Request for Great Lakes Commons and Public Trust Principles for the International Joint Commission

Report to the International Joint Commission on the Principles of the Public Trust Doctrine

November 30, 2011

Submitted on Behalf of Counsel of Canadians (Le Counseil des Canadiens) and Flow for Water (Couler pour L'eau)

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TABLE OF CONTENTS

1.	OVE	RVIEW 	AND SUMMARY OF THE REQUEST FOR PUBLIC TRUST PRINCIL		
II.	THE HISTORICAL DEVELOPMENT OF THE PUBLIC TRUST IN THE UNITED STATES AND CANADA				
	A. Ancient Roots of the Public Trust Doctrine			6	
	B.	The Public Trust Doctrine in the United States			
		i.	Illinois Central Railroad v. Illinois: "Lodestar" of Public Trust Law	9	
		ii.	The Public Trust Doctrine in Great Lakes States	14	
			Illinois. Indiana. Michigan. Minnesota. New York. Ohio. Pennsylvania. Wisconsin.	16 17 20 21 22	
	C.	The Trust to Protect the Right to Public Use of Navigable Waters in Canada 23			
	D.	The Public Trust and Treaty Rights of Indigenous People			
	E.	Public Trust in International Agreements and Great Lakes			
III.	THE MODERN REACH OF THE PUBLIC TRUST DOCTRINE				
	A.	Basic Principles of the Public Trust Doctrine			
		i.	Non Alienation and Need for Valid Public Purpose	35	
		ii.	No Interference or Impairment	35	
		iii.	Duty to Account for Protection of Public Trust Waters and Uses	35	

	В.	Corollary Principles			
		i.	Burden of Proof	. 37	
		ii.	"Nibbling" or Cumulative Effects	. 37	
		iii.	Affirmative Duty to Protect Flows, Level, and Water Quality	. 38	
		iv.	Accommodation or Balancing Uses	. 38	
	C. Flexible Nature of the Public Trust Doctrine				
IV.	THE IJC, BOUNDARY WATERS TREATY, AND PUBLIC TRUST PRINCIPLES4				
	A.	Public	c Trust Principles Inherent in the Boundary Waters Treaty	. 42	
	B.	Integration of Public Trust Principles into the Boundary Waters Treaty and Great Lakes Water Quality Agreement			
	C.	Poten	tial Application of the Public Trust Doctrine	. 48	
V.	CONCLUSION: AN OVERARCHING GUIDING PRINCIPLE OF PUBLIC TRUST				
				. 52	

Background Report to the International Joint Commission on the Principles of the Public Trust Doctrine

Submitted on Behalf of Council of Canadians(Le Conseil des Canadiens) and Flow for Water (Couler pour L'eau)¹

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I. OVERVIEW AND SUMMARY OF THE REQUEST FOR PUBLIC TRUST PRINCIPLES

This Report to the International Joint Commission² provides legal and policy background and information to assist the Commission in its consideration of the adoption of a new guiding principle based on the public trust doctrine for the exercise of its authority or responsibilities under the Boundary Water Treaty of 1909,³ and in the implementation of the Great Lakes Water Quality Agreement.⁴

Under the English common law, members of the public enjoyed a paramount right of public use of the sea, bays, inlets, foreshore and tributary navigable waters for public uses, including

¹ This Report was prepared by James M. Olson, Chair, Flow for Water, Public Trust Water Policy Center, with Jeff Jocks, J.D., Ross Hammersley, J.D., Kate Redman, J.D., and William Rastetter (Of Counsel), of Olson, Bzdok & Howard, P.C. (Traverse City, Michigan), and in conjunction with Maude Barlow, Chair of the Council of Canadians, *Our Great Lakes Commons* report, as part of the Presentation to the IJC on the Great Lakes as a Commons Protected by Public Trust Principles (hereinafter "Presentation").

² Referred to throughout this Report as "IJC," "Commission," or "International Joint Commission."

³ Treaty Between the United States and Great Britain Relating to the Boundary Waters Between the United States and Canada, Jan. 11, 1909, 36 Stat. 2448 (1909) (hereafter referred to as "Treaty" or "Boundary Waters Treaty"). The Treaty covers the waters shared by the countries as a common border or waters that flow north or south across the border, and established the International Joint Commission and basic principles guiding boundary water relations and decisions or recommendations for Canada and the United States.

⁴ Great Lakes Water Quality Agreement of 1972, U.S.-Can., Apr. 15, 1972, 23 U.S.T. 301. It was later amended in 1978 and 1987. *See* Great Lakes Water Quality Agreement of 1978, U.S.-Can., Nov. 22, 1978, and Great Lakes Water Quality Agreement of 1987, U.S.-Can., Nov. 18, 1987 (collectively referred to hereinafter as the "Great Lakes Water Quality Agreement" or "GLWQA"), *available at* http://www.ijc.org/rel/agree/quality.html.

navigation, boating, and fishing – often referred to as the *jus publicum*.⁵ The crown held the waters in trust for the public, and the crown or the crown's grantees of the foreshore or beds of these waters could not sell or alienate this public right or interfere with the public uses protected by it. Canadian and American common law and statutes have recognized this ancient principle – known modernly as the "public trust doctrine." The right of public use and these commons continue to be held by both governments in a "solemn and perpetual trust."

The public right of protected public uses of navigable waters could form a much needed comprehensive approach for unifying and integrating the protection and management of uses, quantity, and quality of water of the Great Lakes, St. Lawrence River, or other boundary waters, for the 21st century. This public right has been, continuously from the settling of both Canada and the United States, part of the daily life of every person, business, farmer, government leader, and community on the boundary waters and Great Lakes and St. Lawrence River. Although the governments and inhabitants have confronted many challenges to the Great Lakes, never before have the Great Lakes Commons – air, water, wildlife, inhabitants, and ecosystems – been so threatened by so many losses, harms or risks of such overwhelming magnitude.

The Great Lakes and its tributaries and ecosystem, including fisheries and aquatic organisms and habitat, are in ecological crisis and facing many challenges, including a rapidly increasing demand and competition for freshwater; continuing influxes of invasive species such as quagga mussels; dead zones; loss of fish populations; climate change; increasing energy and food demands;

⁵ Lord Chief Justice Hale of England authored the seminal treatise on this topic. *See* Sir Matthew Hale, DE JURE MARIS, in Stuart Moore, HISTORY OF THE FORESHORE (3d Ed. 1888).

⁶ Sax, Joseph L., *The Public Trust Doctrine in Natural Resources Law: Effective Judicial Intervention*, 68 Mich L. Rev. 471, 474 (1970).

⁷ Obrecht v National Gypsum Co., 105 NW2d 143 (Mich.1960.)

and increasing drinking water demand.⁸ These threats challenge the very core of our existing water and environmental regulatory framework.

Most pollution, environmental, or water use regulatory frameworks address specific actions that result in localized harms to water quality, quantity, biological conditions. As a result there often is an absence of enforceable overarching principles that compliment or fill the gaps of narrower, fragmented regulatory frameworks. There is a need for a comprehensive approach that brings back to center stage these inclusive public trust values and concerns, which are so essential to the protection of long term community, environmental, and economic stability from generation to generation. When core public trust interests are ignored, the demands of special more narrow interests⁹ on our public and common resources take the spotlight. This, in turn, inevitably leads to suppression and eventual disappearance or loss of the public trust values and resources and the obfuscation of a conscious exercise of the right to public use of these common waters and natural resources.

The rights, duties, and principles embedded in the public trust doctrine could offer just such a comprehensive, unifying, and overarching guideline, tested by the thousands of disputes over the centuries. Public trust principles have been and can be used to face and resolve complex, if not terrifying, threats to the Great Lakes boundary waters and ecosystem. The public trust would

⁸ For a summary of losses and threats to the Great Lakes boundary waters and ecosystem, see Tab 10, attached to the Presentation, and Maude Barlow, *Our Great Lakes Commons: A Peoples' Plan to Save the Great Lakes Forever* (Council of Canadians, 2011), pp. 9-14, attached to this Report and the Presentation, hereinafter referred to as "Commons Report."

⁹ Robin Kundis Craig, Climate Change, Regulatory Fragmentation, and Water Triage, 79 Colo. L. Rev. 825, 831 (2008); Carole Necole Brown, Drinking from a Deep Well: The Public Trust Doctrine and Western Water Law, 34 Fla St. U. L. Rev. 1 (2006); Melissa K. Scanlan, Implementing the Public Trust Doctrine: A Lakeside View into the Trustees' World, 39 Ecology Law Quarterly __ (forthcoming Spring 2012); James M. Olson, Navigating the Great Lakes Compact, Water, Public Trust, and International Trade Agreements, 2006 Mich. St. L. Rev. 1103, 1139-1140 (2006).

provide a duty to account for broader and more common or trust values to hold governments and individuals responsible, when these values have been brushed aside for lack funding or fallen outside the lens of their regulated concern.¹⁰ Perhaps the time, place, and importance of the public trust in the Great Lakes Commons, finally, have reemerged.¹¹

The IJC has the natural capacity to build upon a legacy of public trust that will over the long term protect these common waters and their paramount public uses. It could also provide the flexibility to allow the parties and interests to adapt to the changing conditions and needs of future generations.¹² The IJC has a strong historical commitment under the Boundary Waters Treaty to resolve disputes between the countries and their inhabitants and to protect the integrity of the quantity and quality of the boundary waters,¹³ their related ecosystems, and the rights of the public

¹⁰ Jeffrey W. Henquinet and Tracy Dobson, *The Public Trust Doctrine and Sustainable Ecosystems: A Great Lakes Fisheries Case Study*, 14 N.Y.U. Envtl. L.J. 322, 344-48 (2006).

Ralph Pentland, *The Public Trust Doctrine: Potential In Canadian Water and Environmental Management*, POLIS Discussion Paper 09-03 (Polis Project on Ecological Governance, British Columbia, June 2009), *available at* http://poliswaterproject.org/sites/default/files/public trust doctrine.pdf; John C. Maguire, *Fashioning Vision for Public Resource Protection and Development in Canada: The Public Trust Doctrine Revisited and Reconceptualized*, 1997 J. ENVTL. L. & POL'Y 7, 1-42 (1997); Oliver M. Brandes and Randy Christensen, *The Public Trust Doctrine and the Modern BC Water Act*, Legal Issues Brief 2010-1 (Polis Water Sustainability Project, 2010), *available at* http://poliswaterproject.org/sites/default/files/public trust brief-2010-1.pdf; Scanlan, *supra* note 10; Olson, *supra* note 10; Brown, *supra* note 8; Alexandra Klass, *Modern Public Trust Principles: Recognizing Rights and Integrating Standards*, 82 NOTRE DAME L. REV. 699 (2006).

The evidence of climate change and its affects on flows or levels of water bodies, like the Great Lakes or their tributary waters, suggests that climate change or global warming may be the largest diversion of these waters of all. In this sense, while current regulatory efforts concerning the Great Lakes focus on surface waters or groundwater, these are but a small portion of the arc of the entire water or hydrological cycle. Properly viewed as a single hydrologic system, the water cycle itself could be viewed at least for considering the affects on flows or levels as a public trust for purposes of considering diversions and uses of the Great Lakes boundary waters. *See generally* Robin K. Craig, *Adapting to Climate Change: The Potential Role of the Common Law Public Trust Doctrine*, 34 VT. L. REV. 781-853 (2009).

¹³ Treaty Between the United States and Great Britain Relating to Boundary Waters Between the United States and Canada, Jan. 11, 1909, U.S.-Gr.Brit., art. III, 36 Stat. 2448 (hereinafter (continued...)

to use these shared waters.¹⁴ Article 1 of the Treaty, like court decisions of both countries, recognizes that the boundary waters should be kept free and open for public use. Decisions under Article III, and References and other reports regarding pollution, flows and levels, and related issues under Articles III, IV, VIII, and IX, have applied a cooperative and commons-based approach of governance for Great Lakes and the many interests, including rights of the public, who use or depend on the integrity of these waters. Public uses or interests protected by the public trust doctrine have also been the subject of numerous IJC decisions, reports, and recommendations: navigation; boating; fishing; swimming; other forms of recreation; fish, habitat and food chain; wetlands, and the integrity of the ecosystem. The IJC's strong commitment is unique and critical for both countries, provinces and states, and their communities, businesses, and citizens who face the complex myriad existing and future threats to the Great Lakes and St. Lawrence River waters.

The balance of this report will demonstrate that a commons and public trust approach fits elegantly within the common law of the two countries, the provinces and states, the shared heritage of their people, and the Boundary Waters Treaty.

II. THE HISTORICAL DEVELOPMENT OF THE PUBLIC TRUST IN THE UNITED STATES AND CANADA

The principles of the public trust, derived from English common law and ancient Roman law principles, have been integrated into both Canadian and American common law, as well as in the

[&]quot;Boundary Waters Treaty" or "Treaty"), *available at* h1=eng (last visited Nov. 28, 2011); attached as Tab 9 to the Presentation.

