

WORLD RELIGIONS AND CLEAN WATER LAWS

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It is also the breath, along with water and thought, that connects all living things in direct relationship. The interrelationship of water, thought (wind), and breath personifies the elemental relationship emanating from “that place that the Indians talk about,” that place of the Center where all things are created.¹

And God said, “Let the water under the sky be gathered to one place, and let the dry ground appear.” And it was so. God called the dry ground “land,” and the gathered waters he called “seas.” And God saw that it was good.²

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1. GREGORY CAJETE, LOOK TO THE MOUNTAINS: AN ECOLOGY OF INDIGENOUS EDUCATION 42 (1994).

2. *Genesis* 1:9-10 (New International Version).

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I. INTRODUCTION

Religion could help save the ecology of our planet. Religious values are core to many people in this world³ and we must speak to this core to realize the radical ethical changes required to save our planet.⁴ Laws designed to prevent environmental degradation must be crafted and implemented with recognition that, in the face of scientific uncertainty, religious values play an important role alongside the traditional cost-benefit analysis, typically claimed to constitute rational decision-making.⁵ In this article, we have chosen

3. THE WORLD ALMANAC AND BOOK OF FACTS 549, 612 (2004) (disclosing that out of 6.5 billion people only 9/10 of a billion people are non-religious or atheistic).

4. See Patrick Parenteau, *Rearranging the Deck Chairs: Endangered Species Act Reforms in an Era of Mass Extinction*, 22 WM. & MARY ENVTL. L. & POL'Y REV. 227, 228-29 (1998) (discussing the “Warning to Humanity” issued by fifteen hundred leading scientists in 1992 which urged “‘fundamental changes’ lest the earth become ‘unable to sustain life in the manner we know it’”); *But see* BJØRN LOMBORG, THE SKEPTICAL ENVIRONMENTALIST: MEASURING THE REAL STATE OF THE WORLD (2001) (challenging that the environmental situation is getting worse); *See also* James P. Karp, *Aldo Leopold’s Land Ethic: Is an Ecological Conscience Evolving in Land Development Laws?*, 19 ENVTL. L. 737, 764 (1989) (expressing concern that Leopold’s caution to move slowly to a land ethic as an evolutionary process is too slow given growing environmental problems such as the greenhouse effect and holes in the ozone layer); Alyson C. Flournoy, *Environmental Ethics and Policy: Bringing Philosophy Down to Earth*, 37 U.C. DAVIS L. REV. 53, 54 (2003) (“environmental law will not endure or have lasting effect unless environmental philosophy does indeed come down to earth successfully to affect how people view the world.”).

5. See Victor B. Flatt, *Saving the Lost Sheep: Bringing Environmental Values Back Into the Fold With a New EPA Decisionmaking Paradigm*, 74 WASH. L. REV. 1, 2-3 (1999) (proposing that environmental regulation decisionmakers should consider “all the

to examine the religious path to an environmental ethic in order to offer “a framework that raises ethical issues and expects ethical conduct.”⁶ We hope that religious principles will serve as a “stepping stone[]” in bridging the gap between human-centered utilitarianism⁷ and the environmental moralist approach.⁸

Scientific uncertainty exists in many environmental decisions.⁹ Therefore, value choices must be made in the absence of known future consequences.¹⁰ Religious values, as well as other values informing policy decisions in the face of uncertainty, should be acknowledged so that they may be debated openly and honestly.¹¹

environmental values relevant to their decisionmaking” including “certain ‘squishy’ values”); *But see* Bruce Yandle, *Mr. Lomborg and the Common Law*, 53 CASE W. RES. L. REV. 285, 292 (2002) (“For fundamental institutional change to enter the action agenda, calm and rational thought must have replaced fear, pessimism, and religious sentiments about environmental use.”).

6. Eric T. Freyfogle, *The Land Ethic and Pilgrim Leopold*, 61 U. COLO. L. REV. 217, 255 (1990). *See also* Robert W. Lanna, *Catholic Tradition, and the New Catholic Theology and Social Teaching on the Environment*, 39 CATH. LAW. 353, 354 (2000) (explaining that “[n]ot long after the modern environmental movement began nearly thirty years ago, a small number of theologians began exploring applications of Catholic tradition and social teaching to address the environmental challenges facing the world”); Larry B. Stammer, *The Nation: Faith-Based Stance on Environment*, L.A. TIMES, July 4, 2004, at A18 (reporting on a group of evangelical leaders from conservative Christian churches who have “agreed to work for faith-based environmental activism” and discussing how this may impact the Republican political agenda).

7. Holly Doremus, *Environmental Ethics and Environmental Law: Harmony, Dissonance, Cacophony, or Irrelevance?*, 37 U.C. DAVIS L. REV. 1, 6 (2003). *See also* Thomas M.J. Möllers, *A Call for Consideration of Human Modes of Behavior When Promoting Environmentally Correct Behavior by Means of Information and Force of Law*, in LAW & EVOLUTIONARY BIOLOGY 315, 319-20 (1999) (noting that even when people realize the negative consequences of their actions on the environment they fail to act appropriately since “[c]atering for one’s own personal needs – not to say desires – clearly take preference over a communal attempt to protect the environment”).

8. *See* Doremus, *supra* note 7, at 7. *But see* Dan Tarlock, *Environmental Law: Ethics or Science*, 7 DUKE ENVTL. L. & POL’Y F. 193, 200 (1996) (“[f]rom an environmental perspective both religion and Enlightenment thinking share the same defect: humankind is the exclusive interest.”).

9. *See* Holly Doremus, *Constitutive Law and Environmental Policy*, 22 STAN. ENVTL. L.J. 295, 297 (2003) (“Uncertainty pervades every aspect of environmental law.”).

10. Flatt, *supra* note 5, at 16. *See also* Todd Zywicki, *Baptists?: The Political Economy of Environmental Interests Groups*, 53 CASE W. RES. L. REV. 315, 350 (2002) (“Although environmentalism was once a science-based movement, it has increasingly abandoned its roots in science.”).

11. *See* Flatt, *supra* note 5, at 16 (arguing that there should be “an open and honest discussion of the actual value choices that our government and society want to make about our environment”). There are many voices seeking to be heard in the debate over environmental regulation. *Compare* Marc R. Poirier, “*It Was the Best of Times, It Was the Worst of Times . . . : Science, Rhetoric and Distribution in a Risky World*,” 53 CASE W. RES. L. REV. 409, 426 (2002) (“Most if not all environmental policy decisions are inevitably moral and political in nature,

Indeed, like other religious activism in the United States that led to political movements such as abolition, the ban on the sale of alcohol, and the civil rights movement, the “environmental movement today continues to draw much of its strength from a religious inspiration.”¹² Nevertheless, sometimes religious values and ideals are suppressed in public discourse about environmental law and policy choices because “many Americans are nervous about mixing religion and government.”¹³

Deep concerns about environmental degradation in the modern world did not come to the general public debate until attention to the influential writings of Aldo Leopold,¹⁴ John Muir,¹⁵ and Rachel Carson¹⁶ converged in the 1960s and resulted in a flurry of environmental legislation in the 1970s.¹⁷ In addition to providing a

despite their dependence on science to inform them.”), and Zywicki, *supra* note 10, at 342 (discussing the public interest versus private interest models of environmental interest groups and noting that “[t]o the extent that individuals pursue a religious preference, political preference, or preference for environmental protection over other social goals, it is still the case that they are pursuing their self-interest and self-gratification”), with James L. Huffman, *Either You’re With Us or Against Us: No Room for the Skeptical Environmentalist*, 53 CASE W. RES. L. REV. 391, 391 (2002) (noting that some have suggested that “radical environmentalism is more about religion than science”) (citing Robert H. Nelson, *Bruce Babbitt, Pipeline to the Almighty*, WEEKLY STANDARD, June 24, 1996, at 18), and Frank B. Cross, *The Naïve Environmentalist*, 53 CASE W. RES. L. REV. 477, 495 (2002) (arguing that environmentalists who “accept the litany” will be “logically compelled to pursue public policies of a radical and counterproductive nature” and should instead realize that “[t]he best policy for our environmental future is one of pragmatic pursuit of economic growth and environmental protection”).

12. Robert H. Nelson, *Environmental Religion: A Theological Critique*, 55 CASE W. RES. L. REV. 51, 52 (2004). See also John Nagle, *Playing Noah*, 82 MINN. L. REV. 1171 (1998).

13. Nelson, *supra* note 12, at 55 (noting that environmental groups have been supported by a moral energy “that has grown up out of the fourth great religious awakening” in American history).

14. See Holly Doremus, *The Rhetoric and Reality of Nature Protection: Toward a New Discourse*, 57 WASH. & LEE L. REV. 11, 29 (2000) (discussing the modern ideal of pure wilderness and noting that “[e]nvironmental historian Roderick Nash attributes the beginning of the wilderness movement largely to Aldo Leopold”).

15. See *id.* at 25 (noting that “Muir’s affection for nature rested not just on its beauty, but also on its ability to inspire a sense of the palpable presence of God”).

16. See *id.* at 19 (calling a modern era form of environmentalism “the ecological horror story” and explaining that “Rachel Carson’s *Silent Spring*, a book credited with inspiring the modern environmental movement, contains the prototypical example of this [horror] story”).

17. See Carole L. Gallagher, *The Movement to Create an Environmental Bill of Rights: From Earth Day, 1970 to the Present*, 9 FORDHAM ENVTL. L.J. 107, 107 (1997) (“Beginning in the 1960s, however, the environmental movement in the United States took on an intensity and gained a public acceptance and support it had not enjoyed previously.”); Robert V. Percival, *Skeptical Environmentalist or Statistical Spin-Doctor?: Bjørn Lomborg and the Relationship Between Environmental Law and Environmental Progress*, 53 CASE W. RES. L. REV. 263, 281 (2002) (noting that laws enacted during the late 1960s and early 1970s “helped produce considerable progress on the environmental front” because “public concern for the environment

rallying call for environmental preservation through legal action, these writings and others provided the foundation for environmental ethics as a new discipline.¹⁸ Professor Eric T. Freyfogle, a major legal scholar in this new discipline, wrote in 1990 that this “field hardly crystallized in 1970 is today rich and vibrant”¹⁹ and he quoted the leading Leopold scholar, J. Baird Callicott, who described this diverse field as “includ[ing] articles by and in criticism of animal liberationists, biocentrists, deep ecologists, strong anthropocentrists, weak anthropocentrists, nonanthropocentric holists, neo-pragmatists, ecofeminists, process philosophers and theologians, Taoists, Zen Buddhists, Christian apologists, Muslim apologists, natural and unnatural Jews.”²⁰

Environmental ethics as a discipline seeks to define and incorporate ethical values into the human response to environmental issues. Aldo Leopold’s land ethic, as expressed in his essays in *A Sand County Almanac*,²¹ is probably the most famous and most referenced view of an environmental ethic. According to Leopold, a land ethic “reflects the existence of an ecological conscience, and this in turn reflects a conviction of individual responsibility for the health of the land.”²² “In short, [Leopold’s] land ethic changes the role of *Homo sapiens* from conqueror of the land-community to plain member and citizen of it. It implies respect for his fellow-members, and also respect for the community as such.”²³ As Professor Freyfogle noted, “Leopold spoke to the reader as an individual and challenged the reader to develop an ethical attitude toward the land.”²⁴ Developing such a change of heart requires that we look beyond

led Congress to enact a remarkable set of environmental laws with overwhelming, bipartisan support”).

18. See Keith Hirokawa, *Some Pragmatic Observations About Radical Critique in Environmental Law*, 21 STAN. ENVTL. L.J. 225, 263 (2002) (“During the 1960s and 70s, discussions turned to environmental ethics, and philosophy and science experienced an explosion of intellectual curiosity in academic journals such as *Environmental Ethics* and *The Ecologist*.”).

19. Freyfogle, *supra* note 6, at 219.

20. *Id.* (quoting J. Baird Callicott, Book Review, *Foundations of Environmental Ethics*, 11 ENVTL. ETHICS 169 (1989) (reviewing EUGENE HARGROVE, *FOUNDATIONS OF ENVIRONMENTAL ETHICS* (1989))).

21. ALDO LEOPOLD, *A SAND COUNTY ALMANAC AND SKETCHES HERE AND THERE* (1987).

22. *Id.* at 221.

23. *Id.* at 204.

24. Freyfogle, *supra* note 6, at 235.

science or economics to the individual minds and souls of people.²⁵ Leopold was not a preacher, but instead recognized the evolutionary nature of this spiritual path and attempted to shepherd his readers to find their own ways to an ethical relationship with nature.²⁶

This article contends that religious values from diverse world religions can inform policy choices in domestic and international regulatory schemes protecting air, water, and land resources.²⁷ These values may speak more universally by incorporating stories, such as Noah's ark, from major world religions.²⁸ By bringing more stories from our global religious heritage to inform our policy decisions, we may be able to "achieve a viable and satisfying human relationship with nature"²⁹ that can provide for human needs while ensuring those who so provide remain good shepherds of environmental resources.

We examine the major world religions³⁰ and indigenous spiritualism³¹ in an effort to discover how religious views of the human relationship with nature influence our environmental laws.³² Because culture "produces particular viewpoints, politics, and debates,"³³ and world religions produce or influence culture, we must understand how religious values have affected cultural views toward the environment in order to engage in meaningful environmental discourse.³⁴ Unless we understand this relationship, we will not be

25. See *id.* at 236. But see Tarlock, *supra* note 8, at 194 (arguing that "environmental law and management should derive their primary political power and legitimacy from science, not ethics").

26. Freyfogle, *supra* note 6, at 238.

27. See Alyson C. Flournoy, *In Search of an Environmental Ethic*, 28 COLUM. J. ENVTL. L. 63, 66-67 (2003) (arguing there is value in "a concerted effort by legal scholars to articulate more clearly the values and ethics that underlie our environmental laws and that are promoted by them").

28. See Doremus, *supra* note 14, at 41 (noting that "[p]erhaps because it makes such a good sound-bite, though, the limited Noah story continues to dominate the religious arguments raised in the political arena on behalf of nature protection"); see also Nagle, *supra* note 12, at 1216 (noting that the ancient biblical story of Noah "compels us to provide legal protection to all species").

29. Doremus, *supra* note 14, at 63-64 (suggesting that stories and images can help bring about a new discourse to resolve how "humans can live with and in nature").

30. Buddhism, Hinduism, Islam, and Judeo-Christian.

31. This was chosen to represent indigenous religions.

32. See Doremus, *supra* note 14, at 66 (suggesting that environmentalists "concentrate their rhetoric on emotional or spiritual, rather than material, connections with nature").

33. Marc R. Poirier, *Property, Environment, Community*, 12 J. ENVTL. L. & LITIG. 43, 64 (1997).

34. See, e.g., Douglas L. Tookey, *Southeast Asian Environmentalism at Its Crossroads: Learning Lessons From Thailand's Eclectic Approach to Environmental Law and Policy*, 11

able to design successful regulatory models of clean water law to address both domestic and international environmental problems.³⁵ Ideally, we would find a universal religious view toward the environment³⁶ that will prevent or slow degradation, but at the very least, we can recognize how religious differences might inhibit a universal approach to environmentalism.³⁷

In Section II, we first examine the current legal views about the human relationship to the environment.³⁸ Legal views impacting this relationship include the definition of property,³⁹ the constitutional basis for environmental rights,⁴⁰ and other legal theories such as standing and regulatory approaches.⁴¹ Laws reinforce values and

GEO. INT'L ENVTL. L. REV. 307, 350-53 (1999) (discussing how Buddhism "has played an important role in the protection of the environment in Thailand").

35. See Alhaji B.M. Marong, *From Rio to Johannesburg: Reflections on the Role of International Legal Norms in Sustainable Development*, 16 GEO. INT'L ENVTL. L. REV. 21, 26 (2003) (noting that the World Commission on Environment and Development (WCED) report submitted in 1987 pointed out that "environmental law was predominantly structured along the same lines as the territorial organization of states" even though the environment and ecosystems are interdependent) (quoting WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT, *OUR COMMON FUTURE* 8 (1987)).

