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THE PUBLIC TRUST IN SURFACE WATERWAYS AND SUBMERGED LANDS OF THE GREAT LAKES STATES†

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The modern public trust doctrine compels each Great Lakes state to protect the sustainable future of the Lakes and to preserve traditional public uses. At the same time, the doctrine constrains the states' powers to allow exploitation of trust resources. This Article provides a brief historical overview of the public trust doctrine in waterways and their submerged lands. It next explores how the eight Great Lakes states have applied the doctrine, discusses the surprising number of differences in the doctrine's development from state to state, and provides comparison charts. After analyzing the variety of approaches used by the eight states to implement the doctrine, the Article builds upon some of those approaches to craft a new model.

The Article proposes three levels of analysis for applying the trust doctrine in the Great Lakes states. The first level addresses the geographic scope of the doctrine in waterways. The second level analyzes public rights of access to waterways. The third level examines which uses of the waterways should be protected and how impairments of those uses should be remedied. The Article offers new tests at each level for implementing the trust.

While the Article argues for an expansive application of the public trust doctrine in the Great Lakes, the Article also reviews a number of arguments about the nature of the doctrine and whether it is compatible with private property rights. Finally, the Article concludes that, if ever there was a natural system on earth so fundamental to a region and worthy of protection under a public trust, it is the Great Lakes system.

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The views expressed in this Article are those of the authors and are not necessarily those of U.S. EPA.

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The modern doctrine of public trust in waterways¹ compels the Great Lakes states, as trustees of the beds of the Great Lakes, their waters, and their living contents, to ensure a sustainable future for the lakes and to preserve their traditional public uses and natural character.² At the same time, the public trust doctrine constrains the states' power to allow exploitation of trust corpus and resources.³

The largest system of fresh surface water on earth, the Great Lakes contain roughly twenty-one percent of the Earth's fresh surface water.⁴ Of vast and irreplaceable ecological and economic value,⁵ these lakes and their tributaries, their contents, and the lands beneath and adjacent to them are subject to competing public and private uses. Home to more than one-tenth of the

1. Generally, a public trust is defined as a right of property, real or personal, held by one party for the benefit of the public at large or some considerable portion thereof. *Goodwin v. McMinn*, 44 A. 1094, 1095 (Pa. 1899); *Boyce v. Mosely*, 86 S.E. 771, 773 (S.C. 1915); see *Shively v. Bowlby*, 152 U.S. 1, 16 (1894); *Ill. Cent. R.R. v. Illinois*, 146 U.S. 387, 455 (1892). "Public trust" and "charitable trust" may be considered synonymous expressions. *Bauer v. Myers*, 244 F. 902, 911 (8th Cir. 1917). These trusts differ from private trusts in that their beneficiaries are uncertain and their duration is or may be perpetual. *Id.* at 912.

Whether or not a public trust is properly classified as a right of property has been the subject of much debate. Various authors have viewed the doctrine as grounded in trust law, constitutional law, property law, and state police power, or considered it to be a version of the "hard look" standard for judicial review. See Appendix A.1 for a discussion of selected literature on the public trust doctrine.

A "waterway" or "watercourse" is generally understood to be a natural or man-made channel through which water flows; it usually consists of flowing water, a bed, banks, and a shore. *Smith v. Cameron*, 262 P. 946, 948 (Or. 1928); LOUIS HOUCK, A TREATISE ON THE LAW OF NAVIGABLE RIVERS 1 (Boston, Little, Brown, & Co. 1868). *Black's Law Dictionary* defines a watercourse as follows:

A running stream of water; a natural stream fed from permanent or natural sources, including rivers, creeks, runs, and rivulets. There must be a stream, usually flowing in a particular direction, though it need not flow continuously. It may sometimes be dry. It must flow in a definite channel, having a bed or banks, and usually discharges itself into some other stream or body of water. It must be something more than a mere surface drainage over the entire face of the tract of land, occasioned by unusual freshets or other extraordinary causes.

BLACK'S LAW DICTIONARY 1592 (6th ed. 1990); see *Leader v. Matthews*, 95 S.W.2d 1138, 1139 (Ark. 1936); *City of Los Angeles v. Pomeroy*, 57 P. 585, 596-600 (Cal. 1899).

2. See *Ill. Cent. R.R. v. Illinois*, 146 U.S. 387, 452 (1892).

3. See *id.*

4. U.S. ENVTL. PROT. AGENCY, REFERENCES FOR GREAT LAKES STATISTICS, <http://www.epa.gov/glnpo/statsrefs.html> (last visited Aug. 31, 2006). There are five Great Lakes: Lake Erie, Lake Huron, Lake Michigan, Lake Ontario, and Lake Superior.

5. See GOV'T OF CAN. & U.S. ENVTL. PROT. AGENCY, THE GREAT LAKES: AN ENVIRONMENTAL ATLAS AND RESOURCE BOOK 7-15, 18-28 (3d ed. 1995), available at <http://www.epa.gov/glnpo/atlas> (last visited Aug. 29, 2006) [hereinafter GREAT LAKES ENVIRONMENTAL ATLAS]; GREAT LAKES REGIONAL COLLABORATION STRATEGY TO RESTORE AND PROTECT THE GREAT LAKES 1, 3, 9-14 (2005), http://www.glrc.us/documents/strategy/GLRC_Strategy.pdf (last visited Aug. 29, 2006) [hereinafter GLRC STRATEGY].

population of the United States and over one-fourth of the population of Canada, the Great Lakes basin “provide[s] water for consumption, transportation, [and] power.”⁶ In addition to supporting commercial transportation and the few remaining commercial fisheries,⁷ this watershed supports vibrant tourism and provides water-based recreation—boating, swimming, and sport fishing.⁸ As a locus of economic activity, the near-shore areas of the lakes also harbor shipping operations and offer prime industrial development sites.⁹

A prodigious managerial effort—involving two federal governments,¹⁰ eight states,¹¹ two provinces,¹² numerous tribal and First Nation governments,¹³ and local governments along with citizen action groups¹⁴—strives to protect an already altered ecological balance, to limit and prevent pollution, and to encourage fisheries, particularly sport fishing. Industries and other businesses aid in that effort by not only complying with the environmental laws but also by implementing additional measures to further reduce and prevent pollutants, including recycling of wastes.¹⁵ These efforts share the ultimate goal of restoring and maintaining the chemical, physical, and biological integrity of the basin’s waters.¹⁶

6. GREAT LAKES ENVIRONMENTAL ATLAS, *supra* note 5, at 3.

7. *Id.* at 20.

8. *Id.* at 22.

9. *Id.* at 24.

10. The Canadian and United States governments separately and jointly manage the Great Lakes. For example, the United States and Canada have formed the Binational Program to Restore and Protect the Lake Superior Basin. U.S. ENVTL. PROT. AGENCY, LAKE SUPERIOR BINATIONAL PROGRAM, <http://www.epa.gov/greatlakes/lakesuperior/index.html> (last visited Jan. 24, 2007).

11. Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania, and Wisconsin have laws, rules, and/or regulations pertaining to the management of the Great Lakes. *See generally* discussion *infra* Part II and note 12.

12. For example, both Ontario and Quebec, along with the eight U.S. states that border the Great Lakes, have adopted the Great Lakes Basin Compact. Great Lakes Basin Compact, Pub. L. No. 90-419, 82 Stat. 415 (1968).

13. U.S. POLICY COMM. FOR THE GREAT LAKES, GREAT LAKES STRATEGY 2002: A PLAN FOR THE NEW MILLENNIUM 1, 2 (2002), <http://www.epa.gov/glnpo/gls/gls2002.pdf> (last visited Jan. 24, 2007).

14. *Id.* at 37.

15. ENV’T CAN. & U.S. ENVTL. PROT. AGENCY, THE GREAT LAKES BINATIONAL TOXIC STRATEGY app. at A-8 (1997), http://binational.net/bns/strategy_en.pdf (last visited Jan. 24, 2007).

16. Clean Water Act, 33 U.S.C. §§ 1251-1387 (2006); Clean Air Act, 42 U.S.C. §§ 7401-7671q (2006); Agreement Between the United States of America and Canada on Great Lakes Water Quality, U.S.-Can., Nov. 22, 1978, 30 U.S.T. 1383 [hereinafter GLWQA]; Exec. Order No. 13,340, 3 C.F.R. § 13340 (2006). *See generally* GREAT LAKES ENVIRONMENTAL ATLAS, *supra* note 5, at 29-37; Dan Tarlock, *Five Views of the Great Lakes and Why They Matter*, 15 MINN. J. INT’L L. 21, 29-31 (2006).

The public trust doctrine provides that the state holds in trust for the benefit of all people those submerged lands, surface waters, and living resources that are subject to the trust, and establishes the right of the public to enjoy trust lands, waters, and resources for a variety of recognized public uses.¹⁷ The doctrine sets limitations on the states, the public, and private owners, and defines the responsibilities of the states that manage these public trust assets.¹⁸

In general, public trust waters are the “navigable waters” of the state, and public trust lands comprise the lands beneath these waters.¹⁹ In most coastal states, trust waters extend up to a defined tidal high-water mark,²⁰ which includes “non-navigable” tidal wa-

This Article pertains to the portion of the Great Lakes system that lies within the borders of the United States. It offers neither a Canadian perspective nor a discussion of Canadian law; nor does it offer a tribal or First Nation perspective.

17. The volume, scope, and breath of legal scholarship and commentary on the public trust doctrine since 1970 are overwhelming. There are many articles and commentaries from all regions of the United States. See *infra* Appendix A.2.

18. State powers to govern, supervise, and control public waterways, their submerged lands, and their living contents—as well as state duties to manage, protect, and preserve public and private rights in those waterways, submerged lands, and living resources—have long been established under the public trust doctrine. See, e.g., *Ariz. Ctr. for Law in the Pub. Interest v. Hassell*, 837 P.2d 158, 169 (Ariz. Ct. App. 1991); *Nat’l Audubon Soc’y v. Superior Court*, 658 P.2d 709, 712, 721 (Cal. 1983); *Lane v. Harbor Comm’n*, 40 A. 1058, 1061 (Conn. 1898); *State v. Cent. Vt. Ry.*, 571 A.2d 1128, 1132 (Vt. 1989). Similarly, riparian owners’ private title rights to bottomlands, shorelands, and tidelands adjacent to bodies of water held by a state in trust for the public have long been subject to limitations, including restrictions on impeding navigation, commerce, and fishing rights of the public. See, e.g., *United States v. Willow River Power Co.*, 324 U.S. 499, 507 (1945); *Ill. Cent. R.R. v. Illinois*, 146 U.S. 387, 453–54 (1892); *Smith v. Maryland*, 59 U.S. 71, 74–75 (1855); *State ex rel. Ellis v. Gerbing*, 47 So. 353, 356 (Fla. 1908); *City of Chicago v. Van Ingen*, 38 N.E. 894, 896–97 (Ill. 1894); *Opinion of the Justices*, 424 N.E.2d 1092, 1100–01 (Mass. 1981); *Anderson v. deVries*, 93 N.E.2d 251, 256 (Mass. 1950); *Cinque Bambini P’ship v. State*, 491 So. 2d 508, 511–12 (Miss. 1986); *Walker v. N.C. Dep’t of Env’t, Health and Natural Res.*, 433 S.E.2d 767, 768 (N.C. 1993); *Mentor Harbor Yacht Club v. Mentor Lagoons, Inc.*, 163 N.E. 2d 373, 375 (Ohio 1959); *Freeland v. Pa. R.R.*, 47 A. 745, 746 (Pa. 1901); *Allen v. Allen*, 32 A. 166, 166 (R.I. 1895); *Doemel v. Jantz*, 193 N.W. 393, 397 (Wis. 1923).

19. E.g., *Shively v. Bowlby*, 152 U.S. 1, 26 (1894); *Ill. Cent.*, 146 U.S. at 460.

20. The term “ordinary high-water mark” (which can be a tidal or a non-tidal term) is the point on the shore or bank up to which the “presence and action of the water is so continuous as to leave a distinct mark either by erosion, destruction of terrestrial vegetation, or other easily recognized characteristic.” *Glass v. Goeckel*, 703 N.W.2d 58, 62 (Mich. 2005). And, where it “is impossible or difficult to ascertain where the point of ordinary high-water mark is [at any particular place on a bank or shore], recourse may be had to other places on the bank or shore of the same stream or lake to determine whether a given stage of water is above or below [the] ordinary high-water mark.” *Id.* at 72 (alteration added) (citing *Diana Shooting Club v. Hustung*, 145 N.W. 816, 820 (Wis. 1914)).

The majority of states bordering oceans generally describe the “ordinary high-water mark” as both the upper boundary of the tidelands subject to the public trust doctrine and the lower boundary of private title. E.g., *Abbot’s Ex’r v. Doe*, 5 Ala. 393, 395 (1843); *City of Berkeley v. Superior Court*, 606 P.2d 362, 363 n.1, 364 (Cal. 1980); *Simons v. French*, 25 Conn. 346, 352 (1856); *Bickel v. Polk*, 5 Del. (5 Harr.) 325, 326 (1851); *Thiesen v. Gulf, Fla. & Ala. Ry.*, 78 So. 491, 500 (Fla. 1918); *County of Hawaii v. Sotomura* 517 P.2d 57, 62 (Haw.

ters.²¹ The living resources inhabiting these lands and waters (e.g., fish and shellfish) are also held in trust by the state.²² In addition, the public trust doctrine has traditionally protected the right of public access to and along trust waters for navigation, commerce, and fishing,²³ treating the waters as public highways.²⁴

The common law recognizes the inherently dynamic nature of the public trust doctrine.²⁵ In particular, both federal²⁶ and state jurisprudence²⁷ recognize the need for the doctrine to evolve as the

1973); *Day v. Day*, 22 Md. 530, 537 (1865); *Wonson v. Wonson*, 96 Mass. 71, 82 (1867); *Concord Mfg. Co. v. Robertson*, 25 A. 718, 726 (N.H. 1889); *Wismall v. Hall*, 3 Paige Ch. 313, 318 (N.Y. Ch. 1832); *Carolina Beach Fishing Pier, Inc. v. Town of Carolina Beach*, 177 S.E.2d 513, 516 (N.C. 1970); *Allen v. Allen*, 32 A. 166, 166 (R.I. 1895); *State v. Hardee*, 193 S.E.2d 497, 500 (S.C. 1972); *Bradford v. Nature Conservancy*, 294 S.E.2d 866, 872 (Va. 1982); *Caminiti v. Boyle*, 732 P.2d 989, 992-93 (Wash. 1987).

For inland states (i.e., those not bordering an ocean) that have vast navigable lakes, such as the eight Great Lake states, the law is more complicated. For example, Michigan has statutorily defined the ordinary high-water mark as a fixed elevation above sea level for each of its bordering Great Lakes, with Lake Huron and Lake Michigan sharing the same level and Lakes Superior, St. Clair, and Erie each having different levels. MICH. COMP. LAWS ANN. § 324.32502 (West 1999). In Ohio, the boundary on Lake Erie is defined as the natural boundary of the lake, which fluctuates. OHIO REV. CODE ANN. § 1506.10 (LexisNexis 2001). In Illinois, the upper boundary of the public lands held in trust has been defined judicially as being at the water's edge, which also fluctuates based on water level, erosion, or accretion. *Schulte v. Warren*, 75 N.E. 783, 784 (Ill. 1905). Note, however, that legal import and definition of these fluctuations differ from how similar fluctuations, as a practical matter, are treated under Ohio law.

Like some minority tidewater states, Pennsylvania allows for private ownership of shorelands, apparently including Lake Erie, down to the "ordinary low-water mark." *Tinicum Fishing Co. v. Carter*, 61 Pa. 21, 30 (1869); cf. *Freeland v. Pa. R.R.*, 47 A. 745, 746 (Pa. 1901) (holding that title to the banks of a navigable river "vests in the owner the right of soil to ordinary low watermark of the stream"). Nonetheless, the riparian owner holds only a qualified title between the low- and high-water marks, with the public retaining trust rights for navigation and fishing therein. *Freeland*, 47 A. at 746. Between the low- and high-water marks, the private owner can use the land for his private purposes, provided that those uses do not interfere with the public rights of navigation and fishing. *Id.*

21. *E.g.*, *Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469, 480 (1988).

22. *E.g.*, *Douglas v. Seacoast Prods., Inc.*, 431 U.S. 265, 284-85 (1977); *People v. Glenn-Colusa Irrigation Dist.*, 15 P.2d 549, 552 (Cal. Dist. Ct. App. 1932); *State ex rel. Gray v. Stoutamire*, 131 Fla. 698, 704 (1938); *Commonwealth v. Alger*, 61 Mass. (7 Cush.) 53, 98 (1851); *Sloup v. Town of Islip*, 356 N.Y.S.2d 742, 745 (Sup. Ct. 1974); *State v. Hume*, 95 P. 808, 810 (Or. 1908); *Stephensen v. Wood*, 34 S.W.2d 246, 249 (Tex. Comm'n App. 1931); *Willow River Club v. Wade*, 76 N.W. 273, 277 (Wis. 1898).

23. *Nat'l Audubon Soc'y v. Superior Court*, 658 P.2d 709, 719 (Cal. 1983) (referring to these uses as "the traditional triad of uses").

24. *E.g.*, *Ill. Cent. R.R. v. Illinois*, 146 U.S. 387, 452 (1892). In *Illinois Central*, the court did not discuss how it viewed the relative importance of this triad of uses, nor did it discuss how the courts or trustees should resolve conflicts that might arise. *Id.*

25. *E.g.*, *District of Columbia v. Air Fla., Inc.*, 750 F.2d 1077, 1083 (D.C. Cir. 1984); see also *Shively v. Bowlby*, 152 U.S. 1, 26 (1894); *Ill. Cent.*, 146 U.S. at 460.

26. *E.g.*, *Shively*, 152 U.S. at 26; *Ill. Cent.*, 146 U.S. at 460; *Air Fla.*, 750 F.2d at 1083.

27. *E.g.*, *Nat'l Audubon Soc'y v. Superior Court*, 658 P.2d 709, 719 (Cal. 1983); *Adams v. Elliott*, 174 So. 731, 734 (Fla. 1937); *People ex rel. Scott v. Chi. Park Dist.*, 360 N.E.2d 773,

needs of society change. Just as the restrictive English test for navigability (i.e., whether the waterway was tidal²⁸) became outmoded almost two centuries ago as applied to the vast rivers and lakes of the United States, and as the federal test for navigability (i.e., whether the waterway was navigable-in-fact²⁹) became outmoded for state purposes during the twentieth century, traditional state navigability tests for applying the public trust doctrine to waterways have become similarly outmoded in the twenty-first century.³⁰

The traditional state navigability test equates the public nature of a waterway with navigability for commercial purposes.³¹ In some states, this test fails to address recreational uses,³² which in the Great Lakes have become more commercially valuable³³ than traditional commercial uses such as navigation for passage,³⁴ floating saw logs to market,³⁵ and commercial fishing.³⁶ Secondly, the traditional state navigability test fails to address issues concerning public *access* to waterways.³⁷ Thirdly, the traditional test fails to address concerns about environmental protection,³⁸ scenic

780 (1976); *Barry v. Grela*, 361 N.E.2d 1251, 1251–52 (Mass. 1977); *Rushton ex rel. Hoffmaster v. Taggart*, 11 N.W.2d 193, 196–97 (Mich. 1943); *Lamprey v. Metcalf*, 53 N.W. 1139, 1143–44 (Minn. 1893); *Cinque Bambini P’ship v. State*, 491 So. 2d 508, 512 (Miss. 1986); *Matthews v. Bay Head Improvement Ass’n*, 471 A.2d 355, 365 (N.J. 1984); *State ex rel. Thornton v. Hay*, 462 P.2d 671, 679 (Or. 1969); *State v. Cent. Vt. Ry.*, 571 A.2d 1128, 1130 (Vt. 1989); *Caminiti v. Boyle*, 732 P.2d 989, 994 (Wash. 1987); *State v. Bleck*, 338 N.W.2d 492, 497–98 (Wis. 1983) (citing *Muench v. Pub. Serv. Comm’n*, 53 N.W.2d 514, 519–20 (Wis. 1952)).

A few state courts (outside the Great Lakes basin) have been reluctant to extend protections to “new” public uses of trust lands and waters if it would impair any of the traditional rights of commerce, navigation, or fishing. *E.g.*, *Adams*, 174 So. at 734; *Opinion of the Justices*, 313 N.E.2d 561, 567 (Mass. 1974).

28. *E.g.*, *Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469, 479 (1988); *Shively*, 152 U.S. at 31, 49; *Ill. Cent.*, 146 U.S. at 435; *see also* discussion *infra* note 327.

29. *E.g.*, *Shively*, 152 U.S. at 31–32; *Ill. Cent.*, 146 U.S. at 436–37; *see also* discussion *infra* note 328.

30. *Cf.* Brent A. Austin, *The Public Trust Misapplied: Phillips Petroleum v. Mississippi and the Need to Rethink an Ancient Doctrine*, 16 *ECOLOGY L.Q.* 967, 1009–19 (1989). Austin believes that the public trust doctrine should be viewed as a “flexible tool of judicial intervention,” in addition to a means of establishing state ownership. *Id.* at 1018.

31. *E.g.*, *DuPont v. Miller*, 141 N.E. 423, 425 (Ill. 1923); *Illinois International Port District Act*, 70 *ILL. COMP. STAT. ANN.* 1810/1 to /2 (West 2005).

32. *E.g.*, *DuPont*, 141 N.E. at 426; *Bott v. Comm’n of Natural Res.*, 327 N.W.2d 838, 844 (Mich. 1982); *Smith v. Odell*, 137 N.E. 325, 326–27 (N.Y. 1922); *Lakeside Park Co. v. Forsmark*, 153 A.2d 486, 489 (Pa. 1959).

33. GLRC STRATEGY, *supra* note 5, at 9.

34. *E.g.*, *DuPont*, 141 N.E. at 423; *Smith*, 137 N.E. at 326–27; *Lakeside Park Co.*, 153 A.2d at 489.

35. *E.g.*, *Clark v. Pigeon River Improvement Slide & Boom Co.*, 52 F.2d 550, 553 (8th Cir. 1931); *Bott*, 327 N.W.2d at 844.

36. *E.g.*, *Freeland v. Pa. R.R.*, 47 A. 745, 746 (Pa. 1901).

37. *See, e.g.*, *DuPont*, 141 N.E. at 423; *Bott*, 327 N.W.2d at 844.

38. *E.g.*, *Nat’l Audubon Soc’y v. Superior Court*, 658 P.2d 709, 732 (Cal. 1983). *Compare* *Just v. Marinette County*, 201 N.W.2d 761, 768–69 (Wis. 1972) (expressly extending the pub-

beauty,³⁹ and exotic invasive species,⁴⁰ all of which have substantial commercial impact.⁴¹

The Great Lakes system⁴² forms a unique “world heritage” fresh-water ecosystem that is not only especially sensitive to degradation by a wide range of pollutants and invasive species, but also subject to a wide range of competing public and private uses.⁴³ Particularly with respect to the Great Lakes system, therefore, we suggest a new approach for determining whether and how the public trust doctrine applies to a waterway. This approach would be useful where a state wished to broaden the protections afforded under the public trust doctrine. The approach would expand the geographic scope of the public trust’s reach, as well as recognize and protect a broader range of public uses beyond the traditional triad of navigation, commerce, and fishing.⁴⁴ This approach would enhance environmental protection and preservation. At the same time, this approach would better address the proper scope of public access rights and protect private, riparian interests in the waterways and in the uplands adjacent to them.

Our approach proposes three levels of analysis. The first level addresses the geographic scope of the doctrine’s application to waterways. The second level analyzes public rights of access to waterways. The third level examines which uses of the waterways should be protected under the doctrine and how impairments of those uses should be addressed.

As an initial matter, we want to put our approach in perspective. The public trust doctrine in the Great Lakes forms a background

lic trust doctrine to protect natural resources such as wetlands), *with Bott*, 327 N.W.2d at 844 (defining navigability in commercial terms, i.e., whether the river or stream will float a saw log, a floating log used for commercial purposes).

39. See *Nat’l Audubon Soc’y*, 658 P.2d at 711–12 732; *Kootenai Envtl. Alliance, Inc. v. Panhandle Yacht Club, Inc.*, 671 P.2d 1085, 1095–96 (Idaho 1983); *Lake of the Woods v. Ralston*, 748 N.E.2d 396, 401 (Ind. Ct. App. 2001); *State v. Trudeau*, 408 N.W.2d 337, 343 (Wis. 1987).

40. See GLRC STRATEGY, *supra* note 5, at 9–14, 17–18.

41. *Id.* at 18; GREAT LAKES ENVIRONMENTAL ATLAS, *supra* note 5, at 20, 22, 29–38.

42. The term “Great Lakes System” means “all of the streams, rivers, lakes and other bodies of water that are within the drainage basin on the St. Lawrence River at or upstream from the point at which this river becomes the international boundary between Canada and the United States.” GLWQA, *supra* note 16, at art. I(h).

The water of the Great Lakes system has been variously viewed as 1) a perpetual gift from the creator, 2) a world heritage ecosystem, 3) a natural resource, 4) a commodity, and 5) a constrained natural resource. See Tarlock, *supra* note 16, at 27–36, 39–41. The public doctrine’s treatment of the water of the lakes, for legal purposes in the United States and in the eight Great Lakes states, appears to be consistent with each of those views. *Id.* at 40–41.

43. See GREAT LAKES ENVIRONMENTAL ATLAS, *supra* note 5, at 4–5, 14–15, 29–35.

44. See, e.g., *Shively v. Bowlby*, 152 U.S. 1, 49–50 (1894).

principle that underlies and reinforces the many regulatory efforts in place to protect the waters, submerged lands, and natural resources of the lakes.⁴⁵ The doctrine is not a substitute for those efforts but it does inform them. We agree with the position of many commentators that the governmental authority that forms the basis for the pervasive federal and state statutory laws and programs addressing the environment and natural resources, except in a few instances, is not grounded in the public trust doctrine.⁴⁶ The authority for the federal statutes and programs comes from the Constitution,⁴⁷ and the authority⁴⁸ for the many state statutes and programs derives from the inherent police power of the states.⁴⁹

At the first level of analysis, we suggest that the waterways protected under the public trust doctrine be extended beyond those currently protected under state tests that focus on commercial navigability-in-fact.⁵⁰ Viewing the Great Lakes in ecological terms, the reach of the Great Lakes system's water and biota up its many tributaries justifies an expanded geographic application of the public trust doctrine to the Great Lakes system's rivers and streams.⁵¹ In determining the proper geographic reach of the doctrine in waterways, we would still apply a "navigability" test, but a more expansive one. For example, Wisconsin courts have been leaders in applying a very broad definition of navigability, which includes streams capable of floating a recreational boat of the shallowest draft, certain artificial waters connected to navigable waters,

45. See Tarlock, *supra* note 16, at 40.

46. E.g., Richard J. Lazarus, *Changing Conceptions of Property and Sovereignty in Natural Resources: Questioning the Public Trust Doctrine*, 71 IOWA L. REV. 631, 674-75 (1986); Charles F. Wilkinson, *The Headwaters of the Public Trust: Some Thoughts on the Source and Scope of the Traditional Doctrine*, 19 ENVTL. L. 425, 467 (1989).

47. E.g., Clean Water Act, 33 U.S.C. §§ 1251, 1258, 1268 (2006) (basing its authority on the Commerce Clause, U.S. CONST. art. I, § 8, cl. 3); see, e.g., *Solid Waste Agency v. U.S. Army Corps of Eng'rs*, 531 U.S. 159, 173 (2001).

48. See *infra* Appendix C.

49. E.g., *Sporhase v. Nebraska ex rel. Douglas*, 458 U.S. 941, 951, 954-56 (1982) (rejecting characterization of state power over water resources as a matter of ownership in favor of state police power basis); Lazarus, *supra* note 46, at 665-68.

50. E.g., 70 ILL. COMP. STAT. ANN. 1810/1 to /27 (West 2005); *DuPont v. Miller*, 141 N.E. 423, 425 (Ill. 1923); *Schulte v. Warren*, 75 N.E. 783, 784 (Ill. 1905).

51. See *Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469, 476 (1988) (holding that, in addition to navigable-in-fact waterways, the public trust doctrine applies to non-navigable waterways that are subject to the ebb and flow of the tides, thus expanding the reach of the doctrine).

and, in some instances, non-navigable streams that impact navigable waters.⁵²

Nonetheless, expanding the doctrine's geographic scope would not necessarily mean expanding similar rights of public access.⁵³ Although courts have traditionally protected public access rights for navigation, commerce, and fishing, they have never instructed the trustee on how to resolve conflicts that may arise from the exercise of public access rights.⁵⁴ Thus, while the second inquiry should be judicial, the trustee should have some discretion to administer the trust. The court and trustee should: 1) determine whether the particular right of access is suitable for the entire geographic area defined under the first inquiry, or portions thereof; 2) determine during what time periods and under what circumstances access is suitable; 3) determine whether the right of access promotes the *sustainability* of the chemical, physical, and biological integrity of the waterway;⁵⁵ and 4) resolve disputes, if any, between or among competing or conflicting rights of access.⁵⁶

Thirdly, the courts and legislatures of the Great Lakes states also could better analyze the question of whether a particular use should be recognized as a public use to be protected under the state's public trust doctrine. We suggest the following test for doing so.⁵⁷ In analyzing whether a public use should be protected, the

52. *Omernik v. State*, 218 N.W.2d 734, 739 (Wis. 1974); *Muench v. Pub. Serv. Comm'n*, 53 N.W.2d 514, 519 (Wis. 1952); *Village of Menomonee Falls v. Wis. Dep't of Natural Res.*, 412 N.W.2d 505, 510 (Wis. Ct. App. 1987).

53. See PAUL G. KENT & TAMARA A. DUDIAK, *WISCONSIN WATER LAW: A GUIDE TO WATER RIGHTS AND REGULATIONS* 12 (2d ed. 2001).

54. *E.g.*, *Ill. Cent. R.R. v. Illinois*, 146 U.S. 387, 452 (1892). In *Illinois Central*, the Supreme Court did not discuss its view on the relative importance of the triad of uses or how a trustee should resolve conflicts that might arise. Jeffrey W. Henquinet & Tracy Dobson, *The Public Trust Doctrine and Sustainable Ecosystems: A Great Lakes Fisheries Case Study*, 14 N.Y.U. ENVTL. L.J. 322, 335 n.60 (2006). For example, is the right of fishing to be favored over navigation? Or, should navigation be favored over fishing?