Great Lakes Water Quality Agreement; IJC Statement of Mission and Goals, Guiding Principles No. 10; Lee Botts and Paul Muldoon, *Evolution of the Great Lakes Water Quality Agreement* (Michigan State University Press 2005), pp. 191-95.

civil law system of Quebec.¹⁵ These legal systems recognize special public properties or natural resources in which the whole public has an interest as part of the *jus publicum*, i.e., the public trust doctrine. Public trust principles impose outer limits on how and to what extent governments can reallocate and transfer property falling within the ambit of the public trust with the goal of ensuring the long term survival or sustainability of these commons and the people and life that depend on them.¹⁶

A. Ancient Roots of the Public Trust Doctrine

The theory of a commons and the right to public use of water in Canada and the United States can be traced to the principle of *jus publicum* in the Justinian Codes of Rome in 529 A.D.:

The following things are by natural law *common to all* – the air, running water, the sea, and consequently the sea shore... But they cannot be said to belong to any one as private property, but rather are subject to the same law as the sea itself, with the soil or sand which lies beneath it.¹⁷

¹⁵ Quebec has enacted a "patimoine commun" principle in its new water law, that declares water a "collective resource" that is a "common heritage," protected by a principle *l'etat guardien*, making the province "custodian" of its water resources. Sarah Jackson, Oliver M. Brandes, and Randy Christensen, *Lessons from an Ancient Concept: How the Public Trust Doctrine Will Meet Obligations to Protect the Environment and the Public Interest in BC Water Management*, pp. 10-11 Our Common Heritage (forthcoming, November 2011).

Lana Pollock is a good example of how public trust principles could provide a residual exercise of power and recommendation by the IJC as an outer limit. Co Chair Pollock illustrated the data showing, convincingly, the loss of 85% of the tiny shrimp (*diporeia*) in the last 15 years from invasive quagga mussels. The oil spill that continues to plague the shore in the Gulf of Mexico is another example; See also discussion in Section IV, *infra*. To a greater or lesser extent, each of the magnitude of these losses and threats overwhelm or exceed the capacity of the public trust waters and ecosystem to sustain itself as needed for changing and important public needs for both present and future generations. If this question and principle is not ever present in decision making, the true nature of the values at risk and the limits imposed by a fiduciary duty to future generations is lost or breached.

¹⁷ See The Institutes of Justinian, bk. 2, tit. 1, sec. 1 (J. Thomas trans. 1975 (529 A.D.)). Canadian John C. Maguire traces the Justinian Code's public right or commons in water to the 2nd (continued...)

Common natural resources, like moving water, were understood to be held by government for the benefit of the people, imposing upon the government a responsibility to safeguard the public's free use of these natural commons.¹⁸

The principle passed down into English common law through the Magna Carta.¹⁹ Under English common law, the sea, the soil under the sea and over which the sea ebbed and flowed, and the seashore between the low and high water marks, was held by the Crown; but it was considered to be held in trust for the protection of the public's uses of these waters and as common property.²⁰ Neither the Crown nor private persons could interfere with or alienate the natural and fundamental right of the public to use navigable waters and their foreshore for public uses, including navigation, boating or fishing.²¹ As one court described the English doctrine in 1821:

Other [forms of property] remain *common to all the citizens*.... Of this latter kind...are the air, the running water, the sea, the fish, and the wild beasts.... But inasmuch as the things which constitute this *common property* are things in which a sort of transient usufructuary possession, only, can be had; ...therefore, the wisdom of that law has placed it in the hands of the sovereign power, to be held, protected, and regulated for the common use and benefit.²²

century and the Institutes and Journal of Gaius. *See also* Maguire, *supra*, note 11; Scanlan, *supra* note 10; *Helen Althaus, Public Trust Rights* 23 (1978); Sax, *supra* note 6, at 475-78.

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).

The Magna Carta (because of its principle of liberty and people's fundamental rights and limitation on the power of the Crown) became instrumental in protecting the public's right to use and depend on navigation, the sea, and waters for fishing and survival. *See* Sax, *supra* note 6, at 476.

²⁰ Lowe v. Govett, 3 B. & Ad. 863; King v. Montague, B.&C. 598; Commonwealth v. Alger, 61 Mass. 53, 83 (1851).

²¹ See Sax, supra note 6, at 476; Martin v. Waddle's Lessee, 41 U.S. 367 (1842).

²² Arnold v. Mundy, 6 N.J.L. 1, 71 (1821) (internal citations omitted and emphasis in (continued...)

B. The Public Trust Doctrine in the United States

The courts in the United States have generally protected the public's use of navigable waters and the lands beneath them from sale, interference or harm under the common law.²³ When the colonies won independence from England, ownership and control over navigable waters, shores, and common natural resources, like air and wildlife, vested in each of the states as sovereign for the benefit of their citizens.²⁴ The federal government reserved for itself and all citizens a right of navigation over navigable waters and the power to pass laws to improve and manage navigation, including the power of Congress to pass laws to regulate commerce.²⁵ Based on principles of sovereignty and the public's rights in common public natural resources, courts ruled that water and related natural resources were held in trust for the security and protection of the public rights in navigation and fisheries. State courts also generally decided that these public trust resources could not be sold or alienated by the state or owned or controlled by private persons or interests.²⁶ Thus, while the scope or standards of the public trust may vary from state to state, all recognized and

original); *Martin*, 41 U.S. at 382. Professor Joseph L. Sax, as recently quoted by Melissa Scanlan in a critique of the Compact, said, "[w]ater is and always has been a public resource." Melissa Kwaterski Scanlan et al., *Realizing the Promise of the Great Lakes Compact: A Policy Analysis for State Implementation*, 8 Vt. J. Envtl. L. 39, 44 (2006) (quoting Joseph L. Sax, *The Limits of Private Rights in Public Waters*, 19 Envtl. L. 473, 475 (1989)). *See also* Strobel v. Kerr Salt Co., 164 N.Y. 303 (1900).

²³ Alger, 61 Mass. at 58, 82-83; Arnold, 6 N.J.L. at 71. See also, Section II.B.ii, infra (discussing how courts throughout the Great Lakes states have also recognized and applied the public trust doctrine. See, e.g., Strobel v. Kerr Salt Co., 164 N.Y. 303 (1900); Moore v Sanborn, 2 Mich. 519 (Mich. 1853)).

²⁴ Alger, 61 Mass. at 82; New Orleans v. United States, 10 Pet. 662, 737; Pollard v. Hagan, 3 How. 212.

²⁵ Alger, 61 Mass. at 81-83.

²⁶ *Id.* at 82-83; *See also* Section II.B.ii., *infra*.

followed this principle that protected the rights of the public to use navigable waters for navigation, boating, and fishing.

i. Illinois Central Railroad v. Illinois: "Lodestar" of Public Trust Law²⁷

In the seminal case of *Illinois Central Railroad Co v. Illinois*, ²⁸ the United States Supreme Court affirmed the foundational nature of the public trust doctrine and its applicability to the Great Lakes and navigable waters. The question before the Court was whether the state legislature of Illinois had the authority to convey to a private railroad company one square mile of Lake Michigan, including lands formerly submerged by the lake, for expansion of the company's industrial operations. ²⁹ The Court ruled that the conveyance was beyond the authority of the state Legislature because all of the Great Lakes, including Lake Michigan, were owned by the states as sovereign at the time of admission to statehood, and that the waters and land beneath them were held in trust for the benefit of citizens for navigation and other public uses. ³⁰ The Court reasoned that under the public trust doctrine it was beyond the power of the state to transfer or convey public trust waters and land for private purposes, or in a manner impairing the public trust and the public's protected right of public uses. ³¹

The *Illinois Central* case is viewed as an essential statement on the public trust doctrine not only because of its holding but in addition because the *Illinois Central* Court discussed the attributes of the public trust doctrine at length, including the underlying purposes of the doctrine and how the

²⁷ Sax, *supra* note 6, at 489.

²⁸ 146 U.S. 387 (1892)(hereinafter "*Illinois Central*").

²⁹ Illinois Central R.R. Co. v. Illinois, 146 U.S. 387, 433-34 (1892).

³⁰ *Id.* at 452-53.

³¹ *Id*.

scope of the doctrine may change to fit different circumstances as necessary to ensure the that invaluable purposes of the doctrine were protected.

To begin with, the Court explained that in the United States the public trust doctrine applied not only to tidal bodies but also navigable waters such as the Great Lakes because the underlying rationale of the public trust doctrine applied to both:

At one time the existence of tide waters was deemed essential in determining the admiralty jurisdiction of courts in England. That doctrine is now repudiated in this country as wholly inapplicable to our condition. In England the ebb and flow of the tide constitute the legal test of the navigability of waters. There no waters are navigable in fact, at least to any great extent, which are not subject to the tide....

* * *

But in this country the case is different. Some of our rivers are navigable for great distances above the flow of the tide,-indeed, for hundreds of miles,-by the largest vessels used in commerce. As said in the case cited: "There is certainly nothing in the ebb and flow of the tide that makes the waters peculiarly suitable for admiralty jurisdiction, nor anything in the absence of a tide that renders it unfit. If it is a public, navigable water, on which commerce is carried on between different states or nations, the reason for the jurisdiction is precisely the same, and, if a distinction is made on that account, it is merely arbitrary, without any foundation in reason, and, indeed, would seem to be inconsistent with it."³²

Further, the Court explained that the scope of the public uses protected by the public trust and the manner in which the state exercised its authority might change over time, as the needs of the public changed, in light of the fact that the underlying purpose of the doctrine is to ensure the freedom of public use in navigable waters as is necessary to be consistent with the public interest:

The public being interested in the use of [navigable] waters, the possession by private individuals of lands under them could not be permitted except by license of the crown, which could alone exercise

³² *Id.* at 435-36 (internal citations omitted).

such dominion over the waters as would insure freedom in their use so far as consistent with the public interest. The doctrine is founded upon the necessity of preserving to the public the use of navigable waters from private interruption and encroachment....³³

The Court compared the public trust doctrine to the general police power held by the states. It concluded that while the state may delegate to and allow private interests to use public resources in a manner that the state determines to enhance the public interest, so long as it does not substantially impair the public interest, it could never permanently delegate away such power and would always retain a right to regulate the use of the water as needed to serve the public interest. It explained the nature of the state's title in water and submerged lands as follows:

It is a title held in trust for the people of the state, that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein, freed from the obstruction or interference of private parties. The interest of the people in the navigation of the waters and in commerce over them may be improved in many instances by the erection of wharves, docks, and piers therein.... It is grants of parcels of lands under navigable waters that may afford foundation for wharves, piers, docks, and other structures in aid of commerce, and grants of parcels which, being occupied, do not substantially impair the public interest in the lands and waters remaining, that are chiefly considered and sustained in the adjudged cases as a valid exercise of legislative power consistently with the trust to the public upon which such lands are held by the state. But that is a very different doctrine from the one which would sanction the abdication of the general control of the state over lands under the navigable waters of an entire harbor or bay, or of a sea or lake.... A grant of all the lands under the navigable waters of a state has never been adjudged to be within the legislative power; and any attempted grant of the kind would be held, if not absolutely void on its face, as subject to revocation. The state can no more abdicate its trust over property in which the whole people are interested, like navigable waters and soils under them, so as to leave them entirely under the use and control of private parties, except in the instance of parcels mentioned for the improvement of the navigation and use of the waters, or when parcels can be disposed of without impairment of the public interest in what remains, than it can abdicate its police powers

³³ *Id.* at 436.

in the administration of government and the preservation of the peace. In the administration of government the use of such powers may for a limited period be delegated to a municipality or other body, but there always remains with the state the right to revoke those powers and exercise them in a more direct manner, and one more conformable to its wishes. So with trusts connected with public property, or property of a special character, like lands under navigable waters; they cannot be placed entirely beyond the direction and control of the state....³⁴

The public trust doctrine has continued to grow and evolve since *Illinois Central* was decided. Although different states, and different legal commentators and historians, have given the doctrine different slants, the United States Supreme Court has continued to consistently affirm that *Illinois Central* and the public doctrine are essential and foundational components of law, explaining recently that it is "the 'settled law of this country' that the lands under navigable freshwater lakes and rivers were within the public trust given the new States upon their entry into the Union." The essential tenet of the public trust doctrine in *Illinois Central* remains unchanged and foundational principles are applied in most every state: the Great lakes, and other navigable waters, are held in trust by the state for the benefit of the public. Although the state's determination of what serves the public interest may vary over time, and use of the property may even be delegated to private parties to the extent it enhances or does not substantially impair the public interest, the state's duty to hold these waters in the interest of the public cannot be abdicated and such waters can never be "placed entirely beyond the direction and control of the state" to protect and provide for the public interest the free use of navigable waters.

Accordingly, *Illinois Central* is viewed as affirming three foundational principles of the public trust:(1) The public trust can never be alienated or subordinated unless it has the express

³⁴ *Id.* at 453-54 (emphasis added).

³⁵ Phillips Petroleum Co v. Mississippi, 484 US 469, 479 (1988).

"assent of the State;" ³⁶ (2) the "assent of the state" is unlawful where the legislature transfers public trust resources to a private person for non public purposes, or (3) a transfer or authorized use can not impair the public's interest in the trust or its trust resources. ³⁷ In addition, the Court left the door open for other public resources of a "special character, like navigable waters and the soils under them" that might be protected by the public trust doctrine. Finally, the Court made it clear that a state would be held accountable for abdicating its duty to protect the public trust from such alienation or impairment. Professor Joseph Sax describes the principles this way:

First, the property subject to the public trust must not only be used for a public purpose, but it must be held available for use by the general public; second the property may not be sold, even for a fair-cash equivalent; third, the property [water or public trust resource] must be maintained for particular types of uses.³⁸

These principles have remained constant and flourished over time in the states, including all of the Great Lakes states.

³⁶ *Id.* at 413.

³⁷ *Id.* at 412.

