Sinking Ship: A Summary of Legislation Governing Oil Shipping Across the Great Lakes and Through the St. Lawrence River Basin
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SINKING SHIP:
A SUMMARY OF LEGISLATION GOVERNING OIL SHIPPING ACROSS THE GREAT LAKES AND THROUGH THE ST. LAWRENCE RIVER BASIN

BACKGROUND

The Great Lakes-St. Lawrence River Basin form the largest group of freshwater lakes and rivers in the world, holding more than 20 per cent of the Earth’s surface freshwater and 95 per cent of the water in North America. The Great Lakes have a unique biodiversity and are home to more than 3,500 species of plants and animals. They were formed more than 20,000 years ago when the last glacial continental ice sheet retreated. The St. Lawrence River is the second longest river in Canada. It connects the Great Lakes with the Gulf of St. Lawrence and the Atlantic Ocean. The St. Lawrence River has four areas designated under the UN Convention of Wetlands of International Importance. The Great Lakes and the surrounding basin area provide life and livelihood to more than 40 million people and are the economic centre of the continent.

In the report Liquid Pipeline: Extreme energy’s threat to the Great Lakes and the St. Lawrence River, Maude Barlow warns that events are moving rapidly to establish the Great Lakes and the St. Lawrence River as a carbon corridor for a growing North American energy industry. This poses the greatest threat yet to the Great Lakes and St. Lawrence River Basin and all communities surrounding it.

Canada produces 1.8 million barrels of tar sands oil from Alberta every day. The Canadian Association of Petroleum Producers expects this to rise to 6.4 million barrels per day by 2030. Crude oil is significantly cheaper than refined oil, so the pressure is mounting to find economical ways to transport it.

The report Liquid Pipeline warns that the newest way to transport unconventional oil – bitumen from the Alberta tar sands or fracked oil from the Bakken shale formation – is by water. There have been plans to transport these extreme energy forms on barges and tankers across the Great Lakes to refineries in the United States or down the St. Lawrence River to refineries there for export. The plans were cancelled due to the low price of oil and community opposition. However, once the price of oil increases and the projects become profitable again, big oil companies will surely pursue plans to ship unconventional oil on the Great Lakes and St. Lawrence River.

The oil tanker High Prosperity passes Quebec City.

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Shipping Tar Sands Bitumen and Fracked Oil

On September 24, 2014, Suncor shipped the first ever vessel of tar sands bitumen, carrying 700,000 barrels through the St. Lawrence River from a port east of Montreal to Sardinia, Italy. A second vessel transported diluted bitumen to the Gulf of Mexico, but not before being temporarily stopped for safety reasons.¹

Bitumen from the tar sands is extremely heavy and difficult to contain and clean up when spilled in water. Bitumen sinks in water instead of floating on the surface. The Canadian government approved these shipments without any federal environmental assessment despite the unique risks of tar sands bitumen.

Diluted bitumen, also known as diltit, is created by diluting thick bitumen with various toxic and explosive chemicals to make it thin enough to transport. In July 2010, an Enbridge pipeline ruptured in Michigan, spilling 3.2 million litres of diluted bitumen into the Kalamazoo River. Unlike conventional crude, which floats on water, the diluents evaporated and the bitumen sank to the riverbed, making cleanup efforts far more difficult. More than five years and $1.2 billion USD later, there is still submerged bitumen at the bottom of the river. The Royal Society of Canada’s Expert Panel report, The Behaviour and Environmental Impacts of Crude Oil Released into Aqueous Environments, notes, “The behaviour of unconventional oils and bitumen blends currently cannot be predicted with confidence. This knowledge gap affects risk assessments, spill response planning and cleanup decisions.”²

Suncor’s shipments could pave the way for other plans to ship bitumen through the Great Lakes and St. Lawrence River. Calumet Specialty Products had proposed building an oil terminal in Superior, Wisconsin at the edge of Lake Superior and at the foot of the Alberta Clipper, a pipeline that transports Alberta crude from Edmonton. The oil terminal would have been able to load one oil tanker or barge every four days, with each tanker being able to hold about 77,000 barrels of tar sands bitumen or fracked oil from the Bakken shale formation and a 400-foot-long barge being able to hold about 110,000 barrels of oil. Thirteen million barrels of crude oil could be shipped from this terminal across the Great Lakes each year.

