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Highlights

Highlights of [GAO-08-312T](#), a testimony before the Subcommittee on Water Resources and Environment, Committee on Transportation and Infrastructure, House of Representatives

Why GAO Did This Study

Millions of people in the United States and Canada depend on the Great Lakes for drinking water, recreation, and economic livelihood. During the 1970s, it became apparent that pollutants discharged into the Great Lakes Basin from point sources, such as industrial and municipal facilities, or from nonpoint sources, such as air emissions from power plants, were harming the Great Lakes. Some of these pollutants, known as bioaccumulative chemicals of concern (BCC), pose risks to fish and other species as well as to the humans and wildlife that consume them. In 1995, the Environmental Protection Agency (EPA) issued the Great Lakes Initiative (GLI). The GLI established water quality criteria to be used by states to establish pollutant discharge limits for some BCCs and other pollutants that are discharged by point sources. The GLI also allows states to include flexible permit implementation procedures (flexibilities) that allow facilities' discharges to exceed GLI criteria.

This testimony is based on GAO's July 2005 report, *Great Lakes Initiative: EPA Needs to Better Ensure the Complete and Consistent Implementation of Water Quality Standards* (GAO-05-829) and updated information from EPA and the Great Lakes states. This statement addresses (1) the status of EPA's efforts to develop and approve methods to measure pollutants at the GLI water quality criteria levels, (2) the use of permit flexibilities, and (3) EPA's actions to implement GAO's 2005 recommendations.

To view the full product, including the scope and methodology, click on [GAO-08-312T](#). For more information, contact David Maurer at (202) 512-3841 or maurerd@gao.gov.

GREAT LAKES INITIATIVE

EPA and States Have Made Progress, but Much Remains to Be Done If Water Quality Goals Are to Be Achieved

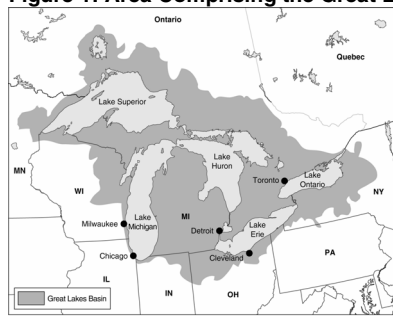
What GAO Found

As GAO reported in 2005, developing the sensitive analytical methods needed to measure pollutants at the GLI water quality criteria level is a significant challenge to achieving GLI's goals. Of the nine BCCs for which criteria have been established, only two—mercury and lindane—have EPA-approved methods that will measure below those criteria levels. Measurement methods for the other BCCs are either not yet approved or cannot reliably measure to GLI criteria. Without such measurement, it is difficult for states to determine whether a facility is exceeding the criteria and if discharge limits are required in the facility's permit. As methods become available, states are able to include enforceable discharge limits in facilities' permits. For example, since EPA approved a more sensitive method for mercury in 1999, the number of permits with mercury limits has increased from 185 in May 2005 to 292 in November 2007. EPA and state officials expect this trend to continue. Similar increases may occur as more sensitive analytical methods are developed and approved for other BCCs.

Flexibilities included in permits allow facilities' discharges to exceed GLI water quality criteria. For example, one type of flexibility—variances—will allow facilities to exceed the GLI criteria for a pollutant specified in their permits. Moreover, the GLI allows the repeated use of some of these permit flexibilities, and does not set a time frame for facilities to meet the GLI water quality criteria. As a result, EPA and state officials do not know when the GLI criteria will be met.

In the 2005 report, GAO made a number of recommendations to EPA to help ensure full and consistent implementation of the GLI and to improve measures for monitoring progress toward achieving GLI's goals. EPA has taken some actions to implement the recommendations. For example, EPA has begun to review the efforts and progress made by one category of facilities—municipal wastewater treatment plants—to reduce their mercury discharges into the basin. However, until EPA gathers more information on the implementation of GLI and the impact it has had on reducing pollutant discharges from point sources, as we recommended, it will not be able to fully assess progress toward GLI goals.

Figure 1: Area Comprising the Great Lakes Basin



Source: GAO, MapArt.