn on the identity of the perpetrator, *e.g.*, private or federal, and that a suit for injunctive relief would be appropriate against federal officers to assure compliance with the MBTA. *See id.* at 885-86. The court expressly rejected the conclusions of the courts in *Newton County* and *Sierra Club v. Martin*

The *Moon Lake* Court, like others before it, wrestled with the issue of how far the strict liability law might reach. However, based on both the plain language of the statute and its legislative history, the District Court in *Moon Lake* expressly rejected the limitation used by the Ninth Circuit, *i.e.*, that the MBTA regulates "only the sort of physical conduct [normally] exhibited by hunters and poachers."[239] The *Moon Lake* Court also did not rely on the inherently dangerous analogy, nor the discretion of prosecutors, to avoid such undesirable results. Instead, to describe a rational parameter for the MBTA's strict liability misdemeanor, the Court cited the fundamental requirement that the government must show proximate cause even in strict liability cases.[240] Thus, the Court reasoned, "[b]ecause the death of a protected bird is generally not a probable consequence of driving an automobile, piloting an airplane, . . . , or living in a residential dwelling with a picture window, such activities would not normally result in liability under § 707(a) [the MBTA misdemeanor provision], even if such activities would cause the death of protected birds."[241]

While the debate continues over the application of the MBTA to activities beyond the ken of the hunters and poachers of 1918, the proximate cause analysis provided by *Moon Lake* may be utilized again in the future.[242]

C. *Native American Issues*

Another increasingly important issue in enforcing the MBTA is the relationship between the statute and the interests and rights of Native Americans.

1. Rights Under the Conventions.

Three of the four Conventions implemented by the MBTA make some exception for Eskimos, Indians, or indigenous inhabitants. The Canadian Convention states, "Eskimos and Indians may take at any season auks, auklets, guillemots, murres and puffins, and their eggs, for food and their skins for clothing, but the birds and eggs so taken shall not be sold for sale."[243] The Japanese Convention allows that "[e]xceptions to the prohibition on taking may be permitted [for] . . .[t]aking by Eskimos, Indians, and indigenous peoples of the Trust Territory of the Pacific Islands for their own food and clothing."[244] And the Soviet Convention similarly provides that, "[e]xception to these prohibitions may be made . . . [f]or the taking of migratory birds and the collection of their eggs by the indigenous inhabitants of . . . the State of Alaska for their own nu-

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and held that the prohibitions of section 703 do apply to federal agencies. *See id.* at 888. However, the court's opinion assumed, for the sake of argument and without deciding, that the criminal provisions of section 704 would not apply to federal agencies, because that section uses the term "person" which does not normally include the sovereign. *See id.* at 886.

239. *Moon Lake*, 45 F. Supp.2d at 1079.

240. *See id.* at 1077.

241. *Id.* at 1085. Under the Endangered Species Act, such unintended takings may be authorized by an incidental take permit. *See* 16 U.S.C. § 1539(a)(1)(B) (1994). However, neither the MBTA nor its implementing regulations contains any similar means for authorizing such incidental takes.

242. A full analysis of the possible use of this type of proximate cause analysis to provide logical parameters for the scope of the MBTA appears in a related article in this volume.

243. Canadian Convention, *supra* note 3, art. II.3.

244. Japanese Convention, *supra* note 18, art. III.1(e).

tritional and other essential needs . . . during the seasons established . . . ."[245] In addition, the recent December 14, 1995 Protocol rewrote the Canadian Convention in order to accommodate the rights of Canadian aboriginal peoples and of indigenous inhabitants of Alaska, both native and non-native Americans.[246]

In *Alaska Fish and Wildlife Federation and Outdoor Council v. Dunkle*,[247] the Ninth Circuit held that any exceptions to the MBTA prohibitions the Secretary of the Interior may create by regulation may be no more permissive than the most restrictive of the Conventions.[248] The court held that the rights of native Americans under the Canadian Convention were more restrictive than their rights under the Soviet Convention[249] and, consequently, the Secretary of the Interior could not enter into an agreement that would have allowed native American residents of Alaska to exercise their hunting rights under the Soviet Convention.[250] However, the intent of the drafters of the recent Canadian Protocol, and the intent of the Senate in ratifying it, was clearly to grant special privileges to residents of Alaska.

2. Rights Under Indian Treaties.

In addition to rights granted by the Conventions, Native Americans prosecuted for wildlife violations can raise defenses based upon alleged exclusive treaty rights to hunt or fish. Treaty rights can even be raised in the absence of an express treaty provision.[251] When treaty rights appear to conflict with a wildlife statute, courts will try to interpret both so as to avoid conflict and to give effect to both. However, when treaty rights and a wildlife statute cannot be reconciled, the issue becomes whether Congress intended enactment of the wildlife statute to limit or abrogate the existing treaty rights.[252] In the absence of a clear indication that Congress intended to abrogate the treaty rights, courts will uphold the

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245. Soviet Convention, *supra* note 19, art. II.1(c).

246. *See* Protocol, *supra* note 16, art. II.4(a) & (b).

247. 829 F.2d 933 (9th Cir. 1987); *see* text, *supra* Part III.A.2 (Exclusion of Non-Native Species).

248. *See Dunkle*, 829 F.2d at 941. In contrast to the Ninth Circuit, the Supreme Court has said that the terms of the Conventions do not carry great weight in interpretation of the MBTA. *See* Andrus v. Allard, 444 U.S. 51, 62 n.18 (1979) ("But the language of the [Japanese] Convention, like the terms of the other Conventions, does not carry great weight in the interpretation of the statute."). In fairness to the Ninth Circuit, it also relied heavily on legislative history that contemplated amendments to the other Conventions in order to allow the hunting rights Congress recognized in the Soviet Convention. *See Dunkle*, 829 F.2d at 940-41 (citing S. REP. NO. 1175, 95th Cong., 2d Session., *reprinted in* 1978 U.S. CODE & ADMIN. NEWS 7641; 124 CONG. REC. 31,532 (1978) (statement by Senator Gravel)). *But see* Chevron v. Natural Resources Defense Council, 467 U.S. 837, 843-44 (1984) (explaining that the Court may resort to legislative history only if the intent of the statute is unclear). In addition, the *Dunkle* court did not find a conflict between the different conventions but, instead, simply a difference in scope. *See Dunkle*, 829 F.2d at 941.

249. Although three of the four Conventions make some allowance for native or aboriginal rights, the Mexican Convention makes none. Consequently, it is unclear how the Ninth Circuit concluded the Canadian Convention is the most restrictive with respect to Native American hunting rights. *See Dunkle*, 829 F.2d at 941 ("The United States-Canada Convention is the most restrictive of the four treaties, and all of the Secretary's regulations must be in accord with that treaty.").

250. *See id.* at 945.

251. *See* United States v. Dion, 476 U.S. 734, 738 (1986) ("These rights need not be expressly mentioned in the treaty.").

252. *See Dion*, 476 U.S. at 738-39.

treaty rights and dismiss the prosecution. The standards used for determining Congress's intent have varied between and within courts.[253]

There have been instances in which courts have upheld treaty rights to hunt migratory birds and, consequently, dismissed MBTA prosecutions.[254] However, recent prosecutions under related wildlife statutes have been upheld, since courts have found that the wildlife statutes abrogated treaty rights.[255] Even in instances in which courts have upheld treaty rights to hunt migratory birds, some have not found a right to sell the bird products.[256]

3. Religious Freedom Restoration Act.

Relevant to all prosecutions, but especially to those against native Americans, is the potential for defenses based on the Religious Freedom Restoration Act (RFRA),[257] which provides that:

> Government shall not substantially burden a person's exercise of religion even if the burden results from a rule of general applicability, except . . . if it demonstrates that application of the burden to the person—(1) is in furtherance of a compelling governmental interest; and (2) is the least restrictive means of furthering that compelling governmental interest.[258]

Application of RFRA and treaty rights is rapidly evolving and a full discussion of their application is beyond the scope of this article.

D. *Extraterritorial Application*

Another area of significant concern for enforcement efforts is the geographic scope of the MBTA.

There is no doubt that the restrictions of the MBTA bind all those who act within United States territory.[259] At the other end of the spectrum, it seems to be accepted that the MBTA does not bind foreign nationals acting within foreign territory.[260] Questions have arisen, however, when U.S. nationals act within the

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253. *See id.* ("We have enunciated, however, different standards over the years for determining how such a clear and plain intent must be demonstrated.").

254. *See* United States v. Bresette, 761 F. Supp. 658, 664-65 (D. Minn. 1991) (confirming that the Chippewa enjoy the treaty right to sell migratory bird feathers); United States v. Cutler, 37 F. Supp. 724, 725 (D. Idaho 1941) (confirming that the Shoshone and Bannock enjoy the treaty right to kill migratory birds).

255. *See Dion*, 476 U.S. at 743-46 (holding that the Bald Eagle Protection Act abrogated treaty rights, so that treaty rights could not be asserted against prosecution under *either* the Eagle Protection Act *or* the Endangered Species Act).

256. *See* United States v. Dion, 752 F.2d 1261, 1264 (8th Cir. 1985) (en banc) (Yankton Sioux), *rev'd on related grounds*, 476 U.S. 734 (1986).

257. 42 U.S.C. § 2000bb-bb-4 (1994).

258. *Id.* § 2000bb-1(a)-(b).

259. United States territory, for this purpose, is most conservatively defined to include a marginal belt of the sea extending outward from the coastline three nautical miles. However, an executive proclamation states the zone could extend outward from the coastline for twenty-four geographical miles. Proclamation No. 7219, 64 Fed. Reg. 48,701 (1999).

260. In some limited cases, United States criminal jurisdiction has been found in instances involving a foreign national acting in a foreign territory. *See* United States v. Pizzarusso, 388 F.2d 8,

territory of foreign sovereigns, and when acts occur outside the territory of any sovereign, *e.g.*, on the high seas or in Antarctica.

1. Legal Framework for Determining Extraterritorial Application.

Generally, "Congress has the authority to enforce its laws beyond the territorial boundaries of the United States. Whether Congress has in fact exercised that authority . . . is a matter of statutory construction."[261]

As a matter of statutory construction, it is presumed that Congress has not exercised its authority to apply legislation beyond the territorial jurisdiction of the United States.[262] The primary purpose of this presumption has been described as protecting "against unintended clashes between our laws and those of other nations which could result in international discord."[263]

The presumption can be overcome with regard to criminal statutes if (1) a clear expression of contrary intent appears in the legislation, or (2) the statute belongs to a particular class of statutes the nature of which inherently requires its application beyond the territorial jurisdiction of the United States. This special class of statutes has been described as those:

> which are, as a class, not logically dependent on their locality for the government's jurisdiction, but are enacted because of the right of the government to defend itself against obstruction, or fraud wherever perpetrated, especially if committed by its own citizens, officers, or agents. Some such offenses . . . are such that to limit their locus to the strictly territorial jurisdiction would be greatly to curtail the scope and usefulness of the statute and leave open a large immunity for frauds as easily committed by citizens on the high seas and in foreign countries as at home.[264]

While on its face the class of statutes described in *Bowman* appears fairly restrictive, subsequent decisions by Circuit Courts of Appeals have interpreted *Bowman* liberally to allow extraterritorial application either where the govern-

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9-11 (2d Cir. 1968) (finding jurisdiction where foreign national made false statements in her visa application, because such actions have potentially adverse effects upon security of governmental functions); Rocha v. United States, 288 F.2d 545, 548-50 (9th Cir. 1961) (finding jurisdiction in relation to visa fraud due to adverse effect produced by alien's entry into the United States).

One might argue that the taking of a migratory bird by a foreign national in a foreign territory, so that the bird consequently does not migrate back into the United States, would similarly produce a sufficient domestic adverse effect to support extraterritorial application, particularly where the foreign territory was also a signatory to one of the bilateral migratory bird treaties and thus already committed to maintaining the migratory bird populations for both nations to enjoy. *But see* United States v. Mitchell, 553 F.2d 996, 1002 (5th Cir. 1977) (holding sovereigns generally enjoy control over the natural resources within their territories and the exploitation thereof).