Calumet’s shipments were expected to travel across Lake Superior to Lake Michigan, and on to refineries in Whiting, Indiana, Lemont, Illinois and potentially Detroit, Michigan, near Lake Erie. The Alliance for the Great Lakes, a U.S. based environmental organization, also speculated that other destinations included Sarnia, Ontario, on Lake Huron, or refineries on the East Coast.

Until the price of oil dropped, there were plans to ship 20 to 30 vessels each year. While these companies are currently not pursuing these plans because of the low price of crude and strong community opposition, communities expect these companies to restart plans to transport tar sands crude once it is economically viable again.

TransCanada also had plans to build an oil terminal on the St. Lawrence River at Cacouna, Quebec where the company would have loaded 175 supertankers a year with bitumen for export on the river. While TransCanada has cancelled their Cacouna terminal plans, they may be considering other locations on the St. Lawrence River for an export terminal to transport bitumen from the Energy East pipeline.

The Legal Jurisdictions Around the Great Lakes-St. Lawrence River Basin

There are many Indigenous territories around the lakes and the St. Lawrence River Basin with governance and treaty rights. Under the UN Declaration of Rights of Indigenous Peoples, governments are required to obtain free, prior and informed consent from Indigenous peoples on any policies, decisions or projects affecting water in their traditional territories. However, consent from Indigenous communities is often not obtained, if they are even consulted or notified.

The Great Lakes and the St. Lawrence River are bordered by two Canadian provinces: Ontario and Quebec, and eight U.S. states: Minnesota, Wisconsin, Michigan, Illinois, Indiana, Ohio, Pennsylvania and New York.

Within Canadian and U.S. laws, there are many jurisdictions responsible for governance of the Great Lakes. Yet despite these many jurisdictions, combined, there is an uneven and inadequate patchwork of regulations and laws. In Our Great Lakes Commons: A People’s Plan to Protect the Great Lakes Forever, Maude Barlow says that all jurisdictions suffer from chronic underfunding and inadequate enforcement of existing rules.

This report summarizes key state, provincial and national legislation governing oil transport and shows glaring gaps in environmental assessments, spill prevention and preparedness, spill response capacity, funding and other safety issues.
### SAFETY ISSUE: ENVIRONMENTAL ASSESSMENT OF PLAN

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<td>Under the National Environmental Protection Act, an Environmental Impact Statement (EIS) is required if a major federal action is proposed that would significantly affect the environment. However, no EIS is required for heavy oil shipments on the Great Lakes.</td>
<td>While shipping falls under federal regulation, U.S. states have the power to regulate shipping and pass legislation requiring an assessment similar to that of an Environmental Impact Statement. Great Lakes states like Wisconsin, Minnesota, Michigan, Indiana, and New York have done so, but not all would require an environmental assessment on oil shipping. The Wisconsin Department of Natural Resources delayed Calumet’s plans by requiring an environmental assessment for dock repairs that would have led to the development of an oil barge terminal in Superior, Wisconsin.</td>
<td>Since the Harper government gutted the Canadian Environmental Assessment Act in 2012, environmental assessments are now only triggered for major projects. Oil shipping is not a “major” project under the Regulations Designating Physical Activities. The two Suncor shipments that travelled through the St. Lawrence River carrying the first ever shipments of diluted bitumen in the fall of 2014 did not go through a federal environmental assessment.</td>
<td>Jurisdiction for shipping falls under the federal government. A constitutional change would be required for provinces to have jurisdiction for shipping. Both Quebec and Ontario have legislation, such as the Environmental Quality Act and the Environmental Protection Act respectively, that allow them to regulate aspects of oil shipping, but the federal Transportation of Dangerous Goods Act still overrides provincial legislation.</td>
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### SAFETY ISSUE: SPILL PREVENTION AND PREPAREDNESS

