THE FUNDAMENTAL RIGHT TO BIOLOGICAL INTEGRITY

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I. INTRODUCTION

This Note uses the United States Supreme Court's test¹ for recognizing fundamental rights to argue that Americans have a fundamental right to biological integrity.

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^{1.} See, e.g., Washington v. Glucksberg, 521 U.S. 702 (1997); Lawrence v. Texas, 539 U.S. 558 (2003); Obergefell v. Hodges, 576 U.S. 644 (2015).

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While there is no explicit right to biological integrity in the United States Constitution, it is implicit in the Fourteenth Amendment's guarantees of "life, liberty, and property" and equal protection of the laws.² Furthermore, a long history of governmental action to avert ecological disaster demonstrates that this right is deeply rooted in American history and tradition.³ It is true that historically Americans have degraded and destroyed their environment.⁴ However, this destruction was based on a number of factors: first, the need to survive;⁵ second, a belief that American natural resources were inexhaustible;⁶ third, a belief that subjugating wild spaces improved their productivity and value and was a religious mandate;⁷ and fourth, economic considerations.⁸ During this time, people often lacked an understanding of how human activities impacted the environment.⁹ Early in American history, agriculture was king, and farmers were the ideal citizens. History repeatedly demonstrates

5. See infra note 44 and accompanying text.

6. Oliver A. Houck, *Why do we Protect Endangered Species, and What Does that Say About Whether Restrictions on Private Property to Protect Them Constitute "Takings"?*, 80 IOWA L. REV. 297, 308–10 (1995) ("Faced with an abundance of apparently unlimited wildlife resources . . . [the state and federal] authority [to regulate] lay dormant until the spectacle of vanished and collapsing species . . . compelled a reply.") (citing WILLIAM T. HORNADAY, OUR VANISHING WILD LIFE: ITS EXTERMINATION AND PRESERVATION (1913); PETER MATTHIESSEN, WILDLIFE IN AMERICA (Penguin Books 1977) (1959)).

7. See JEFF CRANE, THE ENVIRONMENT IN AMERICAN HISTORY: NATURE AND THE FORMATION OF THE UNITED STATES 103 (Routledge, Taylor & Francis Group 2015); Eugene C. Hargrove, *The Historical Foundations of American Environmental Attitudes*, 1(3) ENV'T ETHICS 209, 229 (1979).

8. See, e.g., infra note 50.

9. See, e.g., MARTIN DOYLE, THE SOURCE: HOW RIVERS MADE AMERICA AND AMERICA REMADE ITS RIVERS 195 (2018) (discussing how "[i]nitially, industrial wastes were seen as innocuous or even beneficial . . ." however, their introduction into American waterways during the middle of the twentieth century led to "unforeseen consequences."); Heather Cooley, *Municipal Water Use*, *in* A TWENTY-FIRST CENTURY U.S. WATER POLICY 167, 168 (Juliet Christian-Smith & Peter H. Gleick eds. 2012) (discussing a lack of understanding about disease vectors and water); *Wolf Restoration*, NAT'L PARK SERV., https://www.nps.gov/yell/learn/nature/wolf-restoration.htm [http://web.archive.org/web/20210321222329/https://www.nps.gov/yell/learn/nature/wolf-restoration.htm] (last

visited Nov. 11, 2019) (discussing how the removal of wolves from Yellowstone was based in a failure to understand "the concepts of ecosystem and the interconnectedness of species.").

^{2.} U.S. CONST. amend. XIV, § 1.

^{3.} For purposes of this Note, the term "American history" refers to Anglo-American history because the Supreme Court consistently fails to consider the history of America's indigenous peoples. For a general discussion of the relationship of various indigenous peoples, the environment, and the colonial genocide perpetrated upon them, *see generally* Joseph Kowalski, *Environmentalism Isn't New: Lessons from Indigenous Law*, 26 BUFF. ENV'T L.J. 15 (2019).

^{4.} See generally Kowalski, supra note 3.

that when environmental systems begin failing to support the humans relying on them, citizens demand action and the government responds. Early in the twentieth century, views on the environment began to change from a purely utilitarian approach to recognizing more abstract values.¹⁰ More recently, numerous states have enshrined some form of environmental right or language about the importance of the environment in their constitutions.¹¹ Finally, biological integrity is *absolutely necessary* for the realization of *every* right explicitly enshrined in the United States Constitution.¹² Taking all these factors into account through the Supreme Court's substantive due process test for fundamental rights, it is clear that the right to biological integrity clears the threshold to be considered fundamental.¹³

II. BACKGROUND

This section will define "rights" and the right to biological integrity before discussing the tests articulated by the Supreme Court for recognizing fundamental rights. Additionally, this section will provide an overview of the environment and Americans' attitudes towards the environment.

A. What are rights?

Rights can been defined as "legally established and enforceable obligation[s] or restraint[s] imposed on government and held by citizens, either individually or collectively."¹⁴ The United States Constitution is

^{10.} See generally infra Section II.D.2.

^{11.} See, e.g., Art English & John J. Carroll, State Constitutions and Environmental Bills of Rights, in THE BOOK OF THE STATES 2015 18 (2015); Jack R. Tuholske, U.S. State Constitutions and Environmental Protection: Diamonds in the Rough, 21 WIDENER L. REV. 239 (2015); Bret Adams et al., Environmental and Natural Resources Provisions in State Constitutions, 22 J. LAND RES. & ENV'T L. 73, 75 (2002) ("In total, our research has uncovered 207 state constitutional provisions relating to natural resources and the environment in 46 state constitutions.").

^{12.} It is impossible to exercise rights when the environment cannot support human life.

^{13.} The author of this Note freely admits that they are taking a result-oriented approach to the history and traditions underpinning the fundamental right to biological integrity, something that the judiciary also engages in. *See generally*, Adam B. Wolf, *Fundamentally Flawed: Tradition and Fundamental Rights*, 57 U. MIA. L. REV. 101, 137–53 (2002) (discussing how different justices have applied a result-oriented approach to assessing fundamental rights).

^{14.} Rhett B. Larson, *Adapting Human Rights*, 26 DUKE ENV'T L. & POL'Y F. 1, 8 (2015) (citing Frank B. Cross, *The Error of Positive Rights*, 48 UCLA L. REV. 857, 860 (2001)).

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generally described as providing negative, as opposed to positive, rights.¹⁵ Negative rights are understood as prohibiting the government from taking actions that limit an individual's autonomy, whereas positive rights are understood to put an obligation on the government to provide something to the individual.¹⁶ When a right is deemed fundamental, any infringement upon it by the government is subject to strict scrutiny¹⁷—in other words, the limitation of the right must further a compelling governmental interest using narrowly tailored means.¹⁸

B. Biological Integrity

For the purposes of this Note, biological integrity is the state where the environment is capable of continuing to sustain human life and activities.¹⁹ As articulated by this Note, the right to biological integrity is a negative right, prohibiting the government from taking actions that infringe on that right unless the action is narrowly tailored and serves a compelling governmental interest.²⁰ The right to biological integrity

16. Washburn, *supra* note 15, at 105–06.

^{15.} See Barry Friedman & Sara Solow, The Federal Right to an Adequate Education, 81 GEO. WASH. L. REV. 92, 94 (Jan. 2013); Rachel Alyce Washburn, Note, Freedom of Marriage: An Analysis of Positive and Negative Rights, 8 WASH. U. JURIS. REV. 87, 104 (2015) (citing Lawrence Friedman, Rights in Front of Our Eyes: Positive Rights and the American Constitutional Tradition, 44 RUTGERS L.J. 609, 610 (2014)); Sylvia Ewald, State Court Adjudication of Environmental Rights: Lessons Learned from the Adjudication of the Right to Education and the Right to Welfare, 36 COLUM. J. ENV'T L. 413, 417 n.19 (2011) (quoting Youngberg v. Romeo, 457 U.S. 307, 317 (1982) ("As a general matter, a State is under no constitutional duty to provide substantive services for those within its border"). But see Alexis M. Piazza, The Right to Education After Obergefell, 43 HARBINGER 62, 72–73 (Apr. 2019), available at https://socialchangenyu.com/wp-content/ uploads/2019/05/Alexis-Piazza_RLSC-TheHarbinger_43.pdf [https://web.archive.org/ web/20200216000335/https://socialchangenyu.com/wp-content/uploads/2019/05/Alexis-Piazza_RLSC-The-Harbinger_43.pdf] (discussing how Obergefell represents a break from prior jurisprudence "for its recognition of a positive right.").

^{17.} With the exception of the right to an abortion. *See* Wolf, *supra* note 13, at 106 n. 21 ("The only fundamental right not subject to strict scrutiny is the right to abortion.") (citing Planned Parenthood of Se. Pa. v. Casey, 505 U.S. 833, 874 (1992)).

^{18.} The application of this test is not always consistent. *See generally*, Richard H. Fallon, Jr., *Strict Judicial Scrutiny*, 54 UCLA L. REV. 1267 (2007) (discussing three types of strict scrutiny tests: categorical, weighted balancing, and an illicit motives test).

^{19.} *Cf.* Juliana v. United States, 217 F. Supp. 3d 1224, 1250 (D. Or. 2016), *rev'd* 947 F.3d 1159 (9th Cir. 2020) ("I have no doubt that the right to a climate system capable of sustaining human life is fundamental to a free and ordered society."). The basic premise of the right to biological integrity is that it focuses on what humans need to thrive, an ecosystem capable of sustaining their lives and livelihoods. The description of the right in this Note is based upon a mixture of the cited materials and common sense.

^{20.} See infra Section II.C (discussing fundamental rights under the Fourteenth Amendment).

accounts for the linkages between different parts of the ecosystem and recognizes the services that each element provides.²¹ Therefore, while biological integrity focuses on the individual, it necessarily provides tangential protection to other living organisms. The most concise formulation of this right is that the government may not degrade the environment to the point where the ecosystem services provided by that environment—and necessary for human life and livelihood in that area—are at risk of failing.