³⁸ Sax, *supra* note 6, at 477.

ii. The Public Trust Doctrine in Great Lakes States

Today, virtually all eight Great Lakes states have adopted the public trust doctrine for the Great Lakes and navigable lakes and streams.³⁹ The constitutions or laws of several of the states have recognized a public trust in navigable waters or public natural resources. The following is a state-by-state summary of each of the Great Lakes states' statutory, constitutional, and/or jurisprudential recognition of the public trust doctrine.⁴⁰

Illinois

As described above, the 1892 decision by the United States Supreme Court in *Illinois Central Railroad* is widely seen as having adapted the public trust principles long-established in English common law to the United States, forming a baseline for state-based recognition of the public trust doctrine throughout the country, as well as in Illinois. Illinois later amended the state Constitution to include the following public-trust declarations in Sections 1 and 2 of Article XI:

The public policy of the State and the duty of each person is to provide and maintain a healthful environment for the benefit of this and future generations.⁴¹

Each person has the right to a healthful environment. Each person may enforce this right against any party, governmental or private,

This is not surprising, since five of the states were carved out of the Northwest Ordinance of 1787, which declared, "the navigable waters leading to the Mississippi and St. Lawrence... shall be common highways and forever free...." Northwest Ordinance of 1787, 1 Stat. 41, 444 Stat 1851.

⁴⁰ As ably described by Professor Robin Kundis Craig, there is a "richness and complexity of public trust philosophies" that is revealed upon review of the application of the public trust doctrine on a state by state basis. Robin Kundis Craig, *A Comparative Guide to the Eastern Public Trust Doctrines: Classifications of States, Property Rights, and State Summaries*, 16 PENN. ST. ENVTL. L. REV. 1 (2007). For other brief synopses of public trust law in the states, see Henquinet and Dobson, *The Public Trust Doctrine and Sustainable Ecosystems: A Great Lakes Fisheries Case Study*, 14 N.Y.U. Envtl. Law J. 323, 348-362 (20006); Klass and Ling-Yee, *Restoring the Public Trust: Water Resources and the Public Trust Doctrine, A Manual for Advocates* (Center for Progressive Reform, White Paper No. 908, Sept. 2009).

⁴¹ ILL. CONST. ART. XI, § 1 ("Public Policy – Legislative Responsibility").

through appropriate legal proceedings subject to reasonable limitation and regulation as the General Assembly may provide by law.⁴²

The Illinois Supreme Court later recognized that these constitutional amendments clearly and unambiguously connect the public trust doctrine to public health and environmental concerns. ⁴³ That case, *People ex rel Scott v. Chicago Park District*, is also noteworthy for the Illinois Supreme Court's willingness to build upon the ruling in *Illinois Central* by adopting a view that the public uses protected by the public trust doctrine may evolve over time in order to adapt to changing conditions, and the doctrine does not permit a transfer of control of public trust resources for primarily private purposes. ⁴⁴ Illinois has also applied the public trust doctrine to parks and conservation areas, ⁴⁵ and has declared an attempted grant of submerged lands by the state to be a violation of the public trust where the project had a solely private purpose. ⁴⁶ As to the public trust portions of the Great Lakes specifically, the Illinois Supreme Court sets the high-water mark of Lake Michigan for demarcation of the line between public and private ownership. ⁴⁷ The state has also

⁴² ILL. CONST. ART. XI, § 2 ("Rights of Individuals").

⁴³ People ex rel Scott v. Chicago Park Dist., 360 N.E.2d 773, 780 (Ill. 1976).

⁴⁴ *Scott*, 360 N.E.2d at 780.

Paepcke v. Public Bldg. Comm'n of Chicago, 263 N.E.2d 11 (Ill. 1970); Timothy Christian Schools v. Village of Western Springs, 675 N.E.2d 168 (Ill. App. Ct. 1996).

⁴⁶ Friends of the Parks v. Chicago Park Dist., 786 N.E.2d 161 (Ill. 2003).

⁴⁷ Revell v. People, 52 N.E. 1052 (III. 1898).

enacted numerous statutes recognizing the public trust doctrine,⁴⁸ as well as others which regulate the use of public trust resources such as the Great Lakes.⁴⁹

Indiana

By statute, Indiana has reserved to the public "a vested right in ... (A) [t]he preservation, protection, and enjoyment of all the public freshwater lakes of Indiana in their present state," and (B) [t]he use of the public freshwater lakes for recreational purposes." Indiana has also declared that "the natural resources and scenic beauty of Indiana are a public right," that the state has the capability to enforce these rights, and that the state "holds and controls all public freshwater lakes in trust for the use of all of the citizens of Indiana for recreational purposes." ⁵²

Courts in Indiana have recognized that these statutes make no distinction between navigable and non-navigable lakes, and that therefore, the public trust extends to all such public freshwater lakes.⁵³ A variety of uses are protected in public waters, including navigation, recreation, fishing,

⁴⁸ These Illinois statutes recognizing the public trust doctrine include: the Submerged Lands Act (5 ILL. COMP. STAT. ANN. §§605/1 and 605/2 (West 2005)) and the Rivers, Lakes and Streams Act (615 ILL. COMP. STAT. ANN. §§5/4.9 - 5/30 (West 2005)).

⁴⁹ Illinois statutes regulating public trust resources include: the Level of Lake Michigan Act (615 Ill. Comp. Stat. Ann. §50/1 *et seq.* (West 2007)), the Navigable Waterways Obstruction Act (615 Ill. Comp. Stat. Ann. §\$20/1 to 20/5 (West 2007)), the Illinois Waterways Act (615 Ill. Comp. Stat. Ann. §\$10/0.01 to 10/28 (West 2007)), the Water Use Act of 1983 (525 Ill. Comp. Stat. Ann. §\$45/1 to 45/7 (West 2007)), the Lincoln Park Submerged Lands Act (70 Ill. Comp. Stat. Ann. §\$1575/0.01 to 1575/2 (West 2007)), and the Chicago Submerged Lands Act (70 Ill. Comp. Stat. Ann. §\$1550/0.01 to 1555/1.1 (West 2007)).

⁵⁰ Ind. Code §14-26-2-5(c) (2003).

⁵¹ Ind. Code §14-26-2-5(c)(1) (2003).

⁵² IND. CODE §14-26-2-5(d) (2003).

⁵³ Bath v. Courts, 459 N.E.2d 72, 75 (Ind. Ct. App. 1984).

and sand and gravel mining (unless otherwise regulated),⁵⁴ and the state holds title to any lake that is considered a public lake.⁵⁵ The Indiana Supreme Court has stated that the distinction between a public and a private freshwater lake depends upon its navigability,⁵⁶ and the public's right of navigation is considered superior to the rights of riparian landowners.⁵⁷ However, the state's Court of Appeals has also recognized that "Indiana courts have failed to clearly define 'navigable'" for such lakes.⁵⁸

Michigan

While Michigan's constitution does not contain language explicitly recognizing the public trust doctrine, the Michigan Court of Appeals has stated that "[t]he importance of this trust is recognized by the People of Michigan in our Constitution," based on the following constitutional provision:

The conservation and development of the natural resources of the State are hereby declared to be of paramount public concern in the interest of the health, safety and general welfare of the people.⁶⁰

The state also has a number of statutes recognizing the public trust doctrine, including this provision relating to Great Lakes Preservation:

Lake Sand Co. v. State, 120 N.E. 714, 715-16 (Ind. App. 1918). Interestingly, Indiana courts have also declared that foreign corporations who are not citizens of the state are not entitled to these same public rights. *Lake Sand Co.*, 120 N.E. at 716.

⁵⁵ Parkinson v. McCue, 831 N.E.2d 118, 130 (Ind. Ct. App. 2005)

⁵⁶ Carnahan v. Monah Property Owners Ass'n, Inc., 716 N.E.2d 437, 440-41 (Ind. 1999).

⁵⁷ Bissell Chilled Plow Works v. South Bend Mfg. Co., 111 N.E. 932, 939 (Ind. App. 1916).

⁵⁸ *Bath*, 459 N.E.2d at 75.

⁵⁹ People ex rel. MacMullan v. Babcock, 196 N.W.2d 489, 497 (Mich. Ct. App. 1972)

⁶⁰ MICH. CONST., ART. IV, §52.

The waters of the state are valuable public natural resources held in trust by the state, and the state has a duty as trustee to manage its waters effectively for the use and enjoyment of present and future residents and for the protection of the environment.⁶¹

As with several other Great Lakes states, Michigan follows the public trust principles set forth in *Illinois Central Railroad Co. v. Illinois.*⁶² Michigan's judicial recognition and implementation of the public trust doctrine, however, actually pre-dates *Illinois Central*, dating back to early decisions such as the Michigan Supreme Court's 1853 opinion in *Moore v. Sanborne*, which both recognized the that the original public trust doctrine from English common law applied in the state, and that the true scope of the public trust doctrine is broader based on its dynamic in nature and changing public needs.⁶³ The state Supreme Court has also recognized the state's "duty and responsibility as trustee" to protect public trust resources.⁶⁴ For example, in *Obrecht v. National Gypsum Co.*, the court prohibited leasing of public trust bottomlands and waters of Lake Huron for a private commercial dock facility absent due consideration and a recorded determination that the project promoted a public purpose and did not impair public trust and uses.⁶⁵

Michigan presumes the substantial value of the public trust resource(s) at issue, and the burden of proof that a public trust resource has no public value and that it will not be impaired is on

⁶¹ MICH COMP. LAWS §§324.32702(1)(c)). *See, e.g.*, the Great Lakes Submerged Lands Act (MICH COMP. LAWS §§324.32502), the Michigan Environmental Protection Act (MICH COMP. LAWS §§324.1701 to 324.1705), the Inland Lakes and Streams Act (MICH COMP. LAWS §§324.30106), and the "Part 341" regulations pertaining to irrigation districts (MICH COMP. LAWS §§324.34105).

⁶² See Obrecht v. National Gypsum Co., 105 N.W.2d 143 (Mich. 1960).

Moore v. Sanborne, 2 Mich. 519, 525 (Mich. 1853)(holding that "[t]he servitude of the public interest depends rather upon the purpose for which the public requires the use of its streams, than upon any particular mode of use ... the public claim to a right of passage along its streams must depend upon their capacity for the use to which they can be made subservient.")

⁶⁴ *Obrecht*, 105 N.W.2d at 149.

⁶⁵ *Id.* at 151.

the proponent of a use thereof.⁶⁶ The state Supreme Court has also rejected a *de minimis* defense to impairment of public trust resources, ruling that the precedent of "nibbling effects" of impairment of public trust waters or uses violated the public trust.⁶⁷

In *Glass v. Goeckel*, the Court recognized the state's responsibility "to protect and preserve the waters of the Great Lakes and the lands beneath them for the public," including for public uses such as fishing, hunting, boating ("for commerce or pleasure"), shoreline walks below the highwater mark, cutting ice, gathering of shellfish and seaweed, bathing.⁶⁸ Michigan has its own rule marking the line between upland private property and the state's public trust bottomlands and shore, applying the "ordinary high water mark' from the common law of the sea and applies it to our Great Lakes." For other navigable waters, such as inland lakes and streams, Michigan courts have followed a "log floating" test to define the reach of public trust doctrine for inland lakes and streams. Once a lake or stream is navigable, the public enjoys reasonable use of the entire surface of the waters for boating, fishing, swimming and other recreation. The public trust doctrine also includes fish and game and their habitat.

⁶⁶ Gross Ile Twp. v. Dunbar & Sullivan Dredging Co., 167 N.W.2d 311, 316 (Mich. App. 1969).

⁶⁷ People v. Broedell, 112 N.W.2d 517, 518-19 (Mich. 1961).

⁶⁸ Glass v. Goeckel, 703 N.W.2d 58, 64-64, 73-75.

⁶⁹ Glass, 703 N.W.2d at 71.

⁷⁰ Collins v. Gerhardt, 211 N.W. 115 (Mich. 1926); Bott v. Natural Res. Comm'n, 327 N.W.2d 838 (Mich. 1982).

Higgins Lake Prop. Owners Ass'n v. Gerrish Twp., 662 N.W.2d 387 (Mich. Ct. App. 2003).

⁷² People v. Zimberg, 238 Mich 130, 143 (1927); Friends of Crystal River v Kuras Properties, 554 N.W.2d 328, 335 (Mich. Ct. App. 1996), *rev'd on other grounds*, 577 N.W.2d 684 (Mich. 1998).

Minnesota

Article II, Section 2 of the Minnesota Constitution states:

The state of Minnesota has concurrent jurisdiction on the Mississippi and on all other rivers and waters forming a common boundary with any other state or states. Navigable waters leading into the same, shall be common highways and forever free to citizens of the United States without any tax, duty, impost or toll therefor.⁷³

Chapter 103G of Minnesota's statutes declares that the "ownership of the bed and the land under the waters of all rivers in the state that are navigable for commercial purposes are in the state in fee simple, subject only to the regulations made by the United States with regard to the public navigation and commerce and the lawful use by the public while on the waters." Other statutes subject public waters to regulation and govern their use and preservation.

⁷³ MINN. CONST. ART. II, § 2. The provisions is nearly identical to the Northwest Ordinance of 1787. Northwest Ordinance, *supra* note 39. The state also has a permanent, constitutionally established "environment and natural resources trust fund" to be used "for the public purpose of protection, conservation, preservation, and enhancement of the state's air, water, land, fish, wildlife, and other natural resources. MINN. CONST. ART. XI, § 14.