55. See Clean Water Act, 33 U.S.C. §§ 1251, 1258, 1268 (2006); GREAT LAKES ENVIRONMENTAL ATLAS, *supra* note 5, at 4–5, 14–15, 29–35.

56. We are mindful that, in many instances, whether a particular access right is appropriate inextricably involves the question of whether a particular use is appropriate. Near some public beaches, for example, access points for kayaks, canoes, and wind surfing might be appropriate, but access slips for large sailboats and motorboats would be inappropriate because of safety concerns.

57. In proposing a five-part test for determining whether a particular use should be a protected public use under the public trust doctrine, we note by analogy that the Ohio Supreme Court has adopted a four-part test for determining whether a watercourse is navigable. *Mentor Harbor Yachting Club v. Mentor Lagoons, Inc.*, 163 N.E.2d 373, 375 (Ohio 1959). See generally *The Legal Institute for The Great Lakes, The Public Trust Doctrine in Ohio* (1999) (providing an overview of the public trust doctrine in Ohio).

judicial inquiry would evaluate: 1) whether the waterway is *suitable*⁵⁸ for use by a group of people having a common beneficial interest in it; 2) whether the use is reasonable and intended for a proper public purpose;⁵⁹ 3) whether the use, by itself, or in combination with other recognized uses, promotes the *sustainability* of the chemical, physical, and biological integrity of the waterway;⁶⁰ 4) whether the state has complied with its special obligation to maintain the trust;⁶¹ and 5) whether the use would unduly impact the rights of private landowners, including riparian owners.⁶²

58. An early case supporting this view is *Lamprey v. Metcalf*, 53 N.W. 1139 (Minn. 1893). In *Lamprey*, the Minnesota Supreme Court held that title to the beds of inland waterways should be established by reference to a liberalized pleasure boat test of navigability. *Id.* at 1144. The ruling provoked considerable debate. In the face of subsequent federal decisions indicating that the *Lamprey* title dispute was a question of federal law, the Minnesota Supreme Court later recanted and adopted the federal (navigability-in-fact) test for title purposes. *State v. Adams*, 89 N.W.2d 661, 686 (Minn. 1957); *State ex rel. Burnquist v. Bollenbach*, 63 N.W.2d 278, 287–88 (Minn. 1954). Currently, *Lamprey* has limited precedential value with respect to the definition of navigability for purposes of determining title. Nevertheless, one California case, *Bohn v. Albertson*, 238 P.2d 128, 132–33 (Cal. Dist. Ct. App. 1951), has cited it with approval and incorporated into California law the broad test for navigability set forth in *Lamprey* to include the following uses: sailing; rowing; fishing; bathing; taking of water for domestic, agricultural, and even city purposes; cutting of ice; and other public purposes that cannot be enumerated or even anticipated. Lazarus-like, *Lamprey* has re-emerged to confound its critics. See Richard M. Frank, *Forever Free: Navigability, Inland Waterways, and the Expanding Public Interest*, 16 U.C. DAVIS L. REV. 579, 623–24, 628 (1983). See generally Lazarus, *supra* note 46. Once a lake has been found navigable-in-fact, then *Lamprey* remains relevant in recognizing which public uses should be protected.

59. Wisconsin courts play an important role in determining whether the public trust is being administered for the public's benefit or for a proper public purpose. See *State v. Kenosha County Bd. of Adjustment*, 577 N.W.2d 813 (Wis. 1998).

60. See 33 U.S.C. §§ 1251, 1258, 1268 (2006); GREAT LAKES ENVIRONMENTAL ATLAS, *supra* note 5, at 29–38; see also KENT & DUDIAK, *supra* note 53, at 12; GREAT LAKES INTERAGENCY TASK FORCE, REPORT TO THE PRESIDENT ON THE IMPLEMENTATION OF THE GREAT LAKES EXECUTIVE ORDER 9 (2005), http://www.epa.gov/glnpo/collaboration/final_rttpt_10282005.pdf (last visited Jan. 24, 2007) [hereinafter GREAT LAKES INTERAGENCY TASK FORCE REPORT].

61. See Joseph L. Sax, *The Public Trust Doctrine in Natural Resources Law: Effective Judicial Intervention*, 68 MICH. L. REV. 473, 511 (1970); cf. *Ill. Cent. R.R. v. Illinois*, 146 U.S. 387 (1892) (recognizing judicial responsibility to examine legislative authority not only for its general conformity to the scope of regulatory power, but also for its consonance with the state's special obligation to maintain the public trust in Great Lakes waters).

62. See JOSEPH L. SAX, DEFENDING THE ENVIRONMENT 158–72 (1971). The proposal here does not go so far as to give precedence to public trust rights in ecological resources over private rights, as originally proposed by Joseph Sax in *Defending the Environment*. Professor Sax has proposed what he calls a usufructary model of property rights. Joseph L. Sax, *Property Rights and the Economy of Nature: Understanding Lucas v. South Carolina Coastal Council*, 45 STAN. L. REV. 1433, 1441, 1452–53 (1993). Under this model, private property owners would only have the right to use their property in a way that is “compatible with the community's dependence on the property as a resource.” *Id.* at 1452. In doing so, it appears that Sax has borrowed public use legal concepts, which apply far more narrowly in both public trust law in waterways and in water rights law in states where water is abundant, and attempted to generalize them to: upland beaches; water policy more generally; public land management, wildlife, and ecological resources in general; and the takings issue. See Carol

For some public uses, such as ice skating in winter, it would be appropriate to extend public rights into portions of non-navigable waters, as long as the skaters do not trespass on riparian land.⁶³ On the other hand, restricting some commercial and navigation uses would be appropriate in view of their impact on the physical structure, ecological health, and scenic beauty of a particular waterway, and because they would harm or adversely impact the rights of private landowners.⁶⁴ Part III of this Article explores how each of the three proposed levels of analysis would be applied.

Part I of this Article provides a brief overview of the public trust doctrine. Part II discusses how the doctrine has been applied in each of the eight Great Lakes states and the differences among each state's jurisprudence. This Article shows how these differences assert themselves in terms of: 1) which states provide greater protection for the public's rights; 2) which states offer more protection of private rights; and 3) which states are more protective of the environment and scenic beauty. This Article also includes an appendix with a series of charts that allow the reader to easily compare the similarities and differences in the public trust doctrine's application and scope among the eight Great Lakes states.⁶⁵ Part III of the Article provides new tests for applying the

M. Rose, *Joseph Sax and the Idea of the Public Trust*, 25 *ECOLOGY L.Q.* 351 (1998), reprinted and updated in *ISSUES IN LEGAL SCHOLARSHIP*, art. 8, 1, 5 (2003). Even Mr. Sax has conceded that the Supreme Court rejected his broad approach in *Lucas v. South Carolina Coastal Council*, 505 U.S. 1003 (1992). Joseph L. Sax, *Rights that "Inhere in the Title Itself": The Impact of the Lucas Case on Western Water Law*, 26 *LOY. L.A. L. REV.* 943, 945 (1993). Sax also claims that, in *Lucas*, the Supreme Court repudiates the conclusion of *Just v. Marinette County*, 56 Wis. 2d 7, 201 N.W. 2d 761 (1972), and instead finds that it is an unreasonable exercise of the State's police power to limit the use of private property to only natural uses for the purpose of preventing harm to public rights in wetlands. Sax, *Property Rights and the Economy of Nature*, *supra* at 1440; see John Quick, *The Public Trust Doctrine in Wisconsin*, 1 *Wis. ENVTL. L.J.* 105, 120 (1994). In the *Lucas* case, the Supreme Court, however, did make it clear that a land-use regulation—if warranted under recognized state common law "rules or understandings," such as common law nuisance or public trust doctrine—would not be considered a taking even if it totally deprived an owner of all investment-based expectations. *Lucas*, 505 U.S. at 1029–30.

63. Cf. *Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469, 476 (1988) (holding that public trust extends to all non-navigable waters that are influenced by the ebb and flow of the tide); *Nat'l Audubon Soc'y v. Superior Court*, 658 P.2d 709, 720 (Cal. 1983) (holding that public trust extends to any non-navigable waterway that significantly affects the public's interest in a larger navigable body); Austin, *supra* note 30, at 1003–06. The recognized public uses of swimming, ice cutting, and skating can obviously occur in water so shallow that it does not meet most states' navigability tests.

64. See Michigan's Great Lakes Submerged Lands Act, *MICH. COMP. LAWS ANN.* §§ 324.32501–.32515 (West 1999). Also note the policy concerns (but not the holding) of the majority opinion in *Bott v. Commission of Natural Resources*, 327 N.W.2d 838, 847 (Mich. 1982).

65. See *infra* Appendix B.

doctrine in the eight Great Lakes states. Adapting approaches taken from Michigan,⁶⁶ Wisconsin,⁶⁷ California,⁶⁸ and Louisiana,⁶⁹ Part III proposes a better way to analyze which uses should be recognized and protected as rights of public use, and to what extent, in the Great Lakes system. In our view, such an analysis better addresses recreational uses and a variety of environmental concerns, including preservation of the scenic beauty of natural areas.⁷⁰ Part IV of this Article briefly reviews a number of critiques against an expansion of the doctrine and examines unanswered questions concerning the underpinnings and application of the doctrine. In conclusion this Article emphasizes the fundamental value of the public trust doctrine in waterways and offers some closing thoughts.

I. HISTORICAL ROOTS OF THE PUBLIC TRUST IN WATERWAYS AND THE LANDS BENEATH THEM

A common law concept⁷¹ with roots in Roman civil law, the public trust doctrine determines ownership of lands beneath navigable and tidal waters.⁷² The doctrine also pertains to shorelands, bottomlands, tidelands, tidewaters, navigable freshwater, and the plants and animals living in these waters.⁷³ The state holds these lands, waters, and wildlife in trust for the public's interest.⁷⁴ In

66. MICH. COMP. LAWS ANN. § 324.1704 (West 1999). "The court may grant temporary and permanent equitable relief or may impose conditions on the defendant that are required to protect the air, water, and other natural resources or the public trust in these resources from pollution, impairment, or destruction." *Id.*

67. *Just v. Marinette County*, 201 N.W.2d 761, 767-68 (Wis. 1972).

68. *State v. Superior Court*, 625 P.2d 239, 250 (Cal. 1981).

69. *Save Ourselves, Inc. v. La. Env'tl. Control Comm'n*, 452 So. 2d 1152, 1158 (La. 1984).

70. See state constitutions, statutes, and cases cited *infra* notes 76-83.

71. The evolution of the doctrine has been gradual and grounded in the common law of each of the fifty states and in the opinions of the federal courts, particularly those of the United States Supreme Court. See, e.g., Austin, *supra* note 30, at 981-1009; Wilkinson, *supra* note 46, at 425-26.

72. DAVID C. SLADE, R. KERRY KEHOE & JANE K. STAHL, COASTAL STATES ORGANIZATION, INC., PUTTING THE PUBLIC TRUST DOCTRINE TO WORK 1-2 (2nd ed. 1997) [hereinafter COASTAL STATES ORGANIZATION] (containing a general overview of the public trust doctrine in the United States); Steven W. Turnbull, Note, *The Public Trust Doctrine: Accommodating the Public Need Within Constitutional Bounds*, 63 WASH. L. REV. 1087 (1988).

73. See COASTAL STATES ORGANIZATION, *supra* note 72, at 5, 13-32, 67-74.

74. E.g., IND. CODE ANN. § 14-26-2-5 (West 1998); MICH. COMP. LAWS ANN. §§ 324.32501-.32515 (West 1999); Ill. Cent. R.R. v. Illinois, 146 U.S. 387, 435 (1892) (applying Illinois law); *Lamprey v. Metcalf*, 53 N.W. 1139, 1140-41 (Minn. 1893); *Smith v. City of Rochester*, 92 N.Y. 463, 480 (1883); *Mentor Harbor Yachting Club v. Mentor Lagoons, Inc.*, 163 N.E.2d 373, 375 (Ohio 1959); *Conneaut Lake Ice Co. v. Quigley*, 74 A. 648, 650 (Pa.

many states, the doctrine also protects some public rights of use of navigable and tidal waterways for activities such as navigation,⁷⁵ fishing,⁷⁶ fowling,⁷⁷ hunting,⁷⁸ boating,⁷⁹ ice cutting,⁸⁰ and bathing.⁸¹ A number of states have extended the doctrine to include restrictions to prevent environmental harm and preserve public trust lands and waters.⁸² Finally, two state constitutions, two state statutes, and at least four state courts have recognized the public's right to protect the scenic beauty of trust lands and waters.⁸³

1909); *Wisconsin's Envtl. Decade, Inc. v. Dep't of Natural Res.*, 271 N.W.2d 69, 72-73 (Wis. 1978).

75. *Martin v. Waddell*, 41 U.S. (16 Pet.) 367, 413 (1842); see OHIO REV. CODE ANN. § 1506.10 (LexisNexis 2001); *Ill. Cent.*, 146 U.S. at 453; *DuPont v. Miller*, 141 N.E. 423, 425 (Ill. 1923); *Nedtweg v. Wallace*, 208 N.W. 51, 52 (Mich. 1926); *Smith v. City of Rochester*, 92 N.Y. 463, 482 (1883); *Freeland v. Pa. R.R.*, 47 A. 745, 746 (Pa. 1901); *State v. Bleck*, 338 N.W.2d 492, 498 (Wis. 1983). The meaning of "navigation," varies among states. *Compare State ex rel. N.Y. State Dep't of Envtl. Conservation v. Fed. Energy Regulatory Comm'n*, 954 F.2d 56, 61-62 (2d Cir. 1992) (holding that recreational use can establish a stream's commercial navigability), with 615 ILL. COMP. STAT. 5/18 (2004) (defining "public waters" as "all open public streams and lakes capable of being navigated by water craft, in whole or in part, for commercial uses and purposes").

76. *Ill. Cent.*, 146 U.S. at 453; *Rushton ex rel. Hoffmaster v. Taggart*, 11 N.W.2d 193, 197 (Mich. 1943); *People v. Johnson*, 166 N.Y.S.2d 732, 735 (Police Ct. 1957).

77. *Bell v. Town of Wells*, 557 A.2d 168, 178 (Me. 1989); *Hartford v. Town of Gilman*, 146 A.2d 851, 853 (N.H. 1958).

78. *Johnson*, 166 N.Y.S.2d at 735; *Wisconsin's Envtl. Decade*, 271 N.W.2d at 72.

79. *S. Idaho Fish & Game Ass'n v. Picabo Livestock, Inc.*, 528 P.2d 1295, 1298 (Idaho 1974); *Adirondack League Club Inc. v. Sierra Club*, 615 N.Y.S.2d 788, 790-91 (N.Y. App. Div. 1994).

80. *Hartford*, 146 A.2d at 853.

81. *Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469, 483 (1988); *Petraborg v. Zon*, 15 N.W.2d 174, 180 (Minn. 1944); *Nelson v. De Long*, 7 N.W.2d 342, 346 (Minn. 1942).

82. HAW. CONST. art. XI, § 9; PA. CONST. art. I, § 27; IND. CODE ANN. § 14-26-2-1 to -23 (West 1998 & Supp. 2006); MICH. COMP. LAWS ANN. §§ 324.1701(1), .1704(1)-(3) (West 1999); MISS. CODE ANN. § 49-27-3 (West 1999); *State v. Superior Court*, 625 P.2d 239, 254 (Cal. 1981); *Lake of the Woods v. Ralston*, 748 N.E.2d 396, 403 (Ind. Ct. App. 2001); *Save Ourselves, Inc. v. La. Envtl. Control Comm'n*, 452 So. 2d 1152, 1158 (La. 1984); *People of the Town of Smithtown v. Poveromo*, 336 N.Y.S.2d 764, 775 (Dist. Ct. 1972), *aff'd in part and rev'd in part on other grounds*, 359 N.Y.S.2d 848 (App. Term. 1973); *Saxon v. Div. of State Lands*, 570 P.2d 1197, 1201 (Or. Ct. App. 1977); *Just v. Marinette County*, 201 N.W.2d 761, 778 (Wis. 1972); *cf. Peabody Coal Co. v. Ind. Dep't of Natural Res.*, 664 N.E.2d 1171, 1174 (Ind. 1996).

83. The Hawaii and Pennsylvania state constitutions provide for the protection of "natural beauty," HAW. CONST. art. XI, § 1, and "the natural, scenic, historic and esthetic values of the environment," PA. CONST. art. I, § 27, within their public trust doctrines.

Indiana statutory law provides that the "natural resources and the natural scenic beauty of Indiana are a public right," IND. CODE ANN. § 14-26-2-5(c) (West 1998), and that the State holds and controls public freshwater lakes and Indiana's natural, scenic, and recreational river systems in trust for all citizens of Indiana. *Id.* §§ 14-26-2-5(a)-(d)(2), 14-29-6-7. In granting permits for proposed structures or projects impacting inland lakes and streams, the Michigan Department of Natural Resources must consider, among other matters under the trust doctrine, whether the structure or project would "unlawfully impair or destroy" the aesthetics of the inland lake or stream. MICH. COMP. LAWS ANN. § 324.30106 (West 1999); *see*

According to the Institutes of Justinian, the sea, seashore, and rivers are “common to mankind.”⁸⁴ The public trust doctrine held that these lands, considered a natural right, were incapable of being owned.⁸⁵

The English common law adopted this understanding with two major differences. First, the public trust in England included only navigable waters subject to the ebb and flow of the tide, not all navigable-in-fact waters.⁸⁶ Second, English common law assigned an

id. § 324.1704. The courts of California, Idaho, Indiana, and Wisconsin extend the doctrine’s reach to protect scenic beauty. *Nat’l Audubon Soc’y v. Superior Court*, 658 P.2d 709, 719 (Cal. 1983); *Kootenai Envtl. Alliance, Inc. v. Panhandle Yacht Club, Inc.*, 671 P.2d 1085, 1098 (Idaho 1983); *Lake of the Woods v. Ralston*, 748 N.E.2d 396, 401 (Ind. Ct. App. 2001); *State v. Trudeau*, 408 N.W.2d 337, 343 (Wis. 1987); see also Quick, *supra* note 62, at 108; Melissa K. Scanlan, Comment, *The Evolution of the Public Trust Doctrine and the Degradation of Trust Resources: Courts, Trustees and Political Power in Wisconsin*, 27 *ECOLOGY L.Q.* 135, 159 (2000).

84. J. INST. 2.1.1 (Thomas Collett Sandars, ed. & trans., 8th ed. 1888). The Roman law distinction between things public and things common, acknowledged by “[b]oth Bracton and Fleta . . . call those things public which relate to the use of mankind only, and those things common which respect all living animals indiscriminately.” HENRY SCHULTES, AN ESSAY ON AQUATIC RIGHTS 25 (1839). Schultes further examines the distinction between things common and things public:

Where common and public rights are alluded to in the books, we consider them usually as having the same meaning, and implying freedom. The civilians frequently blend them together, though they profess a distinction between public, common, and private things; this is apparent by this passage amongst many others which might be adduced: “All rivers and ports are *public*, and therefore the right of *fishing* in a port or river is in *common*” . . . Fleta, also, who transcribes copiously from the Imperial law, says, some things are *common*, as the air, the sea, and sea-shore, and others are *public*, as the right of fishing and using rivers and ports . . .

. . . [T]he word *publicum* is derived from the word *populus*. Hence, if we consider the natural advantage which accrues from a thing, we say that such a thing is common; but if we consider the use of it among men as it arises from industry, we call it a thing public if it extends to public use, and therefore a thing may be said to be common by nature, and public by use and industry, and again by a promiscuous intercourse and exercise of a public thing, the terms *public* and *common*, may become convertible as experience constantly shows.

Id.

85. J. INST. 2.1 to .2; see SCHULTES, *supra* note 84, at 25.

86. HOUCK, *supra* note 1, at xiii, 8 (citing *Le Case del Royall Piscarie de le Banne* [The Royal Fisheries in the River Banne], (1611) 80 Eng. Rep. 540). In *River Banne*, it was resolved:

[T]hat there are two kinds of rivers, navigable and not navigable; that every navigable river, so high as the sea ebbs and flows in it, is a *royal* river, and belongs to the king, by virtue of his prerogative; but in every other river, and in the fishery of such other river, the *ter*-tenants on each side have an interest of common right; the reason for which is, that so high as the sea ebbs and flows, it participates of the nature of the sea, and is said to be a branch of the sea so far as it flows.

actual legal title holder to “every thing capable of occupancy and susceptible of ownership.”⁸⁷ In the case of public trust lands, this title was bifurcated into the *jus publicum* and the *jus privatum*.⁸⁸ The *jus publicum* comprised (and still comprises) the dominant title and the public’s right to use the lands, while the *jus privatum* consisted (and still consists) of the subordinate private right of possession.⁸⁹ When the United States gained independence, the thirteen original colonies recognized and applied the common law of England, except where the Constitution of the United States or state constitutions specifically modified it.⁹⁰ None of these constitutions mentioned public trust lands, so the English rule transferred over into the law of the new states.⁹¹

Originally, the English rule transferred in its entirety, and all navigable tidal waters were considered navigable-in-law and therefore public trust lands.⁹² While the tidal rule may have worked adequately for most of the original thirteen states, it was not well adapted to the interior of the United States—with its vast numbers of navigable lakes and mighty rivers—which are not affected by the tides but are navigable for over a thousand miles from the sea.⁹³ As each new Great Lakes state entered the Union under the equal footing doctrine enunciated in the Northwest Ordinance, it inherited the public trust lands as part of attaining statehood.⁹⁴ Because

HOUCK, *supra* note 1, at 8. Houck considers this holding dictum, and argues that, although the common law tidal test was a convenient test of navigability, it was not necessarily the only one; he also argues that, wherever a public navigation existed the rights of adjoining property owners were limited to the high-water mark and the title to the soil of the river was in the Crown (in England) or in the states (in this country). *Id.* at 8–9. *Contra* JOSEPH K. ANGELL, A TREATISE ON THE LAW OF WATERCOURSES § 535 (7th ed. 1877).

87. JOSEPH K. ANGELL, A TREATISE ON THE RIGHT OF PROPERTY IN TIDE WATERS 1, 17 (1826).

88. See COASTAL STATES ORGANIZATION, *supra* note 72, at 1–18; see also SCHULTES, *supra* note 84, at 25.

89. *E.g.*, Ill. Cent. R.R. v. Illinois, 146 U.S. 387, 457–58 (1892); see COASTAL STATES ORGANIZATION, *supra* note 72, at 6.

90. *Shively v. Bowlby*, 152 U.S. 1, 11, 14–17 (1894).

91. At least two states have since amended their constitutions to include the public trust doctrine. HAW. CONST. art. XI, § 1; PA. CONST. art. I, § 27.

92. *Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469, 477–78 (1988).

93. *E.g.*, Ill. Cent., 146 U.S. at 436.

94. Article IV of the Northwest Ordinance provides:

The navigable waters leading into the Mississippi and St. Lawrence, and the carrying places between the same, shall be common highways, and forever free, as well to the inhabitants of the said territory, as to the citizens of the United States, and those of any other States that may be admitted into the confederacy, without any tax, import, or duty therefor.

the interior states were affected little, if at all, by the tides under a strict reading of the English rule, they appeared to receive almost nothing under the public trust doctrine.

This unrealistic application of the English rule led to much litigation throughout the nineteenth century.⁹⁵ Federal law determines the passage of title in these circumstances, so the courts applied the federal test of "navigability-for-title"⁹⁶ to the beds of freshwater.⁹⁷ In 1870 the Supreme Court attempted to clarify the issue when it held in *The Daniel Ball* that "rivers must be regarded as public navigable rivers in law which are navigable in fact."⁹⁸ The expansion of the public trust doctrine to include navigable freshwater was recognized as the general rule in the 1876 Supreme Court case of *Barney v. Keokuk*.⁹⁹ With these decisions, the rule that navigable-in-law means navigable-in-fact replaced the English tidal rule for defining which public trust lands passed to the states when they obtained statehood.¹⁰⁰ The Supreme Court determined that a waterway was navigable-in-fact, and thus navigable-in-law, if it was used or capable of being used in its ordinary condition as a highway for commerce through which trade and travel could take place.¹⁰¹ If a waterway met this criterion the bed of the lake or river passed to the state upon its entrance to the Union.¹⁰²

As to non-navigable fresh waterways, the title remained in the United States and was unaffected by the creation of a new state.¹⁰³ The disposition of the beds under non-navigable, non-tidal waterways thus depends on the intention of the United States as grantor.¹⁰⁴ For example, the United States was free to retain the bed

Northwest Ordinance, 1 Stat. 50, 51 n.(a) art. IV (1789) (emphasis added). Six states—Illinois, Indiana, Michigan, Ohio, and Wisconsin—entered the union after 1787; New York and Pennsylvania were two of the thirteen original states.

95. See *Phillips Petroleum*, 484 U.S. at 473–81 (surveying various nineteenth-century Supreme Court cases that considered the proper application of the public trust doctrine).

96. *Alaska v. United States*, 563 F. Supp. 1223, 1225 (D. Alaska 1983) (noting that the navigability for title test "reflects a long-standing federal policy . . . regarding who owns title to much of the submerged land in our country").

97. E.g., *United States v. Oregon*, 295 U.S. 1, 14 (1935); *Barney v. Keokuk*, 94 U.S. 324, 336 (1876). In *Phillips Petroleum*, the most recent Supreme Court case interpreting the federal public trust doctrine, the Court held that the public trust extends to all non-navigable waters that are influenced by the ebb and flow of the tide. *Phillips Petroleum*, 484 U.S. at 476.

98. *The Daniel Ball*, 77 U.S. (10 Wall.) 557, 563 (1870).

99. *Barney v. Keokuk*, 94 U.S. 324, 336 (1876) (holding that "all waters are deemed navigable which are really so").

100. *The Daniel Ball*, 77 U.S. at 562.

101. *Id.* at 563.

102. E.g., *Phillips Petroleum*, 484 U.S. at 486 (O'Connor, J., dissenting).

103. *United States v. Utah*, 283 U.S. 64, 74 (1931).

104. *Oklahoma v. Texas*, 258 U.S. 574, 594 (1922).

of the waterway when disposing of the upland.¹⁰⁵ If, however, the intention of the United States at the time of the grant was not clearly indicated otherwise, the conveyance will be construed and given effect in accordance with the law of the state in which the land lies.¹⁰⁶

The federal definition of navigable water is important in determining the scope of the public trust doctrine because the federal definition of "navigability" determined which submerged lands passed title (in trust for the public benefit) to the state upon its admission to the union.¹⁰⁷ Nonetheless, once a state has acquired sovereignty over the land, the state is free to apply its own definition of navigability and to recognize or limit public trust rights as it sees fit.¹⁰⁸ In general, the state has the power to use and dispose of the lands covered by navigable waters as long as it does not impair the public interest (e.g., for navigation, commerce, and fishing), and subject to the commerce power of Congress.¹⁰⁹

Currently in the United States, the public trust doctrine applies to an area of over 190,000 square miles that consists of navigable waters, non-navigable tidal waters, and the land thereunder.¹¹⁰ About a third of that area falls within the U.S. portion of the Great Lakes basin.¹¹¹ The doctrine also applies to over 88,000 miles of tidelands and over 10,000 miles of Great Lakes shoreline, for a total of over 98,000 miles of trust shorelands.¹¹²

105. *Brewer-Elliott Oil & Gas Co. v. United States*, 260 U.S. 77, 88 (1922).

106. *Hardin v. Jordan*, 140 U.S. 371, 381-82 (1891).

107. *Phillips Petroleum*, 484 U.S. at 479. No express reference to water resources exists in the U. S. Constitution. Federal powers, including the powers to regulate and "own" waterways, are derived from the Commerce Clause, the Property Clause, war and treaty powers, the General Welfare Clause, federal preemption, the interstate compact provision, and the original jurisdiction of the U. S. Supreme Court in suits between the states. See Bertram C. Frey, Note, *The Public Trust in Public Waterways*, 7 URB. L. ANN. 219, 225 n.26 (1974). The "navigability" test for a waterway can define not only the admiralty jurisdiction of the United States, for example, *United States v. Matson Navigation Co.*, 201 F.2d 610, 613 (9th Cir. 1953), but also the scope of federal power to regulate commerce, for example, *Arizona v. California*, 373 U.S. 546, 597-98 (1963). Pre-emptive federal authority over navigation, derived from the commerce clause, enables the federal government to regulate the flow of navigable rivers and streams. *Id.* at 587.

108. *Phillips Petroleum*, 484 U.S. at 475.

109. *Shively v. Bowlby*, 152 U.S. 1, 11-12, 14-17 (1894); *Ill. Cent. R.R. v. Illinois*, 146 U.S. 387, 453 (1892).

110. COASTAL STATES ORGANIZATION, *supra* note 72, at 2.

111. GREAT LAKES ENVIRONMENTAL ATLAS, *supra* note 5, at 4.

112. COASTAL STATES ORGANIZATION, *supra* note 72, at 2.

II. THE PUBLIC TRUST IN THE WATERWAYS OF THE GREAT LAKES STATES

Over the past 200 years, the eight Great Lakes states have taken this deceptively simple common law rule and developed it into a complex and confusing body of law that contains a surprising number of differences from state to state. No real minority or majority rule exists.¹¹³ For example, some Great Lakes states have expressly codified the common law public trust doctrine, or a portion thereof, by statute, while others have not.¹¹⁴ Pennsylvania's constitution expressly protects the public trust doctrine.¹¹⁵ Wisconsin's constitution, as interpreted by the Wisconsin courts and legislature, also contains an article that recognizes the public trust

113. We recommend the following checklist of issues to guide practitioners in analyzing the public trust doctrine in each state: 1) What is the trust's geographic scope and how are boundaries measured?; 2) What rights of access to waterways are protected?; 3) What are the protected uses of trust lands and waters?; 4) Which state agency or official administers the trust (i.e., who is the trustee)?; 5) How can the trust be enforced?; 6) Is there explicit or implicit authority to enforce the constitutional provision, statute, regulation, or policy?; 7) Who, in addition to the state attorney general, has standing to sue to enforce the trust?; 8) Can the state issue licenses or leases for lands and waters held in trust, and if so, what mechanism and procedure should be used?; 9) Does the state have the authority to convey trust lands and waters and to terminate or diminish the public interest, and if so, how is this done and for what purpose?; 10) Does the state have the authority to delegate trust administration to municipalities, counties, special districts, or other political subdivisions, and if so, who has been delegated the authority and has it been limited? *See THE LEGAL INSTITUTE FOR THE GREAT LAKES, THE PUBLIC TRUST DOCTRINE IN OHIO v* (1999) (on file with authors).