Over the years, arguments have been made for environmental rights, many of which are broader than the right to biological integrity articulated here.²² To provide a basic understanding of the scope of the right to biological integrity as used in this Note, consider the following example: the right to biological integrity does not protect Yellowstone, Yosemite, or the Grand Canyon except to the extent that elements of those National Parks provide ecosystem services²³ that are necessary to sustain human life. This is not to say that recognizing a right to biological integrity makes

^{21.} *Cf.* National Environmental Policy Act of 1969, 42 U.S.C. § 4331(a) ("The Congress, recognizing the profound impact of man's activity on the interrelations of all components of the natural environment... declares that it is the continuing policy of the Federal Government... to create and maintain conditions under which man and nature can exist in productive harmony....").

^{22.} One articulation of an environmental right that comes close to the right to biological integrity is Bruce Ledewitz's right to a healthy environment. Bruce Ledewitz, Establishing a Federal Constitutional Right to a Healthy Environment in Us and in Our Posterity, 68 MISS. L.J. 565 (1998). However, Ledewitz frames the right as one that "is to a planet that has not been unalterably changed by man" Id. at 583. While the author agrees with this aspiration, it seems highly unlikely that the Supreme Court will adopt such an expansive right in the foreseeable future. The right to biological integrity does not trigger strict scrutiny for human driven changes in the environment unless those changes undermine the environment's ability to sustain human life. Another form of environmental rights is conferring those rights onto nature itself. See Sierra Club v. Morton, 405 U.S. 727, 741-42 (1972) (Douglas, J., dissenting) ("Contemporary public concern for protecting nature's ecological equilibrium should lead to the conferral of standing upon environmental objects to sue for their own preservation." (citing Christopher D. Stone, Should Trees Have Standing?—Toward Legal Rights for Natural Objects, 45 S. CAL. L. REV. 450 (1972)). This argument goes far beyond the narrow utilitarian right to biological integrity articulated in this Note.

^{23.} Ecosystem services are defined as "the benefits people derive from ecosystems ... provisioning of goods like food, wood and other raw materials . . . pollination of crops, prevention of soil erosion and water purification, and a vast array of cultural services" Simone Maynard & Nicholas Conner, *Services*, IUCN: COMM'N ON ECOSYSTEM MGMT., https://www.iucn.org/commissions/commission-ecosystem-management/our-work/cems-thematic-groups/ecosystem-services [https://web.archive.org/web/20200407024501/https://www.iucn.org/commissions/commission-ecosystem-management/our-work/cems-thematic-groups/ecosystem-services] (last visited Apr. 3, 2020) (internal quotation and citation omitted).

these areas fair game for exploitation; rather, any protection afforded to these areas is political, not constitutional.

C. Background of Fundamental Rights and the Fourteenth Amendment Substantive Due Process Test

It is well established that individuals have rights beyond those explicitly enumerated in the United States Constitution.²⁴ The Supreme Court has recognized several unenumerated rights as fundamental through the Fourteenth Amendment Due Process Clause including the rights of procreation, marriage, use of contraception, control of the upbringing of one's children, marital privacy, and bodily integrity.²⁵ However, wary of encroaching on the prerogatives of the political branches, the Supreme Court recognizes unenumerated rights sparingly.²⁶ Furthermore, the Supreme Court has struggled to articulate a substantive due process test that is anything but vague.²⁷

However, *Obergefell v. Hodges* broadened the fundamental rights inquiry. Kennedy, writing for the majority in *Lawrence v. Texas*, stated that "history and tradition are the starting point but not in all cases the

^{24.} MILTON R. KONVITZ, FUNDAMENTAL RIGHTS: HISTORY OF A CONSTITUTIONAL DOCTRINE, 64–65 (Transaction 2001); Friedman & Solow, *supra* note 15, at 107–08.

^{25.} Washington v. Glucksberg, 521 U.S. 702, 720 (1997) (collecting cases demonstrating fundamental rights).

^{26.} See John C. Toro, *The Charade of Tradition-Based Substantive Due Process*, 4 N.Y.U. J.L. & LIBERTY 172, 177, 200 (2009) (citation omitted).

^{27.} Obergefell v. Hodges, 576 U.S. 644, 663 (2015) ("The identification and protection of fundamental rights . . . 'has not been reduced to any formula.'" (quoting Poe v. Ullman, 367 U.S. 497, 542 (1961) (Harlan, J., dissenting))).

^{28.} *Glucksberg*, 521 U.S. at 721 (internal citations and quotations omitted). This test is not as objective as one might assume because judges still choose what history and traditions to give credence to. Toro, *supra* note 26, at 185–86 (citing Michael H. v. Gerald D., 491 U.S. 110, 137 (1989) (Brennan, J., dissenting)). *See also* Wolf, *supra* note 13, at 126–27 ("Whether done consciously or not, judges frequently rely on historical analyses that are either likely incorrect or, at a minimum, subject to multiple inconsistent interpretations.").

^{29.} See generally, Glucksberg, 521 U.S. at 710–19 (considering, almost exclusively, the historical practice of states prohibiting suicide).

ending point of the substantive due process inquiry."³⁰ In the expanded substantive due process analysis, the Supreme Court considers whether justice and fairness require the recognition of a fundamental right.³¹ For the *Obergefell* Court, relevant factors in its substantive due process analysis included the link between marriage and personal autonomy, individual dignity, other protected rights, and its fundamental role as "a keystone of [our] social order."³² This is at odds with earlier applications of the substantive due process analysis.³³ While the Court's ruling was grounded in substantive due process, it noted that the right of same-gender couples to marry was "derived, too, from [the Fourteenth Amendment's] guarantee of the equal protection of the laws."³⁴ One interesting development in the expanded substantive due process analysis is the use of international materials to justify recognizing a fundamental right.³⁵

This Note will consider the elements of both the traditional and expanded substantive due process tests because it is unclear how much staying power *Obergefell* has after Justice Kennedy's retirement.³⁶

D. Historical Background for the Right to Biological Integrity

American history certainly contains a significant amount of environmental destruction and degradation—sometimes to the point where areas are no longer suitable for the same uses they once were.³⁷

34. *Obergefell*, 576 U.S. at 672.

35. *Lawrence*, 539 U.S. at 573 (discussing a case from the European Court of Human Rights finding an Irish prohibition on homosexual conduct violative of the European Convention on Human Rights).

36. See Mark Joseph Stern, Marriage Equality May Soon be in Peril, SLATE (July 5, 2017), https://slate.com/news-and-politics/2017/07/how-the-supreme-court-could-overturn-obergefell-v-hodges.html [https://web.archive.org/web/20200407004305/ https://slate.com/news-and-politics/2017/07/how-the-supreme-court-could-overturn-obergefell-v-hodges.html] (discussing threats to Obergefell's longevity if Justice Kennedy were to retire, which he did).

37. See generally infra Sections II.D.1–4.

^{30.} Lawrence v. Texas, 539 U.S. 558, 572 (2003) (quoting County of Sacramento v. Lewis, 523 U.S. 833, 857 (1998) (Kennedy, J., concurring)); *accord* Obergefell v. Hodges, 576 U.S. 644, 664 (2015).

^{31.} See Obergefell, 576 U.S. at 672; Toro, supra note 26, at 189.

^{32.} Obergefell, 576 U.S. at 646.

^{33.} *Cf.* San Antonio Indep. Sch. Dist. v. Rodriguez, 411 U.S. 1, 30 (1973) ("[T]he importance of a service performed by the State does not determine whether it must be regarded as fundamental for purposes of examination under the Equal Protection Clause."). This appears to be due to tension in the Supreme Court's substantive due process test over the weight to give history and traditions versus other factors such as "implicit in the concept of ordered liberty." *See* Toro, *supra* note 26, at 201–02; Wolf, *supra* note 13, at 113; *see also* Alexis M. Piazza, *supra* note 15 ("Though *Obergefell* did not expressly overrule *Glucksberg*, there is very little doubt that it rests on fragile grounds.").

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However, this history also contains numerous examples of demands by the citizenry and responses from the government to address the collapse of ecosystems.³⁸ The following sections discuss the legal and social attitudes towards the environment, society's relationship with the environment, and the society's beliefs about the environment during a number of periods in American history.³⁹

1. The Founding Era

Early American history is awash with examples of massive environmental degradation. In the area that became present day New York, the beaver was exterminated by the 1640s.⁴⁰ In New England, "the war against the land resulted in cutting down the big trees, killing much of the furbearing animal population, and exhausting the light cover of topsoil."⁴¹ However, this early destruction by no means indicates that Americans did not see biological integrity as indispensable to ordered liberty; many thought that environmental resources were infinite⁴² and that God provided the Nation with a vast expanse of wilderness for domestication.⁴³ Americans exploited the Nation's natural resources for survival⁴⁴ and

40. Wilbur R. Jacobs, *The Great Despoliation: Environmental Themes in American Frontier History*, 47(1) PAC. HIST. REV. 1, 9 (1978) (citation omitted).

42. CRANE, *supra* note 7, at 53, 111 ("[T]he wealth of the land and its abundance fostered a recklessness that in many cases meant the abandonment of or at least relaxed practice of careful land husbandry practices necessary in Europe.").

43. See *id.* at 42–43 (discussing the removal of predators in New England as in part an exercise of dominion over nature); *id.* at 103 ("Driven by a belief in the rightness of expansion as part of God's mission for America, and a commitment to the idea that wilderness was merely an unfinished landscape, they put axe and fire to good use in converting the forests and thickets to productive farmland as quickly as possible."); RODERICK FREDRICK NASH, WILDERNESS AND THE AMERICAN MIND 31 (5th ed. 2014) (discussing the religious justifications for subjugating wild areas).

