

***CONSUMPTIVE USE  
IN THE  
GREAT LAKES -  
ST. LAWRENCE BASIN***



# EXECUTIVE SUMMARY: FINDINGS AND RECOMMENDATIONS

## Findings

### 1. *Water Withdrawals*

In 1993, water withdrawals from the Great Lakes - St. Lawrence Basin totaled 895.6 billion gallons per day (bgd), or 3,391.1 billion litres per day (bld). The great majority of these withdrawals (94%) were for hydroelectric purposes. Quebec (35%), New York (34%) and Ontario (27%) were responsible for most. The St. Lawrence River (61%) and Lake Ontario (24%) were the largest contributors to total withdrawals.

Exclusive of hydroelectric purposes, withdrawals totaled 55.4 bgd, or 215.5 bld. New York (28%), Ontario (28%), Michigan (16%) and Wisconsin (10%) accounted for most of the total. On a lake basin basis, Lakes Huron (40%), Michigan (23%), Ontario (18%) and Erie (15%) were primary contributors. Leading water use categories included thermoelectric power-nuclear (42%), thermoelectric power-fossil fuel (28%), industrial-self supply (12%), and domestic and industrial-public supply (12%).

### 2. *Consumptive Use*

Consumptive use accounted for 2.639 bgd, or 9.99 bld in 1993. This represents .3% of total withdrawals, or 4.7% of withdrawals excluding hydroelectric power production. Ontario (30%), Michigan (22%), and Wisconsin (21%) account for most of the consumptive use total. Lakes Michigan (35%), Erie (23%), Ontario (19%) and the St. Lawrence River (12%) are the locus for most consumption. Greatest contributors from a water use category standpoint are irrigation (30%), domestic and industrial -public supply (26%), and industrial -self supply (25%).

### 3. *Trend Analysis/Projections*

Projecting withdrawal and consumptive uses is an imprecise science, whether the methodology is based on past trends or on econometric techniques that feature input-output models. No single, comprehensive projection has been developed for the binational Great Lakes St. Lawrence Basin in recent years. However, informed opinion suggests that total withdrawals and total consumptive use, aside from unanticipated developments, are likely to increase only modestly over the next several decades. However, such developments (e.g., climate change impacts, economic changes, diversion/export pressures, could dramatically alter such projections.

### 4. *Water Data Monitoring Reporting and Analysis*

Great Lakes jurisdictions vary considerably in the nature and extent of their monitoring, reporting and analysis capabilities. Limited staffing and financial resources, coupled with the low priority generally assigned to such activities, have compromised the comprehensiveness, accuracy and timeliness of such efforts. While existing data monitoring, reporting and analysis efforts have yielded meaningful insights into the nature of current water use, such efforts have not been integrated into decisionmaking processes at the individual and collective jurisdictional level.

## Recommendations

1. Individual Great Lakes-St. Lawrence jurisdictions should place a higher priority on water use monitoring, reporting and analysis activities. Staffing and financial commitments should be made to ensure that such data meets basinwide requirements for comprehensiveness, accuracy and timeliness.
2. The Great Lakes Regional Water Use Data Base, and associated work of the federal/state/provincial Water Resources Management Committee, should remain a focal point for the collection, analysis and interpretation of basinwide water use data. The Committee, and individual jurisdictions, must recommit to the timely reporting of relevant data in a consistent format that lends itself to basinwide aggregation.
3. A rigorous, basinwide study should be conducted to yield meaningful data on water withdrawal and consumptive use trends over the next several decades. The methodology should overcome inconsistencies in jurisdiction-specific data, be binational in scope, and present multiple water use scenarios and the implications associated with each.
4. Water use monitoring, reporting and analysis activities should be better integrated into jurisdiction-specific and regional decisionmaking processes. Toward that end, the Basin Water Resources Management Program established under the 1985 Great Lakes Charter (or a similar mechanism), should be developed and operationalized. In so doing, all Great Lakes St. Lawrence jurisdictions should ensure that all relevant data associated with water use and associated ecosystem impacts are collected, reported and analyzed.

# I. INTRODUCTION

## A. Purpose of Report

This report is one of a series of background papers prepared for the International Joint Commission (IJC) Reference on "Consumption, Diversion and Removal of Water." The focus of the report is drawn from the Directive to the International Study Team accompanying the reference, as well as from the Outline of Work for the Study Team.

The Directive charges the Study Team with investigating "the cumulative effects of existing and potential consumptive uses and diversions, and removal of water, including removal in bulk for export."

The Outline of Work (Task # 2), calls for data gathering and analysis on "the consumed portion [of total withdrawals] which impacts on lake levels and outflows, by reducing the net supply of water to the lakes."

This report contains four principal sections, in addition to an executive summary. Section I (Introduction) offers background on report preparation and the reference in general; introduces the Great Lakes Regional Water Use Data Base Repository; describes data collection and analysis procedures; and provides general guidance for reviewing and interpreting data base figures. Section II (Great Lakes - St. Lawrence Basin Summary) presents an overview of consumptive use; offers a trend analysis and projections; and contains narrative and graphics for consumptive use on the basis of lake basin (and St. Lawrence River), water use category, and jurisdiction. Section III (Perspectives on Consumptive Use in the Great Lakes - St. Lawrence Basin), describes strengths, limitations and unmet needs relative to consumptive use data gathering and analysis capabilities. Associated findings and recommendations are presented as well. Section IV (Appendices) presents a detailed jurisdiction-specific overview of withdrawals, consumptive use and diversions (A); and computer printouts of 1993 data submitted by the Great Lakes jurisdictions (B, C) This data, organized by lake basin, water use category and jurisdiction, differentiates between withdrawals (Great Lakes - St. Lawrence surface water, other surface water, and groundwater); diversions (intrabasin, interbasin); and consumptive use. Appendix D presents the membership list of the Technical Work Group of the Water Resources Management Committee.

## B. Report Preparation

This report was prepared by the Great Lakes Commission in its role as a member of the International Study Team assembled to undertake the IJC reference. The Great Lakes Commission is an interstate compact agency comprised of governor-appointed and legislatively mandated representatives of the eight Great Lakes states: Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Pennsylvania and Wisconsin. The Commission also maintains an Associate Member program open to the provinces of Ontario and Quebec to enhance state-provincial cooperation. Established by joint legislative action of the Great Lakes states in 1955 and granted Congressional consent in 1968, the Great Lakes Commission is mandated "to promote the orderly, integrated, and comprehensive development, use and conservation of the water resources of the Great Lakes Basin." (Article I, Great Lakes Basin Compact).

The Commission pursues this broad mandate via three principal functions: 1) information sharing among the Great Lakes states and broader Great Lakes – St. Lawrence community; 2) coordination of state positions on issues of regional concern; and 3) advocacy of those positions on which the states agree. A committee and task force structure— which typically includes U.S. and Canadian representation at various levels of government— addresses issues of environmental protection, resource management, transportation and economic development. In addition to the new Associate Member program for the provinces, Observer (non-voting) status has been granted to the United States and Canadian federal governments, various regional agencies, and tribal authorities.

The Great Lakes Commission has responsibility for maintaining the Great Lakes Regional Water Use Data Base, established at the request of the Great Lakes governors and premiers under the terms of the 1985 Great Lakes Charter. A federal/state/provincial Water Resources Management Committee (WRMC), established to facilitate Charter implementation, recommended in 1987 that the Great Lakes Commission be responsible for database design and maintenance. The database allows the states and provinces to undertake basinwide planning, management and research activities related to the effects of diversions and consumptive uses on the waters of the Great Lakes Basin and St. Lawrence River.

To date, the Great Lakes Commission has produced seven annual reports presenting water use data for calendar years 1987 – 1993. There has typically been a twelve- to eighteen-month time lag in the compilation and reporting of data to the repository. State and provincial data for the previous year are typically provided to the repository in the late fall to early spring (the following year) and a draft report is presented to the WRMC by mid-year the following year. The WRMC, along with the Council of Great Lakes Governors, provides guidance and assistance to Commission staff on the operation of the database. In addition, regular meetings with a Technical Work Group of the Water Resources Management Committee have been held to ensure that the member states and provinces are familiar with the system, aware of its capabilities, and actively contributing data as needed for database operation and report generation. Annual reports have been distributed through the Water Resources Management Committee and its Technical Work Group. The Commission also continues to work with the WRMC to publicize the utility of the database as a water management tool.

Shortcomings in the original database system, coupled with delays in data access, have contributed to a delay in annual report production in recent years. A new database system will be operational in mid-summer 1999. Annual reports for 1994 and 1995 water use data are planned for completion by the end of 1999. The 1996 and 1997 annual reports will be completed by mid-2000 with the 1998 annual report completed by the end of 2000.

### C. Overview: The International Joint Commission Reference on the Consumption, Diversion and Removal of Water

The U.S. and Canadian federal governments issued a reference to the International Joint Commission in February 1999 pursuant to Article IX of the Boundary Waters Treaty of 1909. In a February 10, 1999 letter from the director of the Office of Canadian Affairs, U.S. Department of State, to the U.S. Section of the International Joint Commission, it was noted that “The bulk removal of water raises serious concerns over cumulative impacts on lakes, river and other water sources.” The letter expressed the shared concern of the two governments that

“current management principles and conservation measures may be inadequate to ensure the future sustainable use of our shared waters.”

To address such concerns, the International Joint Commission was requested to “examine, report upon, and provide recommendations” on matters that have, or may have, effects on levels and flows in transboundary basins and shared aquifers. These include existing and potential consumptive uses of water; existing diversions into and out of transboundary basins, including withdrawals for export; the cumulative effect of existing and potential diversions, including bulk removal for export; and current laws and policies that may affect the sustainability of water resources in such basins. In issuing the reference, the governments noted that extensive research had already been conducted on the Great Lakes Basin. First priority, therefore, would be given to the Great Lakes component of the study, to be followed by an examination of such issues in other transboundary basins.

Directives associated with the reference call for a two-phased approval: The initial phase yielded a draft interim report addressing the Great Lakes Basin (June 10, 1999), while the second phase will yield a draft final report, and an outline and report on “work that may be required to better understand the implications of consumption, diversion and removal of water in other boundary waters, waters of transboundary basins, and groundwater of shared aquifers.” (due October 10, 1999).

A ten member International Study Team, comprised of five U.S. and five Canadian members, was established. Co-chairs Col. Jones Hougnon (U.S. Army Corps of Engineers) and Ralph Pentland (Consultant to the International Joint Commission) were provided oversight authority for work plan development, study conduct, and reporting to lead IJC commissioners.

Tasks associated with the International Study Team effort include production of papers titled: The Setting; Consumptive Use; Diversions and Other Bulk Removals; Climate Change; Cumulative Impacts/Risk Assessment; Assessment of the Legal Regime; Groundwater and Shared Aquifers; Policy and Legal Options; and Proposed Plan of Work Outside of the Great Lakes Region.

#### **D. Background on the Great Lakes Regional Water Use Data Base Repository**

Extensive background information on the establishment of the Regional Water Use Data Base Repository appears in the February 1989 report of the Water Resources Management Committee to the Great Lakes Governors and Premiers. Copies are available upon request from the Great Lakes Commission.

The Regional Water Use Data Base has been operational since mid-1988, following a multi-year cooperative effort in the design and development of the data base system. This included input from and involvement of many state, provincial and federal agencies. The U.S. Geological Survey provided much of the leadership on this effort. Also, in fall 1987, the Great Lakes Commission contracted with Acres International, Ltd. of Niagara Falls, Ontario to develop and install the data base systems and provide training to state, provincial and Commission staff.

The operation and use of the Great Lakes Regional Water Use Data Base is one of several ongoing activities of the Great Lakes Commission to fulfill obligations of the Great Lakes Charter. Continued state and provincial interest in refining and expanding the data base is

necessary to ensure that it can support other ongoing Charter initiatives, such as the development of a Basin Water Resources Management Program, demand forecasting techniques, and regional water conservation programs.

### E. Categories of Use for the Regional Water Use Data Base

A series of ten water use categories have been developed for the Regional Water Use Data Base. Their development was influenced by a 1986 U.S. Geological Survey report, "Water Use Collection Programs and Regional Data Base in the Great Lakes/St. Lawrence River States and Provinces (Open File Report 86-546), and a 1987 report of the WRMC titled, "Managing the Waters of the Great Lakes Basin." The ten categories and associated definitions are drawn largely from the latter report, and incorporate some Technical Work Group revisions.

1. **Public Water Supply:** Water withdrawn for all uses by public and private water suppliers and delivered to users that do not supply their own water. (Water suppliers provide water for a variety of uses such as residential, commercial, industrial, and public water use.)
2. **Reserved for Future Use:** (Represents unused capacity on the database system.)
3. **Self-Supply - Domestic (residential, commercial, institutional):** Water used for normal household purposes. Also referred to as residential water use, this category includes water used for drinking, food preparation, bathing, washing clothes and dishes, flushing toilets, and watering lawns. Commercial uses include water used by motels, hotels, restaurants, office buildings and institutions, both civilian and military. This category also includes water for mobile homes, hospitals, schools, fire fighting, air conditioning and other similar uses not covered under a public supply. In addition, this category includes amusement and recreational water uses such as snow making and water slides. The coefficients for domestic per capita water use is 75 gallons a day (U.S.) unless otherwise indicated by the reporting state or province.
4. **Self-Supply - Irrigation:** Water artificially applied on lands to assist in the growing of crops and pastures or in the maintenance of recreational lands, such as parks and golf courses.
5. **Self-Supply - Livestock:** Water used by horses, cattle, sheep, goats, hogs, poultry, and other commercially important animals. Water used in fish hatchery operation is also included under this category.
6. **Self-Supply - Industrial (manufacturing and mining):** Industrial water includes water used in the manufacture of metals, chemicals, paper, and allied products. Mining water use includes water used in the extraction or washing of minerals; for example solids, such as coal and ores, and liquids such as crude petroleum and natural gas. Water used in quarrying and milling is also included in the industrial category. Brine extraction from oil and gas operations is not included. Withdrawals and consumptive uses for industrial and mining purposes (including dewatering operations) recorded under another category (e.g., public supply) will not be recorded here. Water uses in a closed cycle (recirculation) will not be reported as a withdrawal. Other situations should be evaluated on a case-by-case basis.

7. **Self-Supply - Thermoelectric Power (fossil fuel plants):** Water used by plants fueled by fossil fuels such as coal, oil or natural gas. Withdrawals and consumptive uses already recorded under another category (e.g., public supply) will not be reported here.
8. **Self-Supply - Thermoelectric Power (nuclear plants):** Water used by plants fueled by nuclear generation. Withdrawals and consumptive uses already recorded under another category (e.g., public supply) will not be reported here.
9. **Self-Supply - Hydroelectric Power:** Water used to drive turbines that generate electric power. This category includes both "instream use" where water is used on a once-through basis and "offstream use" where water is recycled through pumped-storage systems. Neither use is considered a consumptive use.
10. **Other -** Water used for purposes not reported in categories one through nine. Examples include, but are not limited to, withdrawals for fish/wildlife, environmental, recreation, navigation, and water quality purposes. Specifically, water used to maintain levels for navigation, for recreation, for fish and wildlife habitat creation and enhancement (excluding fish hatchery operations included under Category 5), for flow augmentation (or diversion), for sanitation, pollution confinement, and other water quality purposes and agricultural activities (services) other than those directly related to irrigation such as field drainage are included. Water used in temporary or immediate emergency situations (e.g., fighting forest or peat fires) is also reported here.

The following definition of a principal facility as developed by the Technical Work Group is used for Database purposes:

**Principal Facilities -** Facilities withdrawing (or consuming) in excess of the Great Lakes Charter uniform trigger level of 100,000 U.S. gallons/day (380,000 liters/day) average over a 30-day period. A principal facility is determined by the total withdrawal (or consumption) of all sources combined (Great Lakes surface water, other surface water, and groundwater) rather than a single source. The combined withdrawals (or consumption) of separate wells or operations undertaken by the same facility or company will be evaluated separately for the purpose of determining principal facility status unless those operations are covered under the same registration (or permit) or are physically contiguous

#### F. Data Base Description

The Great Lakes Regional Water Use Data Base was originally designed in 1987 for use on IBM-compatible personal computers, to run in conjunction with the dBase III Plus commercial database software. With the rapid advancement in computer hardware and software, and the changing and developing needs of the Great Lakes state and provincial water resource management programs, the old system became quickly outdated.

In July 1998, work on a new data base was begun by the Great Lakes Commission and the Center for Environmental Information and Technology and Application (CEITA) at Eastern Michigan University. The new system is based on Microsoft Access, using Visual Basic for Applications.



The new data base contains all the functions of the previous system (including data entry, a data check facility, and report generation), as well as new features, such as a flexible data entry interface, automatic data checking, data visualization in the form of a graphing capability, and a friendly graphic user interface (GUI). The new Great Lakes Regional Water Use Data Base is a powerful tool for acquiring, maintaining, and analyzing Great Lakes water use data.

The data base serves as a common repository of data and information on water use in the Great Lakes – St. Lawrence Basin as described in the Great Lakes Charter. Data released to the repository is submitted in one of two units of measurement: millions of U.S. gallons per day (mgd) and millions of litres per day (mld). Each jurisdiction is required to choose one of these measurements for all data submissions.

All values in the data base are initially set to zero, and numeric values are required for all categories of use. A value of zero implies either zero water use, or use not meeting the Charter trigger level of 100,000 gallons per day (380,000 litres per day) average over a 30-day period. All values are positive except for incoming diversions, which are negative. Unreported data is indicated by a blank field.

Two measures of data quality are used: level of accuracy; and level of aggregation. The level of accuracy indicates whether withdrawals are measured or estimated; the level of aggregation indicates whether the withdrawal data originates from site-specific sources or from higher level aggregate sources, such as county or census data bases.

