



**Financial Burdens Incurred By Local Governments Of
The Maumee River Basin In Order To Achieve Water
Quality Directives.**

May 2004

Table of Contents

Overview	1
Environmental and Economic Importance of the Maumee Basin/Lake Erie	1
Trends in Infrastructure Funding	1
Identifying Needs	2
Other Cost Studies	3
Economic Impacts to a Struggling Region	4
Need for Additional funding	5
Conclusion	6
References	7
Appendix A	8

Financial Burdens Incurred by the Local Governments of the Maumee River Basin in Order to Achieve Water Quality Directives

Overview

As the primary tributary to Lake Erie, and home to millions of people in dozens of counties and municipalities, the Maumee River basin is a unique and special resource to an entire region. Over the past thirty years, a variety of federally mandated water quality programs have greatly improved water quality in the Maumee River and Lake Erie. However, these mandates are beginning to place a heavy burden on local governments, at a time when local economic indicators are weak. This report briefly highlights the economic and environmental importance of the Maumee River, summarizes the results of various regional cost studies, identifies the trend towards reduced public funding for wastewater related infrastructure projects, and highlights H.R. 2720 and S. 1398 as legislative options for partial funding relief.

Environmental and Economic Importance of the Maumee Basin/Lake Erie

The Maumee River Basin is home to over 1.7 million people in portions of 3 states (Indiana, Ohio, and Michigan) and 24 counties. The watershed encompasses more than 4.2 million acres of land or 6,600 square miles, and the river itself is the largest tributary to all of the Great Lakes. From its origin in Fort Wayne, Indiana, the Maumee travels 130 miles across the Indiana-Ohio line through Toledo and into Lake Erie. All discharges and any associated pollutants introduced to any waterway in the Maumee Basin directly impact Lake Erie.

The twelfth largest lake in the world, Lake Erie is a critical resource to millions of people throughout the United States and Canada. More than four billion gallons of drinking water are withdrawn from the lake each day for consumption by more than 11 million people. In addition to providing drinking water to millions, Lake Erie is also the most productive fishery of all the Great Lakes. In a given year, Lake Erie often produces more pounds of fish than all other Great Lakes combined (Ohio DNR, 2002). Annual figures compiled by the Ohio DNR estimate that there are 6.675 million fishing hours spent on the lake each year, generating well over \$500 million to local economies. Additionally, a recent Ohio Sea Grant survey estimated that visitors to local beaches spend upwards of \$5 million in the local economy every year. Such revenues do not reflect similar activities on the Maumee River.

While recreational uses of the lake are vast, the shipping industry continues to have a significant impact on the local economy. Since the creation of the Erie Canal in 1825, shoreline communities, such as Toledo, have grown and thrived around the shipping industry. Employing nearly 20,000 Ohioans each year, the industry generates more than \$460 million dollars in annual revenues. When compared to virtually any water resource in the United States, Lake Erie and its Maumee River source rank as one of our most precious.

Trends in Infrastructure Funding

In order to improve and protect water quality, the need for a stable source of state or federal funding for infrastructure improvements is critical. For more than thirty years the Clean Water Act (CWA) has been the primary funding mechanism available to assist wastewater treatment plant construction and infrastructure repair in the United States. Since its establishment in 1972, the CWA has authorized over \$65 billion to States,

Indian Tribes and local governments across the nation (Copeland, 2001). However, in recent years the types of projects funded through this program have greatly increased, resulting in a defacto decrease in funding for construction and repair of stormwater and wastewater infrastructure.

Prior to the 1987 amendments to the Clean Water Act, assistance to communities for wastewater projects came in the form of grants. Under the grant program, 55% of a given project's cost was federally funded with the remaining 45% coming via local match. However, following these amendments, the traditional grant program was replaced by a federal grant program designed to assist states in developing State Revolving Loan Funds (SRF). It was anticipated that the development of a state operated loan program would increase state flexibility to establish priorities and allocate funds, eliminate federal funding by 1994, and create a recurring source of funding for local projects (Copeland, 2001).

However, the development of the SRF program shifted the cost burden entirely to local communities in need of financial assistance. Gone is the 55%-45% federal cost share program. Local communities operating under SRF dollars are now fully funding federally mandated local infrastructure programs through low interest loans repaid over 20 years. As a result, many communities have been reluctant to apply for SRF loans and have continued to request and receive grants under the State and Tribal Assistance Grants Program (STAG). In recent years, as much as 30% of monies appropriated under the STAG account have been earmarked for special purpose grants, greatly reducing the amount of federal money available to capitalize SRF programs (Copeland, 2001).

In addition to monies earmarked for special purpose grants, an increase in competition for funds has placed an additional squeeze on the STAG account. Essentially, the STAG account, which was originally established to assist local communities with wastewater infrastructure improvements, has become somewhat of a "catch all" account funding everything from nonpoint source pollution projects, to drinking water projects, to air quality projects; greatly reducing the efficiency and effectiveness of the SRF program. Other well-publicized water quality grant programs have strict limitations that do not allow their use for regulatory-based requirements.