44. Dan Egan describes how during the early nineteenth century the swamps near Lake Erie were death traps for settlers, quoting a "grim ditty: 'There is a funeral every day, without hearse or pall; they tuck them in the ground with breeches, coat and all." EGAN, THE DEATH AND LIFE OF THE GREAT LAKES 213 (2017). The "Great Black Swamp" was quickly decimated over the course of the next century. *Id.* at 212–16. *See also id.* at 104 (noting that the slaughter of animals was driven at least in part because "[t]he protein of these animals was a necessary addition to the limited diets of the early settlers."); CRANE, *supra* note 7, at 41 (discussing how the need for land to support subsistence agriculture

^{38.} Id.

^{39.} The delineation of these periods is at best, artificial. American attitudes and knowledge do not immediately shift on one date or another. However, for the purposes of this Note, the author has created these general categories in an attempt to aid in understanding the development of American attitudes and knowledge with respect to the environment and the right to biological integrity.

^{41.} Id. (citation omitted).

economic⁴⁵ purposes. Environmental degradation was often seen as improving the land. ⁴⁶ Farming was not only integral to the national economy,⁴⁷ it "formed the very foundation of American democracy."⁴⁸ In some circumstances, environmental degradation resulted because Americans simply did not understand how their actions created long-term impacts on the environment on which they relied.⁴⁹

Despite the seemingly inexhaustible supply of natural resources, and cultural and economic drives to exploit those resources, colonial governments took steps to restrain the full-scale destruction of American ecosystems: "[i]ndeed, laws regarding forests and timber were among the earliest colonial statutes."⁵⁰ There are examples of actions being taken to curtail failures of environmental systems where the causes and harms were apparent.⁵¹ Writing about New England, Wilbur Jacobs provides the following account:

46. *Cf.* CRANE, *supra* note 7, at 57 (quoting a document from 1622 that discusses how the Native Americans lack the ability to "use either the land or the commodities of it; but all spoils, rots, and is marred for want of manuring, gathering, ordering, etc.").

47. Kathleen A. Bosnan & Jacob Blackwell, *Agriculture, Food, and the Environment, in* OXFORD RESEARCH ENCYCLOPEDIA OF AMERICAN HISTORY (Apr. 5, 2016), https://oxfordre.com/americanhistory/abstract/10.1093/acrefore/9780199329175.001.000 1/acrefore-9780199329175-e-179 [http://web.archive.org/web/20210330024951/https:// oxfordre.com/americanhistory/abstract/10.1093/acrefore/9780199329175.001.0001/acref ore-9780199329175-e-179].

48. MERCHANT, *supra* note 45, at 63; *see also* A. WHITNEY GRISWOLD, FARMING AND DEMOCRACY 29–30 (Harcourt, Brace and Co. 1948) (noting that Thomas Jefferson saw agriculture "not primarily as a source of wealth but of human virtues and traits most congenial to popular self-government.").

49. Cf. FRANKLIN B. HOUGH, ON THE DUTY OF GOVERNMENTS IN THE PRESERVATION OF FORESTS 4-5 (1873) (discussing the need to educate individuals about the long-term impacts of deforestation to mitigate its effects).

50. Yasuhide Kawashima & Ruth Tone, *Environmental Policy in Early America: A Survey of Colonial Statutes*, 27(4) J. FOREST HIST. 168, 169 (1983) (citation omitted).

51. See, e.g., *id.* at 171 (discussing the creation of forest reserves in Massachusetts, Maryland, and New York out of "the colonists' concern for sustaining the productivity of accessible forests while utilizing timber on a scale intended to satisfy local and individual needs."); CRANE, *supra* note 7, at 40 (noting mid-seventeenth century New England laws regulating pigs to limit the environmental destruction they caused); *id.* at 52 (noting a 1739 Massachusetts law prohibiting grazing of cattle in overgrazed areas because it was leading

drove Westward expansion); TED STEINBERG, DOWN TO EARTH 50 (3d ed. 2013) (noting that migrations out of New England in the early nineteenth century resulted from a growing population and diminishing agricultural production).

^{45.} For example, demand for steamboat fuel drove early nineteenth century riparian deforestation. CAROLYN MERCHANT, AMERICAN ENVIRONMENTAL HISTORY 68–69, 255 (2007). Railroads also produced substantial pollution and drove demand for natural resources during the same period. *Id.* at 69. Overall, "The market revolution threatened the American environment more than any other development in modern history." *Id.* at 71.

"[E]ach of the New England colonies, almost from the very beginning, did have an environmental awareness which is evident in statutes providing for protection of natural resources in the immediate neighborhood of settlements. Statutes, for instance, restricted the unlimited range of livestock, especially hogs Streams were protected from overfishing, forests from overcutting³⁵²

Throughout the colonial era the ecosystems of America experienced profound degradation. However, as the preceding examples demonstrate, that is not a complete history. Where degradation was recognized, steps were often taken to mitigate the damage and, as the Nation dragged itself out of the Civil War, awareness of the human impact on the ecosystems people relied on only increased.⁵³

2. Civil War–WWII

After the Civil War, the illusion that the environment had an infinite capacity to absorb human activities began to unravel.⁵⁴ This era saw the establishment of numerous National Parks including Yellowstone in 1872, Yosemite in 1890, Mt. Rainier in 1899, Glacier in 1910, and the Grand Canyon in 1919.⁵⁵ While Congress saw Yellowstone as largely being unsuitable for "agricultural or mining purposes," it nevertheless declared that designating Yellowstone as a National Park "will be regarded by the

to the encroachment of dunes into meadows); HOUGH, *supra* note 49, at 7 (noting that Congress and "[a] few of the states" took steps to limit deforestation).

^{52.} Jacobs, supra note 40, at 10 (multiple citations omitted).

^{53.} See infra Section II.D.2.

^{54.} See Sustainability and the U.S. EPA, NAT'L RSCH. COUNCIL 17 (2011), https://archive.epa.gov/region9/science/web/pdf/green-book.pdf [http://web.archive.org/web/20170719185737/https://archive.epa.gov/region9/science/web/pdf/green-book.pdf] (quoting President Theodore Roosevelt, "[w]e must maintain for our civilization the adequate material basis without which that civilization can not exist. We must show foresight, we must look ahead."); DOYLE, *supra* note 9, at 172–76; Theodore W. Cart, *The Lacey Act: America's First Nationwide Wildlife Statute*, 17(3) FOREST HIST. NEWSL. 4 (1973) (discussing how different interest groups came together in the late nineteenth century to limit the exploitation of wildlife because, "all shared the maturing conviction that improvident attitudes and practices, born of *former* abundance, posed a severe threat to the nation's shrinking wildlife stocks.") (emphasis added); HOUGH, *supra* note 49, at 2 (noting that the increase of floods and droughts was attributable to deforestation).

^{55.} MERCHANT, *supra* note 45, at 151. Furthermore, many National Monuments were designated under the Antiquities Act during this period. *See Monuments List*, NAT'L PARK SERV. (Feb. 14, 2020, 1:04 PM) https://www.nps.gov/archeology/sites/antiquities/ monumentslist.htm [https://web.archive.org/web/20200214180323/https://www.nps.gov/ archeology/sites/antiquities/monumentslist.htm].

entire civilized world as a step of progress and an honor to Congress and the nation."⁵⁶ The State of New York also adopted constitutional amendments protecting the Adirondack and Catskill mountains during this period.⁵⁷

The Chicago Shipping and Sanitary Canal (CSSC) is an example of governmental action undermining the ability of the environment to sustain human life elsewhere⁵⁸ out of necessity and ignorance. Opened in 1900 and still operating to this day,⁵⁹ the CSSC linked the historically separated Great Lakes and Mississippi River Basins to allow Chicago's sewage to flow down the Mississippi River, rather than pool in Lake Michigan where the City drew its water.⁶⁰ When Missouri sought to have the Supreme Court prevent the operation of the CSSC, its claims were rejected. ⁶¹ The Court held that a doubling of typhoid cases in St. Louis could not be linked to the CSSC because "[t]he plaintiff's case depends upon an inference of the unseen⁶² Eventually, the understanding of the necessity of public water and waste systems to reduce disease outbreaks became more widely accepted, leading to widescale adoption of these systems.⁶³

The Dust Bowl of the 1930s provides an example where ignorancebased overexploitation of natural resources led to an environment incapable of sustaining a functioning society.⁶⁴ The mass flight of people living in affected regions led to an immediate reaction by the government

^{56.} H.R. REP. No. 42–26 (1872), at 2. Congress was motivated, at least in part, by concerns that private parties would "despoil, beyond recovery, these remarkable curiosities which have required all the cunning skill of nature thousands of years to prepare." *Id.*

^{57.} Nicholas Robinson, *Updating New York's Constitutional Environmental Rights*, 38(1) PACE L. REV. 151 (2017).

^{58.} This project improved health outcomes in Chicago, but as will be discussed, proved disastrous for cities downstream and serves as an excellent example of the need for a federal role in the right to biological integrity because the harms wrought by environmental degradation know no borders.

^{59.} In the past decade, the US Army Corps of Engineers considered closing the CSSC and severing the link between the Mississippi River and Great Lakes Basins to prevent the establishment of invasive Asian carp in the Great Lakes. *The Great Lakes and Mississippi River Interbasin Study-Brandon Road Integrated Feasibility Study and Environmental Impact Statement*, at ES-XII-XV, U. S. ARMY CORPS OF ENG'RS, https://usace.contentdm. oclc.org/utils/getfile/collection/p16021coll7/id/11394 [https://web.archive.org/web/

^{20200405184731/}https://usace.contentdm.oclc.org/utils/getfile/collection/p16021coll7/id/ 11394].

^{60.} EGAN, *supra* note 44, at 161–63.

^{61.} *Id.* at 164. Today, the CSSC creates another problem that was unforeseen in 1900: providing a pathway for invasive species to move between the water basins. *Id.* at 164–65.

