

EL/Civics Lesson Plan

Program Name Euclid EL/CIVICS

Staff Responsible for Lesson Wendy Oliver

Date(s) Used	4/15
Civics Category	II. Civic Participation
Civics Objective	II. 3—Community Resources - Advocacy Identify a local community need or civic-oriented complaint; research and address the issue..
Time Frame to Complete Lesson	2-3 hours
EFL(s)	NRS levels 5 and 6
Standard(s)/Components of Performance	Read with Understanding - <ul style="list-style-type: none"> • Determine the reading purpose • Select reading strategies appropriate to the purpose • Integrate it Listen actively - <ul style="list-style-type: none"> • Attend to Oral Information • Monitor comprehension, adjusting listening strategies to overcome barriers to comprehension
Benchmark(s)	R5.1 Comprehend simple graphs, charts, diagrams and paragraphs. R6.1 Read authentic materials to gain knowledge R5.2 and 6.2 - Use strategies to monitor comprehension of information on unfamiliar topics (with unfamiliar vocabulary) R5.5 and 6.5 - Draw conclusions (finding the main idea and summarizing) L5.1 Demonstrate some comprehension of less familiar topics and vocabulary, and authentic listening sources related to daily life and work. L5.3 Ask questions to check comprehension L6.3 Use various strategies to demonstrate comprehension
Materials	http://toledoblade.com/apps/pbcs.dll/article?AID=/20080401/NEWS24/804010358/-1/NEWS- Fisher's remarks to sell - handout http://www.toledoblade.com/apps/pbcs.dll/article?AID=/20080107/NEWS06/801070402 - water levels and global warming-handout http://en.wikipedia.org/wiki/Lake_Erie - general history-handout http://www.toledoblade.com/apps/pbcs.dll/article?AID=/200

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	<p>80408/OPINION03/570805517 - sale of water-handout Dictionaries Note cards Example of a newspaper opinion page</p>
<p>Activities</p>	<p>I. Ask the class what a natural resource is. Have them name some local ones like the parks, Cuyahoga Valley, salt mines and ultimately Lake Erie. Ask them how we benefit from having the lake and board responses. Some answers may be recreation, tourism, fishing, swimming, water usage, irrigation.</p> <p>II. Divide the class into pairs or small groups, depending on size. Hand out copies of the Wikipedia description of Lake Erie. Go over the intro - Lake Erie, Assign each pair a section Geography, History, Ecology, or Geology</p> <p>III. Have each group read their section and summarize the most important and interesting information for the class. Have them select one spokesperson per pair to do the presentation. Explain how to make bullet notes on note cards and give them note cards to use for the presentation.</p> <p>IV. After the presentations, ask the students if they are aware of any problems or controversies involving the lake. Water levels, pollution, foreign species and sale of water are possibilities as are water rights. If they are unaware, briefly describe the issues.</p> <p>V. Explain that we are going to take a closer look at one issue that is important right now - the sale of water outside the basin. Ask if they have any idea what the issues are. If not have them guess why people would not want to sell. Why would they want to? Place two columns on the board: PRO and CON. Place their points in the appropriate columns.</p> <p>VI. As a group do an oral reading of the article on Lake Erie's water level falling 3 -6 feet. Correct pronunciation problems. Point out pronunciation rules as they present. Stop after the first 7 paragraphs. Talk about the problems that will result from the falling water levels.</p> <p>VII. Divide the class into 2 groups. One is given Fisher's article in favor of selling water outside the basin. The other is given articles from the opinion page of the <i>Toledo Blade</i>. Explain that the opinion page is the area where anyone can write to the paper and express their opinion. Show them the</p>

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	<p>Opinion page of <i>The Plain Dealer</i> as an example.</p> <p>They are to find the points (pro and con) regarding the sale of water from the lake.</p> <p>Pro - help other states in need, make money, it is a natural resource that doesn't belong to any one group, someone will, might as well be us, it will be very valuable Con-water level, non-renewable, if New Mexico is too dry, move back to Ohio, etc.</p> <p>VIII. Come back together as a group and board the pros and cons. Go over any unfamiliar vocabulary encountered to reinforce it. Remind students to listen to the news and watch the papers for additional articles on the topic.</p>
<p>Assessment/ Evidence</p>	<p>Students write an essay on "Why Lake Erie water should (or should not) be sold to faraway states. "Tell them they must choose a side.</p>
<p>Reflection</p>	<p>During the discussion, one member of the class pointed out that some states sell their mountains to mining companies and the companies cut off the tops. People were more upset about that than the water from the Lake. The consensus was that natural resources should belong to everyone and never be sold. The problem was that land is a natural resource and people do want to own a piece of it. As with everything, drawing the line became the debate. Maybe we could sell a little water, or maybe only when the lake was high level, or only if the money received was used to protect other resources.</p> <p>Choosing a side for writing became an issue because they saw both sides by then, so I told them to pretend they were hired as an attorney and had to fight for one side or the other. They had to choose the side they liked best.</p>