261. *See* EEOC v. Arabian Am. Oil Co., 499 U.S. 244, 248 (1991) (citations omitted).

262. *See Arabian*, 499 U.S. at 248; Steele v. Bulova Watch Co., 344 U.S. 280, 285 (1952) ("the legislation of Congress will not extend beyond the boundaries of the United States unless a contrary legislative intent appears"); Foley Bros., Inc. v. Filardo, 336 U.S. 281, 285 (1949) ("legislation of Congress, unless a contrary intent appears, is meant to apply only within the territorial jurisdiction of the United States"); United States v. Bowman, 260 U.S. 94, 98 (1922) (recognizing presumption of territorial jurisdiction with regard to crimes against private individuals or their property).

263. *Arabian*, 499 U.S. at 248.

264. *Id.*

ment's own interests are at stake *or* where the nature of the offense would appear to require, as a practical matter, extraterritorial application for effective enforcement.[265]

Overlaid on this two-part analysis are considerations of fundamental principles of international law. Three tenets of international law commonly are cited in relation to considerations of extraterritoriality. First, citizenship alone is a "relationship sufficient to justify the exercise of jurisdiction" by a sovereign.[266] Second, any exercise of jurisdiction must be reasonable with respect to a person or activity "having connections with another state."[267] And third, "a sovereign may regulate the ships under its flag and the conduct of its citizens while on those ships."[268]

2. When In Rome . . .

The question of whether the MBTA applies to U.S. nationals acting within a foreign territory was the subject of a Solicitor's Opinion dated December 11, 1980.[269] In a four-page summary opinion, the Office of the Solicitor opined that the fundamental prohibitions of the MBTA do not apply to U.S. nationals acting within foreign territories. Using a *Bowman*-based analysis, the Solicitor found that because the underlying migratory bird treaties contemplated that each country would enact implementing legislation, and because persons of any nationality would be bound by that implementing legislation when inside the territory of another party, a lack of extraterritorial application of the MBTA would not curtail the scope or usefulness of the MBTA.[270] This rationale also implicates a basic premise behind the presumption against extraterritoriality. That is, particularly where the foreign sovereign has its own statutes addressing the very conduct at issue, extraterritorial application may cause discord if the United States were to attempt to enforce its own implementing legislation to actions taken within the foreign sovereign's territory. Moreover, the opinion concluded, there is no clear expression of Congressional intent to the contrary to be found within the MBTA.[271] Thus, the general presumption against extraterritorial application is not overcome.

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265. *See* United States v. Baker, 609 F.2d 134, 137 (5th Cir. 1980) ("The nature of the enactment here in question mandates an extraterritorial application under the second category described in *Bowman*"); Brulay v. United States, 383 F.2d 345, 350 (9th Cir. 1967); United States v. Thomas, 893 F.2d 1066, 1068-69 (9th Cir. 1990).

266. United States v. Mitchell, 553 F.2d 996, 1001 (5th Cir. 1977).

267. RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW OF THE U.S. § 403(1) (1987).

268. United States v. Bowman, 260 U.S. 94, 97 (1922) (noting U.S. ships on the high seas are constructively a part of the territory of the United States); RESTATEMENT (THIRD) OF FOREIGN RELATIONS LAW OF THE U.S. § 502 (1986); Harvard Research in International Law, *Jurisdiction with Respect to Crime*, 29 AM. J. INT'L L. 435, 445 (Supp. 1935) (setting forth five fundamental bases in international law for extraterritorial jurisdiction: (1) territorial; (2) national (sovereign's own citizens); (3) universal (physical custody of perpetrator of universally abhorrent crime such as terrorism); (4) passive personal (based on nationality of the person injured); and (5) protective (based on actions at issue having potential adverse effects on security or governmental functions)).

269. *See* Solicitor's Opinion re Extraterritorial Application of Section 2 of the Migratory Bird Treaty Act, December 11, 1980.

270. *See id.* at 3-4.

271. *See id.* at 4.

Significantly, the Opinion noted that, under the Soviet Convention, the parties could, by mutual agreement, "designate areas of special importance to the conservation of migratory birds outside the areas under their jurisdiction," and that they would attempt to ensure that their citizens, or those subject to their jurisdiction, would act in accordance with the principles of the treaty in relation to those areas.[272] Were the parties to designate such areas, which to date they have not, the opinion acknowledges that arguably the MBTA would apply to acts of U.S. citizens within those areas. The opinion does not state on what basis such extraterritorial application would be extended. Perhaps it would simply be because one would expect any such designation to include a clear expression from Congress on this issue. Or perhaps the intent of the Soviet Convention Treaty alone would lead to this conclusion, as will be explored further below.

The position that the MBTA does not apply to U.S. citizens when they are acting in foreign territory is also supported by a 1977 decision in which the Fifth Circuit Court of Appeals determined that the moratorium provision of the Marine Mammal Protection Act did not apply to United States citizens acting in the waters of a foreign sovereign and in accordance with that sovereign's statutes.[273] The Fifth Circuit cited many of the considerations relied upon by the Solicitor's Memorandum. The authors have found no information indicating any significant continuing dissent from the conclusion reached in the 1980 Solicitor's Memorandum regarding this issue.[274]

3. When In Limbo . . .

a. The Crisis

An entirely different equation comes into play when dealing with the actions of persons, both U.S. citizens and foreign nationals, in areas such as the high seas, Antarctica, or the Exclusively Economic Zones ("EEZ"), that are neither U.S. territory per se, nor the territory of foreign sovereigns.[275] The stakes for this issue are quite high both for migratory birds and for fishermen because a significant number of migratory bird deaths occur in conjunction with ocean fishing activities.

For example, it has been documented that sixty-one species of birds have been killed by long-line fisheries when they attempt to eat bait.[276] Of these species, twenty-five have been accorded "threatened" status by the World Conservation Union as either critically endangered, endangered or vulnerable.[277] It has also been documented that populations of southern albatross have been declining

272. Soviet Convention, *supra* note 19, at art. IV, para. 3.

273. *See* United States v. Mitchell, 553 F.2d 996 (5th Cir. 1977).

274. *But see*, *supra* note 260.

275. It is quite possible for a statute to have extraterritorial application in some circumstances but not in others. For example, a statute that Congress explicitly states is applicable on the high seas, may still, lacking a further explicit statement, not be applicable in a foreign territory. This results from the differing degrees of incursion on foreign sovereignty implicated in the different circumstances.

276. Interview with Al M. Manville II, Ph.D., Wildlife Biologist, Office of Migratory Bird Management, U.S. Fish & Wildlife Service (Feb. 10, 2000) (referencing *Constituent Briefing: U.S. National Plan of Action for the Reduction of Incidental Catch of Seabirds in the Longline Fisheries*, National Marine Fisheries Service (Jan. 19, 2000)).

277. *Id.*

in direct correlation to long-line fishing efforts in the southern ocean fisheries and these incidental takes are considered incompatible with a sustainable southern albatross population.[278] The U.S. Fish and Wildlife Service stated that a conservative estimate of the number of seabirds taken worldwide in long-line fisheries alone in a given year is in the hundreds of thousands.[279]

b. The Existing Policy

The first time the Solicitor's Office addressed this broader issue of extraterritorial application in areas outside of any particular sovereign's territory, it was not analyzed in depth. Instead, the Solicitor issued a four-page Memorandum in early 1981 that relied on its 1980 Memorandum. This 1981 Memorandum erroneously represented that the earlier Opinion addressed the more general issue of any extraterritorial application of the MBTA, not just its application to acts that occur in foreign territory.[280]

Like the 1980 Memorandum, the 1981 Memorandum was initiated primarily to address only a very narrow issue—the application of the MBTA to foreign nationals acting outside of United States territory. Also like the 1980 Memorandum, the 1981 Memorandum noted one possible indicia of at least some extraterritorial application; it acknowledged that the Negotiation Report from the American Delegation for the Soviet Convention stated that "it was the intention of the 'American negotiators to have this Convention apply to the fifty states (including the high seas out to the 200 mile limit).'"[281] But the Memorandum went on to conclude that there is nothing in the legislation that indicates this intention was carried out by Congress and concluded that an individual violating the MBTA outside the jurisdiction of the United States could not be prosecuted by the United States.[282]

c. The Future as Congress Intended

In fact, the issue of extraterritorial application of the MBTA, particularly to U.S. citizens within territories for which there is no sovereign power, is not so

278. Id.; Nigel G. Brothers, et al., The Incidental Catch of Seabirds by Longline Fisheries: Worldwide Review and Technical Guidelines for Mitigation, Food and Agriculture Organization, Fisheries Circular No. 937 (1999).

279. *Id.*

280. Memorandum from Assistant Solicitor, Fish and Wildlife, to Office of Migratory Bird Management, Fish and Wildlife Service dated March 27, 1981 ("In a December 11, 1980, memo to the Chief, Division of Law Enforcement, from the Assistant Solicitor, Fish and Wildlife, we pointed out that section 2 [16 U.S.C. § 703] of the MBTA does not apply extraterritorially. In other words, an individual (including a United States citizen) violating the MBTA outside the jurisdiction of the United States could not be prosecuted by the United States.").

A third Solicitor's Memorandum dated October 6, 1987, concluded that the Presidential Proclamation that established the 200-mile Exclusive Economic Zone did not alter the 1980 and 1981 conclusions that the MBTA does not apply extraterritorially. Memorandum from Charles P. Raynor, Assistant Solicitor, to Frank Dunkle, Director, Fish and Wildlife Service dated October 6, 1987.

281. Memorandum from Assistant Solicitor, Fish and Wildlife, to Mark Schaffer, Office of Migratory Bird Management, Fish and Wildlife Service pg. 3 n.2 (March 27, 1981).

282. *See id.* (mentioning a State Department "informal opinion" indicating that agency's belief that jurisdiction extended only to the territorial seas).

clear cut as one might imagine from the brief Solicitor's Opinion. Both from a legal and a pragmatic perspective, the MBTA should be found to apply at least as to U.S. citizens and U.S. flag vessels acting within areas outside of any foreign territory.

i. Congressional Intent

Congress did not include within the MBTA any explicit general statement of congressional intent with regard to the extraterritorial application of the MBTA. Parts of the MBTA and references to the MBTA in subsequent legislation, however, weigh in favor of finding at least limited extraterritorial application.

First, the legislation itself provides that it "shall be unlawful to ship, transport, or carry, by any mean whatsoever, . . . to *or through a foreign country*, any bird, or any part, nest, or egg thereof" which was taken, or transported at any time in violation of the laws of the State, Territory, or district in which it was taken or from which it was shipped.[283] In other words, if a bird is taken in violation of a State law, and then carried by another individual through Brazil, that act of carriage through Brazil is illegal under the MBTA. This appears on its face to be an explicit extraterritorial application of the MBTA.

This provision of the MBTA addresses actions involving a bird illegally taken within the United States. While indicative of an intent to apply at least parts of the MBTA extraterritorially, this raises at least two questions: (1) why did Congress specify that carriage through a foreign country, which implicates direct sovereignty issues, is illegal while not explicitly addressing the issue of such carriage on the high seas or at least within the EEZ; and (2) did Congress mean to apply the statute extraterritorially *only* where the bird in question was illegally obtained in the United States originally, thus indicating that a bird taken outside of the United States would not be covered by the MBTA?

In the absence of any discernable reason to distinguish carriage through a foreign country from carriage through a global commons in this circumstance, the Congressional intent that at least Section 705 be given extraterritorial applications should be read to extend to all extraterritorial areas since Congress has stated that it should apply in what is normally the most limited circumstance for extraterritorial application. As to the second question, additional light may be shed on this by reference to a second expression of Congressional intent regarding the MBTA.