### G. Data Base Definitions

Each water use category includes three withdrawal/discharge types:

1. **Great Lakes Surface Water (GLSW)** – Water from the Great Lakes, their connecting channels (the St. Clair River, the Detroit River, the Niagara River and the St. Mary's River), and the St. Lawrence River.
2. **Other Surface Water (OSW)** – Tributary streams, lakes, ponds, and reservoirs within the Great Lakes Basin.
3. **Groundwater (GW)** – All subsurface water distinct from surface water.

The following list includes other important definitions pertaining to the use of the Great Lakes Regional Water Use Data Base summary tables:

- **Withdrawal Amount** – The amount of water removed or taken from surface or groundwater.
- **Intrabasin Diversion** – The amount of water transferred from the watershed of one of the Great Lakes into that of another.
- **Interbasin Diversion** – The amount of water transferred from the Great Lakes Basin into another watershed.
- **Consumptive Use** – That portion of water withdrawn or withheld from the Great Lakes and assumed to be lost or otherwise not returned to the Great Lakes due to evaporation, incorporation into products, or other processes.

## PREFACE

This report, titled "Consumptive Use in the Great Lakes - St. Lawrence Basin," has been prepared by Great Lakes Commission staff in support of an International Joint Commission reference on the "Consumption, Diversion and Removal of Water." This is one of a series of papers prepared as background for an interim International Study Team report released in June 1999.

Data, information and selected text in this report are drawn from the Annual Report of the Great Lakes Water Use Data Base Repository, prepared by the Great Lakes Commission in July 1998 and based on 1993 data submitted by the Great Lakes states and provinces.

Principle author of this report is Dr. Michael J. Donahue, Executive Director of the Great Lakes Commission. Contributing authors on trend analyses include Wayne Solley, U.S. Geological Survey, and Donald Tate, consultant to Environment Canada. Technical assistance and production support was provided by Marilyn Ratliff, Database Administrator at the Great Lakes Commission. Consultation services were provided by Thomas Crane, Program Manager, and Garrett Rentrop, Research Associate, also with the Great Lakes Commission.

Appreciation is also extended to state and provincial members of the Commission's Water Resources Management Technical Work Group (for data provision), and to members of the International Study Team for review and consultation.



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## II. GREAT LAKES – ST. LAWRENCE BASIN SUMMARY

### A. Introduction

Presented within is a series of tables and charts that offer a graphical presentation of water withdrawal and consumptive use data as provided by state and provincial jurisdictions in the Great Lakes – St. Lawrence Basin. For ease of reference, all water withdrawal and consumptive use data has been assembled, analyzed and presented in three forms: by jurisdiction, by lake basin, and by category of use.

### B. Withdrawals: by Jurisdiction, Lake Basin, and Category of Use

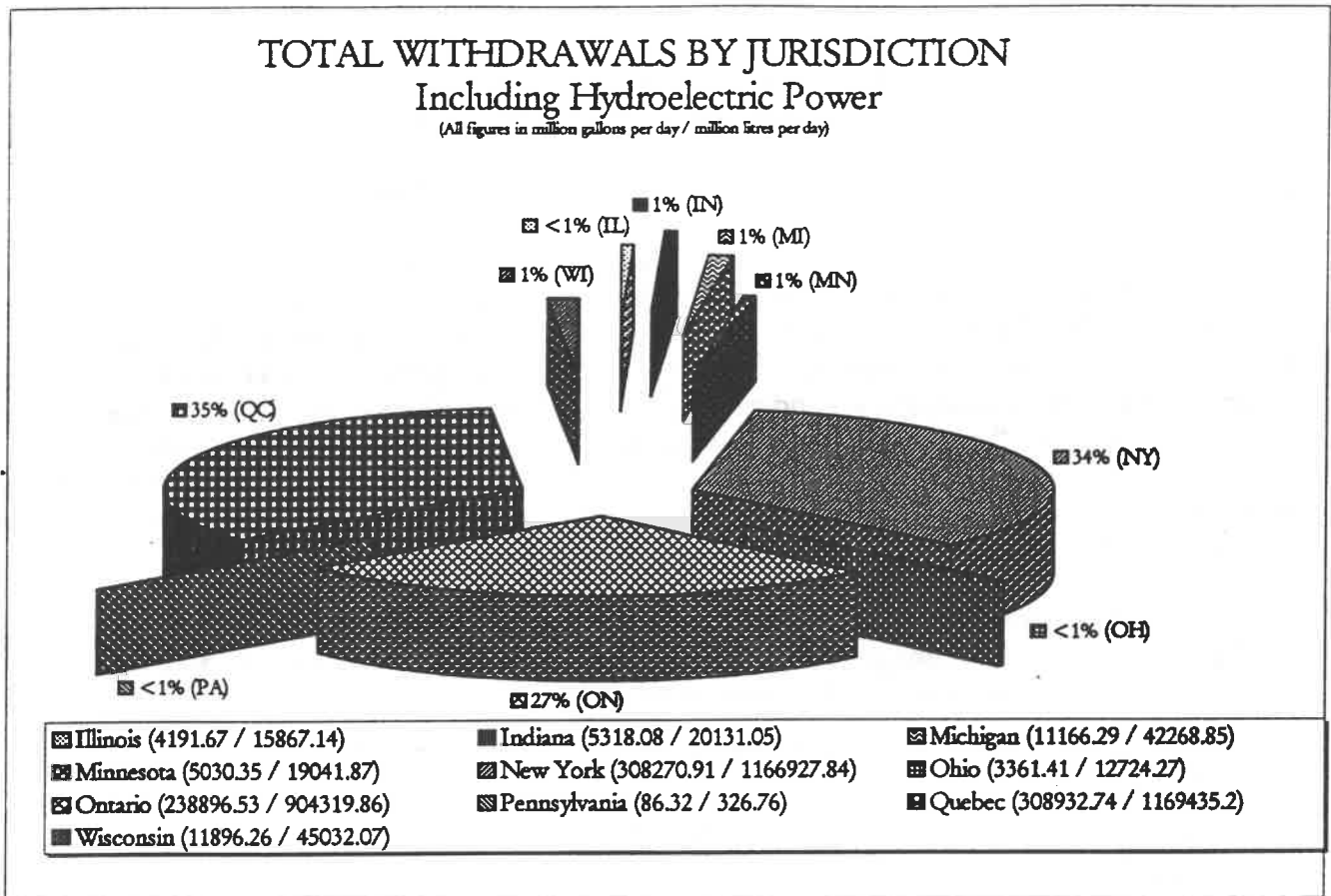
Great Lakes water withdrawal is defined as any water removed or taken from surface or groundwater resources. Withdrawal locations include Great Lakes surface water (i.e., Great Lakes and the connecting channels of the St. Clair River, Detroit River, the Niagara River and the St. Mary's River) and the St. Lawrence River; other surface water (i.e., tributary streams, lakes, ponds and reservoirs within the Great Lakes – St. Lawrence Basin); and groundwater, including all subsurface water distinct from surface water. As used in this report, "water withdrawal" is an inclusive term that includes all direct surface and groundwater withdrawals; intrabasin diversion (i.e., from the watershed of one of the Great Lakes into another); interbasin diversion (i.e., from the Great Lakes – St. Lawrence Basin into another watershed); and consumptive use.

Reported water withdrawals from the Great Lakes – St. Lawrence Basin totaled 895.6 billion gallons per day (bgd) / 3,396.1 billion litres per day (bld) in 1993. Of this total, which includes withdrawals for hydroelectric power, jurisdictions contributed as follows:

Quebec	35%	Minnesota	1%
New York	34%	Wisconsin	1%
Ontario	27%	Illinois	<1%
Indiana	1%	Ohio	<1%
Michigan	1%	Pennsylvania	<1%

Withdrawals for hydroelectric purposes constitute 94% of total withdrawals (840.2 bgd / 3,180.6 bld).

Figure 1 presents this information in further detail, including withdrawal amounts in million gallons per day and million litres per day.

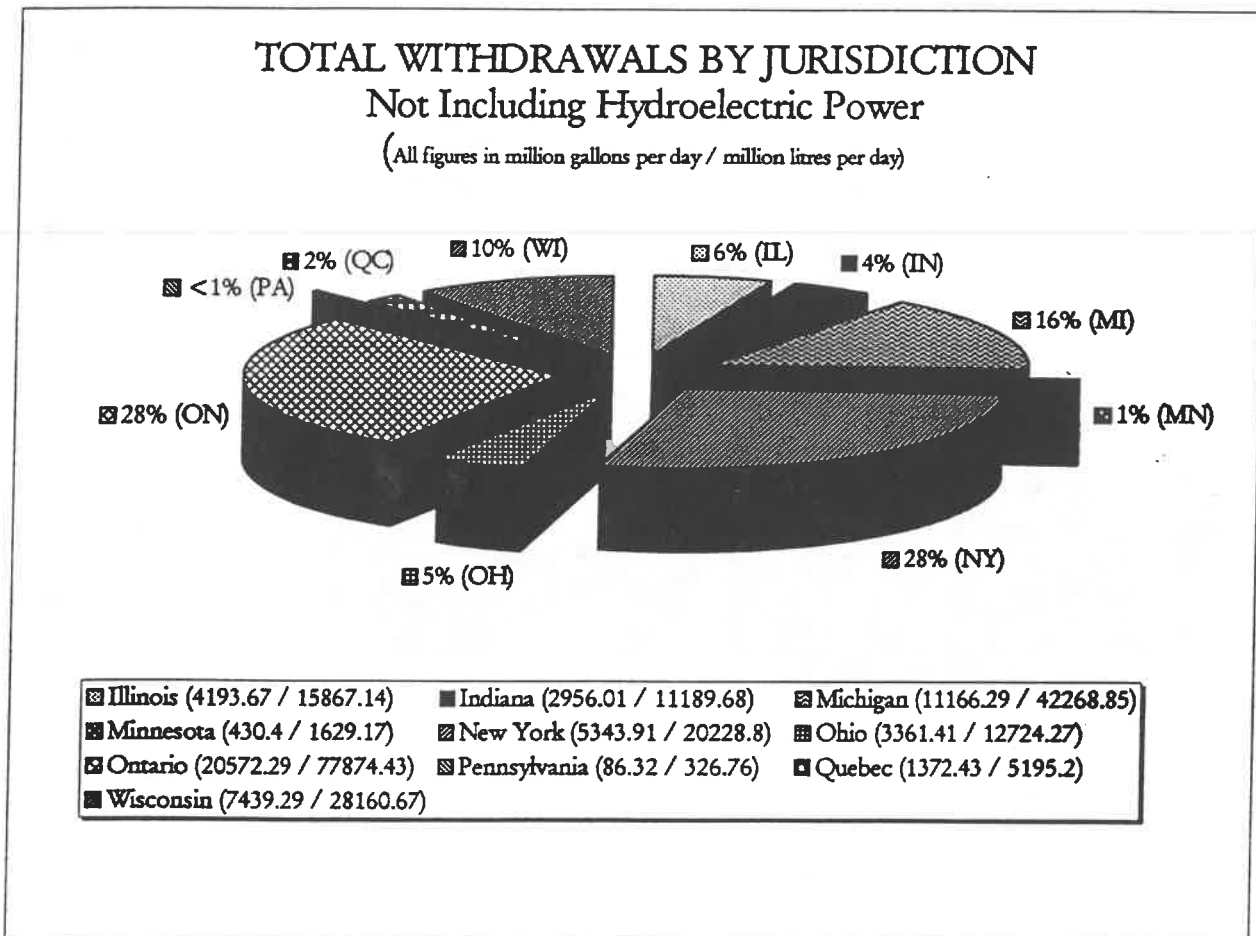


**Figure 1**

Withdrawals exclusive of hydroelectric power totaled 55.4 bgd / 215.5 bld in 1993. Of this total, jurisdictions contributed as follows:

New York	28%	Ohio	5%
Ontario	28%	Indiana	4%
Michigan	16%	Quebec	2%
Wisconsin	10%	Minnesota	1%
Illinois	6%	Pennsylvania	<1%

Figure 2 presents this information in further detail, including withdrawal amounts in million gallons per day and million litres per day.



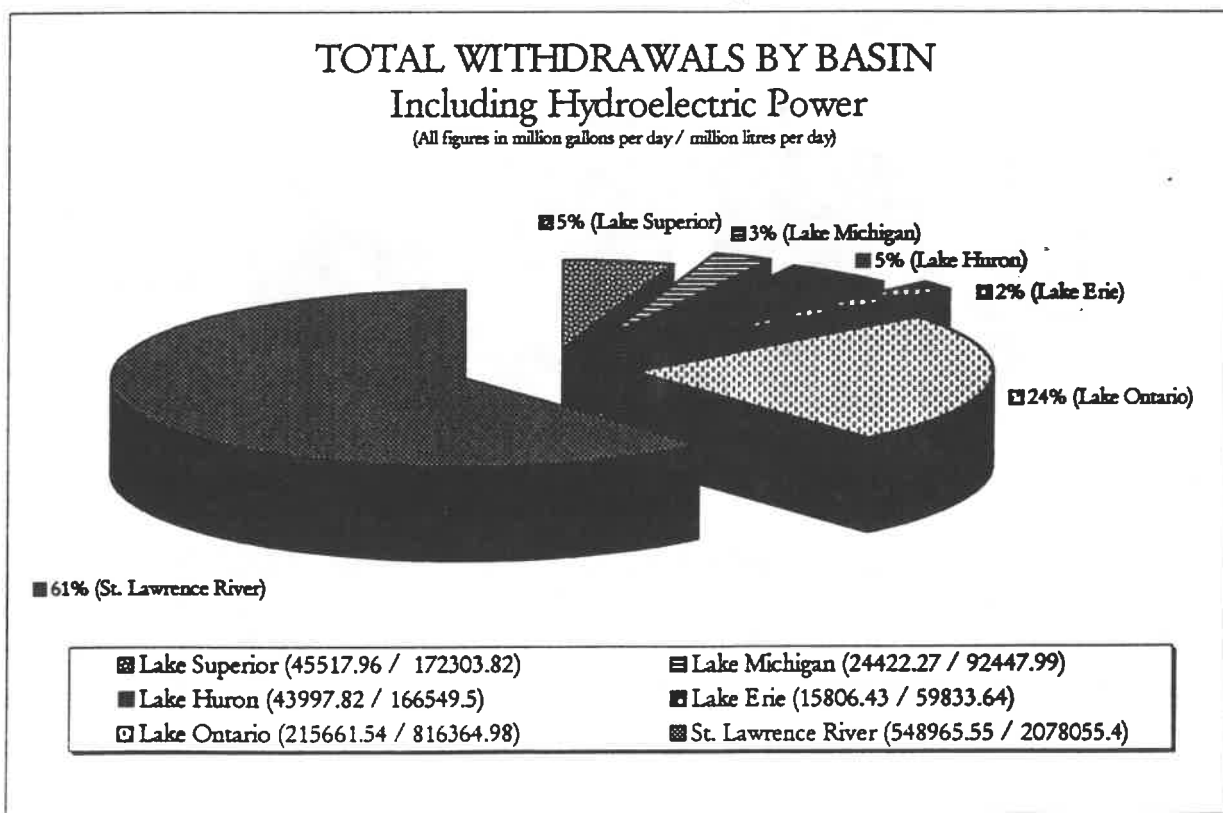
**Figure 2**



On a lake basin basis, contributions to total water withdrawals, including withdrawals for hydroelectric power, are as follows:

St. Lawrence River	61%
Lake Ontario	24%
Lake Huron	5%
Lake Superior	5%
Lake Michigan	3%
Lake Erie	2%

Figure 3 presents this information in further detail, including withdrawal amounts in million gallons per day and million litres per day.

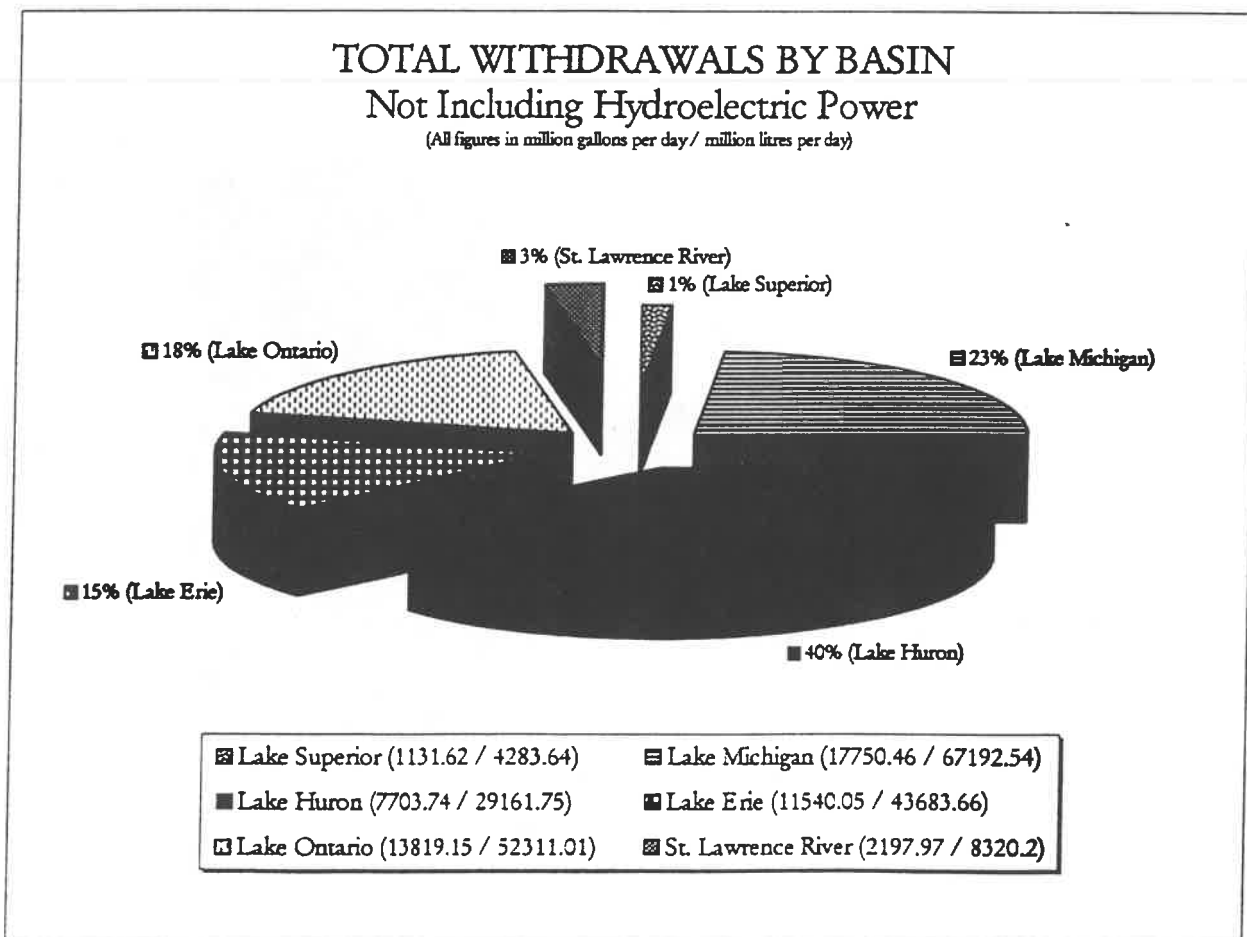


**Figure 3**

On a lake basin basis, contributions to total water withdrawals, excluding withdrawals for hydroelectric power, are as follows:

Lake Huron	40%
Lake Michigan	23%
Lake Ontario	18%
Lake Erie	15%
St. Lawrence River	3%
Lake Superior	1%

Figure 4 presents this information in further detail, including withdrawal amounts in million gallons per day and million litres per day.