From Wikipedia, the free encyclopedia

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Lake Erie



From a high bluff near [Leamington, Ontario](#)

Location	North America
Group	Great Lakes
Coordinates	42°12′N 81°12′W / 42.2°N 81.2°W Coordinates: 42°12′N 81°12′W / 42.2°N 81.2°W
Primary inflows	Detroit River
Primary outflows	Niagara River
Basin countries	Canada, United States
Max. length	241 mi (388 km)
Max. width	57 mi (92 km)
Surface area	9,940 sq mi (25,744 km ²) ^[1]
Average depth	62 ft (19 m)
Max. depth	210 ft (64 m) ^[1]
Water volume	116 cu mi (480 km ³)
Residence time (of lake water)	2.6 years
Shore length¹	850 mi (1,370 km)
Surface elevation	571 ft (174 m) ^[1]
Islands	24+ (<i>see list</i>) Buffalo, New York Erie, Pennsylvania
Settlements	Toledo, Ohio Monroe, Michigan Cleveland, Ohio
References	^[1]

¹ Shore length is not a well-defined measure.

Lake Erie^[2] (pronounced /ˈlɪəri/) is the fourth largest [lake](#) (by surface area) of the five [Great Lakes](#), and the tenth largest globally.^[3] It is the southernmost, shallowest, and smallest by [volume](#) of the Great Lakes^{[4][5]} and therefore also has the shortest average water residence time. It is bounded on the north by the [Canadian province](#) of [Ontario](#), on the south by the [U.S. states](#) of [Ohio](#), [Pennsylvania](#), and [New York](#), and on the west by the state of [Michigan](#). The lake is named after the [Erie tribe](#) of [Native Americans](#) who lived along its southern shore^[4].

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Geography

Lake Erie (42.2° N, 81.2° W) has a mean elevation of 571 feet (174 m)^[1] above sea level. It has a surface area of 9,940 square miles (25,745 km²)^[1] with a length of 241 miles (388 km) and breadth of 57 miles (92 km) at its widest points.

It is the shallowest of the Great Lakes with an average depth of 62 feet (19 m) and a maximum depth of 210 feet (64 m).^[1] For comparison, [Lake Superior](#) has an average depth of 483 feet (147 m), a volume of 2,900 cubic miles (12,100 km³) and shoreline of

same time deepening and enlarging the lowland allowing water to settle and form a lake. The glaciers were able to carve away more land on the eastern side of the lowland because the bedrock is made of shale which is much softer than the carbonate rocks on the western side. Thus, the eastern side of the modern lake is much deeper than the western portion which averages only 25 feet deep. Lake Erie is the shallowest of the Great Lakes because the ice was so thin and lacked erosion power needed when it reached that far south.

As many as three glaciers advanced and retreated over the land causing temporary lakes to form in the time periods in between each of them. Because each of the lakes had a different amount of water volume, their shorelines rested at differing elevations. The last of these lakes to form, Lake Warren, existed between about 13,000 and 12,000 years ago. It was deeper than the current Lake Erie, so its shoreline existed about eight miles inland from the modern one. The shorelines of these lakes left behind high ground sand ridges that cut through swamps that served as trails for Indians and later, the pioneers. Later, these trails became primitive roads which were eventually paved. U.S. Route 30 west of Delphos and [U.S. Route 20](#) west of Norwalk and east of Cleveland were formed in this manner. One can still see some of these ancient sand dunes that formed at [Oak Openings Preserve Metropark](#) in Swanton, Ohio. There, the sandy dry lakebed soil was not enough to support large trees with the exception of a few species of oaks, forming a rare [oak savanna](#).^[9]