⁷⁴ MINN. STAT. ANN. §103G.711 (West 2007). Another portion of that statute also includes a thorough, eleven-point definition of "public waters" that includes items such as "waters of the state that have been finally determined to be public waters or navigable waters by a court of competent jurisdiction," "water basins assigned a shoreland management classification...," "water basins where the state of Minnesota or the federal government holds title to any of the beds or shores, unless the owner declares that the water is not necessary for the purposes of the public ownership," and "water basins where there is a publicly owned and controlled access that is intended to provide for public access to the water basin," among others. MINN. STAT. ANN. §103G.005(15) (West 2007).

Minnesota statutes regulating public waters also include: Chapter 103A "Water Policy and Information" (MINN. STAT. ANN. §103A.001 to 103A.43 (West 2007)), Chapter 103B "Local Water Resources Protection and Management Program" (MINN. STAT. ANN. §103B.3361 to 103B.355 (West 2007), Chapter 103F "Shoreland Development" (MINN. STAT. ANN. §103F.201 to 103F.227 (West 2007), and "Lake Preservation and Protection" (MINN. STAT. ANN. §103F.801 to 103F.805 (West 2007). Minnesota has enacted a citizen suit provision that grants the right of a person to bring a lawsuit to protect the air, water and natural resources from pollution or impairment. MINN. STAT. ANN. §116.B.03 (2007).

The Supreme Court of Minnesota has also declared that "[a] riparian owner's rights are qualified, restricted, and subordinate to the paramount rights of the public," which include such uses as "commercial navigation, the drawing of water for various private and public purposes, recreational activity, and similar water-connected uses." Once established, the state holds title "in a sovereign capacity, as trustee for the public good, and not in a proprietary sense."

New York

While New York does not have a constitutional public trust declaration, the state's Environmental Conservation Law declares:

All the waters of the state are valuable public natural resources held in trust by this state, and this state has a duty as trustee to manage its waters effectively for the use and enjoyment of present and future residents and for the protection of the environment.⁷⁹

Similarly, other sections of New York's Environmental Conservation, Navigation, and Public Lands statutes reference the public trust doctrine and the public's use rights in navigable waters.⁸⁰

⁷⁶ Nelson v. De Long, 7 N.W.2d 342, 346 (Minn. 1942).

State v. Slotness, 185 N.W.2d 530, 532 (Minn. 1971). Minnesota utilizes the federal "navigable in fact" test for determining the existence of public rights in all waters, and requires that commercial use of such waters be established as of the admission of the state into the Union on May 11, 1858. State v. Adams, 89 N.W.2d 661, 665 (Minn. 1957).

⁷⁸ Pratt v. State Dep't of Natural Res., 309 N.W.2d 767, 771 (Minn. 1981)(citing Lamprey v. State, 53 N.W. 1139, 1143 (Minn. 1893)).

⁷⁹ N.Y. ENVTL. CONSERV. LAW § 15-1601 (McKinney 2011).

New York statutory references to the public trust doctrine and public trust resources can be found in the following provisions of state law: N.Y. ENVTL. CONSERV. LAW ART.13 (McKinney 2011) ("Marine and Coastal Resources"), N.Y. ENVTL. CONSERV. LAW § 15-1713 (McKinney 2011) ("Waters impounded by dams constructed for power purposes impressed with a public interest"), N.Y. ENVTL. CONSERV. LAW ART. 15 (McKinney 2011) ("Water Resources"), N.Y. ENVTL. CONSERV. LAW § 24-0103 (McKinney 2011) ("Freshwater Wetlands"), N.Y. PUB. LANDS. LAW § 75 (McKinney 2011) ("Grants of Lands Under Water"), N.Y. NAV. LAW §§ 37-30 to 37-39 (continued...)

As stated in *Adirondack League Club Inc. v. Sierra Club*, ⁸¹ "[p]ursuant to the public trust doctrine, the public right of navigation in navigable waters supersedes ... [a riparian's] private right in the land under the water." New York courts have found violations of the public trust doctrine in instances involving "interference with the public's right to fish or with the public's right of access for navigation, or [where] the land under the stream has been improperly alienated." Furthermore, courts have recognized a special state duty "to safeguard wetlands within the State," based on the public trust doctrine and the state's Freshwater Wetlands Act. ⁸³ While New York applies the public trust doctrine to parkland, ⁸⁴ it has not extended the doctrine to non-navigable waterways. ⁸⁵ For a stream to be owned exclusively by a riparian owner, it "must be too small to be navigable, in fact."

Ohio

(...continued)

(McKinney 2011) ("Navigable Waters of the State").

^{81 615} N.Y.S.2d 788, 792 (N.Y. Sup. Ct. 1994).

⁸² Evans v. City of Johnstown, 410 N.Y.S.2d 199, 207 (N.Y. Sup. Ct. 1978)

Bisignano v. Dep't of Envtl. Conservation, 132 Misc. 2d 850, 851-52 (N.Y. Sup. Ct. 1986)(citing Flacke v. Freshwater Wetlands Appeals Bd., 428 N.E.2d 380 (N.Y. 1981)).

⁸⁴ Brooklyn Bridge Park Legal Defense Fund, Inc., v. N.Y. State Urban Development Corp., 825 N.Y.S.2d 347, 354-55 (N.Y. Sup. Ct. 2006).

Evans, 410 N.Y.S.2d at 207. It should also be noted that just because a stream is not navigable for purposes of denying public access over the private bed of a stream, does not mean the water itself is not public to the extent water is capable of ownership and subject to the government's duty to protect public trust waters, fish, the ecosystem from harm. Collins v Gerhardt, 211 NW 115 (Mich. 1926); In re Water Use Applications (Waihole I), infra, 9 P3d 409 (Haw'i 2000).

⁸⁶ Fulton Light, Heat & Power v. State of New York, 94 N.E. 199, 202 (N.Y. 1911). Although New York considers the tidal, ebb-and-flow rule for title purposes to be "discredited," it was begrudgingly accepted in *People v. Sys. Properties*, 120 N.Y.S.2d 269, 280 (N.Y. App. Div. 1953), where the court declared, "[v]estigal as the rule may be, it is a settled rule of property law and we must respect it as such." However, both the Mohawk River ("a fresh water stream") and the Hudson River ("above the ebb and flow of the tide") are exceptions to this rule and are considered to be publicly owned. Fulton Light, Heat & Power, 94 N.E. at 202-03.

The Supreme Court of Ohio, building off of *Illinois Central*, declared in 1979 that "[i]t is clear that the trust doctrine of state control over the submerged lands of Lake Erie and its bays from the beneficial ownership of the public, which originated in England and has been reinforced in this country by judicial decision, has existed in this state since Ohio was admitted to the Union in 1803." Although, Ohio has no constitutional public trust declaration, its statute declares that the public trust doctrine applies to Lake Erie:

It is hereby declared that the waters of Lake Erie consisting of the territory within the boundaries of the state, extending from the southerly shore of Lake Erie to the international boundary line between the United States and Canada, together with the soil beneath and their contents, do now belong and have always, since the organization of the state of Ohio, belonged to the state as proprietor in trust for the people of the state, for the public uses to which they may be adapted, subject to the powers of the United States government, to the public rights of navigation, water commerce, and fishery, and to the property rights of littoral owners, including the right to make reasonable use of the waters in front of or flowing past their lands.⁸⁸

Protected public uses include "all legitimate uses, be they commercial, transportational, or recreational." Over time, the Ohio courts have applied a "gradually changing concept of navigability," such that a capacity for use by nearly any type of watercraft would be demonstrative of "the availability of the stream for the simpler types of commercial navigation," and not only in its natural condition, but also "after the making of reasonable improvements," even if not "actually

⁸⁷ Thomas v. Sanders, 413 N.E.2d 1224, 1228 (Ohio Ct. App. 1979).

⁸⁸ Ohio Rev. Code Ann. § 1506.10 (West)(recognized in *Beach Cliff Board of Trustees v Ferchill*, 2003 WL 21027604, at *2 (Ohio Ct. App., 8th Dist., 2003)("Codified now at R.C. Chapter 1506, the 'public trust' doctrine delineates the property rights of those whose property abuts a lake, otherwise known as littoral owners.")).

⁸⁹ State ex rel. Brown v. Newport Concrete Co., 336 N.E.2d 453, 457-58 (Ohio Ct. App. 1975).

completed or even authorized." Most recently, in the matter of *State ex rel. Merrill v. Ohio Dep't of Natural Resources*, 91 Ohio's Supreme Court declared that the "boundary of the public trust does not ... change from moment to moment as the water rises and falls; rather, it is at the location where the water usually stands when free from disturbing causes." 92

Pennsylvania

Article 1, Section 27 of Pennsylvania's Constitution includes a clear public trust declaration:

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 of the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all people.⁹³

The Pennsylvania Supreme Court has stated that this provision "installs the common law public trust doctrine as a constitutional right to environmental protection susceptible to enforcement by an action in equity." Based, at least in part, on the fact that this provision was held not to be self-executing, freferences to the public trust doctrine may be found in various Pennsylvania statutes as well, including the declaration that it is "the purpose of this section [related to "Water Resources"

Oleman v. Schaeffer, 163 Ohio St. 202 (Ohio 1955). The Supreme Court of Ohio declared long ago that "it may be regarded as settled in this state that all navigable rivers are public highways," applying the "navigable in fact" rule to such rivers relative to their "capacity of being used by the public for purposes of transportation and commerce." Hickok v. Hine, 23 Ohio St. 523, 527 (Ohio 1872).

⁹¹ 955 N.E.2d 935 (2011).

⁹² State ex rel. Merrill v. Ohio Dep't of Natural Resources, 955 N.E.2d 935, 949 (2011)(citing Sloan v. Biemiller, 34 Ohio St. 492 (Ohio 1878)).

⁹³ PA. CONST. ART. I, §27. See also, Payne v. Kassab, 312 A.2d 86 (Pa. 1973).

⁹⁴ Commonwealth by Shapp v. Nat'l Gettysburg Battlefield Tower, Inc., 311 A.2d 588, 596 (Pa. 1973)(Jones, B., dissenting).

⁹⁵ *Id.* at 594-95.

Planning"] to provide additional and cumulative remedies to protect the public interest in the water resources of this Commonwealth."96

As in other states, courts held that the primary rights the public trust doctrine protected in applicable waterways were related to navigation and fishing, although recent case law has recognized other rights in public trust waters, include gathering stones, gravel, and sand, taking fish, ice, or driftwood, and bathing (with certain limitations).⁹⁷ Under Pennsylvania law, "[i]f a body of water is navigable, it is publicly owned and may only be regulated by the Commonwealth; ownership of the land beneath would not afford any right superior to that of the public to use the waterway."

The application of the public trust in such waterways therefore results in use rights that extend to the high-water mark, 99 although recreational or tourism use is not sufficient for purposes of attempting to establish navigability. It is also the law of the Commonwealth that "[r]ivers are not determined to be navigable on a piecemeal basis. It is clear that once a river is held to be navigable, its entire length is encompassed."

Wisconsin

⁹⁶ 27 PA. CONS. STAT. ANN. §§3135(b) (West 2011). Other such references can be found in the following sections: "Water Resources Planning," 27 PA. CONS. STAT. ANN. §§3101 (West 2011), et seq.; "Water Rights," 32 PA. CONS. STAT. ANN. §§631 to 641 (West 2011); and "Encroachments in Streams," 32 PA. CONS. STAT. ANN. §§675 (West 2011).

⁹⁷ See, e.g., Shrunk v President, Managers & Co. Of Schuylkill Navigation Co., 1826 WL 2218 (Pa. 1826); Yoffee v. Pennsylvania Power & Light Co., 123 A.2d 636 (Pa. 1956); Hunt v. Graham, 1900 WL 5301 (Pa. 1900); and Solliday v. Johnson, 1861 WL 5929 (Pa. 1861).

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

⁹⁹ Fulmer v. Williams, 15 A. 726, 727 (Pa. 1888).

¹⁰⁰ *Mountain Props., Inc.,* 767 A.2d at 1100.

Lehigh Falls Fishing Club v. Andrejewski, 735 A.2d 718, 722 (Pa. Super. Ct. 1999).

In *Hilton ex rel. Pages Homeowners' Assoc. v. Dep't of Natural Resources*, ¹⁰² the Supreme Court of Wisconsin recognized that the public trust doctrine in the state is "rooted in" the following provision of the state Constitution:

The state shall have concurrent jurisdiction on all rivers and lakes bordering on this state so far as such rivers or lakes shall form a common boundary to the state and any other state or territory now or hereafter to be formed, and bounded by the same; and the 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.¹⁰³

Wisconsin's public trust doctrine is well developed and protects a broad array of uses of public trust waters, including navigation, fishing, swimming, enjoyment of scenic beauty, hunting, recreation, "any other lawful purpose," and the right to "preserve natural resources such as wetlands." The courts have developed a number of core public trust standards. The public is even held to have an "interest in navigable waters, including promoting healthful water conditions conducive to protecting aquatic life and fish," while the state's duty under the trust doctrine has been held to include "a duty to eradicate the present pollution and to prevent further pollution in its navigable waters." A recently decided case by the Wisconsin's Supreme Court also ruled that the

¹⁰² 717 N.W.2d 166, 173 (Wis. 2006).

WIS. CONST. ART. IX, § 1. There is a close resemblance to the Northwest Ordinance of 1787. *See* Northwest Ordinance, *supra* note 39.

¹⁰⁴ Just v. Marineete County, 201 N.W.2d 761, 768 (Wis. 1972). *See also*, Meunch v. Pub. Serv. Comm'n, 53 N.W.2d 514, 519 (Wis. 1952); State v. Trudeau, 408 N.W.2d 337, 343 (1987).