^{62.} Id. at 164 (quoting Missouri v. Illinois, 200 U.S. 496, 522 (1906)).

^{63.} See DOYLE, supra note 9, at 171 (discussing how waterborne diseases made wastewater treatment systems unavoidable).

^{64.} See NAT'L RSCH. COUNCIL, supra note 54, at 15.

to remedy the underlying causes of the Dust Bowl.⁶⁵ Additionally, the extinction of the passenger pigeon is another example of environmental destruction through ignorance⁶⁶ and market forces.⁶⁷ The federal and state governments did too little too late to prevent the extinction of the passenger pigeon—but they tried.⁶⁸ Fortunately for the bison, measures to prevent their wholesale slaughter were sufficient to bring them back from the brink of extinction.⁶⁹

3. WWII–1980s

Early national environmental legislation left the matters with the states.⁷⁰ However, mounting ecological failures soon demonstrated that state-level action was insufficient to protect the national environment.⁷¹ In the late 1960s through the 1980s, a wave of environmental legislation,⁷² including the National Environmental Policy Act,⁷³ Clean Air Act,⁷⁴ Clean

67. Marshall A. Bowen, Comment, Avian Jurisprudence and the Protection of Migratory Birds in North America, 49 ST. MARY'S L.J. 837, 839 (2018) (noting that consumer demand drove the slaughter of the passenger pigeons).

68. Brewster, *supra* note 66, at 291 (noting that Michigan and Wisconsin laws were worse than useless); Cart, *supra* note 54, at 4; Houck, *supra* note 6, at 309–10; *see also*, Geer v. Connecticut, 161 U.S. 519, 534 (1896) (holding that Connecticut could use its police powers to restrict the export of legally hunted game "to preserve for its people a valuable food supply.") *overruled by* Hughes v. Oklahoma, 441 U.S. 322 (1979).

69. See Time Line of the American Bison, FWS, https://www.fws.gov/bisonrange/time line.htm [https://web.archive.org/web/20200224012236/https://www.fws.gov/bisonrange/timeline.htm] (providing a timeline of the decline and recovery of the American Bison) (last visited Feb. 20, 2020).

70. MERCHANT, *supra* note 45, at 214 (noting that the 1955 Air Pollution Control Act left authority to control air pollution with the states); *id.* at 261 (noting that the 1948 Water Pollution Control Act similarly left protection of water quality to the states).

71. Robert L. Glicksman, *The Firm Constitutional Foundation and Shaky Political Future of Environmental Cooperative Federalism, in* CONTROVERSIES IN AMERICAN FEDERALISM AND PUBLIC POLICY 132, 146 (Christopher P. Banks ed., 2018).

72. NAT'L RSCH. COUNCIL, supra note 54, at 17–18.

73. 42 U.S.C. §§ 4321–4370m–12. NEPA's purpose includes "promot[ing] efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man" *Id.* at § 4321.

^{65.} See id. (discussing how improved soil conservation practices have prevented a second Dust Bowl from occurring); MERCHANT, *supra* note 45, at 106–07, 255 (discussing the 1930's Dust Bowl caused by poor agricultural practices leading to the creation of environmental refugees and the passage of the 1935 Soil Conservation Act).

^{66.} William Brewster, *The Present Status of the Wild Pigeon (Ectopistes Migratorius)* as a Bird of the United States, with Some Notes on Its Habits, 6(4) AUK 285, 291 (1889) (noting that opposition to stricter regulations on hunting the passenger pigeon was based on a belief "that the birds are so infinitely numerous that their ranks are not seriously thinned by catching a few million of breeding birds in a summer").

^{74. 42} U.S.C. §§ 7401–7671q.

Water Act (CWA),⁷⁵ Resource Conservation and Recovery Act,⁷⁶ Endangered Species Act,⁷⁷ and Comprehensive Environmental Response, Compensation, and Liability Act⁷⁸ federalized many environmental issues. This group of legislation constitutes "super legislation," something that the Supreme Court looks towards when considering whether a right is fundamental.⁷⁹

In 1972, public outrage—in no small part fueled by burning rivers such as Ohio's Cuyahoga-led Congress to override President Nixon's veto and amend the Federal Pollution Control Act.⁸⁰ In his 1971 book The Lorax, Dr. Seuss compared his imagined world, epitomizing environmental decay, to Lake Erie.⁸¹ To restore Lake Erie, or as Dr. Seuss dubbed it, "North America's Dead Sea,"⁸² the United States and Canada signed the 1972 Great Lakes Water Quality Agreement (GLWQA)⁸³ which, along with the CWA,⁸⁴ reduced the amount of phosphorus introduced into Lake Erie and temporarily solved the problem of eutrophication and toxic algal blooms.85 And when a proposed environmental amendment to the federal constitution failed to be ratified, states enacted their own environmental constitutional many amendments.86

84. *See* DOYLE, *supra* note 9, at 197–202 (discussing dead zones in Lake Erie and pollutants in the Cuyahoga River and the federal government's response).

85. *Id.* at 222–23. While Doyle does not name the agreement, it is clear that he is referencing the GLWQA. *See About the Great Lakes Water Quality Agreement*, https://binational.net/glwqa-aqegl/ [http://web.archive.org/web/20210330025809/https:// binational.net/glwqa-aqegl/] (last visited Nov11, 2019) ("The original 1972 GLWQA focused primarily on reducing algae Phosphorus levels in the Great Lakes declined significantly during the 1970s and 1980s.").

86. Ewald, *supra* note 15, at 414.

^{75. 33} U.S.C. §§ 1251–1388.

^{76. 42} U.S.C. §§ 6901–6992k.

^{77. 16} U.S.C. §§ 1531–1544.

^{78. 42} U.S.C. §§ 9601–9675 (2019).

^{79.} See Friedman & Solow, supra note 15, at 133 n. 242.

^{80.} Solid Waste Agency of N. Cook Cty. v. U.S. Army Corps of Eng'rs, 531 U.S. 159, 174–75 (2001) (Stevens, J., dissenting); EGAN, *supra* note 44, at 116–17.

^{81.} Id. at 217.

^{82.} Id. at 219.

^{83.} Agreement on Great Lakes Water Quality, U.S.-Can., Apr. 15, 1972, 23 U.S.T. 301. The preamble to the GLWQA provides that the parties are, "Seriously concerned about the grave deterioration of water quality . . . to an extent that it is causing injury to health and property" *Id.*

4. 1990s–Present

Since 1990, the percentage of Americans who believe that environmental protection should be given priority over economic growth has not dipped below 38%, and is currently at 65%.⁸⁷ As of 2011, almost half of the states had a constitutional provision granting individuals a right to the environment "or policy statements protecting natural resources and/or the environment."⁸⁸ States have also enacted legislative measures protecting the environment in response to concerns about the services it provides.⁸⁹ Individuals and interest groups have turned to the courts as a solution to declining environmental capacity and consistently failed.⁹⁰ Litigation under existing environmental statutes is often similarly ineffective.⁹¹ However, the federal government *has* responded to certain

88. Jack R. Tuholske, U.S. State Constitutions and Environmental Protection: Diamonds in the Rough, 21 WIDNER L. REV. 239 (2015).

89. For example, California enacted a groundwater sustainability plan in response to a 2014 drought. Mellisa K. Scanlan, *Droughts, Floods, and Scarcity on a Climate-Disrupted Planet: Understanding the Legal Challenges and Opportunities for Groundwater Sustainability*, 37 VA. ENV'T L.J. 52, 80 (2019). California law now requires many water basins to develop sustainability plans which include "Measurable objectives . . . to achieve the sustainability goal in the basin within 20 years of the implementation "CAL. WATER CODE § 10727.2(b)(1). *See also*, Susan Greene, *Parched: Climate Change and Growth Pushing CO Toward a Water Crisis*, COLO. INDEP. (Oct. 24, 2018), https://www.colorado independent.com/2018/10/24/drought-colorado-water-plan-river-hickenlooper/ [https:// web.archive.org/web/20210318200914/https://www.coloradoindependent.com/2018/10/2 4/drought-colorado-water-plan-river-hickenlooper/] (discussing Governor Hickenlooper's

"water manifesto" created to avoid future water crises).

environment"; Lake v. City of Southgate, No. 16-10251 2017 WL 767879, at *10 (E.D. Mich. Feb. 28, 2017) (same).