History

Native American

At the time of European contact, there were several groups of Iroquoian cultures living around the shores of the eastern end of the lake. The [Erie tribe](#) (from whom the lake takes its name) lived along the southern edge, while the [Neutrals](#) (also known as Attawandaron) lived along the northern shore. Both tribes were conquered and assimilated by their hostile eastern neighbours, the [Iroquois Confederacy](#) between AD 1651 and 1657, in what is referred to as part of the [Beaver Wars](#).^[10]

For decades after those wars, the land around eastern Lake Erie was claimed and utilized by the Iroquois as a hunting ground. As the power of the Iroquois waned during the last quarter of the seventeenth century, several other, mainly [Anishinaabe](#) Native American tribes, displaced them from the territories they claimed on the north shore of the lake.^[11]

European exploration and settlement

In 1669, the Frenchman [Louis Jolliet](#) was the first documented European to sight Lake Erie, although there is speculation that [Etienne Brule](#) may have come across it in 1615.^[12] Lake Erie was the last of the Great Lakes to be explored by Europeans, since the Iroquois who occupied the [Niagara River](#) area were in conflict with the French, and they did not

2,726 miles (4385 km). Because it is the shallowest, it is also the warmest of the Great Lakes.^[6]

Lake Erie is primarily fed by the [Detroit River](#) (from [Lake Huron](#) and [Lake St. Clair](#)) and drains via the [Niagara River](#) and [Niagara Falls](#) into [Lake Ontario](#). Navigation downstream is provided by the [Welland Canal](#), part of the [Saint Lawrence Seaway](#). Other major contributors to Lake Erie include the [Grand River](#), the [Huron River](#), the [Maumee River](#), the [Sandusky River](#) and the [Cuyahoga River](#).

[Point Pelee National Park](#), the southernmost point of the Canadian mainland, is located on a peninsula extending into the lake. Several islands are found in the western end of the lake; these belong to Ohio except for [Pelee Island](#) and 8 neighboring islands, which are part of Ontario. The cities of [Buffalo, New York](#); [Erie, Pennsylvania](#); [Toledo, Ohio](#); [Port Stanley, Ontario](#); [Monroe, Michigan](#); and [Cleveland, Ohio](#) are located on the shores of Lake Erie.

The [drainage basin](#) covers 30,140 square miles (78,000 sq. km).

Hydrology

Lake Erie and the other Great Lakes

Lake Erie has a [lake retention time](#) of 2.6 years, the shortest of all the [Great Lakes](#).^[7]

Lake Erie's water level fluctuates with the seasons as in the other Great Lakes. The lowest levels are in January and February, and the highest in June or July. The average yearly level varies depending on long-term precipitation.

Short-term level changes are often caused by [seiches](#) that are particularly high when southwesterly winds blow across the length of the lake during storms. These cause water to pile up at the eastern end of the lake. Storm driven seiches can cause damage onshore. During one storm in November 2003, the water level at Buffalo rose by 7 feet (2.1 m) with waves of 10-15 feet (3-4.5 m) for a rise of 22 feet (6.7 m).^[8] Meanwhile, at the western end of the lake, [Toledo](#) experienced a similar drop in water level.

Geology

Lake Erie in its current form is less than 4,000 years old, a short amount of time geologically speaking. Prior to this, the land on which the lake now sits has gone through several complex stages. Over two million years ago, a large lowland basin formed as a result of an eastern flowing river that existed well before the [Pleistocene ice ages](#). This ancient drainage system was destroyed by the first major [glacier](#) in the area while at the

allow explorers or traders to pass through. Explorers had followed rivers out of Lake Ontario and portaged into Lake Huron.

Environment

Weather

Like the other Great Lakes, Erie produces [lake effect snow](#) when the first cold winds of winter pass over the warm waters, making [Buffalo, New York](#), the eleventh snowiest place in the entire [United States](#), according to data collected from the [National Climatic Data Center](#).^[13] The lake effect ends or its effect is reduced, however, when the lake freezes over. Being the shallowest of the Great Lakes, it is the most likely to freeze and frequently does.^[14]

The lake is also responsible for [microclimates](#) that are important to [agriculture](#). Along its north shore is one of the richest areas of Canada's [fruit](#) and [vegetable](#) production, and along the southeastern shore in Ohio, Pennsylvania, and New York is an important [grape](#) growing region, as are the islands in the lake. [Apple](#) orchards are abundant in northeast Ohio to western New York.