114. *E.g.*, 615 ILL. COMP. STAT. 5/24 to /30 (2004); IND. CODE ANN. §§ 14-26-2-5, 14-29-6-7 (West 1998); MICH. COMP. LAWS §§ 324.501a, .1615 art. I(a)(1) (West Supp. 2006); §§ .1701-05, .30106, .30108, .31514-15, .32601, .32606-07 (1999); OHIO REV. CODE ANN. § 1506.10, .33 (LexisNexis 2001); WIS. STAT. ANN. § 13.097(1)(c), (4)-(6) (West 2004). Apparently relying on state police powers, Minnesota and New York have statutes that create extensive state regulatory authorities for managing public natural resources in waterways, submerged lands, and fish and wildlife, though the statutes do not expressly mention the public trust doctrine. *E.g.*, MINN. STAT. §§ 103A.001 to G.2212 (2005); N.Y. NAV. LAW art. § 75, art. 3 §§ 30, 37 (McKinney 2004 & Supp. 2007); N.Y. PUB. LANDS LAW art. 6 § 75 (McKinney 1993 & Supp. 2007). *See infra* Appendix C.

115. Pennsylvania amended its constitution in 1970 to include public trust protections:

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.

PA. CONST. art. I, § 27. Although the amendment is self-executing against state agencies, *Payne v. Kassab*, 361 A.2d 263, 272 (Pa. 1976), it is probably not so against private entities. *See Joseph W. Dellapenna, Developing a Suitable Water Allocation Law for Pennsylvania*, 17 VILL. ENVTL. L.J. 1, 82 (2006); *see also* Comment, *Pennsylvania's Self-Executing Environmental Amendment: A View of the Battle of Gettysburg*, 9 URB. L. ANN. 245 (1975).

doctrine.¹¹⁶ Five states—Illinois (by common law), Michigan (by statute), New York (by common law), Pennsylvania (by judicial interpretation of the state constitutional provision), and Wisconsin (by common law)—authorize citizen suits to enforce the trust doctrine, while the other three do not.¹¹⁷

The following is a brief overview of the public trust doctrine in each of the eight Great Lakes states and the differences among each state's public trust jurisprudence. This overview focuses mainly on the differences in defining the geographic extent of the trust, the protected public access rights and uses, and the protected private riparian rights. This overview shows that some states are more protective of public rights and others are more protective of private rights. This overview, and the appended charts, also identifies those states that are most protective of environmental concerns and scenic beauty.

A. Illinois

Illinois law classifies surface waterways as either navigable or non-navigable.¹¹⁸ This distinction is important because, in navigable waters, private ownership is subject to the public's easement of navigation.¹¹⁹ Determining whether a waterway is navigable appears to be more difficult in Illinois than in other Great Lakes states. In Illinois, the *International Port District Act* defines navigable waterways as "public waters which are or can be made usable for water

116. WIS. CONST. art. IX, § 1; WIS. STAT. ANN. § 13.097 (West 2004). Wisconsin's constitution incorporates the following portion of the Northwest Ordinance of 1787:

[T]he river Mississippi and the navigable waters leading into the Mississippi and St. Lawrence, and the carrying places between the same, shall be common highways and forever free, as well to the inhabitants of the state as to the citizens of the United States, without any tax, impost or duty therefor.

Wis. CONST. art. IX, § 1. The Wisconsin courts have interpreted this clause as a basis of the State's well-developed public trust doctrine. *R.W. Docks & Slips v. State*, 628 N.W.2d 781, 787 (Wis. 2001); see also *Quick*, *supra* note 62, at 106-07; *Scanlan*, *supra* note 83, at 141-42.

117. Michigan Natural Resources and Environmental Protection Act, MICH. COMP. LAWS ANN. § 324.1701(1) (West 1999); *Paepcke v. Pub. Bldg. Comm'n*, 263 N.E.2d 11, 18 (Ill. 1970); *Barnes v. Midland R.R. Terminal Co.*, 85 N.E. 1093, 1095, 1097 (N.Y. 1908); *Payne*, 361 A.2d at 272 (interpreting PA. CONST. art. I, § 27); *State v. Deetz*, 224 N.W.2d 407, 413 (Wis. 1974); cf. *Bissell Chilled Plow Works v. S. Bend Mfg. Co.*, 111 N.E. 932, 939 (Ind. App. 1916) (requiring a showing of specific harm rather than giving a member of the public standing to sue). See *infra* Chart XI in Appendix B.

118. *DuPont v. Miller*, 141 N.E. 423, 425 (Ill. 1923).

119. *Id.*

commerce.”¹²⁰ Whether the waters are useable for water commerce depends on whether they are sufficiently deep to be a useful channel for commerce.¹²¹

Unlike some of the other Great Lakes states—such as Michigan, Wisconsin, and Minnesota—Illinois does not use the “floatable” definition of navigability.¹²² In other words, the fact that there is enough water for row boats or small skiffs to pass over the water does not necessarily render the waters navigable in Illinois.¹²³ A waterway is not barred from being navigable, however, just because artificial means must be employed to make the waterway suitable for commercial navigation.¹²⁴

In Illinois, the title to the bed of Lake Michigan and all meandered lakes, regardless of location, size, or shape,¹²⁵ is held in trust for the people.¹²⁶ Shore owners on Lake Michigan and meandered lakes hold title only to the water’s edge.¹²⁷ A non-meandered lake, however, may still be considered navigable. The applicable test in this case is whether the lake may “furnish[] a highway over which commerce . . . might [be] carried on in the [usual manner].”¹²⁸ Shore owners possess the right of access from their land to the lake within the width of their premises bordering the lake.¹²⁹ Shore owners, however, cannot increase the boundary of their property “by building out into the lake for that purpose.”¹³⁰ One exception exists to this rule. The State may issue a permit to any municipality to fill public waters for the purpose of constructing water purification plants, wharves, piers, or levees.¹³¹ The municipality then gains absolute title to these lands in fee simple.¹³² In addition, natural accretion on lakes belongs to the riparian owner.¹³³

120. 70 ILL. COMP. STAT. ANN. 1810/2 (West 2005).

121. *DuPont*, 141 N.E. at 425; *Schulte v. Warren*, 75 N.E. 783, 785 (Ill. 1905).

122. *DuPont*, 141 N.E. at 425.

123. *Schulte*, 75 N.E. at 785.

124. *Senko v. LaCrosse Dredging Corp.*, 147 N.E.2d 708, 710–11 (Ill. App. Ct. 1957).

125. See 615 ILL. COMP. STAT. 5/24 (2004) (incorporating by reference DIV. OF WATERWAYS, ILL. DEP’T OF PUB. WORKS & BLDGS., MEANDERED LAKES IN ILLINOIS (1962)). The term “meandered” means following the sinuities of a waterway. See *Niles v. Cedar Point Club*, 175 U.S. 300, 306 (1899).

126. See 615 ILL. COMP. STAT. 5/24 (2004).

127. See *Brundage v. Knox*, 117 N.E. 123, 124 (Ill. 1917); *Hammond v. Shepard*, 57 N.E. 867, 868 (Ill. 1900). This “water’s edge rule” is unique to Illinois; all the other states, except Ohio, apply some semblance of a high-water or low-water mark rule. See discussion *infra* Parts II.A–H.

128. *State v. New*, 117 N.E. 597, 599 (Ill. 1917).

129. *Revell v. People*, 52 N.E. 1052, 1057 (Ill. 1898).

130. *Brundage*, 117 N.E. at 127.

131. 65 ILL. COMP. STAT. 5/11-117-11 (West 2005).

132. *Id.*

133. See *Revell*, 52 N.E. at 1057.

The rights of riparian owners on Lake Michigan (a navigable lake) and all meandered lakes (whether natural or created by a governmental body) are absolute only to the water's edge, at which point they become subject to the rights of the public.¹³⁴ For example, the public has an easement for the purpose of navigation on navigable lakes, including meandered lakes.¹³⁵ With regard to private, non-navigable lakes, Illinois applies the civil law rule wherein ownership of a part of the lakebed entitles such owner to the "reasonable use and enjoyment of the surface waters of the entire lake provided they do not unduly interfere with the reasonable use of the waters by other owners."¹³⁶

With respect to all navigable waters (i.e., both lakes and rivers), it is unlawful to erect any structure or fill, deposit any matter, or build wharves or piers without acquiring a State permit.¹³⁷ The only exception to this rule is for duck blinds built in accordance with State requirements.¹³⁸

In the case of rivers and streams, unless clearly stated to the contrary, a grant of title carries with it title out to the center of the stream.¹³⁹ This is true whether or not the stream is navigable.¹⁴⁰ If the same person owns both sides of the stream, she owns the entire width of the river that intersects her property.¹⁴¹ On navigable-in-fact rivers and streams, title is only absolute to the water's edge because the public retains an easement of navigation over these waters.¹⁴²

Finally, in Illinois the right to hunt and fish is not incident to the public easement of navigation, but rather is connected with ownership of the soil underlying the waterway.¹⁴³ Although the fish and

134. *Schulte v. Warren*, 75 N.E. 783, 784 (Ill. 1905).

135. *DuPont v. Miller*, 141 N.E. 423, 425 (Ill. 1923).

136. *Beacham v. Lake Zurich Prop. Owners Ass'n*, 526 N.E.2d 154, 157 (Ill. 1988) (also discussing in detail the historical development of the common law rule and the civil law rule in the various states). In contrast, the common law rule holds that an owner of a portion of a non-navigable lake bed can exclude all others from the waters overlying that portion of the lake. *Id.* at 156.

137. 615 ILL. COMP. STAT. 5/18 (2004).

138. *Id.*

139. *Carter Oil Co. v. Delworth*, 120 F.2d 589, 590 (7th Cir. 1941); *Sikes v. Moline Consumers' Co.*, 127 N.E. 342, 344 (Ill. 1920); *Allott v. Wilmington Light & Power Co.*, 123 N.E. 731, 734 (Ill. 1919); *Town of Cicero v. Chi., Burlington & Quincy R.R.*, 110 N.E. 811, 812 (Ill. 1915); *Albany R.R. Bridge Co. v. People ex rel. Matthews*, 64 N.E. 350, 353 (Ill. 1902); *Trs. of Sch. v. Schroll*, 12 N.E. 243, 244 (Ill. 1887).

140. *Houck v. Yates*, 82 Ill. 179, 181 (1876); *Kessinger v. Standard Oil Co.*, 245 Ill. App. 376, 381 (App. Ct. 1925).

141. *Wash. Ice Co. v. Shortall*, 101 Ill. 46, 52 (1881).

142. *Schulte v. Warren*, 75 N.E. 783, 787 (Ill. 1905).

143. *Id.* at 786 (citing *Beckman v. Kreamer*, 43 Ill. 447 (1867)).

birds do not become the property of the soil owner, that owner has the absolute right to hunt and fish in the waters and on the land.¹⁴⁴ In other words, if the waters are navigable-in-fact, the public enjoys only an easement of passage over them, while every other beneficial use inheres in the owner of the soil.¹⁴⁵ In many cases, however, the State actually owns, or more precisely holds in trust, the bed of the waterway; in that case, a public right of fishing and hunting exists alongside that of navigation.¹⁴⁶

B. Indiana

Indiana has some of the more confusing public trust jurisprudence of the eight Great Lakes states. Indiana law treats rivers and lakes differently. The State's most recent definition, with no further explanation, is that navigable-in-law is navigable-in-fact.¹⁴⁷ The definition of navigability appears less important because it generally applies only to rivers and streams, and then only when the legislature has not explicitly ruled on the river's or stream's navigability.¹⁴⁸ Indiana defines the lakes that are public freshwater lakes and regulates these lakes by statute.¹⁴⁹

As in Illinois, and indeed all Great Lakes states, Indiana holds the title to the bed of Lake Michigan in trust for the public.¹⁵⁰ Under Indiana law, a riparian owner on the banks of Lake Michigan may not fill in property or construct a dock or wharf beyond the dock or harbor line established by the United States.¹⁵¹ Any owner of land along Lake Michigan, or owner of an easement for the purposes of a public park over private property, may acquire the title to the submerged land between his property line and the dock or harbor line only if Indiana grants a permit.¹⁵² Upon obtaining a State permit, the property owner may fill the land between the shore and the dock or harbor line, provided that the fill does not contain hazardous waste.¹⁵³ The filled land can then be patented, and the patent vests the title in fee simple.¹⁵⁴

144. *Schulte*, 75 N.E. at 786.

145. *Id.* at 787.

146. *Id.*

147. *State ex rel. Ind. Dep't of Conservation v. Kivett*, 95 N.E.2d 145, 148 (Ind. 1950).

148. IND. CODE ANN. §§ 14-29-1-1, 14-29-1-2(b) (West 1998).

149. *Id.* at § 14-26-2.

150. *Lake Sand Co. v. State ex rel. Att'y Gen.*, 120 N.E. 714, 715 (Ind. App. 1918).

151. IND. CODE ANN. §§ 14-18-6-1, -3 (West 1998).

152. IND. CODE ANN. §§ 14-18-6-2, -4 (West 1998).

153. *Id.* at § 14-18-6-5.

154. *Id.* at §§ 14-18-6-6, -7.

The State retains full control over public freshwater lakes and holds these lakes in trust for the use of its citizens.¹⁵⁵ In defining whether the lakes are public, Indiana statutory law makes no distinction between navigable lakes and non-navigable lakes.¹⁵⁶ If, however, they are deemed public by the legislature, or if the riparian owner acquiesces to the public's use of his property,¹⁵⁷ then State law considers the lakes to be public. Accordingly, riparian owners of land adjacent to a public freshwater lake do not enjoy the exclusive right to use the lake or any of its parts.¹⁵⁸ If the waters of a public freshwater lake have receded from natural causes, the riparian owner possesses the rights to accretions.¹⁵⁹ In addition, the State may issue a permit for the alteration of the shoreline and/or the bed of a public lake.¹⁶⁰ The riparian owner along a public lake may maintain a pier or wharf, as long as it does not interfere with the public's rights.¹⁶¹ Instead of a rigid application using depth or length to determine where such wharf-out rights end, State statutory laws employ a reasonableness inquiry on a case-by-case basis.¹⁶²

Under Indiana law, a lake is private and non-navigable if it is "enclosed" and "bordered by riparian . . . owners."¹⁶³ For these private lakes, Indiana applies the common law rule that "[e]ach owner has the right to the free and unmolested use and control of his portion of the lake bed and water thereon for boating and fishing."¹⁶⁴ Therefore, a riparian owner on a private lake only enjoys the right to use the waters over the land to which he actually holds title.¹⁶⁵ Such a riparian owner takes title to all land included in the subdivision of which his land is a part.¹⁶⁶ This means that he takes the land beneath the water far enough beyond the water's edge or the meander line to round out the full subdivision of his land.¹⁶⁷

For rivers and streams, both common law and statutory law make distinctions regarding private and public rights and uses

155. *Id.* at § 14-26-2-5(d).

156. *Bath v. Courts*, 459 N.E.2d 72, 75 (Ind. Ct. App. 1984).

157. *Id.*

158. IND. CODE ANN. § 14-26-2-5(e) (West 1998).

159. *Id.* at § 14-26-2-8.

160. *Id.* at § 14-26-2-23.

161. *Bath*, 459 N.E.2d at 76.

162. IND. CODE ANN. §§ 14-29-1-4, -8 (West 1998).

163. *Bath*, 459 N.E.2d at 75.

164. *Carnahan v. Moriah Prop. Owners Ass'n*, 716 N.E.2d 437, 441 (Ind. 1999) (quoting *Sanders v. De Rose*, 191 N.E. 331, 333 (Ind. 1934)).

165. *Id.*

166. *Tolleston Club of Chi. v. Carson*, 123 N.E. 169, 174-75 (Ind. 1919); *Stoner v. Rice*, 22 N.E. 968, 969 (Ind. 1889).

167. *Tolleston*, 123 N.E. at 174-75.

based upon whether the waterway is navigable.¹⁶⁸ Specifically, private ownership and the public rights to recreation and commercial use of the surface water depend on navigability.¹⁶⁹ The legislature has delegated the authority to determine whether or not a local river or stream is navigable.¹⁷⁰ On the petition of twenty-four freeholders that reside near the stream in question, a board of commissioners for each county possesses statutory power to declare a river or stream navigable.¹⁷¹ A board will declare the stream navigable if: 1) a suitable person of the board's choice determines that the stream is navigable; and 2) the board determines that the navigable stream is useful to the public.¹⁷² A stream, however, can be navigable even if it is not classified as such by the legislature or by a county board.¹⁷³ Some State regulatory functions, such as filling and permitting permanent docks, also depend on a determination of navigability.¹⁷⁴

The seminal case for determining navigability in Indiana rivers and streams is *State ex rel. Indiana Department of Conservation v. Kivett*.¹⁷⁵ In *Kivett*, the Indiana Supreme Court conclusively set forth the following test for navigability:

Whether or not a stream is navigable is an issue of fact and depends upon whether or not it was available and was susceptible for navigation according to the general rules of river transportation at the time Indiana was admitted to the Union. It does not depend upon whether it is now navigable

. . . The true test seems to be the capacity of the stream, rather than the manner or extent of use.¹⁷⁶

168. See, e.g., IND. CODE ANN. § 14-29-1-8 (West 1998); *State ex rel. Ind. Dep't of Conservation v. Kivett*, 95 N.E.2d 145, 148 (Ind. 1950); *Bissell Chilled Plow Works v. S. Bend Mfg. Co.*, 111 N.E. 932, 939 (Ind. App. 1916).

169. IND. CODE ANN. §§ 14-29-1-1 to 14-29-8-5. (West 1998 & Supp. 2006); *Brophy v. Richeson*, 36 N.E. 424, 425 (Ind. 1894); *Patton Park, Inc. v. Pollak*, 55 N.E.2d 328, 331 (Ind. App. 1944).

170. IND. CODE ANN. § 14-29-1-1 (West 1998).

171. *Id.* at § 14-29-1-2.

172. *Id.*

173. *Martin v. Bliss*, 5 Blackf. 35, 35 (Ind. 1838).

174. § 14-29-1-8. A permit is typically required from the Indiana Department of Natural Resources before a person can "place, fill, or erect a permanent structure in;" "remove water from;" or "remove material from" a navigable waterway. *Id.* The applicability of other State regulatory functions also depend on whether the waterway is navigable. See, e.g., §§ 14-29-1-8, 14-29-3-8, 14-29-4-5.

175. *State ex rel. Ind. Dep't of Conservation v. Kivett*, 95 N.E.2d 145 (Ind. 1950).

176. *Id.* at 148.

Indiana courts recognize two classes of navigable rivers, one for certain kinds of vessels within the State and for waterways not used in interstate commerce, and the other for interstate commerce on navigable-in-fact rivers.¹⁷⁷ The State retains exclusive jurisdiction over the first class of streams and rivers and may authorize obstructions of them for the public good.¹⁷⁸ As for the second class of rivers, the State retains the same rights as in the first class of rivers, subject to the power of Congress to regulate them for interstate commerce.¹⁷⁹ For both classes of navigable rivers, private title extends to the low-water mark and includes the right to wharf out (e.g., to erect piers for the purpose of mooring boats) to aid navigation.¹⁸⁰

For non-navigable rivers, private title extends to the thread of the stream.¹⁸¹ Regardless of whether the waterway is public or private, all riparian owners possess rights of access, swimming, fishing, bathing, and boating, as long as such uses are reasonable.¹⁸²

In addition to navigability as a standard for determining riparian and public rights to rivers and streams, Indiana's legislature has statutorily defined "natural,"¹⁸³ "scenic,"¹⁸⁴ and "recreational"¹⁸⁵ river systems and set forth rules and policies for each as to riparian rights and public use.¹⁸⁶

C. Michigan

Michigan law relies on the "saw log" test (i.e., whether a waterway will actually float a saw log) to determine navigability.¹⁸⁷ This is

177. *Depew v. Bd. of Trs.*, 5 Ind. 8, 9 (1854).

178. *Id.*

179. *Id.* at 10.

180. *Ross v. Faust*, 54 Ind. 471, 474 (1876).

181. *Brophy v. Richeson*, 36 N.E. 424, 425-26 (Ind. 1894). *But see* *Bath v. Courts*, 459 N.E.2d 72, 75 (Ind. Ct. App. 1984) (purporting to follow *Brophy*, but using the term "middle" of the stream rather than "thread" of the stream). These terms can be synonymous, but they are not necessarily so. For example, one Indiana case explicitly refers to the "thread" of the "middle" of a stream, implying that the thread is a sinuous line running down the deepest channel of the stream. *Earhart v. Rosenwinkel*, 25 N.E.2d 268, 272 (Ind. App. 1940).

182. *Zapffe v. Srbeny*, 587 N.E.2d 177, 181 (Ind. Ct. App. 1992).

183. IND. CODE ANN. § 14-29-6-8 (West 1998).

184. *Id.* at § 14-29-6-4.

185. *Id.* at § 14-29-6-2.

186. *Id.* at § 14-29-6-1, to -15 (West 1998 & Supp. 2006). Indiana recognizes the public's right to preserve the natural scenic beauty of public freshwater lakes and to participate in recreational activities on the lakes. *Lake of the Woods v. Ralston*, 748 N.E.2d 396, 401 (Ind. Ct. App. 2001).

187. *Bott v. Comm'n of Natural Res.*, 327 N.W.2d 838, 859 (Mich. 1982).

one of the easier tests to apply in the Great Lakes states. Navigability is integral in Michigan for determining the extent of riparian ownership on lakes and streams, and it influences the extent to which the State will afford environmental protection.¹⁸⁸ Statutory law determines ownership of the submerged lands in the Great Lakes, while the common law determines ownership of the beds of inland lakes and streams.¹⁸⁹

With respect to the Great Lakes, the administrative rules implementing The Great Lakes Submerged Lands Act¹⁹⁰ define Michigan's public trust doctrine as "the perpetual duty of the [S]tate to secure to its people the prevention of pollution, impairment or destruction of its natural resources, and the rights of navigation, fishing, hunting and use of its lands and waters for other public purposes."¹⁹¹ The statute covers all unpatented bottomlands and human-made lands in the Great Lakes—including the bays and harbors thereof—that belong to the State or are held in trust by the State, as well as filled lands.¹⁹² The Act allows for the sale, lease, or other disposition of the unpatented bottomlands and permits, filling submerged lands as long as the fill does not substantially 1) affect public use of the lands (i.e., hunting, fishing, swimming, or navigation) or 2) damage the public trust in the submerged lands.¹⁹³ A riparian owner must obtain a State permit before dredging or placing any materials on the bed of the Great Lakes.¹⁹⁴ Even if a private owner's title extends into the water, the public's rights of navigation on the Great Lakes include the right to walk on the lakeside of the ordinary high-water mark.¹⁹⁵ Michigan case law defines the ordinary high-water mark as "the point on the bank or shore up to which the presence and action of the water is so continuous as to leave a distinct mark either by erosion, destruction of terrestrial vegetation, or other easily recognized characteristic."¹⁹⁶

The navigability of an inland waterway (i.e., a lake, river, or stream) depends on its potential for commercial use.¹⁹⁷ Michigan

188. *Pigorsh v. Fahner*, 177 N.W.2d 466, 469–70 (Mich. Ct. App. 1970), *aff'd*, 194 N.W.2d 343 (Mich. 1972).

189. MICH. COMP. LAWS ANN. § 324.32502 (West Supp. 2006).

190. MICH. COMP. LAWS ANN. § 281.960 (West 1959) (repealed 1994). This codification has been replaced by MICH. COMP. LAWS ANN. §§ 324.32501 to .32516 (West Supp. 2006), but it still provides a useful definition of the State's public trust doctrine and a description of how it applies.

191. MICH. ADMIN. CODE r.322.1001(m) (1999).

192. MICH. COMP. LAWS ANN. §§ 324.32501 to .32516 (West Supp. 2006).

193. *Id.* at § 324.30106.

194. *Id.* at § 324.32505.

195. *Glass v. Goeckel*, 703 N.W.2d 58, 72 (Mich. 2005).

196. *Id.* at 72.

197. *Bott v. Comm'n of Natural Res.*, 327 N.W.2d 838, 841 (Mich. 1982).

courts have explicitly rejected the recreational use test.¹⁹⁸ The riparian owner of a navigable inland lake holds qualified title to the center of the lake.¹⁹⁹ If the public has a lawful means of accessing the lake, then the riparian owner's title is subject to the public's right of navigation,²⁰⁰ which includes a right to fish.²⁰¹ For navigable inland lakes, the riparian owner's absolute title extends only to the high-water mark, even if the water is unfit for navigation because of aquatic plants or other natural obstructions.²⁰²

Michigan law allows private ownership of inland lakes.²⁰³ For example, isolated lakes completely surrounded by private land without public access are considered privately owned.²⁰⁴ The fact that there is a navigable ingress and egress is immaterial.²⁰⁵ When the lake is considered non-navigable under the commercial use test, the question of public access also becomes immaterial.²⁰⁶ Furthermore, Michigan applies the "civil rule" that, where there are several riparian owners of the same inland lake, the owners may use the entire surface for boating and fishing, as long as they do not interfere with the reasonable use of the water by other riparian owners.²⁰⁷

As mentioned above, the commercial use test also applies to rivers and streams.²⁰⁸ To be navigable, the river or stream must be able to float logs.²⁰⁹ The definition of navigability is only useful for determining whether the public has a right of navigation over those waters.²¹⁰ This is due to the fact that the riparian owners hold title to the riverbed up to the thread of the stream,²¹¹ whether the river is navigable or non-navigable.²¹² For navigable rivers, this title is subject to the navigational servitude, and fishing is the only

198. *Id.*

199. *McCardel v. Smolen*, 250 N.W.2d 496, 500 (Mich. Ct. App. 1976), *aff'd in part & vacated in part*, 273 N.W.2d 3 (Mich. 1978).

200. *Bott*, 327 N.W.2d at 841.

201. *Putnam v. Kinney*, 227 N.W. 741, 741 (Mich. 1929).

202. *People v. Warner*, 74 N.W. 705, 710 (Mich. 1898).

203. *Bott*, 327 N.W.2d at 841.

204. *Id.*

205. *Id.*

206. *Mich. Conference Ass'n of Seventh-Day Adventists v. Comm'n of Natural Res.*, 245 N.W.2d 412, 413-14 (Mich. Ct. App. 1976).

207. *Putnam v. Kinney*, 227 N.W. 741, 741 (Mich. 1929).

208. *Bott*, 327 N.W.2d at 841.

209. *Id.*

210. *Id.* at 845.

211. *Id.* at 841; *Collins v. Gerhardt*, 211 N.W. 115, 117 (Mich. 1926). In *Bott*, the court equates the "thread" of a stream with its "midpoint." *Bott*, 327 N.W.2d at 841.

212. *Sewers v. Hacklander*, 188 N.W. 547, 549 (Mich. 1922).

recognized recreational use.²¹³ Riparian rights include the right of access to the water, the right to build a pier out to the point of navigation, and the right to reasonable use of the waters.²¹⁴

D. Minnesota

Under Minnesota law, the classification of water as navigable or non-navigable determines whether the surface waters are owned publicly or privately.²¹⁵ Minnesota uses one of the more easily applied definitions of navigability. For the purpose of determining title to inland waterways, Minnesota law considers a waterway to be navigable if it meets the federal, navigable-in-fact test.²¹⁶ Navigability, in turn, establishes the extent to which a riparian owner can claim title to the bed of any waterway.²¹⁷ Statutory law defines the title to beds of navigable waterways, while the common law determines the rights of riparian owners.²¹⁸

With respect to the Minnesota portion of Lake Superior and all other navigable lakes, the State holds in trust the title to the area below the low-water mark.²¹⁹ The area between the low-water mark and high-water mark is subject to both the *jus publicum* and the *jus privatum*.²²⁰ Consequently, the State owns a limited interest in trust for protecting public uses such as commercial navigation, recreational activity, and the drawing of water for various public and private uses,²²¹ but not for building a public highway across this area of land.²²²

Even though “meandered lakes are not necessarily navigable lakes,” they still “belong to the [S]tate in its sovereign capacity in

213. *Bott*, 327 N.W.2d at 841.

214. *Tennant v. Recreation Dev. Corp.*, 249 N.W.2d 348, 349 (Mich. Ct. App. 1977).

215. *Lamprey v. Metcalf*, 53 N.W. 1139, 1143 (Minn. 1893) (finding this division to be “a classification which, in some form, every civilized nation has recognized”).

216. *State v. Adams*, 89 N.W.2d 661, 683, 686 (Minn. 1957) (navigability-for-title case); *State ex rel. Burnquist v. Bollenbach*, 63 N.W.2d 278, 287 (Minn. 1954) (same); see discussion *supra* note 58. Once a waterway has been deemed navigable-in-fact, *Lamprey* remains relevant in deciding which public uses should be protected. *Lamprey*, 53 N.W. at 1143.

217. *Adams*, 89 N.W.2d at 680.

218. See MINN. STAT. § 103G.711 (2005). See generally *State v. Korrer*, 148 N.W. 617 (Minn. 1914) (containing a good overview of Minnesota’s common law decisions regarding the public trust).

219. *Korrer*, 148 N.W. at 621.

220. *Id.*

221. *Id.* at 623–24.