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<td>The Coast Guard’s Preparedness for Response Exercise Program (PREP) was developed to address the intent of section 4202(a) of the Oil Pollution Act of 1990. The PREP guidelines are minimum guidelines that outline exercise and planning requirements for oil pollution response, including timelines, the frequency of different types of exercises, and the varying requirements for different types of vessels and facilities. According to the Centre for Public Integrity, the four major drills conducted from 2002-2010 to prepare for a massive oil spill raised several key concerns. The concerns included coordination and communication between the Coast Guard and the Department of Homeland Security, a slow or inaccurate flow of information from the industry, particularly caused by companies’ desire to protect proprietary information and officials’ tendency to exclude industry representatives from the government’s command centre, and a lack of expertise and modern technology for closing a spewing oil well leak and containing a slick through controlled burns and dispersants.</td>
<td>Some Great Lakes states have spill prevention programs in place to supplement EPA and Coast Guard programs, including Michigan, Minnesota, New York, Pennsylvania and Wisconsin.</td>
<td>Under the Canadian Environmental Protection Act, Canada has created a Marine Oil Preparedness and Response Regime. However, in December 2013, the Tanker Safety Expert Panel, set up to examine preparedness for tanker traffic carrying oil off the west coast, found that Canada’s oil spill response measures lack federal leadership and is not prepared for disasters in high-risk areas. In the 2010 Fall Report of the Commissioner of the Environment and Sustainable Development, former Commissioner Scott Vaughn said that while risk assessments for oil shipping spills have been conducted, “the approaches to conducting these assessments have not been consistent or systematic, nor are there formal processes for ensuring that risks are being reassessed on an ongoing basis. As a result, the knowledge of risks for ship-source oil spills in Canada is not complete or up to date.”</td>
<td>Ontario’s Environmental Protection Act, Regulation 224/07, requires the development of spill prevention and contingency plans for industrial plants. Under the Transportation of Dangerous Substances, Quebec requires a training certificate for someone transporting dangerous goods, but this only applies to highway transportation.</td>
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### SAFETY ISSUE: NOTIFICATION OF SHIPMENTS

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<td>The Great Lakes Water Quality Agreement requires notification of &quot;planned activities that could lead to a pollution incident or could have significant cumulative impact on the waters of the Great Lakes.&quot; Transport of crude oil by ship is not listed in the agreement, it would be up to countries to add to the relevant section. Under the UN Declaration of the Rights of Indigenous Peoples, the U.S. has an obligation to obtain free, prior and informed consent of Indigenous peoples whose territories would be impacted by an oil shipment and potential spill.</td>
<td>Michigan and Ontario have a formal agreements to notify the state about potential or accidental spills that may have adverse affects. In addition to federal requirements on release notification, Indiana, Minnesota, Ohio and Wisconsin have stricter or additional state requirements.</td>
<td>The Great Lakes Water Quality Agreement requires notification of &quot;planned activities that could lead to the pollution incident or could have significant cumulative impact on the waters of the Great Lakes.&quot; Transport of crude oil by ship is not listed in the agreement. It would be up to countries to add oil shipping to the relevant section. Under the UN Declaration of the Rights of Indigenous Peoples, Canada has an obligation to obtain free, prior and informed consent of Indigenous peoples whose territories would be impacted by an oil shipment or potential spill. Representatives of the Abenaki and Mohawk Nations joined a protest against Suncor's shipments in Sorel-Tracey, Quebec in October 2014 when more than 2,500 people gathered to oppose the federal and provincial governments' decision to facilitate the transport of tar sands bitumen on the St. Lawrence River.</td>
<td>Michigan and Ontario have a formal agreements to notify each other about potential or accidental spills that may have adverse affects. Under Ontario's Environmental Protection Act, Regulation 224/07 requires that municipalities be notified if there is a spill from industrial plants and Regulation 675/98 requires reporting of any discharges affecting water. Quebec's Regulation respecting hazardous materials requires spills to be reported immediately to the Minister of Sustainable Development, Environment and the Fight against Climate Change.</td>
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### SAFETY ISSUE: INSPECTION