Water quality

Lake Erie infamously became very polluted in the 1960s and 1970s. The [water quality](#) deteriorated due to increasing levels of the nutrient [phosphorus](#) in both the water and lake bottom sediments. The resultant high [nitrogen](#) levels in the water caused [eutrophication](#), which resulted in [algal blooms](#). Algae masses and fish kills increasingly fouled the shoreline during this period, but a 1969 Time magazine article about a fire on the [Cuyahoga River](#), a [tributary](#) feeding the lake at [Cleveland, Ohio](#) so embarrassed officials that the [United States Congress](#) quickly passed the [Clean Water Act](#) of 1972.^[15] In 1972 the Great Lakes Water Quality Agreement between the United States and Canadian governments also significantly reduced the dumping and runoff of phosphorus into the lake. The lake has since become clean enough to allow sunlight to infiltrate its water and produce algae and sea weed, but a dead zone persists in the central [Lake Erie Basin](#) during the late summer. The clearing of the water column is also partly due to the introduction and rapid spread of zebra mussels, each of which can filter up to 1L of water per day. The [United States Environmental Protection Agency](#) is currently studying this cyclic phenomenon.^[16]

Since the 1970s [environmental regulation](#) has led to a great increase in water quality and the return of economically important fish species such as [walleye](#) and other biological life.^[17]

Economy

Fisheries

Lake Erie is home to one of the world's largest freshwater commercial fisheries. Once a mainstay of communities around the lake, [commercial fishing](#) is now predominantly based in Canadian communities, with a much smaller fishery—largely restricted to [yellow perch](#)—in Ohio. The Ontario fishery is one of the most intensively managed in the world. It was one of the first fisheries in the world managed on individual transferable quotas and features mandatory daily catch reporting and intensive auditing of the catch reporting system. Still, the commercial fishery is the target of critics who would like to see the lake managed for the exclusive benefit of [sport fishing](#) and the various industries serving the sport fishery.

Commercial landings are dominated by yellow perch and [walleye](#), with substantial quantities of [rainbow smelt](#) and [white bass](#) also taken. Anglers target walleye and yellow perch, with some effort directed at [rainbow trout](#). A variety of other species are taken in smaller quantities by both commercial and sport fleets.

Management of the fishery is by consensus of all management agencies with an interest in the resource (the states of New York, Pennsylvania, Ohio and Michigan and the province of Ontario) under the mandate of the Great Lakes Fishery Commission, which is driven by comprehensive fisheries assessment programs and sophisticated mathematical modeling systems. The Commission remains the source of considerable recrimination, primarily from United States based angler and charter fishing groups with a historical antipathy to the commercial fishery. This conflict is complex, dating from the 1960s, with in U.S. fisheries management that led to elimination of commercial fishing in most U.S. Great Lakes states. The process began in Michigan, and its evolution is well documented in Szylvian (2004)^[18], using [Lake Michigan](#) as a case study. The underlying issues are universal, wherever sport and commercial fishing coexist, but their persistence in the Lake Erie context, one of the most intensively scrutinized and managed fisheries, suggests that these conflicts are cultural, not scientific, and therefore not resolvable by reference to ecological data. These debates are largely driven by social, political and economic issues, not ecology^[19].

The lake consists of a long list of well established [introduced species](#). Common non-indigenous fish species include the [rainbow smelt](#), [alewife](#), [white perch](#) and [common carp](#). Non-native sport fish such as [rainbow trout](#) and [brown trout](#) are stocked specifically for anglers to catch. Attempts failed to stock [coho salmon](#) and its numbers are once again dwindling.

The lake has recently been plagued with a number of [invasive species](#), including [Zebra](#) and [quagga mussels](#), the [goby](#) and the [grass carp](#). Zebra mussels and gobies have been credited with the increased population and size of [smallmouth bass](#) in Lake Erie.^[20]

Agriculture

The lake's formerly more extensive lakebed creates a favorable environment for [agriculture](#) in the bordering areas of Ontario, Ohio, Pennsylvania, and New York. The lake also supports a strong commercial and sport fishery. But since high levels of

[pollution](#) were discovered in the 1960s and 1970s, there has been continued debate over the desired intensity of commercial fishing.

The drainage basin has led to well fertilized soil. [Ohio's](#) north coast is widely referred to as the nursery capital.^[21]

Transportation

The Port of Cleveland generates over \$350 million and over 15 million tons of cargo. The traffic in Lake Erie, which is the most of the lakes, along with being the shallowest and roughest of lakes has led to it containing the most known shipwrecks of the [Great Lakes](#).