222. *State ex rel. Head v. Slotness*, 185 N.W.2d 530, 534 (Minn. 1971) (finding the building of a state highway over this area of land as a taking and not a protected use incident to water navigation, commerce, or fishing).

trust for the public.”²²³ Thus, for non-navigable meandered lakes, the State holds the land below the low-water mark in trust for the public, just as it does with navigable lakes that serve a beneficial public purpose.²²⁴ As to both kinds of public lakes, “a mutual right of enjoyment exists between and is shared by riparian owners and the public generally.”²²⁵ Accordingly, recreational uses on public lakes—such as boating, bathing, hunting, fishing, skating, and cutting ice—are shared, and the riparian proprietor enjoys no exclusive privileges.²²⁶

Riparian owners hold the title to the low-water mark; however, their title is absolute only to the high-water mark.²²⁷ Riparian owners may deny access to and from the water on their particular property and they retain the right to wharf out to navigable waters.²²⁸ For those few lakes that do not meet the beneficial public purpose test, the riparian owner takes title to the center of the lake; in these instances, Minnesota applies the civil rule, which entitles riparian owners to reasonable use of the entire lake.²²⁹ In determining reasonable use, Minnesota courts consider several factors, including the type of use, the importance of the use, and the size of the waterway.²³⁰

With respect to rivers and streams, Minnesota applies the floating log test.²³¹ If a body of water can float logs and timber in substantial quantities during the proper season, then Minnesota law considers the river or stream to be navigable and public.²³² The logs need not be guided by man, nor does the stream have to be navigable during all seasons.²³³ Unlike in Michigan, this is not a strictly commercial use test (i.e., the floating log does not have to be a saw log going to market); boating and sailing for pleasure constitute navigation and suffice to establish navigability.²³⁴ The State owns the land under all navigable rivers in fee simple, subject

223. *State v. Adams*, 89 N.W.2d 661, 687 (Minn. 1957).

224. The authors found no case that defines the term “beneficial public use” in this context.

225. *Petraborg v. Zontelli*, 15 N.W.2d 174, 180 (Minn. 1944).

226. *Petraborg*, 15 N.W.2d at 180; *Nelson v. De Long*, 7 N.W.2d 342, 346 (Minn. 1942).

227. *Head*, 185 N.W.2d at 532.

228. *Id.*

229. *Lamprey v. Metcalf*, 53 N.W. 1139, 1143 (Minn. 1893).

230. *Petraborg*, 15 N.W.2d at 182.

231. *Id.*

232. *Clark v. Pigeon River Improvement Slide & Boom Co.*, 52 F.2d 550, 553 (8th Cir. 1931).

233. *Minn. Canal & Power Co. v. Koochiching Co.*, 107 N.W. 405, 410 (Minn. 1906).

234. *Lamprey*, 53 N.W. at 1143.

to the public's right of navigation and lawful use while on and in the waters.²³⁵

E. New York

Alone among Great Lakes states, New York has attempted to maintain some semblance of the English common law tidal test. In determining the rights of a private owner as opposed to the public, New York distinguishes between: (1) non-tidal, navigable-in-fact rivers and streams, and (2) waters deemed navigable-in-law, which New York defines narrowly as tidal, navigable-in-fact waters.²³⁶ New York recognizes fewer public rights in the former waterways than in the latter. As for navigable boundary lakes, including Lake Erie and Lake Ontario, New York law vests title in the State for the public trust, even though these lakes are non-tidal.²³⁷

New York's public trust doctrine is one of the least protective of public rights among the Great Lakes states. While New York vests title to the beds of Lakes Erie and Ontario in the State for the public trust, the State can still convey away these lands.²³⁸ The legislature may grant these lands for "public, or such other purposes as it may determine to be for the best interests of the [S]tate."²³⁹ This means, for example, that the State may grant these bottomlands to a railroad company for the construction of a railroad line.²⁴⁰ At the same time, New York has retained fewer interests in most of its waterways, and therefore does not hold title to convey away in most instances.²⁴¹ This severely limits the usefulness of the doctrine in New York.

In some respects, New York's jurisprudence concerning the public trust appears simpler than the laws of other Great Lakes states, and in other ways more complex. For example, New York treats navigable-in-fact rivers and inland lakes under the same rules, but it attempts to maintain some distinction between tidal, navigable-

235. MINN. STAT. § 103G.711 (Supp. 2005).

236. *Douglaston Manor v. Bahrakis*, 678 N.E.2d 201, 203 (N.Y. 1997).

237. *Saunders v. N.Y. Cent. & Hudson River R.R.*, 38 N.E. 992, 994 (N.Y. 1894); *see Fulton Light, Heat & Power Co. v. State*, 94 N.E. 199, 202-03 (N.Y. 1911).

238. *See People v. Steeplechase Park Co.*, 113 N.E. 521, 526-27 (N.Y. 1916).

239. *Saunders*, 38 N.E. at 994.

240. *Id.* As applied to the ocean's foreshore, New York courts have found, under the public trust doctrine, that large grants of land to private individuals (such as eleven miles of the foreshore) are ultra vires and void. *Romeo v. Sherry*, 308 F. Supp. 2d 128, 142 (E.D.N.Y. 2004) (citing *Marba Sea Bay Corp. v. Clinton St. Realty Corp.*, 5 N.E.2d 824, 825 (N.Y. 1936)); *Coxe v. State*, 39 N.E. 400, 402 (N.Y. 1895). "The land between the high and low water marks is often referred to as 'the foreshore.'" *Romeo*, 308 F. Supp. 2d at 132 n.5.

241. *See Saunders*, 38 N.E. at 994.

in-law rivers and non-tidal, navigable-in-fact rivers and lakes.²⁴² New York law determines navigability based on the waterway's usefulness as a commercial highway.²⁴³ New York also considers recreational uses when determining whether a stream or lake would serve a commercial purpose.²⁴⁴ While the commercial use standard remains, recreational uses provide evidence of commercial usefulness.²⁴⁵ When New York law deems a stream or lake navigable-in-fact, the public enjoys an implied right of passage.²⁴⁶

In the case of non-tidal, navigable-in-fact rivers and inland lakes, New York applies a strong presumption that the riparian owner holds title to the center of the stream or lake.²⁴⁷ This title, however, is subject to the public right of navigation and to the State's right to regulate and control the water for navigation.²⁴⁸ This public easement of passage includes the right to use the bed of the stream up to the high-water mark to detour around natural objects and, if necessary, to portage.²⁴⁹ In regard to these non-tidal, navigable-in-fact waterways, New York courts have explicitly stated that this right of passage is merely an easement of navigation, and nothing more: "the easement of passage over navigable waters does not involve a surrender of other privileges which are capable of enjoyment without interference with the navigator."²⁵⁰ While the public may pass over these waters, the riparian owner maintains some exclusive rights, such as private fishery rights or use of the water for a factory.²⁵¹ Furthermore, the State may only improve non-tidal, navigable-in-fact rivers for public purposes of commerce and navigation.²⁵² For example, diverting the waters from one navigable-in-fact river to a canal does not serve the public purpose of navigation over the river in question, and is consequently not acceptable.²⁵³ In the case of non-navigable-in-fact rivers, the same rules apply, except without the public easement of navigation.²⁵⁴

242. *Calkins v. Hart*, 113 N.E. 785, 785 (N.Y. 1916).

243. *Van Cortlandt v. N.Y. Cent. R.R.*, 192 N.E. 401, 402 (N.Y. 1934).

244. *Adirondack League Club Inc. v. Sierra Club*, 615 N.Y.S.2d 788, 791 (1994).

245. *Id.*

246. *Douglaston Manor v. Bahrakis*, 678 N.E.2d 201, 204 (N.Y. 1997).

247. *Calkins*, 113 N.E. at 785.

248. *Smith v. City of Rochester*, 92 N.Y. 463, 473 (1883).

249. *Adirondack League Club*, 615 N.Y.S.2d at 792-93. This means that navigability is not automatically destroyed by occasional natural obstructions or portages. *Id.*

250. *Smith v. Odell*, 137 N.E. 325, 327 (N.Y. 1922).

251. *Fulton Light, Heat & Power Co. v. State*, 94 N.E. 199, 204 (N.Y. 1911).

252. *Id.*

253. *Id.*

254. *Id.* at 202.

Two major caveats exist to New York's navigability rules, which pertain to the beds of the Hudson and Mohawk Rivers. The beds of those rivers vested in the State through means other than the public trust doctrine, and the State never conveyed them away.²⁵⁵ The State has the authority to convey away these bottomlands, but it has not done so.²⁵⁶ Accordingly, the public retains more expansive rights than simple navigation and may use these waters in more ways than other non-tidal, navigable-in-fact waterways.²⁵⁷

F. Ohio

Unique among Great Lakes states, Ohio's common law public trust jurisprudence uses a factor-weighting approach to define navigability.²⁵⁸ This determines who owns the beds of rivers and inland lakes and the extent of riparian rights.²⁵⁹ Ohio statutory law, however, determines ownership of the bed of Lake Erie.²⁶⁰

The waters of Lake Erie below the natural shoreline and the submerged soil up to the Canadian border belong to Ohio in trust for the people, subject to the powers of the United States as well as the public rights of navigation, fishing, and commerce.²⁶¹ Ohio also has codified permissible public and private uses of the land that lies lakeward of Lake Erie's natural shoreline.²⁶² If the State determines, upon the recommendation of the Ohio Department of Natural Resources, that any part of the territory of Lake Erie can be developed, improved, or utilized without impairment of the aforementioned public rights, the State can lease all or part of its interest in the lake's bottomlands.²⁶³

For other waterways, the Ohio Supreme Court enunciated four factors to be considered when determining navigability: 1) capacity for boating in the waterway's natural condition, 2) accessibility by public termini, 3) capacity for boating after making reasonable improvements, and 4) capacity for recreational or commercial

255. *Canal Comm'rs v. People ex rel. Tibbits*, 5 Wend. 423, 447-48 (N.Y. 1830); see *Fulton*, 94 N.E. at 202-03.

256. *Canal Comm'rs*, 5 Wend. at 447-48; see *Fulton*, 94 N.E. at 201-02.

257. *Canal Comm'rs*, 5 Wend. at 460-62.

258. *Mentor Harbor Yachting Club v. Mentor Lagoons, Inc.*, 163 N.E.2d 373, 375 (Ohio 1959); see LEGAL INST. FOR THE GREAT LAKES, *supra* note 113.

259. *Mentor Harbor Yachting Club*, 163 N.E.2d at 375.

260. OHIO REV. CODE ANN. § 1506.10 (LexisNexis 2001).

261. *Id.*; *Mitchell v. Cleveland Elec. Illuminating Co.*, 507 N.E.2d 352, 354 (Ohio 1987); see 1993 OHIO OP. ATT'Y GEN. 2-128.

262. OHIO REV. CODE ANN. § 1506.10 (LexisNexis 2001).

263. OHIO REV. CODE ANN. § 1506.11 (LexisNexis 2001).

boating.²⁶⁴ In addition, the court held that a natural, temporary obstruction does not destroy the otherwise navigable character of a waterway and that a natural waterway does not lose its navigability because part of it has been artificially constructed.²⁶⁵ Nor is the channel of a naturally navigable watercourse made public because of reasonable improvements of it.²⁶⁶ Nevertheless, “[a] lake which is not really useful for navigation, although of considerable size compared with ordinary fresh-water streams, may be private property.”²⁶⁷ A lake can also become public if the riparian owners so dedicate it, but “[p]rivate owners are not to be deemed to have devoted their property to [public uses] simply because they interposed no objections.”²⁶⁸

Regardless of whether a river or lake is deemed navigable, Ohio law recognizes a presumption that the riparian owner holds title to the middle of the stream or the center of the lake.²⁶⁹ Exceptions include Lake Erie, where the littoral owner has title of the land to the natural shoreline,²⁷⁰ and the Ohio River, where private title extends to the low-water mark.²⁷¹ If a river or lake is considered navigable under the aforementioned factors, then the waterway is subject to a public easement of navigation,²⁷² which includes public fishery rights.²⁷³ When a waterway is considered navigable, the

264. *Mentor Harbor Yachting Club*, 163 N.E.2d at 374; *State ex rel. Brown v. Newport Concrete Co.*, 336 N.E.2d 453, 457–58 (Ohio Ct. App. 1975).

265. *Mentor Harbor Yachting Club*, 163 N.E.2d at 377, 378.

266. *Id.* at 377.

267. *See Lembeck v. Nye*, 24 N.E. 686, 688 (Ohio 1890).

268. *Id.*

269. *Id.* at 688–89; *Lamb v. Ricketts*, 11 Ohio 311, 315 (1842).

270. *State ex rel. Squire v. City of Cleveland*, 82 N.E.2d 709, 725 (Ohio 1948). The natural shoreline is defined as the line where water usually stands undisturbed. *Sloan v. Biemiller*, 34 Ohio St. 492, 512 (1878). For purposes of this Article, the term “littoral” means “[b]elonging to shore, as of seas and great lakes.” BLACK’S LAW DICTIONARY 934 (6th ed. 1990) (citing *Wernberg v. State*, 516 P.2d 1191, 1195 (Alaska 1973)); *see also Glass v. Goeckel*, 703 N.W.2d 58, 61 n.1 (Mich. 2005) (noting that, because the common law of the seas applies to the Great Lakes, it will extend the term “littoral,” which more commonly applies to seas and their coasts, to shoreland of the Great Lakes).

271. *See Lembeck*, 24 N.E. at 689. The low-water mark, however, does not form the boundary of the State of Ohio’s title on the Ohio River. In determining the border between Ohio and Kentucky under the Ohio River, the federal courts have applied the “thalweg rule.” *Ohio v. Kentucky*, 444 U.S. 335, 340 (1980). The thalweg of a river refers to the line drawn to join the lowest points along the entire main channel of the watercourse. *Clark v. Pigeon River Improvement Slide & Boom Co.*, 52 F.2d 550, 554 (8th Cir. 1931). Thus, as to the Ohio River, the State holds title to the portion of the riverbed from the low-water mark on the banks to the thalweg of the river. We could find no case law addressing the nature of that title.

272. *Walker v. Bd. of Pub. Works*, 16 Ohio 540, 544 (1847).

273. *E. Bay Sporting Club v. Miller*, 161 N.E. 12, 13 (Ohio 1928); *Bodi v. Winous Point Shooting Club*, 48 N.E. 944 (Ohio 1897).

riparian owner retains the right to wharf out to the point of navigability, but the owner cannot interfere with the public's right of navigation or fishery.²⁷⁴ Moreover, the wharf or pier must lie within the projected boundaries of the riparian owner's waterfront property.²⁷⁵

When the lake or stream is considered non-navigable, it can be privately owned.²⁷⁶ In this case, neither the public nor the owner of adjacent lands (whose title only extends to the margin of the lake) enjoys the right to navigate or fish on the waters.²⁷⁷ Finally, ownership of the land under non-navigable marshes carries with it exclusive hunting and fishing rights.²⁷⁸

As proprietor of navigable waters in Ohio, the State is required to hold such waters available for public use, and is the trustee of the fish and wildlife within those waters.²⁷⁹ In *State v. City of Bowling Green*,²⁸⁰ the Supreme Court of Ohio held the city liable for the negligent operation of its sewage treatment plant, resulting in the discharge of pollutants that killed fish in the Portage River. In addition to the duties imposed upon the State (presently the Ohio Department of Natural Resources), "an essential part of a trust doctrine" is the State's affirmative duty to take action against the negligent acts of others that destroy property held in trust (e.g., fish).²⁸¹

G. Pennsylvania

Pennsylvania developed its public trust jurisprudence based on its experience with the rivers and lakes in the eastern part of the State, rather than its experience with Lake Erie.²⁸² Besides a few idiosyncrasies, application of the public trust doctrine in Pennsyl-

274. *Walker*, 16 Ohio at 544.

275. *Thomas v. Sanders*, 413 N.E.2d 1224, 1232 (Ohio Ct. App. 1979).

276. *E. Bay Sporting Club*, 161 N.E. at 16.

277. *Lembeck v. Nye*, 24 N.E. 686, 690 (Ohio 1890).

278. *E. Bay Sporting Club*, 161 N.E. at 13.

279. *State v. City of Bowling Green*, 313 N.E.2d 409, 411 (Ohio 1974); see also OHIO REV. CODE ANN. § 1506.10 (LexisNexis 2001); 35A AM. JUR. 2D *Fish, Game and Wildlife Conservation* § 1 (2006) (noting that ownership or title to fish and game is generally held by the State in trust for the benefit of its citizens).

280. *City of Bowling Green*, 313 N.E.2d at 409.

281. *Id.* at 411. The authors found no similar case law in the other seven Great Lakes states that addresses the affirmative duty to take action against negligent acts that destroy property held in trust (e.g., fish or wildlife). See Michael C. Blumm & Lucas Ritchie, *The Pioneer Spirit and the Public Trust: The American Rule of Capture and State Ownership of Wildlife*, 35 ENVTL. L. 673, 693-720 (2005).

282. *Dunlap v. Commonwealth*, 108 Pa. 607, 613 (1885).

vania is straightforward. Pennsylvania cases do not specifically mention the public trust's application to the Great Lakes, however, under federal case law, it appears that the beds of the Great Lakes passed to the State in trust for the public.²⁸³

A Commonwealth *Act of March 21, 1798*²⁸⁴ declared certain bodies of water to be public streams and highways for the passage of boats and rafts.²⁸⁵ These waterways also pass the more general common law test of navigability that applies to all waters within the State.²⁸⁶ In Pennsylvania, courts use the following test for navigability:

[It depends upon whether the water] is used or useable as a broad highroad for commerce and the transport in quantity of goods and people, which is the rule naturally applicable to rivers and to large lakes, or whether all of the mentioned factors counted in the water remains a local focus of attraction, which is the rule sensibly applicable to shallow streams and to small lakes and ponds. The basic difference is that between a trade-route and a point of interest. The first is a public use and the second private.²⁸⁷

If a lake or river is considered navigable, then the riparian owner only takes to the low-water mark, subject to the public's right of navigation, fishing, and other proper uses up to the high-water mark (especially when the water level is high).²⁸⁸ If the lake or river is considered non-navigable, then the riparian owner generally takes to the middle of the waterway.²⁸⁹ In Pennsylvania riparian rights are subject to the same disposition as other property interests.²⁹⁰ Thus, a riparian owner may convey them, reserve them, or sever them from the upland property interests.²⁹¹ The grantor's intention determines the property interests that change hands.²⁹² In a case where the owner grants the uplands independently of any

283. *Id.*; see also *Ill. Cent. R.R. v. Illinois*, 146 U.S. 387, 435 (1892).

284. 3 LAWS OF THE COMMONWEALTH OF PENNSYLVANIA 1700-1810 320 (John Bioren 1810) (republished in 4 volumes under the authority of the legislature with notes and references by Bioren).

285. *Id.*

286. *Lakeside Park Co. v. Forsmark*, 153 A.2d 486, 489 (Pa. 1959).

287. *Id.*

288. *Wood v. Appal*, 63 Pa. 210, 221 (1869).

289. *Conneaut Lake Ice Co. v. Quigley*, 74 A. 648, 650 (Pa. 1909).

290. *Gibbs v. Sweet*, 20 Pa. Super. 275, 282 (Super. Ct. 1902).

291. *Id.* at 282-83.

292. *Mountain Props., Inc. v. Tyler Hill Realty Corp.*, 767 A.2d 1096, 1099 (Pa. Super. Ct. 2001).

riparian rights, mere ownership of land bordering the water gives no ownership right of the waterway.²⁹³

Pennsylvania applies the common law rule that ownership of a part of a lakebed includes ownership of the water above it.²⁹⁴ So, in the case of non-navigable waterways where the riparian owner has retained her interest in the bottomland, she may prevent others from using the waters above her property.²⁹⁵ This means that the owner of a portion of a non-navigable waterway has the right to use only the part of the lake or river immediately above her submerged land, and not the entire body of water.²⁹⁶ Thus, in the case of a non-navigable pond or lake where the submerged land is owned by others and no riparian rights attach to the property bordering the water, the adjacent landowner becomes a trespasser when he attempts to use the pond or lake.²⁹⁷

Finally, the *Act of April 11, 1848*²⁹⁸ explicitly authorizes the State to grant the right to mine not more than 100 acres of the bed of any navigable river at or below the low-water mark.²⁹⁹ Such a grant only gives the right to dig and mine for minerals; it provides no title to the actual soil, sand, or anything else in the riverbed.³⁰⁰ As mentioned above, the riparian owner has the right in the soil to the ordinary low-water mark of the river, subject to the public right of navigation, fishing, and other proper use of the highway to the ordinary high-water mark.³⁰¹ It appears that there is no reported case law in Pennsylvania that has considered how the conveyance of mining rights in a navigable river affects the public's right of navigation and fishing.

H. Wisconsin

Of all the Great Lakes states, Wisconsin's public trust doctrine is the most expansive in scope. Wisconsin's law 1) applies to a broad number of public uses of waterways, 2) includes protections for natural resources (e.g., wetlands³⁰²) and the environment, and 3)

293. *Matthews v. Bagnik*, 41 A.2d 875, 878 (Pa. Super. Ct. 1945).

294. *Mountain Props.*, 767 A.2d at 1100.

295. *Smoulter v. Boyd*, 58 A. 144, 152 (Pa. 1904).

296. *Id.*; *Mountain Props.*, 767 A.2d at 1100.

297. *Matthews*, 41 A.2d at 877-88.

298. An Act to encourage the further development of the mineral resources of the commonwealth of Pennsylvania, 1848 Pa. Laws 533.

299. *Pa. Coal Co. v. Winchester*, 109 Pa. 572, 576 (1885).

300. *Id.*

301. *Wood v. Appal*, 63 Pa. 210, 221 (1869).

302. *Just v. Marinette County*, 201 N.W.2d 761, 765-66 (Wis. 1972).

even extends to preservation of trust lands and waters so as to preserve their scenic beauty.³⁰³ The public trust duty requires the State not only to protect the public's right of navigation, but also to preserve the navigable waters for fishing, hunting, recreation, and scenic beauty.³⁰⁴ This includes the duty to eradicate present pollution and to prevent further pollution in navigable waters.³⁰⁵

Wisconsin has held that the historic common law definition of navigability is unimportant.³⁰⁶ At one time, the question of navigability for purposes of the public trust was answered by local law.³⁰⁷ Since the public trust was codified by statute in 1989, the Wisconsin Department of Natural Resources has administered the trust with reference to the State definition of navigability.³⁰⁸ Accordingly, all lakes that are located within or partially within Wisconsin are navigable, and therefore public waters, if they are navigable-in-fact.³⁰⁹ Navigable-in-fact is defined as water "capable of floating any boat, skiff or canoe, of the shallowest draft used for recreational purposes."³¹⁰ In adopting such a test, Wisconsin has refused to limit public trust protections to those waters only useful for commercial purposes.³¹¹ The trust also applies to certain artificial waters connected to non-navigable waters³¹² and, in some instances, to non-navigable streams that impact navigable waters.³¹³ A waterway need not be navigable at all times of the year; instead, it only has to be navigable at some regularly recurring interval.³¹⁴ Furthermore, an area need not be actually navigable to receive public trust protection; being part of a navigable waterway is sufficient.³¹⁵

The title to the beds of all lakes and ponds that fall under the above definition of navigability, including the Great Lakes, is vested in the State up to the high-water mark.³¹⁶ The ordinary high-water mark is defined as "the point on the bank or shore up to which the

303. *Muench v. Pub. Serv. Comm'n*, 53 N.W.2d 514, 521 (Wis. 1952).

304. *Wisconsin's Envtl. Decade, Inc. v. Dep't of Natural Res.*, 271 N.W.2d 69, 72 (Wis. 1978).

305. *Id.* at 76.

306. *Ne-pee-nauk Club v. Wilson*, 71 N.W. 661, 661-662 (Wis. 1897).

307. *Id.*

308. WIS. STAT. ANN. § 13.097 (West 2004).

309. *Muench v. Pub. Serv. Comm'n*, 53 N.W.2d 514, 519 (Wis. 1952).

310. *Id.*

311. *Id.*

312. *Village of Menomonee Falls v. Wis. Dep't of Natural Res.*, 412 N.W.2d 505, 510 (Wis. Ct. App. 1987).

313. *Omernik v. State*, 218 N.W.2d 734, 739 (Wis. 1974); *Muench*, 53 N.W.2d at 519.

314. *DeGayner & Co. v. Dep't of Natural Res.*, 236 N.W.2d 217, 222 (Wis. 1875).

315. *State v. Trudeau*, 408 N.W.2d 337, 342 (Wis. 1987).

316. *Id.* at 343.

presence and action of the water is so continuous as to leave a distinct mark either by erosion, destruction of terrestrial vegetation, or other easily recognized characteristic."³¹⁷ The trust doctrine prohibits the State from granting substantial quantities of bottomland to private persons, but it does not prevent minor alterations in the shoreline of a navigable body of water.³¹⁸ A bed of a lake may be filled in instances where all or some of the following are true: 1) the filled area is open to the public; 2) public bodies control the use of the area; 3) the filled area and diminished capacity of the lake, because of the fill, is relatively small compared to the whole lake; 4) the benefit to the public who will use the filled area greatly outweighs the negative impact to the members of the public who use the part of the lake to be filled; and 5) a public body controls the use of the filled area.³¹⁹

The title of a riparian owner along a stream or river, either navigable or non-navigable, extends to the center of the stream or river.³²⁰ On navigable streams, this title is subject to the public's right to navigate, hunt, fish, and recreate up to the high-water mark.³²¹ On non-navigable streams, the riparian owner's rights are absolute.³²²

A riparian owner may construct a wharf or pier on a navigable waterway past the high-water mark in order to aid navigation, as long as the wharf or pier does not interfere with the rights of other riparian owners or the public's rights.³²³ Riparian owners may not expand their property by building out into the lake for that purpose, but natural accretions belong to the riparian owners.³²⁴ In Wisconsin, no riparian owner may convey away any exclusively riparian right, except the right to access the water by crossing over the uplands.³²⁵ A patent cannot be given for land that is covered by navigable water, and any such patent is void.³²⁶

317. *Diana Shooting Club v. Husting*, 145 N.W. 816, 820 (Wis. 1914).

318. *State v. Pub. Serv. Comm'n*, 81 N.W.2d 71, 72 (Wis. 1957).

319. *Id.* at 73.

320. *Muench v. Pub. Serv. Comm'n*, 53 N.W.2d 514, 517 (Wis. 1952).

321. *Willow River Club v. Wade*, 76 N.W. 273, 275 (Wis. 1898).

322. *Lac Courte Oreilles Band of Lake Superior Chippewa Indians v. Wisconsin*, 740 F. Supp. 1400, 1424 (W.D. Wis. 1990).

323. WIS. STAT. ANN. § 30.13 (West 2006).

324. *Doemel v. Jantz*, 193 N.W. 393, 396 (Wis. 1923).

325. WIS. STAT. ANN. § 30.133 (West 2006).

326. *See Doemel*, 193 N.W. at 395.

III. PROPOSAL FOR A NEW TEST TO AID IN IMPLEMENTING THE PUBLIC TRUST DOCTRINE IN THE GREAT LAKES STATES

Our historical survey of the public trust doctrine in waterways of the Great Lake states reveals considerable variety in how these states have approached and implemented the doctrine. We build on some of these approaches in crafting a new model for implementing the trust.

We propose three levels of analysis for determining how the public trust doctrine applies in a Great Lakes state. The first level addresses the geographic scope of the doctrine's applicability in waterways. The second level addresses public rights of access to waterways. The third level addresses the uses of the waterways that should be protected and how impairments of those uses should be handled.

A. The First Level: Geographic Scope

First, we believe that the geographical scope of the trust doctrine in the Great Lakes system should still generally depend on a determination of whether the waterway in question is in some way "navigable."³²⁷ But, unlike the federal navigable-in-fact test³²⁸ and the navigable-for-commercial-purpose test applied in Illinois,³²⁹ the definition of "navigability" should be broader for the purpose of

327. The term "navigability" has many meanings depending on the purpose for which the test is used. It determines not only the admiralty jurisdiction of the United States, *for example*, *United States v. Matson Navigation Co.*, 201 F.2d 610, 613 (9th Cir. 1953), but also the scope of federal power to regulate navigation, *for example*, *Arizona v. California*, 373 U.S. 546, 587 (1963). Pre-empive federal authority over navigation, derived from the Commerce Clause of the Constitution, enables the federal government to regulate the flow of navigable rivers and streams. *Id.* At one time the term was understood in a more restricted sense, as subject to the ebb and flow of the tides. *See Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469, 477 (1988); *supra* note 86 (discussing the meaning of navigability under English law). As this Article demonstrates, there are also a number of state navigability tests not only for determining title boundaries but also for applying the public trust doctrine.

328. To determine "navigability" for the purpose of defining the title to freshwaters that a state received from the United States upon statehood, the federal navigability-in-fact test applies. *E.g.*, *United States v. Oregon*, 295 U.S. 1, 14 (1935); *Barney v. Keokuk*, 94 U.S. 324, 336 (1876). The federal navigability-for-title test has seven elements: 1) navigability is a question of fact; 2) a waterway must be susceptible to navigation; 3) the waterway must be susceptible to navigation as a highway for public passage; 4) a waterway must be navigable in its natural and ordinary condition; 5) navigability is established at the time of statehood; 6) navigability need not be continuous; and 7) navigability may be based on the capacity to support relatively small craft. *E.g.*, *Utah v. United States*, 403 U.S. 9, 10–11 (1971).

329. *E.g.*, 70 ILL. COMP. STAT. ANN. 1820/27 (West 2005); *DuPont v. Miller*, 141 N.E. 423, 425 (Ill. 1923); *Schulte v. Warren*, 75 N.E. 783, 784 (Ill. 1905).

applying the public trust doctrine in the Great Lakes system. Borrowing from Wisconsin's broad definition of navigability,³³⁰ the test for the Great Lakes system should be based on whether a stream or lake is capable of floating a recreational boat of the shallowest draft at a specified time of the year. The trust would apply to certain artificial waters connected to navigable waters,³³¹ and in some instances to non-navigable streams that impact navigable waters.³³² It would also apply to artificial waterways that were once non-navigable but have become navigable over time.³³³ At this level, the test for navigability would not require any balancing of the public's rights of access, public uses, private uses, or public or private benefits; nor would it require a public purpose.

A number of reasons support a broad definition of navigability for the Great Lakes system. First, the term is as old as the country. The concept of navigability is grounded in the "forever free" guarantee of the Northwest Ordinance³³⁴ and the statehood acts of six of the Great Lakes states; namely, Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin.³³⁵ Secondly, a broad definition is consistent with the test used in *Illinois Central Railroad*,³³⁶ the watershed public trust case dealing with Chicago's Lake Michigan shoreline and navigable waters. Finally, a broad test is of particular importance for the Great Lakes system, which forms a unique "world heritage" freshwater ecosystem that is especially sensitive to degradation by a wide range of pollutants, invasive species, and competing public and private uses.³³⁷ Viewing the Great Lakes more in ecological terms—by emphasizing the reach of the Great Lakes system's biota up its many tributaries and the importance of headwaters habitat to the biota—further justifies an expanded geographic scope of the public trust doctrine in the tributaries that feed the Great Lakes.³³⁸

330. *Omernik v. State*, 218 N.W.2d 734, 739 (Wis. 1974); *Muench v. Pub. Serv. Comm'n*, 53 N.W.2d 514, 519 (Wis. 1952); *Village of Menomonee Falls v. Wis. Dep't of Natural Res.*, 412 N.W.2d 505, 510 (Wis. Ct. App. 1987).