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<td>In 2013 report <em>Oil and Water: Tar Sands Crude Shipping Meets the Great Lakes?</em>, the Alliance for the Great Lakes notes, &quot;A vessel must receive a 'Certificate of Inspection' from the Coast Guard certifying that the vessel complies with all applicable rules.&quot; According to the Great Lakes Commission's <em>Issue Brief Regulations, Policies and Programs Governing Transport of Crude Oil</em>, the Coast Guard conducts safety and security inspections on all inland and ocean-going tank barges every year. The Alliance points out that the Environmental Protection Agency's Spill Prevention, Control and Countermeasure (SPCC) rule requires prevention and response to oil spills during storage at any facilities that could be released into navigable waters. They note, &quot;As of 2010, EPA estimated there were approximately 64,000 facilities under SPCC jurisdiction...Because of budget and travel constraints, only certain facilities are inspected every year and preference is typically given to facilities that have not been previously inspected. EPA typically does not re-inspect facilities that have been previously inspected and passed inspection, or have passed inspection within the last 10 years.&quot;</td>
<td>In the 2015 report <em>Issues and Trends Surrounding the Movement of Crude Oil in the Great Lakes-St. Lawrence River Region</em>, the Great Lakes Commission flagged that, “The Great Lakes states and provinces are not taking full advantage of opportunities to assume oversight of pipeline safety, inspection and enforcement.”</td>
<td>In its 2013 report, <em>A Review of Canada’s Ship-Source Oil Spill Preparedness and Response Regime</em>, the Tanker Safety Expert Panel raised concerns about Transport Canada’s regional offices lack of inspection capacity to adequately supervise oil handling facilities. The report warned that, “The growth of oil handling facilities has outstripped Transport Canada’s capacity to bring adequate oversight to some of these regulated entities.”</td>
<td>Under the Canada-Ontario Agreement Respecting Administration of the Transportation of Dangerous Goods Act, 1992, Ontario only has the power to conduct on-highway inspections and enforcement activities and the federal government conducts all off-highway inspection and enforcement activities.</td>
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### SAFETY ISSUE: SPILL RESPONSE CAPACITY

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<td><strong>The US Coast Guard is the Federal On-Scene Coordinator for the Great Lakes Basin.</strong> Area, regional and national contingency plans are reviewed every year and major updates are made every three years including safety issues such as emergency notification lists, response equipment information, sensitive areas, hazard/ risk assessment of the area and response strategies. Within each Area Contingency Plan, the Coast Guard is required to identify “Worst-Case Discharge” scenarios, whereby a metric is used for determining the scale and magnitude of a spill from a vessel or facility. However, the Alliance for the Great Lakes reports that the US Coast Guard has acknowledged that their “worst case” discharge scenario is based on a spill of conventional oil. There is no “worst case” discharge scenario for tar sands bitumen or fracked oil. In January 2014, the U.S. Pipelines and Hazardous Materials Safety Administration issued a safety alert to emergency responders, the general public, shippers and carriers that Bakken oil may be more flammable than conventional heavy crude oil, raising concerns about public safety for shipping Bakken oil by tanker. The US Coast Guard itself has expressed concerns that they and other responders are not adequately equipped or prepared for a “heavy oil” spill on the Great Lakes.</td>
<td>Some states require response plans on top of the plans required by the federal government. However, Great Lakes states could learn from states like Washington, California and Alaska, which have stronger oil pollution prevention and response programs. The Alliance for the Great Lakes notes, “In regard to spill response, Great Lakes states have first-response capability through state emergency response programs and participate in Regional Response Exercises. States outside the Great Lakes region have updated their spill-response protocols for spills in open water and could serve as a model for Great Lakes states. For example, the state of Washington has created a Vessel of Opportunity (VOO) Plan, which identifies private vessels – such as fishing vessels – that can help out in the event of a spill. VOOs were an integral part of the cleanup following the 2010 Deepwater Horizon spill off the Gulf Coast.”</td>
<td><strong>Under the Canada Shipping Act, sections 167(1) and 168(1) requires vessels and oil handling facilities, respectively, to have arrangements with response organizations in respect of a particular quantity of oil, to a prescribed maximum quantity of 10,000 tonnes. The Canadian Coast Guard acts as the “on-scene commander” and the Eastern Canada Response Corporation (ECRC) is responsible for spills in the Great Lakes-St. Lawrence River Basin. However, there are only eight staff at its Great Lakes regional office in Corunna, and only 15 staff in the three offices along the St. Lawrence River in Quebec. The ECRC has personnel on stand-by that have been trained and that can be brought in to assist with spill response. However, the bigger the spill, the more time the ECRC has to respond. Transport Canada gives the ECRC up to three days for spills of more than 10,000 tonnes so big spills can spread far before equipment has to be on-site.</strong></td>
<td>Quebec’s Regulation respecting hazardous materials requires the responsible party to stop and clean up the spill.</td>
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In the 2010 Fall Report of the Commissioner of the Environment and Sustainable Development, former Commissioner Scott Vaughn said the Canadian government is not ready to handle a major oil spill, and that the Canadian Coast Guard had not done a national assessment on spill response capacity that would identify gaps since 2000, before tar sands bitumen started to be moved in bulk across the continent. |