In the recently enacted Antarctic Conservation Act,[284] Congress specifically provided that a criminal conviction under that Act, which covers only actions in the Antarctic, "shall not be deemed to preclude a conviction for such an act under any other law, including, but not limited to, the Marine Mammal Protection Act (MMPA) of 1972, the Endangered Species Act of 1973 *and the Migratory Bird Treaty Act.*"[285] The MMPA and the ESA expressly prohibit takings of marine mammals and endangered species, respectively, within the United States, its

283. 16 U.S.C. § 705 (1994) (emphasis added).

284. 16 U.S.C. §§ 2403-12 (1988).

285. The Antarctic Conservation Act, 16 U.S.C. § 2408(c) (1994) (emphasis in original).

territorial seas, and on the high seas.[286] Antarctica has been commonly equated with the global commons of the high seas.[287] If Congress did not intend the MBTA to have at least extraterritorial application as far as Antarctica and the high seas, this statutory language would become superfluous, violating another basic tenet of statutory construction.

Thus, the express language of both the MBTA and the Antarctic Conservation Act supports an interpretation that (1) the MBTA "take" prohibitions under Section 703 were intended to apply within the United States *and* areas that are not subject to another sovereign, including Antarctica and on U.S. flagged ships on the high seas; and (2) the MBTA transport prohibitions under Section 705 were intended to apply even within foreign territories to the extent that the birds at issue were illegally handled in the first instance within the United States.

ii. Nature of the Statute

Even if the intent of Congress were not clear, under *Bowman* and its progeny, the nature of the MBTA appears to require, as a practical matter, extraterritorial application for effective enforcement.

The migratory birds at issue by their very nature are frequently found outside the territorial extent of the United States. One oft-cited example is the northern fulmar which spends the vast majority of its time on the high seas, only returning to land to nest, typically on lands outside the territorial limits of the United States. If the MBTA were effective only as to actions taken within the territorial limits of the United States, it would afford virtually no protection for the northern fulmar, to which the MBTA expressly applies.[288] Similarly, both the Japan and Soviet Conventions protect only birds that migrate between those countries and the United States.[289] Neither of these countries share with the United States a land border, or an extensive border between territorial waters. Since the migration therefore requires that the birds fly over international waters, a failure to apply the MBTA within these waters will result in a significant gap in the protection of the birds covered by these treaties. Since "[t]he natural inference from the character of the offense is that the sea would be a probable place for its commission",[290] it must be concluded that Congress intended the MBTA to apply beyond the territorial United States.

Moreover, as noted above, the necessity of extraterritorial application is underscored by the language of the Soviet Convention, discussed above, that

286. *See* 16 U.S.C. § 1372(a)(1)-(2) (1994) (addressing Marine Mammal Protection); 16 U.S.C. § 1538(a)(1)(B),(C) (1994) (addressing Endangered Species); United States v. Mitchell, 553 F.2d 996, 997, 1004-05 (5th Cir. 1977) (holding that Congress did not intend the MMPA moratorium provisions to apply within foreign territories and acknowledging the intended application of the MMPA's prohibition provisions to the high seas).

287. *See* Environmental Defense Fund v. Massey, 986 F.2d 528, 530 (D.C. Cir. 1993) (quoting Executive Order 12114, 3 C.F.R. 356 (1980) and giving both Antarctica and the oceans as examples of "the global commons outside the jurisdiction of any nation").

288. 50 C.F.R. § 10.13 (1998) (listing the Northern Fulmar as a migratory bird protected under the MBTA).

289. *See* Japanese Convention, *supra* note 18, art. II.1.A; Soviet Convention, *supra* note 19, art. I.1.A.

290. United States v. Bowman, 260 U.S. 94, 99 (1922).

contemplates the designation of areas of special conservation importance outside the jurisdiction of either nation, in which their citizens would be bound by the principles of the treaty.[291] The mere fact that the MBTA is the implementing statute of four international agreements reflects the necessity of international cooperation and enforcement to carry out its purpose.

iii. International Law Issues

The basic principles of international law further support the application of the MBTA in areas that are not subject to another sovereign, and to actions involving birds illegally handled in the first instance within the United States.

International law supports the exercise of criminal jurisdiction by the United States over its own citizens, wherever they may be found. International law further supports the exercise of criminal jurisdiction by the United States over United States' flagged ships. Furthermore, it is "reasonable" for a sovereign to exercise jurisdiction over persons in other sovereign territories where the individual possesses or controls an item previously rendered contraband within the territory of the United States.[292]

Most cases that address the issue of whether a statute has extraterritorial application where Congress has not specifically so stated are (1) fact-specific and (2) pragmatic, recognizing basic tenets of international law and diplomacy. One can view the cases as a sliding scale. At one extreme are cases where the nature of the statute and the facts presented do not seem to require or contemplate extraterritorial application while to find such extraterritorial application would likely cause significant international tensions.[293] At the other extreme are cases where the nature of the statute and the facts appear to demand extraterritorial application and international repercussions are likely to be nonexistent.[294] The MBTA falls into this latter end of the scale.

IV. CONCLUSION

While the MBTA has been in effect for close to a century, its mandates have become increasingly significant, and controversial, as the protection of migratory birds runs into conflict with activities and appurtenances of modern society that did not exist, or were not so prevalent, when the Act was passed. The extent and importance of the MBTA's prohibitions, particularly their application to situations outside the context of domestic hunting, is just now being appreciated, as are the profound impacts that such non-hunting activities have on the natural resource that the MBTA, and its underlying treaties, are intended to protect and perpetuate. But while the applications may be novel, the purpose of the prohibitions remains exactly the same – preservation of migratory birds.

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291. Soviet Convention, *supra* note 19, art. IV.3.

292. *See* United States v. McRary, 665 F.2d 674 (5th Cir. 1982) (finding extraterritorial application of federal kidnapping statute justified where victim was taken within United States territory before being transported in foreign commerce).

293. *See* EEOC v. Arabian Oil Co., 499 U.S. 244 (1991) (finding Title VII does not apply to U.S. citizens working in foreign territories).

294. *See* United States v. Pizzarusso, 388 F.2d 8, 9 (2d Cir. 1968) (finding extraterritorial application for false statements made in the context of applying for a visa at a U.S. consulate).

The question now will be whether or not just human utilization of, but also human impacts upon the migratory birds will be controlled under the MBTA. The courts have and will continue to provide some interpretive guidance on issues such as extraterritorial application, protected species, and the scope of the strict liability taking prohibitions. Ultimately the Secretary of the Interior, through the FWS, or the legislature may also be called upon to address at least some of these issues.

COMMENT

TREATY FISHING RIGHTS AND INDIAN PARTICIPATION IN INTERNATIONAL FISHERIES MANAGEMENT

> For centuries before the Europeans came upon North America, the rivers met the needs of the salmon and the salmon met the needs of the Indian. The tribes and the salmon had benefited from this partnership, secure in their adaptation to the environment and to each other. The Indians knew they had to protect the quality of the rivers. Under conditions of abundance, their religious and technological precautions ensured perpetuation of the fish.[1]

INTRODUCTION

From 1854 to 1855 the territorial Governor of Washington, Isaac Stevens,[2] negotiated a series of treaties ("The Stevens Treaties" or "Treaties") with the Indians then inhabiting the Pacific Northwest region west of the Cascade Mountains and north of the Columbia River.[3] The Stevens Treaties cleared the way for white settlement of the area. Stevens and the Indians negotiated these Treaties at arms length, not as between a conqueror and the conquered.[4] Both sides specified prerequisites for agreement. The Indians demanded guaranteed, undiminished access to the salmon; Stevens required land for white settlement. Stevens understood well the fishing needs of the Indians, and the language of the

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1. Fay G. Cohen, Treaties on Trial 29 (1986).

2. President Pierce appointed the Territorial Governor Isaac Stevens, and Stevens also served as the Indian Superintendent of Indian Affairs. *See* Charles F. Wilkinson, *Indian Tribal Rights and the National Forests: The Case of the Aborogínal Lands of the Nez Perce Tribe*, 34 IDAHO L. REV. 435, 436 (1998).

3. *See* Treaty of Medicine Creek, Dec. 26, 1854, 10 Stat. 1132; Treaty of Point Elliott, Jan. 22, 1855, 12 Stat. 927; Treaty of Point no Point, Jan. 26, 1855, 12 Stat. 933; Treaty of Neah Bay, Jan. 31, 1855, 12 Stat. 939; Treaty of Walla-Walla Valley, June 9, 1855, 12 Stat. 951; Treaty of Olympia, July 1, 1855, 12 Stat. 971.

4. *See* Washington v. Washington Commercial Passenger Fishing Vessel Ass'n, 443 U.S. 658, 675 (1979) [hereinafter *Fishing Vessel*]; *see also* Wilkinson, *supra* note 2, at 436-39 (describing the negotiating skill of the Nez Perce and the strong arm tactics of Governor Stevens). Initially, the United States negotiated all Indian treaties at arms length, and each treaty truly represented the wishes of the parties. But, after the war of 1812, the United States began to exert its superior military force to the detriment of the Indians. Treaties made during this period more closely resemble adhesion contracts than arms length negotiations. Chief Justice John Marshall wrote three decisions that formed the basis of Indian treaty interpretation, and helped bring the treaty result, but not the process, back to even keel. *See* Johnson v. M'Intosh, 21 U.S. (8 Wheat) 543 (1823); Cherokee Nation v. Georgia, 30 U.S. (5 Pet.) 1 (1831); Worcester v. Georgia, 31 U.S. (6 Pet.) 515 (1832). Later Supreme Court decisions further supported Chief Justice Marshall's vision of "domestic dependent nations." *See, e.g.*, United States v. Kagama, 118 U.S. 375, 384 (1886) (stating that the Indian tribes are communities dependent on the United States); Tulee v. Washington, 315 U.S. 681, 684-85 (1942) (noting that it is the United States' responsibility "to protect the interests of a dependent people").

Treaties clearly reflected that understanding.[5] In the Treaties, Stevens gained vast quantities of Indian land for white settlement in exchange for the Indians' continued access to tribal fishing grounds, small tracks of retained land, and occasionally money.[6]

Each of the Stevens Treaties used essentially identical language to memorialize off-reservation Indian fishing rights: "The right of taking fish at all usual and accustomed grounds and stations is further secured to said Indians, in common with all citizens of the territory."[7] The fishing communities in the Pacific Northwest, composed of both Indians and non-Indians have debated the meaning of these words since the early 1900's. At various times, the United States Supreme Court has attempted to quell the debate. The Supreme Court's decisions provided that a reviewing court has a duty to interpret the Treaty language, specifically the phrases "usual and accustomed" and "in common with the citizens," to effectuate the parties' intent at the moment of treaty formation.[8] Arguably those instructions have simply added uncertainty, as little evidence exists regarding the parties' intent at the time of treaty formation.

In effect, the Supreme Court determined the parties' intent by considering the parties' reasonable expectations.[9] Plainly read, the Treaties' language guarantees to the Indians access to their historic fishing grounds, and fish sufficient to sustain their subsistence and commercial needs. By their nature, the Treaties immediately fulfilled the United States' rights, but not the Indians.' The United States frustrated the Indians reasonable expectations of continued access to fish by actively contributing to the decline of salmon populations. As salmon stocks have declined the Indians have been forced to forgo their treaty-based expectations and share in the consequences of white settlement.[10]

Recent interpretations of the Treaties justify, if not demand, Indian participation in a host of salmon planning and conservation activities, including habitat preservation[11] and international fisheries management.[12] Yet, these decisions do not comport with the reasonable expectations of either the United States

5. *See Fishing Vessel*, 443 U.S. at 676.

6. *See id.* at 676-77.

7. Treaty of Medicine Creek, *supra* note 2, art. III.

8. *Fishing Vessel*, 443 U.S. at 675.

9. The phrase 'reasonable expectations" is a term of art borrowed from the law of close corporations. *See* David C. Crago, *Fiduciary Duties and Reasonable Expectations: Cash-Out Mergers in Close Corporations*, 49 OK. L. REV. 1, 1 (1996). Due to the nature of close corporations (e.g., only a few shareholders who generally derive their income from their participation in running the corporation), the majority shareholders may not act to frustrate the "reasonable expectations" of the minority shareholders. "Reasonable expectations" typically include a voice in management of the corporation and a reasonable return on investment. *See id.* The comparison is particularly close here, as the Indians reasonable treaty expectations included continued access to the fish, and now Indians enjoy a voice in management of the salmon fisheries. *See infra* Part III.