^{87.} Poll, *Environmental Protection vs. Economic Growth*, GALLUP, https://news.gallu p.com/poll/1615/environment.aspx [http://web.archive.org/web/20210330030301/https:// news.gallup.com/poll/1615/environment.aspx] (last visited Nov. 11, 2019). In contrast, the percentage of respondents who felt as though the economy should be given priority over economic growth has been as low as 19% over the same period and currently stands at 30%. *Id.* The average percentage of respondents who felt as though environmental protection should be given priority is 54% compared with a 36% average of respondents who felt as though economic growth should be given priority. *Id.*

^{90.} See Juliana v. United States, 947 F.3d 1159 (9th Cir. 2020) (dismissing plaintiff's claim asserting a fundamental right to an environment capable of sustaining human life on standing grounds); Clean Air Council v. United States, 362 F. Supp. 3d 237, 250–51 (E.D. Penn. 2019) (collecting cases rejecting constitutional claims to a "pollution free environment," "healthful environment," "clean environment," or a "healthy

^{91.} See, e.g., Env't L. & Pol'y Ctr. v. United States Env't Prot. Agency, 349 F. Supp. 3d 703, 705 (N.D. Ohio 2018) (holding that even though "Ohio's longstanding, persistent reluctance, and, on occasion, refusal, to comply with the CWA" contributed to the contamination of Toledo's water supply and "impacted everyone who relies on the Lake not just for drinking water, but for recreation and their livelihoods," the court was unable to order Ohio to a total maximum daily load for phosphorus flowing into Lake Erie).

pressing environmental problems with decisive action, such as banning Chlorofluorocarbons (CFCs) to mitigate ozone depletion⁹² and implementing a cap-and-trade program to address acid rain.⁹³

Despite the progress made in limiting certain types of environmental degradation at a federal level, people still find themselves living in areas where the ecosystem is losing its ability to sustain them. For example, the algal blooms in Lake Erie that led to the 1972 GLWQA returned with a vengeance in the 1990s,⁹⁴ culminating in a 2014 bloom of cyanobacteria and contaminating the water system in Toledo, Ohio—leaving nearly 500,000 people without running water.⁹⁵ This followed a 2013 water shut-off for the same reason in nearby Carroll Township, Ohio.⁹⁶ This resurgence of algal blooms resulted from the unregulated discharge of phosphorus from agricultural operations in the Lake Erie Basin.⁹⁷ In response, Lucas County in Ohio passed the Lake Erie Bill of Rights (LEBOR)⁹⁸ providing, among other things, that "The people of the City of Toledo possess the right to a clean and healthy environment, which shall include the right to a clean and healthy Lake Erie and Lake Erie ecosystem."⁹⁹ While the implementation of LEBOR is currently enjoined

95. Env't Law & Pol'y Ctr., 349 F. Supp. 3d at 705; Greta Jochem, Algae Toxins In Drinking Water Sickened People In 2 Outbreaks, NPR (Nov. 9, 2017 4:16 PM), https://www.npr.org/sections/health-shots/2017/11/09/563073022/algae-contaminates-drinking-water [http://web.archive.org/web/20210124212831/https://www.npr.org/sections/health-shots/2017/11/09/563073022/algae-contaminates-drinking-water]; Emma G. Fitzsimmons, *Tap Water Ban for Toledo Residents*, N.Y. TIMES (Aug. 3, 2014) https://www.nytimes.com/2014/08/04/us/toledo-faces-second-day-of-water-ban.html [http://web.archive.org/web/20210330031342/https://www.nytimes.com/2014/08/04/us/710ledo-faces-second-day-of-water-ban.html] ("The orders were clear: Do not drink the water, do not brush your teeth or prepare food with it, and do not give it to your pets.").

^{92.} For example, the international response to the hole in the ozone layer. Montreal Protocol on Substances that Deplete the Ozone Layer, Sept. 16, 1987, 42 U.S.C. §§ 7671–7671q, 15 U.N.T.S. 3.

^{93.} In the 1990 Clean Air Act Amendments, Title IV created a cap-and-trade program to address significant concerns about the impacts of acid rain caused by sulfur dioxide emissions from coal-fired power plants. Richard Schmalensee & Robert N. Stavins, *Lessons Learned from Three Decades of Experience with Cap-and-Trade*, 11(1) REV. ENV'T ECON. POL'Y 59, 61–63 (2017). Notably, the program's benefits to human health outweighed the (substantial) ecological benefits. *Id.* at 63.

^{94.} EGAN, supra note 44, at 224–32.

^{96.} Jochem, supra note 95.

^{97.} Env't L. & Pol'y Ctr., 349 F. Supp. 3d at 705.

^{98.} TOLEDO, OH, CHARTER ch. XVII (2019).

^{99.} TOLEDO, OH, CHARTER ch. XVII § 254(b). The introduction to LEBOR provides that "it has become necessary that we reclaim, reaffirm, and assert or inherent and inalienable rights" TOLEDO, OH, CHARTER ch. XVII § 253.

and is unlikely to survive litigation,¹⁰⁰ it is a statement by the people of Toledo that they have a fundamental right to an environment capable of sustaining human life.¹⁰¹ Similar attempts at the local level to protect the ecosystems that people depend on around the country have been struck down.¹⁰²

The existence of a societal understanding of the importance of the environment is on display even when actions are being taken to degrade our nation's biological integrity. Laws, regulations, and policies that loosen environmental standards are given names that sound like they protect the environment.¹⁰³ And *no one*, not even the least environmentally-friendly politician or fossil fuel executive, is willing to say that they want to see the environment degraded.¹⁰⁴ In President

102. For example, in Spokane, Washington, voters sought to pass a "Community Bill of Rights" granting residents a legal right "to access and use water in the city . . ." as well as granting the Spokane River rights. Spokane Entrepreneurial Ctr. v. Spokane Moves to Amend the Constitution, 185 Wash. 2d 97, ¶¶ 2–3, 369 P.3d 140 (2016) *reh'g denied* No, 91551-2, 2016 LEXIS 465 (Wash., Apr. 1, 2016). The Washington Supreme Court allowed a pre-election challenge and held that "the initiative exceeded the scope of local legislative authority and thus should not be put on the ballot." *Id.* at ¶ 28. *See* Stephen R. Miller, *Community Rights and the Municipal Police Power*, 55 SANTA CLARA L. REV. 675, 703–(2015) (discussing how over "150 local governments have adopted" a community Bill of Rights generally containing "the right to 'pure water,' [and] 'clean air,' . . ."); Peggy Hall et al., *The Lake Erie Bill of Rights Ballot Initiative*, OHIO STATE UNIV. EXTENSION, 3 (Feb. 8, 2019), https://farmoffice.osu.edu/sites/aglaw/files/site-library/Lake%20Erie%20Bill% 200f%20Rights.pdf [http://web.archive.org/web/20210330031911/https://farmoffice.osu.edu/sites/aglaw/files/site-library/Lake%20Erie%20Bill% 20of%20Rights.pdf] (discussing similar failed municipal attempts to protect natural resources).

103. See, e.g., MARY CHRISTINA WOOD, NATURE'S TRUST 71 (2014) (noting that President George W. Bush dubbed a regulatory initiative limiting public participation in decision making and protections for national forests the "Healthy Forests Initiative ..."); Brad Plumer, *What 'Clean Coal' Is—and Isn't*, N.Y. TIMES (Aug. 23, 2017), https://www.nytimes.com/2017/08/23/climate/what-clean-coal-is-and-isnt.html

[http://web.archive.org/web/20210330032009/https://www.nytimes.com/2017/08/23/clim ate/what-clean-coal-is-and-isnt.html] (discussing President Trump's use of the term "clean coal" referring to numerous different technologies with varying levels of environmental benefits and that "regardless of plant technology, mining for coal remains a highly polluting practice, often damaging streams and waterways.").

104. See, e.g., Environment, SHELL, https://www.shell.com/sustainability/environment. html [https://web.archive.org/web/20200406132805/https://www.shell.com/sustainability /environment.html] (last visited Apr. 21, 2021) (stating "We are committed to protect the environment... cause no harm to people, and help the world move towards a lower-carbon future."); Environmental Protection, WORLD COAL ASS'N, https://www.worldcoal.org/en vironmental-protection [https://web.archive.org/web/20200406133516/https://www.

^{100.} See Drewes Farms P'ship v. City of Toledo, No. 19-3435, 2019 U.S. App. LEXIS 14844 (N.D. Ohio, Mar. 18, 2019) *reh'g denied* 2019 U.S. App. LEXIS 17410 (6th Cir., June 10, 2019) (granting a preliminary injunction on the enforcement of LEBOR).

^{101.} LEBOR goes beyond individual rights and grants Lake Erie itself a right to "exist, flourish, and naturally evolve." TOLEDO, OH, CHARTER ch. XVII § 254(a) (2019).

Trump's statement upon withdrawing from the Paris Climate Accords he said, "The United States, under the Trump administration, will continue to be the cleanest and most environmentally friendly country on Earth. . . . We're going to have the cleanest air. We're going to have the cleanest water."¹⁰⁵

As the preceding pages have demonstrated, Americans have had a complicated relationship with their environment. However, there is a consistent theme of knowledge leading to greater protections for the ecosystems that people rely on for their lives and livelihoods.

III. ANALYSIS

Where does all this history leave us? It is not enough to simply point to examples in American history where the federal or state governments granted protections to the environment. This section applies the traditional and expanded tests for fundamental rights to the right to biological integrity by considering: (1) the traditional and historical basis for that right; (2) whether the right is implicit in the concept of ordered liberty; and (3) other factors considered by the Supreme Court in its expanded substantive due process test. After applying the Supreme Court's substantive due process test for fundamental rights, some concerns regarding individual rights to the environment are briefly addressed.

A. The Right to Biological Integrity Meets all the Criteria Set Forth in Both the Traditional and Expanded Substantive Due Process Tests

This section analyzes the information set forth above in light of the traditional and expanded substantive due process tests. First, this section determines whether the right to biological integrity is deeply rooted in American history and traditions.¹⁰⁶ Next, it discusses whether the right to biological integrity is fundamental to the concept of ordered liberty.¹⁰⁷

worldcoal.org/environmental-protection] ("Steps are taking in modern mining operations to minimise impacts on all aspects of the environment . . . the coal industry minimises the impact of its activities on the neighbouring communities, the immediate environment and on long-term land capability.").

^{105.} WHITE HOUSE, STATEMENT BY PRESIDENT TRUMP ON THE PARIS CLIMATE ACCORD (June 1, 2017), https://it.usembassy.gov/statement-president-trump-paris-climate-accord/ [https://web.archive.org/web/20210501004558/https://it.usembassy.gov/

statement-president-trump-paris-climate-accord/].

^{106.} See infra Section III.A.1.

^{107.} See infra Section III.A.2.