36. See W. Wade Berryhill, *Creation, Liberation, and Property: Virtues and Values Toward a Theocentric Earth Ethic*, 16 REGENT U.L. REV. 1, 5 (2003/2004) (arguing "for a spiritual reawakening to the ecological question" based on shared principles that "bind religions throughout the world and would serve well the collective desire to preserve the environment"); see also Prue Taylor, *Heads in the Sand as the Tide Rises: Environmental Ethics and the Law on Climate Change*, 19 UCLA J. ENVTL. L. & POL'Y 247, 249 (2000/2001) ("Reaching the level of consensus needed for the genuine implementation of an ecological value in law is the most difficult problem.").

37. See Benjamin J. Richardson, *Environmental Law in Postcolonial Societies: Straddling the Local - Global Institutional Spectrum*, 11 COLO. J. INT'L ENVTL. L. & POL'Y 1, 82 (2000) ("During the last few decades, environmental problems have moved from being primarily local in nature to being diffuse and global in their impact."); see also Taylor, *supra* note 36, at 274 (discussing the Earth Charter initiative, an international process to develop "a set of fundamental global ethics for governing human relations with nature").

38. See Doremus, *supra* note 9, at 296 (noting that in addition to regulating behavior, law "plays a key role in knitting the very fabric of society, creating the background against which people conduct their lives").

39. See, e.g., Craig Anthony T. Arnold, *The Reconstitution of Property: Property as a Web of Interests*, 26 HARV. ENVTL. L. REV. 281, 364 (2002) (suggesting that property should be viewed as a web of interests which "is a way of seeing *property* as vital, distinctive, adaptive, and functional, as well as a way of seeing *people* connected not only to one another but also to the objects of their property interests" (emphasis added)).

40. See John C. Tucker, *Constitutional Codification of an Environmental Ethic*, 52 FLA. L. REV. 299, 302 (2000) ("Today, societies throughout the world are elevating environmental protection to constitutional status . . . because an increasing majority of citizens understand the critical role the environment plays for life on earth.").

41. See Christopher D. Stone, *Should Trees Have Standing? - Toward Legal Rights for Natural Objects*, 45 S. CAL. L. REV. 450 (1972).

“people seek to have law endorse their values [because] they want others to share those values.”⁴² In addition, “[e]nvironmental policy is the product of the combined influences of environmental ethics, science, and economics.”⁴³ Therefore, Section II also describes in more detail how world religions view the human relationship to the environment. Since the “law may be useful in strengthening weakly held values, or in pushing the undecided toward one of a pair of closely contested values,”⁴⁴ it is critical that we identify a cohesive environmental values framework.⁴⁵

In Section III, religious values will be incorporated practically into a regulatory structure as we examine the impact of religious values on clean water laws.⁴⁶ We chose clean water laws because of the countless spiritual references to and ceremonial uses of water, and because clean water is an issue that directly impacts all peoples regardless of whether they live in a country that is urban or agrarian, developed or undeveloped.⁴⁷ Water quality is impacted not just by the actions of big business or natural forces such as storms and floods, but by the cumulative acts of individuals contributing to nonpoint source pollution “more or less in every aspect of our lives.”⁴⁸ And, these polluting acts can impact across borders and cultures. This pervasive impact requires us to have a more universalist approach to

42. Doremus, *supra* note 9, at 309.

43. Rebecca Tsosie, *Tribal Environmental Policy in an Era of Self-Determination: The Role of Ethics, Economics, and Traditional Ecological Knowledge*, 21 VT. L. REV. 225, 226 (1996).

44. Doremus, *supra* note 9, at 314.

45. This is a lofty goal and it is much easier to debate environmental regulatory design based on objective criteria, such as science and economics, than on moral convictions, esthetics, or certainly religious values. See *id.* at 331 (“It is more comfortable to debate the science or economics of environmental conflicts than to grapple with the underlying values.”).

46. Our scholastic focus is on pollution control rather than on conservation. See, e.g., Nagle, *supra* note 12, and other references to the Noah principle.

47. See A. Dan Tarlock, *Water Law Reform in West Virginia: The Broader Context*, 106 W. VA. L. REV. 495, 496 (“[W]ater is the basis of life . . . and the foundation of civilization.”) (quoting THOMAS V. CECH, *PRINCIPLES OF WATER RESOURCES: HISTORY, DEVELOPMENT, MANAGEMENT, AND POLICY* 2 (2001)); see also James P. Morris, *Who Controls the Waters? Incorporating Environmental and Social Values in Water Resources Planning*, 6 HASTINGS W.-NW. J. ENVTL. L. & POL’Y 117, 117 (2000) (“Planning for the use and control of water is planning for most of the basic functions of the life of the Nation . . . Land, water, and people go together.”); Tsosie, *supra* note 43, at 236 (discussing how the Pueblo of Isleta “sought to protect the ceremonial use of its water by tribal members” in determining its water quality standards).

48. Eric T. Freyfogle, *The Ethical Strands of Environmental Law*, 1994 U. ILL. L. REV. 819, 841 (1994).

environmental ethics, which nevertheless still speaks to individual values and religious beliefs.⁴⁹

We conclude the article by advocating that religious values from the world religions be used as a rich, diverse, and proven value framework to enable the relationship between humans and nature to thrive both physically and spiritually, rather than wither by operating at cross-purposes.⁵⁰ This proposal is not radical. Many of our existing laws were based on religious values and, in addition, those laws have stood the test of time. For example, criminal liability for homicide was developed during the middle ages based on the religious concept of moral agency.⁵¹ Perhaps if our environmental laws could be designed and implemented with a greater acceptance of religious values in the public debate, they might be less susceptible to constant challenge.⁵²

II. THE HUMAN RELATIONSHIP WITH LAND AND NATURE

Since the beginning of our existence, human beings have struggled to understand our relationship to the earth and nature. This struggle produced theological interpretations, mythologies, and religious awakenings as we began to give shape to this relationship.⁵³ Religious laws and secular laws defined this relationship in culturally diverse terms and understandings. Without a lucid and universally

49. Perhaps the Tsunami tragedy of 2004 or the Hurricane Katrina disaster of 2005 will be the story, similar to the Noah story, which will encourage an ethical discourse about the importance of water as a natural resource. See Doremus, *supra* note 14, at 43-45 (discussing the importance of storytelling to help protect nature).

50. See Doremus, *supra* note 9, at 340 (noting that “our policy choices can never be truly neutral with respect to the characteristics and values of the future community” and that “[s]ince we are going to affect those choices anyway, it seems healthiest to do so openly, consciously, and in the light of public debate”).

51. J.M.B. CRAWFORD & JOHN F. QUINN, *THE CHRISTIAN FOUNDATIONS OF CRIMINAL RESPONSIBILITY: A PHILOSOPHICAL STUDY OF LEGAL REASONING* 111 (1991).

52. See Berryhill, *supra* note 36, at 2-3 (discussing how religion influences our attitudes toward nature and noting that scholars have avoided disputes over religious disagreement by adopting “a language and an ethic that was not rooted in religion”) (quoting Joseph Allegretti, *Lawyers, Clients and Covenant: A Religious Perspective on Legal Practice and Ethics*, 66 *FORDHAM L. REV.* 1001, 1102-03 (1998)). Professor Doremus advocates a broader discussion of values and “calls for evaluating policy choices in terms of the values they express, cultivate, and reinforce.” Doremus, *supra* note 9, at 378. For a view that finds historical reference to a religious influence over environmental policy in presidential speeches, see Jonathan Cannon & Jonathan Rhiel, *Presidential Greenspeak: How Presidents Talk about the Environment and What It Means*, 23 *STAN. ENVTL. L. J.* 195, 234-38 (2004) (discussing how the concept of stewardship in environmental policy has strong religious overtones).

53. See Jon K. Abdoney, *Environmental Ethics: The Geography of the Soul*, 27 *CUMB. L. REV.* 1217, 1224 (1996/1997).

acceptable understanding of the human relationship to the natural and physical environment, we cannot hope to achieve global environmental policies to prevent the global and cross-cultural occurrence of increasing degradation and loss of our natural resources.⁵⁴

In this Section, we will begin with an overview of the current legal views and theories concerning: 1) the human relationship to land and other resources; 2) substantive environmental rights; 3) procedural environmental rights; and 4) regulatory approach choices such as “command and control” and economic incentives. After painting the legal landscape, we will briefly discuss the foremost secular environmental ethic views and show how many of these views have been influenced by religious values. We will conclude with an overview of major world religious views toward the environment and examine whether they can be integrated with, or bolstered by, secular environmental ethic views to provide a foundation and framework for effective and sustaining environmental laws. This exploration highlights the Judeo-Christian context of United States environmental laws and whether those laws could be successfully adopted in a different religious context.

A. An Overview of Current Legal Views and Theories

1. The Human Relationship to Land and Other Resources

The definition of property is a key to understanding how a particular culture views the human relationship to the earth and nature’s bounty.⁵⁵ Concepts of property and ownership govern how legal relations are ordered, and defining the human relationship toward nature is critical in designing effective environmental laws. For example, even though we are in an age of wilderness scarcity instead of wilderness abundance, some have said that our modern property laws encourage wilderness destruction based on doctrines

54. See Richard J. Lazarus, *Changing Conceptions of Property and Sovereignty in Natural Resources: Questioning the Public Trust Doctrine*, 71 IOWA L. REV. 631, 708 (1986) (noting that “the coherent development of natural resources law will require explicit recognition of the special relationship of the natural and physical environment to man”).

55. See, e.g., Eric T. Freyfogle, *The Owning and Taking of Sensitive Lands*, 43 UCLA L. REV. 77, 78 (1995) (noting that private property law “is one of the more important ways that a culture expresses its ties to the nonhuman natural world”).

developed from English law and nineteenth century United States law, which preferred destruction to preservation.⁵⁶

“‘Property’ is not a preordained or contextual concept - it is a socially constructed concept, with all of the flux and change which that involves.”⁵⁷ There are a variety of theories about property. A common legal understanding of property in the United States is that property is the relationship among people as to things.⁵⁸ This definition emphasizes the anthropocentric view of property and focuses on how people relate to each other in regards to a resource rather than how people relate to the resource itself. “Westerners in particular tend to see the environment as separate from themselves, and to see their moral or ethical responsibilities primarily in terms of their relationships with other people.”⁵⁹

The “expectation” theory of property is also based on a human utility model because “[a]s Jeremy Bentham phrased it, ‘[p]roperty is nothing but a basis of expectation; the expectation of deriving certain advantages from a thing which we are said to possess, in consequence of the relation in which we stand towards it.’”⁶⁰ However, at least Bentham acknowledged a relationship between people and the resource. Finally, John Locke’s anthropocentric labor theory of property was derived from the view that “every man has a property in his own person”⁶¹ and this view assumed “that the only value of a natural resource was its potential to support a property right.”⁶²

New definitions of property have been proposed by various scholars, but most of these continue to be bound to an anthropocentric vision.⁶³ Professor Margaret Radin proposed a property theory which views property as part of personhood and

56. See John G. Sprankling, *The Antiwilderness Bias in American Property Law*, 63 U. CHI. L. REV. 519, 519-20 (1996) (discussing the doctrines of “waste, adverse possession, possession as notice to a bona fide purchaser, good faith improver, trespass, and nuisance”).

57. LAURA S. UNDERKUFFLER, *THE IDEA OF PROPERTY: ITS MEANING AND POWER* 134 (2003).

58. See Felix Cohen, *Dialogue on Private Property*, 9 RUTGERS L. REV. 357, 373 (1954).

59. John Dernbach, *Sustainable Versus Unsustainable Propositions*, 53 CASE W. RES. L. REV. 449, 464 (2002) (criticizing Lomborg’s failure to recognize the “serious risks raised by unsustainable patterns of production and consumption” in LOMBORG, *THE SKEPTICAL ENVIRONMENTALIST*, *supra* note 4).

60. See Freyfogle, *supra* note 55, at 97 (quoting JEREMY BENTHAM, *THEORY OF LEGISLATION* 111-12 (Richard Hildreth trans., Trubner & Co., Ludgate Hill 4th ed. 1882)).

61. JOHN LOCKE, *TWO TREATISES OF GOVERNMENT* § 27, at 305 (Peter Laslett 2d ed., student ed. 1967) (3d ed. 1698).

62. Hirokawa, *supra* note 18, at 235.

63. MARGARET JANE RADIN, *REINTERPRETING PROPERTY* 1 (1993).

“connects ownership with central ideological commitments of liberal thought, particularly with notions of freedom and individualism.”⁶⁴ She described two types of property relationships - personal (or constitutive) and fungible.⁶⁵ Some new proposals for defining property have moved away from what might be viewed as a selfish focus on humans to a view which incorporates values extending beyond human relationships to environmental connections.⁶⁶ This nature-oriented property theory recognizes that “[h]umans are part of the ecological community, and therefore have duties to nature or duties to the land - a land ethic.”⁶⁷ Professor Craig “Tony” Arnold bases his “web of interests” property concept in part on the idea that property involves not only rights, but also duties, including duties to God.⁶⁸ His metaphor recognizes the two essential environmental principles: “(1) the interconnectedness of people and their physical environment and (2) the importance of the unique characteristics of each object.”⁶⁹ Aldo Leopold believed that environmental ethics were needed in the human relationship to nature and that it was certainly a human impulse “to grant moral worth to all members of our community,”⁷⁰ which, for Leopold, included natural, non-human “members.”

Our current understanding of the relationship between property ownership and the environment is that “[p]roperty is about things

64. *Id.*

65. *Id.* at 2 (referring to an essay in which Radin “used the label ‘personal’ to denote the kind of property that individuals are attached to as persons, and . . . used the label ‘fungible’ to denote the kind of property that individuals are not attached to except as to a source of money”).

66. Arnold, *supra* note 39, at 320 (citing ERIC T. FREYFOGLE, JUSTICE AND THE EARTH: IMAGES FOR OUR PLANETARY SURVIVAL 56-57 (1993); Lynda L. Butler, *The Pathology of Property Norms: Living Within Nature’s Boundaries*, 73 S. CAL. L. REV. 927, 999-1000 (2000); Terry W. Frazier, *The Green Alternative to Classical Liberal Property Theory*, 20 VT. L. REV. 299, 320 (1995); Eric T. Freyfogle, *Ownership and Ecology*, 43 CASE W. RES. L. REV. 1269, 1288-92 (1993); James P. Karp, *A Private Property Duty of Stewardship: Changing Our Land Ethic*, 23 ENVTL. L. 735, 755-60 (1993); Joseph L. Sax, *Property Rights and the Economy of Nature: Understanding Lucas v. South Carolina Coastal Council*, 45 STAN. L. REV. 1433, 1442-49, 1451-53 (1993).

67. *See* Arnold, *supra* note 39, at 320 (citing LEOPOLD, *supra* note 23).

68. *See id.* at 305-06. It is our understanding that this notion of rights accompanied by duties is also a perspective found in Judaism which would call for us to “owe” our environment a measure of respect – for example, take only what you need; restore as best you can.

69. *See id.* at 281. *See* also Craig T. Arnold, *Working Out an Environmental Ethic: Anniversary Lessons From Mono Lake*, 4 WYO. L. REV. 1, 28 & n.86 (2004) (discussing how connectedness to particular places of environmental significance are part of moral or ethical development).

70. Freyfogle, *supra* note 6, at 233.

that are under our control” while the “word ‘environment’ in ordinary language often designates something that is not under anyone’s control at all, something that is a given.”⁷¹ Self-interest is an important part of the property ownership norms, but “[t]he rhetoric of property can easily encompass appeals to thrift and carefulness, attentiveness to overuse, and maintenance of a common stock.”⁷² By incorporating community norms and spiritual values into our understanding of property and our relationship to nature, we can overcome, to some extent, our current anthropocentric property ethic and, alternatively, encourage a belief “that the resources of the great commons are not simply ‘givens’ that can be completely tamed and turned to our pleasure.”⁷³ Viewed as a golden rule ethic, “do not do unto others what is hateful to you,” we could establish a more effective relationship with our environment.⁷⁴

Deep-rooted and spiritually-based ethical concerns about nature may allow a return to using community norms to prevent degradation of common rights such as clean water.⁷⁵ As our traditional definition of property is being challenged to take into account ecological and environmental concerns, there is also a “much wider trend in the law that challenges the very notion of private property rights in natural resources.”⁷⁶ The concept of private property ownership has been re-examined in the last few decades as shrinking resources and environmental degradation generate public demand for collective action.⁷⁷ Environmental values, rather than private or even public

71. Carol M. Rose, *Given-ness and Gift: Property and the Quest for Environmental Ethics*, 24 ENVTL. L. 1, 2 (1994).

72. *Id.* at 29.