**Figure 4**

On a water use category basis, contributions to total basinwide withdrawals are as follows:

Self Supply - Hydroelectric Power	93%
Self Supply - Thermoelectric Power (Nuclear Plants)	3%
Self Supply - Thermoelectric Power (Fossil Fuel Plants)	2%
Self Supply - Industrial (Manufacturing and Mining)	1%
Public Supply - Domestic and Industrial	1%
Self Supply - Domestic (Residential, Commercial, Institutional)	<1%
Self Supply - Irrigation	<1%
Self Supply - Livestock	<1%
Other (Navigation, Sanitation, Environmental)	<1%

Figure 5 presents this information in further detail, including withdrawal amounts in mgd and mld.

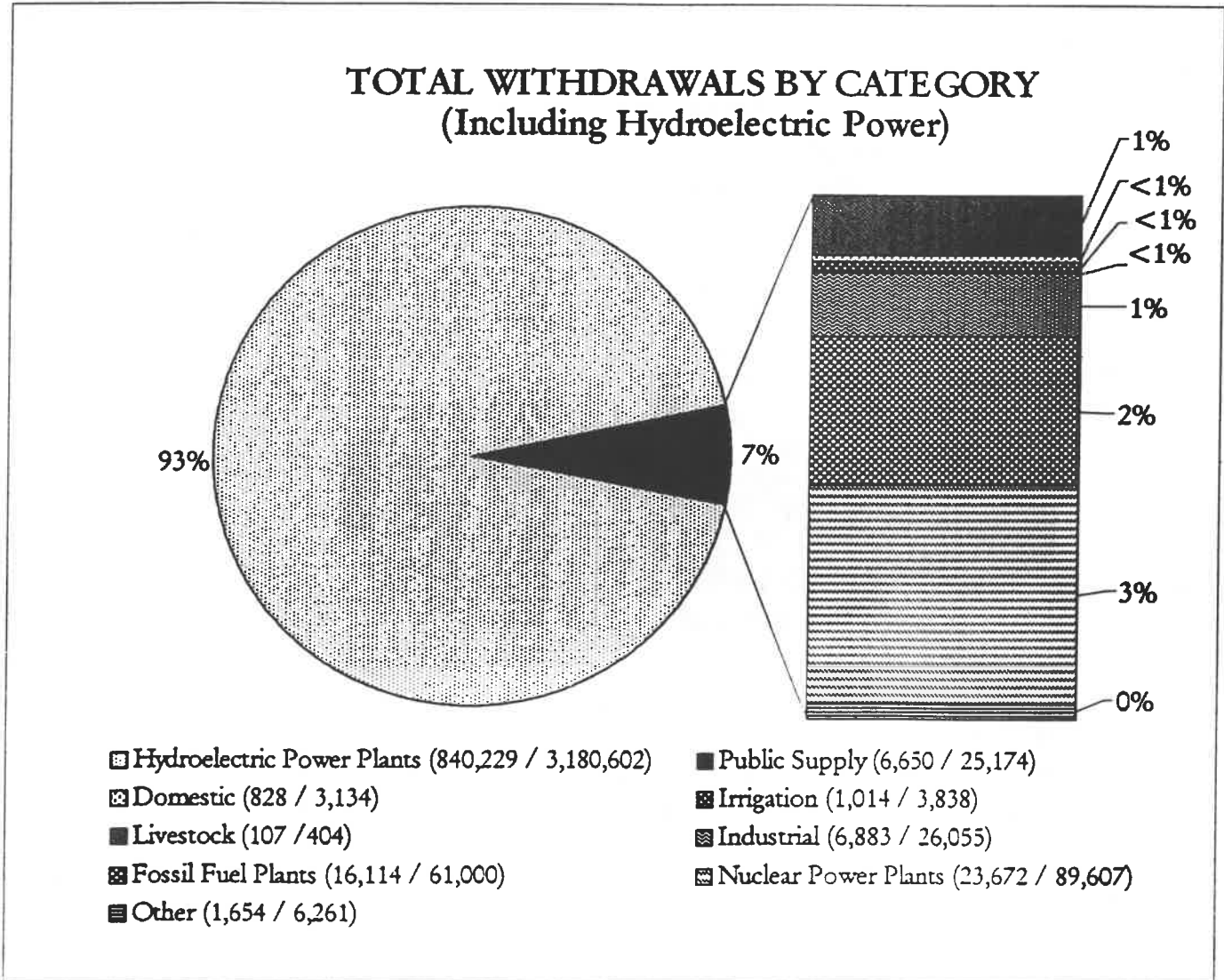
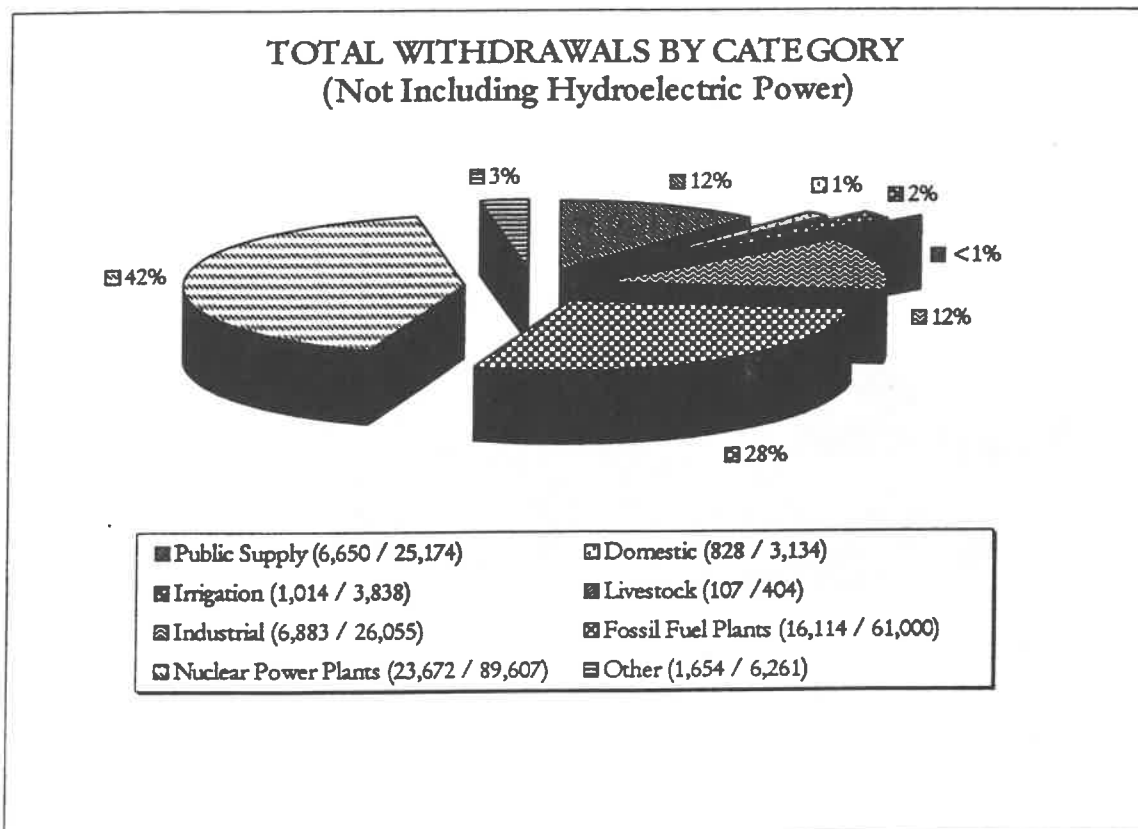


Figure 5

On a water use category basis, contributions to basinwide withdrawals, excluding hydroelectric power, are as follows:

Self Supply - Thermoelectric Power (Nuclear Plants)	42%
Self Supply - Thermoelectric Power (Fossil Fuel Plants)	28%
Self Supply - Industrial (Manufacturing and Mining)	12%
Public Supply - Domestic and Industrial	12%
Other (Navigation, Sanitation, Environmental)	3%
Self Supply - Irrigation	2%
Self Supply - Domestic (Residential, Commercial, Institutional)	1%
Self Supply - Livestock	<1%

Figure 6 presents this information in further detail, including withdrawal amounts in mgd and mld.



**Figure 6**

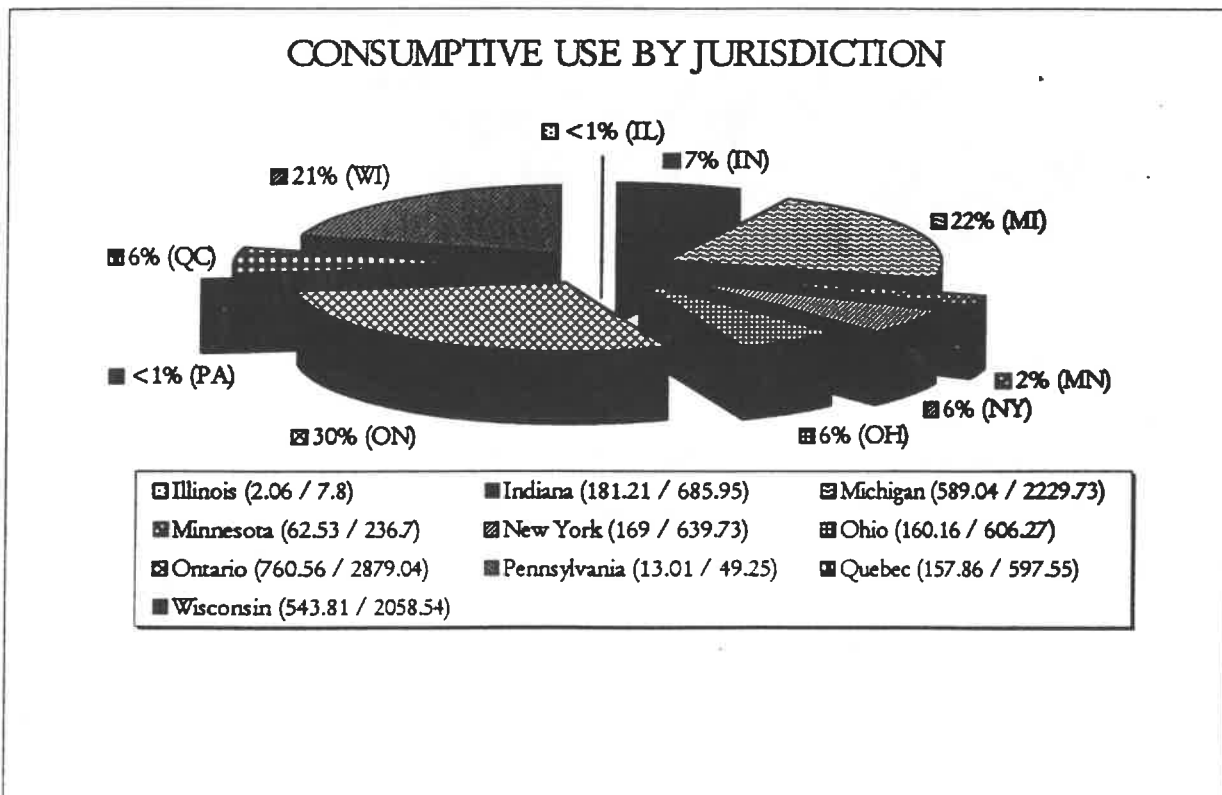
### C. Consumptive Use: By Jurisdiction, Lake Basin, and Category of Use

Consumptive use is defined as that portion of water withdrawn or withheld from the Great Lakes - St. Lawrence Basin and assumed to be lost or otherwise not returned to the basin due to evaporation, incorporation into products, or other processes.

Reported consumptive use of water from the Great Lakes - St. Lawrence Basin totaled 2,639 mgd / 9,990 mld in 1993. This total represents .3% of total withdrawals, and 4.7% of withdrawals excluding hydroelectric power production. From a jurisdictional standpoint, contributions to total basinwide consumptive use are as follows:

Ontario	30%	Ohio	6%
Michigan	22%	Quebec	6%
Wisconsin	21%	Minnesota	2%
Indiana	7%	Pennsylvania	<1%
New York	6%	Illinois	<1%

Figure 7 presents this information in further detail, including consumptive use amounts in million gallons per day and million litres per day.

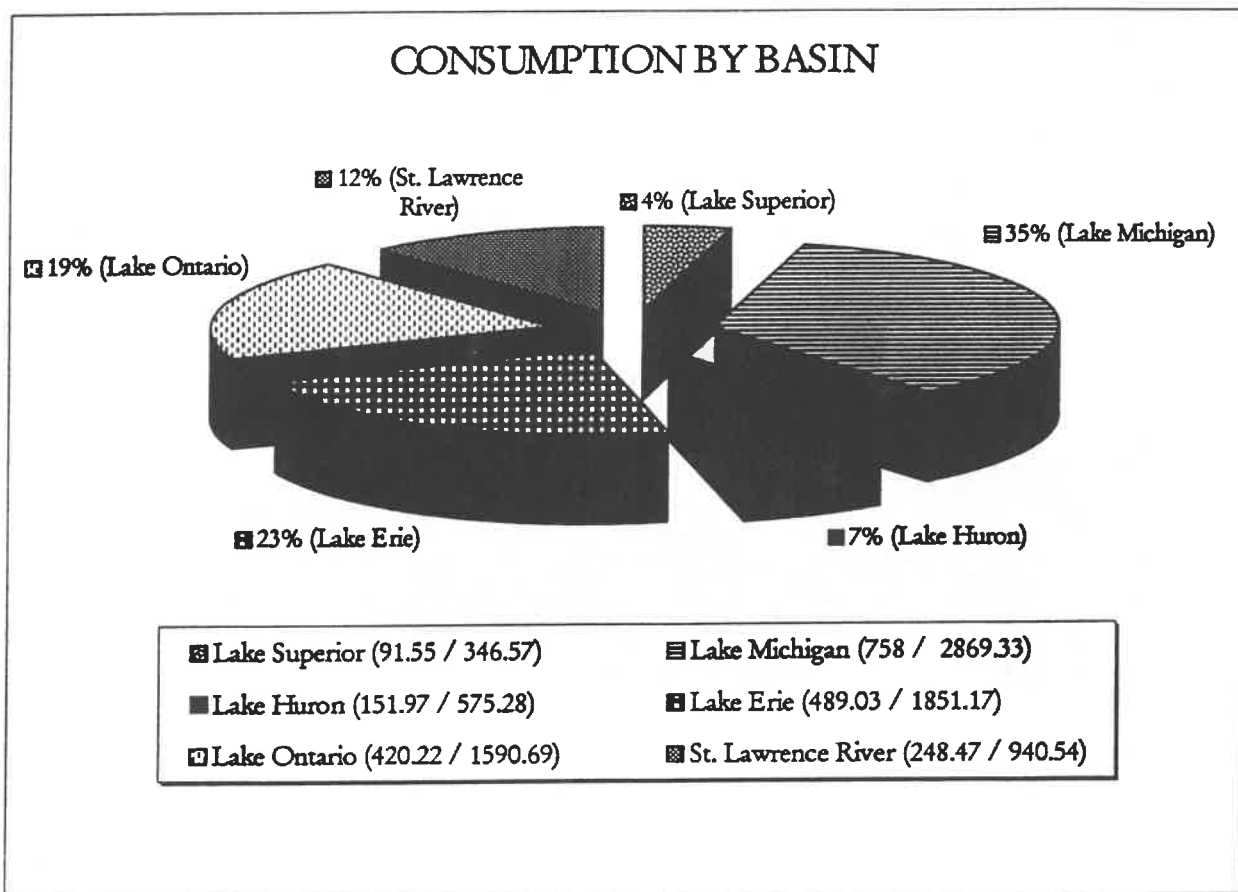


**Figure 7**

On a lake basin basis, contributions to total consumptive use are as follows:

Lake Michigan	35%
Lake Erie	23%
Lake Ontario	19%
St. Lawrence River	12%
Lake Huron	7%
Lake Superior	4%

Figure 8 presents this information in further detail, including withdrawal amounts in million gallons per day and million litres per day.



