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# A Lasting Legacy

*The importance of the Great Lakes and the steps needed to preserve and restore them.*

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By Senator George V. Voinovich

Although I am engaged in many battles in the United States Senate, there are few on which I expend as much time and energy as the battle to protect the Great Lakes. I have lived on the coast of Lake Erie my entire life and am all too aware of the impact this battle will have on Ohio and surrounding states. While much has been done over the past 30 years to improve the Great Lakes, there are many threats that still endanger them.

The Great Lakes are among our nation's greatest natural resources and are vital to the people of the Midwest. Together they are the largest body of freshwater in the world, providing over 40 million people in the U.S. and Canada with drinking water and supporting a wide array of wildlife. Furthermore, they are integral to our state and national economies. The Great Lakes' commercial and sport fishery alone is valued at more than \$4 billion annually. Additionally, one-fifth of the total U.S. manufacturing activity takes place in this region and an estimated \$1.2 billion in transportation cost savings were realized in 2000 by steel mills, utilities, grain terminals, and other key industries located near the 16 major U.S. ports on the Lakes.

When I first began my career in public service 37 years ago, Lake Erie was known worldwide as a dying lake. It became an international symbol of pollution and was even

the subject of a documentary by the British Broadcasting Company. The Cuyahoga River even caught fire in 1969, further demonstrating the depth of the problems. I have been working to improve and restore these important national treasures ever since, fighting what I call the "Second Battle of Lake Erie."

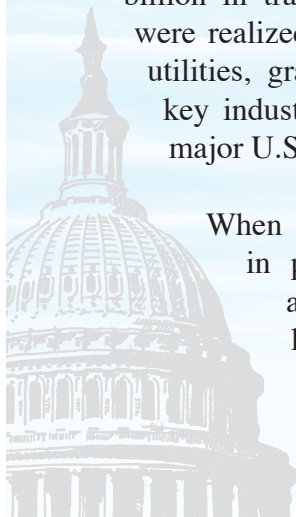
We have made significant progress in improving Lake Erie. Since 1965, the amount of phosphorus entering the Lake has been reduced by about 50 percent, with most of the reductions achieved through better treatment of municipal sewage sources and eliminating phosphates in detergents. The level of harmful PCBs found in walleye has declined roughly 40 percent since 1992, and since 1997, 2.4 million cubic yards of contaminated sediment in the Great Lakes have been treated.

While the condition of the Lakes has improved, further examination of the facts suggests that we have a long way to go, and as a U.S. Senator I have held repeated hearings to examine their condition. The Great Lakes face a set of problems which, taken together, threaten both the economic and environmental sustainability of the region and the nation.

## THE THREATS

### **1) Contaminated Sediments and Polluted Beaches**

We must do a better job treating the water which flows into the Great Lakes. Many of



the sediments in the Great Lakes and its feeder rivers and streams have been contaminated by pollutants. Some of these pollutants, such as the pesticide DDT and the industrial chemicals polychlorinated biphenyls (PCBs), were released into the environment long ago. Although they were banned in the 1970s, they persist in the sediments in the lake bed. Concern over pollution caused by these contaminated sediments is one of the main causes of the fish consumption advisories commonly issued. We must clean up these sediments.

Lake bacteria levels are also a threat. According to the U.S. Environmental Protection Agency's Great Lakes National Program Office, an astonishing 34 percent of Great Lakes beaches were considered to have moderate or high health risks in the 2002 swimming season. This statistic makes crystal clear that we must better control what goes into the Lakes.

## 2) No Way to Measure Progress

Current efforts to restore the Great Lakes are hindered in part by a lack of standard measurements to indicate what needs to be fixed. The Government Accountability Office (GAO) – Congress' investigative arm – found that although more than \$1 billion dollars has been spent on restoration efforts on Great Lakes specific programs since 1992, it is not possible

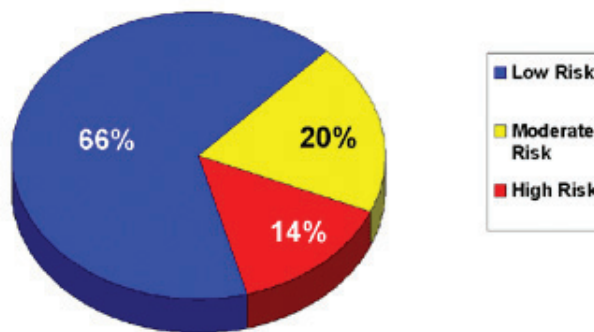
to assess comprehensive restoration progress because overall indicators for the Lakes do not exist. We need to standardize indicators, such as beach, water, and habitat quality.