73. *Id.* at 31.

74. *See infra* note 99 and accompanying text.

75. For example, the Roman Catholic view discusses global climate change as being concerned about the “future of God’s creation and the one human family.” U.S. Conference of Catholic Bishops, *Global Climate Change: A Plea for Dialogue, Prudence, and the Common Good* (2001).

76. Lazarus, *supra* note 54, at 695.

77. *See, e.g.*, Freyfogle, *supra* note 55, at 78 (“Inevitably and appropriately the new wisdom of ecology is altering old ways of imagining the land and relating to it.”); Poirier, *supra* note 33, at 48 (arguing “that the use of private property has a limiting public aspect”). *See also* J.W. Harris, *Is Property a Human Right*, in PROPERTY AND THE CONSTITUTION 66 (Janet McClean ed., 1999) (arguing that a person cannot really be an owner of property unless “she was at liberty to do absolutely anything she liked with it” and such “totality ownership” is not possible).

ownership, may prevent a “tragedy of the commons”⁷⁸ more effectively in our world environment.⁷⁹

2. Substantive “Environmental” Rights

One of the ways in which “environmental” rights, or the public right to an environment which can continue to sustain it, might be protected at a higher level is to incorporate these rights into state, federal, or national constitutions.⁸⁰ Over half of the states in the United States and several countries have used this approach to encourage fundamental changes in the way citizens view their relationship with nature and to slow or prevent further environmental degradation.⁸¹ Environmental values recognized in these constitutions “can be defined to include respect for the intrinsic value of nature.”⁸² By granting constitutional status to public-environmental rights, governments hope to send a powerful message that economic welfare, individual liberties, and environmental rights are to be fairly balanced in legal and policy decision-making.

Adopting a constitutional-rights approach to environmental law may result in forcing values, since such an effort “demands that we recognize and acknowledge the values at stake in our environmental decisions.”⁸³ However, because this constitutional approach emanates

78. See Garrett Hardin, *Tragedy of the Commons*, SCIENCE, 1968, at 1243-48.

79. See Rose, *supra* note 71, at 8-11 (suggesting that rather than turning the “great commons into a kind of great big property, usually owned by a government” we should establish environmental norms of voluntary self-restraint by viewing the environment as a “gift” rather than as a “given”). In contrast to Professor Rose’s suggestion that environmental resources be viewed as a “gift,” see Justice Scalia’s opinion in *Rapanos v. United States*, 126 S. Ct. 2208 (2006), which has an “overall tone and approach” which “seems unduly dismissive of the interests asserted by the United States” to protect natural resources. *Rapanos*, 126 S. Ct. at 2246 (Kennedy, J., concurring).

80. *But see*, J.B. Ruhl, *The Metrics of Constitutional Amendments: And Why Proposed Environmental Quality Amendments Don’t Measure Up*, 74 NOTRE DAME L. REV. 245, 281 (1999) (concluding that the Environmental Quality Amendments “will not, and should not, become a part of our constitutional law”).

81. See Taylor, *supra* note 36, at 274 (noting that a “study on environmental rights in European constitutions concludes that there is a clear trend towards constitutional recognition of environmental values”) (citing MICHAEL BOTHE, *THE RIGHT TO A HEALTHY ENVIRONMENT IN THE EUROPEAN UNION* (1998)); Tucker, *supra* note 40, at 304 (noting that “an environmental ethic is reflected in the constitutions of over half the states of the United States” and that “constitutions of over fifty other countries now contain environmental provisions”).

82. See Taylor, *supra* note 36, at 274.

83. Doremus, *supra* note 9, at 298, 299-300 (using the term constitutive broadly so that it includes not only constitutions which shape government and political institutions but also law which shapes “the essential qualities of individuals, groups, and communities”).

from the legislature at the People's behest, there is no more danger from "forcing" these values than there is from forcing other "values" that are constitutionally enshrined. By recognizing that these environmental values inform our decision-making, we can act on concerns about ethical responsibilities toward nature and future generations, since constitutional rights reflect fundamental societal values.⁸⁴ In addition to structuring the way people relate to each other and to the physical and biological environment, the law reinforces values endorsed by society among both current and succeeding generations.⁸⁵ Therefore, it should be possible to use changes in the law for the "purpose of improving societal values with respect to the environment."⁸⁶ This value-forcing strategy could help modify people's behavior by showing them that irresponsible actions towards the environment are inconsistent with their own views of moral responsibility.⁸⁷

3. Procedural "Environmental" Rights

Environmental ethics have also influenced the legal rules on who or what has standing to assert a cause of action in court. The landmark case for environmental standing, *Sierra Club v. Morton*,⁸⁸ restricted standing to only those people who have been directly injured as a result of actual or threatened environmental degradation, and held that humans have rights that others do not have when considering the standing issue.⁸⁹ Justice Douglas, in his famous dissent, argued that environmental objects should be granted standing "to sue for their own preservation."⁹⁰ Justice Douglas's views on environmental standing were heavily influenced by Aldo Leopold's land ethic which "simply enlarges the boundaries of the community

84. *See id.* at 298.

85. *Id.* at 306-07.

86. *Id.* at 309 (discussing Eric Freyfogle's argument that "traditional legal doctrines governing the ownership of land and water reinforce outmoded understandings of the proper relationship between people and nature").

87. *See id.* at 314-15 (discussing the analogous situation of banning smoking in public places to encourage smokers "who already believe that physically harming others without strong justification is unacceptable" to acknowledge that their actions create "harmful spillover effects").

88. 405 U.S. 727 (1972).

89. *Id.* at 740 (holding that the Sierra Club organization did not have standing to assert an action challenging the approval of federal permits for a development project in the national parks since "a party seeking review must allege facts showing that he is himself adversely affected").

90. *Id.* at 742 (Douglas, J., dissenting) (citing Stone, *supra* note 41).

to include soils, waters, plants, and animals, or collectively: the land.”⁹¹ The same year *Sierra Club* was decided, Christopher D. Stone published his now famous law review article titled, *Should Trees Have Standing? - Toward Legal Rights for Natural Objects*,⁹² proposing that major natural objects be recognized as holding rights, which could be raised by a court-appointed guardian.⁹³ However, these environmental ethics did not influence other members of the Court in the *Sierra Club* decision nor subsequent Supreme Court justices, who continue to narrowly construe standing rights in environmental litigation.⁹⁴ Nevertheless, Justice Douglas’s dissent introduced new “ideas about the human-nature relationship”⁹⁵ directly into basic legal concepts critical to the litigation process and “achieved strides toward translating our still-developing environmental ethic into law.”⁹⁶

For those uncomfortable with the implications of Justice Douglas’s dissent suggesting that environmental objects have standing to sue, and Leopold’s contention that such natural objects may somehow be entitled to “rights” previously reserved only to humans, a convincing case may also be made for the improved stewardship of natural resources by reference to a “human-oriented” property theory. Such stewardship may be seen, at its broadest level of generalization, as a natural analogue to the broad religious principle, known as the Golden Rule, to “do[] unto others as we would that others . . . should do unto us” and conversely to “do[] nothing unto others which . . . we should not wish done unto us.”⁹⁷

91. *Id.* (Douglas, J., dissenting) (citing LEOPOLD, *supra* note 21).

92. Stone, *supra* note 41.

93. *Id.* at 473.

94. See, e.g., *Bennett v. Spear*, 520 U.S. 154, 161-66 (1997) (continuing to limit Endangered Species Act standing requirements) *Lujan v. Defenders of Wildlife*, 504 U.S. 555, 562, 571-73 (1992) (finding that “requisite demonstration of [at least] injury and redressability” had not been met and rejecting view that injury-in-fact requirement was satisfied by the citizen suit provision of the Endangered Species Act as a “procedural injury”); *Lujan v. Nat’l Wildlife Fed’n*, 497 U.S. 871 (1990); see also Peter Manus, *Wild Bill Douglas’s Last Stand: A Retrospective on the First Supreme Court Environmentalist*, 72 *TEMPLE L. REV.* 111, 113 (1999) (pondering why *Sierra Club* “and its progeny are so easily ignored by today’s Supreme Court”).

95. Manus, *supra* note 94, at 194.

96. *Id.* See also Megan A. Senatori, *The Second Revolution: The Diverging Paths of Animal Activism and Environmental Law*, 8 *WIS. ENVTL. L.J.* 31, 40 (2002) (observing that “[a]nimal rights activists seek to attain legal rights for animals through a status comparable to personhood or its equivalent, so long as animals are no longer classified as property by our legal system”).

97. JOHN BIGELOW, *The Unfailing Moral Standard, in TOLERATION, AND OTHER ESSAYS AND STUDIES* 71, 72 (1927), available at <http://newearth.org/frontier/grmain.html> (last visited on

This dictum would urge us all toward more efficient use and conservation of the environment, so as to allow our neighbors and future generations its continued life-sustaining benefits. Indeed, careless use or destruction of natural resources, as well as taking more than our needs dictate, would directly contravene this most universal and basic religious tenet.

Finally, environmental ethics will likely influence the regulatory approach taken toward environmental issues. Command and control regulations “have contributed to significant gains in environmental protection.”⁹⁸ However, difficulties with enforcement and diminishing results from this type of regulation have spurred legislatures to use economic incentives to achieve greater environmental protection. The successful implementation of either of these regulatory schemes requires that environmental ethics be incorporated into the balancing of private property land uses and societal values through legislation and the acceptance of these values into common law processes and our understanding of real property law.⁹⁹

One alternative to economically-based programs such as environmental trading or cost-benefit analysis is “ecological economics,” which “seeks to bring multidisciplinary rigor to the study of nature’s role within human economic production.”¹⁰⁰ This new field seeks to “provide a more nuanced understanding of human-ecosystem interactions than those offered independently by either economists or conservationists.”¹⁰¹ The major difference between standard economic theory and ecological economics is that “ecological economists view the human economy as a subsystem of the environment, while conventional economists view the environment as a subsystem of the economy.”¹⁰²

January 16, 2006). All major religions subscribe to some version as the “golden rule.” See The Universality of the Golden Rule in World Religions, <http://www.teachingvalues.com/goldenrule.html> (last visited on January 16, 2006).

98. Robert J. Goldstein, *Green Wood in the Bundle of Sticks: Fitting Environmental Ethics and Ecology into Real Property Law*, 25 B.C. ENVTL. AFF. L. REV. 347, 407 (1998).

99. *Id.* at 422-25 (proposing the “incorporation of societal values into real property law” through using “the green wood concept” which includes environmental duties as a green wood stick in the bundle of sticks property metaphor).

100. Douglas A. Kysar, *Law, Environment, and Vision*, 97 NW. U.L. REV. 675, 677 (2003) (criticizing economic views that presume nature is boundless).

101. *Id.* at 677.

102. *Id.* at 728.

Daniel Farber, in his book on eco-pragmatism,¹⁰³ also points out the stark differences between advocates of the cost-benefit approach to environmental regulation and environmentalists, whose approaches are criticized by economists as “almost of necessity religious in nature.”¹⁰⁴ Farber proposes that legal pragmatism be used to resolve this difficult choice between economics and ethics by recognizing that “[e]nvironmental decisions involve a complex network of scientific, economic, and normative judgments.”¹⁰⁵ For example, Farber suggests that “we should use an environmentalist baseline in regulating pollution, tempered by the use of cost-benefit analysis as a test of reasonableness.”¹⁰⁶ While cost-benefit analysis appears to lend an air of certainty to an area where scientific uncertainty abounds, there are value judgments which must be made in any calculation including the value of life, the risk level, and the discount rate for future deaths.¹⁰⁷

Religious values are a strong baseline for value judgments from which to launch a pragmatic approach to sustaining our environment. Not surprisingly, environmentalism, a movement partially based on science and later infused with environmental ethics, has been compared to an organized religion and has been accused of “reject[ing] science and hard-headed policy analysis in favor of mysticism and moral obligation.”¹⁰⁸ In fact, it is not unusual to find law review articles using religious analogies¹⁰⁹ or even directly using biblical stories, such as the Noah story, to support environmental

103. DANIEL A. FARBER, *ECO-PRAGMATISM, MAKING SENSIBLE ENVIRONMENTAL DECISIONS IN AN UNCERTAIN WORLD* (1999).

104. *Id.* at 8 (quoting a leading environmental economist’s review of AL GORE, *EARTH IN THE BALANCE*). This division between ethics and economics has also been labeled as tribalism with the accompanying mistrust and antagonism among tribes. See generally Douglas A. Kysar & James Salzman, *Environmental Tribalism*, 87 MINN. L. REV. 1099 (2003).

105. FARBER, *supra* note 103, at 10. See also Hirokawa, *supra* note 18, at 281 (concluding that “[e]nvironmental pragmatism, by its own terms a middle ground to any debate, offers a means to fuse the various value paradigms into a coherent system of law”).

106. FARBER, *supra* note 103, at 11.

107. *Id.* at 88. See also Flournoy, *supra* note 27, at 115 (“Leaving environmental decisions to the ‘experts’ in science and technology does not mean that these decisions will be objective and value-neutral; it only means that the values that do decide the issue will be the values these experts themselves hold.” (citing JOSEPH R. DESJARDINS, *ENVIRONMENTAL ETHICS* 13 (1993))).

108. Zywicki, *supra* note 10, at 350.

109. See, e.g., *id.*; Flatt, *supra* note 5, at 31 (“Just as the objective old testament standard of ‘measured forgiveness’ was replaced with the subjective new testament concept of ‘unconditional forgiveness,’ the new paradigm may give all, not just some, a way to get to environmental heaven.”).

regulation.¹¹⁰ One commentator explains that “[c]ontemporary environmentalism displays its roots in Christian religion”¹¹¹ according to the Puritan theology that then transitioned to the writings of Thoreau, Emerson and transcendentalism.¹¹²

We often do not hesitate to make moral arguments when we deal with environmental issues, yet these arguments are not overtly religious even though we generally accept societal and religious concerns when we confront new frontiers in biotechnology. Instead of establishing an environmental religion or struggling with an appropriate and universal environmental ethic, why not draw upon our world religious views to inform environmental decision-making when scientific knowledge is incomplete and uncertain?

The precautionary principle is another guiding approach for dealing with regulatory decisions in the face of scientific uncertainty.¹¹³ Recognizing that society uses precaution in the face of uncertainty “to protect the economy, national security, and other aspects of national and community life,”¹¹⁴ this “approach or principle is simply a way of attempting to ensure that environmental concerns get the same level of attention as economic concerns whose impacts are often more predictable and certain.”¹¹⁵

This Article proposes that regardless of which type of regulatory approach is used,¹¹⁶ religious views may serve as the basis for an environmental ethic that will support the commitment necessary to sustain future environmental protection and enhancement.¹¹⁷ These

110. See, e.g., Nagle, *supra* note 12, at 1216 (noting, for example, that the ancient biblical story of Noah “compels us to provide legal protection to all species”).

111. Nelson, *supra* note 12, at 66.

112. *Id.* at 66 & n.49 (referring to PERRY MILLER, *ERRAND INTO THE WILDERNESS* (1984)).

113. *But see generally* CASS R. SUNSTEIN, *LAWS OF FEAR, CONFRONTING THE PRECAUTIONARY PRINCIPLE* (2005) (attacking the Precautionary Principle as incoherent).

114. Dernbach, *supra* note 59, at 471 (using the examples of seat belts, locking doors, going to the doctor for a physical condition we don’t understand).

115. *Id.*

116. *But see* Doremus, *supra* note 14, at 52 (noting that the story of God’s command to Noah to save the animals “may be the earliest recorded example of command-and-control environmental policy, squarely rejecting economic efficiency in favor of moral obligation.”).

117. See ANNA L. PETERSON, *BEING HUMAN: ETHICS, ENVIRONMENT, AND OUR PLACE IN THE WORLD* 6 (2001) (“Religion is the only form of discourse widely available to Americans . . . that expresses social interests going beyond the private interests articulated through economic discourse and institutionalized in the market.”) (quoting MAX OELSCHLAEGER, *CARING FOR CREATION: AN ECUMENICAL APPROACH TO THE ENVIRONMENTAL CRISIS* 11 (1994)). *But see* Tarlock, *supra* note 8, at 200 (arguing that “[r]eligion has not been and is unlikely to be a basis for a workable theory of environmentalism” because it is based on an anthropocentric theory).

views must also incorporate a respect for scientific analysis and can be used as the ethics to “bridge the gap between scientific uncertainty and the risks of inaction pending further research through the adoption of the cautionary principle.”¹¹⁸ Religious values have influenced and should continue to inform our secular environmental ethics as we seek to further the health of our environment.