331. *Village of Menomonee Falls*, 412 N.W.2d at 510.

332. *Omernik*, 218 N.W.2d at 739.

333. *Id.*

334. *See supra* note 94.

335. *See Wilkinson, supra* note 46, at 456–59.

336. *Ill. Cent. R.R. v. Illinois*, 146 U.S. 387, 453 (1892).

337. *See GREAT LAKES ENVIRONMENTAL ATLAS, supra* note 5, at 4–5, 14–15, 29–35.

338. *Id.* at 14–15, 42.

B. The Second Level: Public Rights of Access

Expansion of the geographical scope of the doctrine, would not necessarily mean that a particular public right of access would be commensurately expanded. In keeping with the trust's purpose, it is appropriate to limit some rights of public access to certain portions of the waterway. Time limitations are also appropriate, based on a season or a hunting season. Natural seasonal variations in temperature also impact when and under what circumstances access should be allowed. Some rights of access would be allowed only on weekends, others only during the week, and still others only once a year. Although the courts have traditionally protected the rights of public access for navigation (i.e., passage), commerce, and fishing, they have never suggested a hierarchy for such rights or provided a test to resolve conflicts that may arise.³³⁹

In many instances, questions about the appropriateness of a particular access right inextricably involve questions about the appropriateness of a particular use. For example, near some public swimming beaches, access points for kayaks, canoes, and wind surfing might be appropriate, but due to safety concerns, access slips for large sailboats and motorboats would be inappropriate, and access for commercial fishing (e.g., a marina) and transportation (e.g., a terminal) would be wholly inappropriate.

Other questions arise. For example, away from swimming beaches, should access for fishing be favored over access for passage? Should access for navigation (e.g., a terminal for a ferry boat) be favored over access for fishing (e.g., a boat ramp for a bass boat)? Too much boat traffic may scare fish away. But too much access to one area by commercial and recreational fishermen may result in a crash in the fishing industry, conflicts among commercial fishermen, or conflicts between recreational and commercial fishermen. Such conflicts have already occurred in the Great Lakes between subsistence Native American fishermen and recreational fishermen, with a history of violent results in some areas.³⁴⁰

Boaters may also disturb bottom sediments where fish eggs hatch, resulting in a decline in the number of fish. Boating may cause the banks of small streams to erode and cover the gravel on the bottom with silt or sand. The size and composition of native gravel is essential for the adherence of fish eggs. Eggs that do not adhere wash away downstream to be eaten or to rot. How to

339. See discussion *supra* note 54.

340. See Henquinet & Dobson, *supra* note 54, at 335-39, 369-71.

remove sand from gravel spawning grounds on the upper reaches of the river, and how to keep the sand from returning to the bottom, is a particular challenge for the Little River Band of Ottawa Indians in Michigan, who are trying to restore and maintain a naturally reproducing population of lake sturgeon in the Little River.³⁴¹

Other conflicts arise between recreational river users and riparian owners.³⁴² Although the trust doctrine is designed to provide public access to navigable waters for a variety of uses, it does not guarantee the public's right to use the banks of a navigable stream.³⁴³ In many states public rights extend only to the water's edge and walking on the shoreland constitutes a trespass,³⁴⁴ but in some states walking on the same area when the water is up to the high-water mark is permitted (i.e., wet feet are okay).³⁴⁵ In a few states the public has a right to use the exposed shore area along navigable streams and rivers, without the permission of the riparian owner, when engaged in water-related recreational activity.³⁴⁶ Those activities are limited to activities that require water, such as fishing, swimming, and boating, and this rule does not apply to lakes, ditches, channels, or other bodies of water that are not characterized by flowing water.³⁴⁷ In some waterways there may be a "right to float on by,"³⁴⁸ which may expand and contract depending on the water level, but that does not include a right to infringe on the rights of the shore owner.³⁴⁹

Thus, for the foregoing reasons, we suggest that the second level of inquiry should be a judicial one, with some discretion left to the trustee. The court or trustee would: 1) determine whether the particular right of access is suitable for the entire geographic area defined as public under the first inquiry, or portions thereof; 2)

341. From the personal experience of author Bertram C. Frey as a guest of the Little River Band of Ottawa Indians. This footnote applies to this entire paragraph.

342. Dustin Trowbridge Till, Comment, *The Right To Float on By: Why the Washington Legislature Should Expand Recreational Access to Washington's Rivers and Streams*, 28 U. SEATTLE L. REV. 1093, 1093–94 (2005).

343. See *Doemel v. Jantz*, 193 N.W. 393, 397 (Wis. 1923).

344. E.g., *Gianoli v. Pfeiderer*, 563 N.W.2d 562, 571–72 (Wis. Ct. App. 1997). In *Gianoli*, the court held that a riparian owner could properly exclude the public from the area between the ordinary high- and low-water marks, particularly when doing so would not interfere with the public's right of navigation. *Id.* at 572.

345. E.g., *Glass v. Goeckel*, 703 N.W.2d 58, 71 (Mich. 2005). In low-water mark states, the right of access is only for navigation and fishing when the water is high; it is still a trespass to walk on the submerged land. E.g., *City of Philadelphia v. Scott*, 81 Pa. 80, 86 (1876).

346. E.g., WIS. STAT. ANN. § 30.134 (West 2006).

347. *Id.*

348. See Till, *supra* note 342, at 1093–94.

349. See KENT & DUDIAK, *supra* note 53, at 12–13.

determine during what time periods and under what circumstances the right of access may be exercised; 3) determine whether the right of access would promote the sustainability of the chemical, physical, and biological integrity of the waterway;³⁵⁰ and finally 4) resolve disputes, if any, between or among competing or conflicting rights of access.

The proposed test presents some obvious issues. First, how would a court or trustee determine whether a right of access is suitable or unsuitable for a stream or lake? By the term "suitable" we mean "adapted to use or purpose." This inquiry would require examining the geographic scope, time, and circumstances for access, as well as the environmental impacts of access. Second, the term "sustainability" includes the concepts of not only nourishing and prolonging the life of waterways but also "sustainable development." Rights of access should support sustainable use practices that protect environmental resources while enhancing the recreational and commercial value of the Great Lakes.³⁵¹ If a right of access does not support such use practices, it should not be allowed. Third, we envision that it would be the trustee—usually an employee of a state natural resources agency rather than an employee of the state environmental protection agency—who would most often employ the test in determining whether to grant access permits.³⁵² Unless the administrative agency abused its discretion in applying the test, the courts would generally defer to the agency.³⁵³ If the abuse was substantial a higher standard of review would be appropriate.³⁵⁴

C. The Third Level: Protected Uses, and Other Important Considerations

Questions concerning public rights of access invariably raise the question of "access for what purpose or what use"? Just as there are limitations on public access to navigable waters, there are also

350. See 33 U.S.C. §§ 1251, 1258, 1268 (2006); GREAT LAKES ENVIRONMENTAL ATLAS, *supra* note 5, at 4–5, 14–15, 29–35.

351. See GREAT LAKES ENVIRONMENTAL ATLAS, *supra* note 5, at 4–5, 14–15, 29–35; GREAT LAKES INTERAGENCY TASK FORCE REPORT, *supra* note 60, at 9.

352. See KENT & DUDIACK, *supra* note 53, at 1–36.

353. See, e.g., *State v. Deetz*, 224 N.W.2d 407, 412–13 (Wis. 1974); *Just v. Marinette County*, 201 N.W.2d 761, 768 (Wis. 1972); *Hixon v. Pub. Serv. Comm'n*, 146 N.W.2d 577, 582–83 (Wis. 1966); Scanlan, *supra* note 83, at 320.

354. Susan Morath Horner, *Embryo, Not Fossil: Breathing Life into the Public Trust in Wildlife*, 35 LAND & WATER L. REV. 23, 57 (2000).

limitations on the use of streams, lakes, their beds, and their living contents.³⁵⁵ In analyzing whether a public use should be protected, we suggest that the courts evaluate: 1) whether the waterway is *suitable* for use by a group of people having a common³⁵⁶ beneficial interest in it; 2) whether the use is reasonable and for a proper public purpose;³⁵⁷ 3) whether the state has complied with its special obligation to maintain the trust;³⁵⁸ 4) whether the use, by itself, or in combination with other recognized uses, promotes the *sustainability* of the chemical, physical, and biological integrity of the waterway; and 5) whether the use would unduly impact the rights of private landowners, including riparian owners.³⁵⁹

Again, we envision a court applying the test, with a state natural resources trustee having discretion to decide how a use should be protected. In particular, the trustee would use the test to administer the trust and evaluate whether to grant a variety of permits.³⁶⁰ Unless the administrative agency abused its discretion in applying the test, the court would generally defer to the agency;³⁶¹ however, if there was a substantial breach of trust, a more stringent standard of review would be applied.³⁶²

There are a number of other important considerations. In applying each of the three levels, but especially in administering the

355. See KENT & DUDIAK, *supra* note 53, at 13. Minnesota, Ohio, and Wisconsin have recognized recreational fishing and boating as public rights protected by the trust doctrine. *Petraborg v. Zontelli*, 15 N.W.2d 174, 180 (Minn. 1944); *Nelson v. De Long*, 7 N.W.2d 342, 346 (Minn. 1942); *Mentor Harbor Yachting Club v. Mentor Lagoons, Inc.*, 163 N.E.2d 373, 374 (Ohio 1959); *Wisconsin's Envtl. Decade, Inc. v. Dep't of Natural Res.*, 271 N.W.2d 69, 72 (Wis. 1978). Both Minnesota and Wisconsin recognize recreational swimming as a protected public right in navigable lakes. *Petraborg*, 15 N.W.2d at 180; *Nelson*, 7 N.W.2d at 346; *State v. Beck*, 338 N.W.2d 492, 499–500 (Wis. 1983); *Wisconsin's Envtl. Decade*, 271 N.W.2d at 72. Minnesota has protected ice cutting on public lakes. *Petraborg*, 15 N.W.2d at 180; *Nelson*, 7 N.W.2d at 346. Since the advent of modern refrigeration, however, this right has diminished in importance.

356. See discussion *supra* note 84.

357. Wisconsin courts, for example, play an important role in determining whether the public trust is being administered for the public's benefit. See *State v. Kenosha County Bd. of Adjustment*, 577 N.W.2d 813, 819 (Wis. 1998).

358. *Sax*, *supra* note 61, at 511; *cf.* Ill. Cent. R.R. v. Illinois, 146 U.S. 387, 459–60 (1892) (recognizing judicial responsibility to examine legislative authority not only for its general conformity to the scope of regulatory power, but also for its consonance with the state's special obligation to maintain the public trust in Great Lakes waters).

359. Similar to our factor analysis test for determining whether particular uses should be protected, the Ohio Supreme Court has adopted a factor-weighting test for determining whether a watercourse is navigable. *Mentor Harbor Yachting Club*, 163 N.E.2d at 375.

360. See KENT & DUDIAK, *supra* note 53, at 1–36.

361. See, e.g., *State v. Deetz*, 224 N.W.2d 407, 412–13 (Wis. 1974); *Just v. Marinette County*, 201 N.W.2d 761, 768 (Wis. 1972); *Hixon v. Pub. Serv. Comm'n*, 146 N.W.2d 577, 583 (Wis. 1966); *Scanlan*, *supra* note 83, at 320.

362. E.g., *Meinhard v. Salmon*, 164 N.E. 545, 546 (N.Y. 1928); see *Horner*, *supra* note 354, at 57.

third level, the position of trustee carries great weight. The person holding the position should be an expert in the field, competent, independent, and insulated from undue political pressure.³⁶³ His decision-making should be highly visible and transparent.³⁶⁴ The beneficiaries of the trust (i.e., the group of users with a common beneficial interest in the waterway) should have standing to sue and a legal right of action against a trustee whose actions fail to meet trust standards.³⁶⁵ In particular, a beneficiary should have the right to: 1) compel the trustee to perform his duties as trustee, 2) enjoin the trustee from committing a breach of trust, 3) compel the trustee to redress a breach of the trust, 4) appoint a receiver to take possession of the trust property and administer the trust properly, and 5) remove the trustee and request a court to appoint a new trustee.³⁶⁶ Finally, as in applying the test at the second level, the trustee's actions should be judged using a high standard of care and loyalty when substantial breaches of fiduciary duty are involved.³⁶⁷

Using the applicable tests at the third level would allow a court (or trustee) to recognize a broader range of public uses and rights. For instance, our approach would acknowledge the importance of recreational uses, which now have greater commercial value in the Great Lakes³⁶⁸ than traditional commercial uses, such as navigation for passage,³⁶⁹ floating saw logs to market,³⁷⁰ and commercial fishing.³⁷¹ In addition, the courts could more easily recognize the public's right to preserve trust lands and waters so as to protect their scenic beauty.³⁷² Applying the broader navigability test at level one together with the sustainability tests at levels two and three would also allow a court to impose restrictions that would prevent environmental harm and preserve lands and waters subject to the public trust.³⁷³ For some protected environmental concerns, it would be appropriate to extend public protections into portions of

363. See Horner, *supra* note 354, at 41–49.

364. *Id.* at 49–54.

365. See *id.* at 54–57.

366. RESTATEMENT (SECOND) OF TRUSTS § 200 cmt.(a) at 214 (1959); see Horner, *supra* note 354, at 54–56.

367. See Horner, *supra* note 354, at 57.

368. GLRC STRATEGY, *supra* note 5, at 9.

369. *E.g.*, DuPont v. Miller, 141 N.E. 423, 423 (Ill. 1923); Smith v. Odell, 137 N.E. 325, 326–27 (N.Y. 1922); Lakeside Park Co. v. Forsmark, 153 A.2d 486, 489 (Pa. 1959).

370. *E.g.*, Clark v. Pigeon River Improvement Slide & Boom Co., 52 F.2d 550, 553 (8th Cir. 1931); Bott v. Comm'n of Natural Res., 327 N.W.2d 838, 844 (Mich. 1982).

371. *E.g.*, Freeland v. Pa. R.R., 47 A. 745, 746 (Pa. 1901).

372. See *supra* note 83 and *infra* chart XIII in Appendix B.

373. See *supra* note 82 and *infra* chart XII in Appendix B.

non-navigable waters, but this has so far occurred (with few exceptions) only in tidal non-navigable waters.³⁷⁴ It would also be appropriate to substantially restrict some commercial and navigation uses because they would not be suitable for a particular waterway in view of their unreasonable impact on the physical structure and ecological health of the waterway, and because they harm the rights of private landowners.³⁷⁵

The proposed sustainability tests at levels two and three would allow a court to impose remedies for impairment of a beneficial use or impairments caused by cumulative adverse impacts of uses (or misuses). Cases employing the traditional, state “navigability” test do not provide such broad protection.³⁷⁶ Following Annex 2 of the *Great Lakes Water Quality Agreement of 1978*, as amended by a protocol signed November 18, 1987,³⁷⁷ the test could protect against impairment of a number of beneficial uses. This would include any significant change in the chemical, physical, or biological integrity of the Great Lakes system that was sufficient to cause: 1) restrictions on fish and wildlife consumption; 2) tainting of fish and wildlife flavor; 3) degradation of fish and wildlife populations; 4) fish tumors or other deformities; 5) bird or animal deformities or reproductive problems; 6) degradation of phytoplankton and zooplankton populations in waterways; 7) loss of fish and wildlife habitat; 8) degradation of benthos; 9) restrictions on dredging activities; 10) eutrophication or undesirable algae; 11) restrictions on drinking water consumption, or taste or odor problems; 12) beach closings; 13) added costs to agriculture or industry (e.g., from damages to water intakes caused by incrustations of zebra mussels, an invasive Eurasian species); or 14) degradation of aesthetics.³⁷⁸

The five-step test at level three would allow the courts and/or the legislatures of the Great Lakes states to provide public trust protections against impairment of a number of beneficial uses, including significant changes that affect fish and wildlife (numbers

374. *Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469, 479–80 (1988) (stating that the public trust extends to all non-navigable waters that are influenced by the ebb and flow of the tide); *see also* Austin, *supra* note 30, at 1003–06; *cf.* Nat'l Audubon Soc'y v. Superior Court, 658 P.2d 709, 720 (Cal. 1983) (holding that public trust extends to any non-navigable waterway that significantly affects the public's interest in a larger navigable body). This is important because the recognized public uses of swimming, ice cutting, and skating often occur in water so shallow it does not meet most states' navigability tests.

375. *See* MICH. COMP. LAWS ANN. §§ 324.32501 to .32516 (West Supp. 2006); *Bott*, 327 N.W.2d at 842 (discussing policy concerns).

376. *See supra* note 62.

377. *GLWQA*, *supra* note 16, at annex 2, 1.(a), (c).

378. *Id.* at annex 2, pt. 1(c).

one through seven above).³⁷⁹ Protecting against these impairments would also be viewed as incident to fishing rights, and hunting rights where hunting is a recognized public use. The suggested five-step test for determining protected uses would protect against impairments of other beneficial uses, including significant changes that affect the use or condition of waterways and their submerged lands (numbers eight through thirteen above).³⁸⁰ The proposed test would also support existing scenic beauty protections afforded to trust lands and waters by Wisconsin case law,³⁸¹ by Indiana³⁸² and Michigan statutes,³⁸³ and by constitutional amendment in Pennsylvania,³⁸⁴ as well as extending such protections to other Great Lakes states.

Going beyond scenic beauty protections and the enumerated impairments of use covered by the *Great Lakes Water Quality Agreement*,³⁸⁵ the proposed test would protect against impairments of additional beneficial uses, including any significant change in the chemical, physical, or biological integrity of the Great Lakes system sufficient to cause: 1) impairment of use of trust property caused by exotic invasive species, or 2) degradation of the quality of near-coastal waters (e.g., from a spill of oil or other hazardous substances), which would include impairment of uses of private upland and riparian property.

The proposal here at level three does not go so far as to give precedence to public trust rights in ecological resources over private rights.³⁸⁶ Step five of the test weighs whether the use would unduly impact the rights of private property owners, including riparian owners. Under this step, courts and trustees must protect

379. *Id.*; see cases cited and discussion *supra* note 62.

380. GLWQA, *supra* note 16, at annex 2, pt. 1(c).

381. *State v. Trudeau*, 408 N.W.2d 337, 343 (Wis. 1987); *City of Madison v. State*, 83 N.W.2d 674, 678 (Wis. 1957); *Muench v. Pub. Serv. Comm'n*, 53 N.W.2d 514, 522 (Wis. 1952). Another Wisconsin case states that the public has a right to enjoy scenic beauty as one of the "incidents of navigation." *City of Madison v. Tolzmann*, 97 N.W.2d 513, 516 (Wis. 1959).

382. Indiana statutory law provides that the "natural resources and the natural scenic beauty of Indiana are a public right," IND. CODE ANN. § 14-26-2-5(c) (West 1998), and that the State holds and controls public freshwater lakes and natural, scenic, and recreational river systems in trust for all citizens of Indiana. *Id.* at §§ 14-26-2-5, 14-29-6-7.

383. In granting permits for proposed structures or projects impacting inland lakes and streams, the Michigan Department of Natural Resources must consider, among other matters under the trust doctrine, whether the structure or project would "unlawfully impair or destroy" the aesthetics of the inland lake or stream. MICH. COMP. LAWS ANN. § 324.30106 (West 1999); see § 324.1704.

384. PA. CONST. art. I, § 27. See *supra* note 115.

385. GLWQA, *supra* note 16, at annex 2, 1.(a), (c).

386. See *supra* note 62.

private property rights against excessive infringement from public uses of waterways.

Several commentators³⁸⁷ have also supported expansion of the public trust doctrine to better protect the environment. The public trust doctrine in California,³⁸⁸ Louisiana,³⁸⁹ Michigan,³⁹⁰ and Wisconsin³⁹¹ supports an expansionist application of the public trust doctrine to include protection of waterways, the land thereunder, and their living contents in their natural state. These states provide expanded protections so that the trust area may serve as an ecological unit for scientific study, as open space, and as an environment that provides food and habitat for birds and marine life and that favorably affects the scenery and climate of the system.³⁹²

Because of the unique and environmentally vulnerable nature of the Great Lakes freshwater system, as well as its vast and irreplaceable ecological and economic value,³⁹³ we believe that the Great Lakes states should expand protections under state public trust laws. State law protections should be commensurate with (but not the same as) the environmental protections afforded to the Great Lakes system collectively under the federal *Clean Water Act*,³⁹⁴ *Clean Air Act*,³⁹⁵ the *Boundary Waters Treaty between the United States and Canada*,³⁹⁶ the *Great Lakes Water Quality Agreement*,³⁹⁷ and the *Great*

387. E.g., Austin, *supra* note 30, at 1009–19; Frank, *supra* note 58, at 624–29; Quick, *supra* note 62, at 117–22; Sax, *supra* note 61, at 485–89, 556–65; Frey, *supra* note 107, at 244–46.

388. Nat'l Audubon Soc'y v. Superior Court, 658 P.2d 709, 719–20 (Cal. 1983); State v. Superior Court, 625 P.2d 239, 251 (Cal. 1981); State v. Superior Court, 625 P.2d 256, 260 (Cal. 1981); Marks v. Whitney, 491 P.2d 374, 380 (Cal. 1971).

389. *Save Ourselves, Inc. v. La. Envtl. Control Comm'n*, 452 So. 2d 1152 (La. 1984). The *Save Ourselves* case held that the State's proper role as trustee includes an affirmative duty to act on the public's behalf. *Id.* at 1157. The case also held that Louisiana's environmental "regulatory framework is . . . based on state constitutional provisions and the public trust concept." *Id.* at 1158; accord *In re Water Use Permit Applications*, 9 P.3d 409 (Haw. 2000), where the court found that the state's water commission was bound by an "affirmative duty to take the public trust into account in the planning and allocation of water resources, and to protect public trust uses whenever feasible." *Id.* at 453. By this the court meant that "any balancing between public and private purposes begin with a presumption in favor of public use, access, and enjoyment." *Id.* at 454.

390. See *supra* note 66.

391. See *State v. Kenosha County Bd. of Adjustment*, 577 N.W.2d 813, 818–19 (Wis. 1998); *Omernik v. State*, 218 N.W.2d 734, 739 (Wis. 1974); *Just v. Marinette County*, 201 N.W.2d 761, 768 (Wis. 1972); *Muench v. Pub. Serv. Comm'n*, 53 N.W.2d 514, 519 (Wis. 1952); *Village of Menomonee Falls v. Wis. Dep't of Natural Res.*, 412 N.W.2d 505, 510 (Wis. Ct. App. 1987).

392. See cases cited *supra* notes 66, 388, 389, 390.

393. See authorities cited *supra* note 5.

394. 33 U.S.C. §§ 1251, 1258, 1268 (2006).

395. 42 U.S.C. §§ 7401–7431 (2006).

396. Treaty Between the United States and Great Britain Relating to Boundary Waters Between the United States and Canada, U.S.-U.K., Jan. 11, 1909, 36 STAT. 2448.

397. GLWQA, *supra* note 16.

Lakes Air Quality Agreement.³⁹⁸ Our analysis focuses on preserving public uses of the waters and subaqueous lands of the Great Lakes system and their living contents and protecting against impairment of those areas and uses. This analysis is based more on natural science than economics, but it does not discount economic analysis or the importance of private property rights.

The sustainability of natural ecosystems on Earth has been viewed as so vital a concern, and so important a value to the people who depend on a particular ecosystem for their own health and welfare as well that of their future generations, that societies around the world have rejected both wholesale private acquisition of significant portions and unfettered public use of the ecosystem.³⁹⁹ In particular, many countries—including Italy, China, Spain, several Moslem countries, Nigeria, and the United States⁴⁰⁰—have ancient traditions and modern legal rules that give special treatment to major bodies of water.⁴⁰¹ These rules have attempted to preserve the bulk of commonly used waterways and their living contents for sustainable common use, while permitting modest individual uses and appropriation of the living contents that are compatible with preserving and renewing the whole *corpus* for current as well as future users.⁴⁰² If ever there were a major water system that is worthy of such sustainable use and preservation, it is the Great Lakes system.

In the Great Lakes, pollution clearly impacts a state trustee's ability to protect traditional uses (e.g., commercial fishing) and many recreational uses as well as its ability to preserve a waterway's natural state and scenic beauty.⁴⁰³ Unlike pollution from rivers that run to the oceans, all pathways of pollution in the Great Lakes basin end in the lakes.⁴⁰⁴ Regardless of whether pollutants are diluted by large stream flows or temporarily stored in sediment particles on stream bottoms, they will eventually reach the lakes and add to the total pollution burden.⁴⁰⁵ Because the system is almost closed

398. Agreement Between the Government of the United States of America and the Government of Canada on Air Quality, U.S.-Can., Mar. 13, 1991, T.I.A.S. No. 11783.

399. See Wilkinson, *supra* note 46, at 430.

400. *Id.* at 429. The same author notes the complexity of the doctrine as applied in the United States. *Id.* at 430-39. He observes that there are fifty-one public trust doctrines, one federal and one in each of the fifty states. *Id.* As discussed above, one of the purposes of this Article has been to explore some of the complexity of the doctrine's application in the eight Great Lake states.

401. *Id.* at 428-29.

402. See Rose, *supra* note 62, at 351.

403. See GREAT LAKES ENVIRONMENTAL ATLAS, *supra* note 5, at 4-5, 14-15, 29-39.

404. *Id.* at 32.

405. *Id.*

geographically⁴⁰⁶ (with only one natural outlet from the rest of the lakes at Niagara Falls to Lake Ontario), the lakes respond to total quantities of persistent toxic pollutants, as well as to localized concentrations of those pollutants and others, such as biological pathogens from sewage and oxygen-depleting pollutants.⁴⁰⁷ It is thus imperative to understand the total loadings of pollutants to each lake from all pathways.⁴⁰⁸ Air pollution, which enters the Great Lakes from within basin sources and from long-range transport, deposits substantial amounts of pollutants, including persistent toxic contaminants.⁴⁰⁹ A number of these persistent toxicants bioaccumulate as they pass to living things through the food chain.⁴¹⁰ Concentrations of these persistent toxicants become biologically magnified millions of times in top predators at the end of a long food chain, such as lake trout and fish-eating birds and people.⁴¹¹ The documented harmful effects of these pollutants include human babies with low birth weight; increased risk of cancer, birth defects, and genetic mutations in people; egg-shell thinning in birds; crossed billed cormorants; cancerous tumors in fish and birds; wasting disease in fish and birds; and other adverse impacts on the immune system, nervous system, pre-natal and post-natal development, and fertility of fish and birds.⁴¹²

Exotic—that is, non-native—invasive species of animals and plants have also had a detrimental impact on the Great Lakes system.⁴¹³ In the lakes, sea lamprey, carp, smelt, alewife, Pacific salmon, zebra mussels, and brown goby, to name just a few, have had highly visible and costly impacts.⁴¹⁴ Keeping the Asian carp and the snakehead fish out of the Great Lakes system also deserves a high priority.⁴¹⁵ The effects of hundreds of other invading species may be less obvious but can be profound.⁴¹⁶ On land, invading exotics such as purple loosestrife, garlic mustard, and many varieties

406. *Id.* at 3–4, 32–34. Outflows from the Great Lakes are relatively small (less than one percent per year) in comparison to the total volume of water. Retention times for the volume of water in each lake have been estimated as follows, in descending order: Superior, 191 years; Michigan, 99 years; Huron, 22 years; Ontario, 6 years; and Erie, 2.6 years. The volume of Lake Superior exceeds the combined volumes of the other four lakes. *Id.* at 3–4.

407. *Id.* at 29–32.

408. *Id.* at 31–32.

409. *Id.* at 30–32, 37–39.

410. *Id.* at 14–15, 30–33.

411. *Id.* at 14–15, 33.

412. *Id.* at 4–5, 30–31, 33–35.

413. *Id.* at 35.

414. *Id.*

415. GREAT LAKES INTERAGENCY TASK FORCE, *supra* note 60, at 15–19.

416. GREAT LAKES ENVIRONMENTAL ATLAS, *supra* note 5, at 35.

of European buckthorn continue to displace native species.⁴¹⁷ The collective result has meant disruption, and in some cases destruction, of the complex aquatic and terrestrial communities of plants and animals in the Great Lakes system.⁴¹⁸

For all of the foregoing reasons—particularly because the Great Lakes are a geographically closed, fresh water system that is highly sensitive to and impacted by a variety of persistent, bio-accumulative toxicants and invasive species—we urge expansion of the public trust doctrine in the waterways of the eight Great Lakes states.

IV. ARGUMENTS AGAINST AN EXPANSIVE APPLICATION OF THE PUBLIC TRUST DOCTRINE AND QUESTIONS CONCERNING APPLICATION OF THE TRUST DOCTRINE

While we have presented a case for an expansive reading of the public trust doctrine, significant debate exists about the nature of the doctrine and whether it is compatible with private property rights at all.⁴¹⁹ Some commentators emphasize that the doctrine has gone too far and eroded private rights in waterways and lands adjacent to them.⁴²⁰ These private riparian and littoral rights derive from English common law and are enjoyed by owners of land adjoining navigable waters, including both tidal and non-tidal waters, as well as non-navigable waters that are “influenced by the ebb and flow of the tide.”⁴²¹ Commentators who espouse these views note that, in the United States, fundamental notions of private property and the dominion over nature rely on private ownership, control,

417. *Id.*

418. *Id.* One report estimated that the economy of the Great Lakes loses approximately \$5 billion per year as a result of exotic invasive species. GLRC STRATEGY, *supra* note 5, at 17.

419. See, e.g., Richard Delgado, *Our Better Natures: A Revisionist View of Joseph Sax's Public Trust Theory of Environmental Protection, and Some Dark Thoughts on the Possibility of Law Reform*, 44 VAND. L. REV. 1209 (1991); James L. Huffman, *A Fish Out of Water: The Public Trust Doctrine in a Constitutional Democracy*, 19 ENVTL. L. 527, 534, 561–65, 571–72 (1986).

420. See, e.g., Joseph D. Kearney & Thomas W. Merrill, *The Origins of the American Public Trust Doctrine: What Really Happened in Illinois Central*, 71 U. CHI. L. REV. 799 (2004); sources cited *supra* note 419.