## 3) Invasive Species

Non-native species threaten the health and viability of the Great Lakes fishery and ecosystem, and I have been concerned about their presence ever since my days as mayor of Cleveland. These species are particularly harmful to native species because they compete for the same natural resources, such as food and breeding space. Primarily brought to the Lakes in the ballast water of large vessels, invasive species are wreaking havoc in the Lakes and will continue to do so until they are stopped.

For example, the zebra mussel, which was introduced into the Lakes from Russia in 1988, has spread to all five Great Lakes and into the Mississippi, Tennessee, Hudson, and Ohio River basins in less than 10 years. Adult zebra mussels colonize all types of living and non-living surfaces including boats, water-intake pipes, buoys, docks, piers, plants, and slow moving animals such as native clams, crayfish, and turtles. The U.S. Fish and Wildlife Service estimates the potential economic impact at \$5 billion over the next 10 years to U.S. and Canadian water users within the Great Lakes region alone.

Health Risks at U.S. Great Lakes Beaches During 2002 Swimming Season (June, July, August 2002)



Source: U.S. Environmental Protection Agency's Great Lakes National Program Office.

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The zebra mussel invasion has caused the near extinction of native American unionid clams in the western basin of Lake Erie. Zebra mussels attach and build colonies on the clams, reducing their ability to move, feed, and breed, and eventually killing them. Zebra mussels also consume large amounts of small algae, disrupting the food supply for larval fish and other invertebrates and causing some populations to decline.

A new threat to the Great Lakes is the Asian carp. This fish is an aggressive species which, if introduced into the ecosystem, would displace native fish and upset the Lakes' ecological balance by quickly consuming large quantities of plant life. The Asian carp are migrating up the Mississippi River towards the Chicago Sanitary and Ship Canal, a man-made link from the Mississippi River to the Great Lakes.

Since the 1800s, over 145 invasive species have colonized in the Great Lakes. Since 1990, when legislation to address aquatic nuisance species was first enacted, we have averaged about one new invader each year. I am deeply troubled by this because once a species establishes itself, it is very difficult, if not impossible, to eliminate it.

#### 4) Dead Zones

Dead zones are low-oxygen areas in bodies of water which threaten fish and plant life. It is believed that dead zones may be caused

in part by two invasive species, zebra and quagga mussels, which have the ability to filter and clear vast quantities of lake water and allow light to penetrate deeper into the water. As additional light reaches the bottom of a lake, the growth of algae is increased. The decomposition of this algae can lead to a condition where oxygen levels in an aquatic environment have been depleted to levels unable to support marine life.

Some large occurrences of this algae, known as harmful algal blooms (HABs), can be hazardous to public health and the ecosystem. HABs have been estimated to cost the U.S. economy as much as \$50 million per year due to closure of fisheries and beaches and treatment of human illness from exposure to toxins. As such, hypoxia and HABs cause severe economic and ecological damage.



*Zebra Mussels Impacting Native Clam*

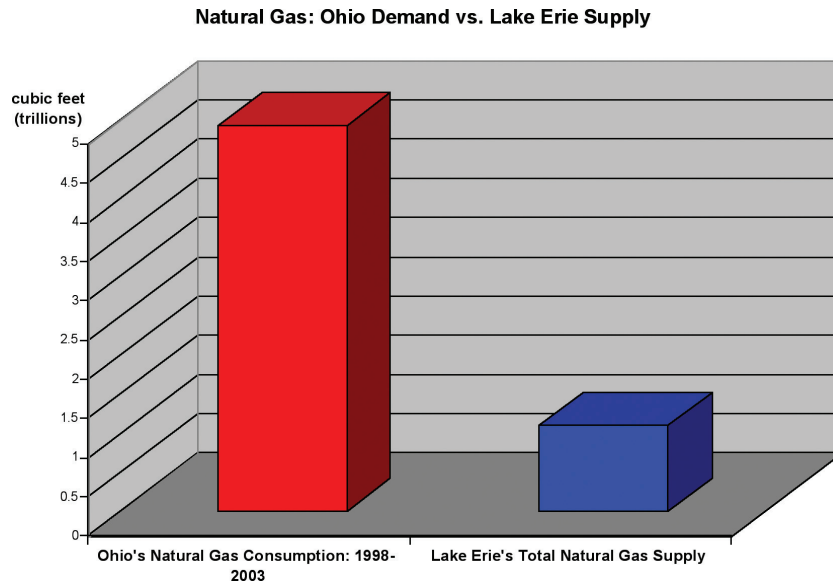
#### 5) Endangered Natural Habitats

Much of the Lake Erie shoreline is wetland or narrow beach, which is highly vulnerable to high water, erosion, and human use. Over the past two centuries, over 98 percent of the coastal wetland system that existed in western Lake Erie has been lost, leaving only 38 square miles. Nevertheless, the remaining wetlands continue to be of great importance for local recreation and for fish and wildlife, as the western Lake Erie wetlands are a spawning, nursing, and rearing habitat for 43 different species of fish and 325 different species of birds. Protecting these areas is critical.