Finally, this section considers some of the other factors considered by the expanded substantive due process test.¹⁰⁸

1. The Right to Biological Integrity is Deeply Rooted in American History and Traditions

Much like marriage, Americans' relationship with the environment "has not stood in isolation from developments in law and society."¹⁰⁹ As described above, the history of environmental degradation in the United States was largely driven by ignorance and necessity.¹¹⁰ Moreover, the Supreme Court has repeatedly rejected blind adherence to historical practices.¹¹¹

When considering whether history and tradition supports the recognition of a fundamental right, the Supreme Court draws on numerous sources. A frequently considered source is state law. In rejecting the claimed right to suicide, the *Glucksberg* Court considered the historical and widespread prohibition on suicide in both legislation and common-law.¹¹² The *Lawrence* and *Obergefell* Courts considered legislative and judicial changes in state law before recognizing the rights to engage in same-gender sexual conduct and marriage.¹¹³ Surveying state legislation is, to some extent, a proxy for determining the views of American society as a whole.¹¹⁴ The Court also considers the enforcement of state laws.¹¹⁵

H.R. REP. No. 96-1016(I) (1980), at 17.

111. See, e.g., Obergefell, 576 U.S. at 645 ("When new insight reveals discord between the Constitution's central protections and a received legal stricture, a claim to liberty must be addressed."); Lawrence v. Texas, 539 U.S. 558, 571–72 (2003) ("In all events we think that our laws and traditions in the past half century are of most relevance here."); Rochin v. California, 342 U.S. 165, 171 (1952) ("To believe that this judicial exercise of judgment could be avoided by freezing 'due process of law' at some fixed stage of time or thought is to suggest that the most important aspect of constitutional adjudication is a function for inanimate machines and not for judges").

^{108.} See infra Section III.A.3.

^{109.} Obergefell v. Hodges, 576 U.S. 644, 659 (2015).

^{110.} See generally, supra, Section II.D. This is exemplified by the report of the House Interstate and Foreign Commerce Committee on CERCLA, stating:

Over the past two decades, the Congress has enacted strong environmental legislation in recognition of the danger to human health and the environment posed by a host of environmental pollutants. This field of environmental legislation has expanded address newly discovered sources of such danger as the frontiers of medical and scientific knowledge have been broadened.

^{112.} Washington v. Glucksberg, 521 U.S. 702, 710-719 (1997).

^{113.} Obergefell, 576 U.S. at 660-62; Lawrence, 539 U.S. at 573, 576.

^{114.} *Cf. Glucksberg*, 521 U.S. at 711 ("[T]he primary and most reliable indication of [a national] consensus is . . . the pattern of enacted laws.") (citation and internal quotation omitted) (alteration original).

^{115.} See Lawrence, 539 U.S. at 572.

Beyond surveying state law, the Supreme Court considers broader "themes of our philosophical, legal and cultural heritages."¹¹⁶

Looking to the factors considered by the Supreme Court in cases addressing fundamental rights, it is clear that American history and traditions support the right to biological integrity. Contrary to the "consistent and almost universal tradition that has long rejected the [right to assisted suicide],"¹¹⁷ there is a consistent pattern—especially in the past half-century—of promulgating laws protecting critical ecosystems from irreversible degradation. Where the states were unable or unwilling to address environmental hazards that affected the livelihood of Americans, Congress took action.¹¹⁸ When a federal constitutional amendment to protect the environment failed, states enacted their own.¹¹⁹ And where the state and federal governments have failed to take action to protect peoples' right to biological integrity, localities have attempted to act.¹²⁰

It is true that there are examples of environmental degradation out of greed, rather than ignorance or necessity.¹²¹ However, this cannot undermine the clear trend of the state and federal governments recognizing the need to protect ecosystems necessary for human life.¹²² In *Lawrence*, the Supreme Court recognized the fundamental right of same-gender individuals to have sex despite the weight of *stare decisis* and the existence of laws prohibiting such conduct in 13 states, of which four states actively enforced those laws.¹²³ Today, at least 46 states have "constitutional provisions relating to natural resources and the environment"¹²⁴

^{116.} *Glucksberg*, 521 U.S. at 711 (citation omitted); *see also Lawrence*, 539 U.S. at 571–73 (discussing the reliance on questionable accounts of moral and ethical standards in *Bowers v. Hardwick*, 478 U.S. 186 (1986)).

^{117.} Glucksberg, 521 U.S. at 723.

^{118.} See, e.g., H.R. REP. No. 96-106(I) (1980), at 19–20 (noting the "inadequate state and local response to threats to the public health from hazardous waste disposal."); see also Glicksman, *supra* note 71, at 146 (noting that the raft of federal legislation in the late 1960s and early 1970s was in response to "[t]he states' previous failure to provide acceptable levels of environmental quality").

^{119.} Ewald, supra note 15, at 414.

^{120.} See supra notes 94-101, and accompanying text.

^{121.} See Suzanne Goldenberg, US Cult of Greed is Now a Global Environmental Threat, Report Warns, GUARDIAN (Jan. 12, 2010), https://www.theguardian.com/environment/20 10/jan/12/climate-change-greed-environment-threat [https://web.archive.org/web/ 20200218060850/https://www.theguardian.com/environment/2010/jan/12/climatechange-greed-environment-threat].

^{122.} Cf. Obergefell v. Hodges, 576 U.S. 644, 662 (discussing Congress' passage of the Defense of Marriage Act, a plainly anti-same-sex marriage statute, prior to finding a fundamental right for same-sex couples to marry).

^{123.} Lawrence v. Texas, 539 U.S. 558, 573 (2003).

^{124.} Adams et al., *supra* note 11, at 74.

American philosophical and moral traditions lend further support to the right to biological integrity, particularly when the "laws and traditions in the past half century are of most relevance here."¹²⁵ As an initial matter, it cannot be denied that depriving people of the ecosystems they rely on to survive is immoral. Furthermore, much of the relevant legislation was driven by a public outrage at severely compromised ecosystems.¹²⁶ Public polls indicate an ever-growing concern about the environment's ability to sustain human life¹²⁷ and the language employed even when environmental protections are being undermined pays lip-service to the importance of the environment.¹²⁸

Thus, American history and traditions strongly support the right to biological integrity. The next question is whether that right is implicit in the concept of ordered liberty.

2. The Right to Biological Integrity is Fundamental to the Concept of Ordered Liberty

In its *Obergefell* decision, the Supreme Court stressed the importance of marriage in American society in holding that same-gender couples have a fundamental right to marriage.¹²⁹ This holding built upon prior decisions, such as *Lawrence* and *Griswold*, which stressed the fundamental roles privacy and marriage play in American society.¹³⁰ Specifically, the *Obergefell* Court recognized that marriage "is a keystone of our social order."¹³¹ While ecosystems capable of sustaining human life do not play exactly the same role in the American psyche as marriage, it is impossible to truly separate American society from the environment that supports it.¹³²

^{125.} Lawrence, 539 U.S. at 571-72.

^{126.} See supra notes 70-86, and accompanying text.

^{127.} See supra note 87.

^{128.} See supra notes 103–05, and accompanying text.

^{129.} Obergefell v. Hodges, 576 U.S. 644, 669-71 (2015).

^{130.} Lawrence, 539 U.S. at 578–579; Griswold v. Connecticut, 381 U.S. 479, 487–88 (1965).

^{131.} Obergefell, 576 U.S. at 646.

^{132.} *Cf.* DOYLE, *supra* note 9, at 10–13 (discussing how rivers shaped the demographics and economy of America). Furthermore, the English language itself demonstrates an Anglo-American tradition of the fundamental impact the environment has in our society. One need not look further than the word "grow." Commonly used today in reference to the economy, territory, and people themselves, "grow" originally referred to plants. It was not until the fourteenth century that "grow" was applied to describe an increase in "magnitude, quantity, or degree" of "things material or immaterial" *Grow*, OXFORD ENGLISH DICTIONARY, https://www.oed.com/view/Entry/81904?rskey=7i4v9N&result=2#eid (last visited Feb. 14, 2020). The Oxford Dictionary's first reported use of the word "grow" in relation to plants dates to the eighth century. *Id*.

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Frankly, it is impossible to *ignore* the dependence our society has on functioning ecosystems. When discussing the risks associated with unmitigated climate change, Robert Watson, the Chair of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, said, "[w]e are eroding the very foundations of economies, livelihoods, food security, health and quality of life worldwide."¹³³ The relative frequency with which litigation between states concerns water-related issues further underscores the central importance of the environment and ecosystems to ordered liberty.¹³⁴

More evidence of the role ecosystems play in ordered liberty may be deduced from instances where societies have experienced complete or partial collapses due to ecological failure. On Easter Island, famous for its giant stone statutes, the civilization collapsed after its population deforested the island.¹³⁵ The lack of trees led to a loss of top soil, reducing agricultural production, preventing the residents from constructing the canoes necessary for deep-sea fishing.¹³⁶ As food supplies dwindled, the population starved and the civilization eventually collapsed.¹³⁷ In the United States, the Anasazi society responsible for building, among others, the ruined city in Chaco Canyon, New Mexico, disappeared after stripping the ground-cover from the surrounding areas.¹³⁸ Without ground cover, rain water channelized to the point where it was lower than the fields the Anasazi needed it to irrigate.¹³⁹ To date, the areas surrounding these cities have not regenerated.¹⁴⁰

The Midwest provides two examples of disruptions to ordered liberty, one past and one potential. During the 1930s Dust Bowl, irresponsible

^{133.} Jonathan Watts, *Human Society Under Urgent Threat from Loss of Earth's Natural Life*, GUARDIAN (May 6, 2019), https://www.theguardian.com/environment/2019/may/06/human-society-under-urgent-threat-loss-earth-natural-life-un-report [https://web.archive.org/web/20200218183436/https://www.theguardian.com/environment/2019/may/06/hum an-society-under-urgent-threat-loss-earth-natural-life-un-report] (quoting Robert Watson).

^{134.} See, e.g., Kansas v. Colorado, 533 U.S. 1, 4 (2001) (discussing litigation dating back to 1902 between Kansas and Colorado regarding apportionment of the Arkansas River); Colorado v. New Mexico, 467 U.S. 310, 312 (1984) (seeking apportionment of the Vermejo River); Nebraska v. Wyoming, 325 U.S. 589, 592–93 (1945) (seeking appropriation of the North Platte River); New York v. New Jersey, 256 U.S. 296, 298 (1921) (seeking to enjoin the discharge of sewage into New York harbor); Missouri v. Illinois, 200 U.S. 496, 517 (1906) (seeking to enjoin the discharge of sewage into Mississippi River).

