

OIL AND FRESHWATER DON'T MIX: TRANSNATIONAL REGULATION OF DRILLING IN THE GREAT LAKES

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Abstract: In the wake of the Gulf oil blowout disaster, there is renewed interest in protecting the freshwater of the Great Lakes from the risks of oil drilling. The region has significant oil resources that would be economically and technologically accessible through drilling in the Great Lakes. The Great Lakes bottomlands and shorelines are subject to the regulatory jurisdiction of two countries—the United States and Canada—and eight American states. While the existing legal regime lacks uniformity, and is characterized by jurisdictional inconsistency and potential for transboundary pollution externalities, oil drilling is mostly prohibited. With strong public support for protecting the Great Lakes, there is an opportunity to further strengthen oil drilling regulation in the Great Lakes through international and domestic law.

INTRODUCTION: GREAT LAKES FRESHWATER AND OIL RESOURCES

The Great Lakes are the world's largest surface freshwater system.¹ With 5440 cubic miles of fresh surface water, the five Great Lakes—Lake Superior, Lake Michigan, Lake Huron, Lake Erie, and Lake Ontario, along with the St. Lawrence River and connecting channels—comprise ninety-five percent of the fresh surface water in the United States and twenty percent of the world's supply.² The Great Lakes provide drinking water to tens of millions of Americans and Canadians³

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¹ Noah D. Hall, *Toward a New Horizontal Federalism: Interstate Water Management in the Great Lakes Region*, 77 U. COLO. L. REV. 405, 414 (2006).

² *Id.* (citing N.G. GRANNEMANN ET AL., U.S. GEOLOGICAL SURVEY, THE IMPORTANCE OF GROUND WATER IN THE GREAT LAKES REGION 1 (2000)).

³ *Id.* at 414–15 (citing INT'L JOINT COMM'N, PROTECTION OF THE WATERS OF THE GREAT LAKES: FINAL REPORT TO THE GOVERNMENTS OF CANADA AND THE UNITED STATES 6 (2000), available at <http://www.ijc.org/php/publications/html/finalreport.html>).

and the quality of freshwater in the Great Lakes is essential to the health and economy of the Midwest.

The foundational challenge in protecting and managing the water of the Great Lakes lies in the shared jurisdiction of the waters. The Great Lakes system is shared by two countries—the United States and Canada—and eight American states—Minnesota, Wisconsin, Michigan, Illinois, Indiana, Ohio, Pennsylvania, and New York.⁴ How one country or state manages its use of Great Lakes water and bottomlands will likely have spillover consequences for its neighbors in the form of transboundary pollution and environmental impacts. Thus, the legal regime for environmental protection of Great Lakes freshwater from oil drilling is only as strong as the weakest link in the system.

The Great Lakes have significant oil and gas resources that are economically and technologically accessible with modern drilling techniques. In a 2006 study, the United States Geological Survey (USGS) estimated that the United States portion of the Great Lakes contains 312 million barrels of undiscovered, technically recoverable oil, as well as 5.2 trillion cubic feet of natural gas.⁵ Most of the oil is beneath Lake Huron and Lake Michigan (141 and 125 million barrels, respectively), while most of the gas is beneath Lake Erie (over three trillion cubic feet).⁶ Michigan has over 90% of the oil resources (282 million barrels of oil) and over 40% of the natural gas (over two trillion cubic feet).⁷ Ohio is the only other state with significant holdings, with about 8% of the oil resources (twenty-six million barrels of oil) and a little under 40% of the natural gas (just under two trillion cubic feet).⁸

There are no comprehensive studies or estimates of Great Lakes oil and gas resources under Canadian jurisdiction. The best information available is from the Ontario Ministry of Natural Resources, which estimates that the province's portion of the Great Lakes contains approximately 153 million barrels of recoverable oil and 1.5 trillion cubic feet of natural gas.⁹ Oil and gas production on the Canadian side of the

⁴ *Id.* at 415.