**Figure 8**

On a water use category basis, contributions to total basinwide consumption are as follows:

Self Supply - Irrigation	30%
Public Supply - Domestic and Industrial	26%
Self Supply - Industrial (Manufacturing and Mining)	25%
Self Supply - Thermoelectric Power (Nuclear Power Plants)	6%
Self Supply - Thermoelectric Power (Fossil Fuel Plants)	6%
Self Supply - Domestic (Residential, Commercial, Institutional)	4%
Self Supply - Livestock	3%
Other (Navigation, Sanitation, Environmental)	<1%

Figure 9 presents this information in further detail, including withdrawal amounts in million gallons per day and million litres per day.

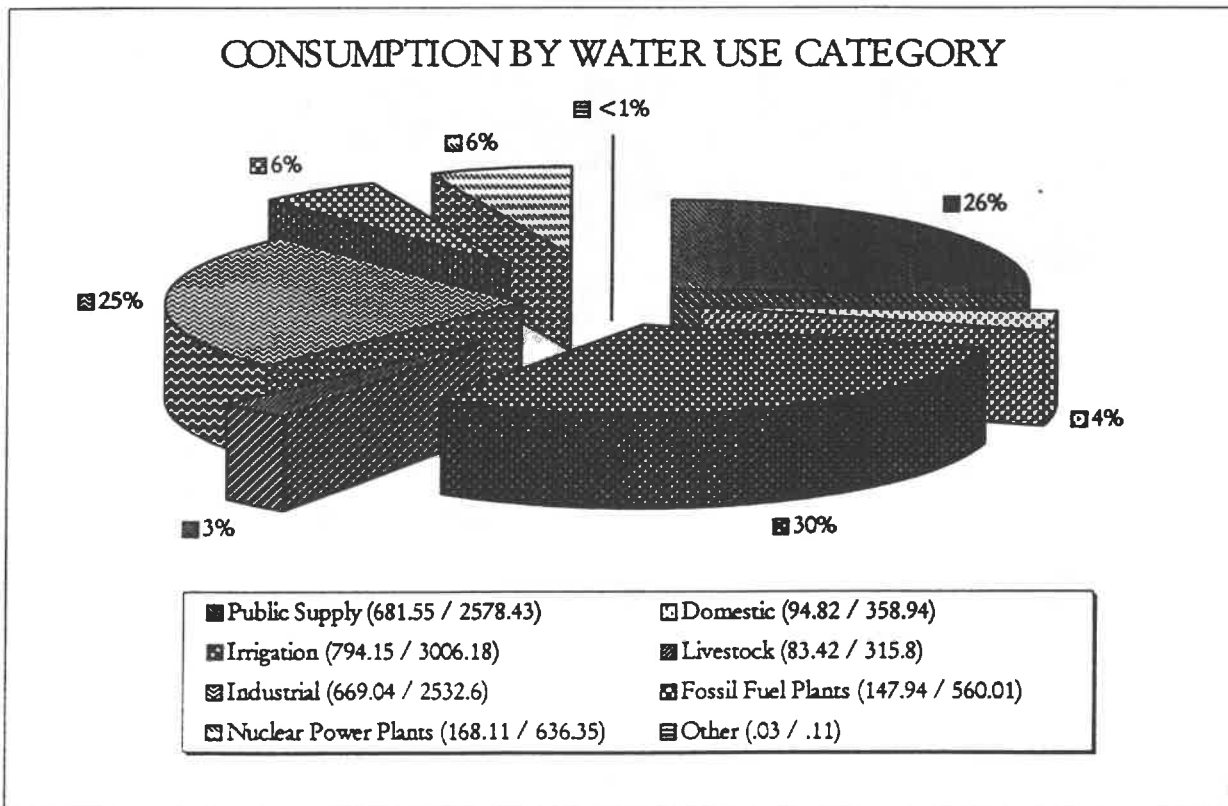


Figure 9

## D. Trend Analysis / Projections

The Study Team considered two distinct methodologies to project future consumptive uses. The first methodology involved simply projecting water uses on the basis of forecasts of population and income, and on extending past trends in several key factors affecting water use. This "trend" approach avoids complicated models, and uses instead a straightforward extension of past trends that maintains the visual continuity of the trend, as long as those trends are sensible in light of available evidence. This approach has the advantage of avoiding numerous obscured assumptions, but produces only a single scenario, which makes it difficult to judge how much uncertainty is associated with that scenario.

The second is based on an econometric technique, namely an input-output model which examines the flows of goods and services in an economy. Water use considerations are included by inserting water use coefficients into the basic algorithm. The advantage of this approach is that it can produce a variety of scenarios by merely changing selected input variables, and therefore assist in defining the range of uncertainty in future water uses. The disadvantages include the necessity of introducing simplifying assumptions which may compromise the usefulness of the results, and the fact that many of the assumptions are obscured from or incomprehensible to policy-makers.

For the Interim Report, the primary emphasis has been placed on the trend approach. Some experimentation has also been done on the input-output approach in one jurisdiction (Ontario), and the preliminary results described in a general way to give some indication of the factors which may cause future uses to diverge from those indicated by the trend analysis.

From a policy perspective, a single water use projection is of little value without an understanding of the degree of uncertainty that is inherent in that projection. Work is ongoing to define the magnitude and direction of the uncertainty using an econometric approach as mentioned earlier. Compatible results for the two countries may be available for the final report. The following conclusions are based on partial results for Ontario alone:

The trend analysis may well represent a best case scenario. The only scenarios which produce projections as low are those based on intense conservation, technological change and/or low economic growth. Should economic growth be higher than that experienced in recent years, proportionally larger growth in water use would be expected.

The most pessimistic scenarios assume significant climate warming. Under those scenarios, most water uses would increase, with the most dramatic increase being in irrigation use.

The overall conclusion is that water use may increase significantly faster than what is indicated by the trend analysis, but is unlikely to be any lower. Water conservation/demand management should therefore become an increasingly important component of any overall strategy.

Presented in the next section is a paper titled, "Past and Future Freshwater Use in the Great Lakes Water-Resources Region, U.S.A." Prepared by Wayne Solley, Supervisory Hydrologist with the U.S. Geological Survey (USGS), it offers past and present water use data, with projections to the year 2040. It is recognized that there is some variance between the USGS data presented within and the state/province-generated data presented elsewhere in this report.



## E. Past And Future Freshwater Use In The Great Lakes Water-Resources Region, USA

### Abstract

Water use in the Great Lakes Water-Resources Region (United States) is presented from 1960 to 1995, and future water use to year 2040 is estimated by projecting trends in basic water-use estimates and determinants. Estimates of total water use fluctuated from a low of 29,000 million gallons per day (mgd) in 1960 to a high of 39,500 mgd in 1970. Water use declined from 1970 to 1980 and remained near 32,000 mgd for the years reported from 1985 to 1995, according to national water-use reports by the U.S. Geological Survey. Population also peaked in 1970 at about 22.4 million and remained fairly constant from 1975 to 1995. If the water-use trends continue, aggregate withdrawals in the Great Lakes Region over the next 40 years will remain within 2 percent of the 1995 level, despite a 26 percent expected increase in population, according to a study by the U.S. Forest Service. Those trends are largely encouraging. The most uncertain of the assumptions necessary to make these projections are those related to thermoelectric power generation in the future.

### Introduction

Trends in growth of freshwater withdrawals in the Great Lakes Water-Resources Region (United States) by cities, industries, thermoelectric power plants, and farms outpaced trends in population growth from 1960 to 1970 (Fig. 10). Striking changes are shown in Figure 10 from 1970 to 1975 when withdrawals decreased and population remained about the same in the Great Lakes Region. Withdrawals generally decreased from 1970 to 1985, and remained fairly constant from 1985 to 1995, as a result of lower withdrawals for cooling water for thermoelectric power plants and significant reductions in withdrawals for industrial and commercial uses (Solley and others, 1998). Population grew from about 20 million in 1960 to 22.4 million in 1970 and fluctuated between 22.3 and 21.3 million from 1975 to 1995. Total per-capita use, which equals total withdrawals divided by population, decreased from a maximum of 1,770 gal per day (gal/d) in 1970 to 1,500 gal/d in 1995. This implies that water is being used more efficiently in the region. The major water-use category in the Great Lakes region is thermoelectric power generation, which accounts for 70 percent of total withdrawals in 1995.

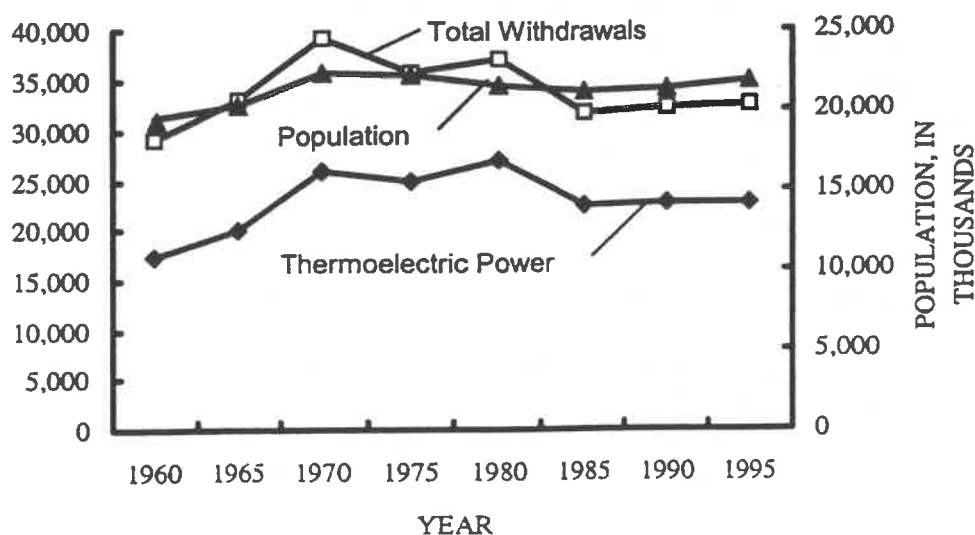


Figure 10. Water withdrawals and population in the Great Lakes Water-Resources Region, 1960-95

## Water-Use Data: Sources And Definition

Long-term projections of water use in the United States were attempted by various groups in the 1960's and 1970's. Comparisons of these forecasts show large differences among them in projected water use and large discrepancies between projected and actual water use. These differences highlight the adverse consequences of extrapolation and forecasting without a detailed understanding of the determinants of water use. Knowing the determinants of water use and how they interact, however, is only half the job of forecasting resource use. Accurate forecasts also require accurate estimates of future determinant levels. Therefore, accurate forecasts of future water use are not feasible because too little is known about future technological and economic conditions. Thus, expectations of predicting the future must be kept low.

The most recent projections of future demands in the United States were made by the U.S. Forest Service for the 21 Water-Resources Regions, which includes the Great Lakes Region. This paper is based on the U.S. Forest Service report (Brown, in press) and attempts to project water demand assuming a continuation of recent past trends in factors that affect water use. Total population was used as a determinant of future livestock, domestic and public, industrial and commercial, and thermoelectric water use. Personal income also was used to project industrial and commercial water use. Electricity production and assumptions about the distribution of that production among different types of generating plants were used to project thermoelectric power water use. The number of irrigated acres and estimates of withdrawal per acre were used to project irrigation water use.

Estimates of future possibilities that are based on projecting past trends offer a starting point for considering possible adjustments in water prices, management facilities, and institutions. This study emphasizes projections that are based on historical water-use estimates from 1960 to 1995 and major water-use determinants (population, withdrawal per person, income per person, electric energy production per person, acres irrigated and withdrawal per acre). Recognizing the difficulty of forecasting, underlying assumptions are few. Of course, the likelihood that a projection is accurate decreases as the time horizon of that projection increases.

The U.S. Geological Survey (USGS) has estimated the Nation's water use at 5-year intervals since 1950. These periodic reports, issued as USGS Circulars, represent the only consistent effort to document water use for the Nation. The circulars cover offstream withdrawals for thermoelectric power generation; industrial and commercial; domestic and public use, which includes public supply water for firefighting, street washing, and municipal parks and swimming pools, and agriculture (irrigation, livestock). Hydroelectric power water use is the only instream use monitored by the USGS. Estimates of consumptive use, that part of water withdrawn that is evaporated, transpired, incorporated into products or crops, or consumed by humans or livestock, began with the 1960 USGS Circular (MacKichan and Kammerer, 1962). Because of an interest in both withdrawal and consumptive use, this paper uses data contained in the USGS Circular reports published since 1960. The Circular reports provide estimates for 8 separate years that cover a 35-year span. Self-supplied withdrawals are combined with public supply deliveries where applicable, and water withdrawals are used interchangeably with water use.

Population projections through 2040 were obtained from the U.S. Bureau of the Census (1996). The population projections are based on assumptions about three factors: life expectancy, fertility, and immigration. The Census Bureau estimated high, medium, and low levels for each factor. The middle population series was used to make water-use projections in this study.

The Great Lakes Region population figures for 1960, 1965, and 1970 were revised from figures published in USGS Circular reports (MacKichan and Kammerer, 1962, Murray, 1968, and Murray and Reeves, 1972, respectively). The population in the Chicago area is no longer considered as part of the Great Lakes Region, but is now included in the Upper Mississippi Region. The adjusted population figures account for a change that was made in 1975 that moved the population in the Chicago area from the Great Lakes Region to the Upper Mississippi Region. Domestic withdrawal estimates were not revised because of lack of information.

### Past Freshwater Withdrawals And Projections To 2040

This section briefly describes water use for 1995, then depicts water use from 1960 to 1995 and projections from 2000 to 2040.

#### Recent water use in the Great Lakes Region

Freshwater withdrawals in the Great Lakes Region to cities, industries, thermoelectric power plants, and farms in 1995 totaled 32,700 mgd (Solley and others, 1998). Surface water is the primary source of water used and accounted for about 95 percent (31,100 mgd) of withdrawals in 1995, with ground water accounting for the other 5 percent. Thermoelectric power is the major withdrawal category and in 1995 accounted for 22,800 mgd or 70 percent of total water use in the region. The next two largest water-use categories are industrial and commercial, and domestic and public use, followed by agriculture (irrigation, livestock). Consumptive use was 1,580 mgd in 1995 or about 5 percent of total withdrawals. USGS water-use estimates for 1995 indicate that in the Great Lakes Region, hydroelectric plants used 340,000 mgd, which is more than ten times the sum of all withdrawals.

#### Water use since 1960 and projections to 2040

Estimates of total water use in the Great Lakes Region fluctuated from 29,000 mgd in 1960 to a high of 39,500 mgd in 1970 (Figure 11, Table 1). Water use declined from 1970 to 1980 and remained near 32,000 mgd for the years reported from 1985 to 1995. Based on historical trends and more efficient use of water by the various sectors, aggregate withdrawals in the Great Lakes Region over the next 40 years are projected to increase less than 2 percent from the 1995 level, despite an expected 26-percent increase in population (Fig. 11). Total per-capita use is estimated to decrease from 1,500 gal/d in 1995 to 1,200 gal/d in 2040, or 20 percent. The most important and uncertain assumptions necessary to make these projections concern future thermoelectric power generation in the region.

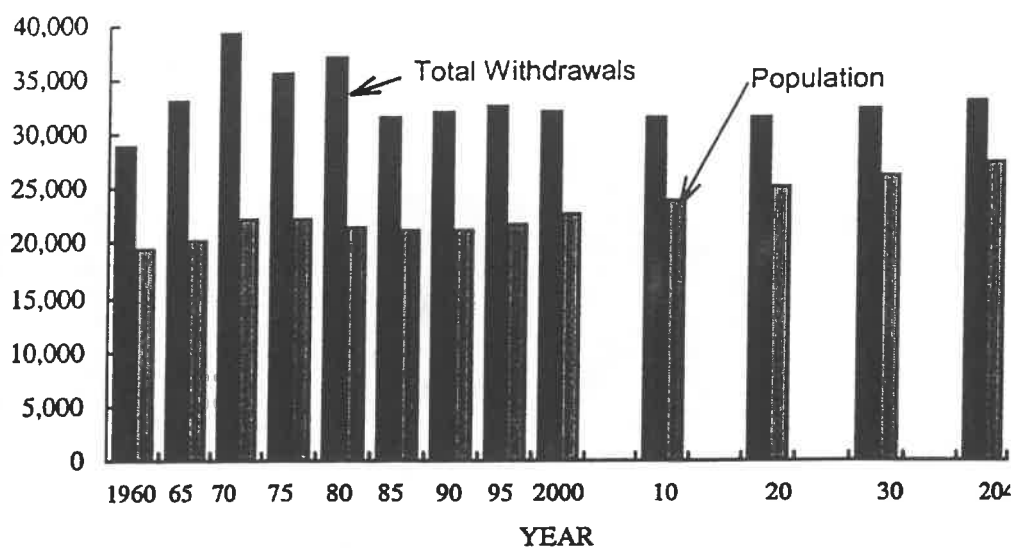


Figure 11. Total freshwater withdrawals and population, 1960 to 1995, with projections to 2040

Table 1. Water use by category, 1960 to 1995, with projections to 2040; withdrawals and consumptive use in million gallons per day

Year	Population, in thousands	Total consumptive use	Total Withdrawals	Thermoelectric Power	Industrial and Commercial	Domestic and Public Use	Agriculture
1960	19,607	984	29,000	17,500	9,130	2,280	138
1965	20,336	1,190	33,200	20,000	10,600	2,470	145
1970	22,354	1,200	39,500	26,000	10,300	2,980	176
1975	22,311	1,200	35,900	25,000	8,600	2,090	183
1980	21,489	1,300	37,300	27,000	7,800	2,070	424
1985	21,319	1,340	31,900	22,400	6,150	2,980	332
1990	21,405	1,640	32,400	22,800	6,040	3,130	382
1995	21,836	1,580	32,700	22,800	6,090	3,400	385
2000	22,971	1,560	32,300	22,600	5,810	3,470	390
2010	24,106	1,540	31,800	22,200	5,530	3,610	420
2020	25,241	1,540	31,900	22,300	5,360	3,820	440
2030	26,376	1,570	32,500	22,600	5,440	4,040	460
2040	27,513	1,610	33,300	23,000	5,570	4,260	480

The following subsections discuss trends in withdrawals for each of major water-use categories.