### SAFETY ISSUE: DOUBLE-HULLS AND CONSTRUCTION

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<td>Oil Pollution Act (1990) began phase-out of single-hull vessels operating in U.S. waters. As of 2015, all vessels were required to have double-hulls.</td>
<td>The allowable size limit for tankers on the St. Lawrence River was increased in December 2013 under the Harper government. Maximum cargo capacity of tankers on the St. Lawrence River doubled when regulation changes increased the allowable breadth of ships from 32 to 44 metres. As of July 1993, any tanker built must be double hulled to operate in waters within Canada.</td>
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## SAFETY ISSUE: FUNDING FOR SPILLS

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<td>The Oil Pollution Act (OPA) requires vessel owners and operators to be liable and responsible for funding spill response, natural resource restoration and compensation for damages caused by a spill. The OPA also authorizes the Oil Spill Liability Trust Fund (OSLTF), a fund of up to $1 billion to pay for oil removal and uncompensated damages, that supplementation costs beyond the liability limits or if the responsibility cannot be identified. Under the Limitation of Liability Act, liability limits are determined by a vessel’s gross tonnage and vessel type. The current limits are $2,200 per gross ton for double-hull tank barges or tank ships. For example, in 2014, a ship-to-ship collision involving barges carrying almost 1 million gallons of oil caused what was known as Texas’ worst inland oil spill in decades. The total spill cost was $106 million. At 1,600 gross tonnage, liability was capped at $4.3 million and required almost $1.3 million to be drawn from the OSLTF. In 2014 and 2015, the US Coast Guard proposed new liability limits to Congress, but limit increases have been small, incremental and inadequate. Groups have called for the limits to be significantly increased or that caps be removed. Liability limitations do not apply in certain circumstances, including if the ship owner caused the incident by gross negligence, willful misconduct or as the result of violation of a federal regulations.</td>
<td>According to the Great Lakes Commission, states have the jurisdiction to “enact higher penalties or stricter oil-handling requirements” including increasing liability limits beyond federal limits. The Council of Canadians was unable to find any Great Lakes state legislation that increased liability limits.</td>
<td>Under the International Convention on Civil Liability for Oil Pollution Damage, the shipowner is liable and liability is limited based on vessel tonnage to a maximum of approximately $145 million, which would normally be covered by compulsory insurance. There are also funds from the International Oil Pollution Compensation Funds and Canada’s Ship-Source Oil Pollution Fund so there is $1.36 billion for one spill.</td>
<td>Ontario’s Environmental Protection Act (Regulation 224/07) requires that the polluter pay for the clean-up of a spill at industrial plants. As mentioned, Quebec has a regulation on hazardous material that requires the responsible party to clean up the spill.</td>
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### SUMMARY OF FINDINGS

Neither the Canadian, nor the U.S. government require an environmental assessment for oil shipments in the Great Lakes-St. Lawrence River Basin, which is a significant gap in safety. Although the Harper government weakened the Canadian Environmental Assessment Act in 2012, environmental assessments can generally provide critical information on potential impacts and risks and, equally important, give communities an opportunity to provide input.