⁵ JAMES L. COLEMAN ET AL., U.S. GEOLOGICAL SURVEY, UNDISCOVERED OIL AND GAS RESOURCES UNDERLYING THE U.S. PORTIONS OF THE GREAT LAKES, 2005, at 1 (2006), available at http://pubs.usgs.gov/fs/2006/3049/fs2006-3049_8.5x11.pdf. These are mean estimates with a range of uncertainty. *Id.*

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

⁹ *Crude Oil and Natural Gas Resources*, ONT. MINISTRY NAT. RESOURCES, http://www.mnr.gov.on.ca/en/Business/OGSR/2ColumnSubPage/STEL02_167105.html (last modified June 5, 2009). The Ontario Ministry of Natural Resources estimates reserves from Crown land

Great Lakes dates back almost a century, with commercial production of natural gas from under the bed of Lake Erie as early as 1913.¹⁰

Drilling for these oil and gas resources would create risks and potential impacts for the freshwater of the Great Lakes. In 2005, the United States Army Corps of Engineers released a report to Congress titled *Known and Potential Environmental Effects of Oil and Gas Drilling Activity in the Great Lakes*.¹¹ The report summarized that oil drilling and infrastructure would potentially “directly impact fish and wildlife habitats by clearing land areas or disturbing lake bottoms,” and “the visual intrusion of oil and gas developments could reduce the desirability of these areas for tourism and other recreational uses.”¹² The report further summarized the risks of a spill:

Accidental releases of oil and drilling waste could incur consumption bans on fish and game, impact fish and wildlife habitats, disrupt recreation and tourism, and, depending on the proximity of water intakes, contaminate public drinking water supplies. These effects could be short or long-term in nature, depending on the location and magnitude of the release and the quality of the resource that was affected.¹³

In the aftermath of the BP blowout disaster in the Gulf of Mexico, this statement of the potential impacts of a major oil spill to an aquatic ecosystem and economic region has proven accurate.

I. FEDERAL AND STATE REGULATION OF GREAT LAKES OIL DRILLING

A. *The Patchwork of State Regulation*

Prior to 2001, oil and gas drilling in the United States waters of the Great Lakes was left to the individual states, which have title to the Great Lakes bottomlands pursuant to the federal Submerged Lands Act.¹⁴ In 1985, the governors of all eight Great Lakes states signed a

below the Great Lakes at 24,300,000 cubic meters of oil and 42,500,000,000 cubic meters of natural gas. *Id.* One cubic meter converts to approximately 6.3 barrels of oil and 35.3 cubic feet of natural gas. *Id.*

¹⁰ *Id.*

¹¹ U.S. ARMY CORPS OF ENG'RS, CHI. DIST., KNOWN AND POTENTIAL ENVIRONMENTAL EFFECTS OF OIL AND GAS DRILLING ACTIVITY IN THE GREAT LAKES, at E-1 (2005), available at <http://www.lrc.usace.army.mil/GrLakes/OilGas/FinalReport.pdf>.

¹² *Id.* at E-2.

¹³ *Id.*

¹⁴ 43 U.S.C. § 1311(a) (2006). In addition to the federal Submerged Lands Act, the Supreme Court has made clear that the states have title to submerged lands beneath navi-

non-binding statement of principle opposing oil drilling in the Great Lakes.¹⁵ In *A Statement of Principle Against Oil Drilling in the Great Lakes*, the governors declared: “We collectively state our opposition to oil drilling in the waters of the Great Lakes or their connecting channels.”¹⁶

Despite this hortatory collective statement, the legislative action from the Great Lakes states was inconsistent. As a result, a patchwork of different regulations and state bans are on the books. Some states expressly ban Great Lakes oil and gas drilling, others only ban oil drilling, and some states have no laws specific to Great Lakes drilling.

Michigan, the most significant state in terms of total bottomlands and oil and gas reserves, has a ban on new oil and gas drilling in the Great Lakes.¹⁷ Directional drilling from onshore facilities with wells below the Great Lakes was allowed until 2002, and pre-existing operations were allowed to continue.¹⁸ In 2010, in the wake of the BP Gulf oil blowout, the Michigan legislature considered putting a constitutional amendment on the ballot to permanently ban oil and gas drilling in the Great Lakes, essentially taking the current statutory ban and putting it in the Michigan Constitution.¹⁹ The legislature ultimately did not approve putting the constitutional amendment on the ballot.²⁰

Ohio, the next most significant state in terms of Great Lakes oil and gas reserves, historically left oil and gas drilling decisions to the discretion of the Director of the Ohio Department of Natural Resources, subject to the approval of the Attorney General and Governor.²¹ In 2003,

gable waters within their boundaries, such as the Great Lakes and connecting channels. See *Shively v. Bowlby*, 152 U.S. 1, 43 (1894) (declaring that the Great Lakes belong to “the states by their inherent sovereignty”); see also *infra* note 32 and accompanying text (declaring 2001 federal moratorium on drilling in the Great Lakes).