#### Thermoelectric power water use

At thermoelectric power plants, water is used principally for condenser and reactor cooling. Thermoelectric power is by far the largest water-use category in the Great Lakes Region, accounting for about 70 percent of total withdrawals in 1995. Freshwater withdrawal for thermoelectric power cooling increased from 1960 to 1980, declined substantially through 1985, and remained nearly constant since then, (Figures 10 and 12). In contrast to the nearly constant thermoelectric withdrawals, production of electricity continued to rise from 1985 to 1995. Efficiency of water withdrawal per unit of electricity will have a major impact on future withdrawals in the region. If these efficiencies continue to improve,

thermoelectric power water use will remain fairly constant in the future and only increase to about 23,000 mgd in 2040, or less than 1 percent more than in 1995.

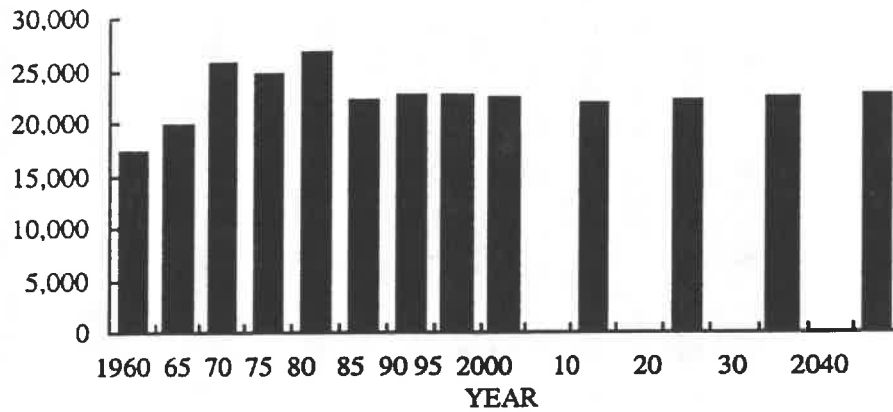


Figure 12. Thermoelectric power water-use estimates, 1960 to 1995, with projections to 2040

*Industrial and commercial use*

Industrial and commercial water use (self-supplied withdrawals, public-supplied deliveries) in the Great Lakes Region peaked in 1965 at 10,600 mgd, substantially declined from 1965 to 1985. The use remained nearly constant from 1985 to 1995 at about 6,000 mgd, (Fig. 11). Efficiency has improved in response to factors, such as environmental pollution legislation (e.g. the Clean Water Act of 1972), which regulated discharges and thereby encouraged reductions in withdrawals, technological advances facilitating recycling, and a change in the industrial mix from heavy metal production to more service-oriented sectors. If these trends continue, industrial and commercial water use will continue to decrease into the future to about 5,600 mgd in 2040, or 9 percent less than in 1995.

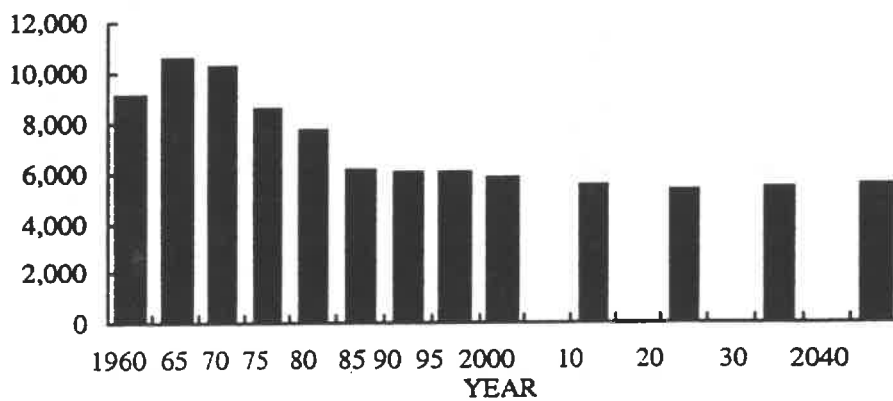


Figure 13. Industrial and commercial water-use estimates, 1960 to 1995, with projections to 2040

*Domestic and public use*

Withdrawals for domestic and public water use in the Great Lakes Region generally increased from 2,280 mgd in 1960 to 3,400 mgd in 1995, with the exception of a drop from 1970 to 1980, (Fig. 14). One of the reasons for the decline in withdrawals is that the population in the Chicago area is no longer considered as part of the Great Lakes Region, but is now included in the Upper Mississippi Region. Adjusting for the shift means that withdrawals and population have remained fairly constant from 1970

to 1995. If recent trends continue, withdrawals for domestic and public use will steadily increase to nearly 4,300 mgd in 2040, or 25 percent more than in 1995.

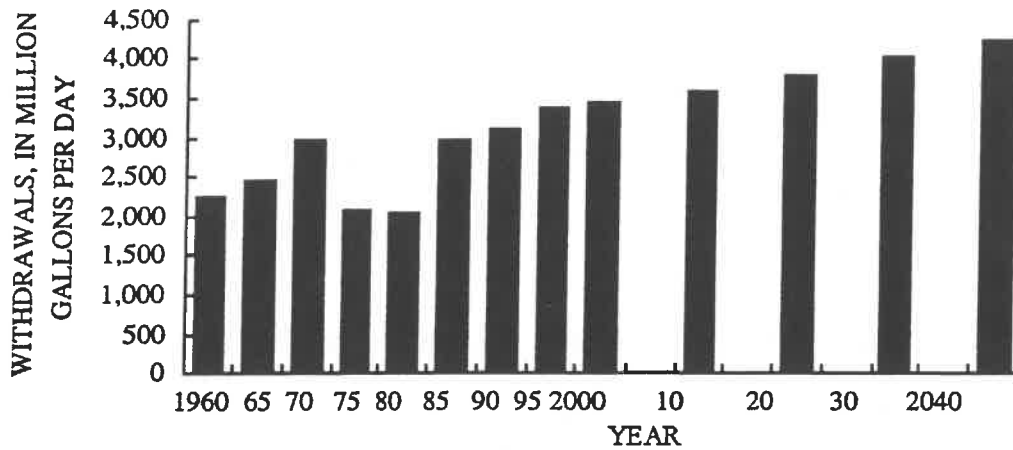


Figure 14. Domestic and public water-use estimates, 1960 to 1995, with projections to 2040

*Agriculture (irrigation, livestock)*

Water used for agriculture (irrigation, livestock) in the Great Lakes Region is small, about 385 mgd in 1995, but has increased fairly steadily from 1960 to 1995, with a large increase between 1975 and 1980, (Fig. 15). Acres irrigated have increased from 113,000 in 1960, (MacKichan and Kammerer, 1961) to 556,000 in 1995 (Solley and others, 1998). Water used for livestock, although small, has fluctuated from 1960 to 1995. The highest amount was reported in 1960 and 1990 (90 mgd) and the lowest was 70 mgd, estimated for 1995. The lack of a trend is probably the result of how the water use is classified and the estimation techniques used, as well as any actual change in use. Given the inconsistencies in past withdrawals for agriculture, projections are questionable, but the category is small and has only minor impact on the total projections. Withdrawals for agriculture are projected to increase steadily to about 480 mgd in 2040, or about 25 percent.

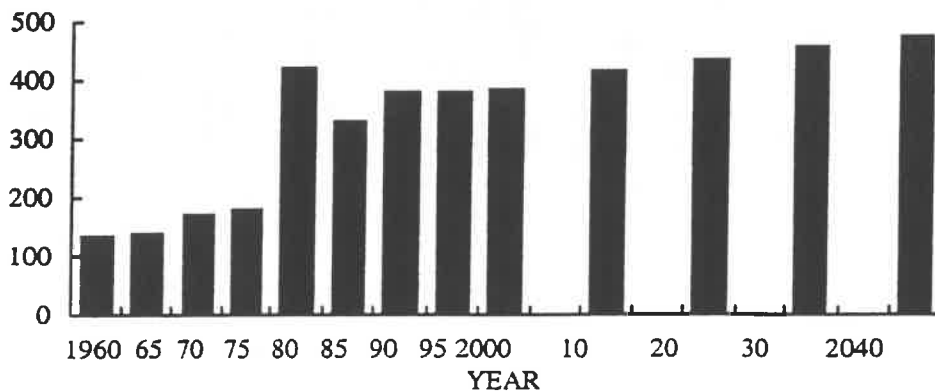


Figure 15. Agriculture water-use estimates, 1960 to 1995, with projections to 2040

## Ground-Water Withdrawals

Ground-water withdrawals in the Great Lakes Region increased from 1,140 mgd in 1960 to 1,510 mgd in 1995. However, the proportion of total withdrawal coming from ground water has remained quite stable for the past 35 years, ranging from 3 percent to 5 percent. In 1995, 5 percent of freshwater withdrawals came from ground water. Future withdrawals presented in this report were not allocated for surface- and ground-water sources. It is reasonable to expect that ground water probably would continue to account for a small portion of projected withdrawals.

## Consumptive Use

Consumptive use is the portion of withdrawals that does not return to the a water source for immediate re-use. Most consumptive use is due to evaporation, but diversions outside the basin or incorporated into products that are consumed outside the basin are other components.

About 5 percent of total withdrawals was consumptively used in 1995 (Solley and others, 1998). By category, consumptive use was about 2 percent for thermoelectric, 9 percent for industrial and commercial, 7 percent for domestic and public use, and 90 percent for agriculture.

Consumptive use steadily increased from 1960 to 1990, followed by a small decrease in 1995. Figure 16 shows projected consumptive use for the Great Lakes Region. The projection assumes that the 1995 consumptive-use factors for each water-use category apply throughout 1995 to 2040. Total consumptive use is projected to increase by about 2 percent from 1,580 mgd in 1995 to 1,610 mgd in 2040.

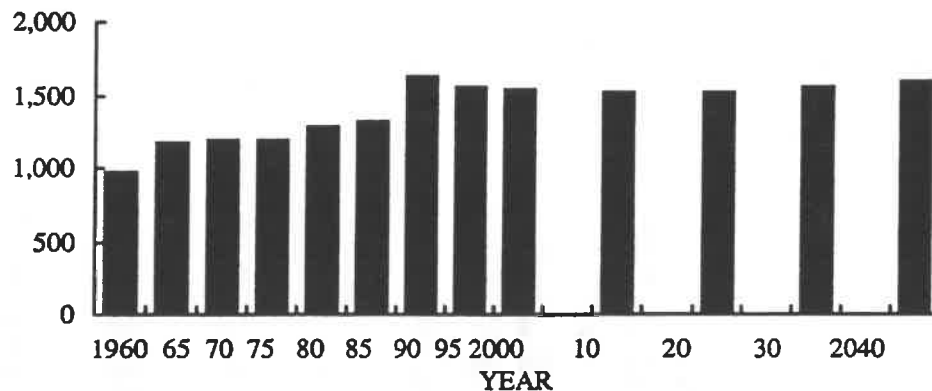


Figure 16. Consumptive-use estimates, 1960 to 1995, with projections to 2040

## Conclusions

This study projects water use in the Great Lakes Region to the year 2040 on the basis of forecasts of population and income, and on extending past trends in several key factors affect water use. The overall approach was to avoid complicated models, which tend to rely on arrays of obscured assumptions, and use instead a straightforward extension of past trends that maintains the visual continuity of the trend, as long as those trends are sensible in light of available evidence.

In most cases, future rates of change in factors that affect water use are projected to diminish over time, in keeping with recent nonlinear trends. This is the case whether those rates are positive and thus tend

to increase withdrawal, such as per-capita electricity use, or negative and thus tend to decrease withdrawal, such as cost of industrial and commercial withdrawals. In some cases, such as per-capita domestic and public use, recent trend shifts make projections problematic and a constant future rate was assumed.

Based on the best available estimates of future population, total withdrawal is projected to rise by less than 2 percent from 1995 to 2040, despite a 26-percent increase in population. This is in contrast to most other projections, which suggested dramatic increases in withdrawal. The very tenuous nature of such projections, however, whether they are alarming or comforting, should be remembered. Predicting the future is impossible, and projections are most useful when used to highlight the kinds of changes in public policy that may help avoid troublesome or costly future inefficiencies.

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### ***III. PERSPECTIVES ON CONSUMPTIVE USE IN THE GREAT LAKES - ST. LAWRENCE BASIN***

#### **A. Monitoring Activities and Capabilities**

Great Lakes jurisdictions vary considerably in the nature and extent of their water use monitoring capabilities. In Illinois, for example, water use associated with the Lake Michigan Diversion at Chicago is monitored carefully under the terms of a U.S. Supreme Court directive. Current data is readily available through the Division of Water Resources in the Illinois Department of Natural Resources. Other jurisdictions, however, are faced with challenges that presently preclude the timely submittal of detailed data. In Michigan, for example, the magnitude of the monitoring/reporting task, coupled with staffing limitations and the absence of a formal data collection and reporting program, has constrained its ability to provide requested information. The summary data presented in all Regional Water Use Data Base reports to date has been identical: 1987 base year data for only five water use categories. Further, withdrawal and consumptive use data for three of these categories cannot be reported by sub-basin or by water use category.

Generally speaking, the capability of Regional Water Use Data Base software to accommodate and analyze water use data exceeds the capability of individual jurisdictions to provide such data. The Great Lakes Commission staff, in cooperation with the Water Resources Management Committee, has directed its efforts at promoting consistency in data collection, analysis and reporting at the Basinwide level. However, staffing and budgetary constraints at the individual jurisdictional level are the major limiting factor in efforts to prepare comprehensive and timely analyses.

Data sources and related matters are presented for each jurisdiction in Appendix A of this report.

#### **B. Strengths, Limitations and Unmet Needs**

The states and provinces in the Great Lakes - St. Lawrence Basin have made slow, yet steady progress in water use data collection, reporting and analysis over the last fifteen years. Adoption of the Great Lakes Charter by the Governors and Premiers in 1985 provided the political will and impetus to develop and formalize a program. Since that time, legislation and/or programs have been adopted in each jurisdiction, thereby enhancing baseline data collection efforts. Establishment of the Water Resources Management Committee and its Technical Committee has formalized a line of communication among the jurisdictions, promoting consistency in data collection and analysis, and providing a forum for discussion and action on both data management and policy matters. Over this period, the Great Lakes Commission has served as secretariat to the committee and repository for the Regional Water Use Data Base. Thus, collection, reporting and analysis activities have been "institutionalized" within the Great Lakes - St. Lawrence Basin water resource management framework. All these attributes (e.g., mechanisms for interjurisdictional cooperation, a commitment to consistency, an annual Basinwide report) potentially provide a solid foundation for progress in Basinwide water resources management.

Despite an established process and gradual progress over the last decade and a half, water data collection, reporting, and analysis suffers from at least three major deficiencies. First, data collection capabilities are extremely limited in many jurisdictions. Minimal staffing and financial resources, combined with the low priority generally assigned to such activities, can result in compromised accuracy and delayed reporting. Second, consistency problems do exist from one jurisdiction to the next in that monitoring, reporting

and estimation techniques can vary. Third, reported data is largely directed at the macro level; it focuses on entire jurisdictions, lake basins and water use categories. Thus, usage of this data to explore, for example, the localized impacts of a current or proposed consumptive use is not presently possible.

To date, the Regional Water Use Data Base has yet to be regularly consulted by decision makers as withdrawal/consumptive use proposals are considered under the terms of the 1985 Great Lakes Charter. As a consequence, the value of the Data Base as a decision-making tool is untested. A Basin Water Resources Management Program which, under Charter provisions, would integrate such data into the decision-making process, has yet to be developed. Demonstrating and institutionalizing the applicability of water use data through such a program would likely lead to significant improvements (i.e., funding, staffing) in the quality, comprehensiveness and timeliness of data collection, reporting and analysis efforts.

*APPENDIX A*

**1993 Great Lakes Basin Summary Reports  
By Jurisdiction**

- Data Source
- Total Withdrawals
- Consumptive Uses
  - Diversions
- Calculation Basis

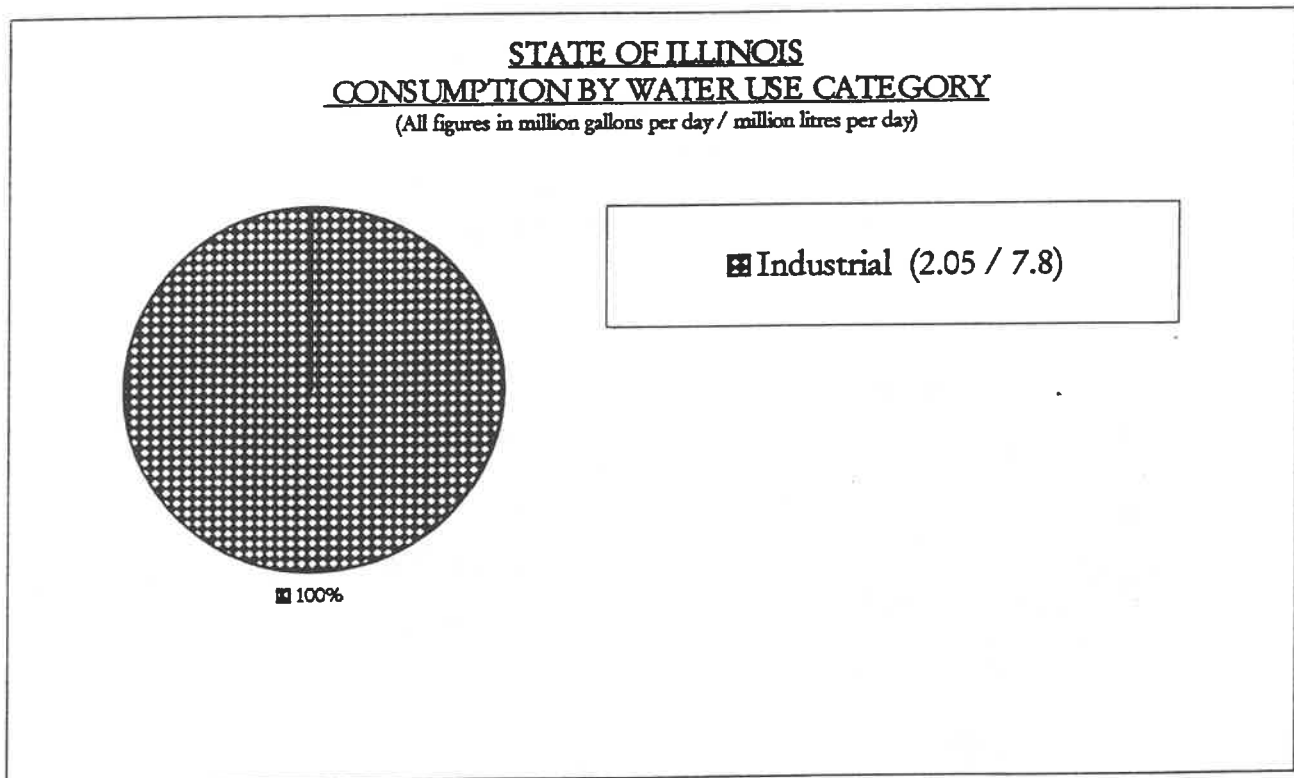


## Illinois

**Data Source:** Water use data for Illinois are provided by the Office of Water Resources in the Department of Natural Resources and by the State Water Survey.