^{135.} Jared Diamond, *Ecological Collapses of Past Civilizations*, 138(3) PROC. AM. PHIL. Soc'Y. 363, 364–65 (1994).

^{136.} Id. at 365.

^{137.} Id.

^{138.} Id. at 366–67.

^{139.} Id. at 367.

^{140.} Id.

farming practices, drought, and high winds conspired to create "one of the most severe environmental economic shocks in U.S. history "¹⁴¹ While the extent of the migrations out of the affected regions has been overstated by history, it is indisputable that Los Angeles deployed police to prevent the immigration of American citizens¹⁴² and that "the Dust Bowl had a long-lasting impact on the region itself."¹⁴³ The potential future disruption of American society stemming from the Midwest will not remain so localized. The Ogallala aquifer is the largest in North America, spanning eight states in the Midwest.¹⁴⁴ Decades of overexploitation of the aquifer, in part due to "differences in . . . state law, politics, and farming tradition aboveground-conspire against sustaining the aquifer rather than mining it."¹⁴⁵ In a region that produces "nearly one-fifth of the United States" wheat, corn, and beef cattle," some farmers are already unable to irrigate their crops.¹⁴⁶

Despite marriage and life-sustaining ecosystems having a different type of relationship with the concept of ordered liberty, it is impossible to argue that the ecosystems are not at least as necessary for liberty to exist.¹⁴⁷

3. Other Considerations in the Expanded Substantive Due Process Test Support the Fundamental Right to Biological Integrity

In its expanded due process analysis, the Obergefell Court considered several "principles and traditions" in reaching its conclusion that samegender couples enjoyed the right to marriage.¹⁴⁸ These included personal autonomy, individual dignity, and marriage's relation to other protected rights.¹⁴⁹ The Obergefell Court further looked to the Equal Protection

^{141.} Jason Long & Henry Siu, Refugees from Dust and Shrinking Land: Tracking the Dust Bowl Migrants, 78(4) J. ECON. HIST. 1000, 1001–02, 1030 (2018).

^{142.} Id. at 1003-04.

^{143.} Id. at 1030 (citation omitted).

^{144.} Laura Parker, What Happens to the U.S. Midwest When the Water's Gone?, NAT'L GEO. (Aug. 2016), https://www.nationalgeographic.com/magazine/2016/08/vanishingmidwest-ogallala-aquifer-drought/ [https://web.archive.org/web/20200218193727/https:// www.nationalgeographic.com/magazine/2016/08/vanishing-midwest-ogallala-aquiferdrought/].

^{145.} Id.

^{146.} Id.

^{147.} Cf. Gabćíkovo-Nagymaros Project (Hung. v. Slovak.), Judgment, 1997 I.C.J. Rep. 7, 88, at 91 (Sept. 1997) (separate opinion by Weeramantry, J.) ("The protection of the environment is likewise a vital part of contemporary human rights doctrine, for it a sine qua non for numerous human rights such as the right to health and the right to life itself.").

^{148.} Obergefell v. Hodges, 576 U.S. 644, 665 (2015).

^{149.} Id. at 665-69.

Clause as providing an independent basis for marriage equality.¹⁵⁰ The right to biological integrity satisfies all of these elements.¹⁵¹

First, the right to biological integrity is necessary for personal autonomy. When people are deprived of the ability to bathe with or drink from their tap, or worse, are poisoned by that water,¹⁵² they lack the ability to make decisions regarding the basic elements of their lives. The same is true when pollution and flooding force people to abandon their homes.¹⁵³ These same problems go to the issue of individual dignity and equal protection. When people, often minorities and low-income people, are subjected to greater levels of pollution than their wealthier, whiter, neighbors,¹⁵⁴ it sends a message that they are not as valuable of citizens.¹⁵⁵ African Americans are no longer subjected to *de jure* segregation, but structural racism still affects them.¹⁵⁶

In *Griswold* and *Obergefell*, the Court considered the relationship between the claimed right and previously recognized rights.¹⁵⁷ The *Griswold* Court held that the penumbral right to privacy—derived from the First, Third, Fourth, Fifth, and Ninth Amendments—encompassed the right to use contraceptives because the regulation of their use had a

20200218135845/https://www.vice.com/en_us/article/43kwem/floods-nearly-wiped-thisiowa-town-off-the-map-it-may-never-come-back] (discussing the flooding of a town in Iowa and the divisions between people attempting to leave and those who want to stay).

155. *Cf.* Obergefell v. Hodges, 576 U.S. 644, 667 (2015) ("Outlaw to outcast may be a step forward, but it does not achieve the full promise of liberty.").

156. Zinzi Bailey et al., *Structural Racism and Health Inequities in the USA: Evidence and Interventions*, 389 LANCET 1453, 1453–56 (2017).

157. *Obergefell*, 576 U.S. at 667, 670–73; Griswold v. Connecticut, 381 U.S. 479, 486 (1965).

^{150.} Id. at 668.

^{151.} Given the Supreme Court's discussion of these principles and histories, it does not appear, and the author does not imply, that this list is exhaustive or the presence or absence of any one factor is dispositive.

^{152.} See supra notes 94–96, and accompanying text.

^{153.} See, e.g., Dan Shepherd, Last Residents of Picher, Oklahoma Won't Give Up the Ghost (Town), NBC (Apr. 26, 2014, 6:31 AM), https://www.nbcnews.com/news/investig ations/last-residents-picher-oklahoma-won-t-give-ghost-town-n89611 [https://web. archive.org/web/20200218134152/https://www.nbcnews.com/news/investigations/last-

residents-picher-oklahoma-won-t-give-ghost-town-n89611] (discussing the abandonment of a municipality in Oklahoma due to pollution from a zinc mine); Morgan Baskin, *Floods Nearly Wiped This Iowa Town Off the Map. It May Never Come Back*, VICE (Aug. 30, 2019, 10:03 AM), https://www.vice.com/en_us/article/43kwem/floods-nearly-wiped-this-iowa-town-off-the-map-it-may-never-come-back [https://web.archive.org/web/

^{154.} See generally, R. Charon Gwynn & George D. Thurston, *The Burden of Air Pollution: Impacts among Racial Minorities*, 109(4) ENV'T HEALTH PERSP. 501 (2001) (reporting that people of lower socioeconomic statuses, largely minorities, are exposed to greater levels of air pollution and are more likely to live near waste sites).

"destructive impact upon that [marriage] relationship."¹⁵⁸ In *Obergefell*, the Court likewise relied on the "related rights of childrearing, procreation, and education" as a factor weighing in favor of recognizing the rights of same-gender couples to marry.¹⁵⁹

The right to biological integrity is linked to several protected rights. It is intimately linked with the right to life¹⁶⁰ because substandard environmental conditions can lead to significant health problems and death.¹⁶¹ Through the right to bodily integrity, environmental degradation and contamination implicates liberty rights.¹⁶² Furthermore, individuals' property rights are clearly at stake. Contamination, loss to flooding, or other disasters can deprive people of any value their property once had.¹⁶³ Finally, the right to biological integrity relates to the right to procreate and have a family because poor environmental quality undermines children's health and development.¹⁶⁴

160. U.S. CONST. amend. V ("No person shall . . . be deprived of *life* . . . without due process of law") (emphasis added); U.S. CONST. amend. XIV, § 1 ("[N]or shall any State deprive any person of *life* . . . without due process of law.") (emphasis added).

161. See Gabćíkovo-Nagymaros Project (Hung. v. Slovak.), Judgment, 1997 I.C.J. Rep. 7, 88, at 91 (Sept. 1997) (separate opinion by Weeramantry, J.) ("The protection of the environment is likewise a vital part of contemporary human rights doctrine, for it a *sine qua non* for numerous human rights such as the right to health and the right to life itself."); Ronald E. Klipsch, *Aspects of a Constitutional Right to a Habitable Environment: Towards an Environmental Due Process*, 49(2) IND. L.J. 203, 206 (1974) (noting that "air pollution disasters involving massive illness and death have occurred several times in the last forty years.") (citation omitted); Philip J. Landrigan et al., *Pollution and Children's Health*, 650(2) SCI. TOTAL ENV'T. 2689, 2390 (2019) ("Pollution is the world's largest environmental cause of disease and premature death. It is responsible for an estimated 9 million deaths per year...").

162. Guertin v. Michigan, 912 F.3d. 907, 921 (6th Cir. 2019) (holding that "a government actor violates individuals' right to bodily integrity by knowingly and intentionally introducing life-threatening substances into individuals without their consent, especially when such substances have zero therapeutic benefit.") (citation and internal quotation omitted), *cert. denied sub nom*, City of Flint v. Guertin, No. 19-205, 2020 WL 283268 (2020) (mem.) and *cert. denied sub nom*, Busch v. Guertin, No. 19-350, 2020 WL 283269 (2020) (mem.); *see also* Union Pac. Ry. Co. v. Botsford, 141 U.S. 250, 251 (1891) ("No right is held more sacred, or is more carefully guarded by the common law, than the right of every individual to the possession and control of his own person, free from all restraint or interference of others").

163. See United States v. Dickinson, 331 U.S. 745, 750–51 (1947) (holding that individuals are entitled to compensation under the Fifth Amendment for the value of the land flooded and lost to erosion); Ashley Park Charlotte Assocs. v. City of Charlotte, 827 F. Supp. 1223, 1228 (1993) (denying a city's motion for summary judgment in a claim against it for inverse condemnation stemming from environmental contamination).