¹⁵ See U.S. ARMY CORPS OF ENG’RS, CHI. DIST., *supra* note 11, at 42 (citing *A Statement of Principle Against Oil Drilling in the Great Lakes*, signed by the governors of Michigan (James J. Blanchard), Wisconsin (Anthony S. Earl), Pennsylvania (Dick Thornburgh), Minnesota (Rudy Perpich), Indiana (Robert D. Orr), Ohio (Richard F. Celeste), Illinois (James R. Thompson), and New York (Mario M. Cuomo)).

¹⁶ *Id.* at 42, n.13.

¹⁷ See MICH. COMP. LAWS ANN. § 324.32503(3) (West 2009) (“The department shall not enter into a lease or deed that allows drilling operations beneath unpatented lands for the exploration or production of oil or gas.”).

¹⁸ See 2002 Mich. Pub. Acts 148.

¹⁹ See H.R.J. Res. GGG, 95th Leg., Reg. Sess. (Mich. 2010).

²⁰ See *House Joint Resolution GGG (2010)*, MICH. LEGISLATURE, <http://legislature.mi.gov/doc.aspx?2010-HJR-GGG> (last visited Apr. 15, 2011) (summarizing the legislative history of House Joint Resolution GGG (2010) and indicating that it was not passed by both chambers).

²¹ See OHIO REV. CODE ANN. § 1505.07 (West 1996).

Ohio Governor Bob Taft issued an executive order banning oil and gas drilling in the Great Lakes.²² While the executive order expired with the Taft Administration, Ohio's new Governor, John Kasich, has pledged to issue a new Executive Order banning oil and gas drilling in the Great Lakes.²³

New York, which has portions of Lake Ontario and Lake Erie, has different restrictions for oil and gas drilling in each lake. Both oil and gas leases are prohibited for Lake Ontario bottomlands and shorelines, while oil leases are prohibited but gas leases are allowed for Lake Erie.²⁴ This difference may be due to an historic interest in Lake Erie gas production in the mid-twentieth century,²⁵ but there is no evidence of any active leases granted by New York.²⁶

Wisconsin prohibits oil and gas drilling operations on Great Lakes bottomlands and adjacent bays and harbors.²⁷ Pennsylvania allows drilling in its small portion of Lake Erie at the discretion of its state natural

[T]he director of natural resources, with the approval of the director of environmental protection, the attorney general, and the governor, may issue permits and make leases to parties making application for permission to take and remove sand, gravel, stone, and other minerals or substances from and under the bed of Lake Erie, either upon a royalty or rental basis, as he determines to be best for the state.

Id.

²² See Ohio Exec. Order No. 2003-17T (July 14, 2003).

²³ See Jim Provance, *Kasich Expresses Support for Ban on Oil and Gas Drilling in Lake Erie*, TOLEDO BLADE, Oct. 27 2010, at A3.

²⁴ See N.Y. ENVTL. CONSERV. LAW § 23-1101 (McKinney 2007).

The department may make leases on behalf of this state, upon such terms and conditions including consideration as to the department seem just and proper for: a. The exploration, development and production of gas in state-owned lands, except state park lands and the lands under the waters of Lake Ontario or along its shoreline; b. The exploration, development and production of oil in state-owned lands, except state park lands and the lands under the waters of Lake Erie and Lake Ontario or along their shorelines.

Id.; see also *id.* § 23-0305 (giving the Department of Environmental Conservation additional powers to regulate oil extraction).

²⁵ See PERVAZE A. SHEIKH ET AL., CONG. RESEARCH SERV., RL 34741, DRILLING IN THE GREAT LAKES: BACKGROUND AND ISSUES 4-5 (2008).

²⁶ See generally N.Y. STATE ENERGY RESEARCH & DEV. AUTH., NEW YORK'S NATURAL GAS AND OIL RESOURCE ENDOWMENT: PAST, PRESENT AND POTENTIAL (n.d.), available at <http://www.tiogagaslease.org/images/NYSERDARreport.pdf> (giving an overview of gas drilling in New York State without mentioning the importance of the Lake Erie stores).