10. Immediately prior to the Supreme Court's decision in Fishing Vessel, the Indian's take of salmon represented approximately two percent of the total harvest. *See Fishing Vessel*, 443 U.S. at 677 n.22.

11. *See* Michael C. Blumm & Greg D. Corbin, *Salmon and the Endangered Species Act, Lessons from the Columbia Basin*, 74 WASH. L. REV. 519 (1999) (investigating the affect of listing salmon as endangered species on fisheries management decisions).

or the Indians. When Stevens negotiated the treaties, neither party anticipated the need to manage the salmon, as the fish abundantly populated the Northwest's rivers.[13] The courts now attempt to safeguard the Indians' reasonable expectations of continued access to fish by mandating division of harvestable fish, and, at least in part, Indian participation in fisheries management decisions.

This Comment considers the United States' attempts to manage pacific salmon in light of its statutory requirements and the Indians' fishing rights. Part I briefly describes the nature of the relationship between the United States and the Northwest Indians. Part II outlines Indian fishing rights in the Northwest as decided by the Supreme Court and two federal district courts. Part III outlines pertinent Unites States' domestic and international obligations, and considers Indian participation in international fisheries management. Part IV discusses Indian participation in fisheries management decisions in the context of the mechanisms discussed in Parts II and III. It continues with a brief discussion of why Indian involvement may rest on a discretionary foundation. Finally, Part V concludes that continued Indian participation in fisheries management decisions benefits the overall salmon population.

I. THE DEVELOPMENT OF THE RELATIONSHIP BETWEEN THE FEDERAL GOVERNMENT AND THE INDIANS IN THE PACIFIC NORTHWEST

Salmon are anadromous fish.[14] As such fish, they hatch in the clear, clean headwaters of mountain streams, migrate to the ocean to grow to adults, and then return to their hatching location to spawn and die.[15] Salmon require five things to perpetuate the species: access to and from the ocean; fresh water of a certain quality and quantity; clean gravel beds for spawning and hatching; food; and protective cover.[16] Taking too many salmon from one returning run means that fewer salmon will reach their hatching grounds to spawn, and consequently fewer of the offspring will return.

The Northwest Indians require salmon for survival today, just as they did in 1854 and 1855 when Stevens negotiated the Treaties. When the Indians fished the Northwest's rivers alone, they harvested only the salmon they needed for subsistence and trading.[17] In fact, salmon and Indian life in the Pacific Northwest continue to be inseparable.[18] The Indians rely now as they did in the 1800s on salmon for subsistence, commercial livelihood, and religious rituals.[19] Because of

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12. *See Fishing Vessel*, 443 U.S. at 692 n.31 (noting that the International Pacific Salmon Fisheries Commission may promulgate special Indian regulations).

13. *See id.* at 669.

14. *See* COHEN, *supra* note 1, at 20.

15. There are five species of salmon (the Chinook, Coho, Chum, Pink, and Sockeye) and the steelhead. The steelhead is actually an ocean trout. *See* COHEN, *supra* note 1, at 25. Unlike the salmon that return to their native stream once to spawn and die, the steelhead may return to spawn two or three times before death. *See* COHEN, *supra* note 1, at 20.

16. *See* COHEN, *supra* note 1, at 28.

17. *See* COHEN, *supra* note 1, at 24.

18. *See* COHEN, *supra* note 1, at 20-23; *see also* United States v. Wahington, 384 F. Supp. 312, 350 (D.C. Cir. 1974) ("One common cultural characteristic among all of the Indians was the almost universal dependence upon the products of an aquatic community.").

19. *See* COHEN, *supra* note 1, at 20-25; *see also Fishing Vessel*, 443 U.S. at 665-66; *Washington*, 384 F. Supp. at 350.

their dependence, the Indians take great care not to pollute the rivers and to fish responsibly.[20] In the past, the Indians often opened traps and nets to release back the salmon they caught, and "once the Indians had met their needs, they stopped fishing."[21] Each season, Indians performed elaborate religious ceremonies intended to ensure the salmon would return.[22]

White settlement in the Pacific Northwest during the late nineteenth century contributed to a drastic decline in salmon populations for several reasons.[23] First, the population infusion simply meant more fishermen chased an essentially fixed number of fish. Second, technological advances in fishing allowed fishermen to more efficiently remove salmon from the rivers and ocean. Third, the recently perfected canning process expanded the salmon market beyond the immediate vicinity of the Columbia River Basin.[24] Finally, environmental factors, such as timber harvesting and dam building, depleted the habitat available for salmon spawning.[25]

President Pierce empowered Governor Stevens to negotiate treaties with the Indians,[26] and by 1854, the United States Supreme Court had judicially legitimized federal control over the Indians through the Commerce Clause and the theory of "discovery and conquest."[27] The courts have traditionally recognized four sources of federal power over Indian tribes, two based in the Constitution and two developed through the common law. The Commerce[28] and Treaty

Clauses[29] form the Constitutional power, while the discovery[30] and trust responsibility[31] doctrines form the common law power. The Supremacy Clause[32] also plays a significant role, but is not a direct source of federal power over Indian tribes. Instead, it gives treaties and other federal legislation effect. Today, the Federal Government exercises power over Indian tribes primarily through the Commerce Clause and trust responsibility doctrine.

The Commerce Clause states, "Congress shall have Power . . . to regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes."[33] The Supreme Court has interpreted the Commerce Clause to

20. *See* COHEN, *supra* note 1, at 24.
21. COHEN, *supra* note 1, at 25.
22. COHEN, *supra* note 1, at 24
23. *See Fishing Vessel*, 443 U.S at 668-69.
24. *See Washington*, 384 F. Supp. at 352.
25. *See* COHEN, *supra* note 1, at 45-48.
26. *See* Act of March 3, 1852, 10 Stat. 226, 238.
27. *See* Johnson v. M'Intosh, 21 U.S. (8 Wheat) 543, 587-88 (1823); Worcester v. Georgia, 31 U.S. (6 Pet.) 515, 558-60 (1832).
28. U.S. CONST. art. I, § 8, cl. 3.
29. U.S. CONST. art. II, § 2.
30. The discovery doctrine was first outlined by Chief Justice Marshall in *M'Intosh*, when he stated that "Conquest gives a title the courts of the conqueror cannot deny . . . ." *Johnson*, 21 U.S. (8 Wheat) at 588.
31. *See generally* FELIX COHEN, COHEN'S HANDBOOK OF FEDERAL INDIAN LAW 220-21 (Rennard Strickland, et al. eds., 1982) (hereinafter FELIX COHEN).
32. U.S. CONST. art. VI.
33. U.S. CONST. art. I, § 8, cl. 3.

help define the unique relationship between Indians and the United States, and to deny foreign nation status to the Indians.[34] Chief Justice Marshall in *Cherokee Nation v. Georgia* declared that the Commerce Clause "clearly contradistinguished [Indians] . . . to themselves . . . ."[35] The Commerce Clause grants Congress plenary power over Indians.[36]

Cherokee Nation v. Georgia recognized the legal relationship between the United States and the Indian tribes. It described Indian tribes as "denominated domestic dependent nations . . . [whose] relation to the United States resembles that of a ward to his guardian."[37] The Commerce and Supremacy Clause's combined effect denies the power of state law in Indian country.[38]

The nature of the "domestic dependent" relationship and formal promises made by the United States gave rise to the trust responsibility doctrine.[39] The Supreme Court characterized the trust responsibility relationship as a fiduciary duty, a special duty of protection, and a moral obligation.[40] Formal promises in treaties and other official United States actions made the trust responsibility doctrine a moral imperative.[41] For instance, the Stevens Treaties promised the Indians a perpetual home and access to the salmon in exchange for vast amounts of land. These promises created a trust relationship.[42] In practice, the trust relationship makes the United States act to enforce its treaty obligations against the states, and serves as a check on federal mismanagement of tribal assets or bad faith with regard to other federal authority.[43]

The United States formalized its early relationship with Indians using treaties, as the federal government envisioned Indian tribes as independent, sovereign nations.[44] Like other treaties, these "essentially [formed] a contract between

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34. *See* Cherokee Nation v. Georgia, 30 U.S. (5 Pet.) 1, 1 (1831).

35. *Cherokee Nation*, 30 U.S. (5 Pet.) at 18.

36. *See Worcester*, 31 U.S. (6 Pet.) at 559; United States v. Kagama, 118 U.S. 375, 378 (1886); Lone Wolf v. Hitchcock, 187 U.S. 553, 565 (1903); *see also* FELIX COHEN, *supra* note 31, at 217 (explaining that "[p]lenary does not mean 'absolute' in the sense that it may be exercised free of constitutional limits or judicial review").

37. *See Cherokee Nation*, 30 U.S. (5 pet.) at 17.

38. *See* 18 U.S.C. § 1151 (1984) (defining "Indian country" as all land within the limits of a reservation, all dependent Indian communities, and all Indian allotments).

39. *See Cherokee Nation*, 30 U.S. (5 Pet.) at 18. For a detailed discussion of the trust responsibility doctrine, see generally FELIX COHEN, *supra* note 31, at 220-21; STEVEN L. PEVAR, THE RIGHTS OF INDIANS AND TRIBES 26-33 (2d ed. 1992), Reid Peyton Chambers, *Judicial Enforcement of the Federal Trust Responsibility to Indians*, 27 STAN. L. REV. 1213 (1975).

40. *See, e.g., Kagama*, 118 U.S. at 384; Choctaw Nation v. United States, 119 U.S. 1, 27-28 (1886); United States v. Creek Nation, 295 U.S. 103, 110 (1935); United States v. Mitchell, 463 U.S. 206, 225-26 (1983).

41. *See* Charles F. Wilkinson & John M. Volkman, *Judicial Review of Indian Treaty Abrogation:* "As Long as Water Flows, or Grass Grows Upon the Earth"—How Long a Time is That?, 63 CAL. L. REV. 601, 614-15 (1975) (stating the trust relationship can develop through treaties, executive orders, agreements, statutes, and withdrawals by the Secretary of the Interior).

42. *See* PEVAR, *supra* note 39, at 26; *See also* Wilkinson & Volkman, *supra* note 41, at 614.

43. See David H. Getches, *Conquering the Cultural Frontier: The New Subjectivism of the Supreme Court in Indian Law*, 84 CAL. L. REV. 1545, 1585 (1996).

44. U.S. CONST. art. II, § 2, grants the President power to make treaties with the advice and consent of two-thirds of the Senate. However, in 1871 Congress passed a law prohibiting further treaty making with the Indian Tribes. *See* 25 U.S.C. § 71 (1995).

two sovereign nations."[45] Governor Stevens efficiently negotiated these treaties with the Pacific Northwest Indian tribes. In his first year, Stevens secured millions of acres of land for white settlement.[46] In exchange for Indian land, Stevens' treaties promised perpetual, undisturbed rights to reserved portions of land (the Indian reservations), and "[t]he right [to take] fish at [the] usual . . . grounds . . . in common with all the citizens of the [t]erritory . . . and of erecting temporary houses for the purpose of curing [the fish] . . . ."[47] Stevens knew the tribes would not agree to a treaty without specific guarantees of fishing rights, and he intended to give those rights to them.[48]

The Supreme Court established the so-called "cannons of treaty interpretation" out of the trust responsibility relationship.[49] These canons guide judicial interpretation of treaty language, essentially demanding that ambiguity be resolved liberally for the Indians,[50] in terms favorable to the Indians,[51] and in a manner understood by the Indians.[52] Still, the Supreme Court held that Congress may use its plenary power over the Indians to abrogate treaty promises when they clearly evince such an intention.[53] The courts, however, will not lightly assume that Congress acted to abrogated Indian treaty rights.[54]

Using the cannons of treaty interpretation, the Supreme Court determined that Indian treaties actually granted rights from the Indians to the United States, and not from the United States to the Indians.[55] The rights forfeited in treaties simply derived from a larger, pre-existing body of inherent Indian rights.[56] So, treaties reserved to the Indians those rights not explicitly described or limited by treaty.[57]

II. NORTHWEST INDIAN TREATY FISHING RIGHTS AS DEVELOPED THROUGH THE COURTS

A series of six Supreme Court decisions decided between 1905 and 1979 interpreted the measure and scope of Indian fishing rights encompassed in the language of the Stevens Treaties.[58] Through an examination of these decisions

45. *See Fishing Vessel*, 443 U.S. at 675 (citing Lone Wolf v. Hitchcock, 187 U.S. 553 (1903)).