B. Religious Views and Their Influence on Clean Water Laws

Religious beliefs and texts of the world religions have supported environmental morality, but these religious views have not necessarily been incorporated into the environmental regulations themselves.¹¹⁹ If we understand and publicly discuss how religious values are or can be embedded into our environmental decision-making, then such regulation will enjoy the greater public support and commitment necessary to achieve environmental protection.¹²⁰ This section examines the environmental views of major religions in the world today, together with indigenous religion. Statistics show that Buddhism, Christianity, Hinduism, Islam, and Judaism have a total of 4.1 billion adherents.¹²¹ Geographically these religions cover 72.5% of the populated world.¹²²

118. Tarlock, *supra* note 8, at 221 (suggesting that environmental ethics, not religion, be used to bridge the gap between scientific uncertainty and regulatory decisions).

119. See Dernbach, *supra* note 59, at 464 n.82 (“The sacred texts and beliefs of the world’s religions are also supportive of sustainable development, even if that has not always been true of their practices. Buddha taught respect for all life. Native American religious beliefs recognize the connectedness of all life. The Jewish and Christian traditions teach that God made the world, that God declared creation to be good, that the earth belongs to God, and that humans are to exercise stewardship or dominion (not domination) over creation.”); see also Freyfogle, *supra* note 48, at 828 (stating that we should review current environmental laws to determine how well these rules respect moral and ecological claims presented by environmentalists).

120. See Flournoy, *supra* note 48, at 63-64 (proposing “that legal scholars and philosophers work to enhance public understanding of the values embedded in our laws” and noting that “[e]ngagement with environmental issues by the public and changes in individual and civic behavior will only result if we care about something at stake”). See also PETERSON, *supra* note 117, at 5 (“For the majority of the world’s people, religion continues to offer the most important, or at least the most accessible, tools for thinking about how their world works, how it ought to work, and what their place is in it.”).

121. While statistics vary depending on the source, most sources acknowledge these groups as the larger religions. Infoplease.com, <http://www.infoplease.com/ipa/A0904108.html> (last visited October 10, 2006), gives the divisions as:

Religion	Members	Percentage
Christianity	1.9 billion	33.0%
Islam	1.1 billion	20.0
Hinduism	781 million	13.0

The environmental laws in the United States were created from a cultural milieu of its Judeo-Christian heritage. Regrettably, the Native American religious views were not taken into account as a part of this background, due in part to overt efforts to convert Native Americans to Christianity and to suppress their religious beliefs and practices.¹²³ As we explore ways to address continuing problems with water pollution in the early 21st century, we need to recognize that most United States citizens identify themselves as religious¹²⁴ and will likely be influenced by their religious views toward the environment when resolving these problems.

To understand the links between environmental laws and religions, it is necessary to explore how our religious context has informed environmental regulation and examine the religious tenets and cultural adaptations of these major religions. Each religion's roots go back centuries and rely on sacred texts peculiar to that religion. Modern day adaptations of these texts have been influenced by the particular geographic and cultural setting of their adherents. Sometimes the texts are prescriptive and tend to lead adherents; at other times the texts are more descriptive of past approaches that adherents have taken. Many of those adherents are concerned about

Buddhism	324 million	6.0
Sikhism	19 million	0.4
Jusaism	14 million	0.2
Baha'ism	6.1 million	0.1
Confucianism	5.3 million	0.1
Jainism	4.9 million	0.1
Shintoism	2.8 million	0.0

Cf. http://www.adherents.com/Religions_By_Adherents.html (The above list includes only organized religions and excludes more loosely defined groups such as Chinese or African traditional religions).

122. Worldwide Adherents of all religions by six continental areas, Mid-1995, details a 1995 study as given in World Population Prospects: The 1994 Revision (1995), available at <http://www.zpub.com/un/pope/relig.html>.

123. See generally Allison M. Dussias, *Ghost Dance and Holy Ghost: The Echoes of Nineteenth-Century Christianization Policy in Twentieth-Century Native American Free Exercise Cases*, 49 STAN. L. REV. 773, 773 (1997) (describing "a United States government Christianization policy that attempted, with the help of Christian churches, to convert Native Americans to Christianity by assigning reservations to Christian groups for proselytization purposes and by suppressing Native American religious beliefs and practices").

124. One poll shows seventy-five percent of Americans as at least somewhat religious. Barry A. Kosmin, Egon Mayer & Ariela Keyser, *Key Findings*, American Religious Identification Survey, 2001, available at http://www.gc.cuny.edu/faculty/research_briefs/aris/key_findings.htm (last visited Oct. 4, 2006).

the environmental threat that can be posed by economic development.¹²⁵

1. Buddhism

Buddhism's adherents are found in large concentrations in Asia. Some countries declare that Buddhism is the official state religion.¹²⁶ This religious viewpoint values natural resources as part of all life on earth, and values nature as various deities.¹²⁷ For instance, Bhutan has prohibited "hunting, fishing or violating any form of life."¹²⁸

The religious beginnings of Buddhism date back to the sixth century B.C.E. The founder was Siddhartha Gautama who lived in present-day Nepal.¹²⁹ His search for meaning in life led him to renounce his family's wealth and seek a foundational understanding of what he sensed was the universal despair of humanity.¹³⁰ Six years later Gautama found enlightenment and understanding of human problems.¹³¹ He was then identified as Buddha and taught what are known as the Four Noble Truths and the Eightfold Path.¹³² One of the central tenets of Buddhism is the belief in "compassion for all sentient beings."¹³³ This belief has led to the Buddhist having a "sacred duty of . . . refraining from killing living beings and defiling the environment . . ."¹³⁴ Thus, the Buddhist has an environmental duty to protect, based on this religious teaching.

The sacred texts of Buddhism set forth these precepts in slightly varying terms. These sacred texts have developed over the 2500 years of Buddhism, in different places and by various teachers of this

125. See World Summit on Sustainable Development, Johannesburg, S. Afr., Aug. 26–Sept. 4, 2002, *Johannesburg Declaration on Sustainable Development*, available at http://www.joburg.org.za/clean_city/johannesburgdeclaration.pdf#search=%22the%20johannesburg%20declaration%20on%20sustainable%20development%22 (last visited Oct. 4, 2006).

126. Thailand and Bhutan are two examples. See Tookey, *supra* note 34, at 308; Shera Lhundup, *The Genesis of Environmental Ethics and Sustaining Its Heritage in the Kingdom of Bhutan*, 14 GEO. INT'L ENVTL. L. REV. 693, 694 (2002).

127. See Kenneth Woodward, *Countless Souls Cry Out to God*, NEWSWEEK, Jan. 10, 2005, at 37 ("Among coastline Buddhists in Thailand and Sri Lanka, . . . there are many weather gods to both blame and propitiate with assorted prayers and offerings.").

128. Lhundup, *supra* note 126, at 699.

129. STEVE HAGEN, *BUDDHISM PLAIN AND SIMPLE* 6 (1997).

130. *Id.* at 6-7.

131. *Id.* at 7.

132. Lhundup, *supra* note 126, at 700-01.

133. *Id.* at 701.

134. *Id.* at 710.

faith.¹³⁵ Several sections of Buddhist teachings are instructive in understanding the Buddhist view of the environment.

Actions against the environment are condemned by Buddhism.

Yassa rukkhassa chayaya

Nisideyya saheyya va

Na tassa sakhan bhanjeyya

Mittadubbho hi papako.

Even the branch of the tree must never be cut
where beneath the shade have ever sheltered,
taken rest or slept.

Malicious concept for companion is crime.¹³⁶

Atha ne vanarjetthako evamah-Bho vanara
udakam namarakkhitabbam, tumhe rukkhā
potakesu udakam sincanta uppatetva uppatetva
mulam oloketva gambbiragatesu mulesu
bahum udakam sincaya, agambhi ragatesu
appam. Paccha ambakam udakam dullabham
bhavissatiti.

O! monkeys, the water is to be protected and saved by all means,

You while watering the plants,

You first see their roots and circumference

where it lies and water them according to need.

Do not misuse the water for it may at any moment

be difficult for us to get water.¹³⁷

These teachings decry the cutting of trees and polluting of water. They come from an agrarian society, but are applied by modern Buddhists to ecological problems today. "For many Buddhist environmentalists compassion necessarily follows as understanding of

135. Forum on Religion and Ecology, Harvard University Center for the Environment, *Buddhism Sacred Texts*, <http://environment.harvard.edu/religion/religion/buddhism/texts/index.html> (last visited Oct. 4, 2006).

136. Suttapitaka: Khuddahakanikaya III, *reprinted in* O.P. DWIVEDI, WORLD RELIGIONS AND THE ENVIRONMENT 377 (1989).

137. Jatakal, 268, *reprinted in* O.P. DWIVEDI, WORLD RELIGIONS AND THE ENVIRONMENT 388 (1989).

all life-forms as mutually interdependent.”¹³⁸ Some Buddhist countries have relied on these ethical principles in dealing with their own environmental challenges.

For example, the country of Bhutan is a small state located between Tibet and India high in the eastern Himalayas.¹³⁹ The basis for conservation efforts in Bhutan are “rooted in the Buddhist teachings that humans must respect all sentient beings and that humans are one with their natural surroundings.”¹⁴⁰ The government of Bhutan is concerned about modern economic efforts that may harm the natural environment.¹⁴¹ It relies on the viewpoint that “[a]n unabashed plundering of natural resources is therefore not only sinful from the Buddhist point of view, but unethical as well.”¹⁴² The Bhutanese have enacted laws that regulate mining activity, farming, livestock, and plant quarantine.¹⁴³ In 2000, the Environmental Assessment Act was passed as a comprehensive approach to the effects humans have on the Bhutanese environment.¹⁴⁴ This act is similar to America’s Clean Water Act with its system of permits for development.¹⁴⁵ Other than the Environmental Assessment Act, most of the Bhutanese legislation is narrowly targeted at specific industries, and provides little safeguard for honest implementation such as public hearings or other means of public accountability.¹⁴⁶ Bhutanese legislation, nevertheless, relies strongly on the national religion of Buddhism for consistent compliance by individuals.¹⁴⁷

The Buddhist faith provides a framework for environmental laws that seek a balance. It inherently values all sentient beings, and the ecosystems which sustain them. The challenge for Buddhist nations is to find a workable balance of economic development, religious tenets, and enforceable environmental standards.

138. Donald Swearer, *Buddhism and Ecology: Challenge and Promise* (1998), Forum on Religion and Ecology, Harvard University Center for the Environment, available at <http://environment.harvard.edu/religion/religion/buddhism/index.html> (last visited Jan. 31, 2006).

139. Lhundup, *supra* note 126, at 694.

140. *Id.* at 708.

141. *Id.* at 698.

142. *Id.* at 714.

143. *Id.* at 727-28.

144. *Id.* at 728.

145. *See id.* at 729 and discussion of the Clean Water act *infra* Part III.A.

146. *See* Lhundup, *supra* note 126, at 733.

147. *See id.* at 737.

2. Hinduism

The Hindu religion is primarily associated with India and Indians who have immigrated to other countries taking this religion with them.¹⁴⁸ While Hinduism is not the official religion of India, eighty-two percent of the population is Hindu.¹⁴⁹ Natural resources are intertwined with gods and goddesses in the Vedic strand of the Hindu faith.¹⁵⁰ For example, Ap is the god associated with water and Prthivi with the earth.¹⁵¹

Hindu literature can be traced to about 1000 B.C.E., although archeological evidence suggests that the Hindu religion goes back to 1500 B.C.E. in India.¹⁵² The self-conscious identity of Hinduism as a religion developed between 1200 and 1500 C.E. This identity arose from the Hindu conflicts with Muslims during that period.¹⁵³ The technical term "Hinduism" was first applied to the religious practices in India in 1829 and came into wide use with the missionary movement in India in the 1870s.¹⁵⁴ The term is sometimes tied to the geographic boundaries; the *Laws of Manu* written in 200 C.E. give the basic borders of India as the locale of this religion.¹⁵⁵ When applied to theological concepts, Hinduism is an interlinking web of ideas drawn from different texts and emphasizing different gods.¹⁵⁶

There are different sects, but many acknowledge several basic Hindu beliefs. The ideas of reincarnation and karma directly affect the Hindu view of the environment and humanity's place in the world. Drawing from the Hindu sacred texts, these two concepts lead to encouraging a life that does not pollute the world.

Reincarnation is the re-birth of a soul into another life after having died in the prior life. This re-birth may be higher or lower on the animal totem-pole depending on the type of life a soul has just

148. In Mid-2002, there were 828 million adherents with 821 million of them living on the Asian continent. THE WORLD ALMANAC AND BOOK OF FACTS 612 (2004).

149. *Id.* at 792.

150. Christopher Key Chapple, *Hinduism, Jainism and Ecology*, 10 EARTH ETHICS 24 (Fall 1998), available at <http://environment.harvard.edu/religion/religion/hinduism/index.html>.

151. *Id.*

152. Encyclopædia Britannica Online, <http://search.eb.com/eb/article?tocId=8970> (last visited October 7, 2004).

153. David Lorenzen, *Who Invented Hinduism?*, 41 COMP. STUDIES SOC'Y & HISTORY 630, 631 (Oct. 1999).

154. John Stratton Hawley, *Naming Hinduism*, 15 WILSON QUARTERLY 20 (1991).

155. Wendy Doniger, *Hinduism by Any Other Name*, 15 WILSON QUARTERLY 35, 36 (1991).

156. *Id.* at 35.

lived.¹⁵⁷ If one lived doing evil deeds, then one's soul moved down several levels.¹⁵⁸ The ultimate goal of life is to achieve a purified mind that shows its unity with the divine, or the ultimate god, Brahman.¹⁵⁹

Another central belief held by the various Hindu sects is that of karma.¹⁶⁰ This concept is linked to reincarnation because it is the ground on which the soul is re-born. Early Hinduism held that one's karma could not be changed and encouraged resignation to the fate life had brought in this cycle.¹⁶¹ With the challenges of British charitable actions,¹⁶² Hinduism considered an alternative: Each soul/person builds her own karma through the deeds done during a lifetime.¹⁶³ Good deeds result in good karma, or higher re-birth in the caste system.¹⁶⁴

Building on these notions of reincarnation and karma, environmental pollution is condemned in Hinduism as an offense against the gods.¹⁶⁵ While there are many specific actions condemned,¹⁶⁶ several texts prohibit certain activities near water, which would otherwise be polluted by the forbidden actions. One such text is:

Ganga punyajalan prapya caturdasa vivarjayet
 Saucamacamanam kesam nirmalya madyamarsanam.
 Gatrasamvahanam kridam pratigrahamatho ratim.
 Anyatirtharatim caive anyatirthaprasansanam,
 vastratyagamapaghatam santaram ca visesatah.

One should not perform these 14 acts near holy waters of Ganga;
 i.e. remove excrement, brushing and gargling, removing cerumen
 from the body, throwing hairs or dry garlands, playing in the water,

157. William Whalen, *Hinduism: What Do You Know About the World's Oldest Religion?*, 58 U.S. CATHOLIC 25, 26 (April 1993).

158. *Id.*

159. Pravrajika Vrajaprana, *Contemporary Spirituality and the Thinning of the Sacred: A Hindu Perspective*, 50 CROSS CURRENTS 248, 250-52 (Spring-Summer 2000).

160. Doniger, *supra* note 155, at 37.

161. Brian Pennington, *Constructing Colonial Dharma: A Chronical of Emergent Hinduism, 1830-1831*, 69 J. AM. ACAD. RELIGION 577, 582 (2001).

162. *Id.* at 585.

163. Doniger, *supra* note 155, at 37.

164. Pennington, *supra* note 161, at 587.

165. O.P. Dwivedi & B.N. Tiwari, *Environmental Protection in the Hindu Religion*, in WORLD RELIGIONS AND THE ENVIRONMENT 158 (1989).