²⁷ See WIS. STAT. ANN. § 295.33(4) (West 2004) ("No person may conduct drilling operations for the exploration for or production of oil or gas if the drilling extends beneath the beds of the Great Lakes or bays or harbors that are adjacent to the Great Lakes . . .").

resource agency, pursuant to a general “best interests of this Commonwealth” standard and several specific restrictions and requirements.²⁸

Illinois and Indiana, which have a relatively small portion of Lake Michigan, and Minnesota, which covers portions of Lake Superior, do not specifically address Great Lakes oil and gas drilling in their statutes. Illinois’ statewide statutory provisions for permitting and leasing of state owned bottomlands make drilling highly unlikely and subject to numerous restrictions.²⁹ Indiana gives its state agency the authority and discretion to permit and lease the beds of lakes for oil and gas development, subject to numerous standards and restrictions.³⁰ Minnesota authorizes leases of lands below state waters for mining and other pur-

²⁸ See 58 PA. STAT. ANN. § 601.205(c) (West 1996).

The department shall, on making a determination on a well permit, consider the impact of the proposed well on public resources to include, but not be limited to, the following: (1) Publicly owned parks, forests, gamelands and wildlife areas. (2) National or State scenic rivers. (3) National natural landmarks. (4) Habitats of rare and endangered flora and fauna and other critical communities. (5) Historical and archaeological sites listed on the Federal or State list of historic places.

Id.; 71 PA. STAT. ANN. § 1340.302(a)(6) (West 1996) (“The department is hereby empowered to make and execute contracts or leases in the name of the Commonwealth for the mining or removal of any valuable minerals that may be found in State forests, or of oil and gas beneath those waters of Lake Erie owned by the Commonwealth . . .”).

²⁹ See 5 ILL. COMP. STAT. ANN. 615/2 (West 2005).

No leasing may occur on “(1) lands where threatened or endangered species occur, as determined pursuant to the federal Endangered Species Act or the Illinois Endangered Species Protection Act, (2) Illinois Natural Area Inventory sites, (3) nature preserves dedicated under the Illinois Natural Areas Preservation Act, (4) lands containing a wild and scenic river as designated under the Wild and Scenic River Area Act, (5) lands registered under the Register of Land and Water Reserves under Part 4010 of Title 17 of the Illinois Administrative Code, and (6) lands on which federal or State laws or regulations prohibit the surface extraction or production facility activity.

Id.

³⁰ See IND. CODE ANN. § 14-38-1-6(a) (West 2003).

The commission may enter into written contracts designating a person as the permittee of the state with the exclusive right to prospect and explore not to exceed three (3) sections, or an equivalent area, of the public land for the occurrence of petroleum. A contract must contain the conditions prescribed by the rules adopted by the commission under this chapter. A permit must be for a period of not more than one (1) year in the discretion of the commission.

Id.; see also *id.* § 14-38-1-11 (limit on land allocation); *id.* § 14-38-1-12 (royalties requirement); *id.* § 14-38-1-24 (time limitation).

poses, but with no specific provisions allowing, banning, or in any way regulating Great Lakes oil and gas drilling.³¹

B. *The Federal Ban on Great Lakes Oil Drilling*

The inconsistent and fragmented patchwork of state laws described above would be more troubling, and worthy of further detailed analysis and reform, if not for the intervention of the federal government, beginning in 2001. In 2001, Congress enacted a two-year moratorium on federal and state permits for drilling in the Great Lakes.³² The moratorium was extended in 2003,³³ and again in 2005.³⁴

While the moratorium was in place, Congress directed the United States Army Corps of Engineers to study the environmental effects of oil and gas drilling in the Great Lakes.³⁵ The resulting report, titled *Known and Potential Environmental Effects of Oil and Gas Drilling Activity in the Great Lakes*, gave Congress a sound basis for a permanent ban on drilling in the Great Lakes.³⁶

With knowledge of the environmental, economic, and navigational impacts of oil and gas drilling, including the risks of a spill or blowout, Congress permanently banned Great Lakes drilling in 2005. Section 386 of the Energy Policy Act of 2005 provides, “[n]o Federal or State permit or lease shall be issued for new oil and gas slant, directional, or offshore drilling in or under one or more of the Great Lakes.”³⁷

The federal drilling ban is an important backstop to inconsistent state regulation, especially because fiscally strapped state governments could view new oil and gas drilling as a potential solution to budget shortfalls. For example, in Michigan, oil and gas drilling leases would

³¹ See MINN. STAT. ANN. § 93.25 (West 2004).