¹⁰⁵ See e.g., State v. Pub. Service Comm'n, 81 N.W.2d 71, 73 (Wis. 1957); Scanlan, supra note 10.

¹⁰⁶ FAS, LLC v. Town of Bass Lake, 733 N.W.2d 287, 295 (Wis. 2007).

¹⁰⁷ *Just*, 201 N.W.2d at 768.

state's public trust doctrine imposes an affirmative duty upon the Department of Natural Resources to "consider whether a proposed high capacity [groundwater] well may harm waters of the state." ¹⁰⁸

The public trust doctrine has been determined to apply "to land under the stream of the navigable water so long as [it] constitutes part of the bed of the stream," but this is not applicable to an artificial lake or body of water is concerned unless it involves "artificial waters that are directly and inseparably connected with natural, navigable waters." The courts have also recognized that "the state 'holds the beds underlying navigable waters in trust for all of its citizens," and that the state's "title to submerged lands beneath natural lakes" extends "up to the ordinary highwater mark." based on navigability if the water body is "capable of floating any boat, skiff, or canoe, of the shallowest draft used for recreational purposes." The state also has a number of statutory provisions recognizing the importance of the public trust doctrine, and governing its application with respect to public trust resources in Wisconsin.

Lake Superior, Lake Michigan, all natural inland lakes within this (continued...)

Lake Beulah Mgmt. Dist. v. State of Wisconsin Dep't of Natural Res., 799 N.W.2d 73, 76 (Wis. 2011).

¹⁰⁹ *Muench*, 53 N.W.2d at 518.

¹¹⁰ Mayer v. Grueber, 138 N.W.2d 197, 203 (Wis. 1965).

¹¹¹ Kligeisen v. Wis. Dep't of Natural Res., 472 N.W.2d 603, 606 (Wis. Ct. App. 1991).

¹¹² In re Annexation of Smith Property, 634 N.W.2d 840, 843 (Wis. Ct. App. 2001)(quoting State v. Trudeau, 408 N.W.2d 337, 341 (1987), and *Muench*, 53 N.W.2d at 517, and citing R.W. Docks & Slips v. State, 628 N.W.2d 781 (Wis. 2001)).

¹¹³ *Muench*, 53 N.W.2d at 519.

¹¹⁴ The following statutes recognize and govern the application of the public trust doctrine in Wisconsin: Wis. Stat. Ann. §§ 30.01 to 30.99 (West 2011)("Navigable Waters, Harbors and Navigation"); Wis. Stat. Ann. §§ 31.06(3(c)) (West 2011)("Regulation of Dams and Bridges Affecting Navigable Waters"); Wis. Stat. Ann. §§ 33.01 to 33.60 (West 2011)("Public Inland Waters"); Wis. Stat. Ann. §§ 281.11 to 281.35 (West 2011)("Water and Sewage"). It is this last provision, in fact, which defines "navigable waters" as follows:

C. The Trust to Protect the Right to Public Use of Navigable Waters in Canada

The principles of public trust have been historically recognized in Canada, and in recent years there has been growing momentum calling for the express adoption of the doctrine.

The *jus publicum* or paramount right of the public to use navigable waters for navigation, boating, and fishing has been recognized by Canadian common law since The Constitution Act, 1867.¹¹⁵ While the right of public use and protection of these waters has not been expressly labeled a "public trust," as it has in the United States, in the late 1800s and early 1900s Canadian courts recognized a paramount public right to use navigable waters and imposed a "trust for the public uses which nature intended of them." Canadian court decisions, around the time of the Boundary Waters Treaty and the U.S. Supreme Court's 1892 decision in *Illinois Central Railroad*, recognized that the public's right to use navigable waters was protected by a trust: ¹¹⁷

[T]he Great Lakes and the streams which are in fact navigable, and which empty into them in these provinces, must be regarded as vested in the Crown in trust for the public uses for which nature intended them – that the Crown, as the guardian of public rights, is entitled to prosecute and to cause the removal of any obstacle which obstruct the exercise of the public right and cannot by force of its prerogative

state and all streams, ponds, sloughs, flowages and other waters within the territorial limits of this state, including the Wisconsin portion of boundary waters, which are navigable under the laws of this state.

WIS. STAT. ANN. § 281.31 (West 2011).

¹¹⁵ Constitution Act, 1867, 30 & 31 Vict. Ch. 3 (U.K.), as reprinted in R.S.C., No. 5 (Appendix 1985).

¹¹⁶ City of Vancouver v. Canadian Pacific Railway, [1894] 23 S.C.R. 1, 6, 17-19; Nickerson v Atty General of Canada, [1999] S.H. 150869 (N.S.S.C.).

¹¹⁷ In R. v. Meyers, [1853] 3 U.C.C.P. 305.

curtail or grant that which it is bound to protect and preserve for public use. 118

Indeed, the public right to use waters like the Great Lakes and their tributary streams was as much alive in Canada at the of the signing of the Treaty as the public trust doctrine in the United States.

Although these background principles were recognized by Canadian courts, the legal framework governing water rights and evolution of public trust law differs somewhat from the American system. In Canada, the Crown owns the water. Ownership and control of public water is distributed by the *Constitution Act* between the federal government and provinces, with some delegation of control to local governments. Provinces have power over local works, property, and natural resources, and electrical energy production. The federal government has ownership and control for purposes of navigation and shipping, sea cost and fisheries, federal works, canals and harbors, and lake improvements. Significantly, there is no private ownership of water. In Ontario, navigable waters are determined by a "navigability" test that consists of several factors, which indicate both flexibility and a range of uses, such as fishing and small craft, that includes recreation,

Id. at para. 123. The Canadian Court recognizes its "guardian" responsibility, and that it cannot itself violate the limitation on its power to alienate these Great Lakes navigable waters to private persons or purposes. Guardianship implies duty and responsibility, and the limitation on alienation or interference implies a right in citizens, at least those whose use has been or is threatened with harm and would have standing. See, generally, Jackson, et al., *supra* note 15, at 10-11.

¹¹⁹ Constitution Act, 1867, 30 & 31 Vict. Ch. 3 (U.K.); Constitution Act, 1982, Schedule B to the Canada Act, 1982 (U.K.) 1982 Ch. 11.

¹²⁰ Constitution Act, 1867, 30 & 31 Vict. Ch. 3 (U.K.), Secs. 92, 109; Resource Library for the Environment and the Law, Resources for the Environment and Law Catalogue - Canada Water Legislation FAQs (January 2004), *available at* http://www.ecolawinfo.org/WaterFAQ-CanWatLeg.aspx (last visited Nov. 29, 2011).

¹²¹ Constitution Act, 1867, 30 & 31 Vict. Ch. 3 (U.K.), Secs. 30, 31; Constitution Act, 1982, Secs. 91, 92, 108, Schedule B to the Canada Act, 1982 (U.K.) 1982 Ch. 11.

not just navigation.¹²² Private rights to use of water are generally gained by a license or grant for a specific limited purpose consistent with the right of public use, except for common law rights to use a lake or stream associated with ownership of riparian property.

Although Canadian courts did not historically do so, the idea of expressly adopting the public trust doctrine has received growing support in recent years. Leading water and natural resource law scholars, lawyers, policy experts and government leaders have encouraged the adoption of modern public trust principles to fulfill government's obligation to protect the quality, flows and levels, and natural resources that make up the living ecosystem that are part of our dependent on lakes, rivers, and other bodies of water, including groundwater.¹²³ John Maguire noted that public trust principles could be effective in imposing a duty on the Crown to protect and manage Canada's water and public resources.¹²⁴ Ralph Pentland, water policy expert and former co-chair of the IJC Water Studies Board, has urged that Canada more fully develop the public trust doctrine as an important principle to manage and protect water resources and the environment in the face of the complex transboundary water issues faced by the Great Lakes and North America.¹²⁵ The Polis Institute has also called for public trust principles for Canada and its western provinces as a means to ensuring

Canoe Ontario v Reed [1989] 69 O.R. 2d. 494 (Ontario Supreme Court sets out seven factors to determine navigability, which in sum suggest a flexible test for navigability and recognition that public access and navigation include recreational uses [e.g. "small craft" and "fishing"]).

Brandes and Christensen, *supra* note 11; Maguire, *supra* note 11; Pentland, *supra* note 11.

¹²⁴ Maguire, *supra* n. 11; Pentland, *supra* note 11.

¹²⁵ Pentland, *supra* note 11, at 7; Ralph Pentland, Notes and Remarks at the Conference on Water as a Human Right (Oct. 14, 2009) entitled "Fixing Canada's Failing Water Contract" (urging Canadian water policy centered on overall public trust principal to impose a "fiduciary duty to sustain those resources for the entire population."); Ralph Pentland and James Olson, *One Issue, Two Voices, Decision Time: Water Diversion Policy in the Great Lakes Basin*, Woodrow Wilson International Center for Scholars, Canada Institute (Sept. 2004), *available at* http://www.powi.ca/pdfs/waterdiversion/water.pdf (last visited Nov. 28, 2011).

strong governance through a fiduciary duty to ensure long-term protection of water and ecosystems. 126

The public trust doctrine and public trust principles have also started appearing in Canadian law. Recently, the Canadian Supreme Court has suggested the public trust doctrine may be worthy of exploration in cases involving public resources, like water and forests, in future cases. Public trust principles have also been incorporated into more recent Canadian legislation. The Yukon Territory declared the government "the trustee of the public trust to protect the natural environment" in its Environment Act. The Northwest Territory Environmental Rights Act declared that there is a "collective interest of the people of the Territories in the quality of the environment and the protection of the environment for the future," and granted residents the right to bring an action in court to protect the "public trust."

Given the historical and modern legal and political support for public trust principles in Canada, and its consistency with Canadian law, there should be no theoretical or doctrinal impediment for a legislative or governmental body like the IJC to adopt or follow public trust principles. In fact, Canadian common law embraces the right to public use of navigable waters, like

Brandes and Christensen, *supra* note 11, at 2-4, 9-10 ("Centuries-long recognition of these [public] rights is not mere historical happenstance and goes beyond just public access. The Public Trust Doctrine recognizes and reflects the fundamental need to safeguard public rights and interests by ensuring long-term protection of limited and vulnerable resources necessary for survival and well-being.").

Canadian Forest Products v. R. in Right of British Columbia, [2004] S.C.R. 38. The opinion of Justice Brinney, speaking for the Court, discusses and cites U.S. court decisions on the public trust doctrine and the Maguire article cited in footnote 9.

¹²⁸ R.S.Y. 2002, c. 76, preamble.

¹²⁹ R.S.N.W.T. 1988, c. 83. Only one court has interpreted the provision, in a case involving the duties under a wildlife hunting act. The court noted that government and the hunter had a public trust responsibility. "[W]ith special privileges comes the special responsibility" (quoted in Jackson, et al., *supra* note 13).

the Great Lakes boundary waters, a principle that, as it has in the U.S., forms the core of the public trust doctrine. As observed by water policy expert Ralph Pentland, "the time may be ripe" to implement public trust principles to ensure the quantity and quality of our water for present and future generations.¹³⁰

D. The Public Trust and Treaty Rights of Indigenous People

The public trust doctrine is compatible with and would protect the rights of the indigenous peoples who inhabited the Great Lakes region before settlement by Europeans. The rights of these Canadian First Nations and American Indian Tribes to preservation of the quality and quantity of the Great Lakes Waters was never relinquished under their numerous treaties involving the lands and adjacent waters within the Great Lakes and St. Lawrence River basins. These indigenous Nations strongly believe that water must be protected and preserved for future generations. ¹³¹ In the past decade Canadian First Nations and American Indian Tribes have asserted that existing legal mechanisms do not adequately protect their indigenous rights. Embracing the public trust doctrine would be a means of addressing those concerns. While determination of Canadian First People or

Pentland, *supra* note 125, at 13.

Centennial Symposium: Panel III – The Boundary Waters Treaty and Protecting Freshwater Resources in North America: Remarks of Tribal Chairman Frank Ettawageshik, 54 WAYNE L. REV. 1477 (2008): "What comes to mind is to speak of the value that we place in the water. We are taught that water is the life-blood of Mother Earth and that water is essential to life.... Water is different from other things that we consider; water is not a commercial commodity, but rather it is required for our very existence; it flows in our veins; we all spend time in the water in our mother's womb; it flows in the veins of Mother Earth." Ontario tribes declare that waters include "rain waters, waterfalls, rivers, streams, creeks, lakes, mountain springs, swamp springs, bedrock water veins, snow, oceans, icebergs, the sea," and "women are the keepers of the waters ... they have the responsibility to care for the land and water...." Water Declaration of the Anishnaabek, Mushkegowuk and Onkewehonwe, Oct. 2008.

American Indian tribal treaty rights in water may not be within the jurisdiction of the IJC,¹³² the adoption of public trust principles would be compatible with and protect their treaty rights and uses of the Great Lakes in the same way that these principles would protect the rights of rights of the public to use these waters.¹³³

E. Public Trust in International Agreements and Great Lakes

The public trust has also been recognized in several international declarations agreements.¹³⁴ The words "held in trust" were incorporated into the Great Lakes Charter, ¹³⁵ an agreement signed by all eight states and Ontario and Quebec, and the originally proposed draft Annex 2001 negotiated by the governors and provinces as part of an effort to adopt a compact or at least a common standard or conservation measure to implement the Charter's goals and the Federal Water Resources Development Act, which bans diversions or exports from the Great Lakes basin unless all eight

Protection of the Waters of the Great Lakes, IJC Final Report (Feb. 22, 2000), p. 38.