166. *Id.* at 159.

taking donations, performing sex, attachment with other sacred places,

praising other holy places, washing clothes, throwing dirty clothes, and thumping water and swimming.¹⁶⁷

The water of the sacred river Ganges must be kept free of pollution according to these texts. Doing good deeds in preserving the cleanliness of the river is implied. Further, a Hindu should be punished for various kinds of pollution.¹⁶⁸ Unfortunately, these religious commands have not prevented the pollution of the Ganges and the religious belief that a cremated body thrown into the river will be carried to heaven (Shukla 2) may have contributed to this pollution.¹⁶⁹

Purity of water is important in Hinduism, and it is often exalted in hymns and rivers are viewed as goddesses.¹⁷⁰ The Hindu deities may be upset by pollution and may respond by destroying humanity through such actions as tsunamis.¹⁷¹ India, as a Hindu country, has relied on these ethical principles in dealing with its own environmental challenges.

India is a country of over one billion people located on the Indian subcontinent of Asia.¹⁷² There is a strong environmental commitment in India as expressed in legislation and court decisions that protect its environment.¹⁷³ Many of these decisions come from a blending of Hindu concepts, such as compassion toward nature, and the Western view of sustainable development.¹⁷⁴ The Indian Supreme Court has grounded its rulings in the Indian constitution:

[The] right to live is a fundamental right under Article 21 of the constitution and it includes the right of enjoyment of pollution free water and air for full enjoyment of life. If anything endangers or impairs that quality of life in derogation of laws, a citizen has a right to have recourse to Article 32 of the constitution for removing the

167. Prayascittatva, 1.535, *reprinted in* O.P. DWIVEDI, WORLD RELIGIONS AND THE ENVIRONMENT 360 (1989).

168. Kautilya Arthasastra & Nagarika Pranidhi, 2.145, *reprinted in* O.P. DWIVEDI, WORLD RELIGIONS AND THE ENVIRONMENT 359 (1989).

169. See <http://www.ccds.charlotte.nc.us/History/India/05/lyle/> (last visited February 1, 2006).

170. Chapple, *supra* note 150.

171. Woodward, *supra* note 127, at 37.

172. THE WORLD ALMANAC AND BOOK OF FACTS 792 (2004).

173. See Oren Perez, *Reflections on an Environmental Struggle: P&O, Dahanu, and the Regulation of Multinational Enterprises*, 15 GEO. INT'L ENVTL. L. REV. 1, 7 (2002).

174. *Id.*

pollution of water or air which may be detrimental to the quality of life.¹⁷⁵

This constitutional grounding goes beyond the environmental rights found in the United States.¹⁷⁶ This judicial viewpoint, as with other legislative actions, is based in Indian compassion that combines the Hindu concepts of all life as sacred and of non-violence toward all creatures.¹⁷⁷ The Hindu belief of dharma, however, conflicts with implementing judicial rulings since it focuses more on internal monitoring of actions rather than external coercion.¹⁷⁸ The internal regulation of behavior by dharma is a very different concept from the United States environmental legal approach of external constraints. This idea of dharma was a major factor in a 1997 study that found “severe problems in the working of the formal regulatory system.”¹⁷⁹ The study also found that inspections had no discernible impact on pollution emissions and inspections were ineffective in changing environmental pollution behaviors.¹⁸⁰ Another study showed that businesses locating in India were more concerned about power supplies and services than environmental restrictions in choosing where to locate.¹⁸¹ It appears that the notion of internal obedience, or dharma, is not respected by companies that pollute the waters of India; they only respond to external coercion.

Hindu concepts such as non-violence and respect for all beings form the underpinnings of Indian environmental law as seen in their judicial decisions and legislation.¹⁸² Dharma, as a foundational concept in Hinduism, has helped prevent these laws from being implemented.¹⁸³ The challenge for Hindu nations is to find the moral

175. *Subash Kumar v. State of Bihar*, 1 S.C.R. 5, 13 (1991).

176. *See, e.g., Stone, supra* note 41.

177. *Perez, supra* note 173, at 7-8.

178. *Id.* at 10.

179. Sheoli Pargal et al., *Inspections and Emissions in India: Puzzling Survey Evidence on Industrial Water Pollution*, World Bank Pol’y Research Dept. No. 1810, (Aug. 1997), at 16.

180. *Id.* at 15.

181. Muthukumara Mani et al., *Does Environmental Regulation Matter? Determinants of the Location of New Manufacturing Plants in India in 1994*, World Bank Pol’y Research Dept. No. 1718, Nov. 1996, at 9 and 18.

182. *See* The Water (Prevention and Control of Pollution) Cess Act, 1977, amended 1992, available at <http://envfor.nic.in/legis/water/water7.html> (last visited Sept. 11, 2006); The Air (Prevention and Control of Pollution) Act 1981, amended 1987, available at <http://envfor.nic.in/legis/air/air1.html> (last visited Sept. 11, 2006); The Environment (Protection) Act, 1986, amended 1991, available at <http://envfor.nic.in/legis/env/env1.html> (last visited Mar. 6, 2005).

183. *Perez, supra* note 173, at 10-11.

authority for asserting external controls so that the legal framework for a clean environment might become reality.

3. Indigenous Spirituality

Almost every continent has indigenous persons who practice ancient religious traditions.¹⁸⁴ While these traditions vary in some of their specific beliefs, there are some common viewpoints regarding the relationship between humanity and the earth.¹⁸⁵ For instance, many indigenous people see a close relationship between humans and nature.¹⁸⁶

The beginnings of indigenous spirituality are lost in the mists of history. As practiced today, there is no 'pure' indigenous spirituality because of the outside influences of more dominant cultures.¹⁸⁷ Indigenous spirituality is, however, marked by "a concern for spontaneities of religious experience, remarkable intimacies with local bioregions often believed to be the source of sacred revelation, and developed ritual practices which instill the collective memories of the people and their homeland in individual bodies and minds."¹⁸⁸ Nature has traditionally been a central factor within indigenous beliefs, often characterized by an intense inter-relationship between humans and elements such as wind or rain.¹⁸⁹ Frequently, indigenous spirituality includes seeing humans as part of a continuum rather than as separate and above nature.¹⁹⁰

In addition to relating to place, indigenous spirituality often expands the idea of human person to include non-humans. Other species, such as animals and even plants, are seen as 'persons' in the sense of having individual characteristics and sentient feelings.¹⁹¹ In the Lakota tribe of North America, there are narratives that portray

184. See THE WORLD ALMANAC AND BOOK OF FACTS 612 (2004) (citing statistics for religion by continent).

185. PETERSON, *supra* note 117, at 100.

186. *Id.* at 126.

187. See Philip Burgess, *Traditional Knowledge: A Report Prepared for the Artic Council Indigenous Peoples' Secretariat, Copenhagen* 6 (1999), <http://www.earthscape.org/frames/searchframe.html> (search title, last visited Sept. 11, 2006).

188. John A. Grim, *Indigenous Traditions and Ecology*, 10 EARTH ETHICS 10 (1998).

189. Allison Dussias, *Asserting a Traditional Environment Ethic: Recent Developments in Environmental Regulation Involving Native American Tribes*, 33 NEW ENG. L. REV. 653, 654 (1999).

190. PETERSON, *supra* note 117, at 122.

191. *Id.* at 123.

the stones as sentient beings assisting in creation.¹⁹² Another similar view is:

The Ahnishinahbaeo jibway Mide is a way of living in harmony and community; a facilitation of each person's Sovereign relationship with Grandmother Earth, with Grandfather Mide, with the Circle of Life which encompasses us, and with the Great Mysteries of the Universe. The Mide is experienced, it is directly connected to Grandmother Earth; they are married. This is where we come from.¹⁹³

This passage emphasizes both the personhood of non-human elements and the close connection of humans to the land. Many indigenous spiritual beliefs are built on a base of the relationship of humans to place and emphasize "restraint, humility, and respect toward the natural world."¹⁹⁴

The concepts of non-human personality and ties to land are part of what is termed "cultural integrity."¹⁹⁵ This blending of indigenous spiritual concepts with neutral language has permitted the concepts to be considered in various settings. The United Nations has held several conferences on the environment.¹⁹⁶ In 1992, a conference was held in Rio de Janeiro concerning the environment and development.¹⁹⁷ The conference agreed on a number of principles, including Principle 22:

Indigenous people and their communities and other local communities have a vital role in environmental management and development because of their knowledge and traditional practices. States should recognize and duly support their identity, culture and interests and enable their effective participation in the achievement of sustainable development.¹⁹⁸

192. Grim, *supra* note 188, at 12.

193. WUB-E-KE-NIEW. WE HAVE THE RIGHT TO EXIST: A TRANSLATION OF ABORIGINAL INDIGENOUS THOUGHT 199 (1995).

194. PETERSON, *supra* note 117, at 126.

195. See Cherie Metcalf, *Indigenous Rights and the Environment: Evolving International Law*, 35 OTTAWA L. REV. 103, 105 (2003/2004).

196. See United Nations Conference on the Human Environment (1972) through the World Summit on Sustainable Development (2000), <http://www.unep.org/Documents.multilingual/Default.asp?DocumentID=97&ArticleID=> (last visited October 16, 2006).

197. REPORT OF THE UNITED NATIONS CONFERENCE ON ENVIRONMENT AND DEVELOPMENT (Rio de Janeiro, June 3-14), <http://www.un.org/documents/ga/conf151/aconf15126-1annex1.htm/> (search title).

198. *Id.*

This Principle expresses support for government recognition of indigenous spirituality as part of the cultural integrity of people when dealing with environment issues.¹⁹⁹

In Canada, First Nations people have tried to preserve their cultural integrity through integrating indigenous spirituality with environmental concerns. First Nations chiefs joined together to form the Centre for Indigenous Environmental Resources in 1995.²⁰⁰ Recognizing water as fundamental to life and its special significance within indigenous spirituality, the Centre has participated in voicing concerns about water quality and waste treatment.²⁰¹ Part of the result of the input from First Nations groups is a 2003 report on the status of water and wastewater in Canada.²⁰² The Canadian government has taken seriously this report and has begun activities to improve water quality for the First Nations people.²⁰³

4. Islam

Islamic adherents, known as Muslims, predominate in many countries in the Middle East. Some countries have Islam as their official religion.²⁰⁴ In Islam, humanity is viewed as having stewardship over, or being a trustee of, the environment.²⁰⁵ Egypt, for example, bases its environmental laws on the principles of Islamic Sharia drawn from the Quran.²⁰⁶

Islam began as a result of revelations to the Prophet Muhammad in the early seventh century C.E.²⁰⁷ There are a number of different texts held sacred by Islam: "Quran (the book of God), Sunnah (what

199. Metcalf, *supra* note 195, at 108.

200. Centre for Indigenous Environmental Resources, <http://www.cier.ca/index2.html> (last visited Feb. 1, 2006).

201. Centre for Indigenous Environmental Resources, http://www.cier.ca/water_rts.html (last visited Feb. 1, 2006) (follow the water link).

202. INDIAN AND NORTHERN AFFAIRS CANADA, NATIONAL ASSESSMENT OF WATER AND WASTEWATER SYSTEMS IN FIRST NATIONS COMMUNITIES, i (2003), available at http://www.ainc-inac.gc.ca/index_e.html (last visited Oct. 1, 2006) (search subtitle).

203. *Id.* at 20.

204. THE WORLD ALMANAC AND BOOK OF FACTS 780, 801, 833 (2004) (For example, Egypt, Kuwait, and Saudi Arabia).

205. Frederick Denny, *Islam and Ecology: A Bestowed Trust Inviting Balanced Stewardship*, 10 EARTH ETHICS 10, 10 (1998).

206. Kristen Stilt, *Islamic Law and the Making and Remaking of the Iraqi Legal System*, 36 GEO. WASH. INT'L L. REV. 695, 725 (2004).

207. Asma Afsaruddin, *The Biography of Muhammad: The Issue of the Sources*, 121 J. AM. ORIENTAL SOC'Y 726 (2001) (reviewing *The Biography of Muhammad: The Issue of Sources*, in 82 ISLAMIC HISTORY AND CIVILIZATION, STUDIES AND TEXTS xvi, 300 (Harold Motzk ed., 2000)).

the Prophet did), and Hadith (narrated by Sahabas).²⁰⁸ Briefly, Muhammad lived in the area of modern Saudi Arabia and led various military efforts that resulted in 'freeing' Mecca in the seventh century C.E.²⁰⁹ Muhammad received the Quran from the angel Gabriel as the verbatim words of God, and it is typically divided into sections called 'sura.'²¹⁰ As Islam gained converts, different commentaries were written, including the Sharia.²¹¹ The Sharia contains the basic tenets of Islamic law and is relied upon by Muslim countries in formulating their laws.²¹² It was created in the eight and ninth centuries C.E. by classical Muslim jurists and reflects their worldview.²¹³ The Sharia draws on the Quran as it seeks to guide the faithful Muslim in living according to the word of God revealed to Muhammad.²¹⁴

One of the basic beliefs in Islam is the concept of human stewardship. Building on the idea that God created the earth, the Quran reveals that God provides for humanity by putting everything in service to humans.²¹⁵

Allahulladhi knalaqassamawati wal arda wa angala minassamai
maan faakhraji bihi minaththama-rati rizqal lakum.

Wa sakhkhara lakumul anhara. Wa sakhkhara lakumushshamsa
wal quamara daibaini, wa sakhkhara lakumullaila
wannahara. Wa atakum min kulli masaaltumunu. Wa in tauddu
nimtallahi la tuhsuna.

Allah is he who created the heavens and the earth and caused water
to come down from the clouds, and brought forth
therewith fruits for your [human] sustenance.

He has constrained to your service the winds that vessel may sail
through the sea by His command, and the rivers also

208. M. Rafiq, & Mohammad Ajmal, *Islam and the Present Ecological Crisis*, in O.P. DWIVEDI, *WORLD RELIGIONS AND THE ENVIRONMENT* 119 (1989) (using the spelling 'Quran' rather than 'Koran' since it is the more accurate transliteration of the Arabic term for this holy writing of Islam).

209. Ziauddin Sardar, *The Agony of a 21st-Century Muslim*, *NEW STATESMAN*, Feb. 17, 2004 at 50.

210. *The Foundations of Islam*, in *ENCYCLOPEDIA BRITANNICA* 3, <http://search.eb.com/eb/article-9105852>.

211. Sardar, *supra* note 209, at 51.

212. Stilt, *supra* note 206, at 723.

213. Sardar, *supra* note 209, at 51.

214. *Id.*

215. Denny, *supra* note 205, at 10.

he has constrained to your service. He has also constrained to your service the sun and the moon, both carrying out their functions incessantly; and He has subjected to you the night as well as the day. He has given you all that you asked to Him; and if you try to count the favours of Allah, you will not be able to number them.²¹⁶

The tsunami in December 2004 was seen by some Muslims as a testing of the faith of people in the countries affected.²¹⁷ The concept of stewardship is further reinforced by the ideas of balance and order that are found elsewhere in the Quran.²¹⁸ Humanity is to follow God in preserving order:

Wa la lufsidu filardi bada islahiha.

Create not disorder in the earth after it has been set in order.²¹⁹

With this sense of original order and stewardship, humans are divinely required, under Islam, to care for the earth and to preserve the environment.

The country of Egypt has followed the Muslim precepts in its legislation and court decisions. With Islam as the official state religion, the Egyptian constitution specifically incorporates the Muslim faith.²²⁰ The constitution adopted in 1971 states: "the principles of the Islamic Sharia are a main source of legislation."²²¹ In 1980, this was changed from 'a' main source to 'the' main source'.²²² The Egyptian courts have given this provision a narrow interpretation, and thus allowed room for some modern legal concepts like Egyptian environmental laws.²²³ The Egyptian Environmental Affairs Agency, established in 1982 and made permanent by the Egyptian Law 4 of 1994, has powers very similar to the U. S. Environmental Protection Agency.²²⁴ While these powers

216. *Quran* 14:33-35, reprinted in O.P. DWIVEDI, WORLD RELIGIONS AND THE ENVIRONMENT 427 (1989).

217. Woodward, *supra* note 127, at 37. See also Richard Paddock, *Asian Tsunami: One Month Later*, L.A. TIMES, Jan. 26, 2005, at A1.

218. Rafiq, *supra* note 208, at 125.

219. *Quran* 7:57, reprinted in O.P. DWIVEDI, WORLD RELIGIONS AND THE ENVIRONMENT 448 (1989).

220. THE WORLD ALMANAC AND BOOK OF FACTS 780 (2004); Stilt, *supra* note 206, at 720.

221. Stilt, *supra* note 206, at 723 (quoting the 1971 Egyptian Constitution).

222. *Id.* at 724.