From the *Toledo Blade*, January 7, 2008

“Lake Erie's water level could plunge 3 to 6 feet as Earth's temperature rises”

By [TOM HENRY](#)
BLADE STAFF WRITER

While there's no quick fix for curbing the greenhouse gases that scientists blame for the Earth's warming climate, the issue is getting more attention in the Great Lakes region, and western Lake Erie in particular.

In a three-year study of the Detroit River-western Lake Erie corridor released earlier this month, 75 scientists from nearly 50 government, business, academic, and public-interest groups claimed Lake Erie could drop 3.28 feet to 6.56 feet of water by 2066.

The lake's western basin is the region's shallowest.

Even by taking the midpoint of that prediction, a 4.92-foot drop would result “in a 4 percent reduction in surface area of the western basin and a 20 percent reduction in volume of the western basin,” according to the 315-page report, “State of the Strait: Status and Trends of Key Indicators 2007”.

As the lake shrinks, western Lake Erie's shoreline could expand by more than 19,685 feet, or nearly 4 miles, potentially wreaking havoc upon the shipping industry and facilities communities need for treating water.

But that's not all. More people likely will die or become sickened by insect-borne diseases such as West Nile virus.

Birders may have a harder time finding certain songbirds coming through the area, although there already is an abundance of turkey vultures that “may be due to global warming,” the report said.

The report isn't a typical doomsday scenario prepared by reactionary groups.

Its seven editors include two members of both the U.S. Fish and Wildlife Service and the University of Windsor, plus one each from Environment Canada, the International Joint Commission, and the Southwest Michigan Land Conservancy.

Funding sources included several of the above agencies, the Canadian Consulate, Detroit's water and sewerage department, DTE Energy, Michigan Sea Grant, the U.S. Environmental Protection Agency, and other business, academic, and government organizations.

The report synthesizes much of the progress made in cleaning up decades of pollution in the Detroit River and western Lake Erie while providing an ominous look at failures such as invasive species and wetlands destroyed by waterfront development.

Runoff into the Maumee River and other streams continues to be problematic.

Controlling it “must be approached in a holistic and comprehensive manner,” the report said.

Like many studies of the Great Lakes lately, there’s a hodgepodge of good and bad. It offers conflicting signals over what the Detroit River-western Lake Erie corridor has accomplished and where it is heading.

But that’s just one of its central points. It said that while millions have been spent to study the Detroit River and western Lake Erie, little is being done to synthesize research in the United States and Canada. It calls for such collaborative work to be done at least once every five years.

John Hartig, the U.S. co-chairman of the report and a federal Fish & Wildlife Service official who manages the U.S. side of the Detroit River International Wildlife Refuge, said public meetings are planned in the Monroe and Detroit areas to discuss the report.

Its section on global warming includes information provided by the 2007 report of the U.N. Intergovernmental Panel on Climate Change, a landmark report in which hundreds of scientists worldwide agreed that human activity is accentuating whatever natural changes that are occurring to the Earth’s climate.

“There is new and strong evidence that most of the warming over the last 50 years is attributable to human activities,” the report said, citing carbon dioxide, methane, nitrous oxide, and other greenhouse gas emissions linked to global warming.

“The heat-trapping property of these gases is undisputed, although uncertainties exist about exactly how Earth’s climate responds to them,” it said.

The report offers few specifics on how cuts in regional greenhouse gases should be achieved and says nothing about what needs to be done, although it provides advice for conserving power through such means as compact fluorescent light bulbs and energy-saving appliances.

Scientists say the largest contributors to greenhouse gas emissions are coal-fired power plants, automobiles, and industrial plants.

The report notes that ice cover on Lake Erie has been declining since the late 1970s.

Scientists have said the lake evaporates more in the late fall and early winter than it does in the summer because the difference between air and water temperatures is greater.

Freezing seals off the evaporation until the spring thaw. But during winters when Lake Erie doesn’t freeze, the lake is under enormous stress.

“Even though there is considerable uncertainty as to the effects of global warming on Lake Erie water levels over the next several decades, projections are that there will be a decline,” the report said.

A new report by the National Environmental Trust in Washington ranked Ohio fifth and Michigan 10th in greenhouse gas emissions.

Ohio’s output of 255 million metric tons of emissions exceeds that of The Netherlands, or 98 developing countries, according to that group’s report.