**Withdrawals:** Water withdrawn from Lake Michigan by Illinois in 1993 totaled 4,193 mgd.

**Consumptive Uses:** Water not returned to the Lake Michigan Basin totaled 2.05 mgd, all lost through industrial uses. In 1993, there was no reported consumption in public supply or in domestic uses, although consumptive use coefficients estimate between 115.4 mgd-173.1 mgd consumed for public supply, and 1.8 mgd-2.77 mgd consumed for domestic uses.



**Diversions:** Total diversions by Illinois from the Lake Michigan Basin in 1993 were 1,481.79 mgd. Nearly 80% of these diversions were for public supply. All diversions for Illinois are outgoing interbasin diversions— water transferred from the Great Lakes Basin into another watershed.

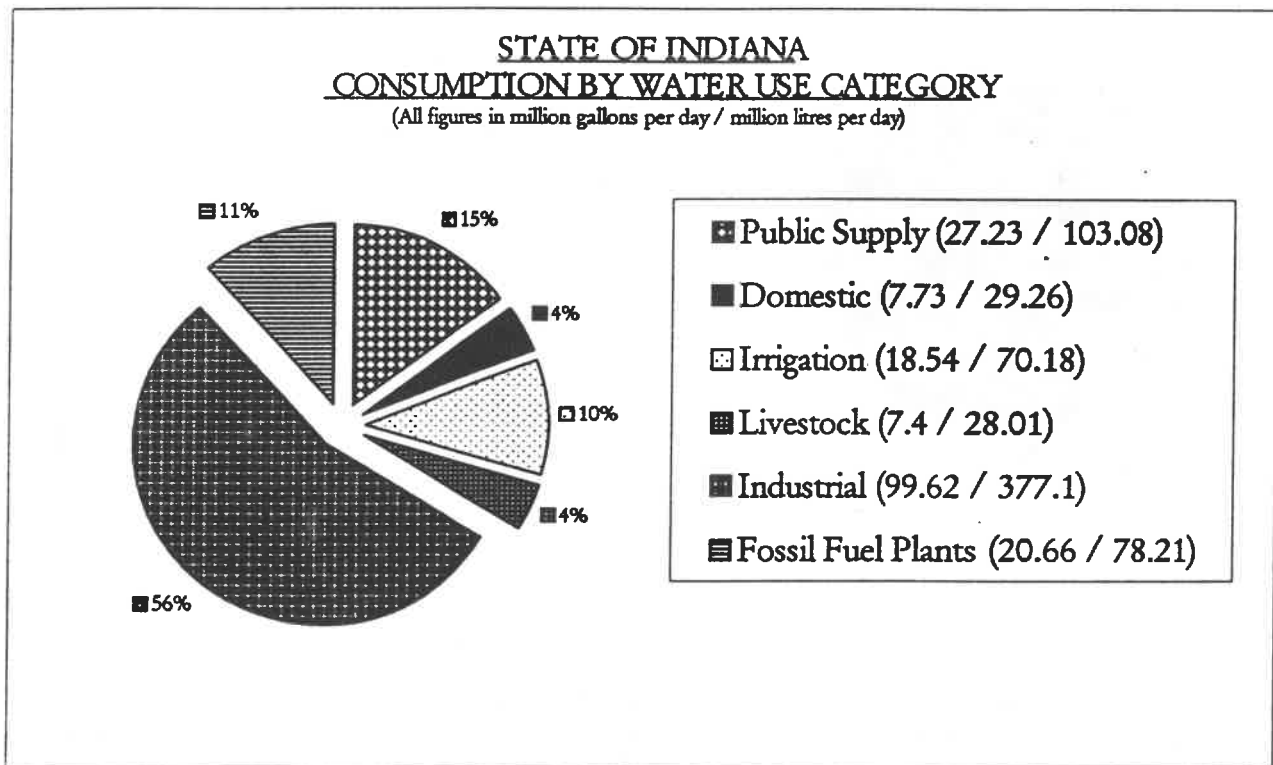
**Calculation Basis:** Data submitted by the Illinois DNR to the repository were 100 percent measured and 100 percent site-specific.

## Indiana

**Data Source:** The Division of Water in the Indiana Department of Natural Resources provided the 1993 data to the Regional Water Use Database for the Lake Erie and Lake Michigan basins.

**Withdrawals:** In 1993, total withdrawals were just under 5,318 mgd. More than 98% of Indiana's withdrawals were from Lake Michigan; industrial and hydroelectric were the primary uses. The primary use of Lake Erie withdrawals was public supply, which accounted for more than 65 percent of Indiana's withdrawals in this basin.

**Consumptive Use:** The total consumptive use of water in Indiana's portion of the Great Lakes Basin was 181.21 mgd. Industrial uses consumed the most water in Indiana's portion of the Lake Michigan Basin (99.62 mgd) and, in the Lake Erie Basin, public supply accounted for just over 50 percent of consumption (5.86 mgd of a total 10.05 mgd).



**Diversions:** Not Applicable

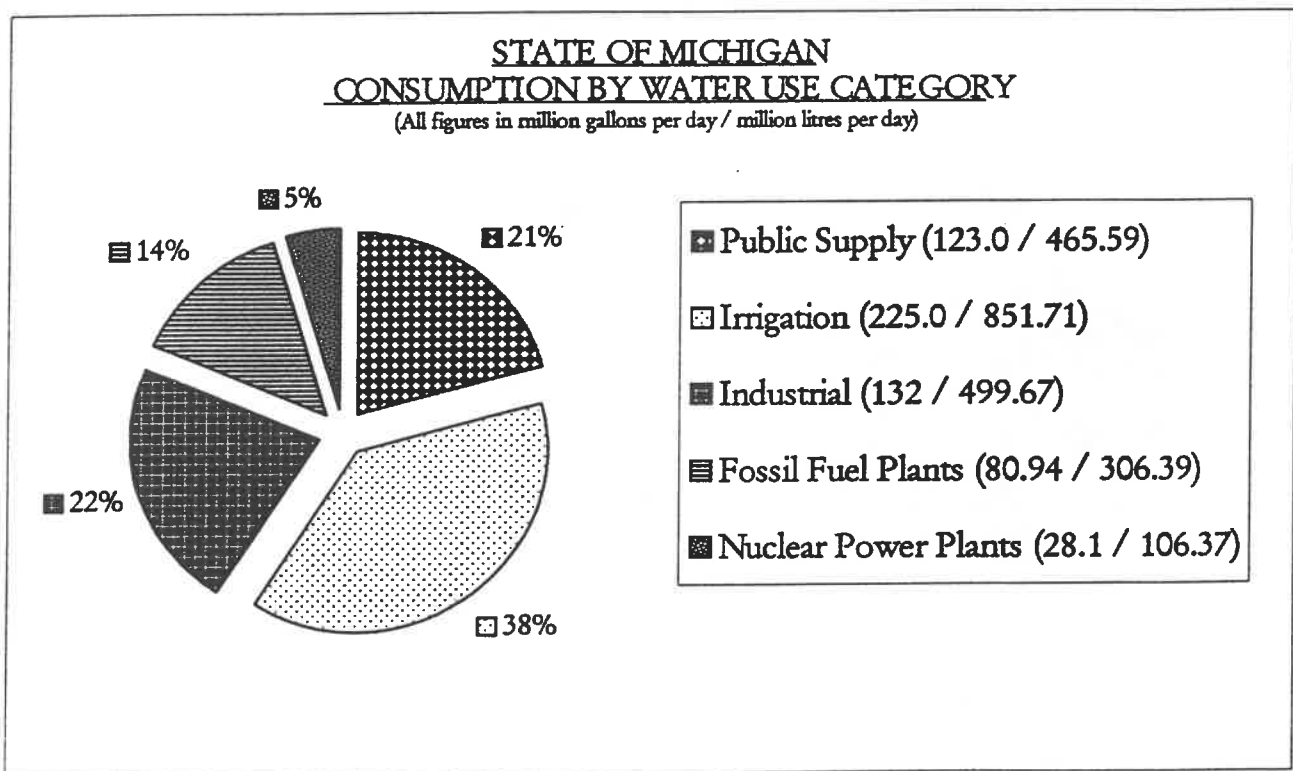
**Calculation Basis:** Indiana data for 1993 were 3% measured, 51% partially measured, and 46% calculated or estimated. The level of aggregation was 99% site-specific and 1% aggregated.

## Michigan

**Data Source:** Water use data in this report is that of base year 1987; more current data are not available. Collected by the Michigan Departments of Natural Resources and Public Health, and the U.S. Geological Survey, these data reflect only five categories: public supply, irrigation, industrial, thermoelectric—fossil fuels, and thermoelectric—nuclear. These five categories are estimated by Michigan DNR to represent 98% of Michigan's water use.

**Withdrawals:** In base year 1987, reported water withdrawals for the Lake Superior, Lake Michigan, Lake Huron, and Lake Erie Basins of Michigan were approximately 11,166 mgd. Withdrawals from the Lake Erie basin accounted for about 38% of Michigan's total withdrawals. Thermoelectric uses for fossil fuel plants was the single largest use, responsible for 56% of Michigan's total withdrawals.

**Consumptive Use:** Consumptive uses are approximately 589 mgd; irrigation accounts for more than 38% of this figure.



**Diversions:** In 1993, there were no reported inter- or intrabasin diversions in the Michigan Great Lakes Basin that meet the Charter trigger level of 100,000 gallons per day (380,000 litres per day) average over a 30 day period.

**Calculation Basis:** Michigan data of base year 1987 is 11% measured, 87% partially measured, 2% estimated, and 98% site-specific.

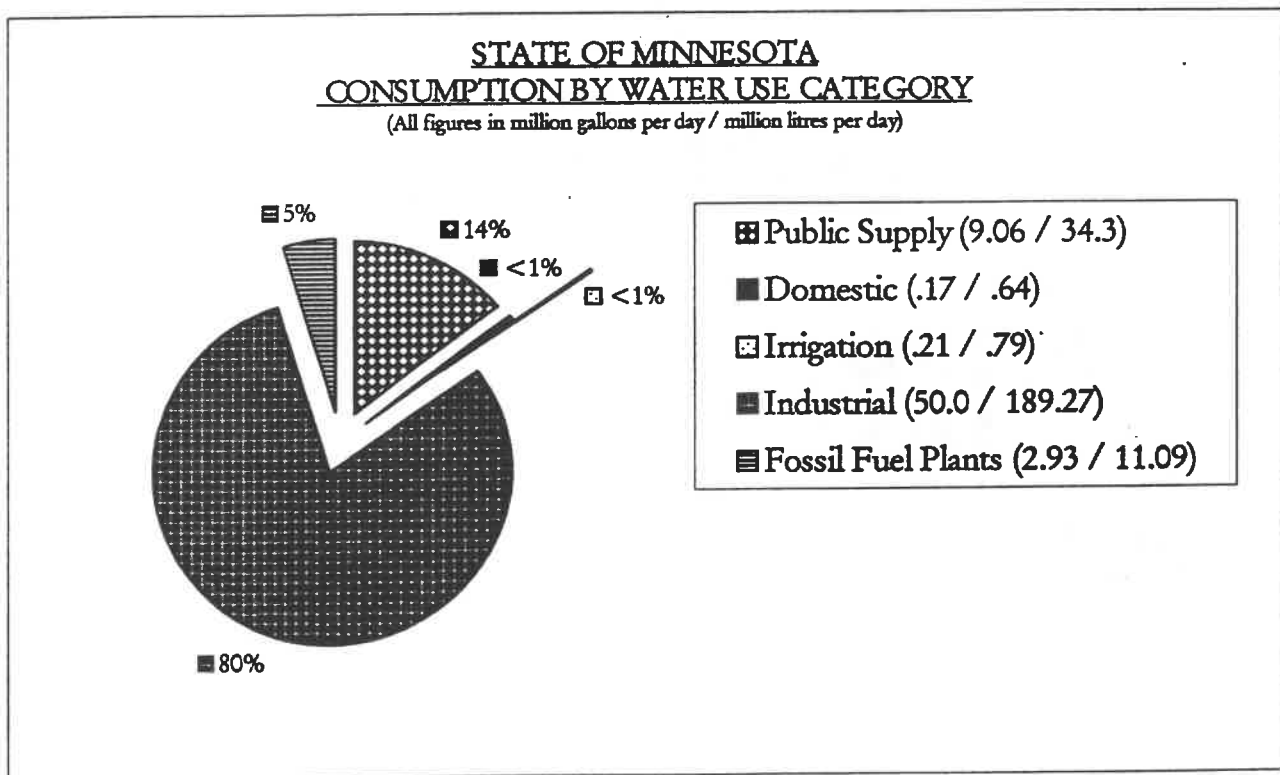


## Minnesota

**Data Source:** The Division of Waters in the Minnesota Department of Natural Resources provides data on the Lake Superior Basin to the Regional Water Use Database.

**Withdrawals:** With the exception of nuclear power plants, withdrawals were reported in all categories of use for Minnesota. Withdrawals from the Lake Superior Basin in 1993 were 5,028 mgd. Hydroelectric water use accounts for 91% of Minnesota's total water withdrawals. In the remainder, industrial uses account for more than half of the water withdrawn.

**Consumptive Use:** Industrial consumption was 50 mgd, or about 21% of industrial withdrawal. Public supply accounted for 14% of consumption, at 9.06 mgd.



**Diversions:** Not Applicable

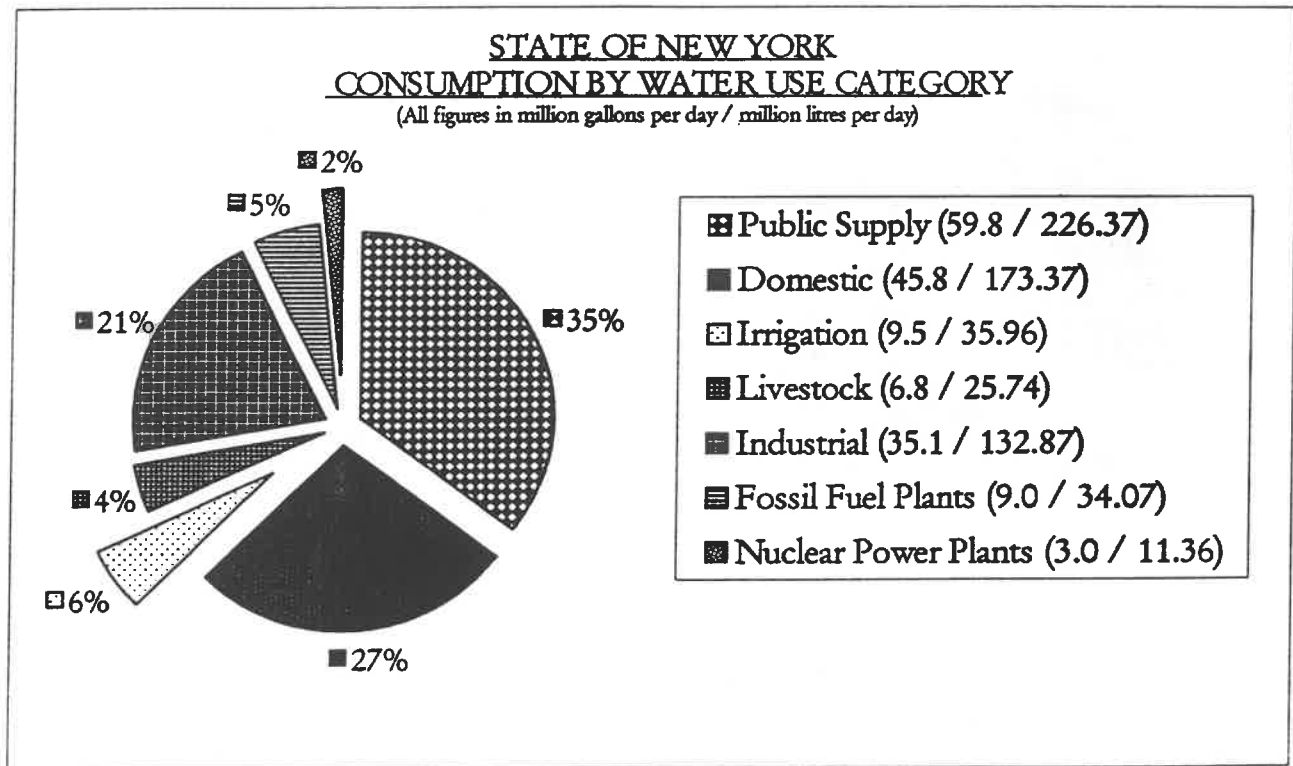
**Calculation Basis:** Minnesota water use data were 9% measured, 91% calculated or estimated. The level of aggregation was 9% site-specific, and 91% aggregated.