#### 6) Oil and Natural Gas Drilling

Simply put, oil and gas production is not the best use of the Great Lakes. While many of our Canadian

friends disagree with me on this issue, the potential reward involved with drilling fails to justify the risk. Recent estimates indicate that Lake Erie natural gas production would meet only a small fraction of Ohio's annual needs. According to the U.S. Energy Information Administration, Ohio consumed 4.92 trillion cubic feet of natural gas from 1998-2003. Best available estimates indicate that 1.1 trillion cubic feet of natural gas is below Lake Erie, meaning that the Lake could only support Ohio's needs for sixteen months. Given the Lakes' importance as drinking water sources, habitats, and transportation and recreation resources, it is not worth the risk required to extract such a small amount of natural gas.



## SOLUTIONS

### **1) We must protect and clean the waterways that flow into the Great Lakes.**

We must help small communities with the costs of wastewater treatment so we can protect the water quality of rivers and streams entering the Great Lakes. Since I served in the Ohio House of Representatives in the late 60s and early 70s, I have been committed to doing this and was the

sponsor of a resolution calling for a \$360 million bond issue for municipal sewage treatment plant construction along Lake Erie. In the U.S. Senate, I have consistently pushed for increased funding for the highly successful Clean Water State Revolving Loan Fund program. These funds help communities make critical improvements to aging

water systems so that they can comply with Clean Water Act requirements.

In June 2004, we scored a major victory during consideration of a water infrastructure funding bill by the Senate Environment and Public Works (EPW)

Committee, of which I am a member. I sponsored an amendment that would provide an additional \$1.25 billion towards a federal grant program to assist local governments with water infrastructure issues caused by wet weather events, including combined and sanitary sewer overflows and stormwater runoff.

We must also clean up our past mistakes, which is why I cosponsored the Great Lakes Legacy Act (signed into law in 2002) to authorize \$50 million per year for five years for the clean up of contaminated sediments at critical places in the Great Lakes. In Ohio, these include the Maumee, Black, Cuyahoga, and Ashtabula rivers. We must increase this funding to speed clean-up and add new sites to the list.

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**2) We must develop ways to measure the problems and our progress.**

Although we were able to develop the Lake Erie Quality Index while I was governor to better measure improvements in Lake Erie, we currently lack a comprehensive set of water quality indicators for all of the Great Lakes. While this is partly due to the unique ecologies of each of the five Lakes, we will have difficulty developing and implementing a unified plan to improve the Lakes if we cannot measure our progress. For this reason, I am a cosponsor of legislation which would require the Great Lakes National Program Office to develop science-based indicators of water quality and other environmental factors. Just as we did with Lake Erie, these indicators will help us to better identify problems and create accountability in the partnerships we are forming.

**3) We need to defend the Great Lakes against invasive species.**

To combat the problem of zebra mussels and other invasive species, the Senate EPW Committee held a hearing at my request in June of 2003 to examine the issue of invasive species. I am also an original cosponsor of legislation which would authorize new funding to combat invasive species, and set treatment and discharge requirements on ships' ballast water to prevent them from transporting invasive species into U.S. waterways.

I am now involved in a fight to keep a well-known invasive species out of the Great Lakes – the Asian Carp. On January 23, 2003, I cosponsored an amendment to the fiscal year 2003 (FY2003) Omnibus Appropriations Bill to continue funding the Chicago Ship and Sanitary Canal Dispersal Barrier, which is the last line of defense to this very big and destructive fish.

I recently introduced a provision to the Water Resources Development Act of 2004 that would help fund the completion of the Barrier and add a second one in the Illinois River near Chicago to prevent Asian Carp in the Mississippi River basin from entering Lake Michigan.

**4) We must prevent dead zones.**

To help shed light on the recurring problem of dead zones in the Great Lakes, in August 2002, I held an EPW Committee hearing in Cleveland, Ohio to examine this problem. A panel of scientists and government officials came together to discuss the causes and solutions to hypoxia in Lake Erie's central basin. I then introduced a bill to reauthorize the Harmful Algal Bloom and Hypoxia Research and Control Act of 1998, which expired in 2001. My bill amended the 1998 Act to make the Great Lakes eligible for research funds as existing law only addresses coastal and marine waters. In October 2003, the Senate passed legislation that included my Great Lakes provisions. This bill needs to be passed into law.