223. *Id.*

224. The Egyptian agency was first created by Presidential decree and later legislation continued the EAA existence permanently. Law 4 of 1994, Art. 2-4. For a comparison of agency

support the Islamic concept of human stewardship, there is no specific mention in the major Law 4 of the Muslim faith.²²⁵ The Egyptian government has committed itself to sustainable development based on Islamic principles.²²⁶ These are contained in an Islamic Declaration on Sustainable Principles, and refer to humans as having a “lieutenancy mission on earth.”²²⁷ It remains to be seen how successful the environmental laws and regulations will be.

5. Judeo-Christian Outlook

The largest religious group on earth is Christianity, with concentrations in the Americas, Europe and sub-Saharan Africa.²²⁸ For some countries, a Judeo-Christian background shapes the cultural setting in which laws and policies are formulated.²²⁹ This influence cannot be underestimated in the United States since it is this religious background which provides most Americans with the stories or narratives to support a caring approach to the environment resting “on a shared appreciation for God’s creative power and works.”²³⁰ Judeo-Christian views have ranged between two poles: nature exists only for humanity’s sake and humans are stewards of nature with the need to conserve it.²³¹

With the rise of environmentalism in the late-1960s and early-70s, accusations were made that “our present state of affairs - at least in the West - can be traced to the view that Nature is the dominion of Man, and that this attitude, in turn, derives from our religious

powers, compare the U.S Clean Water Act, 33 U.S.C. § 1251, with Egyptian Law 4 of 1994, Art. 48-83. Egyptian environmental laws are available at <http://www.eeaa.gov.eg/English/main/law4.asp> (last visited February 1, 2006).

225. Egyptian Law 4 of 1994, Article 5, available at <http://www.eeaa.gov.eg/English/law4.doc>.

226. Islamic Declaration on Sustainable Development, United Nations World Summit on Sustainable Development, meeting 26 August to 4 September 2002, at 7, available at <http://environment.harvard.edu/religion/religion/islam/statements/index.html> (last visited January 31, 2006).

227. *Id.*

228. THE WORLD ALMANAC AND BOOK OF FACTS 612 (2004).

229. See, e.g., *id.* (demonstrating that Christianity is the official religion in many western European countries).

230. PETERSON, *supra* note 117, at 7 (discussing Oelschlaeger’s “hopes for a consensus to emerge within mainstream religious bodies in the United States in favor of ‘caring for creation’”).

231. JOHN PASSMORE, MAN’S RESPONSIBILITY FOR NATURE: ECOLOGICAL PROBLEMS AND WESTERN TRADITIONS 27 (1974); Robert Lannon, Catholic Tradition and the New Catholic Theology and Social Teaching on the Environment, 39 CATH. LAW. 353, 365.

traditions,”²³² originating in Judaism and continuing into Christianity.²³³ Thus, it is imperative that we decipher the main message regarding humanity’s connection with nature through Judeo-Christian beliefs that informs our value system.

The Judeo-Christian tradition started with Judaism and then later combined with Christian principles drawn from the Jewish faith and interpreted by Jesus Christ. The first written records of Judaism we have were made in the tenth century B.C.E.,²³⁴ during the times of the Jewish Kings David and Solomon. However, they recorded oral traditions that date back much farther.²³⁵ The foundational document for establishing both the ultimate source of water and its relationship to humanity is the Jewish book of Genesis,²³⁶ found both in the Torah and the Christian Bible. These religions view Genesis as part of the scripture that is the basis for faith in God.²³⁷ There are two sections of text that establish God as the creator of water and of humanity:

And God said, “Let the water under the sky be gathered to one place, and let the dry ground appear.” And it was so. God called the dry ground “land,” and the gathered waters he called “seas.” And God saw that it was good.²³⁸

So God created man in his own image, in the image of God he created him; male and female he created them. God blessed them and said to them, “Be fruitful and increase in number; fill the earth and subdue it. Rule over the fish of the sea and the birds of the air and over every living creature that moves on the ground.”²³⁹

The first passage indicates that God is the one who creates, and therefore has authority over water, and that water and land have an inherent goodness. The second passage shows God continuing as creator and authority figure. God gives the waters and the earth to humanity to “subdue” and to “rule.” These two verbs have

232. Stone, *supra* note 41, at 493.

233. *Id.* at 493 (quoting McHarg, *Values, Process and Form, in THE FITNESS OF MAN’S ENVIRONMENT* 213-14 (1968)).

234. JOHN SKINNER, *A CRITICAL AND EXEGETICAL COMMENTARY ON GENESIS LIV-LV* (2d ed. latest impression 1969).

235. *Id.*

236. See Richard Hiers, *Reverence for Life and Environmental Ethics in Biblical Law and Covenant*, 13 *J.L. & RELIGION* 127, 128 (1998).

237. See, e.g., COALITION ON THE ENVIRONMENT AND JEWISH LIFE, *WHAT’S JEWISH ABOUT PROTECTING THE ENVIRONMENT?*, www.coejl.org/jewviro.php (last visited Aug. 30, 2006).

238. *Genesis* 1:9-10 (New International Version).

239. *Genesis* 1:27-28 (New International Version).

occasioned much debate over the last 2000 years.²⁴⁰ The Hebrew verbs in the text are *rada* and *kabas*. *Rada* is typically translated as have dominion, such as the head of the household might have over servants, or a king over conquered enemies.²⁴¹ *Kabas* translates to the stronger idea of subduing or subjugation, usually in a military situation.²⁴²

Taken together, these Hebrew verbs, *rada* and *kabas*, form the concept of humans as ultimate rulers over the earth, including its water. Any single text, however, should not be taken in isolation, but rather viewed in its original context:

The particular harshness of the term for the human-earth relationship in Genesis 1 may be best understood in the context of the particular harshness of subsistence agriculture in the Mediterranean highlands that provided the livelihood of the priests' constituency. Economic survival could thus be viewed . . . in adversarial terms as over-powering the intractable ground and subjugating the earth.²⁴³

The Noahide laws may also be interpreted to support a kind relationship between humanity and the environment. According to rabbinic Judaism, these laws were to apply to all people, not just Jews, based on humanity's descent from Noah, the head of the only family to survive The Flood.²⁴⁴ One of the seven Noahide laws states that you should not eat the limb of a living animal, which has been interpreted as eschewing cruelty to animals.²⁴⁵ This interpretation could be extended to condemn cruelty to nature and natural resources such as water.

Problems have arisen as various Christians have interpreted these passages. The interpretations range from using the earth for human improvement without regard to the future to using only those resources that are renewable.²⁴⁶ Professor Lynn White is credited

240. See, e.g., Robert Lannan, *Catholic Tradition and the New Catholic Theology and Social Teaching on the Environment*, 39 CATH. LAW. 353, 365 (2000) (discussing the Roman Catholic tradition).

241. Theodore Hiebert, *The Human Vocation: Origins and Transformations in Christian Traditions*, in DIETER HESSEL & ROSEMARY R. RUETHER, CHRISTIANITY AND ECOLOGY: SEEKING THE WELL-BEING OF EARTH AND HUMANS 135, 136-37 (2000).

242. *Id.* at 137.

243. *Id.*

244. See Wikipedia, Noahide Laws, http://en.wikipedia.org/wiki/Noahide_Laws (last visited Jan. 31, 2006).

245. *Id.*

246. Anand Veeraraj, *Christianity and the Environment in WORLD RELIGIONS AND THE ENVIRONMENT* 36, 63 (O.P. Dwivedi ed. 1989).

with the first modern accusation holding that Christianity is responsible for allowing humans to exploit nature.²⁴⁷ Professor White presents a cogent argument, but has his historical facts somewhat askew.²⁴⁸ The more accurate view is that the first 1700 years of Christianity show a deep concern for the environment and for human relationship with the earth;²⁴⁹ it is with the Enlightenment that an anthropocentric viewpoint developed.²⁵⁰ Since Professor White's charge, many Christians have responded by seeking a theological basis for viewing humanity as a part of the creation, rather than separate from the earth.²⁵¹ Some writers have turned to passages from Job²⁵² and the Psalms to show the sacramental value of nature; since it is God's creation it should be valued by humanity as such.²⁵³

The World Council of Churches (WCC) is an ecumenical body of Christian denominations, mostly Protestant in their doctrines.²⁵⁴ This body has adopted several policy statements and established an on-going effort entitled "Justice, Peace and the Integrity of Creation."²⁵⁵ In 2004, the WCC section by this same name issued a statement on water as the foundation for human life and other life forms.²⁵⁶ In making the case for water as a basic human right, the statement said:

In Christian theological reflection, creation begins with the spirit of God "brooding over the face of the waters" (Genesis 1:2). Later, drought becomes a symbol and image of divine judgment (Isaiah 33:9), and the eschatological hope of the prophets comes to be expressed through the promise that rivers will spring up in the desert (Isaiah 43:19).²⁵⁷

247. Lynn White, Jr. *The Historical Roots of Our Ecological Crisis*, SCIENCE, Mar. 10 1967, at 1203.

248. Sallie McFague, *An Ecological Christology: Does Christianity Have It?* in CHRISTIANITY AND ECOLOGY: SEEKING THE WELL-BEING OF EARTH AND HUMANS 29 (Dieter Hessel & Rosemary R. Ruether, eds., 2000).

249. Elizabeth Johnson, *Losing and Finding Creation in the Christian Tradition*, in CHRISTIANITY AND ECOLOGY: SEEKING THE WELL-BEING OF EARTH AND HUMANS 3, 17-18 (Dieter Hessel & Rosemary R. Ruether, eds., 2000).

250. *Id. Cf. Tsosie, supra* note 43, at 248-54.

251. Hiers, *supra* note 236, at 127 n.1.

252. Woodward, *supra* note 127, at 37.

253. EUGENE HARGROVE, RELIGION AND ENVIRONMENTAL CRISIS 86-87 (1986).

254. See <http://www.wcc-coe.org/wcc/who/index-e.html> (last visited Oct. 17, 2006).

255. See World Council of Churches, Justice, Peace, and Creation, <http://wcc-coe.org/wcc/what/jpc/hist-e.html> (last visited Aug. 26, 2006).

256. ECUMENICAL TEAM TO CSD12, WORLD COUNCIL OF CHURCHES, 1. WATER AS GIFT AND RIGHT, (May 7, 2004), available at <http://www.wcc-coe.org/wcc/what/jpc/water2.pdf> (last visited Oct. 17, 2006).

257. *Id.* at 3.

The statement goes on to advocate for international conventions on water to preserve water purity for all life.²⁵⁸

The Eastern Orthodox denominations express similar views through the Ecumenical Patriarch Bartholomew. The Patriarch has sponsored yearly symposia on the subject of “Religion, Science and the Environment.”²⁵⁹ In June, 2003, his speech covered the Orthodox views on water, stating, “We are united by water which comprises 70% of our bodies and 70% of the Earth’s surface. All life depends on its nourishing power.”²⁶⁰ Patriarch Bartholomew went on to state that, “We share the miracle of water with the entire community of life;”²⁶¹ humanity is not separate from other life forms in needing clean water.²⁶²

Those of the Jewish faith have a similar view of humanity as stewards of creation, part of nature and yet separate from it.²⁶³ In the Jewish tradition, rabbis gave authoritative interpretations of Genesis and other texts, and they pointed out that the earth belongs to God who gave it over to humanity to use while remaining aware that it is given in a form of stewardship.²⁶⁴ Jews have organized in the United States to form a Coalition on the Environment and Jewish Life that is now thirteen years old.²⁶⁵ Articulating Jewish concepts, the group states:

Bal tashchit (do not waste) teaches us to conserve resources. Shiluach ha-keyn (chasing away the mother bird) teaches us to safeguard all species. Shmita (sabbatical year) teaches us that economic justice and ecological sustainability are intimately related.²⁶⁶

258. *Id.* at 3, 9-10.

259. See information on these conferences at <http://www.ec-patr.gr> (last visited Feb. 1, 2006).

260. Declaration by His All Holiness Ecumenical Patriarch Bartholomew on the Eve of World Oceans Day, <http://www.ec-patr.org/default.php?lang=en> (follow “contents” hyperlink; then follow “ecological activities” hyperlink; then follow “ecological symposia” hyperlink) (last visited Aug. 26, 2006).

261. *Id.*

262. *Id.*

263. Daniel Fink, *Judaism and Ecology: A Theology of Creation*, EARTH ETHICS, Fall 1998, at 1.

264. Lawrence Hoffman, *The Journey Home: Authentic Jewish Spirituality*, TIKKUN, JAN./FEB. 2003, 59, 62.

265. Coalition on the Environment and Jewish Life, <http://www.coejl.org> (last visited Feb. 1, 2006).

266. Coalition on the Environment and Jewish Life, What’s Jewish about Protecting the Environment? <http://www.coejl.org/jewviro.php> (last visited Feb. 1, 2006).

Jews join Christians in seeing that humanity owes a responsibility to the environment and to other life forms as stewards of God's earth.

There are a wide variety of views held within the Jewish communities, as well as the Christian communities, about the need to fulfill the literal mandate of scriptural passages. Protestants tend to interpret the action of Jesus Christ as freeing believers from strict legal adherence to a more gracious understanding of nature as a gift from God.²⁶⁷ While there may be many religious paths to developing a spiritual relationship between humanity and the environment, understanding and articulating these paths may increase our effectiveness in developing legal structures to address environmental challenges throughout the world.

III. HOW RELIGION INFORMS U.S. CLEAN WATER LEGISLATION

A. Introduction

In the story of Noah and the flood, God's commandment to Noah to save two of each animal from the great flood has provided a motivating narrative to convince the United States Congress to retain the essential conservation aspects of the Endangered Species Act.²⁶⁸ Similarly, the religious teachings about humanity's stewardship from Judeo-Christian, Islamic, and Buddhist theology can provide an ethic of individual responsibility for water pollution control and protection of water bodies and the shorelines.²⁶⁹ These religious values should be discussed openly along with other environmental ethics to help us identify core environmental values and connect these principles to our societal goals.²⁷⁰

267. For example, in 1520, Martin Luther wrote, "This is that Christian liberty, our faith, which does not induce us to idleness or wickedness but makes the law and works unnecessary for any man's righteousness and salvation." *The Freedom of a Christian, in* CHRISTIAN LIBERTY 6, 12-13 (The Muhlenberg Press, 1957).

268. Doremus, *supra* note 9, at 361 (noting how proposed amendments to ESA in the mid-1990s, which would have diminished its strength, were defeated by a coalition of religious organizations which appealed to "a social consensus in favor of preventing extinction"); Doremus, *supra* note 14, at 35-51.

269. See Doremus, *supra* note 9, at 360 (arguing for a constitutive approach to environmental law which "must operate over a long time, yet be flexible enough to adapt to unforeseen circumstances and new information" by focusing on key principles rather than narrow prescriptions).

270. See *id.* at 362-67 (proposing that a constitutive examination of our value conflicts will force us to more clearly articulate our goals and principles); see also Flatt, *supra* note 5, at 31 (proposing a new paradigm for environmental policy analysis which "will purposefully identify

The modern form of clean water laws in the United States began with individual common law nuisance actions to control pollution harmful to neighbors. Later, state pollution control regulations and federal legislative actions were enacted, including the introduction of the 1972 amendments to the Federal Water Pollution Control Act (the Act first appearing in 1948),²⁷¹ the Clean Water Act of 1977,²⁷² and finally the Water Quality Act of 1987.²⁷³ Early water laws focused primarily on controlling pollutant discharge from individual point sources into navigable waters of the United States through a system of permitting and monitoring. The Clean Water Act has been successful in reducing the pollutant discharge levels, but it is still unclear whether American water quality levels are sufficient to support a long-term healthy environment.²⁷⁴ Conflict continues over whether our laws should emphasize water quality levels, the nature of the receiving waters, or the amount of effluent discharges allowed based on the technology available for controlling them.²⁷⁵

In her article exploring “whether and how we can know if our laws relating to the environment accurately reflect values held by a majority of people,”²⁷⁶ Professor Flournoy uses section 404 of the Clean Water Act, which regulates impacts on wetlands, to illustrate her proposed approach to unraveling the ethical strands of environmental legislation.²⁷⁷ Flournoy concludes that most of the section 404 legislation appears to reflect a human-centered utilitarian ethic. She suggests there is a need to understand these values in order to recognize that there is a large gap between our current laws based on human self-interest and any regulatory changes embracing sustainability, which would require a major shift in values to honor non-human life.²⁷⁸ Identifying some of these underlying values as

all values at work in our environmental arena and related values and will put them in a forum where open discussion and analysis can take place”).