## New York

**Data Source:** Water use data collection in New York is performed by the Departments of Environmental Conservation and Health, and the U.S. Geological Survey.

**Withdrawals:** In 1993, New York's total withdrawals from the Great Lakes Basin were 308,270 mgd. Excluding hydroelectric withdrawals, the total was 5,343 mgd. Withdrawals from Lake Ontario accounted for more than 50 percent of total New York withdrawals (156.17 bgd); withdrawals from the St. Lawrence Basin account for most of the remainder (150.75 bgd) and only 1.34 bgd were withdrawn from Lake Erie. Withdrawals for hydroelectric power supply were by far the largest water use by New York state in all three basins, at 302,927 mgd.

**Consumptive Use:** New York's consumptive use totaled 169 mgd. Consumption was 37.72 mgd from Lake Erie, 99 mgd from Lake Ontario, and 32.28 mgd from the Saint Lawrence River. Consumption was reported in all categories except hydroelectric and other. The greatest consumption categories were public supply (59.80 mgd) and domestic use (45.80 mgd).



**Diversions:** New York reports an intrabasin diversion of 329 mgd in the Lake Ontario Basin in 1993.

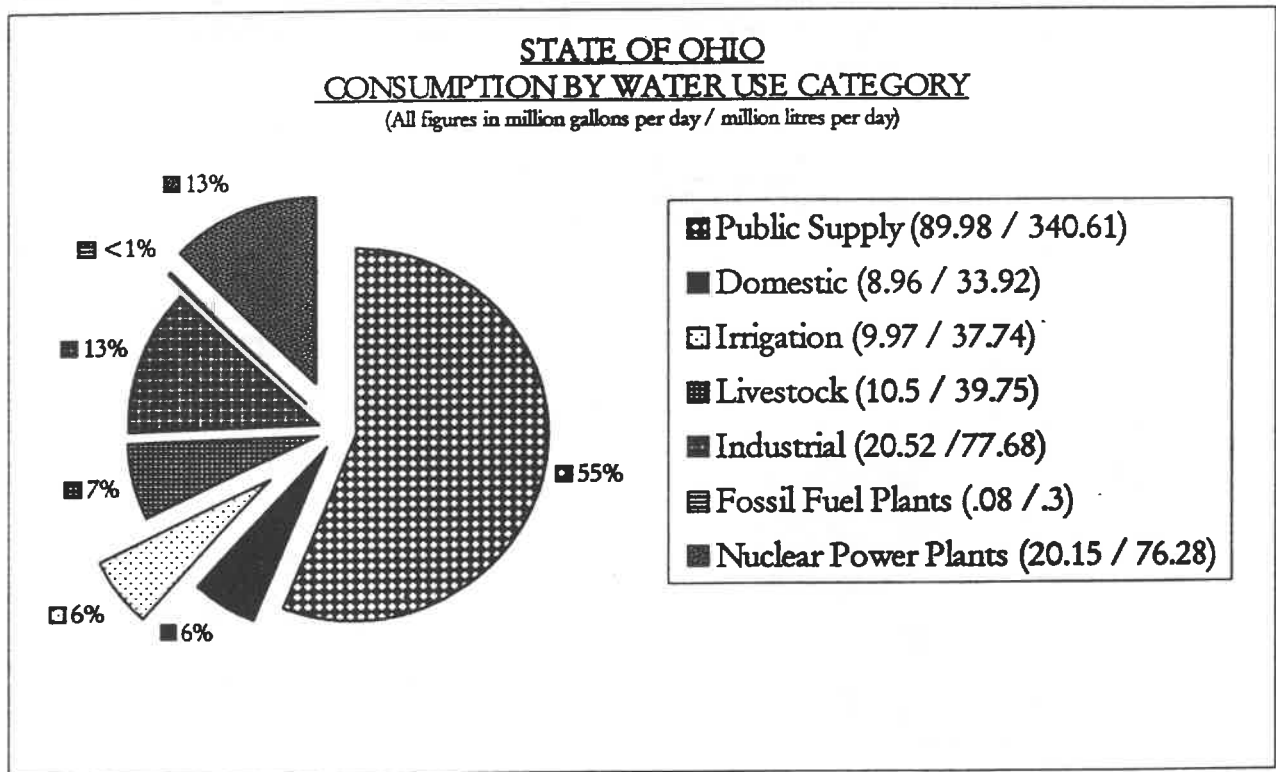
**Calculation Basis:** For New York, the data reported were 2% measured, 61% partially measured, and 37% calculated or estimated. The level of aggregation was 100% site-specific.

## Ohio

**Data Source:** Water use data for Ohio is collected by the Division of Water in the Ohio Department of Natural Resources, the Ohio Environmental Protection Agency, and the U.S. Geological Survey.

**Withdrawals:** Total withdrawals from the Ohio Lake Erie Basin for 1993 were just over 3,361 mgd. Fossil fuel plants and public supply were the two primary withdrawal sectors; thermoelectric fossil fuels accounted for 2.35 bgd or 70% of withdrawals, and public supply accounted for 599.87 or about 18%.

**Consumptive Use:** 160.16 mgd were consumed from the Ohio Lake Erie Basin. Public supply accounted for 89.98 mgd - more than 50% of total consumption. Nuclear plants and industrial facilities consumed approximately 20 mgd each.



**Diversions:** Diversions out of Lake Erie by public water suppliers totaled 0.22 mgd in 1993; diversions into the Lake Erie Basin total 12.60 mgd.

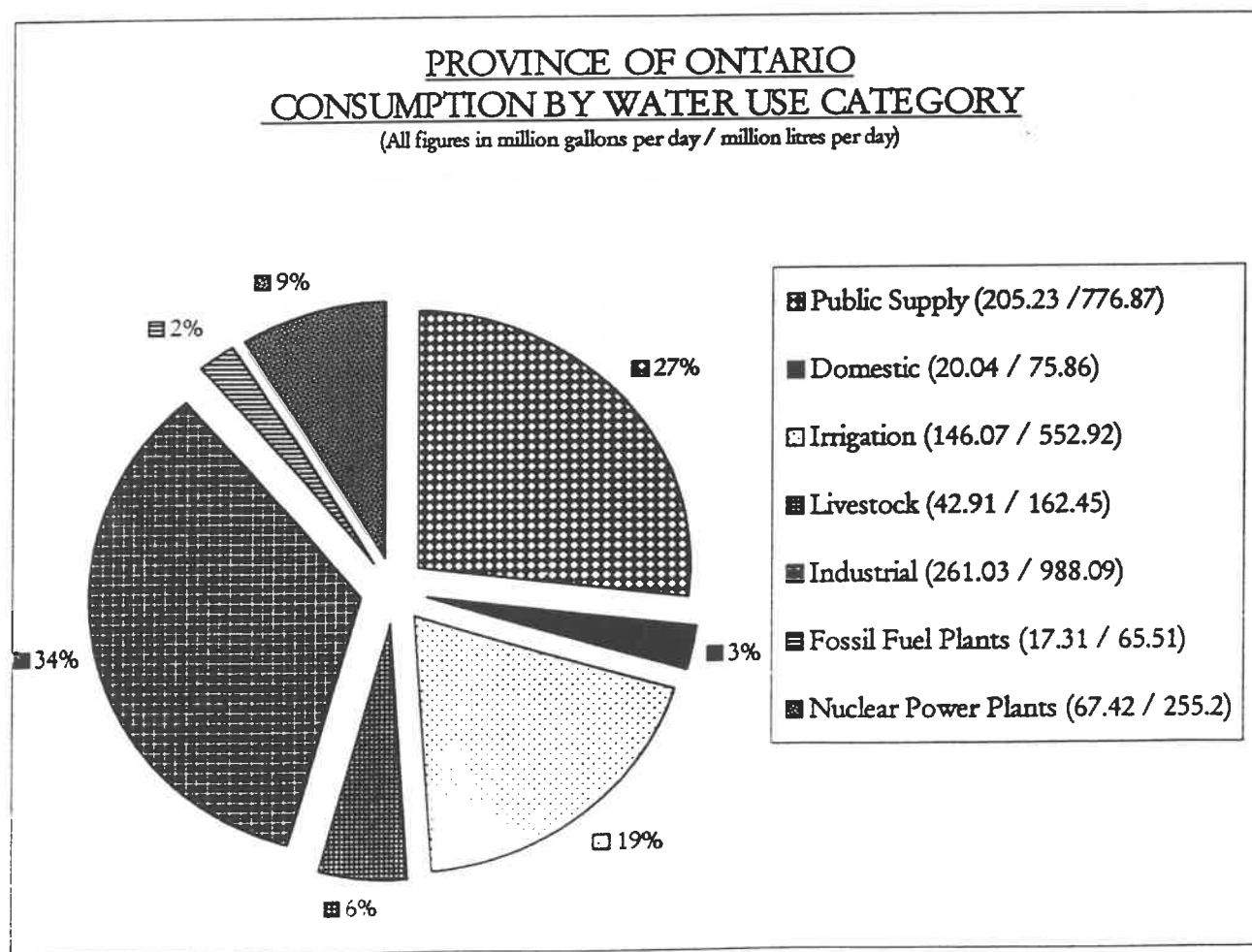
**Calculation Basis:** The 1993 water use data for Ohio were 100% partially measured, and the level of aggregation was 100% site-specific.

## Ontario

**Data Source:** For Ontario, 1992 data are utilized for this report. Water use data collection activities are undertaken by the Ontario Ministry of the Environment and Environment Canada. The 1992 water use data for the Ontario Great Lakes Basin, which includes Lakes Superior, Huron, Erie, Ontario, and the St. Lawrence River, were provided by the Land and Waters Policy Branch in the Ontario Ministry of Natural Resources.

**Withdrawals:** Total 1992 Great Lakes water withdrawals for Ontario were approximately 904,319 mld, or 238,896 mgd. Of this, hydroelectric uses represented more than 91% of the total (826,445 mld, or 218,324 mgd). Of the remainder, thermoelectric nuclear plant withdrawals accounted for 5% (50,958 mld, or 13,461 mgd).

**Consumptive Use:** Ontario reported consumption in seven categories. Out of these, industrial and hydroelectric consumption were estimated amounts. The reported industrial consumption was 988 mld (261.03 mgd). Ontario also reported a consumptive use of 2.14 mld (.57 mgd) from the hydroelectric category (not shown in figure). Ontario's reported total consumption in 1992 was 2,879 mld (760.5 mgd).



The following table shows the consumptive uses for all basins utilized by Ontario for 1992.

<i>Basin</i>	<i>Consumptive uses (mld)</i>	<i>% of total use</i>
Superior	92	3.2 %
Huron	543	19 %
Erie	807	28 %
Ontario	1,215	42 %
St. Lawrence	220	7.8 %
<b>TOTAL</b>	<b>2,879</b>	<b>100 %</b>

**Diversions:** Ontario reported incoming interbasin diversions for Lake Superior and intrabasin diversions (incoming or outgoing) for Lakes Huron, Erie, and Ontario. These values are represented in the following table; incoming diversion values are negative.

<i>Basin</i>	<i>Interbasin Diversion (mld)</i>	<i>Intrabasin Diversion (mld)</i>
Superior	-15,062	0
Huron	0	171
Erie	0	16,348
Ontario	0	-16,519
<b>TOTAL</b>	<b>-15,062</b>	<b>0</b>

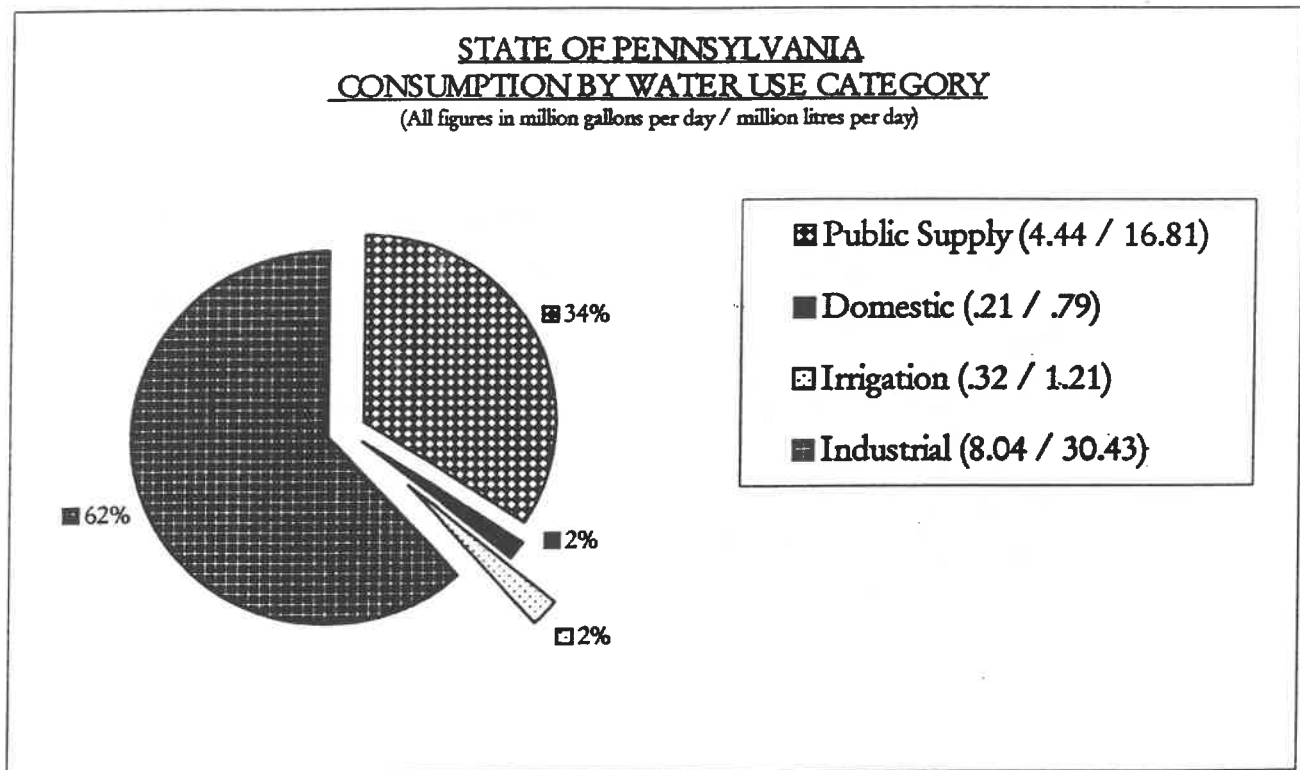
**Calculation Basis:** Ontario's withdrawal data for this report were 6.9% measured, 93% partially measured, and 0.1% estimated, while the level of aggregation was 99.9% site-specific.

## Pennsylvania

**Data Source:** Data for 1993 for the Lake Erie and Lake Ontario Basins of Pennsylvania were submitted to the Regional Water Use Data Base by the Bureau of Water Supply and Community Health in the Pennsylvania Department of Environmental Protection.

**Withdrawals:** Total withdrawals from the two basins were 86.32 mgd. Nearly 100% of withdrawals were from the Lake Erie Basin (86.13 mgd).

**Consumptive Use:** A total of 13.01 mgd were consumed. The consumption from the Lake Ontario Basin was negligible at .02 mgd, in comparison to 12.99 mgd consumption from the Lake Erie Basin.



**Diversions:** Not Applicable

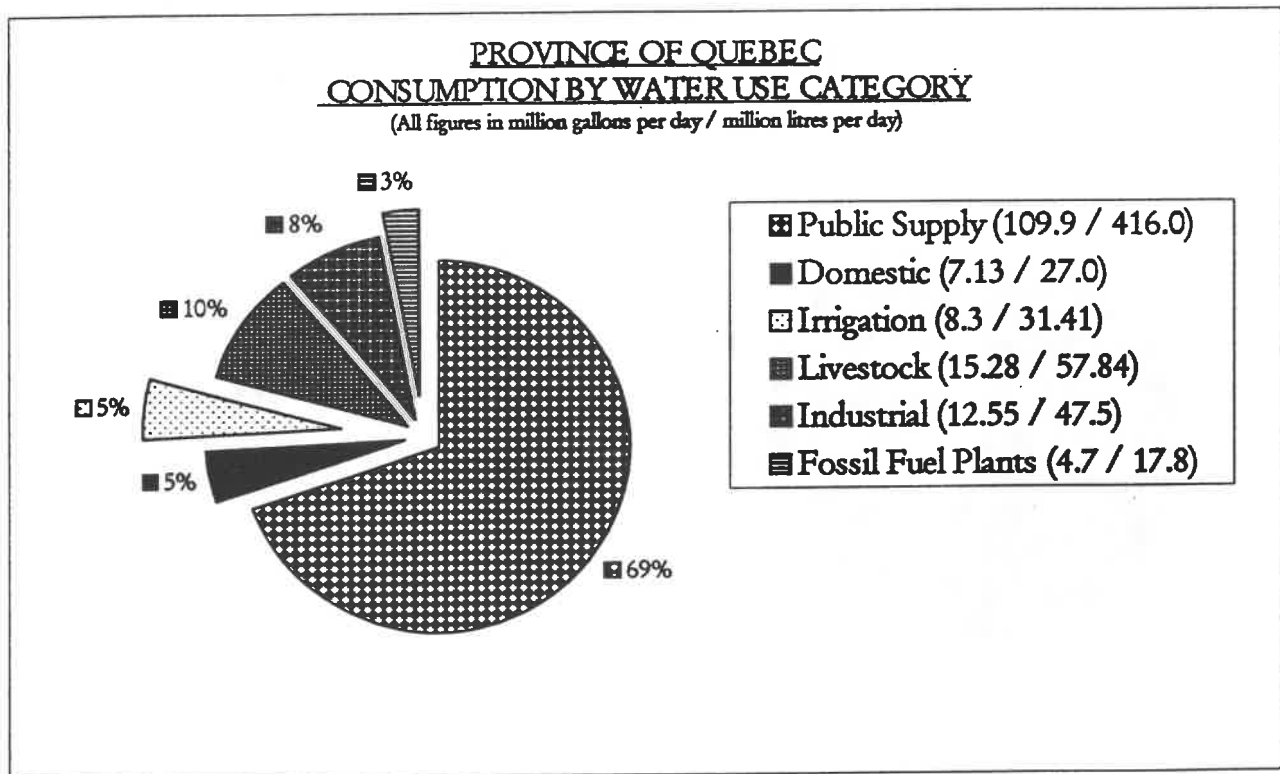
**Calculation Basis:** Pennsylvania's 1993 data were 51% measured and 49% estimated, with a 98% site-specific level of aggregation.