**5) We must protect critical habitats.**

The Ottawa National Wildlife Refuge (ONWR) is an area on the shores of western Lake Erie that is of particular importance to this ecosystem, serving as a major feeding, nesting, and resting area for migrating birds, fish, and waterfowl. In fact, nearly 70 percent of the ducks migrating from the Mississippi Flyway can be found in Lake Erie marshes during the fall migration. I sponsored legislation signed into law in January 2003 to expand ONWR, and I also successfully included funds in the FY2003 Omnibus Appropriations Act to fund additional land acquisitions in the Refuge. Continued support for the refuge will provide additional space for wildlife.

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**6) We must continue the ban on drilling in the Great Lakes. It's a non-starter.**

We must continue to keep oil and gas drilling out of the American side of the Lakes and encourage our Canadian friends to reconsider their position. I led the charge against drilling in the Great Lakes as a state legislator in the late 1960s, initiating resolutions in the Ohio, Michigan, New York, and Pennsylvania state legislatures urging their respective governors to oppose exploratory drilling. As U.S. Senator, I successfully included a provision in the FY2003 Omnibus Appropriations bill to extend the moratorium on drilling in the Great Lakes to 2005. We must continue to keep this moratorium in place and find a way to make it permanent.

**7) And we must make all these solutions work together.**

An April 2003 report by GAO entitled: "An Overall Strategy and Indicators for Measuring Progress Are Needed to Better Achieve Restoration Goals" made clear that we are not making sufficient progress in improving the Lakes. Interestingly, the GAO argued that the number of programs is not the problem. Rather, the report states that while there are many federal, state, and local programs, restoration of the Great Lakes is being hindered because there is little coordination and no unified strategy for these activities.

Nearly 40 years in public service has taught me that much can be accomplished through cooperation and accountability. It is now clear that the need to improve the Great Lakes is on the radar screens of

the major players. The mayors have formed the Great Lakes Cities Initiative, the governors have sent their restoration priorities to Congress, the environmental, fishing, and shipping businesses and associations are organizing their supporters and producing tangible ideas for restoration. In short, the momentum and willpower to improve the Lakes is there. However, the fact of the matter is that if we are going to get something done, we need to create a symbiotic relationship with all of the public and private players in the U.S. and Canada in order to develop a common strategy and comprehensive restoration plan for the Great Lakes. We also need a central authority to oversee cleanup efforts and develop environmental indicators to measure our progress.

I know that developing a comprehensive plan is achievable because I was intimately involved in the creation of the Comprehensive Everglades Restoration Plan. I was proud to sponsor the Water Resources Development Act of 2000, which approved this ambitious Plan.

I have held several committee hearings on Great Lakes restoration. I have written to the governors to request their cooperation and continue to work with Senate appropriators to provide adequate funding for Great Lakes restoration programs. I also continue to reach out to our Canadian counterparts to ensure that all of the necessary players are involved in the effort. I am encouraged that, in response to my request for his leadership, President Bush signed an Executive Order on May 18, 2004 that charges Environmental Protection Agency (EPA) Administrator Mike Leavitt heading a task force of federal agencies and state and local entities to coordinate the Administration's Great

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Lakes restoration efforts. During consideration of the Water Resources and Development Act of 2004, I included an amendment in the bill to codify President George W. Bush's Executive Order into law. My amendment will help ensure that this step forward is made permanent and carried forward without delay.

The new task force brings together 10 departments to provide strategic direction on federal Great Lakes policy, priorities, and programs. These agencies together administer more than 140 different federal programs that fund and implement environmental restoration and management activities in the Great Lakes basin. Working together like this will allow us to better maximize the impact of the various efforts on behalf of the Lakes. I applaud President Bush for his efforts and believe that the designation of the EPA as the "orchestra leader" over Great Lakes environmental programs will go a long way toward making progress. EPA Administrator Leavitt is a good man who cares about getting the job done and I look forward to working with him.

I also look forward to working with our Canadian friends in this effort. They must be involved if we are truly going to comprehensively restore this resource. We have the potential to carry

out the largest ecosystem restoration project ever undertaken by two nations. I have written President Bush urging him to engage Canada on this important international issue.

## **CONCLUSION**

Improving and restoring the Great Lakes has been a priority for most of my career in public service. I have introduced legislation, conducted oversight hearings, and held regular meetings with public officials and other stakeholders in both the United States and Canada. To be sure, these efforts have yielded results and have allowed the goal of complete restoration to remain within reach. I am pleased that EPA Administrator Mike Leavitt is now the orchestra leader of Great Lakes environmental programs. I look forward to working with government officials and organizations in the U.S. and Canada on the regional collaboration needed to develop a comprehensive restoration plan.

Continued vigilance and international cooperation will help us work through the many challenges that we face in keeping the Great Lakes headed in the right direction. A comprehensive restoration plan is absolutely essential if we expect to continue to restore and improve one of the world's great treasures.