271. 33 U.S.C. §§ 1251-1274 (2000).

272. 33 U.S.C. §§ 1294-1297 (2000).

273. 33 U.S.C. § 1267 (2000). See generally RODGERS, ENVIRONMENTAL LAW 247-59 (1987).

274. Rodgers, *supra* note 273, at 264-70.

275. *Id.* at 259-64.

276. Flournoy, *supra* note 27, at 66.

277. *Id.* at 103-08.

278. *Id.* at 107-08. See also Flournoy, *supra* note 4, at 59 (“Section 404 reflects predominantly a human-centered and utilitarian ethic”). For a recent illustration of this utilitarian ethic, see the *Rapanos* decision. *Rapanos*, 126 S. Ct. 2208 at 2214 (detailing the average costs to the individual for Section 404 permitting and referring to the Army Corps of

supported by our theology may help us shift our values from a strictly utilitarian ethic to an ethic which will sustain our environment into the future.

In a subsequent article, Professor Flournoy has offered guidance for building an environmental ethic from the ground up, relying on a generalization that “most of our environmental laws, as implemented, reflect predominantly an ethical impulse that is both anthropocentric and utilitarian.”²⁷⁹ Certainly this generalization is an accurate one, but not all of our early environmental laws were human-centered. James Madison, the author of the Takings Clause,²⁸⁰ “negotiate[d] a compact between Virginia and Maryland that addressed fish preservation”²⁸¹ and expressed concern about “mankind’s potential for ‘extirpating every useless production of nature to convert the whole productive power of the earth into a supply of those particular plants & animals which serve his own purpose.’”²⁸² Nevertheless, utilitarianism dominates our environmental regulatory scheme and Professor Flournoy proposes that, to shift from a human-centered ethic of environmental law to recognize non-human values, we must develop concepts and theories that can act as “stepping stones” to this goal rather than trying to leap across the gap.²⁸³

This Section will examine some of the ethical underpinnings of our modern water laws²⁸⁴ and discuss whether theological support and narrative can help us achieve greater pollution protection. Once we have determined how to use religious values to change the hearts and behavior of large numbers of people, government intervention through regulation can help reinforce these values in order to resolve

Engineers as “an enlightened despot” when describing the Corps’ exercise of discretion in granting and denying these permits).

279. Flournoy, *supra* note 27, at 67.

280. U.S. CONST. amend. V.

281. John F. Hart, *Fish, Dams, and James Madison: Eighteenth-Century Species Protection and the Original Understanding of the Takings Clause*, 63 MD. L. REV. 287, 318 (2004).

282. *Id.* (quoting JAMES MADISON, PRELIMINARY DRAFT OF AN ESSAY ON NATURAL ORDER 101 (1791)). Thus, non-utilitarian environmental laws, such as habitat protection, affecting private property rights should not require government compensation. The Takings Clause was authored at a time when fish preservation laws were in effect and well-known to James Madison, and the State had the constitutional power “to insist that its natural advantages shall remain unimpaired by its citizens.” *Id.* at 319 (quoting *Hudson County Water Co. v. McCarter*, 209 U.S. 349, 356-57 (1908)).

283. Flournoy, *supra* note 4, at 70-71.

284. See Flournoy, *supra* note 27, at 103-08 (using Section 404 of the Clean Water Act to illustrate how scholars might analyze environmental statutes to understand their ethical roots).

water pollution problems.²⁸⁵ Parents, schools, and religious institutions can promote these shared environmental values in the same way society has emphasized values such as honesty, respect, patriotism, being drug-free, charity, and hard work.²⁸⁶ Articulating our theological values in relationship to the environment can provide a valuable stepping stone to overcoming the problems of scientific uncertainty, inadequate economic valuations, and incentives for individual responsibility to respond to diffuse pollution sources. This can also assist in gathering political support and voluntary compliance with clean water requirements.

B. Effluent Limitations and Best Available Technology

The Clean Water Act (CWA) took on its modern form with the 1972 amendments to the Federal Water Pollution Control Act²⁸⁷ and was based on command and control legislation requiring point sources to obtain permits limiting and monitoring effluent discharges using technology-based standards.²⁸⁸ Although the CWA utilized national technology-based limits on pollution, these standards were set against a backdrop of water quality expectations for individual water bodies receiving effluent discharges.²⁸⁹ Section 101 of the 1972 amendments established “the national goal that the discharge of pollutants into the navigable waters be eliminated by 1985 . . . [and] that wherever attainable, an interim goal of water quality which provides for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water be achieved by July 1, 1983.”²⁹⁰

While we did not reach our original national goals, these clean water laws have helped to reduce industrial pollution substantially, increase water quality, and prevent extensive wetland destruction.²⁹¹ Accomplishing these goals will require public pressure on legislators and enforcement agencies.²⁹² This pressure could be based on the

285. See Doremus, *supra* note 9, at 324-26.

286. See *id.* at 341.

287. 33 U.S.C. §§ 1294-1297 (2000).

288. William L. Andreen, *Water Quality Today – Has the Clean Water Act Been A Success?*, 55 ALA. L. REV. 537, 537 (2004).

289. See *id.*

290. Clean Water Act, 33 U.S.C. § 1251 (2000).

291. Andreen, *supra* note 288, at 542.

292. For the need to revive the environmental movement, see Felicity Barringer, *Paper Sets off a Debate on Environmentalism's Future*, N.Y. TIMES, Feb. 6, 2005, at A18.

religious tenets held in common by many United States citizens: humans are only stewards of nature and should use water with regard to possible pollution or conservation.

Command and control legislation, requiring point sources discharging effluents into navigable waters of the United States to obtain a permit, has reduced the level of industrial water pollution significantly.²⁹³ Additionally, the CWA employs technology-forcing techniques such as requiring point sources to use the best available technology for their particular industry.²⁹⁴ This technology-forcing encourages innovation in pollution-control equipment because companies are required to use this equipment rather than being allowed to use less efficient, lower-cost equipment to gain competitive advantage.²⁹⁵ However, as Professor Doremus explains, while technology-forcing has been quite successful, it is not a complete solution to our environmental problems since it requires the government to threaten shutting down industries which refuse to develop new technology and it “may encourage a kind of technological optimism . . . discourag[ing] us from taking a hard look at lifestyle changes that might prove more effective in the long run.”²⁹⁶

Technology-based standards encourage economically motivated behavior because individual polluters are not required to reduce effluent discharges to a greater degree than the discharge level achieved by current technology available for their particular industry. Technology-forcing may require an entire industry to develop more environmentally efficient pollution control equipment, but individual polluters will not be required to risk their competitive edge by controlling effluent discharges to a greater degree than that required of their competitors. “[L]egal regulation will remain ineffective if it continues to merely force changes in behavior,”²⁹⁷ but encouraging industrial polluters to change their behavior to control effluent discharges to a stricter level than their competitors by using an environmental ethic based on religious values is a daunting task

293. See Andreen, *supra* note 288, at 538 and n.11.

294. 33 U.S.C. § 1311(b)(2)(A)(i) (2000); see Doremus, *supra* note 9, at 344.

295. See Doremus, *supra* note 9, at 344.

296. *Id.* at 347 (defining this technological optimism as “the confidence that continual improvements in technology can keep our environmental impacts within acceptable boundaries”).

297. Taylor, *supra* note 36, at 274.

indeed.²⁹⁸ Professor Thompson asserts that where the economic costs of changing behaviors are high, studies indicate that “economics appears to trump most peoples’ environmental views.”²⁹⁹ Recognizing that ethical views can sometimes make a difference in’ behavior, Thompson nevertheless suggests that “economic analysis currently provides the strongest tool for diagnosing and thus helping to resolve environmental problems.”³⁰⁰

Command and control regulation of polluting discharges into United States navigable waters as well as technology-based standards, that either set baseline industrial pollutant control technology or force industrial sources to develop more efficient control technology, are based on the philosophy that people will act out of self-interest unless required to meet certain behavioral norms. Companies will continue to pollute so long as profits are maximized and outside restraints, such as government regulation, are not imposed. Consequently, the infamous “tragedy of the commons” will occur, and our public resources will be damaged unless we make the polluter internalize these externalities by paying for the harm.³⁰¹ Regulatory schemes that incorporate economic incentives allow companies to operate out of this self-interest and improve pollutant control technology while profiting in some way, rather than relying on government enforcement of command and control regulation. Whether the government forces polluters to control their self-interest through direct command and control legislation or designs economic schemes to take this self-interest into account, the basic value judgment remains – people act out of self-interest and, in certain instances, must have legal consequences placed upon their actions for the public good.

A religious foundation can be found for this basic value judgment in the Judeo-Christian view developed and expressed in the Old Testament. God desired that the Israelite people be obedient and through Moses handed down the Ten Commandments carved in stone.³⁰² The first command and control legislation in this religious tradition guided the people in how to relate to God and to each other,

298. *See id.* at 274-75 (suggesting that people’s attitudes and behaviors may be changed “when people are given the opportunity to make personal and collective contributions and commitments to these values” and integrate these value changes into their daily lives).

299. Barton Thompson, *What is Good Economics?*, 37 U.C. DAVIS L. REV. 175, 190 (2003).

300. *Id.* at 189-90.

301. Hardin, *supra* note 78.

302. *Exodus* 20:1-22.

just as the first CWA controls over effluent discharges guided us on how to relate to navigable waters.

The Judeo-Christian relationship with nature combines the religious values of stewardship and dominion over nature³⁰³ with the expectation that if we violate God's commandments we will be punished.³⁰⁴ As religious people, animated at our basest level by a fear of God, we will tend not to follow God's commands if we perceive that God, contrary to our understanding of God's promises, does not punish bad behavior, but rather rewards or ignores it. Similarly, the command and control approach used by the government against polluters operates from a level of fear of threatened fines, business closures, or even criminal liability, but if enforcement is weak or erratic, polluters will tend to violate these commands. Even the economic schemes will continue to work only as long as polluters are receiving benefits that outweigh the burden of compliance.

Market approaches, such as tradable permits and tax incentives, when used to encourage innovation at the industry level, are not necessarily inconsistent with religious and ethical values of environmental altruism and morality. Some market approaches have been successful in Hindu India, where government officials were finally persuaded that a coastal environment was economically worth preserving.³⁰⁵ The Judeo-Christian view of human nature recognizes that we are, by nature, selfish beings, and environmentalists should not be blind to this tension between "the Creation" view of nature as benevolent and the "Darwinian vision of unremitting struggle for survival."³⁰⁶

The classical division between material and spiritual in Greek religions was specifically rejected by such Christian writers as St. Augustine³⁰⁷ and John Calvin.³⁰⁸ Modern commentators, such as Wendell Berry, point out that the concept of valuing all life is incompatible with economic exploitation.³⁰⁹ Berry challenged

303. *Genesis* 1:28–30.

304. *Deuteronomy* 11:13–21.

305. Perez, *supra* note 173.

306. Nelson, *supra* note 12, at 78–79.

307. AUGUSTINE, *ON THE MORALS OF THE CATHOLIC CHURCH*, Chap. IV-V (Philip Schaff ed., Richard Stothert trans., Wm. Eerdmans Co., Grand Rapids Michigan, 1983) (1887).

308. CALVIN, *INSTITUTES OF THE CHRISTIAN RELIGION*, II.XV.2 (John T. McNeil, ed., The Westminster Press 1960).

309. WENDELL BERRY, *SEX, ECONOMY, FREEDOM & COMMUNITY* 98–99 (1993).

contemporary Christians to re-examine an exclusive focus on the spiritual side:

If we divide reality into two parts, spiritual and material, and hold (as the Bible does *not* hold) that only spiritual is good or desirable, then our relation to the material Creation becomes arbitrary, having only the quantitative or mercenary value that we have, in fact and for this reason, assigned to it.³¹⁰

There is a consistency in using a market approach that is grounded in spiritual values, even as it focuses on economic factors.

Economically-based strategies for environmental regulation may allow us to combine these elements of faith and business to take the real world steps necessary to succeed in reducing water pollution.³¹¹ By continuing a system of permitting to control effluent discharges from point sources based on a best available technology standard, the human impulse to maximize individual wealth at the expense of others can be restricted. At the same time, economic regulatory incentives and religious teachings can be employed to encourage individual behavior that is efficient, responsible, and reverential to the earth's resources and to their religious beliefs. For example, although the Native American view toward water was suppressed by a historic denial of religious exercise,³¹² the religious views treating water as sacred have since been expressed in litigation involving water quality standards as discussed in the next section.

Command and control regulations and economic incentives have been successfully employed to align the Judeo-Christian view of humans as self-interested with the stewardship responsibilities recognized in both the Judeo-Christian and Islamic religious views by controlling pollution through effluent limitations. The teachings of Jesus, which moved his followers to relate more personally to God and to love others, may be a fertile source of religious values to move us beyond an adherence to commands and into an ethic of love and respect for all life. Finally, Buddhist views of compassion for all life-

310. *Id.* at 109.

311. See Nelson, *supra* note 12, at 80 ("The world needs a strong environmentalism – but it should be an environmentalism that is clearer thinking, less dogmatic, and shows a greater commitment to scientific truth than to mythologies and dollars.").

312. See Allison M. Dussias, *Ghost Dance and Holy Ghost: The Echoes of Nineteenth-Century Christianization Policy in Twentieth-Century Native American Free Exercise Cases*, 49 STAN. L. REV. 773, 790 (1997) (noting that one of the many reasons dances were discouraged as a form of religious exercise was because the distributions of property that occurred during these frenzied dances "interfered with the government's efforts to encourage Indians to accumulate property, so the Native Americans' religious beliefs and practices had to be sacrificed to the government's vision of the supremacy of property rights.").

forms, Hindu ideas of reincarnation and karma which encourage a life that does not pollute the world, and indigenous people's views of nature's sacredness, may be valuable in moving us from an anthropocentric focus that depends upon command and control or economic incentive regulatory structures to a design that relies, in part, on a respect for non-human life.

C. *Water Quality Standards*

Religious values have influenced clean water law in the setting of water quality standards. These standards are established by first deciding the human uses desired for particular water bodies and then determining the maximum pollutant levels appropriate for such uses.³¹³ Native American religious views have been particularly influential in setting and maintaining water quality standards in the United States.

Indian tribes, which manage their own EPA-approved water quality standards programs, have established religiously-based guidelines to support their view of water as sacred and for ceremonial uses.³¹⁴ Water resources are sacred to the Sokaogon Chippewa Native American Community, which defends these resources based on spiritual underpinnings:

The purpose of this ordinance is to protect and maintain life on the Mole Lake Indian Reservation by enacting minimum standards for water on the Reservation. Water is a sacred thing to us, as it has always been to our most revered ancestors, through all time. It has been taught to us by our revered elders that water is sacred. It is our blood. It is the blood of our children and ancestors. It is the life-supporting blood of Mother Earth.³¹⁵

Certainly, water quality standards supported by such a strong cultural statement must be easier to justify in the face of economic pressures from industrial interests to lower these standards, and when action is taken to enforce these standards against violators.

Water quality standards are also influenced by the anticipated fish consumption of the general population, but fish consumption may be tied to religious celebrations in some communities. Professor

313. Freyfogle, *supra* note 48, at 838 (citing 33 U.S.C. §§ 1312-13 (1988)).

314. See William H. Rodgers, Jr., *Treatment as Tribe, Treatment as State: The Penobscot Indians and the Clean Water Act*, 55 ALA. L. REV. 815, 819 (2004) (explaining how twenty-three tribes manage EPA water quality standards).

315. *Id.* at 819 (quoting Sokaogon Chippewa Community Water Quality Standards § 151.01 (2005), available at http://www.epa.gov/waterscience/standards/wqslibrary/tribes/chippewa_5_wqs.pdf).