Identifying Needs

Considering the economic and environmental benefits of the Maumee River and Lake Erie, it is difficult to overstate their interconnected and collective value. The need to protect water quality in this basin is not in question.

Since the passing of the CWA and the establishment of the National Pollutant Discharge Elimination System (NPDES) Program in 1972, local governments and industries throughout the United States and in the Maumee River Basin, have been mandated to eliminate discharges of point source pollutants to waters, except as allowed under NPDES permits. These permits set limits on the amount of pollutants that can be introduced into a body of water from a given type of operation. Specifically, municipalities in the region have been forced to comply with both wastewater and stormwater NPDES requirements.

The effectiveness of the NPDES program to date is largely responsible for the improved water quality that Lake Erie and the Maumee River have experienced over the last 30 years. However, due to diminished federal funding for these mandates, the cost of water

quality improvements are increasing dramatically. In order to determine the overall financial burden associated with complying with NPDES mandates, representatives from communities throughout the Maumee Basin were contacted and requested to complete a short survey designed to assess their communities financial needs for compliance with the three NPDES requirements expected to be the most costly in coming years. The survey requested the following information relating to combined sewer overflows (CSO), sanitary sewer overflows (SSO), and stormwater discharges from municipal separate storm sewer systems (MS4s):

- **Financial investment made to date?** (Total dollars spent on compliance as of August 2003)
- **Future estimated costs associated with achieving regulatory compliance?**
- **Future funding allocated or dedicated solely to achieving regulatory compliance?**
- **Source of allocated funds?**

Numerous communities within the Maumee River Basin are affected by these federally mandated requirements. However, for a variety of reasons, financial information was not obtained from all communities. In total, 28 communities, with a combined population of 795,514, were contacted regarding their financial needs related to these NPDES requirements.

Fourteen (14) Maumee River Basin communities, representing approximately 658,000 residents, completed and returned the NPDES cost survey. The reported cost for these fourteen communities to comply with these requirements over the next 15 years totaled approximately \$848 million, or \$1,288 per person. Of this total, approximately \$732 million will be spent on CSO related programs and activities, \$85 million will be spent on SSO related programs and activities, and \$31 million will be spent on MS4 related programs and activities. A table of survey results is provided as **Appendix A**.

In order to calculate a basin-wide need, the per capita compliance cost (\$1,288.17) calculated for the fourteen communities that submitted surveys was multiplied by the total population of the 28 communities contacted (795,514), resulting in a basin-wide total need of \$1,024,757,269. As summarized in **Table 1**, approximately \$881 million (86%) are anticipated to be spent on CSO related programs and activities, \$102 million (10%) are anticipated to be spent on SSO related programs and activities, and \$41 million (4%) are anticipated to be spent on MS4 related programs and activities.

These totals do not include costs associated with annual operation and maintenance of storm and sanitary sewer infrastructure. In 2002, the City of Toledo alone spent more than \$37 million on operation and maintenance of stormwater and waste water related infrastructure. Over a 15 year period that equates to more than \$550 million dollars.

**Table 1:
Estimated Costs for Maumee River Basin Communities to Comply with NPDES Programs**

	CSO	SSO	MS4	Total	Per Capita
Basin-Wide Need	\$881,291,251	\$102,475,727	\$40,990,291	\$1,024,757,269	\$1,288.17

Other Cost Studies

To date, numerous other studies have been conducted to determine state and nationwide needs for water related infrastructure programs and activities. One such study, completed by the USEPA Office of Watershed Management, called the Clean

Watersheds Needs Survey (CWNS), estimates clean water needs as they relate to SSO, CSO, MS4, nonpoint control, and estuary protection programs. As shown in **Table 2**, the report identifies financial needs at the national, state, and watershed level over the next 20 years and estimates needs for Indiana at \$7.2 billion, \$8.1 billion for Ohio, and \$1.7 billion for the entire Western Lake Erie Basin.

**Table 2:
Summary of Needs as Identified in EPA's 2000 CWNS**

Reference Estimate	Total Estimated Cost ¹ (Billions of Dollars)
United States	\$181.2
Indiana	\$7.216
Ohio	\$8.096
Western Lake Erie Basin	\$1.727

The CWNS does identify individual needs for CSO, SSO, and MS4 discharges on a state by state basis. Indiana's needs for CSO and SSO were estimated at \$6.508 billion, while Ohio's needs were estimated at \$7.311 billion. Unfortunately, MS4 needs were not estimated for Indiana and Ohio in the survey due to insufficient data. However, a recent study released by the Indiana Advisory Commission on Intergovernmental Relations (IACIR) estimated that stormwater related infrastructure needs in Indiana over the next 20 years were between \$447 million and \$545 million². These costs are summarized in **Table 3**.

**Table 3:
CSO, SSO, and Stormwater Needs as Identified by the EPA and the IACIR (Billions)**

State ³	CSO	SSO	Stormwater
Indiana	\$5.468	\$1.040	\$.447-\$545
Ohio	\$3.623	\$3.688	N/A

Economic Impacts to a Struggling Region

As shown, new and ongoing National Pollutant Discharge Elimination System (NPDES) mandates are placing a heavy burden on local governments within the Maumee Basin at a time when industrial growth and employment are at a low point. In an attempt to offset these burdens, local communities throughout the basin have been forced to either establish new utilities or increase user fees on existing utilities.