¹³³ Memorandum, William Rastetter, Tribal Attorney for the Grand Traverse Band of Ottawa and Chippewa Indians, attached to Presentation as TAB 5.

Assembly's declaration of access to clean water as a human right. United Nations 108th Meeting of the 64th General Assembly, *Resolution Recognizing Access to Clean Water, Sanitation as a Human Right*, July 28, 2010 (declaring that "the right to drinking water and sanitation was essential for the full enjoyment of life." *See*, UN News Center, *General Assembly Adopts Resolution Recognizing Access to Clean Water, Sanitation as a Human Right, By Recorded Vote of 122 in Favour, None Against, 41 Abstentions*, (July 28, 2010), available at http://www.un.org/News/Press/docs/2010/ga10967.doc.htm (last visited Nov. 28, 2011).

¹³⁵ See Council of Great Lakes Governors, Great Lakes Charter (Feb. 11, 1985), Findings, available at http://www.cglg.org/projects/water/docs/GreatLakesCharter.pdf (last visited Nov. 28, 2011). Other than this general "finding" of "held in trust" the Charter is silent about applying public trust principles as a standard, even though the doctrine's principles are embedded in the common law and several constitutional and statutory provisions of the states.

governors of the Great Lakes states consent.¹³⁶ Similarly, the Great Lakes-St. Lawrence River Basin Water Resources Compact signed by all eight Great Lakes states and approved and signed into United States law in 2008, finds that the waters of the basin are "a public resource held in trust."¹³⁷ However, the public trust does not appear in the decision making standard of the Compact, despite the fact that rights of public use or public trust in the Great Lakes and navigable waters remains a substantive limitation on use and diversions and is deeply anchored in the common law of water and sovereignty of both countries, the states, and provinces.¹³⁸

III. THE MODERN REACH OF THE PUBLIC TRUST DOCTRINE

A. Basic Principles of the Public Trust Doctrine

Although public trust principles have been adopted in many different contexts, several identifiable principles repeatedly emerge. As stated by Professor Sax, in his seminal article on public trust law, courts take a dim view of actions the effects of which are "either to reallocate that resource to more restricted uses or to subject public uses to the self-interest of private parties." There are three fundamental substantive principles that are often recognized. 140

Pub. L. No. 99-662, 100 Stat. 4082, 42 U.S.C. 1963d-20(d) (2006). The diversion ban and governor's consent made findings, but did not impose standards, and was silent about public trust in Great Lakes waters as recognized by the courts.

¹³⁷ Great Lakes-St. Lawrence River Basin Water Resources Compact, Sec. 1.3(1)(a), Dec. 8, 2008, Pub. L. No. 110-342, 122 Stat. 3739 (2008), available at http://www.cglg.org/projects/water/.

¹³⁸ See Olson, supra note 10, at 1113-1116, 1121-1122.

¹³⁹ Sax, *supra* note 6, at 490. *See also* People *ex rel* Scott v. Chicago Park Dist., 360 N.E.2d 773 (Ill. 1976) (holding a disposition of parklands for business and jobs was not a public purpose).

Other water and public trust law experts have classified the principles differently under public trust law. Scanlan, *supra* note 10. For discussion of principles in Michigan and Wisconsin, see James M. Olson, *The Public Trust Doctrine: Procedural and Substantive Limitations on the* (continued...)

i. Non Alienation and Need for Valid Public Purpose

First, under *Illinois Central*, the Canadian Supreme Court's decision in *Vancouver v Canadian Pacific Railroad* and earlier cases, and state and provincial court decisions, navigable waters are held in trust for public use and, therefore, cannot be alienated by government or owned and exclusively occupied by private persons.¹⁴¹ This has been characterized by the courts as prohibiting the sale, transfer, or control of public trust waters or natural resources for private purposes, or stated conversely, as requiring that a proposed use or transfer of public trust waters be for a primarily public purpose.¹⁴²

ii. No Interference or Impairment

Second, neither the government nor a private person can authorize or engage in a use that would interfere with or impair public trust waters or the pubic's use of such waters and their bottomlands and foreshore.¹⁴³ An ancillary principle is that even if a private person enjoys a right to use water resources, such as a riparian owner's right to a dock or a landowner's right to remove groundwater, the private right or use, known as the *jus privatum*, sits side-by-side with the public right, *jus publicum*, so long as the private use does not interfere with or impair the public use or rights.¹⁴⁴

iii. Duty to Account for Protection of Public Trust Waters and Uses

¹⁴⁰ (...continued) Governmental Reallocation of Natural Resources, 1975 Det. Col. L. Rev. 161, 173, 190-99 (1975).

¹⁴¹ See discussion and accompanying notes supra Section (II)(B).

¹⁴² See discussion and accompanying notes supra Section (II)(B). See also Sax, supra note 6.

¹⁴³ See discussion and accompanying notes supra Section (II)(B) and (C).

¹⁴⁴ Tweetie v R., [1915] 52 S.C.R. 197, p 214.

Third, as is implied necessarily from the public purpose and no impairment principles, government has a duty to ensure, based on facts and findings, that a proposed use of public trust waters or resources will not violate these standards.¹⁴⁵ For this reason, courts in the United States have recognized and enforced this principle as a fundamental component of the public trust doctrine, although different courts have recognized the duties in differing ways.¹⁴⁶ Courts in Hawai'i have imposed a duty on the state to assure that the water would be used in the public interest, not impair the public trust, and not serve an improper private or even public purpose, and to engage in long term planning to protect the public trust waters, uses, and the ecosystem.¹⁴⁷ In North Dakota, the supreme court ruled that this duty included a duty to evaluate and establish a long term water plan to ensure no impairment of water resources under the state's public trust responsibility.¹⁴⁸ In Michigan courts have imposed procedural duty to account based on duly record findings of fact that public trust standards or principles have been met.¹⁴⁹ California courts have also consistently recognized a duty to protect the integrity of flows and levels, waters and ecosystem.¹⁵⁰

¹⁴⁵ See e.g., Obrecht v. Nat'l Gypsum Co., 105 N.W.2d 143, 149-151 (Mich. 1960).

Lake Beulah Mgmt. Dist. v. State of Wisconsin Dep't of Natural Res., 799 N.W.2d 73, 76 (Wis. 2011)(imposing a duty on the state natural resource agency to consider the effects on a navigable lake from the withdrawal of groundwater from a nearby high- capacity well); Ariz. Cent. for Law and Policy v. Hassell, 837 P.2d 158, 170 (1991) (holding that the state had a duty and obligation to maintain the public trust and uses for the enjoyment of present and future generations).

¹⁴⁷ In re Water Use Permit Applications (Waihole I), 9 P.3d 409 (Haw. 2000); Kelly v Oceanside Partners, 140 P.3d 985, 1001-1003 (Haw. 2006)(recognizing state's affirmative duty to implement adequate water protection measures to assure developer's stormwater plan did not violate or impair public trust in adjacent waters).

¹⁴⁸ United Plainsmen Ass'n v. Water Conservation Comm'n, 247 N.W.2d 457 (N.D. 1976).

¹⁴⁹ Obrecht v. Nat'l Gypsum Co., 105 N.W.2d 143 (Mich. 1960).

Nat'l Audubon Soc'y v. Superior Ct. of Alpine Co. (Mono Lake), 658 P.2d 709 (Cal. 1983); Cent. for Biological Diversity v. FPL Group, 83 Cal. Rptr. 3d 588 (Cal. Ct. App. 2008).

B. Corollary Principles

In addition to the basic principles, corollary principles have been widely recognized.

i. Burden of Proof.

When faced with the issue, courts have readily imposed a burden of proof on the person proposing a use or transfer of a public trust resource.¹⁵¹ The burden is based on the government's duty to ensure there is no improper alienation or impairment and the fact that the public value of public trust waters or resources in quality, quantity and uses is presumed to be substantial or immeasurable.¹⁵² This derives from the fact that the public value and uses cannot be subordinated, so an applicant who wants to use public trust waters must affirmatively demonstrate public purpose and no harm. This is akin to the precautionary principle,¹⁵³ in that it would require as a result of the nature of the public trust itself a denial of the application until adequate information was submitted to establish no violation of the basic public trust principles.

ii. "Nibbling" or Cumulative Effects

Some courts have ruled that the government's affirmative duty to protect the public trust includes the duty to take into account the cumulative effects of a use that would impair the public trust waters or uses.¹⁵⁴ This, in effect, is related to the burden of proof, because the presumption is that if the entity proposing the use cannot show that there are no cumulative effects, and if there is

Grosse Isle Twp v Dunbar & Sullivan Dredging Co., 167 N.W.2d 311, 316 (Mich. Ct. App. 1969) (holding that substantial public value of navigable waters for public use is presumed); In re Water Use Applications (Waihole II), 93 P.3d 643, 657-658 (Haw. 2004).

¹⁵² Obrecht, 105 N.W.2d at 149-151; Ill. Cent. R.R..Co. v. Illinois, 146 U.S. 387 (1892).

¹⁵³ International Joint Commission, *Statement of Mission and Goals and Guiding Principles*, Guiding Principle No. 10, 1998 (stating "it may sometimes be necessary to adopt a precautionary approach... where prudence is essential to protect the public welfare").

¹⁵⁴ In re Water Use Applications (Waihole II), 93 P.3d 643, 658 (Haw. 2004).

a lack of scientific data, studies, or other information to show "nibbling" or cumulative effects, then there can be no recorded finding that the use will not impair the public trust waters or uses.

For example, the Michigan Supreme Court rejected a developer's argument that filling a few lots was de minimis in relation to the whole of Lake St. Clair and the Great Lakes, and ruled "[a]pplication of the [de minimis] doctrine . . . may involve making it equally so elsewhere. In total consequence, the state's trust interests ... public rights could be effected to an extent ... considerably more than a trifling matter." Similarly, in Hawai'i's *Waihole* water diversion cases the court held "the public trust compels the state duly to consider the cumulative impact of existing and proposed diversions on public trust purposes." 156

iii. Affirmative Duty to Protect Flows, Level, and Water Quality.

While similar to the duty for procedural findings or to account principle for core principles iii, above, government also has a continuing substantive duty to protect public trust waters, their flows, levels, quality, and the integrity of the ecosystem itself.¹⁵⁷ Thus, in addition to basic principles, the duty consider and determine effects on public trust resources and uses includes effects on flows, levels, quality, and integrity or purity of waters or ecosystems connected to the public trust resources at issue.

iv. Accommodation or Balancing Uses

Courts balance competing public uses, assuring that traditional public trust uses, such as boating, swimming, boating, and recreation, are not harmed by another public use. In cases where

¹⁵⁵ Michigan v. Broedell, 112 N.W.2d 517, 518-519 (Mich. 1965). *See also* Hixon v. Pub. Serv. Comm'n, 146 N.W.2d 577, 589 (Wis. 1966).

¹⁵⁶ In re Water Use Permit Applications (Waihole I), 9 P.3d 409 (Haw. 2000).

Kelly, *supra*, 140 P3d at 1002, Waihole I, *supra*, 9 P3d at 450; Omya Solid Waste Facility, Vt. Sup. C. - Enviro Div., *infra*, footnote immediately below.

courts have recognized a public trust in groundwater or non navigable water issues, which are not traditional public trust in navigable waters cases, courts have accommodated or balanced uses so long as any one use does not alienate or impair a public purpose or use that is protected by the public trust.¹⁵⁸ In other words, in these circumstances courts exercise strict scrutiny over competing uses to ensure compliance with public trust obligations. This is particularly the case in western appropriation or modified allocation water law jurisdictions or in reasonable use jurisdictions in the east involving balancing of private and public uses,¹⁵⁹ although a similar balancing approach is generally applied to private uses and protected public uses regardless of the water law regime.¹⁶⁰

C. Flexible Nature of the Public Trust Doctrine

As reflected in *Illinois Central*, the scope and form of the public trust doctrine is flexible and has evolved over time. The body of the trust traditionally applied to navigable waters and their bottomland, shoreline, fish and aquatic resources. Today it has been extended to all aspects of the inextricably connected ecosystem that is part of or essential to the common body of water and the public's use of the resource.¹⁶¹ As aptly stated:

¹⁵⁸ Ariz. Cent. for Law and Policy v. Hassell, 837 P.2d 158, 170 (1991); In re Water Use Applications (Waihole II), 93 P.3d 643, 657-658 (Haw. 2004).

See e.g., Thompson v. Enz, 154 N.W.2d 473 (Mich. 1967)(balancing private riparian reasonable use of lake in light of correlative public uses protected by public trust).

¹⁶⁰ Wisconsin v. Pub. Service Comm'n, 81 N.W.2d 71, 71-73 (Wis. 1957).

¹⁶¹ Allan Kanner, The Public Trust Doctrine, Parens Patriae, and the Attorney General as the Guardian of the State's Natural Resources, 16 Duke Envil. L. & Pol'y F. 57, 82-85 (2005); Charles F. Wilkinson, Headwaters of the Public Trust: Some Thoughts on the Source and Scope of the Traditional Doctrine, 19 Envil. L. 425, 453 (1989).