The commissioner may issue leases to prospect for, mine, and remove minerals other than iron ore upon any lands owned by the state, including trust fund lands, lands forfeited for nonpayment of taxes whether held in trust or otherwise, and lands otherwise acquired, and the beds of any waters belonging to the state.

Id.

³² Energy and Water Development Appropriations Act, 2002, Pub. L. No. 107-66, § 503, 115 Stat. 486, 512 (2001).

³³ Consolidated Appropriations Resolution, 2003, Pub. L. No. 108-7, § 505, 117 Stat. 11, 158 (2003).

³⁴ Consolidated Appropriations Act, 2005, Pub. L. No. 108-447, § 504, 118 Stat. 2809, 2963 (2004).

³⁵ Energy and Water Development Appropriations Act, 2002, § 503.

³⁶ See generally U.S. ARMY CORPS OF ENGINEERS, CHI. DIST., *supra* note 11.

³⁷ 42 U.S.C. § 15941 (2006).

provide much needed revenue for the Michigan Natural Resources Trust Fund, which is used to purchase and improve park land.³⁸

With the federal ban in place, the issue of Great Lakes oil and gas drilling in the United States has been effectively addressed. However, the Canadian side of the Great Lakes is still open to drilling, making an international agreement a necessary and logical policy reform to adequately protect the world's most significant freshwater ecosystem.

C. Canadian Regulation of Great Lakes Oil Drilling

Unlike the United States federal government and several key Great Lakes states, Canada has not banned oil and gas drilling in the Great Lakes. Specifically, Ontario—the only province with Great Lakes jurisdiction—allows offshore gas wells and directional drilling of oil wells in the Great Lakes.³⁹

Despite allowing Great Lakes drilling, oil and gas from the Great Lakes are a relatively minor source of energy for Ontario. According to the Ontario Ministry of Natural Resources, the province's crude oil and natural gas production provides only one percent of the province's consumption of crude oil and two percent of the province's consumption of natural gas.⁴⁰ In 2006, the most recent year for which data is available, Ontario's crude oil production had a wellhead value of only \$57 million,⁴¹ a relatively minor figure in the context of the regional Great Lakes economy.⁴²

So while Ontario continues to allow offshore gas wells and directional drilling of oil wells in the Great Lakes, it is a very small industry with minimal economic and energy supply value. Given the importance of protecting the freshwater of the Great Lakes—in Canada as well as in the United States—and the relatively small economic and energy value of Great Lakes drilling, there is an opportunity to work with Canada and the province of Ontario to phase out oil and gas drilling or at least restrict the practice to better protect the Great Lakes.

³⁸ See MICH. CONST. art. 9, § 35.

³⁹ See ONT. MINISTRY NAT. RESOURCES, *supra* note 9. Directional wells are drilled vertically from shore, then angled to reach the oil or gas deposit beneath the floor of the Great Lakes. U.S. ARMY CORPS OF ENG'RS, CHI. DIST., *supra* note 11, at 11.

⁴⁰ ONT. MINISTRY NAT. RESOURCES, *supra* note 9. All of Ontario's crude oil and natural gas production is consumed within the province. *Id.*

⁴¹ *Id.*

⁴² See U.S. POLICY COMM. FOR THE GREAT LAKES, GREAT LAKES STRATEGY 2002, at 2 (2002) (stating economic activity of over \$200 billion per year).

II. ADDRESSING OIL AND GAS DRILLING THROUGH THE U.S.-CANADIAN TRANSBOUNDARY AGREEMENTS AND INSTITUTIONS

The United States and Canada have a long history of binational cooperation in managing and protecting their shared freshwater resources.⁴³ A full history and analysis of the U.S.-Canadian transboundary water regime is beyond the scope of this Article and is provided elsewhere,⁴⁴ but a short review demonstrates that the two countries have ideal institutions and agreements to address potential transboundary risks of Great Lakes oil drilling.