421. *Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469, 479–80 (1988); see also COASTAL STATES ORG., *supra* note 72, at 289–96 and cases cited at 297–306. “Strictly speaking, the rights of an owner whose land abuts tidewaters are called ‘littoral rights,’ and whose land abuts navigable rivers[, streams,] and lakes are called ‘riparian rights.’” *Id.*; cf. *Glass v. Goeckel*, 703 N.W.2d 58, 61 n.1 (Mich. 2005) (noting that, because the common law of the seas applies to the Great Lakes, the court will extend the term “littoral,” which more commonly applies to seas and their coasts, to shoreland of the Great Lakes).

and development of land and resources.⁴²² They emphasize that our entire society is premised on conceptions of private property,⁴²³ including the singular importance of the right to exclude others.⁴²⁴ “For those who view private property as the bulwark of the free enterprise system and constitutional liberty, the [public trust] doctrine looms as a vague threat.”⁴²⁵ At least one author believes that much of recent public trust law infringes on vested private property rights and therefore violates the federal Constitution.⁴²⁶

One example that illustrates this tension between private rights and the public trust arises from wetlands development.⁴²⁷ Developers analyze this issue in economic terms, focusing on the economic burdens of regulation and the diminution in value of private development rights caused by the public’s exercise of public trust beneficial uses.⁴²⁸ Although the extent of the public trust doctrine was not at issue in the recent Supreme Court case of *Rapanos v. United States*, the case addressed the question of what should be the proper scope of federal authority over vast areas of wetlands that include lands and waters held in trust by the states under state law.⁴²⁹ But broadly viewed, *Rapanos* is an example of a case that addresses the question of what the proper balance should be between competing interests of private rights in (Rapanos himself is a developer) and public authority over wetlands and may have implications for how public trust law is applied in wetlands.⁴³⁰

One commentator asks how lawyers and judges should think about public trust law: “Is it part of trust law? Is it part of constitutional law? Is it a guideline for the judicial review of administrative action? Is it simply the police power under another name?”⁴³¹ He

422. See, e.g., Huffman, *supra* note 419, at 528, 533–34; Kearney & Merrill, *supra* note 420, at 800; Lazarus, *supra* note 46, at 668–74, 693–98.

423. E.g., Kearney & Merrill, *supra* note 420, at 800.

424. Writing for the court in *Dolan v. City of Tigard*, former Chief Justice Rehnquist stated: “[P]ublic access would deprive petitioner of the right to exclude others, one of the most essential sticks in the bundle of rights that are commonly characterized as property.” *Dolan v. City of Tigard*, 512 U.S. 374, 384 (1994) (quoting *Kaiser Aetna v. United States*, 444 U.S. 164, 176 (1979) (internal quotation marks omitted)).

425. Kearney & Merrill, *supra* note 420, at 800.

426. Huffman, *supra* note 419, at 528.

427. See, e.g., *Just v. Marinette County*, 201 N.W.2d 761, 765–66 (Wis. 1972).

428. See Richard A. Epstein, *The Public Trust Doctrine*, 7 CATO J. 411, 418–21 (1987); Lazarus, *supra* note 46, at 668–74.

429. *Rapanos v. United States*, 126 S. Ct. 2208, 2215 (2006) (plurality opinion), 2235–36 (Roberts, C.J., concurring), 2236–37 (Kennedy, J., concurring), 2252–56 (Stevens, J. dissenting).

430. See *id.* at 2220. The authors offer no view on the question of federal jurisdiction under the Clean Water Act, 33 U.S.C. §§ 1251–1387 (2006), as that subject is beyond the scope of this Article.

431. Huffman, *supra* note 419, at 527.

concludes that public trust law is none of these but is best understood, both historically and theoretically, as an aspect of property law, and that much of modern public trust case law cannot be justified by this understanding of the doctrine.⁴³² In his view, the public trust doctrine properly “defines [only] an easement that members of the public hold in common.”⁴³³ Delaware, for example, strives to keep the public trust doctrine in its historical place,⁴³⁴ confining its application to commercial navigation⁴³⁵ and protecting riparian and littoral rights down to the low-water mark.⁴³⁶ As already discussed in some detail above,⁴³⁷ New York still retains some aspects of the English test for the publicness of a waterway and also maintains a commercial navigability test for public rights in navigable-in-fact waterways, which is similar to Delaware’s test though somewhat broader.

One influential commentator has opined that the Supreme Court has, or will in the future, undercut the rationale behind the public trust doctrine, which he believes is rooted in a notion of “sovereign capacity” ownership.⁴³⁸ In particular, he believes that the public trust doctrine could be viewed by the Court as expressing “no more than the sovereign’s special interest in an aspect of its general police power.”⁴³⁹ He is concerned that “claims of sovereign ownership are but legal fictions that offer no special immunity” to constitutional transgressions.⁴⁴⁰ He further notes that recent Court “decisions in the context of commerce, supremacy, and takings clause challenges [have] all [been] consistent in this regard.”⁴⁴¹

The same commentator has also argued that the public trust doctrine places undue reliance on a pro-environment judiciary.⁴⁴² He has expressed concern that protection of the environment is

432. *Id.* at 527–28.

433. *Id.* at 527. *Contra*, *Ill. Cent. R.R. Co. v. Illinois*, 146 U.S. 387, 452 (1892). A considerable number of U.S. Supreme Court, lower federal court, and state court public trust cases follow this watershed Supreme Court case. *See, e.g.*, *Phillips Petroleum Co. v. Mississippi*, 484 U.S. 469, 474 n.2 (1988); *Clark v. Pigeon River Improvement Slide & Boom Co.*, 52 F.2d 550, 552 (8th Cir. 1931); *Mentor Harbor Yachting Club v. Mentor Lagoons, Inc.*, 163 N.E.2d 373, 375 (Ohio 1959).

434. *See, e.g.*, *Groves v. Sec’y of the Dep’t of Natural Res. & Envtl. Control*, 1994 Del. Super. LEXIS 80, at *18–19 (Feb. 8, 1994).

435. DEL. CODE ANN. tit. 7, § 7202(d) (2006); *Hagan v. Del. Anglers’ & Gunners’ Club*, 655 A.2d 292, 293 (Del. Ch. 1995).

436. *State ex rel. Buckson v. Pa. R.R. Co.*, 228 A.2d 587, 595 (Del. Super. Ct. 1967).

437. *See supra* Part II.E.

438. *Lazarus, supra* note 46, at 713–15.

439. *Id.* at 713.

440. *Id.*

441. *Id.* at 713–14.

442. *Id.* at 712–13.

too important to be left to the judiciary, which creates public trust law on a case-by-case basis and might not always be pro-environment.⁴⁴³ As demonstrated by our discussion in Parts II.A–H above, and because of the common law nature of public trust law development, gaps exist in the law of most states as to whether a particular use is protected and how far upstream the doctrine reaches on a particular waterway. In addition, “regardless of judicial [favor] or desire, courts may lack sufficient competence in [environmental issues].”⁴⁴⁴ In particular, “[q]uestions arising in . . . environmental and natural resources law . . . can be so inordinately complex and the competing societal [interests] at stake so fundamental that at some level judicial second-guessing of administrative agency [decisions] may not be particularly productive.”⁴⁴⁵

Some commentators have persuasively argued that the enactment of comprehensive, federal and state environmental protection statutes, as a practical matter, have greatly diminished the importance of the public trust as a tool to protect against pollution and damage to natural resources.⁴⁴⁶ There is little doubt that these laws—based on government’s police powers and administered by federal, state, and local agencies—are presently pervasive.⁴⁴⁷ Both administrative agencies and citizen groups find them far easier to enforce than the common law public trust doctrine, which generally can only be enforced by a State Attorney General,⁴⁴⁸ unless a particular state guarantees standing to sue by statute or other means.⁴⁴⁹

Other commentators believe that the present public trust doctrine does not go far enough, finding it unworkable.⁴⁵⁰ Several critics of the trust model for environmental protection question whether the doctrine, as a practical matter, can achieve the goals of preserving and restoring ecological integrity and of environmental

443. *Id.* at 712. *But see* Wilkinson, *supra* note 46, at 468–69. Wilkinson points to a particularly important judicial role in cases that involve constitutional interpretation or the interpretation of archaic laws. *Id.* at 468. He emphasizes the role of judges in adapting the law to the realities of ever-changing social, industrial, and political conditions. *Id.* at 469. He also finds that “[s]uch assessments of the role of the judiciary fit the public trust doctrine . . .,” which is even older than the common law and has “strong constitutional overtones.” *Id.*

444. Lazarus, *supra* note 46, at 712.

445. *Id.*

446. *E.g.*, *id.* at 676–78.

447. *See id.* at 665–68, 674–88; *see also* discussion of state laws and state statutory and code citations *infra* Appendix C.

448. *See* 4 AUSTIN W. SCOTT, *THE LAW OF TRUSTS* 2754 (2d ed. 1956).

449. *E.g.*, MICH. COMP. LAWS ANN. § 324.1701(1) (West 1999); *see supra* note 117.

450. *See* sources cited *infra* notes 451 and 455.

sustainability.⁴⁵¹ This view emphasizes the trust doctrine's inherently conservative nature, based in property law, and wonders whether the doctrine is antagonistic to innovative environmental protection.⁴⁵² These commentators believe that the trust approach will not succeed because trustees will be burdened with the same natural impulses that drive humans to over-consume resources, and find it impracticable to overcome these impulses so that the trust corpus can be managed in a responsible way.⁴⁵³

Another commentator observes that:

[T]wo foundational issues concerning the traditional [trust] doctrine have still not been decided. The first matter is the source of the trust—where does it come from? The second is the scope and definition of the definition of the trust—what law defines the trust and what is the content of the trust?⁴⁵⁴

He has analyzed the *Illinois Central*⁴⁵⁵ case, the lodestar case in U.S. public trust law, and concludes that: “[a] persuasive case can be made that the trust is based on congressional preemption [based on the Commerce Clause], manifested by implication either through a comprehensive legislative scheme or, more specifically, through the statehood acts.”⁴⁵⁶ This author emphasizes that “Congress’ tradition of mandating that navigable watercourses be kept open to the public runs deep, from the Northwest Ordinance’s guarantee in 1787 that all such rivers and lakes must be ‘forever free,’ to the pervasive legislation that Congress has since enacted on the subject of navigability.”⁴⁵⁷ As to the second question, he suggests a middle ground.⁴⁵⁸ He concludes that the trust doctrine permits the states wide latitude in administering the trust and

451. Delgado, *supra* note 419, at 1216; Keith Hirokawa, *Some Pragmatic Observations About Radical Critique in Environmental Law*, 21 STAN. ENVTL. L.J. 225, 225, 243 (2002); Lazarus, *supra* note 46, at 710–11.

452. Delgado, *supra* note 419, at 1214–15; see Lazarus, *supra* note 46, at 710–11.

453. See Hirokawa, *supra* note 451, at 243.

454. Wilkinson, *supra* note 46, at 453. Other commentators have analyzed Justice Field's opinion in the *Illinois Central* case and raised similar questions: “What resources are covered by the [trust] doctrine? Does the doctrine rest on federal or state law? Is the doctrine absolute or merely a default rule subject to legislative modification? Does the doctrine permit intergovernmental transfers or transfers to nonprofit corporations? Who has standing to enforce the doctrine?” Kearney & Merrill, *supra* note 420, at 803. Because they believe that no satisfactory answers can ultimately be given to these questions, they view the doctrine as unworkable. See *id.* at 929–30; see also Huffman, *supra* note 419, at 567.

455. *Ill. Cent. R.R. Co. v. Illinois*, 146 U.S. 387 (1892).

456. Wilkinson, *supra* note 46, at 456.

457. *Id.*

458. *Id.* at 460–64.

developing state public trust law, but that the states are federally prohibited from abrogating the public trust altogether.⁴⁵⁹

V. FURTHER CONSIDERATIONS ON THE VALUE OF THE PUBLIC TRUST DOCTRINE IN WATERWAYS AND CONCLUSION

Many authors emphasize the public trust doctrine's fundamental legitimacy⁴⁶⁰ and antiquity.⁴⁶¹ One commentator emphasizes the universal nature of the public interest in major watercourses—in particular, the reluctance to allow large watercourses to be subject to wholesale private acquisition—in many countries throughout the world.⁴⁶² He cites ancient Rome, ancient China, Spain, Moslem countries, Nigeria, and North America before the coming of the Europeans, as examples.⁴⁶³

As further evidence of its universality, the public trust doctrine in the United States embodies a fundamental precept that the uses and contents of some natural resources are so vital to the well-being of the greater community that they must be protected.⁴⁶⁴ The trust doctrine thus functions to protect public expectations in the continued use and viability of those vital resources against destabilizing changes, just as the law also protects private property owners from destabilizing changes.⁴⁶⁵

As stated earlier,⁴⁶⁶ the public trust doctrine should be used in the Great Lakes states to better protect traditional uses, protect against impairment of many uses essential to environmental protection, and help protect the natural character and scenic beauty of public trust lands and waters. Tourism, which includes recreational boating, sport fishing, hunting, and wildlife watching, depends on those protections. It is the largest contributor to the economy of much of the upper Great Lakes.⁴⁶⁷ The doctrine possesses three characteristics that are essential for an effective legal foundation in aid of environmental protection: 1) a legal right vested in the public; 2) a right enforceable by, as well as against, the government; and 3) a fundamental nature of the right that is

459. *Id.* at 464.

460. *See, e.g.*, COASTAL STATES ORGANIZATION, *supra* note 72, at xii–xiii.

461. *See* Lazarus, *supra* note 46, at 633–41; Wilkinson, *supra* note 46, at 425–48.

462. Wilkinson, *supra* note 46, at 428–30.

463. *Id.*; *see also* discussion *supra* note 400.

464. Wilkinson, *supra* note 46, at 431–32, 436–39.

465. *See* Joseph L. Sax, *Liberating the Public Trust Doctrine from Its Historical Shackles*, 14 U.C. DAVIS L. REV. 185, 187–89 (1980).

466. *See supra* Part III.C.

467. GLRC STRATEGY, *supra* note 5, at 9.

in harmony with environmental protection and preservation of the trust.⁴⁶⁸ The trust obligation also imposes a duty on the government (almost always a state) to protect a number of beneficial uses of public waterways, the lands thereunder, and their living contents.⁴⁶⁹ The trust doctrine can offer standing to sue where none existed before.⁴⁷⁰ It affords protections that endure over time for the benefit of present and future generations of beneficiaries.⁴⁷¹ It can counteract the excesses of the legislature and state trustee.⁴⁷²

CONCLUSION

In this Article, we have summarized what we believe to be the essence of the public trust doctrine, a dynamic legal doctrine that has evolved as the needs of the country have changed. Just as the English common law tidal test⁴⁷³ for navigability became outmoded when applied to the vast interior rivers and lakes during the nineteenth century, and just as the federal test for navigability⁴⁷⁴ became outmoded for state purposes in the twentieth century, the traditional state navigability test⁴⁷⁵ for applying the public trust doctrine to a waterway, has become outmoded for the twenty-first century.

We have proposed a new three-level test for determining whether and how the public trust doctrine should apply to a waterway in the Great Lakes system. Because of the system's unique nature and sensitivity to degradation by a wide range of pollutants and exotic, invasive species that impact the chemical, physical, and biological integrity of the system,⁴⁷⁶ the application of the public trust doctrine to a Great Lakes basin waterway should be determined based on a broader definition of navigability. Other key factors—such as whether a right of access to the waterway is suitable for that waterway or portions thereof, and whether the right of access would promote the sustainability of the chemical, physical, and biological integrity of the waterway, its submerged lands, and living contents—should be weighed. The three-level test would give judicial recognition to a broader range of public uses and

468. See Sax, *supra* note 61, at 489.

469. *E.g.*, State v. McHugh, 630 So. 2d 1259, 1264–65 (La. 1994).

470. *E.g.*, MICH. COMP. LAWS ANN. § 324.1701(1) (West 1999).

471. See, *e.g.*, S.C. CODE ANN. § 48-39-30(2) (2006).

472. See, *e.g.*, Ill. Cent. R.R. Co. v. Illinois, 146 U.S. 387, 456 (1892).

473. See *supra* note 86 and accompanying text.

474. See *supra* notes 327–328 and accompanying text.

475. See, *e.g.*, cases cited *supra* note 121.

476. GREAT LAKES ENVIRONMENTAL ATLAS, *supra* note 5, at 14–15, 30–37.

afford broader remedies for impairment of those uses than are currently recognized by the eight Great Lakes states.⁴⁷⁷ If ever there were a natural system so fundamental to a region and worthy of public trust protection, it is the Great Lakes system.

477. See *supra* Part II.

APPENDIX A:
SELECTED LITERATURE ON THE PUBLIC TRUST DOCTRINE

1. The Nature of the Public Trust Doctrine

The nature of the public trust doctrine has been the subject of much debate in legal scholarship. Various authors have considered the doctrine as grounded in trust law, property law, constitutional law, and state police power, or viewed it as a version of the “hard look” standard for judicial review.

Books:

- I W. RODGERS, JR., ENVIRONMENTAL LAW: AIR AND WATER, § 2.20, at 162 (1986) (asserting that the trust doctrine is a justification for strict scrutiny in the judicial review of state actions)

Articles:

- Daniel Coquillette, *Muses from an Old Manse: Another Look at Some Historical Property Cases about the Environment*, 64 CORNELL L. REV. 761, 811–13 (1979) (criticizing Joseph Sax’s argument against a public property view of the trust)
- Richard Delgado, *Our Better Natures: A Revisionist View of Joseph Sax’s Public Trust Theory of Environmental Protection, and Some Dark Thoughts on the Possibility of Law Reform*, 44 VAND. L. REV. 1209, 1210 (1991) (criticizing the public trust’s incremental, contained nature and its unsuitability for problems requiring hard choices and global measures (i.e., paradigm shifts))
- Richard Epstein, *The Public Trust Doctrine*, 7 CATO J. 411, 418–21 (1987) (analogizing the public trust doctrine to the takings doctrine, arguing that both doctrines are based on the idea that property constrains legislatures and prevents them from colluding with the various “rent-seekers” who attempt to use the political process to redistribute wealth to themselves; and grounding the doctrine in the equal protection clause of the Constitution)

- Susan Morath Horner, *Embryo, Not Fossil: Breathing Life into the Public Trust in Wildlife*, 35 LAND & WATER L. REV. 23, 41–49 (2000) (proposing how trust law could be applied to enforce the public trust doctrine concerning wildlife)
- James L. Huffman, *A Fish Out of Water: The Public Trust Doctrine in a Constitutional Democracy*, 19 ENVTL. L. 527, 534, 561–65, 571–72 (1989) (supporting the view that public trust rights are easements and, as such, are grounded in property law, but viewing the modern trust doctrine as infringing on private property rights and as an effort to avoid just compensation)
- Julian C. Jurgensmeyer & James B. Wadley, *The Common Lands Concept: A “Commons” Solution to a Common Environmental Problem*, 14 NAT. RESOURCES J. 361, 377–79 (1974) (arguing that Joseph Sax’s position implies a property right in the public)
- Richard J. Lazarus, *Changing Conceptions of Property and Sovereignty in Natural Resources: Questioning the Public Trust Doctrine*, 71 IOWA L. REV. 631, 633–641, 715–16 (1986) (asserting that the modern public trust doctrine is grounded in the property law concept of “sovereign ownership” and as such is a step backward toward a bygone era)
- Carol M. Rose, *Joseph Sax and the Idea of the Public Trust*, 25 ECOLOGY L.Q. 351 (1989), *reprinted and updated in* ISSUES IN LEGAL SCHOLARSHIP, art. 8, 1 (2003) (discussing the evolution of Joseph Sax’s conceptions of the public trust doctrine and summarizing many authors’ views and critiques of the public trust doctrine)
- Joseph L. Sax, *Rights That “Inhere in the Title Itself”: The Impact of the Lucas Case on Western Water Law*, 26 LOY. L.A. L. REV. 943, 944, 950–51 (1993) (arguing that water law delineates rights that are inherently subject to public constraints and that legal regimes for water rights have also tended to evolve to incorporate concerns for diversity and change)
- Joseph L. Sax, *Liberating the Public Trust Doctrine from its Historical Shackles* 14 U.C. DAVIS L. REV. 185, 191–94 (1980) (refining his previous notion of the doctrine)

and opining that the essential nature of the doctrine is preventing the destabilizing disappointment of expectations held in common but without formal recognition such as title)

- Joseph L. Sax, *The Public Trust Doctrine in Natural Resources Law: Effective Judicial Intervention*, 68 MICH. L. REV. 473, 485–89, 556–65 (1970) (the seminal law review article on the public trust doctrine, focusing on extending and improving public management of environmental resources rather than clarifying whether the doctrine conferred any property right on the general public as distinct from the legislature)
- Charles F. Wilkinson, *The Headwaters of the Public Trust: Some Thoughts on the Source and Scope of the Traditional Doctrine*, 19 ENVTL. L. 425, 456–59 (1989) (arguing that modern public trust doctrine is not rooted in property law but in the commerce clause of the Constitution and became binding on a new state at statehood and in acts such as the Northwest Ordinance)

2. *The Volume, Scope, and Breadth of Legal Scholarship on the Public Trust Doctrine*

The volume, scope, and breadth of legal scholarship on the public trust doctrine since 1970 has been overwhelming. There are many examples of books, articles, and commentaries on the doctrine from all regions of the United States.

Books:

- COASTAL STATES ORG., INC., *PUTTING THE PUBLIC TRUST DOCTRINE TO WORK* (2nd ed. 1997)
- JOSEPH SAX, *DEFENDING THE ENVIRONMENT* (1971)
- THE LEGAL INST. FOR THE GREAT LAKES, *THE PUBLIC TRUST DOCTRINE IN OHIO* (1999)
- VICTOR J. YANNAcone, JR., & BERNARD S. COHEN, 1 *ENVIRONMENTAL RIGHTS AND REMEDIES* ch. 2 (1971)

Articles:

- Michael Blumm & Lucas Ritchie, *Symposium Article: The Pioneer Spirit and the Public Trust: The American Rule of Capture and the State Ownership of Wildlife*, 35 ENVTL. L., 673 (2005)
- Bernard S. Cohen, *The Constitution, the Public Trust Doctrine, and the Environment*, 1970 UTAH L. REV. 388 (1970)
- Kristen M. Fletcher, *Regional Ocean Governance: The Role of the Public Trust Doctrine*, 16 DUKE ENVTL. L. & POL'Y F. 187 (2006)
- Richard M. Frank, *Forever Free: Navigability, Inland Waterways, and the Expanding Public Interest*, 16 U.C. DAVIS L. REV. 579 (1983)
- Jeffrey W. Henquinet & Tracy Dobson, *The Public Trust Doctrine and Sustainable Ecosystems: A Great Lakes Fisheries Case Study*, 14 N.Y.U. ENVTL. L.J. 322 (2006)
- Susan Morath Horner, *Embryo, Not Fossil: Breathing Life into the Public Trust in Wildlife*, 35 LAND & WATER L. REV. 23 (2000)
- Scott D. Hubbard, *Everything Old Is New Again*, MICH. B.J. Nov. 2005, at 29.
- Allan Kanner, *The Public Trust Doctrine, Parens Patriae, and the Attorney General as the Guardian of the State's Natural Resources*, 16 DUKE ENVTL. L. & POL'Y F. 57 (2005)
- John Quick, Comment, *The Public Trust in Wisconsin*, 1 WIS. ENVTL. L.J. 105, 120 (1994)
- Carol M. Rose, *Joseph Sax and the Idea of the Public Trust*, 25 ECOLOGY L.Q. 351 (1998), reprinted and updated in ISSUES IN LEGAL SCHOLARSHIP, art. 8, 1, (2003)
- Joseph L. Sax, *Property Rights and the Economy of Nature: Understanding Lucas v. South Carolina Coastal Council*, 45 STAN. L. REV. 1433 (1993)
- Joseph L. Sax, *Liberating the Public Trust Doctrine from Its Historical Shackles*, 14 U.C. DAVIS L. REV. 185 (1980)

- Joseph L. Sax, *The Public Trust Doctrine in Natural Resources Law: Effective Judicial Intervention*, 68 MICH. L. REV. 473 (1970)
- Jan S. Stevens, *The Public Trust: A Sovereign's Ancient Prerogative Becomes the People's Environmental Right*, 14 U.C. DAVIS L. REV. 195 (1980)
- Charles F. Wilkinson, *The Headwaters of the Public Trust: Some Thoughts on the Source and Scope of the Traditional Doctrine*, 19 ENVTL. L. 425, 456–69 (1989)

Student-Written Articles:

- Brent A. Austin, Note, *The Public Trust Misapplied: Phillips Petroleum v. Mississippi and the Need to Rethink an Ancient Doctrine*, 16 ECOLOGY L.Q. 967 (1989)
- Bertram C. Frey, Note, *The Public Trust in Public Waterways*, 7 URB. L. ANN. 219 (1974)
- Melissa K. Scanlan, Comment, *The Evolution of the Public Trust Doctrine and the Degradation of Trust Resources: Courts, Trustees and Political Power in Wisconsin*, 27 ECOLOGY L.Q. 135 (2000)
- Dustin Trowbridge Till, Comment, *The Right To Float on By: Why the Washington Legislature Should Expand Recreational Access to Washington's Rivers and Streams*, 28 U. SEATTLE L. REV. 1093 (2005)
- Steven W. Turnbull, Note, *The Public Trust Doctrine: Accommodating the Public Need Within Constitutional Bounds*, 63 WASH. L. REV. 1087 (1988)
- Note, *The Public Trust in Tidal Areas: A Sometime Submerged Traditional Doctrine*, 79 YALE L.J. 762 (1970)

Many commentators have offered critiques of the public trust doctrine in natural resource law.

- James L. Huffman, *A Fish Out of Water: The Public Trust Doctrine in a Constitutional Democracy*, 19 ENVTL. L. 527, 534, 561–65, 571–72 (1986)
- Joseph D. Kearney & Thomas W. Merrill, *The Origins of the American Public Trust Doctrine: What Really Happened in Illinois Central*, 71 U. CHI. L. REV. 799 (2004)

- Richard J. Lazarus, *Changing Conceptions of Property and Sovereignty in Natural Resources: Questioning the Public Trust Doctrine*, 71 IOWA L. REV. 631, 633–41, 715–16 (1986)
- Geoffrey R. Scott, *The Expanding Public Trust Doctrine: A Warning to Environmentalists and Policy Makers*, 10 FORDHAM ENVTL. L. REV. 1 (1998)

Given the vast body of literature discussing the public trust doctrine, an exhaustive citation of those works is beyond the scope of this article.

APPENDIX B:
COMPARISON OF THE PUBLIC TRUST DOCTRINE
IN THE GREAT LAKES STATES

CHART I:
OWNERSHIP OF THE GREAT LAKES BEDS

State	Ownership
Illinois	State, held in trust for public. ⁴⁷⁸
Indiana	State, held in trust for public. ⁴⁷⁹
Michigan	State, held in trust for public. ⁴⁸⁰
Minnesota	State, held in trust for public. ⁴⁸¹
New York	State, held in trust for public. ⁴⁸²
Ohio	State, held in trust for public. ⁴⁸³
Pennsylvania	State, held in trust for public. ⁴⁸⁴
Wisconsin	State, held in trust for public. ⁴⁸⁵

478. 615 ILL. COMP. STAT. 5/24 (2006).

479. *Lake Sand Co. v. State ex rel. Attorney Gen.*, 120 N.E. 714, 715 (Ind. Ct. App. 1918).

480. MICH. COMP. LAWS. § 324.32502 (West 1999 & Supp. 2006); *People v. Massey*, 358 N.W.2d 615, 618 (Mich. Ct. App. 1984).

481. *State v. Korrer*, 148 N.W. 617, 621 (Minn. 1914).

482. *Saunders v. N.Y. Cent. & Hudson River R.R. Co.*, 38 N.E. 992, 994 (N.Y. 1894).

483. OHIO REV. CODE ANN. § 1506.10 (LexisNexis 2006).

484. No specific mention of the public trust's application to the Great Lakes is found in Pennsylvania cases; however, under federal case law, it appears that the beds of the Great Lakes passed to the State in trust for the public. *See Dunlap v. Commonwealth*, 108 Pa. 612, 612-14 (1885); *see also Ill. Cent. R.R. Co. v. Illinois*, 146 U.S. 387, 435 (1892).

485. *State v. Trudeau*, 408 N.W.2d 337, 343 (Wis. 1987), *cert. denied*, 484 U.S. 1007 (1988).

CHART II:
GREAT LAKE STATES' DEFINITIONS OF
NAVIGABLE WATERWAYS

State	Definition
Illinois	Navigable waterways, as defined by the Illinois International Port District Act, are public waters that "are or can be made useable for water commerce." ⁴⁸⁶ A key inquiry as to the usefulness of a channel for commerce is whether the waters are sufficiently deep. ⁴⁸⁷ The fact that there is enough water for small launches or rowboats to pass over the water does not automatically render the water navigable. ⁴⁸⁸ Nor does the fact that a lake is not meandered serve as conclusive evidence that the waters are not navigable. ⁴⁸⁹ The test is whether the waters can be navigable for useful commerce and furnish a highway over which commerce was or might be carried on in the customary modes. ⁴⁹⁰
Indiana	Indiana courts have not clearly defined the term navigable. The most recent definition is that navigable-in-law is navigable-in-fact. ⁴⁹¹ This definition, however, applies to rivers and streams for purposes of the public trust, ⁴⁹² but there is apparently no Indiana case as to whether the definition applies to lakes. With respect to lakes, Indiana makes use of a public/private bifurcation as opposed to a navigability test. ⁴⁹³ If a lake is deemed public by the legislature, or if the riparian owner acquiesces to the public's use of his property, then State law considers it to be a public lake. ⁴⁹⁴ A private, non-navigable lake is one enclosed and bordered by riparian landowners. ⁴⁹⁵ Streams can be declared navigable by statute, ⁴⁹⁶ but a stream can be navigable even if not classified as such by the legislature if it is used for navigation. ⁴⁹⁷ The test in that case is "Whether or not [the river] was available and was susceptible for navigation according to the general rules of river transportation at the time [1816] Indiana was admitted to the Union. It does not depend on whether it is now navigable" ⁴⁹⁸ The true test seems to be the capacity of the stream, rather than the manner or extent of use. ⁴⁹⁹
Michigan	A waterway is navigable if the river has the capacity to float logs or timber seasonally. ⁵⁰⁰ The navigability of an inland waterway depends on its potential for commercial use; the recreational use test has been repeatedly rejected. ⁵⁰¹ The absence of prior commercial use, however, does not presumptively establish non-navigability. ⁵⁰²

486. Illinois International Port District Act, 70 ILL. COMP. STAT. 1810/02 (2006).

487. *DuPont v. Miller*, 141 N.E. 423, 425 (Ill. 1923); *Schulte v. Warren*, 75 N.E. 783, 785 (Ill. 1905).