Ontario and Quebec have very little power to regulate oil shipments. Compared to Canadian provinces, U.S. states have more power to pass legislation that would better protect the environment, including conducting Environmental Impact Statements and increasing liability limitations.

Both countries are ill-equipped to respond to oil spills and have gaps in inspection, risk assessment, coordination and spill response capacity that have been called into question. Both Canada and the U.S. put limits on liability and compensation and depend on national and international funds to finance spill responses. However, for large spills on the Great Lakes or St. Lawrence River, the costs will go well beyond what the ship owner, insurance or available funds can pay, leaving taxpayers to foot the bill.

In the Council of Canadians’ report *Doubling Down on Disaster*, a model was used to estimate the costs and damages of a spill of less than 10 per cent of a typical supertanker cargo transporting tar sand bitumen through the St. Lawrence River. The report found that costs and damages would be more than $2 billion – greatly exceeding the $1.36 billion available for funding for spill response. In *Review of Canada’s Ship-Source Oil Spill Preparedness and Response Regime*, the Tanker Safety Expert Panel recommended abolishing the limit of liability per incident with the Ship-source Oil Pollution Fund.
RECOMMENDATIONS

As Council of Canadians National Chairperson Maude Barlow has warned, the Great Lakes and the St. Lawrence River are becoming a crucial corridor for the transport of a burgeoning North American energy industry and a “liquid pipeline” for some of the worst forms of oil and gas produced on Earth. Yet Canadian and U.S. governments and state and provincial governments do not have the regulatory safeguards in place to protect communities from – and adequately respond to – unconventional oil spills. The waters of the Great Lakes are a public trust, meaning all states and provinces must protect the Lakes for everyone living around them.

Former Canadian prime minister Stephen Harper had a dismal record on Great Lake protection. His Conservative government rarely allocated new funds to the Great Lakes. The government also gutted freshwater protections and research and closed the Great Lakes research centre Canada Centre for Inland Waters. Current Prime Minister Justin Trudeau and the federal Liberal government have committed to banning oil tankers on the northern coast of B.C. and renewed commitments to protect the Great Lakes and the St. Lawrence River Basin.

Despite proposed cuts in U.S. President Barack Obama’s 2016 budget, his government has allocated $300 million annually to the Great Lakes Restoration Initiative since 2009.

Much more needs to be done to protect the Great Lakes and St. Lawrence River Basin. These immediate steps need to be taken to close these safeguard gaps in oil spill prevention and response:

- The Canadian and the U.S. governments should immediately make legislative changes to remove liability limits for oil spills in the basin. In keeping with the polluter pays principle, the shipper should share full liability for the cost of any spill with the shipping company.

- All levels of government should require and coordinate environmental assessments to ascertain impacts in their regions if a major spill were to occur and to consult with the public.

- Free, prior and informed consent of Indigenous communities around the Great Lakes should be obtained for all oil shipping proposals and projects.

- All levels of government must recognize water as human right, public trust and commons in their legislation governing the Great Lakes to ensure that the waters are shared, carefully managed and adequately protected from oil spills.

- Governments surrounding the Great Lakes should work together to establish a process for residents and communities living on the watershed to sue corporations and governments that knowingly pollute local water sources as a violation of their human right to clean water.

- Given the high environmental price of a spill, shipments of crude oil should not be permitted on the Great Lakes and St. Lawrence River.

- Emergency equipment such as spill containment booms should be permanently kept near ecologically sensitive areas, ready to be immediately deployed. This strategy is already used to protect sensitive areas in the Port of Vancouver.

- Sufficient emergency equipment, personnel and training should be available based on up-to-date risk assessments, including for worst-case spill scenarios.

- Restrictions on vessel breadth should be reinstated in order to limit the likelihood and consequences of eventual accidents.

Communities must continue to work together to stop projects that threaten the Great Lakes and St. Lawrence River Basin. Governments must take bold action to safeguard this shared watershed. It can continue to provide life and livelihood for generations to come, but only if we protect and care for it.
REFERENCES FOR CHART


The oil tanker *Emerald Star* on the Beauharnois Canal, part of the St. Lawrence Seaway in Quebec.