Canada and the United States have a strong history of transboundary international water protection and management. For over a century, the Boundary Waters Treaty of 1909⁴⁵ has provided a substantive governance foundation to protect the Great Lakes and other shared freshwater bodies. The Boundary Waters Treaty requires cooperative management between the United States and Canada to ensure free navigation and freshwater protection for the two countries' shared boundary waters, including the Great Lakes.⁴⁶ Article IV of the Boundary Waters Treaty provides: "It is further agreed that the waters herein defined as boundary waters and waters flowing across the boundary shall not be polluted on either side to the injury of health or property on the other."⁴⁷

The Boundary Waters Treaty established the International Joint Commission with numerous functions to further the treaty's objectives and duties.⁴⁸ This investigative and adjudicative body is comprised of six political appointees, and the United States and Canada appoint three each.⁴⁹ The International Joint Commission is well-respected by both countries and enjoys a deserved reputation for objectivity and

⁴³ See Noah D. Hall, *The Centennial of the Boundary Waters Treaty: A Century of United States-Canadian Transboundary Water Management*, 54 WAYNE L. REV. 1417, 1418 (2008).

⁴⁴ See *id.* at 1420; see also Noah Hall, *Bilateral Breakdown: U.S.-Canada Pollution Disputes*, 21 NAT. RESOURCES & ENV'T 18, 18 (2006) (giving a brief history of Boundary Waters Treaty); Noah D. Hall, *The Evolving Role of Citizens in United States-Canadian International Environmental Law Compliance*, 24 PACE ENVTL. L. REV. 131, 133, 138 (2007) (discussing legal origins of the Boundary Waters Treaty).

⁴⁵ Treaty between United States and Great Britain Relating to Boundary Waters Between the United States and Canada, U.S.-Gr. Brit., Jan. 11, 1909, 36 Stat. 2448 [hereinafter *Boundary Waters Treaty*] (Great Britain on behalf of Canada).

⁴⁶ See *id.* art. I. Lake Michigan, which is entirely within U.S. territory, is not considered a "boundary water" under the treaty. See *id.* However, the Boundary Waters Treaty does extend its guarantees of the mutual right of free navigation to the waters of Lake Michigan. See *id.*

⁴⁷ *Id.* art. IV.

⁴⁸ *Id.* art. III.

⁴⁹ *Id.* art. VII.

technical expertise on environmental issues.⁵⁰ Pursuant to Article IX of the Boundary Waters Treaty, either country can send a reference to the International Joint Commission for non-binding investigative reports and studies.⁵¹ The International Joint Commission's reports are known for utilizing the best available science, produced by technical experts free of political bias.⁵²

As a first step, the United States and Canada should make a reference to the International Joint Commission to study the potential impact of oil and gas drilling in the Great Lakes. The reference should direct the International Joint Commission to consider impacts that could potentially impede and harm navigation and water quality in violation of the Boundary Waters Treaty. Given that Canada currently allows Great Lakes drilling while the United States bans it, the countries may have different views on the risk and potential for harm of the practice.⁵³ Instead of opening a contentious political fight that could undermine binational relations, the countries should use the Boundary Water Treaty's reference process⁵⁴ and have the International Joint Commission provide an objective, scientifically sound risk analysis. The reference should further direct the International Joint Commission to recommend policy reforms to ensure that drilling on either side of the border would not harm navigation and water quality in the Great Lakes.⁵⁵

To initiate the formal process of a Boundary Waters Treaty reference, on July 30, 2010, over twenty members of the United States House of Representatives from the Great Lakes states sent a letter to United States President Barack Obama, Canadian Prime Minister Stephen Harper, and the International Joint Commission.⁵⁶ The letter urged the federal governments, in coordination with the International Joint Commission, to "undertake a review of oil and gas drilling by Canada in the

⁵⁰ See Noah D. Hall, *Transboundary Pollution: Harmonizing International and Domestic Law*, 40 U. MICH. J.L. REFORM 681, 707 (2007).

⁵¹ Boundary Waters Treaty, *supra* note 45, art. IX. While an Article IX reference need only be made by one country, as a matter of custom the references have been made jointly to ensure cooperation and good faith. See Hall, *supra* note 50, at 706–07.

⁵² See Hall, *supra* note 50, at 707.

⁵³ Compare 42 U.S.C. § 15941 (2006) (indicating that the United States bans drilling in the Great Lakes), with ONT. MINISTRY NAT. RESOURCES, *supra* note 9 (discussing Canada's drilling operations in the Great Lakes).

⁵⁴ Boundary Waters Treaty, *supra* note 45, art. IX.