Michigan’s output of 182 million metric tons exceeds that of Denmark, Ireland, New Zealand, and Croatia combined — or 91 developing countries, the report said.

In November, Michigan Gov. Jennifer Granholm formed the 35-member Michigan Climate Action Council to provide recommendations for creating jobs through research and development aimed at reducing greenhouse gas emissions.

The council’s interim report to the governor is due April 30. Its final report is to be submitted by Dec. 31.

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From the *Toledo Blade*, April 1, 2008

“Ohio's Fisher visit raises possibility of selling Great Lakes water”

By [TOM TROY](#)

BLADE POLITICS WRITER

Lt. Gov. Lee Fisher said yesterday the Great Lakes region may have to decide in less than a decade whether to sell water to other parts of the country that need it.

Saying that his and Gov. Ted Strickland's first priority is to protect and conserve the world's largest body of fresh surface water, Mr. Fisher left open the question of whether it would be wise to make the water from the Great Lakes available to other states and even to other countries.

"I think it's fair to say that we're going to see in the next decade states and other countries looking for ways to get access to our fresh water supply and we're going to have to make some tough decisions about whether we want that to happen and, if so, how," Mr. Fisher said, in response to a question.

"Eventually we'll have to determine if, when, and how we would best respond to other states who have a water shortage and need some of ours," he said.

The lieutenant governor, who is also the director of the state's Department of Development, was a key speaker at an economic development summit held at the University of Toledo's Lake Erie Center in Oregon. The event drew about 45 participants from Lake Erie counties from Lucas to Ashtabula.

Later in the day, a spokesman for Governor Strickland said, "We do not support selling water from the Great Lakes."

"It's one of the reasons that we support the Great Lakes Compact so that these decisions would be made regionally not unilaterally," said Amanda Wurst, who is the deputy communications director for Governor Strickland.

Mr. Fisher said a top priority that he and Governor Strickland share is passage of the Great Lakes Compact, now awaiting action in the Ohio Senate. The proposed compact attempts to close legal loopholes created by changes in international trade laws.

The selling or diverting of water from the Great Lakes system is a sensitive political subject, as some politicians have discovered who have sailed into that channel before.

New Mexico Gov. Bill Richardson created a stir in October when he told the Las Vegas Sun's editorial board that the Great Lakes is "awash in water" and could help quench the arid Southwest's thirst.

And in 2001, President Bush infuriated Canadians by telling a group of foreign journalists he'd be happy to import Canadian water if it were ever for sale.

Great Lakes governors passed a nonbinding agreement in 1985 to unify the region against

the possibility of large-scale diversion of water to the Southwest. The following year, Congress passed the federal Water Resources Development Act, giving each Great Lakes governor veto power over a diversion project.

The vulnerability of those measures was exposed by a Canadian firm called the Nova Group in 1998, when it was able to secure a permit to ship tankers filled with Lake Superior water to Asia. It relinquished the permit without ever doing so.

The water compact

Governors responded by proposing the Great Lakes water compact that calls for the eight Great Lakes states to form a regional body to manage water withdrawals. It has been ratified by four of the eight Great Lakes states. Ohio, which took a lead in writing it while former Gov. Bob Taft chaired the Council of Great Lakes Governors from 2001 to 2005, has not yet approved it.

Despite the proposed compact, there is precedent for large water withdrawals.

Chicago has been diverting water out of Lake Michigan since 1848. The existing flow rate was set by the Supreme Court in 1930. Congress passed a bill during Dwight Eisenhower's presidency to triple the flow, but Eisenhower vetoed it.

In 1959, Newfoundland engineer Thomas Kierans intrigued some power brokers with a grandiose plan to divert water out of Lake Huron via a system of canals and hydrology projects, including a 100-mile dike between Canada's James Bay and its salty Hudson Bay. Even back then - nearly 50 years ago - it would have cost \$79 billion.

Global water researcher Peter Gleick has said the Great Lakes region can never be lulled into complacency, no matter what the expense, because moving Great Lakes water over long distances is technologically possible.

The International Joint Commission - a binational government agency the United States and Canada established in 1909 to resolve conflicts over their shared boundary water - said in a report several years ago that more large-scale withdrawals from the Great Lakes could hurt the region's economy and ecology.

In an earlier report, the same commission said there was once "considerable concern" about using the Great Lakes to replenish the massive Ogallala Aquifer that extends through parts of Texas, New Mexico, Oklahoma, Kansas, Colorado, and Nebraska.