¹ The data listed is not limited to CSO, SSO, and MS4 related costs, and the Maumee River is not the only tributary to Lake Erie. The Maumee River Basin accounts for approximately 55% of the land in the Western Lake Erie Basin.

² Stormwater management needs in this report are based on the following; the number of developed acres in each county, the per acre cost for stormwater management associated with different service levels, assumptions about the proportion of annual local stormwater costs likely to be associated with capital projects, and assumptions about the level of service.

³ Due to limited information and smaller community size Michigan has not been referenced in this discussion.

The potentially enormous utility rate increases required to fund such mandates could not come at a more difficult time. The economies of northeastern Indiana and northwestern Ohio have been in decline in recent years. Industrial growth has dipped, and the resulting net job loss among many of the largest metropolitan areas in the basin has increased. According to the U.S. Bureau of Labor Statistics, Indiana and Ohio ranked 28th and 40th respectively in unemployment rates rankings for states in February 2004. Between September of 2001 and September of 2002, net job loss in the basin's three largest metropolitan areas increased by .4% in Fort Wayne, 1.5% in Lima, and 1.8% in Toledo. In comparison, Indiana's statewide unemployment rate increased by only .1% and Ohio's has increased by just .2%.

Need for Additional Funding

There is a need to increase the amount of federal funding entering the Maumee River Basin for infrastructure repair work associated with water quality protection. Realizing this, Ohio Senator Mike Dewine has introduced The Great Lakes Restoration Act (S. 1398). Co-sponsored by all five Maumee River Basin Senators, S. 1398 would provide \$600 million annually to states in the Great Lakes Basin over the next 10 years. Under the proposed bill, grants would be awarded to states and municipalities in the Great Lakes Basin, with each state receiving between 6 and 30 percent of the annual funding. Priorities for the grant program would be established by the Great Lakes Restoration and Environmental Advisory Board. This Board, created under the bill, would be led by a Governor and be comprised of Governors, Mayors, and various local representatives from Great Lakes States.

Similar legislation has also been introduced in the House of Representatives by Representative Rahm Emmanuel of Illinois. H.R. 2720 authorizes \$800 million annually to Great Lake States over 5 years, and like the Senate Bill creates an Advisory Board led by local representatives charged with creating program goals and identifying steps necessary to achieve those goals.

In their current forms, neither bill has established priority funding projects, and infrastructure and sewer upgrades have not been included in lists of "prohibited projects." Since the proposed Advisory Boards will be chaired by the Governor of a Great Lakes State and partially made up of locally elected officials, it seems likely that infrastructure repair and upgrades could be identified as priority projects for funding under these programs.

This legislation would be very beneficial to communities throughout the Great Lakes Basin, and in particular would be very beneficial to communities in the Maumee River Basin. However, the obstacles between now and congressional approval are many. The Great Lake States are represented by 16 Senators and 124 Representatives and it is imperative that these bills be supported by a vast majority of Senators and Representatives in these states. Currently H.R. 2720 has been co-sponsored by 106 Representatives and S.1398 has been cosponsored by 14 Senators. While all six Maumee River Basin Senators have sponsored or co-sponsored S.1398, only four of seven Maumee River Basin Representatives have co-sponsored H.R. 2720. Representatives Mike Pence (IN - 6), Nick Smith (MI - 7) and John Boehner (Oh - 8) have yet to show support for the bill, and unfortunately, neither bill has seen a major congressional action since mid to late July 2003. In addition to promoting regional support for the legislation, it is recommended that language in these bills be amended to

clearly state that funding from successful legislation be available for use for projects that are required or necessitated by an NPDES permit.

While the Maumee Basin Partnership of Local Governments (MRBPLG) may support and promote the proposed legislation, other, more localized options should also be pursued. The MRBPLG should continue discussions on these issues and propose legislation that will provide federal funding specifically to the Maumee Basin, due to its importance to the region and the entire country.

Conclusion

Appropriate water quality management of Lake Erie and the Maumee River is of wide-spread economic and environmental importance. Both water bodies have experienced great improvements over the last 30 years. One of the driving forces behind these improvements has been the NPDES Program. Maumee River Basin communities have spent more than \$177 million in order to comply with these requirements and despite this financial investment are still burdened with more than a billion dollars in mandated water quality requirements. In order to ensure continued water quality improvements balanced with economic growth within the Maumee River Basin, additional federal funding needs to be allocated to this invaluable region of the country.

References:

Copeland, Claudia. *Water Infrastructure Financing: History of EPA Appropriations*. Congressional Research Service. December 31, 2001.

United States Environmental Protection Agency. *Clean Watershed Needs Survey 2000 Report to Congress*. Washington: 2000.

Lindsey, Greg. Worgan, Amy. Palmer, Jaimie. Financial Needs for Wastewater and Water in Indiana. January 2003.

Ohio DNR. Lake Erie Facts. December 1999.
<http://www.ohiodnr.com/geosurvey/lakeerie/lefact.htm>