⁵⁵ *Id.*

⁵⁶ Letter from members of Congress to President Obama (July 30, 2010), available at http://www.greatlakeslaw.org/files/Congressional_letter_re_GL_drilling.pdf.

Great Lakes, particularly in regard to safety, environmental impact and oil spill response plans.”⁵⁷

If the International Joint Commission identifies risks of transboundary harm from Canadian drilling, there is an ideal international agreement already in place to institute policy reforms to protect the Great Lakes. The Great Lakes Water Quality Agreement, first signed in 1972 by Prime Minister Pierre Trudeau and President Richard Nixon, is an executive agreement entered into pursuant to the Boundary Waters Treaty that addresses specific water quality threats and issues in the Great Lakes.⁵⁸ It was subsequently amended and resigned in 1978⁵⁹ and again in 1987⁶⁰ to expand its coverage and address new water quality issues.⁶¹ The Great Lakes Water Quality Agreement has not been revised since 1987, but recently the United States and Canada, with the assistance of the International Joint Commission, have begun a comprehensive review of the Agreement and have sought public input on potential revisions to address emerging threats to the Great Lakes.⁶² In the wake of the Gulf oil disaster, there is substantial public and governmental support for taking a hard look at Great Lakes drilling,⁶³ and perhaps addressing this issue in a revision to the Great Lakes Water Quality Agreement.

CONCLUSION

After witnessing the destruction of the Gulf of Mexico ecosystem, there is significant interest and concern among the public and policy makers in protecting the freshwater of the Great Lakes from the risks of oil and gas drilling.⁶⁴ While the demand for energy—including fossil fuels—cannot be brushed aside, there is consensus in the Great Lakes region that the benefits of Great Lakes drilling are not worth the risks to the freshwater that tens of millions of Americans and Canadians rely on for their drinking water.⁶⁵ The key states—Michigan and Ohio—ban

⁵⁷ *Id.*

⁵⁸ Great Lakes Water Quality Agreement, U.S.-Can., Apr. 15, 1972, 23.1 U.S.T. 301.

⁵⁹ Great Lakes Water Quality Agreement, U.S.-Can., Nov. 22, 1978, 30.2 U.S.T. 1384.

⁶⁰ Protocol on Great Lakes Water Quality, *as amended* on October 16, 1987, Amending the 1978 Agreement Between the United States of America and Canada, U.S.-Can., Nov. 18, 1987, T.I.A.S. No. 11551.

⁶¹ See Hall, *supra* note 43, at 1431–33.

⁶² See *id.* at 1432–33.

⁶³ See Brian Cox, *Lake Michigan “Oil Spill,”* CHI. TRIB., July 1, 2010, at I3; *Midwest Oil Mess*, CHI. TRIB., July 30, 2010, at I24.

⁶⁴ See Cox, *supra* note 63; *Midwest Oil Mess*, *supra* note 63.

⁶⁵ See Hall, *supra* note 1, at 414–15.

oil and gas drilling,⁶⁶ and since 2005, the United States federal government has permanently banned new leases and permits. However, Ontario continues to allow offshore gas wells and directional drilling of oil wells in the Great Lakes, despite the minimal economic and energy supply benefits.⁶⁷

To address the risk to Great Lakes water from Canadian oil and gas drilling, existing U.S.-Canadian transboundary institutions and agreements can be effectively and pragmatically utilized. The Boundary Waters Treaty provides a foundation for binational governance of the Great Lakes to protect water quantity, water quality, and navigation.⁶⁸ The International Joint Commission, the binational body created by the Boundary Waters Treaty, is an ideal institution for objectively analyzing the risks of drilling and recommending appropriate regulations.⁶⁹ The International Joint Commission's recommendations can be implemented through revisions to the Great Lakes Water Quality Agreement during the ongoing public process and negotiation initiated by the two countries last year.⁷⁰

⁶⁶ See MICH. COMP. LAWS ANN. § 324.32503(3) (West 2009); OHIO REV. CODE ANN. § 1505.07 (West 1996).

⁶⁷ ONT. MINISTRY NAT. RESOURCES, *supra* note 9.

⁶⁸ See Boundary Waters Treaty, *supra* note 45; Hall, *supra* note 43, at 1418–19.

⁶⁹ See Hall, *supra* note 50, at 707.

⁷⁰ See *id.*