Tsosie, in discussing the potential conflict between native rights and the protection of endangered species, tells us that the Inupiat in Alaska “claim that: ‘The whale is more than food to us. It is the center of our life and culture. . . . The taking and sharing of the whale is our Eucharist and Passover. The whaling festival is our Easter and Christmas, the Arctic celebrations of the mysteries of life.’”³¹⁶ The EPA has incorporated a higher national default fish consumption rate to take into account “Native Americans and other subpopulations [that] consume far greater quantities of fish than the general population.”³¹⁷ The EPA’s new methodology for setting standards based on a concern for these higher fish consumption rates “is still inadequate to protect higher-consuming subpopulations, even though, as a report by the National Environmental Justice Advisory Council noted, ‘consumption at these rates may reflect the very practices that these affected groups would want to see perpetuated and protected for cultural, traditional, *religious*, economic, and other reasons.’”³¹⁸ Thus, the level of fish consumption by certain populations may reflect the religious values of these communities – those values, and a respect for the culture and practices of those who hold them, are directly impacting how water quality standards are set.

In *City of Albuquerque v. Browner*,³¹⁹ the Pueblo Indians successfully defended their authority to establish water quality standards, including a “Primary Contact Ceremonial Standard.”³²⁰ The district court determined that this use standard was similar to the “fishable/swimmable” standard under the Clean Water Act because it involves the “‘immersion and intentional or incidental ingestion of water’”³²¹ and the appellate court held that the tribal standards could be more stringent than the federal standards.³²² Because “[t]he EPA’s approval of the primary contact ceremonial use designation serve[d] a clear secular purpose: promotion of the goals of the Clean Water Act,”³²³ the court held that the Establishment Clause was not violated

316. Tsosie, *supra* note 43, at 313-14.

317. See Clifford Rechtschaffen, *Advancing Environmental Justice Norms*, 37 U.C. DAVIS L. REV. 95, 107-08 (2003).

318. *Id.* at 108 (emphasis added).

319. 97 F.3d 415, 427 (10th Cir. 1996).

320. Rodgers, *supra* note 316, at 820-21.

321. *City of Albuquerque*, 97 F.3d at 427.

322. See *id.* at 423.

323. See *id.* at 428.

by this approval of a religiously-based standard.³²⁴ The court also noted that the agency's approval "furthers the free exercise of religion, consistent with the policy expressed in the American Indian Religious Freedom Act."³²⁵

Religious views have been accepted as a legitimate basis for determining water quality standards in the United States and have been found not to violate the Establishment Clause so long as the greater goals of environmental regulation are being achieved. Although Native American spiritual values were suppressed in this country for many years, these religious values have played an important role in establishing water quality standards in some regions that are more protective based on an appreciation of these resources as sacred.

D. Nonpoint Sources

While the regulation of major point sources has led to significant improvement in water quality in the United States, one of the current challenges is controlling scattered sources of pollution from nonpoint sources.³²⁶ Unlike the permitting and technology standards, nonpoint source pollution issues are more closely tied to individual behaviors, which are more disposed to be influenced by religious and ethical values. We need to continue targeting point sources under the National Pollutant Discharge Elimination System ("NPDES") permitting provisions of the Clean Water Act,³²⁷ but we cannot keep blaming industry and corporate "bad guys" for our water pollution woes. Instead, as individuals, we must examine our own behavior in light of nonpoint source pollution caused by various forms of run-off, including urban, storm, and agricultural run-off. Religious and ethical values can encourage us to accept personal responsibility for water

324. See Rodgers, *supra* note 316, at 821 (citing *City of Albuquerque*, 97 F.3d at 428-29); see also Tsosie, *supra* note 43, at 236-37 (discussing how commentators have criticized *City of Albuquerque* because of economic inefficiency).

325. *City of Albuquerque*, 97 F.3d at 428 n.20 (citing 42 U.S.C. § 1996 (Supp. 1994) ("[I]t shall be the policy of the United States to protect and preserve for American Indians their inherent right of freedom to believe, express, and exercise the traditional religions of the American Indian, . . . including but not limited to . . . the freedom to worship through ceremonial and traditional rites.")).

326. Parenteau, *supra* note 4, at 256 ("a number of experts are calling for different models to deal with more diffuse sources of pollution, nonpoint sources, that are preventing environmental goals from being fully realized."); see also Freyfogle, *supra* note 48, at 819 ("environmental lawmaking is approaching a crisis of vision and imagination, stumbling on such knotty issues as nonpoint-source water pollution and declining wildlife habitat.").

327. 33 U.S.C. § 1342 (Section 402 of the Clean Water Act) (2001).

pollution and these commitments to the health of our environment can be achieved by influencing local government land use management decisions.

Agricultural run-off difficulties in the United States demonstrate how values influence the way we respond to nonpoint source water pollution. Nonpoint source pollution is “the cause of nearly half of the remaining water quality problems in the United States and is intimately related to land use.”³²⁸ Agricultural activities, including non-irrigated and irrigated crop production, as well as animal feeding operations, play a large role in nonpoint source pollution.³²⁹ Such agricultural pollution “is now considered the nation’s most persistent and most difficult water quality problem.”³³⁰

Environmental regulators have attempted to deal with agricultural run-off by offering farmers subsidies to induce behaviors that are more protective of water resources, but these incentives are not sufficient to improve water quality significantly.³³¹ It might be helpful to increase federal control over this major pollution problem by instituting “more direct federal regulation of agricultural nonpoint source pollution.”³³² In addition, theological principles of stewardship could be applied to encourage individual and corporate farmers in the heartland of the United States, known for its commitment to religious teachings, to reform their unsustainable practices.³³³ In much the same way as the Inupiat and Pueblo seek to use environmental regulation to foster their religious beliefs and practices, agricultural practices could be guided by an understanding of individual religious responsibilities.

328. John R. Nolon, *In Praise of Parochialism: The Advent of Local Environmental Law*, 26 HARV. ENVTL. L. REV. 365, 371 (2002).

329. Douglas R. Williams, *When Voluntary, Incentive-Based Controls Fail: Structuring a Regulatory Response to Agricultural Nonpoint Source Water Pollution*, 9 WASH. U.J.L. & POL’Y 21, 44-45 (2002) (“states reported that in 1998 agricultural pollution was considered primarily responsible for fifty-nine percent of impaired river miles, thirty-one percent of impaired lakes, and fifteen percent of impaired estuarine waters.”).

330. *Id.* at 22 (citing OFFICE OF TECHNOLOGY ASSESSMENT, TARGETING ENVIRONMENTAL PRIORITIES IN AGRICULTURE: REFORMING PROGRAM STRATEGIES 11 (1995)).

331. *Id.* at 23.

332. *Id.* at 25 (advocating a greater federal presence).

333. *See id.* at 29-30 (“We must recognize that, to a significant degree, the reigning idyllism of farms and farmers is based on a lost history. It is also time to recognize that existing programs have given farms and farmers ample opportunities to reform unsustainable practices, often through generous taxpayer subsidies. However, agriculture’s response has been less one of seeking effective solutions than of resisting efforts at change.”).

Religious values may also influence local government decisions regarding land management because of the values held by local officials and the citizens who appear at local hearings. Local officials and citizens are directly affected by environmental problems and their land use decisions directly affect environmental resources.³³⁴ The Clean Water Act provisions governing nonpoint source water pollution have delegated most of the control to states in the form of comprehensive planning provisions for waste treatment management under Section 208,³³⁵ nonpoint source management under Section 319,³³⁶ and the attainment and maintenance of water quality standards using a Total Maximum Daily Load (“TMDL”) strategy under Section 303.³³⁷ States, in turn, have delegated land use controls to local governments and have been reluctant to interfere with local authority over land use, allowing local governments to promulgate environmental regulations and enact ordinances to prevent nonpoint source pollution.³³⁸

Environmental command and control regulations will need to continue monitoring our basic polluting behaviors in the same way that the Ten Commandments provided a baseline of expected behavior and Genesis expressed a stewardship standard. The teachings of Jesus, which moved the Judaic religious view away from an authoritarian to a Christian view that promotes service, respect, and love for others, even our enemies,³³⁹ may also facilitate a more loving view toward the environment as we move from regulation designed to control self-interested behavior to an environmental ethic supported by love, humility, and service to others and the environment. We must change our attitude toward nature when rules can no longer work to achieve our goals of nonpoint source pollution control. It is only this change toward a religious view that

334. Nolon, *supra* note 330, at 411-13.

335. 33 U.S.C. § 1288 (2000) (requiring states to “identify each area within the State which, as a result of urban-industrial concentrations or other factors, has substantial water quality control problems”).

336. *Id.* § 1329 (providing that each state identify waters within the state which will not be capable of attaining or maintaining water quality standards without the control of nonpoint source pollution and prepare and implement a management program to control significant nonpoint source pollution).

337. *Id.* § 1313 (requiring states to identify water bodies not meeting water quality standards and establish TMDLs for the impaired waters); *see also* Williams, *supra* note 329, at 67-91 (describing nonpoint source programs under the Clean Water Act).

338. Nolon, *supra* note 330, at 371-77.

339. *See Matthew* 5:21-48 (New International Version).

meaningfully acknowledges our responsibility to preserve those things which sustain us which could cause individuals and communities to act against their immediate economic interests in favor of a longer, more sustainable view of natural resources.

The Native American, Buddhist, and Hindu religious views of the human relationship to nature establish a sacred and reverential appreciation for the environment. This reverence will support a non-utilitarian response to pollution control. The Judeo-Christian and Islamic views of nature, while based on an ideal of stewardship that does not think of God as nature, may have other avenues to establish a closer connection and reverence for nature. In the Christian view, for example, the teachings of Jesus can be used to justify a nonutilitarian approach to pollution control by extending the Old Testament view of people as stewards following God's laws to a view that humbly recognizes the value of all living things through the love and not the fear of God.³⁴⁰ Although nature is not treated as God in Christian teachings, the messages of love, service, and humility support a "web of interests" view of property that humans are interconnected to things.

Individual behaviors need to change to address nonpoint source water. The trend by local governments to protect environmental resources from the adverse effects of land development incorporates a grassroots environmental policy-making body into our federal and state regulatory scheme.³⁴¹ One commentator notes that "[t]he emergence of local environmental law indicates that environmental values are being accepted at the base of the democratic system and being balanced with economic realities."³⁴² If, in our environmental discourse, we promote religious values that recognize our water resources as a gift, as sacred, and as entitled to stewardship accountability, these values can inform local land use decisions that directly impact nonpoint source water pollution.

IV. CONCLUSION

In many ways the United States has exemplary laws that protect the environment. Those laws have resulted from concerns about

340. *Luke* 12:27-31 (New International Version).

341. Nolon, *supra* note 328, at 365 (noting that this approach creates "a more integrated system that incorporates the historical function of local governments in protecting the public from the perils of pollution and environmental degradation").

342. *Id.* at 416.

preserving various aspects of our environment, from water to air to endangered species. This article has explored the various underlying values and views held by a variety of groups concerning water. It is our proposal that religious values need to be included in formulating environmental ethics and resulting environmental policies.³⁴³ For religious people, there is a need to recognize their own heritage when it comes to preserving the water environment. For secular people, there is the need to recognize that religious values can reinforce compliance with environmental legislation. Legal penalties for misbehavior are not enough for such personal and corporate compliance.³⁴⁴ As Holly Doremus wrote, “[t]he key [to successful implementation of ethical values] is to choose interventions that address the barrier or barriers that limit environmentally friendly behavior in the particular context.”³⁴⁵ However, Buzz Thompson’s plea to incorporate economic incentives into environmental ethics is an appropriate regulatory approach to address the material side of human nature.

Environmental ethics are loosely defined as the values used in balancing exploitation and preservation of nature. Christopher Stone raised the question of exactly what is the ethical system that environmentalists are trying to achieve.³⁴⁶ He answered, “[t]he term *environmental ethics* suggests the possibility of a distinct moral regime for managing our way through environment affecting conduct.”³⁴⁷ Much of United States environmental policy has resulted from activities by ethically motivated people.³⁴⁸ Yet others see a lack of connection between environmental ethics and implementation of legal norms.³⁴⁹

343. Harold Coward, *Religious Responses to the Population Sustainability Problematic: Implications for Law*, 27 ENVTL. L. 1169, 1170 (1997) (observing that since the late 1990s scholars have recognized that religion has a role in shaping people’s attitudes about the environment).

344. Holly Doremus, *Shaping the Future: The Dialectic of Law and Environmental Values*, 37 U.C. DAVIS L. REV. 233, 255 (2003).

345. *Id.*

346. CHRISTOPHER STONE, SHOULD TREES HAVE STANDING? AND OTHER ESSAYS ON LAW MORALS AND THE ENVIRONMENT 146 (1996).

347. *Id.* at 147.

348. Lee Talbot, *Does Public Policy Reflect Environmental Ethics? If So, How Does it Happen?*, 37 U.C. DAVIS L. REV. 269, 270 (2003).

349. Keith Hirokawa, *Dealing with Uncommon Ground: The Place of Legal Constructivism in the Social Construction of Nature*, 21 VA. ENVTL. L.J. 387, 422 (2003).

The views towards water held by indigenous people, Buddhists, Jews, and Christians, are similar in many respects.³⁵⁰ Theirs is a religious ethic to preserve nature as it is found in this world, even while their adherents must, by necessity, utilize these resources. Muslims also seek preservation of water quality with a sense of stewardship for future generations.³⁵¹ The Hindu is called to concern about water as a life-giving force in the world.³⁵² Regardless of the religious background of the citizens of a country, there is a well-spring of popular spiritual support for greater preservation and care about water and its quality. In India, legislators and enforcement personnel need to improve the implementation of environmental laws.³⁵³ Religious thinkers would do well to consider the spiritual impetus behind some of the environmental movements. For instance, Carol Rose writes about nature and property as a gift. "With respect to the environment, the gift-vision has a certain spiritual quality. The spiritualism of the 'gift' underlies some of the strongest impulses of modern environmentalism" ³⁵⁴ With the moral power of religion behind an enforcement plan, it has a better chance of success. This success is vital to all of us who daily rely upon water for our survival.

Secular environmentalist needs to recognize that many environmental ethical theories have been influenced by religious values and that people with religious views are their allies and not opponents. One secular writer said:

In some manner, knowledge of nature must join ranks with an ethical attitude toward the land, with a sense of humility aimed, not just (or even) at improving the human soul, but at leaving room for the mistakes that will inevitably occur - a humility that gives us second chances and allows us to admit that nature's modes and methods may work far better than any we can develop, and for reasons and in ways that we may never understand.³⁵⁵

Although secular persons may not fully understand religious motivation, they can, by facilitating the entry of religious ideas and vernacular into the environmental fray, build a coalition to achieve

350. See *supra* discussion Section IIB.

351. *Quran* 14:33-35, reprinted in O.P. DWIVEDI, WORLD RELIGIONS AND THE ENVIRONMENT 427 (1989).

352. Kautilya Arthashastra & Nagarika Pranidhi, 2.145, reprinted in O.P. DWIVEDI, WORLD RELIGIONS AND THE ENVIRONMENT 359 (1989).

353. Perez, *supra* note 173, at 3-10.

354. Rose, *supra* note 71, at 12.

355. Freyfogle, *supra* note 55, at 112.

their desired end: environmental protection.³⁵⁶ The ethics needed here are broad enough to encompass a variety of viewpoints.³⁵⁷ Christopher Stone has suggested that there is room for a pluralistic approach where the environmental ethic may be held in common with different moral values in other non-environment areas.³⁵⁸ While there may be several ethical systems within a community, often the religious and secular environmental approaches come to the same value-decision: achieving the maximum quality of water possible while still providing for human need.³⁵⁹ When a community holds a common value of preserving water quality, violators are easier to catch and stop³⁶⁰ and voluntary compliance is much more likely.³⁶¹ In addition, those who refuse compliance are more likely to be ostracized by those whose values, whether from religious or secular sources, demand greater respect for the natural world.

The use of the Noah story is one example of what we are advocating. Religious views and values need to supplement secular views in order to develop a more robust environmental ethic for the 21st century.³⁶³ Protecting our environment, the very thing which sustains us physically, is too important to be limited to a non-spiritual or 'narrow spiritual viewpoint. In the end, religious stories, images, and values can provide powerful ways to capture the attention of legislators, enforcement personnel, and the public at large.³⁶⁵

356. Talbot, *supra* note 350, at 279-80.

357. *Cf.*, Nelson, *supra* note 12, at 57, 62.

358. STONE, *supra* note 348, at 149-52.

359. Doremus, *supra* note 346, at 237-38 (noting that compliance motivated by legal penalties and economic incentives achieve only short-term results).

360. *See generally* Pargal, *supra* note 179.

361. *See*, Doremus, *supra* note 346, at 238.

363. Nelson, *supra* note 12, at 77-78.

365. *Id.* at 63-64.