46. *See Fishing Vessel*, 443 U.S. at 666.

47. Treaty of Medicine Creek, *supra* note 3, art. III.

48. *See Fishing Vessel*, 443 U.S. at 666 n.9.

49. *See* FELIX COHEN, *supra* note 31, at 221.

50. *See* Choctaw Nation of Indians v. United States, 318 U.S. 423, 431-32 (1943); Tulee v. Washington, 315 U.S. 681, 684-85 (1942).

51. *See* McClanahan v. State Tax Comm'n, 411 U.S. 164, 174 (1973); Winters v. United States, 207 U.S. 564, 576-77 (1908).

52. *See Fishing Vessel*, 443 U.S. at 675-76; Choctaw Nation v. Oklahoma, 397 U.S. 620, 631 (1970); United States v. Winans, 198 U.S. 371, 380-81 (1905); Worcester v. Georgia, 31 U.S. (6 Pet.) 515, 582 (1832).

53. *See* Lone Wolf v. Hitchcock, 187 U.S. 553, 566 (1903).

54. *See* FELIX COHEN, *supra* note 31, at 222-23; *Fishing Vessel*, 443 U.S. at 690.

55. *See Winans*, 198 U.S. at 381.

56. *See generally id.*

57. *See* Winters v. United States, 207 U.S. 564, 577 (1908).

58. In chronological order, the decisions discussed include: United States v. Winans, 198 U.S. 371 (1905), Tulee v. Washington, 315 U.S. 681 (1942), Puyallup Tribe v. Washington, 391 U.S. 392

and a few additional, this section describes the rights retained by the Indians after the Stevens Treaties. Those rights allow Indians to cross and temporarily use private property to exercise the federally protected off-reservation fishing rights, rights which they share with the citizens of the Pacific Northwest states. A state may only limit the Indian rights through reasonable regulations, specifically necessary, and targeted for conservation.

Indian participation in fisheries management decisions became necessary, because the last of the decisions discussed herein entitled the Indians to a significant portion of the harvestable salmon. Indian participation became necessary to meet Indians' reasonable expectations secured by treaty, to ensure the salmon's survival, and to recognize private fishing interests. The cases not only established the breadth of Indian fishing rights with respect to state regulation and private property rights, but as set out below, they also provided the foundation and rationale for Indian participation in fisheries management decisions at all levels.

A. *From Winans to Puyallup III*

The United States Supreme Court first construed the Stevens Treaty language in *United States v. Winans*.[59] There, the United States sought to enjoin Winans, a white settler, from excluding Yakima Indians from his property. The United States asserted that the Winans' land bordered one of the Indians "usual and accustomed" fishing grounds as provided by treaty, and as such, Winans could not prevent the Indians from fishing in the area.[60] Winans had erected a fishing wheel[61] in the Columbia River adjacent to his property under a license issued by the State of Washington. The wheel so efficiently caught fish that it effectively prevented the Indians from exercising their treaty rights. Winans asserted that the treaty language, "the right of taking fish at all usual and accustomed places in common with the citizens of the territory[,]" conferred no greater rights than those enjoyed by any other citizen whose land bordered the river.[62]

The Supreme Court disagreed, and held that the treaty language preserved for the Indians a non-exclusive, off-reservation fishing right, which held greater significance than that asserted by Winans.[63] The Court explained that an Indian fishing right reserved in the Stevens Treaty was tantamount to an easement.[64] It

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(1968), Washington v. Puyallup Tribe, 414 U.S. 44 (1973), Puyallup Tribe v. Washington, 433 U.S. 165 (1977), Wahington v. Washington Commercial Passenger Fishing Vessel Ass'n, 443 U.S. 658 (1979).

59. 198 U.S. 371 (1905).

60. *See Winans*, 198 U.S. at 380.

61. A fishing wheel resembles a Ferris wheel. It removes fish from a stream with great efficiency. *See* CHARLES F. WILKINSON, CROSSING THE NEXT MERIDIAN 189 (1992). It may be mounted either to the side of the river or on a floating platform. *See id.* It has a series of buckets mounted about is circumference, and the river's current keeps it spinning. *See id.* If mounted in a fortuitous location, it can scoop out great quantities of salmon. *See id.* One fishing wheel in 1906 was reported to remove 417,000 tons of salmon in one year. *See id.*

62. *See Winans*, 198 U.S. at 379.

63. *See id.* at 381.

64. *See id.* at 381, 384.

reserved to the Indians the right to cross and occupy private land[65] to the extent the Indians needed access for fishing and erecting temporary shelters to cure their catch.[66] The Indians could assert this right against the United States and subsequent grantees.[67]

Unfortunately for the Yakimas and other Northwest Indians, the *Winans* decision was flawed in a manner not immediately apparent. In the dicta following the denial of Winans' claim, the court professed an unsupported and therefore unsubstantiated grant of power to the states to regulate the Indians' off-reservation treaty fishing rights.[68]

In *Tulee v. Washington*,[69] the Supreme Court did little more than solidify its dicta announcement in *Winans* by holding that a state could regulate Indian fishing rights for conservation purposes. The state of Washington charged and convicted a Yakima Indian of netting salmon without a fishing license.[70] Washington asserted that its power to conserve fish and game permitted it to require a license of the Indian plaintiff.[71] The State of Washington argued that the license requirements were not inapposite to the Yakima's treaty rights, since the requirements were not discriminatory.[72] The Court decided Washington could regulate the "time and manner of fishing outside the reservation as . . . necessary for the conservation of fish," but it may not charge a license fee.[73] The court found the license fee, as applied, was "not indispensable to the effectiveness of a state conservation program," but impermissibly limited a federal right.[74]

In a series of three Puyallup[75] decisions dating from 1968 to 1977, the Court further honed its interpretation of Stevens Treaty language. In *Puyallup I*, Washington[76] contested the Indian's refusal to adhere to off-reservation, state-fishing regulations. The regulation at issue prescribed fishing for steelhead trout only recreationally with hooks and not commercially with nets.[77] The Indians

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65. *Winans* is distinguished from *Seufert Bros. Co. v. United States*, 249 U.S. 194 (1919), the subsequent Supreme Court case to interpret Stevens' treaty language, by the character of the land involved. In both cases the Yakima Indians asserted their fishing rights. *See Seufert*, 249 U.S. at 195-96; *Winans*, 198 U.S. at 377. Winans' land was previously ceded to the United States by treaty with the Yakimas. *See Winans*, 198 U.S. at 377. The land in *Seufert* belonged to another tribe. *See Seufert*, 249 U.S. at 197. In *Seufert*, the Court held the Stevens' treaty language also retained for the Yakimas the right to fish. *Id.* at 199.

66. *See Winans*, 198 U.S. at 381.

67. *See id.* at 381-82.

68. *See id.* at 384 (stating: "Nor does it restrain the state unreasonably, if at all, in the regulation of the right" to regulate Indian fishing).

69. 315 U.S. 681 (1942).

70. *See Tulee*, 315 U.S. at 682.

71. *See id.* at 683.

72. *See id.* at 683-84.

73. *Id.* at 684.

74. *Id.* at 685.

75. Puyallup Tribe v. Washington, 391 U.S. 392 (1968) [hereinafter *Puyallup I*]; Washington v. Puyallup Tribe, 414 U.S. 44 (1973) [hereinafter *Puyallup II*]; Puyallup Tribe v. Washington, 433 U.S. 165 (1977) [hereinafter *Puyallup III*].

76. The Department of Game regulates the steelhead fishery, while the Department of Fisheries regulates the salmon fishing. *See Puyallup II*, 414 U.S. at 46.

77. *See Puyallup I*, 391 U.S. at 396.

targeted by the State of Washington used nets for commercial fishing from before the date of the treaty to the time of the suit.[78] The Court reiterated the *Winans* dicta ratified by *Tulee*, and held that the state's police power allowed nondiscriminatory regulation of off-reservation Indian treaty fishing rights to the extent necessary for conservation, provided the regulations met appropriate standards.[79] The court's holding foreclosed the state's ability to charge treaty Indians a fee to exercise their treaty fishing right.[80] The Court declined to decide whether the state may properly prohibit Indian net fishing in the name of conservation, as the lower state court had not collected sufficient evidence to decide whether the net prohibition was a "'reasonable and necessary' conservation measure . . . ."[81]

The Court, however, concluded that any final determination of the conservation question must be shaped to give meaning to the phrase "in common with" as used in the Treaties.[82] In other words, the Court limited state regulatory powers over off-reservation Indian fishing to those actions that do not completely frustrate off-reservation Indian fishing rights in the name of conservation. Impliedly, the Court would find any state conservation regulation that completely eliminated net fishing for salmon improper.

In *Puyallup II*, the Court again considered the permissibility of Washington's regulation of off-reservation Indian fishing in the context of a prohibition on using nets for steelhead fishing.[83] The Court considered whether the blanket prohibition on nets discriminatorily affected Indians, as the regulation seemingly apportioned the entire steelhead run to sport fishermen as Indians did not fish by hook.[84] Based on Washington's allocation of some, albeit limited, fish to sport fishermen, the Court found Washington's regulations discriminatory .[85] In other words, because Washington permitted limited fishing, some fish were available, and the Indians must be given their share. The Court declined to definitively divide the take between sport and net fishermen, as that exercise involved impermissible fact-finding.[86] Therefore, it remanded the case to the trial court for an expert apportionment between Indian-net and sport-hook fishermen.[87] The Court's holding recognized sufficient state police power to apportion the fish and to prevent the fish's extinction by net fishing. The Court stated that the

78. *See id.*

79. *See id.* at 398-99 (indicating that the state may not "qualify" the Indians' right to fish, "[b]ut the manner of fishing, the size of the take, the restriction of commercial fishing and the like may be regulated . . . in the interest of conservation").

80. *See id.* at 399.

81. *Id.* at 401 (citing Department of Game v. Puyallup Tribe, Inc., 422 P.2d 754, 764 (Wash. 1967)).

82. *Id.* at 403 (reiterating the Stevens treaty language "The right of taking fish at all usual and accustomed grounds and stations is further secured to said Indians, *in common with all citizens of the territory*") (emphasis added).

83. *See Puyallup II*, 414 U.S. at 46.

84. *See id.* at 46-47.

85. *See id.*

86. *Id.*

87. *See id.* at 48-49.

treaty did not "give the Indians a federal right to pursue the last living steelhead until it enters their nets."[88]

On remand of *Puyallup II*, the Washington State Supreme Court heard expert testimony and issued an order that apportioned the steelhead between the Indians and the sport fishermen.[89] This state court order set the stage for the last of the Puyallup decisions, *Puyallup III*.[90] After struggling with sovereign immunity issues, the Court, in *Puyallup III*, narrowed the question to whether the state could regulate on-reservation Indian fishing rights for conservation purposes.[91] This differs from the previous cases, as the other cases involved state regulation of off-reservation fishing rights. The Court examined the nature of Indian reservations in light of the treaty language[92] and the allotment program,[93] and decided that on-reservation state regulation was necessary to give effect to Washington's overall steelhead conservation program.[94] Therefore, where the Indian's on-reservation actions could completely frustrate statewide conservation programs,[95] the Court permitted state regulation.[96]

B. *Sohappy v. Smith*[97]

In *Sohappy*, the Indian plaintiffs filed suit in federal district court against the State of Oregon Fish and Game Commission,[98] seeking a decree to define "their

88. *Id.*

89. *See Puyallup III*, 433 U.S. at 172 (explaining the case history).