The public trust doctrine ... should not be considered fixed or static, but should be molded and extended to meet the changing conditions and needs of the public it was created to benefit.¹⁶²

As a result, the public trust doctrine or its principles have been applied to non-navigable waters, groundwater, beaches, wetlands, and other uses of special public resources, or to protect bathing, swimming, drinking or domestic use, recreation, parklands, and public lands. Moreover, almost without exception, courts have accepted and applied the public trust doctrine to uses of non-traditional waters or other public natural resources if the water and public resources have been protected by state constitutional or statutory provisions.

For example, the public trust doctrine has been applied in the context of non-navigable streams as well as ground water, either because of the effects on navigable water or because statutory or constitutional provisions recognized the waters as being protected by the public trust. For example, in California's notable *Mono Lake* case, the court held that the diversion of water from non-navigable tributaries violated the public trust because of its impact on a connected, navigable lake that was already over-taxed from diversions and related impacts. Additionally, courts have readily applied the public trust doctrine to non-traditional waters or other public natural resources where protected by state constitutional or statutory provisions. For example, the Wisconsin

¹⁶² City of Neptune v. Avon-by-the-Sea, 294 A.2d 47 (N.J. 1972); Daytona Beach v. Tona-Rama, 271 So.2d 65 (La. Ct. App. 1972); Paepcke v Pub. Bldg. Comm'n, 459 N.E.2d 577 (III. 1972); Olson, *supra* note 138, at 173, 179-182. *Accord* Moore v. Sanborn, 2 Mich 529, 625 (1853) (stating the "servitude of the public interest [the trust] depends rather on the purpose for which the public requires the use of its stream, than any particular mode of its use").

¹⁶³ Kanner, *supra* note 161; James M. Olson, *Toward a Public Lands Ethic: A Crossroads in Publicly Owned Natural Resource Law*, 56 J. Urban Law 739, 853-861.

Nat'l Audubon Soc'y v. Superior Ct. of Alpine Co. (Mono Lake), 658 P.2d 709 (Cal. 1983). *See also* Ariz. Cent. for Law and Policy v. Hassell, 837 P.2d 158, 170 (1991) (protection of non navigable waters as public trust).

See e.g., CAL. CONST. ART 10, § 4 (stating that no person or entity "shall be permitted to (continued...)

Supreme Court recently ruled that, under its common and constitutional law, the public trust doctrine imposed a duty on the state to consider the effects of its actions on public trust waters or uses when reviewing a proposal for a high capacity groundwater well.¹⁶⁷ In a case involving a dispute over groundwater for a land development and interests of the public, the Hawai'i Supreme Court ruled that its Constitutional language providing that ["a]ll public natural resources are held in trust by the State for the benefit of the people"] applied to groundwater of the state.¹⁶⁸ Similarly, in 2008, Vermont passed a statute recognizing that "groundwater resources of the state are held in trust for the public," and the first trial court to interpret the law ruled that in light of the statute, groundwater was subject to the state's common law public trust doctrine, and remanded for application of public

exclude the right of way to such water whenever it is required for any public purpose, nor to destroy or obstruct the free navigation of such water"); HAWAI'I CONST. ART. IX, § 1 ("All public resources are held in trust by the State for the benefit of the people"); PA. CONST. ART I, § 27 ("public natural resources are the common property of all the people... As trustee the Commonwealth shall conserve and maintain ... for benefit of the people"); ALASKA CONST. ART. 8, § 3 ("... wildlife, fish, and all waters are reserved to people for common use"). See also Robin K. Craig, A Comparative Guide to the Western States' Public Trust Doctrines: Public Values, Private Rights, and Evolution Toward an Ecological Public Trust, ____ Ecology Law Quarterly____, 69-70 (2010); Robin K. Craig, A Comparative Guide to the Eastern Public Trust Doctrines: Classifications of States, Property Rights and State Summaries (2007).

¹⁶⁶ See e.g., ARIZ. REV. STAT. ANN. § 37-1130 (1992)("[t]his state may obtain any water that is necessary to maintain and protect public trust values . . . "); VT. STAT. ANN. tit. 10 §1390(5)(2008)("the groundwater resources of the state are held in trust for the public" and "manage groundwater resources ... for the benefit of citizens who hold and share rights n those waters"); N.H. REV. STAT. ANN. § 233-A:1 ("... bodies of freshwater...[more than 10 acres] ... held in trust by the state for public use"); N.H. REV. STAT. ANN. § 481:1 ("[W]ater of New Hampshire whether located above or below ground constitutes ... invaluable public resource which should be protected, conserved, and managed in the interest of present and future generations. The state as trustee ... careful stewardship over all the waters..."); N.J. STAT. ANN. § 58:11A-2 ("...to restore and maintain the chemical, physical and biological integrity of the waters of the state, including groundwaters, and the public trust therein..."); N.Y. ENVTL. CONSERV. LAW § 15-1601 ("All the waters of the state are valuable public natural resources held in trust by this state, and this stage has a duty as trustee to manage its waters for the use and enjoyment of present and future residents...").

Lake Beulah Mgmt. Dist. v. State of Wis. Dep't of Natural Res., 799 N.W.2d 73, 76 (Wis. 2011); Scanlan, *supra* note 10.

¹⁶⁸ In re Water Use Permit Applications (Waihole I), 94 Hawai'i 97, 9 P 3d 409 (2000), interpreting Hawai'i Const. art. IX..

trust principles.¹⁶⁹ These applications of public trust principles demonstrate the inherent flexibility scope of the water and purpose protected by the doctrine as is necessary to fulfill the fundamental purposes of the public trust.

IV. THE IJC, BOUNDARY WATERS TREATY, AND PUBLIC TRUST PRINCIPLES

A review of the IJC's history and the Boundary Waters Treaty supports the idea that a commons framework and public trust principles are consistent with, and perhaps inherent in, the authority, purposes, and principles of the Treaty and Canadian and United States public trust law. In addition, such a framework and principles would compliment the goals and special concerns of the IJC's decades of work implementing the Great Lakes Water Quality Agreement. Public trust principles are inherent in the Treaty and could expressly be blended into the guiding principles adopted by the IJC and the provisions of the Great Lakes Water Quality Agreement.

A. Public Trust Principles Inherent in the Boundary Waters Treaty

Under the Boundary Waters Treaty, the Great Lakes common boundary waters are shared equally by the two countries and their respective states and provinces and citizens.¹⁷¹ The purpose of establishing the IJC was to prevent disputes regarding the use of boundary waters, and the Preamble states that the treaty was designed to prevent disputes and settle questions "involving

¹⁶⁹ In re Omya Solid Waste Facility Final Certification, Vt. Sup. Ct. - Enviro. Div., Docket No. 96-6-10 Vtec, pp 8-19, 11 (Feb. 28, 2011), *available at* http://www.vermontjudiciary.org/gtc/Environmental/ENVCRT%20Opinions/10-096c.OmyaSWCertif.sjo.pdf (last visited Nov. 28, 2011), interpreting Vt. Stat. Ann. tit. 10, §§1416-1419 (2008); Vt. Stat. Ann. tit. 10, §§1390(1)-(5) (2008).

¹⁷⁰ Maude Barlow, *Our Great Lakes Commons: A People's Plan to Protect the Great Lakes Forever*, pp. 31-33 (March 24, 2011), *available at* http://www.blueplanetproject.net/resources/reports/GreatLakes-0311.pdf (last visited Nov. 28, 2011).

¹⁷¹ Boundary Waters Treaty, *supra* note 13.

rights, obligations, and interests" of both countries, their state governments, and the citizens who are inhabitants of these countries.¹⁷² This, by itself, seems to contemplate some integration of public trust principles to the extent they arise out of the common law right of public use of navigable waters that has evolved into the public trust obligations, limitations, and principles. More generally, public trust principles, or principles consistent with the public trust, are found throughout the treaty, and the adoption of the public trust doctrine would blend well with the principles inherent in the treaty.

To begin with, Article I of the Treaty reflects the background public trust principle of the *jus publicum* – paramount right of the public to use these navigable waters for navigation, boating, fishing and other public uses under English common law - which was recognized in court decisions from both countries at the time of the signing of the Treaty in 1909.¹⁷³ Article I declares that this general right of the public to use the boundary waters is to be preserved and continue "forever free and open:"

[T]he navigation of all navigable boundary waters shall forever continue free and open for the purposes of commerce to the inhabitants and to the ships, vessels, and boats of both countries equally, subject, however, to any laws and regulations of either country, within its own territory, not inconsistent with such privilege of free navigation and applying equally and without discrimination to the inhabitants, ships, vessels, and boats of both countries.¹⁷⁴

¹⁷² *Id.* Notably, boundary waters under the Treaty do not include tributary rivers, streams, or groundwater, the IJC has recognized that these tributary waters are a single hydrological system, and that the interaction of uses, flows, levels of these waters and their tributaries are directly related to the quantity and quality and integrity of the ecosystem. See the International Joint Commission, *The Protection of the Waters of the Great Lakes: Final Report to the Governments of Canada and the United States*, pp. 20-21, 26 (February 22, 2000), *available at* http://www.ijc.org/php/publications/html/finalreport.html (last visited Nov. 28, 2011). *See also* Lee Botts and Paul Muldoon, *Evolution of the Great Lakes Water Quality Agreement* (Michigan State University Press 2005), pp. 191-95.

¹⁷³ See, e.g., cases cited supra note 24.

¹⁷⁴ Treaty, *supra* note 13, at Art. 1. This is strikingly similar to both common law recognitions of the right of public use for navigation, boating, and fishing, the primary uses made (continued...)

Article III of the Treaty requires that decisions on proposed uses, obstructions, or diversions "affecting flows and levels" of the boundary waters or waters crossing the boundary must be approved by the IJC.¹⁷⁵ Public works for navigation and commerce can continue but cannot "affect the flow and level of the boundary waters of the other" or "interfere with the ordinary use of such waters for domestic and sanitary purposes."¹⁷⁶ This has been applied in a manner consistent with public trust principles. In its first decision under the Treaty, in 1913, the IJC characterized the principles in Article III as "plain, simple and direct."¹⁷⁷ In 1965 St. Croix Paper Company requested the IJC to approve a replacement storage dam and fish passage facility at the base of Spednik Lake that would lower water levels of the lake and impair fish, water quality, and downstream recreation.¹⁷⁸ In approving the project as "one of a kind," the IJC imposed a condition requiring "remedial protective works" that would protect these public interests and use from harm.¹⁷⁹

of navigable waters in the 1800s and early 1900s. Article I of the Treat is strikingly similar to the Ordinance of the Northwest Territories of 1787, from which the boundaries of five Great Lakes were established on their admission as a state.

¹⁷⁵ Treaty, *supra* note 13, at Art. III.

¹⁷⁶ *Id*.

¹⁷⁷ In the Matter of Rainy River Improvement Co., Approval of Plans at Kettles Falls (Apr. 13, 1913) Order of Approval, Docket 1A, p. 7, available at http://www.ijc.org/php/publications/pdf/ID23.pdf (last visited Nov. 28, 2011). See also TAB 3 of the Presentation, pp. 2-4.

¹⁷⁸ In the Matter of St. Croix Paper Co. Woodland, Maine, & New Brunswick (Oct. 15, 1965) Order of Approval, Docket No. 80, p. 2, available at http://bwt.ijc.org/docket-table/attachments/Docket%2080/Docket%2080%20Order%201965-10-15.pdf (last visited Nov. 28, 2011).

¹⁷⁹ *Id.* at 9. *See also, In the Matter of Grand Coulee Dam and Reservoir* (Dec. 15, 1941) Order of Approval, Docket 44A, *available at* http://www.ijc.org/php/publications/html/columbia/columbiaord.htm (last visited Nov. 28, 2011).

Article IV of the Treaty unequivocally directs that waters defined as boundary waters and waters flowing across the boundary "shall not be polluted." The IJC has used its powers of "Reference" under Article IX to implement the "no pollution" standard. to prevent harm to public health, drinking water, and exposure to those who swim or use the waters. In one of its first decisions under the Treaty, the IJC determined that this included a "probability" of harm to life, health, and property from pollution. The IJC has also reported that this includes conditions that would "adversely affect" water used for drinking, navigation, fish and wildlife, bathing, recreation, farming, supply for industry, and riparian activities. Several of these uses, such boating, fishing, bathing, recreation, are uses that are protected by the public trust doctrine. 183

Article VIII takes a common and shared use approach to boundary waters by adopting principles that govern the IJC's decisions when passing on matters affecting flows or levels under Articles III and IV. Generally, each party has "equal and similar rights" in the use of waters on their side of the international boundary. However this principle is subject to an order of preference, with the exception that existing uses on either side of the boundary are not subject to these

Treaty, *supra* note 13, at Art. IV. Article IV also requires IJC approval for remedial and protective works in waters flowing across the boundary, or in waters at a lower level than the boundary in rivers flowing across the boundaries, that raise the water level.

International Joint Commission, Final Report of the International Joint Commission in the Matter of the Reference by the United States and the Dominion of Canada Relative to the Pollution of Boundary Waters, p. 27 (Sept. 10, 1918) Docket 4R, available at http://bwt.ijc.org/docket_table/attachments/Docket%204/Docket%204%20Final%20Report.pdf (last visited Nov. 28, 2011).

International Joint Commission, Report of the International Joint Commission United States and Canada on the Pollution of Boundary Waters, p. 6 (Oct. 11, 1950) Docket 54R, available at http://bwt.ijc.org/docket-table/attachments/Docket%2054-55/Dokcet%2054%20Pollution%20 of%20GL%20Channels%20Final%20Report%201950.pdf (last visited Nov. 28, 2011).