488. *Schulte*, 75 N.E. at 785.

489. *State v. New*, 117 N.E. 597, 599 (Ill. 1917).

490. *Id.*

491. *State ex rel. Ind. Dep't of Conservation v. Kivett*, 95 N.E.2d 145, 148 (Ind. 1950).

492. *Kivett*, 95 N.E.2d at 145.

493. IND. CODE § 14-26-2-3 (2006); *see also Bath v. Courts*, 459 N.E.2d 72, 75 (Ind. Ct. App. 1984).

494. *See* IND. CODE § 14-26-2-5(e) (2006).

495. *See Bath*, 459 N.E.2d at 75.

496. IND. CODE § 14-29-1-2 (2006).

497. *Martin v. Bliss*, 5 Blackf. 35 (Ind. 1838).

498. *Kivett*, 95 N.E.2d at 148.

499. *Id.*

500. *Bott v. Comm'n of Natural Res.*, 327 N.W.2d 838, 844 (Mich. 1982).

501. *Id.* at 845-47.

502. *Collins v. Gerhardt*, 211 N.W. 115, 117 (Mich. 1926).

State	Definition
Minnesota	For purposes of defining title only, Minnesota law considers an inland waterway to be navigable if it meets the federal, navigable-in-fact test. ⁵⁰³ The division of waters into navigable and non-navigable is simply a method of dividing them into public and private. ⁵⁰⁴ For rivers and streams, Minnesota applies the "floating log" test. If a body of running water can float logs and timber of substantial quantity during the proper season, Minnesota considers the river or stream to be navigable and therefore public. ⁵⁰⁵
New York	The law of New York continues to recognize the common law distinction concerning the rights that a private owner may acquire and retain in non-tidal, navigable-in-fact rivers and streams, which are distinguishable from public trust protections generally associated with: 1) waters deemed navigable-in-law or 2) tidal navigable-in-fact waters. ⁵⁰⁶ Navigable-in-fact rivers and streams are subject to a public easement for navigation, but other rights remain with the private owner. ⁵⁰⁷ Navigability can be established through the capacity for commercial use, such as floating logs, but recreational uses also support the capacity for commercial use. ⁵⁰⁸
Ohio	A waterway is navigable if it is capable of transporting the products of the country, or if commerce is conducted on it. ⁵⁰⁹ Navigability is established by the capacity for navigation, not by the frequency of it. ⁵¹⁰ In addition, navigation for pleasure and recreational purposes is as important as navigation for commercial purposes in the eyes of the law. ⁵¹¹ In particular, when recreational purposes are at issue, Ohio uses a factor-based test to establish navigability. ⁵¹² The specific factors to be considered in determining navigability are: "(1) capacity for boating in its natural condition, (2) accessibility by public termini, (3) capacity for boating after making reasonable improvements, and (4) capacity for boating for either recreation or commerce." ⁵¹³ Nonetheless, large lakes capable of recreational use can be, and often are, subject to private ownership. ⁵¹⁴
Pennsylvania	Navigable-in-fact means navigable-in-law. ⁵¹⁵ A waterway is navigable-in-fact when it is sufficiently large and deep to serve the public in providing transportation to any considerable extent upon its surface. ⁵¹⁶ In particular, navigability depends on whether the water is used or usable as a broad highway for commerce and transport in quantity of goods and people, or whether water remains a local focus of attraction; the basic difference is that between a trade route and a point of interest, with the first being a public use and the second private. ⁵¹⁷

503. *State v. Adams*, 89 N.W.2d 661, 683 (Minn. 1957).

504. *Lamprey v. Metcalf*, 53 N.W. 1139, 1143 (Minn. 1893).

505. *Clark v. Pigeon River Improvement Slide & Boom Co.*, 52 F.2d 550, 553–54 (8th Cir. 1931).

506. *Douglaston Manor, Inc. v. Bahrakis*, 678 N.E.2d 201, 203 (N.Y. 1997).

507. *Smith v. Odell*, 137 N.E. 325, 326–27 (N.Y. 1922).

508. *See Adirondack League Club v. Sierra Club*, 615 N.Y.S.2d 788, 790–91 (App. Div. 1994).

509. *Hickok v. Hine*, 23 Ohio St. 523, 527 (1872).

510. *Id.*

511. *Mentor Harbor Yachting Club v. Mentor Lagoons, Inc.*, 163 N.E.2d 373, 378 (Ohio 1959).

512. *Id.* at 375.

513. *Id.*

514. *Lembeck v. Nye*, 24 N.E. 686, 688–89 (Ohio 1890).

515. *Conneaut Lake Ice Co. v. Quigley*, 74 A. 648, 650 (Pa. 1909).

516. *Id.*

517. *Lakeside Park Co. v. Forsmark*, 153 A.2d 486, 489 (Pa. 1959).

State	Definition
Wisconsin	Navigability is defined by statute. ⁵¹⁸ All lakes which the public might enjoy are considered navigable-in-fact. ⁵¹⁹ All streams, sloughs, marsh outlets, and bayouts that are navigable-in-fact for any purpose whatsoever (i.e., floating logs, small boats, or skiffs) are considered navigable-in-law to the extent that no obstruction may be made over them without the State's permission. ⁵²⁰ A stream need not be navigable at all times of the year, but only have periods of navigability that recur regularly. ⁵²¹

CHART III:
OWNERSHIP OF NAVIGABLE LAKEBEDS

State	Ownership
Illinois	Title to the beds of all meandered lakes in Illinois, set out in a report entitled "Meandered Lakes in Illinois," is held in trust by the public regardless of location, size, or shape. ⁵²² Nevertheless, a non-meandered lake could still be considered navigable. ⁵²³ The test is whether the lake is navigable for useful commerce and furnishes a highway over which commerce was or might be carried on in the customary modes. ⁵²⁴ If this is the case, the title to the bed of the lake is held by the State in trust for the public. ⁵²⁵
Indiana	By statute, the State has full control over public freshwater lakes and holds all such lakes in trust for the use of its citizens for recreational purposes. ⁵²⁶
Michigan	The riparian owner of a navigable inland lake owns the bottom of the lake to the center. ⁵²⁷ If the public has a lawful means of access to the lake, then the title of the riparian owner is subject to the public's right of navigation and fishing. ⁵²⁸ A lake is not a public navigable water if the lake is a dead-end lake that is completely surrounded by privately owned land, even if there is a navigable ingress or egress. ⁵²⁹
Minnesota	The State holds the beds of navigable lakes from the low-water mark in trust for the people for uses such as commercial navigation, drawing of water for various purposes, and recreational activity. ⁵³⁰ The riparian owners of land bordering a navigable lake have the right to build and maintain wharves, piers, docks, and landings in front of their land out to the point of navigability. ⁵³¹
New York	The riparian owner has title to the center of the lake, subject to the public right to use it for travel and the right of the State to regulate and control the water for navigation. ⁵³² The easement of passage over navigable waters, however, does not involve a surrender of other privileges (undefined in the case law) that are capable of enjoyment without interference from the navigator. ⁵³³

518. WIS. STAT. § 13.01(3m) (2007).

519. *Just v. Marinette County*, 201 N.W.2d 761, 767-68 (Wis. 1972).

520. *Muench v. Pub. Serv. Comm'n*, 53 N.W.2d 514, 519 (Wis. 1952).

521. *DeGayner & Co. v. Dep't of Natural Res.*, 236 N.W.2d 217, 221-22 (Wis. 1975).

522. 615 ILL. COMP. STAT. 5/24 (2004) (incorporating by reference DIV. OF WATERWAYS, ILL. DEP'T OF PUB. WORKS & BLDGS., MEANDERED LAKES IN ILLINOIS (1962)).

523. *See State v. New*, 117 N.E. 597, 599 (Ill. 1917).

524. *Id.*

525. *Id.*

526. IND. CODE § 14-26-2-5(d) (2006).

527. *McCardel v. Smolen*, 250 N.W.2d 496, 499 (Mich. Ct. App. 1976), *aff'd in part and vacated in part*, 273 N.W.2d 3 (Mich. 1978).

528. *See Bott v. Comm'n of Natural Res.*, 327 N.W.2d 838, 841 (Mich. 1982).

529. *Mich. Conference Ass'n of Seventh-Day Adventists v. Comm'n of Natural Res.*, 245 N.W.2d 412, 413-14 (Mich. Ct. App. 1976).

530. *See State v. Korror*, 148 N.W. 617, 621 (Minn. 1914).

531. *State v. Slotness*, 185 N.W.2d 530, 532 (Minn. 1971).

532. *Smith v. City of Rochester*, 92 N.Y. 463, 475-76 (1883).

533. *Id.* at 479.

State	Ownership
Ohio	The bottoms of navigable lakes are owned by the title holder subject to certain rights, such as navigation, remaining with the public. ⁵³⁴ "A lake which is not really useful for navigation, although of considerable size compared with ordinary fresh-water streams, may be private property [with all rights vested in the title holder]." ⁵³⁵
Pennsylvania	If a lake is considered navigable, the riparian owner only takes to the low-water mark, subject to the public's right of navigation, fishing, and other proper uses up to the high-water mark. ⁵³⁶ Riparian rights, however, are subject to disposition as any other portion of land. ⁵³⁷ They may be sold, reserved, or severed. ⁵³⁸ Ownership of a strip of land along a lake gives no right of ownership in the lake itself; rather, the title to the lakebed can rest entirely in a separate owner. ⁵³⁹ A public easement of navigation remains on all navigable lakes. ⁵⁴⁰
Wisconsin	Title to the beds of all navigable lakes is vested in the State. ⁵⁴¹ A specific part of a lake need not itself be navigable to be considered public trust lakebed, so long as it is part of a lake that is navigable. ⁵⁴² The trust doctrine prevents the State from granting substantial areas of lakebed for private purposes. ⁵⁴³

CHART IV:
OWNERSHIP OF NON-NAVIGABLE LAKEBEDS

State	Ownership
Illinois	Except for meandered lakes, ⁵⁴⁴ the bed is held in fee simple by the riparian owner. ⁵⁴⁵ Illinois applies the civil law rule wherein ownership of the lakebed does not constitute ownership of the water above it. Therefore, an owner of a portion of the lakebed has the right to navigate and enjoy the waters of the entire lake. ⁵⁴⁶
Indiana	The owner of land bordering a non-navigable, private lake takes title to all land included in the subdivision of which his land is part. ⁵⁴⁷ Although not a model of clarity, Indiana case law defines a private lake as a body of water on the surface of land within the exclusive dominion and control of the surrounding owners. ⁵⁴⁸ For these private lakes, Indiana applies the common law rule wherein "[e]ach owner has the right to the free and unmolested use and control of his portion of the lake bed and water thereon for boating and fishing." ⁵⁴⁹

534. See *Sloan v. Biemiller*, 34 Ohio St. 492, 512 (1878) (by implication).

535. *Lembeck v. Nye*, 24 N.E. 686, 688 (Ohio 1890) (quoting *Ledyard v. Ten Eyck*, 36 Barb. 102 (N.Y. Gen. Term 1862)).

536. *Wood v. Appal*, 63 Pa. 210, 221 (1869).

537. *Gibbs v. Sweet*, 20 Pa. Super. 275, 282 (1902).

538. *Id.*

539. See *Matthews v. Bagnik*, 41 A.2d 875, 878 (Pa. Super. Ct. 1945).

540. *Wood*, 63 Pa. at 221.

541. *State v. Trudeau*, 408 N.W.2d 337, 343 (Wis. 1987), *cert. denied*, 484 U.S. 1007 (1988).

542. *Trudeau*, 408 N.W.2d at 342.

543. See *Mendota Club v. Anderson*, 78 N.W. 185, 189 (Wis. 1899).

544. See 615 ILL. COMP. STAT. 5/24 (2004) (incorporating by reference DIV. OF WATERWAYS, ILL. DEP'T OF PUB. WORKS & BLDGS., MEANDERED LAKES IN ILLINOIS (1962)).

545. *Beckman v. Kreamer*, 43 Ill. 447, 448 (1877).

546. See, e.g., *Beacham v. Lake Zurich Prop. Owners Ass'n*, 526 N.E.2d 154, 156-57 (Ill. 1988) (including a detailed discussion about the historical development of the common law rule and the civil law rule in the various states).

547. *Stoner v. Rice*, 22 N.E. 968, 968-69 (Ind. 1889); see also *Tolleston Club of Chi. v. Carson*, 123 N.E. 169, 174-75 (Ind. 1919) (noting criticism of, and following, the *Stoner* decision).

548. *Bath v. Courts*, 459 N.E.2d 72, 75 (Ind. Ct. App. 1984).

549. *Carnahan v. Moriah Prop. Owners Ass'n*, 716 N.E.2d 437, 441 (Ind. 1999) (quoting *Sanders v. De Rose*, 191 N.W. 331 (Ind. 1934)) (internal quotation marks omitted).

State	Ownership
Michigan	The riparian owner holds private title to the middle of the lake. ⁵⁵⁰ Michigan applies the civil law rule wherein ownership of part of a lakebed gives the title holder the right to reasonable use of the entire lake. ⁵⁵¹
Minnesota	For those few lakes that do not meet the beneficial public use test, the riparian owner takes title to the center of the lake. ⁵⁵² Thus, for most non-navigable lakes, the riparian owner takes title to the center of the lake. ⁵⁵³ In these instances, Minnesota applies the civil rule and all riparian owners have the right to reasonable use of the entire lake. ⁵⁵⁴ In determining reasonable use, Minnesota courts consider factors including the type of use, the size of the waterway, and the importance of the use. ⁵⁵⁵
New York	The title holder of the lakebed owns private title. ⁵⁵⁶
Ohio	The title holder of the lakebed owns private title. ⁵⁵⁷ If a lakebed is privately owned, then neither the public nor the owner of adjacent lands whose title extends to the water's edge has the right to navigate or fish on the waters. ⁵⁵⁸
Pennsylvania	For non-navigable lakes, the riparian owner generally takes to the center of the lake. ⁵⁵⁹ Riparian rights, however, are subject to disposition the same as any other portion of land. ⁵⁶⁰ They may be sold, reserved, or severed. ⁵⁶¹ If a lakebed is privately owned, then neither the public nor the owner of adjacent lands whose title extends to the water's edge has the right to navigate or fish on the waters. ⁵⁶²
Wisconsin	The State holds title to all natural lakebeds in trust to the ordinary high-water mark. ⁵⁶³ The beds of artificial lakes, or ponds created by means other than modifying a natural lake or stream, are owned by the riparian owner, subject only to any deed restrictions. ⁵⁶⁴ In this instance, the common law rule, as opposed to the civil law rule, applies so that ownership of a lakebed includes ownership of the water above it, and the owner of the lakebed can prevent others from utilizing her property. ⁵⁶⁵

550. Putnam v. Kinney, 227 N.W. 741, 742 (Mich. 1929).

551. See *id.*

552. Lamprey v. Metcalf, 53 N.W. 1139, 1143 (Minn. 1893).

553. *Id.*

554. *Id.* at 1143–44.

555. Petraborg v. Zontelli, 15 N.W.2d 174, 182 (Minn. 1944) (citing Red River Roller Mills v. Wright, 14 N.W. 167, 169 (Minn. 1883)).

556. Smith v. City of Rochester, 92 N.Y. 463, 473 (1883).

557. See Lembeck v. Nye, 24 N.E. 686, 688 (Ohio 1890).

558. *Id.* at 688–89.

559. Conneaut Lake Ice Co. v. Quigley, 74 A. 648, 650 (Pa. 1909) (approving of Justice Mitchell's reasoning in *Lamprey*, 53 N.W. at 1143).

560. Gibbs v. Sweet, 20 Pa. Super. 275, 282 (1902).

561. *Id.*

562. See Smoulter v. Boyd, 58 A. 144, 152 (Pa. 1904).

563. See Mayer v. Grueber, 138 N.W.2d. 197, 202 (Wis. 1965).

564. See *id.* at 203.

565. See *id.* at 205.

CHART V:
OWNERSHIP OF NAVIGABLE RIVERBEDS

State	Ownership
Illinois	Unless clearly stated otherwise, a grant of land carries with it title to the center of the stream. ⁵⁶⁶ This is true whether or not the stream is considered navigable. ⁵⁶⁷ For those streams deemed navigable-in-fact, the public retains an inalienable right of easement for navigation. ⁵⁶⁸ Title to the beds of meandered lakes (as surveyed by the government), many of which were formerly rivers, remains with the State. ⁵⁶⁹
Indiana	Two classes of streams exist within Indiana that are deemed navigable. One is only navigable for certain kinds of craft for certain distances within the State and is not useful for interstate commerce. This class of stream is generally declared navigable by the legislature. The State retains exclusive jurisdiction over these streams and rivers and may authorize obstructions of them for the public good. The other class of navigable streams and rivers is composed of those navigable-in-fact for vessels engaged in interstate travel and commerce. The State has equal jurisdiction over these waters subject to the power of the national legislature to regulate them. ⁵⁷⁰ For each type of navigable river or stream, private title extends to the low-water mark with the right to wharf out to aid navigation. ⁵⁷¹
Michigan	Title is in the riparian owner. ⁵⁷² This is true whether the river is navigable or non-navigable. ⁵⁷³ However, this ownership is subject to the public rights of navigation and fishing on navigable rivers. ⁵⁷⁴
Minnesota	By statute, the ownership of the beds of all rivers that are navigable is in the State in fee simple, subject to regulation by the national legislature. ⁵⁷⁵
New York	In New York, a distinction remains between non-tidal, navigable-in-fact rivers and waters deemed navigable-in-law or tidal navigable-in-fact. ⁵⁷⁶ Grants by the State to private owners of land under non-tidal, navigable-in-fact rivers is subject to an implied reserved public easement of navigation, but such easement does not displace other rights accompanying private ownership of the bed, including that of an exclusive fishery. ⁵⁷⁷ Moreover, the public's right to navigate includes the right to use the streambed to detour around natural objects and portage if necessary. ⁵⁷⁸ Furthermore, the State retains the right to improve non-tidal, navigable-in-fact rivers for the public purpose of navigation. ⁵⁷⁹ The title to the beds of tidal, navigable-in-law rivers remains vested in the State. ⁵⁸⁰ Note, however, that the Hudson and Mohawk Rivers do not fall under this general rule because they were never conveyed away by the State. Therefore, the State retains full title in the beds of these non-tidal, navigable-in-fact rivers. ⁵⁸¹

566. *Trs. of Sch. v. Schroll*, 12 N.E. 243, 244-45 (Ill. 1887).

567. *See id.*

568. *Schulte v. Warren*, 75 N.E. 783, 785 (Ill. 1905).

569. 615 ILL. COMP. STAT. 5/24 (2004) (incorporating by reference DIV. OF WATERWAYS, ILL. DEP'T OF PUB. WORKS & BLDGS., MEANDERED LAKES IN ILLINOIS (1962)).

570. *Depew v. Bd. of Trs. of the Wabash & Erie Canal*, 5 Ind. 8, 9 (1854).

571. *Ross v. Faust*, 54 Ind. 471, 474 (1876).

572. *Collins v. Gerhardt*, 211 N.W. 115, 117 (Mich. 1926).

573. *Sewers v. Hacklander*, 188 N.W. 547, 549 (Mich. 1922).

574. *Id.* at 549-50.

575. MINN. STAT. § 103G.711 (2006).

576. *Douglaston Manor, Inc. v. Bahrakis*, 678 N.E.2d 201, 203 (N.Y. 1997).

577. *Smith v. Odell*, 137 N.E. 325, 326-27 (N.Y. 1922).

578. *Adirondack League Club, Inc. v. Sierra Club*, 615 N.Y.S.2d 788, 793 (App. Div. 1994).

579. *Smith v. City of Rochester*, 92 N.Y. 463, 485-86 (1883).

580. *Id.* at 479.

581. *Id.* at 481-83.

State	Ownership
Ohio	Title to lands bordering a navigable stream extends to the middle of the stream. ⁵⁸² Such title remains subject to the public right to use the waterway for the purpose of navigation. ⁵⁸³
Pennsylvania	Title to lands bordering a navigable stream extends to the low-water mark, subject to the public right of navigation up to the high-water mark. ⁵⁸⁴
Wisconsin	Title of a riparian owner extends to the center of the stream, subject to the public's right of navigation if the stream is navigable. ⁵⁸⁵

CHART VI:
LINE TO WHICH PRIVATE OWNERSHIP EXTENDS ON LAKES
AND EXTENT OF RIPARIAN RIGHTS ON LAKES

State	
Illinois	On Lake Michigan and lakes meandered by a government (whether navigable or non-navigable), private title extends to the water's edge. ⁵⁸⁶ On other navigable and non-navigable lakes, ownership of the submerged soil is in the riparian owner. ⁵⁸⁷ In addition, Illinois employs the civil law rule where ownership of a part of a non-navigable lakebed entitles owners to the "reasonable use and enjoyment of the surface waters of the entire lake provided they do not interfere with the reasonable use of the waters by other riparian owners." ⁵⁸⁸
Indiana	A riparian owner of land adjacent to a public freshwater lake does not have the exclusive right of ownership thereof, but only a qualified title. ⁵⁸⁹ The owner of land bordering a non-navigable inland lake takes title to all land included in the subdivision on which his land is part. ⁵⁹⁰
Michigan	On the Great Lakes, title of a riparian owner stops at the low-water mark, even if the water is unfit for navigation due to aquatic plants, etc. ⁵⁹¹ On all navigable lakes, including the Great Lakes, absolute title only extends to the high-water mark. The area between high- and low-water mark is subordinate to the <i>ius publicum</i> , including the right to walk along the shore between the high- and low-water mark. ⁵⁹² The riparian owner of a navigable inland lake owns the bottom of the lake to the center, subject to the public's right of navigation. ⁵⁹³ Where there are several riparian owners of the same private, inland lake, the owners may use the surface of the entire lake provided they do not interfere with the reasonable use of the water by other riparian owners. ⁵⁹⁴

582. Sloan v. Biemiller, 34 Ohio St. 492, 512 (1878).

583. Walker v. Bd. of Pub. Works, 16 Ohio 540, 543-44 (1847).

584. Wood v. Appal, 63 Pa. 210, 221 (1869).

585. Willow River Club v. Wade, 76 N.W. 273, 275 (Wis. 1898).

586. See Schulte v. Warren, 75 N.E. 783, 784 (Ill. 1905).

587. *Id.* at 787.

588. Beacham v. Lake Zurich Prop. Owners Ass'n, 526 N.E.2d 154, 157 (Ill. 1988).

589. See IND. CODE § 14-26-2-5(e) (2007).

590. Stoner v. Rice, 22 N.E. 968, 968-69 (Ind. 1889); see also Tolleston Club of Chi. v. Carson, 123 N.E. 169, 174-75 (Ind. 1919) (noting criticism of, and following, the *Stoner* decision).

591. People v. Warner, 74 N.W. 705, 710 (Mich. 1898).

592. Glass v. Goeckel, 703 N.W.2d 58, 71, 73 (Mich. 2005).

593. Putnam v. Kinney, 227 N.W. 741, 741-42 (Mich. 1929).

594. *Id.* at 742.

State	
Minnesota	On navigable lakes, private title extends to the low-water mark, but it is absolute only to the high-water mark. ⁵⁹⁵ The land between high- and low-water mark is subject to certain recognized public rights of use (such as navigation), but this does not include the construction of a concrete support for a public highway. ⁵⁹⁶ If the lake is non-navigable, the owner of the riparian land takes title to the center of the lake. ⁵⁹⁷
New York	Private title extends to the low-water mark in medium and large lakes, ⁵⁹⁸ including Lake Erie, ⁵⁹⁹ subject to the public right to use the lake for travel and the right of the State to regulate and control the water for navigation. ⁶⁰⁰ For smaller navigable lakes, the riparian owner takes title to the center of the lake, subject to the public right to use the lake for travel and the right of the State to regulate and control the water for navigation. ⁶⁰¹ For non-navigable inland lakes, the riparian owner takes title to the center of the lake. ⁶⁰²
Ohio	Private title extends to the low-water mark on navigable lakes. ⁶⁰³ Non-navigable lakes are subject to private ownership. ⁶⁰⁴
Pennsylvania	Private title extends to the low-water mark, but it is absolute only to the high-water mark. ⁶⁰⁵ The land between the low-water mark and the high-water mark is subject to the public right of passage. ⁶⁰⁶ Non-navigable lakes are subject to private ownership. ⁶⁰⁷ Pennsylvania applies the common law rule wherein ownership of the bed of a non-navigable lake includes ownership of the water above it, and the owner of the lakebed can prevent others from utilizing his or her property. ⁶⁰⁸
Wisconsin	Private title extends to the low-water mark, but it is absolute only to the high-water mark on all navigable lakes and ponds. ⁶⁰⁹ The high-water mark is defined as "the point on the bank or shore up to which the presence and action of the water is so continuous as to leave a distinct mark either by erosion, destruction of terrestrial vegetation, or other easily recognized characteristic." ⁶¹⁰

595. *State v. Korner*, 148 N.W. 617, 623 (Minn. 1914).

596. *Head v. Slotness*, 185 N.W.2d 530, 534 (Minn. 1971).

597. *Lamprey v. Metcalf*, 53 N.W. 1139, 1141 (Minn. 1893).

598. *Chism v. Smith*, 123 N.Y.S. 691, 694-95 (App. Div. 1910).

599. *See Saunders v. N.Y. Cent. & Hudson River R.R. Co.*, 38 N.E. 992, 994 (N.Y. 1894) (discussing in dicta how the legal principles set forth in *Illinois Central* regarding ownership of the submerged lands of the Great Lakes apply in New York).

600. *See Chism*, 123 N.Y.S. at 694-95. Justice Kellogg's dissenting opinion discusses this point of law with more specificity. *Id.* at 695-96.

601. *Smith v. City of Rochester*, 92 N.Y. 463, 464 (1883).

602. *Calkins v. Hart*, 113 N.E. 785, 785 (N.Y. 1916).

603. *Sloan v. Biemiller*, 34 Ohio St. 492, 512 (1878).

604. *Lembeck v. Nye*, 24 N.E. 686, 688 (Ohio 1890).

605. *Wood v. Appal*, 63 Pa. 210, 221 (1869).

606. *Id.*

607. *Conneaut Lake Ice Co. v. Quigley*, 74 A. 648, 650 (Pa. 1909).

608. *Smoulter v. Boyd*, 58 A. 144, 146 (Pa. 1904).

609. *State v. Trudeau*, 408 N.W.2d 337, 342-43 (Wis. 1987).

610. *Diana Shooting Club v. Husting*, 145 N.W. 816, 820 (Wis. 1914).

CHART VII:
LINE TO WHICH PRIVATE OWNERSHIP EXTENDS ON RIVERS

State	
Illinois	Private ownership extends to the center of the river, ⁶¹¹ but it is subject to the public easement of navigation if the river is either: 1) navigable-in-fact, ⁶¹² or 2) now deemed a meandered lake but was formerly a river. ⁶¹³
Indiana	In general, private ownership extends to the low-water mark on navigable rivers. ⁶¹⁴ On non-navigable rivers, private title extends to the thread of the stream. ⁶¹⁵
Michigan	Private ownership extends to the thread of the stream in both navigable and non-navigable rivers. ⁶¹⁶ For navigable rivers, this title is subject to the navigational servitude, and fishing is the only recreational use recognized as incident to the navigational servitude. ⁶¹⁷ Riparian ownership includes the right to wharf out to navigable waters, ⁶¹⁸ but a permit is necessary for such construction. ⁶¹⁹
Minnesota	The State owns the bed in fee simple under all rivers that are deemed navigable. ⁶²⁰ The riparian owner's title extends to the low-water mark on the navigable water that borders her property. The riparian owner's title, however, is only absolute to the ordinary high-water mark. ⁶²¹ The riparian owner has the right to wharf out to the point of navigability in order to facilitate access to the water. ⁶²² Title to the beds of non-navigable rivers extends to the center of the river. ⁶²³
New York	Private ownership extends to the center of the stream unless otherwise stated, but title is only absolute to the high-water mark on navigable-in-fact rivers. ⁶²⁴ The public retains the right of navigation and use of the shore below the ordinary high-water mark to portage around natural objects. ⁶²⁵

611. *Tr. of Schs. v. Schroll*, 12 N.E. 243, 244 (Ill. 1887).

612. *Schulte v. Warren*, 75 N.E. 783, 785 (Ill. 1905).

613. 615 ILL. COMP. STAT. 5/24 (2006). See generally DIV. OF WATERWAYS, ILL. DEP'T OF PUB. WORKS & BLDGS., MEANDERED LAKES IN ILLINOIS (1962).

614. *Ross v. Faust*, 54 Ind. 471, 474 (1876).

615. *Id.*

616. *Collins v. Gerhardt*, 211 N.W. 115, 117 (Mich. 1926); *Sewers v. Hacklander*, 188 N.W. 547, 549 (Mich. 1922).

617. *Bott v. Comm'n of Natural Res.*, 327 N.W.2d 838, 841 (Mich. 1982).

618. *Tennant v. Recreation Dev. Corp.*, 249 N.W.2d 348, 349 (Mich. Ct. App. 1977).

619. MICH. COMP. LAWS ANN. § 324.32513 (West Supp. 2006).

620. MINN. STAT. § 103G.711 (2006).

621. *State ex rel. Head v. Slotness*, 185 N.W.2d 530, 532 (Minn. 1971).

622. See *Hobart v. Hall*, 174 F. 433, 445 (C.C.D. Minn. 1909).

623. *Lamprey v. Metcalf*, 53 N.W. 1139, 1143 (Minn. 1893).

624. *Smith v. City of Rochester*, 92 N.Y. 463, 464 (1883).

625. *Adirondack League Club, Inc. v. Sierra Club*, 615 N.Y.S.2d 788, 793 (App. Div. 1994).