90. 433 U.S. 165 (1977).

91. *See Puyallup III*, 433 U.S. at 165.

92. Article II of the Treaty of Medicine Creek, the subject treaty, states "the Puyallup Reservation was to be 'set apart, and so far as necessary, surveyed and marked out for their exclusive use' . . . ." *See id.* (citing Treaty of Medicine Creek, Mar. 3 1893, art. III, 10 Stat. 1132).

93. The General Allotment Act of 1887 (the Dawes Act) 24 Stat. 388 (codified as amended at 25 U.S.C. §§ 331-334, 339, 341, 342, 348, 349, 354, 381(1983)). The Dawes Act required the President to allot Indian reservation lands to the Indians with the excess available for white settlement or purchase by the federal government. The federal government held land allotted to the Indians in trust for 25 years, when it was then available for patent to the Indians. The Indians could either retain the land or sell it as any other landowner could. The Dawes Act was an assimilative tool meant to "civilize" the Indians and make farmers of them. In fact it succeeded only to the extent that reservations were settled by whites, and Indian land base was further eroded. *See* FELIX COHEN, *supra* note 31, at 130-31. The Court in *Puyallup III* found it persuasive that, after the allotments, the extent of the land in trust status amounted to only 22 of the previous 18,000-acre reservation, and none bordered the Puyallup river. *See Puyallup III*, 433 U.S. at 174.

94. *See Puyallup III*, 433 U.S. at 175.

95. *See id.* at 176.

96. The question of state regulation of on-reservation fishing rights is not completely settled. Here, the original reservation was substantially diminished from the original 18,000 acres, and none of the remaining trust land was located adjacent to the river. In 1980, the Supreme Court decided that Indians could not regulate non-Indian fishing on allotted land located within the reservation. *See generally* Montana v. United States, 450 U.S. 544 (1980) (noting that although this decision speaks to Indian regulation of non-Indian fishing on privately owned land within the reservation, it also approves state regulation of fishing on reservation land).

97. 302 F. Supp. 899 (D. Or. 1969). This case properly fits in chronological order between *Puyallup I and II*. It is included because here to help unify the Puyallup decisions, and because it was cited approvingly by Judge Boldt in his decision that follows. *See infra* notes 104-107, and accompanying text.

98. *Sohappy*, 302 F. Supp at 903.

treaty right 'of taking fish at the usual and accustomed places' on the Columbia River" within the context of existing state regulations.[99] Citing with approval *Puyallup I*, the court reasoned that state regulation of off-reservation Indian fishing rights must fulfill three requirements. The regulations must: (1) be necessary for conservation; (2) not discriminate against Indians; and (3) meet "appropriate standards."[100] The court distinguished state regulation of non-Indian fishermen from treaty Indian fishermen by holding that: "The state may not qualify the federal right by subordinating it to some other state objective or policy. It may use its police power only to the extent necessary to prevent . . . [practices]. . . that . . . imperil the continued existence of the fish resource."[101]

This restricted regulatory authority is distinct from the power a state wields over non-Indian fishing rights, which is limited only by the state's organic legislation and the reasonableness standards of the Fourteenth Amendment.[102] In effect, *Sohappy* made Oregon consider the Indian fishing community as a regulated body outside the previously existing sport and commercial fisheries. *Sohappy* is particularly instructive here, because it interpreted the Stevens treaty language to ensure the Indians a "fair share" of salmon.[103]

C. *United States v. Washington*[104]

In United States v. Washington, the United States brought suit for declaratory and injunctive relief to settle the Indians' off-reservation treaty fishing rights. By joining all interested parties and seeking jurisdiction to decide all related claims, Senior District Judge Boldt intended to resolve the Indian fishing question once and for all.[105] From extremely comprehensive historical evidence supported by expert testimony and pertinent constitutional, statutory, and common law, Judge Boldt interpreted the Stevens treaty language[106] with all possible deference to the Indians.[107] Judge Boldt fundamentally based his decision on the

99. *Id.* (quoting the Stevens treaty language).

100. *Id.* at 907.

101. *Id.* at 908.

102. *See id.*

103. *See id.* at 911.

104. 384 F. Supp. 312 (W.D. Wash. 1974). This case properly fits in chronological order between *Puyallup II and III*. It is discussed here to give unity to the Puyallup decisions and to better lead into the discussion of the subsequent and final Supreme Court ruling on the Stevens treaty language.

105. At this point, the Supreme Court had not yet ruled favorably for state regulation of on-reservation fishing as necessary for conservation. *See supra* notes 89-96, and accompanying text.

106. *See supra*, notes 39-43, and accompanying text. The Treaty of Medicine Creek is typical of the language in all 11 treaties under consideration in *Fishing Vessel*.

107. In fact, Judge Boldt desired to go even further, but was restrained by precedent. The decision analyzed a state's right to regulate off-reservation fishing consistent with the police power used to regulate non-Indian fishing. *See Washington*, 384 F. Supp. at 334. Judge Boldt concluded the state's authority to regulate off-reservation Indian fishing was derived from dicta first appearing in *Ward v. Race Horse*, 163 U.S. 504 (1896). *See Washington*, 384 F. Supp. at 335. Apparently the Supreme Court carried that dicta through subsequent decisions without constitutional or statutory justification. Judge Boldt expressed concern regarding a state's ability to control a federal right without express delegation of such power. *See id.* at 337. Despite these concerns, precedent demanded that Judge Boldt hold that a state may regulate Indian off-reservation fishing where such regulation is strictly limited to measures "reasonable and necessary to prevent demonstrable harm to the actual conservation of fish." *Id.* at 342. The court further defined reasonable and necessary

difference between pre-existing, inherent Indian right,[108] and a privilege regulated by the state pursuant to its police power. Practically, the decision fulfilled the Indian's reasonable expectations they held when they signed the treaty. It granted the Indians unobstructed access to salmon and a specific quantity of salmon. Further, by specifically granting Indians half of the available fish and not just an ambiguous right to fish, the decision mandated that Indians be granted a voice in fisheries management. The only way that non-Indians could now increase the size of their catch was to increase the overall number of salmon available. Since Indians now controlled half of the fish, their participation was essential.

In the context of history and the law, the decision systematically described the meaning of the treaty phrase, "[t]he right of taking fish, at all usual and accustomed grounds and stations, is further secured to said Indians, in common with all citizens of the territory . . . ."[109] Judge Boldt decided the phrase guaranteed the Indians off-reservation fishing essentially everywhere.[110] The right was subject to only very narrow state regulation,[111] and its measure amounted to the opportunity[112] to take up to fifty percent of the "harvestable fish."[113] This fifty percent dedicated to the tribe did not include fish required for personal subsistence or ceremonial purposes, as those purposes were "special" and "distinct" from commercial purposes.[114] Also, the Indians' harvestable portion did not in-

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within the context of the state regulation to mean "appropriate to its purpose . . . and essential to conservation." *Id.* The court also required hearings with meaningful Indian participation prior to affecting state regulation of Indian off-reservation fishing rights. The decision found that the state had the burden of proof regarding reasonable and necessary. *See id.*

108. It is convenient to think of Indian fishing "rights" like the "right" to free speech guaranteed in the First Amendment. Read carefully, the First Amendment does not grant a right, but restricts congressional power. "Congress shall make no law . . . abridging the freedom of speech . . . ." U.S. CONST. amend. I. The Amendment implies an inherent freedom that may not be abridged, absent another constitutional amendment. Similarly, the Court interpreted Indian treaties as a grant of rights from the tribe to the United States. *See* United States v. Winans, 198 U.S. 371, 381 (1905). As such, the treaty phrase "the right of taking fish at all usual . . . places . . . in common with the citizens of the territory[,] . . . ." implies a grant of rights to the citizens, with the Indians retaining an inherent right to fish. It is the citizens' powers that are qualified and not the Indians' rights. Like the First amendment, a clear expression is necessary for congress to abrogate a right.

109. United States v. Washington, 384 F. Supp. 312, 331 (W.D. Wash. 1974).

110. *See Washington*, 384 F. Supp. at 332.

111. *See id.* at 342.

112. Mandating that granting the Indians a right to 50% of the harvestable fish would be paramount to establishing a property right in free swimming fish. By couching the Indians' rights in terms of an opportunity, the court preserves the long established belief that wild animals do not become property until reduced to possession. *See* Geer v. Connecticut, 161 U.S. 519, 526-27 (1896).

113. *See Washington*, 384 F. Supp. at 343. Harvestable fish is a term of art defined by Judge Boldt as that quantity of fish available for catching by all fishermen. *See id.* It is calculated by subtracting from the entire number of fish in a run destined for the Indians' usual and accustomed fishing grounds, the number of fish required for "spawning escapement and tribal needs." *See id.* Essentially the harvestable fish are those fish at least partially under state control. *See id.* at 343.

114. *See id.* at 343. No court has addressed the Indian take in terms of the Indians' right to a quantity, other than a portion of fish. Granted, fish runs vary from year to year, but when the Indians signed the treaty they surely envisioned, at a minimum, they would retain their then existing lifestyle. *See* Arizona v. California, 460 U.S. 605, 616 (1983); Winters v. United States, 207 U.S. 564, 576 (1908) (extrapolating that the treaty should reserve to the Indians an amount of fish

clude the fish taken by Indians on the reservation.[115] Finally, Judge Bolt's decision mandated that Washington use its position on the International Pacific Salmon Fisheries Commission to promote Indian fishing rights.[116] As discussed below, Ninth Circuit's[117] and Supreme Court's indirect review left Judge Boldt's decision substantially intact.

D. *Washington v. Washington Commercial Passenger Fishing Vessel Association*[118]

In *Fishing Vessel*, the Supreme Court indirectly reviewed Judge Boldt's decision, and largely vindicated tribal fishing rights. This most recent Supreme Court review of Stevens' treaty language, holds that the language "the right of taking fish" intended to secure in the Indians not merely equal access to fishing, but a specific share of the harvestable fish that pass through tribal fishing areas.[119] The Court interpreted the right as a specific share, because of the predictable quantities of fish associated with anadromous fish runs.[120] This case succinctly summarized the parties' intentions under the Stevens Treaties as follows:

> Nontreaty fishermen may not rely on property law concepts, devices such as the fish wheel, license fees, or general regulations to deprive the Indians of a fair share of the relevant runs of anadromous fish in the case area. Nor may treaty fishermen rely on their exclusive right of access to the reservations to destroy the rights of other "citizens of the territory." Both sides have a right, secured by treaty, to take a fair share of the available fish. That, we think, is what the parties to the treaty intended when they secured to the Indians the right of taking fish in common with other citizens.[121]

The court concluded that the harvestable portion of the fish should be equally divided between treaty and non-treaty fishermen, and that the half allocated to the Indians represented a maximum.[122] If less than half sufficiently provided the Indians with a "moderate living,"[123] then that amount constituted their take.[124]

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necessary to sustain a moderate living, and that the balance of the harvestable portion would be available for non-treaty fishermen).

115. *See Washington*, 384 F. Supp. at 344.

116. *See id.* This requirement is necessary to ensure the harvestable fish include all those destined for the Indians' "usual and accustomed grounds and stations." *See id.* at 343.

117. The Ninth Circuit's review modified Judge Boldt's holding in one respect. It indicated any "equitable adjustment" made to the Indians' share of the harvestable portion of fish should not consider those fish taken by fishermen outside Washington's jurisdictional reach. *See* United States v. Washington, 520 F.2d 676, 693 (9th Cir. 1975).

118. 443 U.S. 658 (1979).

119. *See Fishing Vessel*, 443 U.S. at 679.

120. *See id.* at 678 & 663. The Court equated management of anadromous fisheries to farming because of the predictable harvest associated with both endeavors. *See id* at 663.

121. *Id.* at 684-85.

122. *See id.* at 685-86.