¹⁸³ See discussion and accompanying notes supra Sections I and II.

¹⁸⁴ Treaty, *supra* note 13, at Art. VIII.

preferences. A lower-ordered use may not materially conflict with the higher preferred use in the following order of preference: (1) domestic and sanitary uses, (2) navigation and servicing of canals for navigation, and (3) use for power and irrigation.¹⁸⁵ All other uses, presumably, are based on the general shared equal or similar uses principle, unless a temporary diversion is required based on local conditions and does not diminish the amount of water available for use on the other side. Finally, in matters that involve temporary variation in the equal use principle or public works that affect the natural level of water, the IJC can impose conditions or remedial orders that guard against injury to "any interests" on either side.¹⁸⁶

The Boundary Waters Treaty treats the boundary waters, including the Great Lakes, as a commons that is to be equally shared by both countries and their inhabitants. Moreover, IJC Decisions and References under the Treaty over the past 100 years have shown a strong interest in applying the principles of equal and shared use, protecting public uses, and balancing public and private uses, many of which are recognized under the public trust doctrine. The IJC has looked, at least some cases, to the equality of uses, the common law of the provinces or states where the use or effects would occur, and the protection of public uses, fish, wildlife, ecosystems. As a result, the IJC's recognition of public trust principles is consistent with principles inherent in the Treaty itself and the IJC's application of the treaty overtime. In addition, the express adoption of the public trust principles could provide a needed framework for the IJC's evaluation and decision-making regarding a number of critical issues facing the Great lakes and the boundary waters today.

¹⁸⁵ *Id*.

¹⁸⁶ *Id*.

¹⁸⁷ See TAB 3 (Selected Historical Analysis of IJC Decisions Related to Commons and Public Trust Approach).

¹⁸⁸ *Id*.

B. Integration of Public Trust Principles into the Boundary Waters Treaty and Great Lakes Water Quality Agreement

The public trust doctrine could be integrated into either the implementing principles of the Treaty or the Great Lakes Water Quality Agreement. Under the Boundary Waters Treaty and/or the GLWQA and its integrated ecosystem approach, the adoption of a public trust principle for the IJC or in the GLWQA could be instrumental in promoting research, exploration, public education, and oversight of the affects of uses, diversions, exports, obstructions, climate change, and other activities on the flows, levels and ecosystem of the Great Lakes. It would also form a basis to integrate water quantity, quality and ecosystem protection. Finally, it would provide a basis from which the IJC can request parties, states, provinces, and others to be more accountable consistent with the duty under public trust law to consider and determine effects and harms before any approval of a use, diversion, or obstruction or other proposed action is approved.

The basis for evaluating these claims has already begun. The pioneering work of the IJC and its Science Advisory and Water Quality Boards has focused on critical water pollution issues, including phosphorous, toxics, non point and direct discharges, sewage, invasive species, and shipping impacts. More recently the focus has turned to the integrity of the ecosystem or "interacting components of air, land, water, and living organisms, including humans, within the drainage basin ..." One of the IJC's specific goals adopts an "Ecosystem Objective" that seeks to "maintain the chemical, physical and biological integrity of the waters of the Great Lakes Basin

¹⁸⁹ Hereinafter "GLWQA".

¹⁹⁰ Great Lakes Water Quality Agreement, Art. 1.

Ecosystem." ¹⁹¹ In addition, the underlying goal of the GLWQA is a long-term effort to protect the boundary waters, and it has evolved into an ecosystem approach that integrates water quality with water and land uses, air deposition, direct and non point discharges, and overland stormwater drainage and run off. The GLWQA recognizes that flows and levels, whether induced or caused by human activities, are an integral part of water quality and the health and integrity of the Great Lakes ecosystem. ¹⁹² Public trust principles would provide a framework to continue to build upon this work, and more fully integrate protection of water quantity, quality, and ecosystems. ¹⁹³ At the same time, these principles would declare as a background principle the paramount inalienable right of public use or trust that exists in these waters as a safeguard against unforseen claims and challenges by special or private interests; this would protect the Great Lakes and their uses from threats of diversions or exports and ensure government control and protection for the many public and private uses that enjoy the Great Lakes and St. Lawrence River.

C. Potential Application of the Public Trust Doctrine

The public trust doctrine could help address current gaps in the IJC's ability to systemically address threats facing the Great Lakes and the boundary waters. The IJC 's mission and goals are centered on the protection of water quantity, water quality, and the chemical, biological and physical

¹⁹¹ *Id*.

¹⁹² The IJC already collects data on flows and levels of boundary waters.

¹⁹³ One example of how public trust principles fit within the existing work of the IJC is "Plan 2007," the Order of Approval for a hydropower project in the St. Lawrence River below Lake Ontario. Evaluation of the proposed order has involved passing on changes in flow patterns and lake levels, including the order of preference for domestic uses, hydro electric power, and a number of existing uses and new conditions and effects on the ecosystem. The public trust doctrines provides a backdrop on which all of these issues could be considered in the context of the sovereign duty to hold the waters in trust for public use.

integrity of the ecosystem. The IJC's work involves decisions regarding flows and levels and related water and ecosystem effects directly under the Boundary Waters Treaty or the GLWQA. Overall, the IJC has evolved objectives focused on both water quality and ecosystem to implement its responsibilities and programs under the Treaty and GLWQA but has not formally integrated water quantity with water quality issues. Yet in the past 10 years, the magnitude and layers of the threats to waters of the Great Lakes have become so compressed and mutli-dimensional that IJC finds itself in a position of having to put out the fires of specific or localized harms and threats, while even larger threats gather overhead. The size, rate of change, intensity, and transboundary nature of many systemic threats to the Great Lakes and ecosystem overwhelm the existing framework. The IJC could be even more effective at performing its overall responsibilities to protect flows and levels and prevent pollution if it adopted an overarching framework or principles by which to evaluate issues in order to fill the gaps and compliment existing programs.

Adopting the public trust doctrine as an overarching guideline could be just such a proactive step. It would ensure that the background principles of the waters being held in trust for public use are always part of the discussion and provide a mechanism for integrative and comprehensive consideration of risks to public trust based on the sovereign duty of the government to ensure protection of the water and ecosystem for both present and future generations. Public trust principles impose solemn and perpetual limits and duties to protect public trust waters, uses, and ecosystem, and offer an approach and principles to catch up to or get ahead of the problem. By imposing public trust principles to protect the Great Lakes, its public uses, and ecosystem, the IJC

¹⁹⁴ As concluded in a recent, troubling study on the difficulty of protecting local and regional place features in light of the decline in overall biodiversity, the pressures and demand on water and natural resources is so great that "the problem is running away from the solution." Stephen Leahy, *All of Earth's Systems in Rapid Decline*, Inter Press Service, Aug. 4, 2011. Available at: http://ipsnews.net/news.asp?idnews=56685 (last visited Nov. 30, 2011)...

can work closer to the source of the losses and threats, including those yet unknown, ¹⁹⁵ at the same time provide an umbrella or backstop protection from unanticipated demands or claims on the public trust in these waters and public natural resources.

The influx of invasive species into the Great Lakes provides one example of how the public trust doctrine could be integrated with the Treaty and the GLWQA to address current challenges facing the Great Lakes and the IJC. Invasive species threaten the Great Lakes ecosystem as well as business in the region. Public trust principles, read in conjunction with the Treaty, could provide the IJC with a comprehensive framework for advising and recommending governmental actions. Evaluating uses such as fishing and navigation in light of public trust principles would require an overall integrative look at the impacts of uses, diversions, obstructions or dams in the context of water levels, flows, or biological pollution, as well as requiring a consideration of the magnitude of the risk of harm and alternative measures that would prevent that risk in the context of future generations. This requires viewing the costs and risks of exchanging ballast water beyond the St. Lawrence and Great Lakes not just in terms of economics or even scientific markers, but in

Jeffrey W. Henquinet and Tracy Dobson, *The Public Trust Doctrine and Sustainable Ecosystems: A Great Lakes Fisheries Case Study*, 14 NYU Envt'l. Law J. 323, 344-48 (2006) (suggesting the public trust doctrine would better address multi-jurisdictional and layered water and ecosystem problems like fisheries).

¹⁹⁶ Since the 1800s, more than 160 aquatic nuisance species have entered the Great Lakes ecosystem. The U.S. Fish and Wildlife Service estimates that the economic losses over the last decade from one particularly dangerous ANS, the quagga mussel, are at about \$5 billion within the Great Lakes region alone. See Ash-har Quraishi, *Great Lakes Invasion: Quagga Mussels Wreak Havoc on Ecosystem.* Chicago Tonight/WTTW-TV. November 15, 2011, *available at*: http://chicagotonight.wttw.com/2011/11/15/great-lakes-invasion. It has been predicted that the Asian Carp, another significant danger to the Basin, would cripple the 7-billion-dollar-a-year Great Lakes fishing industry. Nicole Thompson, *Asian carp called the biggest threat to Great Lakes in years.* Daily Herald. February 14, 2011, available at:

http://www.dailyherald.com/article/20110213/news/799999463/. See also Lewis Croley, Ray, et al, Enhancing Resilience in a Changing Climate (ERCC) Program; Water Levels in the Great Lakes: A Cross-Border Problem (Natural Resources Canada); Lester Brown, World on Edge (Earth Policy Institute, 2011)(discusses rising temperatures of Earth are melting away global food security).

light of what the outer limit is on the risk and magnitude of harm that the Basin can withstand. It perhaps provides an outer limit after which the magnitude of threatened harm is unacceptable based on public trust principles.

As another example, the Great Lakes is facing increasing risks of large-scale water diversions. Although a 2002 Report from he IJC International Water Use Task Force concluded that diversions from the Great Lakes were not on the horizon and would not likely happen, ¹⁹⁷ this conclusion must now be reevaluated in light of the increasing energy and food demands for water and shifts in water law regimes in the Great Lakes states. Changing demands have greatly increased the potential for diversions or exports of water to the west or elsewhere, particularly as the United States contemplates producing oil from shale rock in the western states. ¹⁹⁸ Simultaneously with increases in demand, changes in law over the past decade, and international treaties such NAFTA and the GATT, ¹⁹⁹ have created increased legal risk for large-scale water diversion from the Great

¹⁹⁷ Protection of the Waters of the Great Lakes: Three Year Review, Prepared for the IJC by International Water Uses Review Task Force, Nov. 8, 2002, pp. 55-57, available at http://www.ijc.org/php/publications/pdf/ID1560.pdf (last visited Nov. 30, 2011).

¹⁹⁸ Former New York Times journalist Keith Schneider has spent the last two years in China and the Western states looking at the demands for energy for Circle of Blue. He has concluded that the demand for water for shale oil and gas production - as well as for water and food needs in the west and midwest - will be met, inevitably, from pipelines in Lake Superior. See Keith Schneider, Chokepoint US, Water News (Sept. 2010), available at: http://www.circleofblue.org (last visted Nov. 30, 2011).

Under the "Harmonizing Code System" in the General Agreement on Tariffs and Trade (GATT), Oct. 30, 1947, 61 Stat. A-11, 55 U.N.T.S. 194, as amended in the Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations, Apr. 15, 1994, 33 I.L.M. 1125 (1994), a "good" is defined to include water, and all water other than the sea, whether or not clarified or purified. A side agreement to the North American Free Trade Agreement (NAFTA), signed by the U U.S.-Can.-Mex., Dec. 17, 1992, 32 I.L.M. 289 (1993), itself does not expressly make "water" a "good" or "product," a side agreement, between Canada, Mexico, and the United States may do so. 1993 Statement of the Governments of Canada, Mexico, and the United States. Jon R. Johnson, *North American Free Trade Agreement: A Comprehensive Guide* 109 (1994).

Lakes.²⁰⁰ The public trust doctrine could provide a framework by which to evaluate and prioritize these issues on the backdrop of the government's duty to protect the Great Lakes for public uses protected by the public trust doctrine. Indeed, now more than ever it will be valuable for an international body like the IJC, to expressly declare that any use, diversion, or obstruction of navigable waters is subject to the limitations of the public trust and subject to inherent rights of public use in these waters, and to affirm the continuing duty of governments to protect these waters for the health, safety, and welfare of its citizens.

V. CONCLUSION: AN OVERARCHING GUIDING PRINCIPLE OF PUBLIC TRUST

Based on the above, the Council of Canadians and Flow for Water submit that the IJC should adopt, or refer for study and recommendation for adoption, a declaration or guiding principle that the Great Lakes Boundary waters and its directly connected public natural resources are held in public trust for the benefit of the citizens of the two countries and states who live in the Great Lakes basin, and for those who visit and use and enjoy the waters of the Great Lakes Basin. In addition, or in the alternative, it is submitted that the IJC should adopt and include provisions that (1) recognize public trust principles and (2) integrate the public trust principles into decisions and references and all matters and programs under the Great Lakes Water Quality Agreement and the Treaty, so that water quantity issues under Article III of the Treaty and water quality issues under Article IV of the Treaty and the Great Lakes Water Quality Agreement are integrated and made part of the ecosystem approach of the Great Lakes Water Quality Agreement.

²⁰⁰ For example, the Great Lakes-St. Lawrence River Basin Water Resources Compact, as adopted in the United States, bans diversions of water from the Great Lakes but also creates a couple of significant exceptions that leave the potential for significant diversions from the Lakes as a "product." See James M. Olson, Navigating the Great Lakes Compact, Water, Public Trust, and International Trade Agreements, 2006 MICH. St. L. Rev. 1103, 1122-1126 (2006).