State	
Ohio	Private title extends to the middle of the river whether navigable or not, ⁶²⁶ with the exception of the Ohio River where the low-water mark serves as the boundary line. ⁶²⁷ On navigable rivers, title is only absolute to the low-water mark, and it is subject to the public easement of navigation. ⁶²⁸ In addition, the right of public fishery goes together with that of navigation. ⁶²⁹ When a waterway is considered navigable, the riparian owner retains the right to wharf out to the point of navigability but cannot interfere with the public's right of navigation or fishery. ⁶³⁰ Moreover, such wharf or pier must lie within the projected boundaries of the riparian owner's waterfront property. ⁶³¹ Furthermore, when the stream is considered non-navigable, it can be privately owned. ⁶³² In this case, neither the public nor the owner of adjacent lands whose title only extends to the margin of the stream enjoys the right to navigate or fish on the waters. ⁶³³
Pennsylvania	If a river is considered navigable, the riparian owner only takes to the low-water mark, subject to the public's rights of navigation, fishing, and other proper uses up to the high-water mark. ⁶³⁴ If a river is considered non-navigable, the riparian owner generally takes to the middle of the waterway. ⁶³⁵ Riparian rights are completely severable, and an interest in the bottomland of non-navigable rivers may be disposed of the same way as any other property interest. ⁶³⁶
Wisconsin	For land that touches a stream or river, the riparian owner's title extends to the center of the stream, subject to the public's right of use if the stream is navigable. ⁶³⁷ Absolute title extends only to the ordinary high-water mark on navigable rivers, though the riparian owner retains the right to wharf out to aid in navigation, so long as it does not interfere with other riparian owner's rights. ⁶³⁸ On non-navigable streams, the riparian owner's rights are absolute. ⁶³⁹

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626. *Sloan v. Biemiller*, 34 Ohio St. 492, 512 (1878).
627. *Lembeck v. Nye*, 24 N.E. 686, 689 (Ohio 1890).
628. *Walker v. Bd. of Pub. Works*, 16 Ohio 540, 544 (1847).
629. *Bodi v. Winous Point Shooting Club*, 48 N.E. 944, 944 (Ohio 1897); *E. Bay Sporting Club v. Miller*, 161 N.E. 12, 13 (Ohio 1928).
630. *Walker*, 16 Ohio at 544.
631. *Thomas v. Sanders*, 413 N.E.2d 1224, 1232 (Ohio Ct. App. 1979).
632. *E. Bay Sporting Club*, 161 N.E. at 16.
633. *Lembeck v. Nye*, 24 N.E. 686, 688-89 (Ohio 1890).
634. *Wood v. Appal*, 63 Pa. 210, 221 (1870).
635. *Conneaut Lake Ice Co. v. Quigley*, 74 A. 648, 650 (Pa. 1909).
636. *Gibbs v. Sweet*, 20 Pa. Super. 275, 282 (Super. Ct. 1902).
637. *Muench v. Pub. Serv. Comm'n*, 53 N.W.2d 514, 519 (Wis. 1952).
638. *Willow River Club v. Wade*, 76 N.W. 273, 275 (Wis. 1898).
639. *Lac Courte Oreilles Band of Lake Superior Chippewa Indians v. Wisconsin*, 740 F. Supp. 1400, 1424 (W.D. Wis. 1990).

CHART VIII:
PUBLIC RIGHTS TO HUNT, FISH AND FOWL

State	
Illinois	The right to hunt and fish is not connected with the easement of navigation but rather with the ownership of the soil underlying the waterway. ⁶⁴⁰
Indiana	If a waterway is deemed public, then the right to fish is vested in the public, along with the right of navigation. ⁶⁴¹ If a waterway is deemed private, then riparian owners only have the right to hunt, fish, fowl, and navigate on water over land to which they actually hold title. ⁶⁴²
Michigan	On any navigable-in-fact waterway, the public retains the rights of fishing, hunting, navigation, and other public uses. ⁶⁴³
Minnesota	On any public waterway, the public has the right to enjoy recreational uses such as fishing, hunting, and fowling, and the riparian owner enjoys no exclusive privileges. ⁶⁴⁴
New York	In navigable-in-law waters, including Lake Erie, tidal waters, boundary waters, and portions of the Hudson and Mohawk Rivers, the public has a right to navigate and fish. ⁶⁴⁵ The public easement of navigation does not include the right to fish or hunt upon those waters. Rather, these rights remain with the titleholder to the bed of the waterway. ⁶⁴⁶
Ohio	The right of a public fishery goes together with that of navigation. ⁶⁴⁷ The right to hunt or fowl on public waterways appears not to be covered by the public trust doctrine.
Pennsylvania	If a lake or river is considered navigable, the public has a right to fish and use the waterway for other proper uses. ⁶⁴⁸
Wisconsin	The public retains a right to hunt, fish, fowl, and recreate up to the high-water mark of any navigable waterway. ⁶⁴⁹

640. *Schulte v. Warren*, 75 N.E. 783, 784 (Ill. 1905).

641. *Lake Sand Co. v. State ex rel. Att'y Gen.*, 120 N.E. 714, 715 (Ind. Ct. App. 1918); *Bainbridge v. Sherlock*, 29 Ind. 364, 367-68 (1868).

642. *Carnahan v. Moriah Prop. Owners Ass'n*, 716 N.E.2d 437, 441 (Ind. 1999).

643. *Putnam v. Kinney*, 227 N.W. 741, 741 (Mich. 1929).

644. *Petraborg v. Zontelli*, 15 N.W.2d 174, 180 (Minn. 1944); *Nelson v. Delong*, 213 Minn. 425, 431 (1942).

645. *Strawberry Island Co. v. Cowles*, 140 N.Y.S. 333, 337-38 (Sup. Ct. 1913); *Douglas-ton Manor, Inc. v. Bahrakis*, 89 N.Y.2d 472, 480 (1997).

646. *Smith v. Odell*, 137 N.E. 325, 326-27 (N.Y. 1922).

647. *Bodi v. Winous Point Shooting Club*, 48 N.E. 944, 944 (Ohio 1897).

648. *Freeland v. Pa. R.R. Co.*, 47 A. 745, 746 (Pa. 1901).

649. *Wisconsin's Env'tl. Decade, Inc. v. Dep't of Natural Res.*, 271 N.W.2d 69, 72 (Wis. 1978).

CHART IX:
RIGHT TO WHARF OUT/BUILD OTHER STRUCTURES
ON NAVIGABLE WATERS

State	
Illinois	A permit must be obtained in order to construct any sort of wharf, pier, or jetty on public navigable water, ⁶⁵⁰ with the exception of duck blinds that comply with regulations of the Department of Natural Resources. ⁶⁵¹
Indiana	A riparian owner on the banks of Lake Michigan may not fill in property or construct a dock or wharf beyond the dock or harbor line established by the United States. ⁶⁵² For public lakes, the riparian owner has the right to wharf out to a reasonable extent, meaning to a point that does not interfere with the use of the lake by others. ⁶⁵³ For navigable rivers and streams, a permit must be obtained from the Indiana Department of Natural Resources before a person can "place, fill, or erect a permanent structure" in the waterway. ⁶⁵⁴
Michigan	Michigan allows some filling in of submerged lands as long as the fill does not substantially affect the public use for hunting, fishing, swimming, or navigation, and as long as the public trust will not be damaged as a result of such an agreement for the sale, lease, use, or other such agreement. ⁶⁵⁵ A riparian owner must obtain a State permit before dredging or placing any materials on the beds of the Great Lakes. ⁶⁵⁶ For other navigable waters, the riparian owner enjoys the right to wharf out to the point of navigation. ⁶⁵⁷
Minnesota	A riparian owner can build and maintain wharves, piers, and docks so long as they do not interfere with the use of the waters by the public. ⁶⁵⁸
New York	Riparian owners have the right to wharf out to the point of navigation. ⁶⁵⁹
Ohio	Riparian owners have the right to wharf out in order to aid navigation. ⁶⁶⁰
Pennsylvania	Riparian owners have the right to wharf out to the point of navigation. ⁶⁶¹
Wisconsin	Riparian owners have the right to wharf out beyond the high-water mark in order to aid navigation so long as such construction does not interfere with the public's rights. ⁶⁶²

650. 615 ILL. COMP. STAT. 5/18 (2006).

651. *Id.*

652. IND. CODE §§ 14-18-16-1, 14-18-16-3 (2006).

653. *Bath v. Courts*, 459 N.E.2d 72, 76 (Ind. Ct. App. 1984).

654. IND. CODE § 14-29-1-8 (2006).

655. *Id.*

656. *Id.*

657. *Tennant v. Recreation Dev. Corp.*, 249 N.W.2d 348, 349 (Mich. Ct. App. 1977).

658. *State ex rel. Head v. Slotness*, 185 N.W.2d 530, 532 (Minn. 1971).

659. *People v. Steeplechase Park Co.*, 113 N.E. 521, 524 (N.Y. 1916).

660. *Thomas v. Sanders*, 413 N.E.2d 1224, 1232 (Ohio Ct. App. 1979).

661. *See Palmer v. Farrell*, 18 A. 761, 761-62 (Pa. 1889).

662. WIS. STAT. § 30.13 (2006).

CHART X:
RIGHT TO ACCRETIONS/RELICTIONS

State	
Illinois	In the riparian owner ⁶⁶³
Indiana	In the riparian owner ⁶⁶⁴
Michigan	In the riparian owner ⁶⁶⁵
Minnesota	In the riparian owner ⁶⁶⁶
New York	In the riparian owner ⁶⁶⁷
Ohio	In the riparian owner ⁶⁶⁸
Pennsylvania	In the riparian owner ⁶⁶⁹
Wisconsin	In the riparian owner ⁶⁷⁰

663. *See* Revell v. People 52 N.E. 1052, 1057 (Ill. 1898).

664. IND. CODE § 14-26-2-8 (2006).

665. Peterman v. Dep't of Natural Res., N.W.2d 499, 507 (Mich. 1994).

666. Reads Landing Campers Ass'n v. Twp. of Pepin, 546 N.W.2d 10, 13 (Minn. 1996).

667. Hempstead v. Little, 239 N.E.2d 722, 725 (N.Y. 1968).

668. State *ex rel.* Duffy v. Lakefront E. Fifty-Fifth St. Corp., 27 N.E.2d 485, 486 (Ohio 1940).

669. Black v. Am. Int'l Corp., 107 A. 737, 738 (Pa. 1919).

670. Doemel v. Jantz, 193 N.W. 393, 396 (Wis. 1923).

CHART XI:
STANDING TO SUE UNDER THE PUBLIC TRUST DOCTRINE

State	Who has standing to sue?
Illinois	State attorney general and State tax payers who are beneficiaries of the trust ⁶⁷¹
Indiana	State attorney general
Michigan	State attorney general and any person ⁶⁷²
Minnesota	State attorney general
New York	State attorney general and State citizens ⁶⁷³

671. In the seminal case on this point, the Illinois Supreme Court overruled its prior decisions that citizen standing must be expressly provided by statute, stating:

If the “public trust” doctrine is to have any meaning or vitality at all, the members of the public, at least taxpayers who are the beneficiaries of that trust, must have the right and standing to enforce it. To tell them that they must wait upon governmental action is often an effectual denial of the right for all time.

Paepcke v. Pub. Bldg. Comm'n, 263 N.E.2d 11, 18 (Ill. 1970).

672. Under Michigan statutory law, “any person may maintain an action in the circuit court having jurisdiction . . . for declaratory and equitable relief against any person for the protection of the air, water, and other natural resources and the *public trust* in these resources from pollution, impairment, or destruction.” MICH. COMP. LAWS ANN. § 324.1701 (West 2006) (emphasis added). A private party’s right to sue under Michigan’s public trust doctrine was exercised in at least one case prior to statutory codification of the right. *Obrecht v. Nat’l Gypsum Co.*, 105 N.W.2d 143 (Mich. 1960). In *Obrecht*, the plaintiffs sued to enjoin the construction of a dock, arguing, *inter alia*, that pursuant to Michigan’s public trust doctrine the defendant riparian owner did not own the submerged lands of Lake Huron and thus did not have the right to wharf out. *Id.* at 146.

673. It is evident from New York case law that State citizens have standing to sue under the State’s public trust doctrine, but it is not clear whether the petitioner must be a beneficiary of the trust. *See, e.g.*, *Barnes v. Midland R.R. Terminal Co.*, 85 N.E. 1093, 1095 (N.Y. 1908) (deciding case where riparian owner sued to enforce the *public’s* right to walk across a beach in front of the neighboring property owner’s land); *Kuzma v. City of Buffalo*, 816 N.Y.S.2d 696 (Sup. Ct. 2006) (deciding case where petitioners, who included the president of an unincorporated association that opposed the development in question, residents of the town, and the city council president sought an injunction, arguing, *inter alia*, that sale of the property in question violated the New York State public trust doctrine); *Jones v. Amicone*, 812 N.Y.S.2d 111, 114–15 (Sup. Ct. 2006) (deciding case where petitioners, who included local property owners, an area merchant, area residents, and an organization of area merchants, sought declaratory relief under New York’s public trust doctrine to prevent the city from acting outside the scope of its authority); *Roosevelt Island Residents Ass’n v. Roosevelt Island Operating Corp.*, 801 N.Y.S.2d 242 (Sup. Ct. 2005) (deciding case brought by resident’s association to enjoin private construction, development, and renovation that violated New York’s public trust doctrine); *Kenny v. Bd. of Trs.*, 735 N.Y.S.2d. 606 (App. Div. 2001) (deciding case brought by citizens seeking to enjoin the village from leasing parkland property to a private party in violation of New York’s public trust doctrine and the public’s right to recreational use of the parkland). Although the majority of the cited cases pertain to New York parkland, all of the listed cases are relevant to this analysis because “New York courts have extended the public trust doctrine beyond the waters to include parkland.” 10 E. Realty L.L.C. v. Inc. Vill. of Valley Stream, No. 50561(U), slip op. at 3 (N.Y. Sup. Ct. 2006) (citing *Friends of Van Cortlandt Park v. City of New York*, 750 N.E.2d 1050, 1053 (N.Y. 2001)).

State	Who has standing to sue?
Ohio	State attorney general
Pennsylvania	State attorney general; the people of the State of Pennsylvania also have limited standing to sue the State to enforce the public trust rights afforded to them in the State constitution. ⁶⁷⁴
Wisconsin	State attorney general, State public intervenor, and any person suing in the name of the State ⁶⁷⁵

CHART XII:
ENVIRONMENTAL PROTECTION EXPRESSLY RECOGNIZED
UNDER THE PUBLIC TRUST DOCTRINE

State	Environmental Protection
Illinois	Presumably yes. The State has a strong interest in conservation and environmental protection. ⁶⁷⁶
Indiana	Yes. "Protection of the environment is a public trust." ⁶⁷⁷
Michigan	Yes. "The attorney general or any person may maintain an action in the circuit court . . . for declaratory and equitable relief against any person for the protection of the air, water, and other natural resources and the public trust in these resources from pollution, impairment, or destruction." ⁶⁷⁸

674. PA. CONST. art. I, § 27.

675. In *State v. Deetz*, the Wisconsin Supreme Court explicitly provided that persons acting in the name of the State have standing to protect their public rights in navigable waters:

We believe that the District Court properly stated the law of Wisconsin. The public trust doctrine merely establishes standing for the [S]tate, or any person suing in the name of the [S]tate for the purpose of vindicating the public trust, to assert a cause of action recognized by the existing law of Wisconsin.

State v. Deetz, 224 N.W.2d 407, 413 (Wis. 1974). The State public intervenor, an office created by statute to protect public rights in water and other natural resources, is authorized to intervene in all actions where protection of those rights is at issue. WIS. STAT. § 165.07 (2006). This includes the right to initiate an action against another Wisconsin agency. *See id.*

676. In *People ex rel. Scott v. Chi. Park Dist.*, the court emphasized the importance of considering the public's interest when determining whether a specific action of the State violated the public trust doctrine; the court also stated that, in Illinois, "there has developed a strong . . . interest in conserving natural resources and in protecting and improving our physical environment." *People ex rel. Scott v. Chi. Park Dist.*, 360 N.E.2d 773, 780 (Ill. 1977); *see also* Comm'n Edison Co. v. Pollution Control Bd., 323 N.E.2d 84, 96 (Ill. App. Ct. 1974) (stating in dicta that "[t]his court, whenever possible, will approve actions taken by the expert administrative agencies in this [S]tate charged with the public trust to cleanse our environment").

677. *Peabody Coal Co. v. Ind. Dep't of Natural Res.*, 664 N.E.2d 1171, 1174 (Ind. 1996) (applying to Indiana's public trust doctrine in general even though specifically in regard to a violation of the Indiana Surface Mining Act). The Indiana Lakes Preservation Act also extends environmental protection to Indiana's public freshwater lakes and provides that the State "holds and controls all public freshwater lakes in trust for the use of all of the citizens of Indiana . . ." Indiana Lakes Preservation Act, IND. CODE § 14-26-2-5(d)(2) (2006); *see also* IND. NATURAL RES. COMM'N, THE PUBLIC TRUST DOCTRINE ON NAVIGABLE WATERS AND PUBLIC FRESHWATER LAKES AND THE LAKE MGMT. WORKGROUPS, Information Bulletin #41 (March 1, 2004), <http://www.in.gov/legislative/iac/20070214-IR-312070073NRA.xml.pdf>.

678. MICH. COMP. LAWS ANN. § 324.1701(1) (West 1999).

State	Environmental Protection
Minnesota	Presumably yes. ⁶⁷⁹
New York	Yes. "The entire ecological system supporting the waterways is an integral part of them (the waterways) and must necessarily be included within the purview of the [public] trust." ⁶⁸⁰
Ohio	No.
Pennsylvania	Yes. "The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people." ⁶⁸¹
Wisconsin	Yes. "[S]tate of Wisconsin under the trust doctrine has a duty to eradicate the present pollution and to prevent further pollution in its navigable waters." ⁶⁸²

**CHART XIII:
SCENIC BEAUTY EXPRESSLY RECOGNIZED UNDER
THE PUBLIC TRUST DOCTRINE**

State	Scenic Beauty
Illinois	No.
Indiana	Yes. Indiana statutory law provides that the "natural resources and the natural scenic beauty of Indiana are a public right," ⁶⁸³ and that the State "holds and controls all public freshwater lakes" and Indiana's natural, scenic, and recreational river systems in trust for all citizens of Indiana. ⁶⁸⁴
Michigan	Presumably yes. The aesthetics of an inland lake or stream are protected under the public trust doctrine. ⁶⁸⁵
Minnesota	No.
New York	No.

679. Based on common and statutory law, there is no explicit right to environmental protection under Minnesota's public trust doctrine. Nonetheless, in *State ex rel. Head v. Slotness*, the Minnesota Supreme Court stated that it would not "in any way determine the State's power to establish restrictions upon a riparian owner's future improvement or reclamation of the submerged lake bed of navigable waters necessary to the environmental interests of the people in public waters." *State ex rel. Head v. Slotness*, 185 N.W.2d 530, 534 (Minn. 1971).

680. *Smithtown v. Poveromo*, 336 N.Y.S.2d 764, 775 (Dist. Ct. 1972), *rev'd on other grounds*, 359 N.Y.S.2d 848 (App. Term 1973); *see also* *W.J.F. Realty Corp. v. New York*, 672 N.Y.S.2d 1007, 1008-09 (Sup. Ct. 1998) (giving an historical overview of the role of government as the guardian of natural resources and demonstrating the role's great antiquity).

681. PA. CONST. art. I, § 27.

682. *Just v. Marinette*, 201 N.W.2d 761, 768 (Wis. 1972); *accord* *Wis. Env'tl. Decade, Inc. v. Dep't of Natural Res.*, 271 N.W.2d 69, 76 (Wis. 1978).

683. IND. CODE § 14-26-2-5(c)(1) (2006); *Lake of the Woods v. Ralston*, 748 N.E.2d 396, 401 (Ind. Ct. App. 2001).

684. IND. CODE §§ 14-26-2-5(d)(2), 14-29-6 (2006).

685. In granting permits for proposed structures or projects impacting inland lakes and streams, the Michigan Department of Natural Resources must consider, among other matters under the trust doctrine, whether the structure or project would "unlawfully impair or destroy" the aesthetics of the inland lake or stream. MICH. COMP. LAWS ANN. § 324.30106 (West 2006); *see also* § 324.1704.

State	Scenic Beauty
Ohio	No.
Pennsylvania	Yes. "The people have a right to clean air, pure water, and to the preservation of the natural, <i>scenic</i> , historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people." ⁶⁸⁶
Wisconsin	Yes. "The rights Wisconsin citizens enjoy with respect to bodies of water held in trust by the [S]tate include the enjoyment of natural scenic beauty" ⁶⁸⁷

686. PA. CONST. art. I, § 27 (emphasis added).

687. *State v. Trudeau*, 408 N.W. 2d 337, 343 (Wis. 1987). "The natural beauty of our northern lakes is one of the most precious heritages Wisconsin citizens enjoy. It is entirely proper that that natural beauty should be protected as against specific structures that may be found to mar that beauty." *Clafin v. Dep't of Natural Res.*, 206 N.W.2d 392, 398 (Wis. 1973) (remanding the case to the lower court to determine whether or not a single boat-house impaired natural beauty).

APPENDIX C:
STATE ENVIRONMENTAL POLICE POWER AUTHORITIES

Illinois

The Illinois Environmental Protection Agency (Ill. EPA) enforces the Illinois Environmental Protection Act, which is Illinois' primary statute for protecting, restoring, and enhancing the environment. 415 ILL. COMP. STAT. 5 (2006).

The Illinois Department of Natural Resources (Ill. DNR) administers regulatory programs, under the authority of Illinois statutes, for conserving and preserving the State's natural resources. Specifically, the Ill. DNR administers: Illinois Rivers, Lakes, and Streams Act, 615 ILL. COMP. STAT. 5 (2006); Illinois Waterway Act, 615 ILL. COMP. STAT. 10 (2006); Illinois Navigable Waters Obstruction Act, 615 ILL. COMP. STAT. 15 (2006); and various other Illinois statutes dealing with Illinois waterways found in Chapter 615 "Waterways" of the Illinois Compiled Statutes, 615 ILL. COMP. STAT. 5/through 110/ (2006). Ill. DNR also administers various acts under Chapter 525 "Conservation" of the Illinois Compiled Statutes. 525 ILL. COMP. STAT. 1 *et seq.* (2006). In addition, under the Fish and Wildlife Coordination Act, Ill. DNR is responsible for reviewing United States Army Corps of Engineers permit applications. 16 U.S.C. § 661 (2006).

Lastly, Ill. EPA is responsible for administering the Illinois Lake Management Program Act, and Ill. DNR and the Illinois Department of Agriculture must assist Ill. EPA in developing a framework plan for administering the requirements of the Act. 525 ILL. COMP. STAT. 25 (2006).

Indiana

The Indiana Department of Environmental Management (IDEM) has the power and the duty to implement Indiana's environmental laws, set forth in Title 13 "Environment" of the Indiana Code. IND. CODE §§ 13-11 through 13-30 (2006).

IDEM is also designated as: (1) Indiana's water pollution agency for all purposes of the Federal Water Pollution Control Act (33 U.S.C. §§ 1251 through 1270 (XXX) and the federal Safe Drinking Water Act (42 U.S.C. §§ 300f through 300j (2006)); (2) Indiana's solid waste agency for all purposes of the federal Resource Conservation and Recovery Act (42 U.S.C. §§ 6901 through 6992k

(2006)); (3) Indiana's air pollution control agency for all purposes of the federal Clean Air Act (42 U.S.C. §§ 7401 through 7671q (2006)); (4) the State agency with responsibility for the Midwest Interstate Compact on Low-Level Radioactive Waste under IND. CODE § 13-29-1; (5) the State agency with responsibility for the federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. §§ 9601 through 9675 (2006)); and (6) the State agency with responsibility for the federal Defense Environmental Restoration Program (10 U.S.C. §§ 2701 through 2708 (2006)).

The Indiana Department of Natural Resources (IDNR) has the power and duty to administer the provisions set forth in Title 14 "Natural Resources" of the Indiana Code. IND. CODE §§ 14-8-1 through 14-8-3-9 (2006).

Michigan

Michigan's Department of Natural Resources (MDNR) was created under the Michigan Natural Resources and Environmental Protection Act (NREPA) (MICH. COMP. LAWS ANN. §§ 324.101 through 324.90106 (2006)) and is authorized to perform the duties granted and imposed by NREPA and as otherwise provided by law. MICH. COMP. LAWS ANN. § 324.501 (2006).

Michigan's Department of Environmental Quality (MDEQ) is responsible for carrying out certain provisions of NREPA dealing with environmental protection and pollution control. MICH. COMP. LAWS ANN. §§ 324.1701–324.1706, 324.1801–324.1808, 324.19601–324.19616, 324.2101–324.2162, 324.2521, 324.30501–324.30515, 324.33101–324.33105, 324.33301–324.33301, 324.33701–324.33708, 324.35101–324.35111, 324.35501–324.35506, 324.35701–324.35706, 324.35801–324.35804, 324.35901–324.35904, 324.4301–324.4312, 324.4501–324.4511, 324.4701–324.4712, 324.4901–324.4912, 324.60301–324.60309, 324.61001–324.61004, 324.62101–324.62103, 324.8201–324.8907, 324.8701–324.8717, 324.8901–324.8907, 324.90101–324.90106, 324.9501–324.9510 (2006). In addition, MDEQ implements certain programs pursuant to federal law, such as the Pollution Prevention Act (42 U.S.C. §§ 13101–13102 (2006)).

Minnesota

The Minnesota Pollution Control Agency writes rules and regulations necessary to carry out the environmental protection laws set forth in Minnesota statutes, including but not limited to Chapters 114C through 116Q. 2005 MINN. LAWS 114C-116Q.

Similarly, the Minnesota Department of Natural Resources writes rules and regulations necessary to carry out the natural resources law set forth in Minnesota statutes, including but not limited to Chapters 83A through 103I. 2005 MINN. LAWS 83A -103I.

New York

The statutory authority for the rules and regulations promulgated, implemented, and enforced by the New York Department of Environmental Conservation (DEC) comes from New York's Environmental Conservation Law. N.Y. ENVIRONMENTAL CONSERVATION §§ 3-0301, 11-0303, 11-0701, 11-0715, 11-0903, 11-0907, 11-0909, 11-0911, 11-0913, 11-0917, 11-1103 (Consol. 2006). In addition, the commissioner of parks, recreation and historic preservation, along with the commissioner of environmental conservation, has the duty to administer the provisions set forth in New York's navigation laws. N.Y. NAV. LAW art. 1-art. 13 (McKinney 2006).

New York's Office of General Services has jurisdiction over New York's public lands, including lands under water, and administers the New York public land laws. N.Y. PUB. LANDS art. 1-art. 17 (McKinney 2006).

Ohio

The Ohio Environmental Protection Agency (OEPA) carries out the environmental laws set forth in the Ohio Revised Code and the environmental regulations set forth in the Ohio Administrative Code. In particular, OEPA implements the laws and regulations pertaining to surface, drinking, and ground waters. OHIO REV. CODE ANN. §§ 3745, 6111, 6117, and 6119 (Anderson 2006) and OHIO ADMIN. CODE §§ 3745-1 through 4, 3745-7, 3745-9, 3745-11, 3745-32, 3745-33, 3745-36, 3745-38 through 40, 3745-42, and 3745-45 (2006).

The Ohio Department of Natural Resources (ODNR) carries out rules and regulations pertaining to recreation on and conservation

of Ohio's waterways. Specifically, ODNR's Division of Water implements programs pursuant to the laws and regulations set forth in Ohio's revised and administrative codes related to canal lands, dam safety, floodplains, groundwater, water inventory, water withdrawal facilities, water planning, and the water advisory council. Ohio Rev. Code Ann. §§ 1501.30-35, 1506.04, 1509.39, 1517.17, 1520.01, 1521.01, 2921.13, 3747.12 (Anderson 2006) and Ohio Admin. Code §§ 1501:1-33-01, 1501:1-33-02, 1501:1-33-03, 1501-2, 1501-7-01, 1501:21-1, 1501:22-1 (2006).

Pennsylvania

Pennsylvania's Department of Environmental Protection (PDEP) is responsible for protecting natural resources, including land and water resources, as well ensuring human health and safety. PA. CONS. STAT. ANN. 25 §§ 1-1021 (West 2006). In regard to water law, the PDEP administers the following: the Water Power and Water Supply Permit Act, PA. CONS. STAT. ANN. 32 §§ 591 to 641 (West 2006); the Clean Stream Act, PA. CONS. STAT. ANN. 35, §§ 691.1 to 691.1001 (West 2006); the Flood Plain Management Act, PA. CONS. STAT. ANN. 32 §§ 679.101 to 679.601 (West 2006); the Storm Water Management Act, PA. CONS. STAT. ANN. 32 §§ 680.1 to 680.17 (West 2006); the Dam Safety and Encroachments Act, PA. CONS. STAT. ANN. 32, §§ 693.1 to 693.27 (West 2006).

The Pennsylvania Department of Conservation and Natural Resources is primarily concerned with preservation and conservation and accordingly administers the Pennsylvania Scenic Rivers Act (2006 Pa. Laws 1277) and other laws, rules, and regulations created pursuant to the public trust provision of the State constitution (PA. CONST. art. I, § 27).

Wisconsin

The Wisconsin Department of Natural Resources (WDNR) has regulatory authority over State navigable waterways both under the State's public trust doctrine (WIS. CONST. art. IX, § 1) and the State's general police powers. The Wisconsin Legislature has charged WDNR with primary responsibility for regulating State waters. WIS. STAT. § 281.11 (2005). For example, the WDNR regulates: 1) activities in and near surface waters, 2) drainage districts, 3) discharges to surface waters, and 4) groundwater. WIS.

STAT. §§ 30.01 to 30.105; 31.01 to 31.99, 88.01 to 88.94, 160.001 to 160.50, 281.01 to 281.99, 283.001 to 283.95 (2005). In addition, WDNR protects and conserves natural resources, including State waters. Wis. STAT. § 23.09(2) (2005).

Other State agencies also have jurisdiction over State waters. The Wisconsin Department of Agriculture, Trade & Consumer Protection, the Wisconsin Department of Commerce, and the Wisconsin Department of Health and Family Services each have jurisdiction over certain specific activities that affect State waters, such as agricultural runoff and construction site erosion. *See, e.g.*, Wis. STAT. §§ 15.135, 88.11(7), and 92.04 (2005).