123. The Supreme Court based this moderate living concept on one of its previous cases where an Indian treaty was interpreted to reserve sufficient water for the Indians to make a moderate living. *See* Arizona v. California, 460 U.S. 605 (1983).

124. *See Fishing Vessel*, 443 U.S. at 685.

The Court's decision differed from Judge Boldt's in two respects, and both reduced the Indian's take. First, the Court did not exclude from the Indians' treaty share those fish caught on the reservation.[125] In so holding, the Court alluded to *Puyallup III*, where it allowed on-reservation state regulation where necessary to prevent frustration of a statewide conservation plan.[126] Second, the Court ruled that fish caught for subsistence or ceremonial purposes counted against the tribes' allocation in the same manner as fish caught for commercial purposes.[127]

With the exception of state regulation over Indian fishing both on and off the reservation, the Court's interpretation of the Stevens treaty language preserved the tribe's reasonable expectations at the treaty's inception.[128] Fundamentally, the Indians' reasonably expected access to usual and accustomed fishing grounds and an opportunity to catch a specific portion of the fish. In 1854, neither party envisioned the current decline in the salmon population. Further, because the Court allocated to the Indians a significant portion of the salmon run year in and year out, the decision cemented the necessity for Indian participation in fisheries management decisions. With the treaty obligations of each party outlined, the next section presents the mechanisms for Indian participation in fisheries management and comments on the continuing nature of their participation.

III. LEGISLATIVE AND EXECUTIVE EFFORTS TO INCLUDE INDIANS IN FISHERIES MANAGEMENT DECISIONS

The Indians occupy important decision-making positions in both domestic and international fisheries management. Domestically, Congress first formally included Indians in fisheries management decisions when it passed two pieces of important legislation, the Fishery Conservation and Management Act of 1976,[129] and the Pacific Northwest Electric Power Planning and Conservation Act.[130] Internationally, the United States recognized Indian interests in multilateral and bilateral agreements, including the Law of the Sea, and its Straddling Stock and Highly Migratory Fish agreement, and the Pacific Salmon treaties with Canada. This section briefly outlines pertinent sections these acts and agreements and comments on Indian participation in fisheries management decisions related to each.

A. *The Fishery Conservation and Management Act of 1976*

Congress took its first step to revitalize the diminishing salmon stocks by enacting the Fishery Conservation and Management Act (FCMA) or Magnuson

125. *See id.* at 687.

126. *See id.* at 687 n.28.

127. *See id.* at 688-89.

128. Indian treaties are likened to adhesion contracts—liberally construed in favor of the weaker party. *See* Wilkinson & Volkman, *supra* note 41, at 617. "The goal is to achieve the reasonable expectations of the weaker party." Wilkinson & Volkman, *supra* note 41, at 617-18.

129. 16 U.S.C. §§ 1801-1882 (1994). Commonly known as the Magnuson Act for Washington Senator Warren Magnuson, the Act's chief sponsor. *See* Charles F. Wilkinson & Daniel Keith Conner, *The Law of the Pacific Salmon Fishery: Conservation and Allocation of a Transboundary Common Property Resource*, 32 U. KAN. L. REV. 17, 48-49 (1983).

130. 16 U.S.C. §§ 839-839h (1994).

Act. The FCMA, a controversial piece of legislation, established a "fishery conservation zone" extending 200 nautical miles "from the baseline from which the territorial sea is measured."[131] Prior to 1976, the United States asserted jurisdiction over fishing only within the limits of the territorial sea. The FMCA granted the United States exclusive management authority over all fish[132] within this extended "fishery conservation zone,"[133] and regulated salmon even beyond the limits of the "fishery conservation zone."[134]

In recognition of the anadromous nature of salmon, Congress opted to regulate their entire migratory range. Accordingly, through the FCMA, Congress gave the United States exclusive management authority over all anadromous fish originating in the United States and throughout their migratory range.[135] This comprehensive management scheme effectively prevented foreign fishing vessels from taking salmon just outside the "fishery conservation zone," which frustrated domestic conservation measures.[136] By asserting management authority throughout the salmon's entire migratory range, Congress acted outside the existing boundaries of international law.[137] Congress restrained its vigor authority, however, by not extending jurisdiction under the FMCA into "any foreign nation's territorial sea or fishery conservation zone (or the equivalent), to the extent . . . recognized by the United States."[138]

The FCMA established eight regional fisheries councils under the supervision of the federal government.[139] FMCA provisions tasked each council with preparing management plans, which regulated fisheries under each council's control, consistent with the FMCA's national standards.[140] These plans were adopted in a manner similar to federal agency rulemaking procedures, and included notice, public Comment, and publication in the federal register.[141] The FCMA guaranteed Indian participation in fisheries management decisions through an Indian position on the appropriate councils.[142]

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131. 16 U.S.C. § 1811. The territorial sea extends three nautical miles from the shore. *See* Wilkinson & Conner, *supra* note 129, at 49. Warren Magnuson asserts that extending the United States' regulatory authority to 200 nautical miles helped establish a new rule of customary international law. *See* Warren Magnuson, *The Fishery Conservation and Management Act of 1976: First Step Toward Improved Management of Marine Fisheries*, 52 WASH. L. REV. 427, 427 (1977).

132. The United States does not have management authority over "highly migratory species of tuna." 16 U.S.C. § 1812.

133. *See id.*

134. *See id.*

135. *See id.*

136. *See* Wilkinson & Conner, *supra* note 129, at 51.

137. *See* Wilkinson & Conner, *Supra* note 129, at 51.

138. *See* 16 U.S.C. § 1812.

139. *See* Wilkinson & Conner, *supra* note 129, at 52. The two councils concerned with salmon resources are the North Pacific Fishery Management Council, and the Pacific Fishery Management Council. *See* Wilkinson & Conner, *supra* note 129, at 52. The Pacific council was granted responsibility for managaging of salmon originating within California, Oregon, Washington, and Idaho. *See* 16 U.S.C. § 1852 (a)(6).

140. *See* 16 U.S.C. § 1852 (g)-(h).

141. *See id.* §§ 1852 (h)(3) & 1855(c)(3)(A).

142. *See id.* § 1852 (b).

B. *Pacific Northwest Electric Power Planning and Conservation Act*[143]

In 1980, Congress enacted the Pacific Northwest Electric Power Planning and Conservation Act (the Act). Through the Act, Congress melded the hydroelectric power generation reality of the Columbia River Basin with the conservation goals for anadromous fish. The Act intended to "protect, mitigate, and enhance the fish and wildlife, including related spawning grounds and habitat, of the Columbia River and its tributaries, particularly anadromous fish . . . which are dependent on suitable environmental conditions substantially obtainable from management . . . of the Federal Columbia River Power System . . . ."[144] Prior to passage of the Act, the Federal Columbia River Power System did not bear the destructive cost of the salmon fishery wrought by federal dam building, nor was it passed to the power consumers. Instead, the federal government externalized the cost.[145] The Act internalized this cost by providing, among other things, water-releases to meet fish preservation and mitigation needs.[146]

Significant to the discussion here, the Act created the Northwest Power Planning Council.[147] The Northwest Power Planning Council effectively removed fisheries management decisions from those with significant interests in the power industry.[148] Eight members, two each from Washington, Oregon, Idaho, and Montana composed the Council.[149] The Act charged the Council with developing and implementing a comprehensive fish plan, consistent with the purposes of the Act.[150] The Act ensured Indian participation in the rulemaking process through explicit designation of notice and Comment by Indian tribes prior to rule adoption.[151]

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143. 16 U.S.C. §§ 839-839h (1994).

144. *Id.* § 839(6).

145. *See* Wilkinson & Conner, *supra* note 129, at 55. Cost externalization is a common pool problem described by Hardin in his article on the tragedy of the commons. *See* Garrett Hardin, *The Tragedy of the Commons*, 168 SCIENCE 1243, 1244 (1968). A tragedy of the commons occurs where a common resource is open to all. In this case, fishing is open to all. The ability of the resource (fish) to sustain itself is limited by its capacity for reproduction. Each fishermen wants to maximize his profit. To do this, each must take as many fish as possible. There is no incentive to decrease the fishing take, because a fish lost to one fishermen is one gained by another. Eventually the number of fish taken exceeds the fish's capacity to reproduce. When this occurs, the entire resource declines, and may eventually be lost.

146. *See* Wilkinson & Conner, *supra* note 129, at 55. *See also* 16 U.S.C. § 839b(h)(6)(E)(ii). Releasing water from behind the Columbia River dams has at least two significant effects. First, it provides additional water flow to ease the salmon's upstream spawning run, and second, it forgoes the electric power generation potential of the water, thereby externalizing the cost of power generation.

147. *See* 16 U.S.C. § 839b(a)(2)(A).

148. *See* Wilkinson & Conner, *supra* note 129, at 55-56.

149. *See* 16 U.S.C. § 839b(a)(2).

150. *See id.* § 839b(h)(11)(A).

151. *See id.* § 839b(h)(4)(A).

C. *The Law of the Sea*[152]

In 1982, the United Nations adopted the Convention on the Law of the Sea (UNCLOS). Articles 55 through 75 of the UNCLOS describe the rights and duties of states (countries) with regard to the Exclusive Economic Zone (EEZ). UNCLOS defines the EEZ as extending "200 nautical miles from the baselines from which the breadth of the territorial sea is measured."[153] Within the EEZ, the coastal state enjoys exclusive rights to explore, exploit, conserve, and manage the living and non-living natural resources within the seabed and superjacent water.[154] The coastal state determines the allowable fish catch within the EEZ,[155] and promotes optimum utilization of the resource.[156] Articles 63 and 64 provide for coordination among states where fish stocks occur within, or migrate through the EEZ of more than one state.

The UNCLOS gives special consideration to anadromous fish species. Article 66 grants primary responsibility for anadromous fish species to their country of origin.[157] The UNCLOS requires states of origin to conserve and to regulate anadromous fish in the area landward of the outer limit of its EEZ.[158] The UNCLOS encourages coordination between interested states in their regulation of the overall catch of anadromous fish, even where the fish occurred outside a state's EEZ.[159] The UNCLOS also asks the states where anadromous fish originate and other interested states to implement fisheries regulations through regional organization.[160] The UNCLOS does not provide an enforcement mechanism to ensure compliance with the state of origins' regulations, but instead it advocates for coordination between affected states.[161]

In 1993, the U.N. Conference on Straddling Stocks and Highly Migratory Fish Stocks met to consider current conservation and management provisions outlined in the UNCLOS.[162] The Conference intended to improve cooperation and communication between states that managing straddling and highly migratory fish stocks.[163] The Conference produced the Fish Stock Agreement, a binding treaty.[164]

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152. *See* United Nations Conference on the Law of the Sea, *opened for signature* Dec. 10, 1982, U.N. Doc. A/CONF.62/122 (1982), *reprinted in* THE LAW OF THE SEA, U.N. Sales No. E.83.V.5 (1983) [hereinafter UNCLOS].

153. *See* UNCLOS art. 57.

154. *See id.* at art. 56.

155. *See id.* at art. 61.

156. *See id.* at art. 62.

157. *See id.* at art. 66 § 1.

158. *See id.* § 2.

159. *See id.* § 3. *See also* Karol de Zwager Brown, *Truce in the Salmon War: Alternatives for the Pacific Salmon Treaty*, 74 WASH. L. REV. 605, 617 (1999) (describing the UNCLOS).

160. *See* UNCLOS art. 66 § 5.

161. *See id.* at art. 66 § 3(d).

162. See Julie R. Mack, *International Fisheries Management: How the U.N. Conference on Straddling and Highly Migratory Fish Stocks Changes the Law of Fishing on the High Seas*, 26 CAL. W. INT'L L. J. 313, 324-25 (1996).

163. *See* Brown, *supra* note 159, at 618.