Ohio's greatest asset

Mr. Fisher made his comments during a question-and-answer session following his speech in which he emphasized Ohio should view water as its greatest asset.

He responded to a question from Bill Monaghan, an Erie County commissioner, who said he was in Arizona recently and heard someone say that they were going to be able to buy Great Lakes water.

Starting by saying that the next speaker to follow him knows more about the subject than he does, Mr. Fisher observed that states in the Southwest have enjoyed great economic times, but they lack access to water.

"And so there is increasing concern and debate as to whether we will be approaching the time in the next decade when other regions ... attempt to divert water from the regions

that have it," Mr. Fisher said. "It's why a Great Lakes Compact is being discussed and debated now and why it's so important.

"That is not to say that the Great Lakes region some day might not make the public policy decision that we need to help our brothers and sisters around the country," Mr. Fisher said. "We can't be selfish. But first we need to protect and preserve the asset and at least have some sort of mechanism by which we make those decisions in the future years." He said he was not aware of any current plans to sell water, but said it could be in the forefront of the national agenda in five, six, or seven years.

'Premature' talk

Later, he said it's "premature" to talk about diverting or selling water but it's not premature to talk about how to protect the regional resource.

Asked if selling Great Lakes water is a possibility in the future, he said, "I suppose that's always possible in the future but that's not my first priority right now."

The following speaker, John Austin, a senior fellow of the Brookings Institution think tank and a member of the Michigan State Board of Education, said the Great Lakes should develop and sell its expertise in the treatment and measurement of water, but not the water itself.

"I think our political leadership should rule it out," Mr. Austin said.

But he too left a slight opening in the door.

"I think we're going to see increasing pressure from developing parts of the country and the world that really shouldn't be developed because they don't have water to try to make deals to get some of ours," Mr. Austin said. "There's no reason to make a deal with Georgia or Las Vegas to give them more water unless and until they build in water measurement, water conservation, and related systems fundamentally into their businesses and into their municipalities."

Mr. Monaghan, who first raised the question, said he did not believe it would be advantageous to the economies of the Great Lakes states to sell water.

Sandy Bihn, an Oregon environmental activist, said Mr. Fisher is "just plain wrong."

"The water is gold. We ought to covet it and treasure it so that we attract more businesses and industries here. If they want it, they should come here," said Ms. Bihn, the Sierra Club's western Lake Erie conservation chairman and founder of the Western Lake Erie Waterkeeper Association.

Staff writer Tom Henry contributed to this report.

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From the *Toledo Blade*, April 8, 2008

“Ohio leaders oppose sale of lake water”

I am writing to respond to the April 1 story, “Fisher visit raises possibility of selling Great Lakes water.”

As a Cleveland native, I understand the great value of Lake Erie and the entire Great Lakes resource. Lake Erie is a tremendous asset to the communities that call it home and to the entire state as a beacon for tourism and environmental grandeur.

Lake Erie supplies drinking water to 2.6 million Ohioans, and provides businesses with an abundant source of water to spur needed manufacturing and attract and expand new and emerging industries.

I spoke to a group of northwest Ohio leaders last week and emphasized the need to preserve and protect Lake Erie and the Great Lakes as one of our greatest assets. I spoke strongly in favor of the Great Lakes Compact. However, The Blade accurately pointed out that I stated during a question and answer session that Ohio will someday have to determine “if, when, and how we would best respond to other states who have a water shortage.”

I misspoke by leaving open even the remote possibility that there might be conditions sometime in the distant future under which we might support some water diversion. I should have been more careful in my choice of language. Let me be very clear. I have always opposed, and the Strickland-Fisher Administration strongly opposes, selling Lake Erie water to other states.

Ohio and our Great Lakes partners must remain committed to protecting our incredible treasure indefinitely. We should not back down from those outside the region who see opportunities to harvest and divert the water resources that make Ohio an attractive place to live, work, and play. While other states have their own natural resources, Lake Erie is one of our most precious assets and one that we must go to great lengths to protect.

The Great Lakes-St. Lawrence River Basin Water Resources Compact is a highly complex and sophisticated framework for the eight Great Lakes states and provinces of Canada to work together and manage what has been left for us to use wisely and care for its long-term viability. The compact took years to develop and finally found agreement among eight governors and many stakeholders.