164. See Landrigan et al., supra note 161, at 2391 (discussing the significant impacts of pollution on children's health, even before they are born); Sundeep Salvi, Health Effects of

^{158.} Griswold, 381 U.S. at 484-86.

^{159.} Obergefell, 576 U.S. at 646.

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Finally, as was done in *Lawrence*, courts may look internationally for evidence of whether prior decisions were correct regarding individual rights to the environment.¹⁶⁵ The international community is increasingly recognizing individual rights to the environment.¹⁶⁶ Most notably for domestic purposes, international bodies have concluded that the right to life contained in Article 6 of the International Covenant on Civil and Political Rights (ICCPR) includes certain guarantees of a safe environment.¹⁶⁷ The United States is a party to the ICCPR.¹⁶⁸

B. Potential Concerns Regarding the Right to Biological Integrity

Having analyzed the right to biological integrity through the Supreme Court's substantive due process test for fundamental rights, this Note now briefly considers two concerns regarding that right.¹⁶⁹ First, that the level of environmental protection is a political, not legal, issue.¹⁷⁰ Second, that

Ambient Air Pollution in Children, 8 PAEDIATRIC RESPIRATORY REVS. 275, 278 (2007) ("Children are particularly vulnerable to the harmful effects of ambient pollution").

^{165.} See Lawrence v. Texas, 539 U.S. 558, 576-77 (2003).

^{166.} See generally DAVID BOYLE, THE ENVIRONMENTAL RIGHTS REVOLUTION: A GLOBAL STUDY OF CONSTITUTIONS, HUMAN RIGHTS, AND THE ENVIRONMENT (2012) (discussing environmental rights around the world). See also Edith Brown Weiss, International Law for a Water-Scarce World, 25(3) EUR. J. INT'L L. 191–242 (2012) (discussing international and national rights to water); Greta Reeh, Human Rights and the Environment: The UN Human Rights Committee Affirms the Duty to Protect, EJIL:TALK (Sept. 9, 2019), https://www.ejiltalk.org/human-rights-and-the-environment-the-unhuman-rights://www.ejiltalk.org/human-rights-and-the-environment-the-unhuman-rights://www.ejiltalk.org/human-rights-and-the-environment-the-unhuman-rights-committee.affirms-the-duty-to-protect/ [http://web.archive.org/web/20210120130933/https://www.ejiltalk.org/human-rights-and-the-environment-the-unhuman-rights-committee.affirms-the-duty-to-protect/ [http://web.archive.org/web/20210120130933/https://www.ejiltalk.org/human-rights-and-the-environment-the-unhuman-rights-committee.affirms-the-duty-to-protect/ [http://web.archive.org/web/20210120130933/https://www.ejiltalk.org/human-rights-and-the-environment-the-unhuman-rights-committee.affirms-the-duty-to-protect/ [http://web.archive.org/web/20210120130933/https://www.ejiltalk.org/human-rights-and-the-environment-the-unhuman-rights-committee.affirms-the-duty-to-protect/ [http://web.archive.org/web/20210120130933/https://www.ejiltalk.org/human-rights-and-the-environment-the-unhuman-rights-and-the-environment-the-unhuman-rights-and-the-environment-the-unhuman-rights-and-the-environment-the-unhuman-rights-and-the-environment-the-unhuman-rights-and-the-environment-the-unhuman-rights-and-the-environment-the-unhuman-rights-and-the-environment-the-unhuman-rights-and-the-environment-the-unhuman-rights-and-the-environment-the-unhuman-rights-and-the-environment-the-unhuman-rights-and-the-environment-the-unhuman-rights-and-the-environment-the-unhuman-rights-and-the-environment-the-unhuman-rights-and-the-environment-the-unhuman

human-rights-committee-affirms-the-duty-to-protect/] (last visited Sept. 23, 2019) (discussing recent international court decisions on environmental rights and a UN Human Rights Committee General Comment No. 36 recognizing the obligation of States to protect the environment under the International Covenant on Civil and Political Rights). Another example can be found in India where the Supreme Court interpreted a constitutional provision very similar to the U.S. Due Process Clause as "encompas[sing] the right to a clean environment." Ewald, *supra* note 15, at 419 (citing M.C. Mehta v. Kamal Nath, (2000) 6 SCC 213 (India)); Subash Kumar v. State of Bihar, (1991) 1 SCR 5 (India).

^{167.} Human Rights Committee, General Comment No. 36 on Article 6 of the International Covenant on Civil and Political Rights, on the Right to Life, ¶ 62, U.N. Doc. CCPR/C/GC/36 (Sept. 3, 2019).

^{168.} International Covenant on Civil and Political Rights, *opened for signature* Dec. 19, 1966, 999 U.N.T.S. 171.

^{169.} More accurately, this Note addresses American concerns relating to any right for some baseline environmental functions.

^{170.} See Clean Air Council v. United States, 362 F. Supp. 3d 237, 251 (E.D. Penn. 2019) ("[I]t appears that the scope of the 'fundamental' right Plaintiffs invoke has no clear limit. This, as much as anything, underscores that Plaintiffs do not seek the Court's assistance in adjudicating a legal dispute. Rather, Plaintiffs disagreement with Defendants is a policy

the right is too broad and will lead to the judiciary overseeing all elements of the government.¹⁷¹ However, neither of these problems are necessarily implicated by the right to biological integrity.¹⁷²

Preliminarily, it is important to note that the right to biological integrity, as it is defined in this note,¹⁷³ implicates a broad range of state acts that may directly or indirectly affect an individual's ecosystem. These acts will span the spectrum of direct¹⁷⁴ to the highly attenuated indirect actions.¹⁷⁵ While each of these acts necessarily involves policy decisions, that does not necessarily mean that the courts will be impermissibly encroaching on the sphere of the other co-equal branches in addressing these rights.¹⁷⁶ In cases where the courts are squarely presented with questions straying too far into the political realm, they have existing doctrines to avoid adjudicating the dispute. Most prominently, the standing doctrine can be, and has been, used by courts to evade resolving environmental disputes.¹⁷⁷ Concerns about long-term entanglement of the judiciary in the political branches can be addressed in a similar fashion where appropriate.¹⁷⁸ Assuming that the courts recognize the right to

debate best left to the political process."); Juliana v. United States, 947 F.3d 1159, 1171–72 (9th Cir. 2020).

171. *Juliana*, 947 F.3d at 1172 (noting that it is inappropriate for a court to grant injunctive relief when it requires pervasive and long-term supervision).

172. Naturally, this is dependent on the precise contours of this right and how the courts decide to enforce it. Unfortunately, these issues are beyond the scope of this Note.

173. See supra Section II.B.

174. For example, the release of toxins into a waterway relied on by the public. *See* Joshua Ceballos, *Army Corps Admits to Dumping Toxic Water Into Florida Estuaries*, MIA. NEW TIMES (July 12, 2019, 8:00 AM), https://www.miaminewtimes.com/news/congress man-gets-army-corps-to-admit-to-dumping-toxic-algae-water-into-florida-waterways-11217111 [https://web.archive.org/web/20200223203806/https://www.miaminewtimes.c om/news/congressman-gets-army-corps-to-admit-to-dumping-toxic-algae-water-into-florida-waterways-11217111 [https://web.archive.org/web/20200223203806/https://www.miaminewtimes.c om/news/congressman-gets-army-corps-to-admit-to-dumping-toxic-algae-water-into-florida-waterways-11217111 [https://web.archive.org/web/2020023203806/https://www.miaminewtimes.c om/news/congressman-gets-army-corps-to-admit-to-dumping-toxic-algae-water-into-florida-waterways-11217111 [https://web.archive.org/web/2020023203806/https://www.miaminewtimes.c om/news/congressman-gets-army-corps-to-admit-to-dumping-toxic-algae-water-into-florida-waterways-11217111] (reporting that the Army Corps of Engineers released water containing toxic Cyanobacteria into Florida estuaries).

175. For example, the promulgation of laws and regulations that contribute to climate change. *See Juliana*, 947 F.3d at 1170–72.

176. Cf. I.N.S. v. Chadha, 462 U.S. 919, 943 (1983) ("Resolution of litigation challenging the constitutional authority of one of the three branches cannot be evaded by courts because the issues have political implications"); Baker v. Carr, 369 U.S. 186, 217 (1962) ("The courts cannot reject as 'no law suit' a bona fide controversy as to whether some action denominated 'political' exceeds constitutional authority.").

177. See, e.g., Lujan v. Defenders of Wildlife, 504 U.S. 555, 562–71 (1992) (holding that plaintiffs lacked standing to challenge a regulatory change eliminating the requirement that federal agencies consider the impact of their actions on endangered species in foreign States); *Juliana*, 947 F.3d at 1169–73 (holding that plaintiffs' claims were not redressable and therefore they lacked standing).

178. Juliana, 947 F.3d at 1173. However, the Juliana Court also recognizes that "in some circumstances, courts may order broad injunctive relief while leaving the 'details of implementation' to the government's discretion." *Id.* at 1172 (citation omitted).

biological integrity, what approach the courts take to address these concerns will require further jurisprudential development and would likely vary on the circumstances of each case.

Much more can be written on this topic by scholars and, hopefully, judges. For present purposes, however, it is sufficient to say that the concerns about judicial encroachment on the powers of the political branches are not fatal to the right to biological integrity.

IV. CONCLUSION

The right to biological integrity is fundamental in the most basic sense. If people do not have ecosystems capable of sustaining them, all other rights are irrelevant. Deeply rooted in American traditions and history is a reliance on the natural ecosystems and protection for those ecosystems once people are aware of the threats they face. The right to be free from governmental action undermining critical ecosystems also implicates numerous enumerated and unenumerated rights. Taken together, there is a need for the right, a basis in American history for the right, and inextricable connections with other constitutional rights. It is time for the federal courts to recognize and enforce this right. Unfortunately, the Supreme Court is unlikely to recognize this given its current composition.