164. Brown, *supra* note 159, at 619. Apparently there was initial disagreement between Canada and the United States whether as tothe conference should result in a binding or non-binding treaty. In the end, Canada succeeded, and the conference adopted a binding treaty. *See* The Implementation of

The Fish Stock Treaty accomplished its objectives through existing or newly created regional management organizations.[165] The treaty required all "real interest"[166] states to become members of the appropriate regional organization, lest they be banned from fishing the regulated stocks in the subject region.[167] The treaty tasked regional organizations with identifying stocks within their region and adopting regulations after considering the specific characteristics of the region.[168] State members of the regional organizations were granted power to enforce regulations on the high seas within their region against non-members. Enforcement mechanisms included powers to board, to inspect, and possibly to order offending vessels to the nearest port.[169] The Fish Stock Treaty intended to develop and enforce high-seas fishing regulations. Indians participate in international fisheries management decisions under the Law of the Sea and its associated treaties through their participation on the council established under the FMCA.[170]

D. *Pacific Salmon Treaty*

In 1985, the United States and Canada reached an agreement to jointly manage the pacific salmon originating within their rivers.[171] This treaty was recently amended in 1999.[172] The treaty provided guidelines for managing six fisheries, some by the fish's area of origination, others by species of fish.[173] Two governing principles gave the treaty form—the conservation and equity principles.[174] The conservation principle demanded that "each party shall 'prevent overfishing and provide for the optimum production' of salmon."[175] The equity principle gave each country "benefits equivalent to the production of salmon originating in its waters."[176]

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the United Nations Convention of the Law of the Sea relating to Fish Stocks, Dec. 4, 1995, U.N. Doc. A/CONF.164/37 (1995) [hereinafter Fish Stock Treaty]. The Fish Stock Treaty does not become effective until ratified by 30 states. Currently 59 states are signatories and 24 have ratified it, including both the United States and Canada. *See* <http//www.un.org/depts/los/los/164st.htm>.

165. *See* Mack, *supra* note 162, at 326. Some of these organizations were created as suggested in UNCLOS, art. 66 § 5, or they were already in existence.

166. A state with a "real interest" is defined as a state fishing for straddling or migratory fish stocks regulated by a regional organization or fishing in the region. *See* Fish Stock Treaty art. 8 § 3.

167. *See id.* at art. 8 § 4.

168. *See id.* at art. 8 § 1.

169. *See id.* at art. 21.

170. *See supra* notes, 131-142 and accompanying text.

171. Treaty with Canada Concerning Pacific Salmon, Jan. 28, 1985, U.S.-Can., T.I.A.S. No. 11,091, at 7 (entered into force Mar. 18, 1985) [hereinafter Pacific Salmon Treaty]. For a detailed discussion of various aspects of the treaty, see Brown, *supra* note 159. The treaty was necessary because, despite domestic efforts to rejuvenate the salmon population, Canada intercepted a significant number of salmon as they passed the Canadian coast bound for Alaska. *See* WILKINSON, *supra* note 61, at 213.

172. *See* Treaty with Canada Concerning Pacific Salmon, Jan. 28, 1985, U.S.-Can., 1999 U.S.T. 112 (entered into force June 30, 1999).

173. *See* Pacific Salmon Treaty, *supra* note 171, T.I.A.S. No. 11,091, at 17-30.

174. *See* Brown, *supra* note 159, at 626.

175. Brown, *supra* note 159, at 626; *see also* Pacific Salmon Treaty, *supra* note 171, T.I.A.S. No. 11,091, at 7.

176. Brown, *supra* note 147, at 626; *see also* Pacific Salmon Treaty, *supra* note 171, T.I.A.S. No. 11,091, at 7.

Indian tribes played a significant role throughout the Pacific Salmon treaty negotiations.[177] The tribes filed suit against the Secretary of the Interior, and the states of Alaska, Washington, and Oregon as the parties negotiated the treaty.[178] The Indians claimed that the federal government and the state governments improperly allocated salmon resources as provided under the treaties negotiated by Governor Stevens.[179] Specifically, the tribes demanded that the United States consider Alaska's take when it determined the harvestable portion of fish.[180] That ongoing lawsuit essentially stalled the treaty negotiations. Neither the United States nor Canada was willing to enter into a binding treaty before the status of the tribes' take was reconciled with Alaska.[181]

The legislation enacted by Congress to implement the Pacific Salmon Treaty reserved Indian participation in fisheries management.[182] The implementing legislation established a four-member Commission to represent the United States in fisheries management decisions.[183] The legislation provided that one member of the Commission come from a list of candidates created by the treaty Indian tribes.[184]

IV. CONTINUED INDIAN PARTICIPATION IN FISHERIES MANAGEMENT

Judge Boldt's 1974[185] decision sparked Indian inclusion in fisheries management from that point forward. That decision, essentially affirmed two years later by the United States Supreme Court,[186] effectively apportioned half of the harvestable salmon population to the Indians. Due to the large quantity of fish now controlled by the Indians, Federal and state governments could no longer ignore their rights.

In 1976, shortly after Judge Boldt's decision, Congress passed the Magnuson Act, which officially included Indians in federal fisheries management decisions. One of the Magnuson Act's eight regional fisheries management, the Pacific Fisheries Management Council, developed fisheries management plans for salmon originating in from California, Washington, Idaho and Oregon. Congress ensured Indian participation in salmon management by guaranteeing that one member of the Council was an Indian.

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177. The Columbia River Inter-Tribal Fish Commission (CRITFC), a group composed of four Columbia River tribes, helped bring the parties together for the treaty negotiations. *See* Brown, *surpa* note 159, at 621

178. *See* Confederated Tribes & Bands of the Yakima Indian Nation v. Baldrige, 605 F.Supp. 833 (W.D. Wash. 1985).

179. See id.

180. *See* Thomas C. Jensen, *The United States-Canada Pacific Salmon Interception Treaty: An Historical and Legal Overview*, 16 ENVTL. L. 363, 398 (1986).

181. *See* Brown, *surpa* note 159, at 621. The lawsuit was settled by stipulation. It allocated salmon migrating off the coast of Alaska between the tribes and other interested parties. *See Yakima Indian Nation*, 605 F.Supp. at 834. The stipulation forecloses future lawsuits by the tribes in exchange for veto power over salmon allocations. *Id.* at 835-36.

182. *See* 16 U.S.C. §§ 3631-3644 (1994).

183. *See id.* § 3632(a).

184. *See id.* The chairmanship of the Commission rotates annually among all the members. *Id.*

185. *See* United States v. Washington, 384 F.Supp 312 (W.D. Wash. 1974).

186. *See* Fishing Vessel, 443 U.S. 658 (1979).

In 1980 and 1985 the federal government again sought to include Indians in fisheries management decisions. In 1980 Congress passed the Pacific Northwest Electric Power Planning and Conservation Act. Then, in 1985, the United States and Canada agreed to the Pacific Salmon Treaty. Both instruments had mechanisms to include Indians in fisheries management decisions. The Pacific Northwest Electric Power Planning and Conservation Act promoted Indian involvement by specifically providing Indian with authority to comment on proposed rules fisheries conservation rules prior to their adoption. The Pacific Salmon Treaty gave Indians a voice in fisheries management by mandating that one member of the enacting Commission be selected from a list provided by the Indians. So, the federal government involved Indians in fisheries management decisions on both national and international levels.

Continued Indian participation in fisheries management decisions could erode as quickly as it arose. Felix Cohen described the change in the federal government's relationship with Indian tribes using the following words: "Like the miner's canary, the Indian marks the shifts from fresh air to poison gas in our political atmosphere; and our treatment of Indians, even more than our treatment of other minorities, reflects the rise and fall in our democratic faith . . . ."[187] In 1953, through Public Law 280,[188] Congress granted certain states criminal and some civil jurisdiction over Indian and Indian reservations.[189] In this manner, Congress exercised plenary power over the Indian tribes and abrogated treaty rights.[190] In a similar fashion, Congress could grant the entire share of salmon to commercial fishermen.

In 1996, David Getches[191] described the end of the Modern Era[192] and the coming of the new subjectivism in Indian jurisprudence.[193] Central to Getches' thesis that the value of precedent in Indian law was disappearing was a quote attributed to Justice Antonin Scalia,[194] made as the Justice considered a case involving tribal criminal jurisdiction[195] over non-member Indians.[196] Justice Scalia indicated that in evaluating an Indian law issue, the judiciary decides "what the current state of affairs ought to be by taking into account all legislation, and the

187. *See* FELIX COHEN, *supra* note 31, at v.

188. *See* Pub. L. No. 83-280, (codified as amended 18 U.S.C. § 1162, 28 U.S.C. § 1360 (1994)).

189. *See* PEVAR, *supra* note 39, at 113-18.

190. *See supra* Part I.

191. David Getches is the Raphael J. Moses Professor of Law, University of Colorado School of Law.

192. Getches and others describe the Modern Era is described by as marked by a solidification of the foundational principles developed by Chief Justice John Marshall in the "Marshall Trilogy." (The "Marshall Trilogy" consists of Johnson v. M'Intosh, 21 U.S. (8 Wheat) 543 (1823); Cherokee Nation v. Georgia, 30 U.S. (5 Pet.) 1 (1831); Worcester v. Georgia, 31 U.S. (6 Pet.) 515 (1832)). *See* Getches, *supra*, note 43, at 1577; CHARLES WILKINSON, AMERICAN INDIANS, TIME, AND THE LAW (1987).

193. *See* Getches, *supra* note 43, at 1574.

194. *See* Getches, *supra* note 43, at 1575.

195. *See* Duro v. Reina, 495 U.S. 676 (1990).

196. Non-member Indians are Indians present on the reservation of a tribe to which they are not a part.

congressional 'expectations[;] '" legislation is not essential.[197] Justice Scalia's statement effectively amounts to a sharing of plenary power[198] over Indian affairs between Congress and the judiciary.

Early Supreme Court decisions gave meaning to the Stevens' treaty language by attempting to effectuate the parties' intent on the date of treaty formation. This line of reasoning reached its zenith with Judge Boldt's 1979 decision in *United States v. Wahington*, where the court decided that the Indians' reasonable expectations at the time of treaty formation amounted to a reserved, federally protected right to fifty percent of the harvestable salmon, taken essentially anywhere. Judge Boldt's decision recognized that since Indians retained a right to such a large portion of the salmon, their interests in fisheries management decisions must be represented. And so, the decision mandated that Washington use its position on an international fisheries counsel to promote Indian fishing interests. That mandate culminated in the current realities of Indian participation in fisheries management decisions at all levels. Because the Indians' interests in the salmon transcends economic concerns, and reside in a religious place where conservation plays a central role, their involvement in fisheries management decisions can bring nothing but hope to salmon's future.

V. CONCLUSION

Salmon constitutes big business in the Pacific Northwest. Commercial fishermen from the United States, Canada, and distant nations, take salmon from the Northwest to worldwide markets. International and domestic agreements recognize the United States' obligation to the Indians, and divide the total take between Indians and non-Indians at roughly fifty-percent. Non-Indian, commercial fishermen in the United States recognize that their livelihood depends on the total number of available salmon. The most obvious method to increase the harvestable portion of salmon is to increase their overall population. Since the Indians control half of the harvestable portion of salmon, they occupy and essential place at the negotiation table.

The nature of salmon migration patterns demands a holistic approach to fisheries management, and such coordination is difficult given the many jurisdictional boundaries a single migrating salmon passes through.[199] Through domestic and international avenues, the United States attempts to manage the salmon population. The Supreme Court interpreted the Stevens Treaties to grant fifty-percent of the salmon take to Indian fishermen, and the state may regulate Indian fishing only to the extent necessary for conservation purposes. Through Congress and the courts, Indians assert authority over decisions that affect the entire salmon population. These efforts continue to bolster salmon recovery and bring salmon management strategies more in line with Indian values. Judge

197. *See* Getches, *supra* note 43, at 1575.

198. *See supra* notes 28-32, and accompanying text.

199. Wilkinson calculated that a chinook salmon from the Lochsa River in Idaho must pass through 17 different jurisdictions in its lifetime. *See* Wilkinson & Conner, *supra* note 129, at 22.

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Boldt's decision in 1974 not only solidified Indian fishing rights, but also produced a victory for salmon mitigation and conservation efforts.

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