Four other states have already completed work on their legislative efforts. The compact would ban water diversions from outside the region, with some limited exceptions, and allow states to self govern the use of Great Lakes water within the basin of their own state. This is sound policy and we cannot waver or allow for delay.

I believe the greatest measure we could take to protect Lake Erie and all its attributes is to work toward passage of the compact in the Ohio legislature and move it to the governor’s

desk.

Lt. Gov. Lee Fisher

Director, Ohio Department of Development

Columbus

Time for legislature to approve compact

It is high time that the Ohio General Assembly passes the Great Lakes-St. Lawrence River Basin Water Resources Compact. Without the compact, Lake Erie water is vulnerable to decisions made by other states, Congress, or Canada to divert or sell water.

Already areas of the Southeast and Southwest are looking toward the Great Lakes. Ohioans must remember that Great Lakes' industries are dependent on maintaining lake levels for shipping, and sufficient water supplies are necessary for agriculture, manufacturing, and tourism. Legal protection is essential.

The importance of securing legal protection as soon as possible for the lakes has another aspect: The eight states in the Great Lakes watershed that must approve the compact could lose a total of 10 to 15 seats in Congress after the 2010 Census — seats that surely will be redistributed to those more populated and thirsty states. This could make obtaining the consent of Congress for the compact more difficult. Now is the time to act.

The Ohio House of Representatives has passed the compact twice during the last and current legislative sessions, but it is once again being held up in the Ohio Senate because of property-rights concerns raised by Sen. Tim Grendell (R., Chesterland).

The League of Women Voters supports the compact.

Linda D. Lalley, President

League of Women Voters of Ohio Columbus

If others want water, let them come here

In The Blade's April 1 story about selling Great Lakes water, Sandy Bihn had it right, "If they want it, they should come here." That's the beginning and end of the argument for me. Having grown up in Michigan and now living in Ohio, water is what I value about our region. With the mass exodus of jobs from our states to points west and elsewhere, they can't expect to take our water with them. If they want Great Lakes water, no problem: move here to get it.

Think about the ecological impact of playing with our resources, and also look at how much our tourism economy depends on water. If people don't want to deal with water

shortage issues, then don't move to a place that doesn't naturally have access to water.

As far as the politicians and their standpoint on the water issue, quit talking out of both sides of your mouth. The people who voted you into office are the ones you are responsible to, not our "brothers and sisters around the country." It will be those same voters who will send you on your way if you don't figure that out. Great Lakes water should stay in the Great Lakes.

Dave Taylor

Whitehouse

Political misspeak has consequences

Although the subject might have been better stated as "great lake water" and then on to the real purpose of my comments, I will stick with what I wrote.

Maybe there's always been an abundance of "political misspeak" and I have simply overlooked it. These days, one cannot enjoy that privilege and we all must suffer through the consequences.

To paraphrase an old politician put-down:

Q: Do you know how to tell when a politician is misspeaking?

A: When his lips are moving.

Chuck Riley

Dorr Street

Thirsty states can solve own problems

The concept of selling our water to others is, well, preposterous. To those in the "thirsty" Southwest, I say, you moved there — learn to solve your own problems.

First of all, the level of water is at or near an all-time low. Some boats can barely get out of their marinas.

Second, if you (i.e. businesses) want our water, come and get it. Move your businesses back here!

Dave Anderson

Perrysburg

Water may one day be pricier than oil

Selling water from the Great Lakes is a fantastic idea that's a little ahead of it's time.

If we wait until global warming dries up the Middle East we can sell water to our "friends" over there for \$100 per barrel. If they find that to be unfair they can drink their oil.

Denny Daly

Heatherbank Road

Recycling easy, good for the environment

Everyone should recycle, period. It is good for the environment and is not difficult to do. If you don't want to recycle, fine, pay \$10. I wish they would have made it \$20 a month for those that don't recycle. People in the city tend to whine about nonsense instead of changing their habits slightly.

Thank you to City Council for lowering my fee. Shame on my representative (who I voted for) for not supporting it. My only wish was that they picked up our recycles weekly instead of bi-weekly.

Erin Thompson

119th Street

Remember who passed trash fee

I hope every voter, particularly poor and low-income voters, remembers City Council. Everyone on council who voted for the increase in garbage pick-up fee should not get their jobs back. They should all be fired.

With the money they make by being on council, \$10 is nothing to them.

When they run for re-election, remember who slapped us and keeps kicking us.

Bruce Whalen

Fredonia Avenue