## Quebec

**Data Source:** Direction du milieu hydrique Ministre de l'Environnement provided 1993 water use data for Quebec.

**Withdrawals:** Withdrawals in Quebec's St. Lawrence River Basin were approximately 1,169,435 mld (308,932 mgd). Nearly 100% of the withdrawals were for hydroelectric power purposes.

**Consumptive Use:** Total consumption in 1993 was 597.55 mld (157.9 mgd). Public supply accounted for 416 mld (109.9 mgd) of 1993 consumption.



**Diversions:** Not Applicable

**Calculation Basis:** Quebec water use data for 1993 are 99.5% measured, 0.5 % partially measured. The level of aggregation was 100% site-specific.



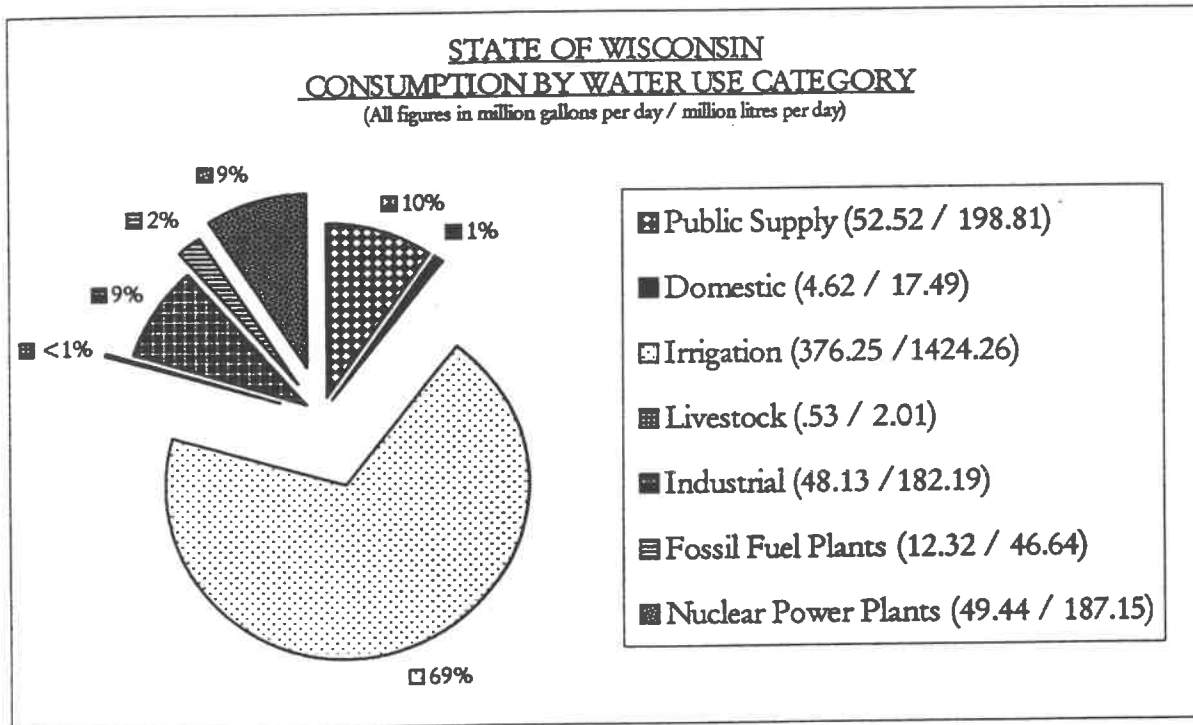


## Wisconsin

**Data Source:** 1993 water use data for the Lake Michigan and Lake Superior Basins of Wisconsin were submitted by the Bureau of Water Resources Management in the Wisconsin Department of Natural Resources.

**Withdrawals:** Lake Michigan and Lake Superior Basins combined totaled 11,896 mgd. More than 98% of the total withdrawals were from the Lake Michigan Basin. Of the Lake Superior withdrawals, 147.23 mgd or 82% were for hydroelectric uses. Water withdrawn from the Lake Michigan Basin in Wisconsin was used primarily for nuclear and hydroelectric power purposes— at 42% and 36% of total use respectively.

**Consumptive Use:** Nearly 100% of Wisconsin's 1993 consumptive uses were from the Lake Michigan Basin (542.5 mgd). Of this amount, 376.25 mgd were consumed for self-supply irrigation purposes. Consumption from industrial uses and thermoelectric nuclear withdrawals was 48.13 mgd and 49.44 mgd, respectively.



**Diversions:** 190,000 gallons per day were diverted out of the Lake Michigan Basin for public water supply purposes at Pleasant Prairie in 1993.

**Calculation Basis:** Wisconsin's 1993 water use data was 100% calculated or estimated. The level of aggregation was 100%.

*APPENDIX B*  
*IN MILLION GALLONS PER DAY*

- 1993 GREAT LAKES BASIN SUMMARY REPORT
- JURISDICTION REPORTS

Illinois  
Indiana  
Michigan  
Minnesota  
New York  
Ohio  
Ontario  
Quebec  
Pennsylvania  
Wisconsin

- BASIN SUMMARY REPORTS

Lake Superior  
Lake Michigan  
Lake Huron  
Lake Erie  
Lake Ontario  
St. Lawrence River

- WATER USE CATEGORY REPORTS

Public Supply  
Self Supply - Domestic  
Self Supply - Irrigation  
Self Supply - Livestock  
Self Supply - Industrial  
Self Supply - Thermoelectric Power, Fossil Fuel  
Self Supply - Thermoelectric Power, Nuclear  
Self Supply - Hydroelectric Power  
Other



a) Water-Use by Category - All Basins, All Jurisdictions

Water-Use Category	All Facilities				Principal Facilities			
	GLSU	OSU	GW	TOTAL	GLSU	OSU	GW	TOTAL
1	3962.69	1070.70	392.83	6650.22*	2597.01	676.37	178.12	3451.50
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	181.89	147.98	497.93	827.80	19.89	19.97	55.50	95.36
4	9.33	152.97	616.67	1013.97*	0.00	9.91	26.29	36.20
5	4.00	4.26	98.35	106.61	0.00	0.00	1.28	3.91
6	4661.55	947.51	155.94	6883.00*	1844.39	660.70	70.18	2595.27
7	15788.56	322.81	3.07	16114.44	7770.12	198.10	0.27	7968.48
8	23671.79	0.00	0.00	23671.79	8048.55	0.00	0.00	8048.55
9	641911.84	198316.75	0.00	840228.59	330363.63	137750.72	0.00	468114.35
10	1455.12	198.36	0.46	1653.94	797.46	3.49	0.16	801.11
Total	691446.78	201161.33	1763.45	893660.56*	351441.05	139341.89	331.80	491114.73

b) Water-Use by Basin - All Categories, All Jurisdictions

Basin	All Facilities				Principal Facilities			
	GLSU	OSU	GW	TOTAL	GLSU	OSU	GW	TOTAL
Lake Superior	864.41	44638.26	15.28	45517.96	213.90	4985.43	4.53	5203.66
Lake Michigan	16466.10	7188.99	787.18	24432.27	13328.82	7038.94	202.52	20570.28
Lake Huron	30358.24	13635.72	113.85	43997.82	0.00	0.00	0.00	0.00
Lake Erie	14850.58	559.86	135.98	15466.42	3973.02	357.49	76.14	4406.65
Lake Ontario	207604.33	8011.70	245.51	215661.54	58985.00	0.00	0.00	58985.00
St. Lawrence River	421603.10	127156.80	205.64	548965.55	274940.31	126960.03	48.81	401948.94
Total	691446.78	201161.33	1763.45	893371.56	351441.05	139341.89	331.80	491114.73

c) Water-Use by Jurisdiction - All Categories, All Basins

Jurisdiction	All Facilities				Principal Facilities			
	GLSU	OSU	GW	TOTAL	GLSU	OSU	GW	TOTAL
Illinois	4191.56	0.02	0.09	4191.67	4193.56	0.00	0.00	4193.56
Indiana	2740.14	2437.62	140.32	5318.08	2740.14	2436.86	105.00	5282.00
Michigan	8260.45	124.56	2.28	11166.29*	0.00	0.00	0.00	0.00
Minnesota	188.43	4836.26	3.46	5030.35	188.59	4838.20	4.49	5031.28
New York	30769.20	311.00	280.71	308270.91	153054.00	0.00	0.00	153054.00
Ohio	2897.11	321.17	143.13	3361.41	2896.83	314.51	64.94	3276.28
Ontario	171706.32	61369.06	421.15	238896.53	0.00	0.00	0.00	0.00
Pennsylvania	79.19	2.65	4.48	86.32	0.00	0.00	0.00	0.00
Peru	181868.57	126966.76	99.91	308932.74	181868.31	126960.03	1.66	308876.94
Quebec	6435.61	4794.73	663.92	11896.26	6420.43	4789.69	107.10	11317.22
Total	691446.78	201161.33	1763.45	897150.56*	351441.05	139341.89	331.80	491114.73

\*The total presented is larger than the sum of water use reported by Michigan's withdrawal and consumptive uses for this category cannot presently be reported by individual sub-basin or water withdrawal type.  
 \*\*Ontario did not report its principal facility withdrawals for 1993.



JURISDICTION REPORT - Illinois

a) Withdrawals, Diversions and Consumptive Use - All facilities

Water- Use Categ.	LAKE MICHIGAN				TOTAL				
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	1140.28	1140.28	0.00	1140.28	1140.28	0.00			
2	0.00	0.00	0.00	0.00	0.00	0.00			
3	18.05	3.68	0.00	18.05	3.68	0.00			
4	0.00	0.00	0.00	0.00	0.00	0.00			
5	0.00	0.00	0.00	0.00	0.00	0.00			
6	15.18	2.68	2.05	15.18	2.68	2.05			
7	958.90	0.00	0.00	958.90	0.00	0.00			
8	1726.11	0.00	0.00	1726.11	0.00	0.00			
9	0.00	0.00	0.00	0.00	0.00	0.00			
10	335.15	335.15	0.00	335.15	0.00	0.00			
Total	4193.67	1481.79	2.05	4193.67	1481.79	2.05			

b) Withdrawals by Source - All facilities

Water- Use Categ.	LAKE MICHIGAN					TOTAL				
	GLSM	OSW	GW	GLSM	OSW	GW	GLSM	OSW	GW	
1	1140.28	0.00	0.00	1140.28	0.00	0.00				
2	0.00	0.00	0.00	0.00	0.00	0.00				
3	17.94	0.02	0.09	17.94	0.02	0.09				
4	0.00	0.00	0.00	0.00	0.00	0.00				
5	0.00	0.00	0.00	0.00	0.00	0.00				
6	15.18	0.00	0.00	15.18	0.00	0.00				
7	958.90	0.00	0.00	958.90	0.00	0.00				
8	1726.11	0.00	0.00	1726.11	0.00	0.00				
9	0.00	0.00	0.00	0.00	0.00	0.00				
10	335.15	0.00	0.00	335.15	0.00	0.00				
Total	4193.56	0.02	0.09	4193.56	0.02	0.09				

c) Diversions by Type - All facilities

Water- Use Categ.	LAKE MICHIGAN				TOTAL			
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	1140.28	0.00	1140.28	0.00	1140.28	0.00	1140.28
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	3.68	0.00	3.68	0.00	3.68	0.00	3.68
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	2.68	0.00	2.68	0.00	2.68	0.00	2.68
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	335.15	0.00	335.15	0.00	335.15	0.00	335.15
Total	0.00	1481.79	0.00	1481.79	0.00	1481.79	0.00	1481.79

Level of Accuracy of Withdrawal Data: 100% Measured  
 Level of Aggregation of Withdrawal Data Source: 100% Site-specific

a) Withdrawals, Diversions and Consumptive Use - Principal facilities

Water- Use Categ.	LAKE MICHIGAN				TOTAL
	Withdr.	Diver.	Consum.	Withdr.	
1	1140.28	1140.28	0.00	1140.28	1140.28
2	0.00	0.00	0.00	0.00	0.00
3	17.94	3.68	0.00	17.94	3.68
4	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00
6	15.18	2.68	2.05	15.18	2.68
7	958.90	0.00	0.00	958.90	0.00
8	1726.11	0.00	0.00	1726.11	0.00
9	0.00	0.00	0.00	0.00	0.00
10	335.15	335.15	0.00	335.15	335.15
Total	4193.56	1481.79	2.05	4193.56	1481.79

b) Withdrawals by Source - Principal facilities

Water- Use Categ.	LAKE MICHIGAN				TOTAL
	GLSW	OSW	GW	GLSW	
1	1140.28	0.00	0.00	1140.28	0.00
2	0.00	0.00	0.00	0.00	0.00
3	17.94	0.00	0.00	17.94	0.00
4	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00
6	15.18	0.00	0.00	15.18	0.00
7	958.90	0.00	0.00	958.90	0.00
8	1726.11	0.00	0.00	1726.11	0.00
9	0.00	0.00	0.00	0.00	0.00
10	335.15	0.00	0.00	335.15	0.00
Total	4193.56	0.00	0.00	4193.56	0.00

c) Diversions by Type - Principal facilities

Water- Use Categ.	LAKE MICHIGAN			TOTAL
	Intrabasin	Interbasin	Interbasin	
1	0.00	1140.28	0.00	1140.28
2	0.00	0.00	0.00	0.00
3	0.00	3.68	0.00	3.68
4	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00
6	0.00	2.68	0.00	2.68
7	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00
10	0.00	335.15	0.00	335.15
Total	0.00	1481.79	0.00	1481.79

a) Withdrawals, Diversions and Consumptive Use - All facilities

UNITS: Mgal(US)/d  
YEAR OF DATA: 1993

Water-Use Categ.	LAKE MICHIGAN				LAKE ERIE				TOTAL			
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	142.52	-2.16	21.37	39.07	0.00	5.86	181.59	-2.16	27.23			
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
3	46.00	0.00	6.90	5.56	0.00	0.83	51.56	0.00	7.73			
4	19.31	0.00	17.37	1.30	0.00	1.17	20.61	0.00	18.54			
5	7.30	0.00	5.85	1.94	0.00	1.55	9.24	0.00	7.40			
6	1649.85	0.00	98.99	10.36	0.00	0.53	1660.21	0.00	99.62			
7	1032.32	0.00	20.65	0.27	0.00	0.01	1032.59	0.00	20.66			
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
9	2362.07	0.00	0.00	0.00	0.00	0.00	2362.07	0.00	0.00			
10	0.21	0.00	0.03	0.00	0.00	0.00	0.21	0.00	0.03			
Total	5259.58	-2.16	171.16	58.50	0.00	10.05	5318.08	-2.16	181.21			

b) Withdrawals by Source - All facilities

Water-Use Categ.	LAKE MICHIGAN				LAKE ERIE				TOTAL			
	GLSM	OSM	GM	GLSM	OSM	GM	GLSM	OSM	GM	GLSM	OSM	GM
1	89.63	0.00	52.89	0.00	31.97	7.10	89.63	31.97	59.99			
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
3	0.00	19.81	26.19	0.00	0.03	5.53	0.00	19.84	31.72			
4	0.00	5.07	14.24	0.00	0.31	0.99	0.00	5.38	15.23			
5	0.00	1.93	5.37	0.00	0.00	1.94	0.00	1.93	7.31			
6	1618.19	8.09	23.57	0.00	8.28	2.08	1618.19	16.37	25.65			
7	1032.32	0.00	0.00	0.00	0.27	0.27	1032.32	0.00	0.27			
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
9	0.00	2362.07	0.00	0.00	0.00	0.00	0.00	2362.07	0.00			
10	0.00	0.06	0.15	0.00	0.00	0.00	0.00	0.06	0.15			
Total	2740.14	2397.03	122.41	0.00	40.59	17.91	2740.14	2437.62	140.32			

c) Diversions by Type - All facilities

Water-Use Categ.	LAKE MICHIGAN		LAKE ERIE		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	-2.16	0.00	0.00	0.00	-2.16
2	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	-2.16	0.00	0.00	0.00	-2.16

Level of Accuracy of Withdrawal Data: 3% Measured  
 Level of Aggregation of Withdrawal Data Source: 99% Site-specific 51% Partially Measured 46% Calculated or Estimated



a) Withdrawals, Diversions and Consumptive Use - Principal facilities

UNITS: Mgal(US)/d  
YEAR OF DATA: 1993

Water- Use Categ.	LAKE MICHIGAN			LAKE ERIE			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	141.94	0.00	21.29	38.63	0.00	5.79	180.57	0.00	27.08
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	26.69	0.00	4.00	0.03	0.00	0.00	26.72	0.00	4.00
4	18.04	0.00	16.23	1.02	0.00	0.91	19.06	0.00	17.14
5	3.05	0.00	2.45	0.00	0.00	0.00	3.05	0.00	2.45
6	1647.88	0.00	98.87	9.97	0.00	0.59	1657.85	0.00	99.46
7	1032.32	0.00	20.65	0.27	0.00	0.01	1032.59	0.00	20.66
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	2362.07	0.00	0.00	0.00	0.00	0.00	2362.07	0.00	0.00
10	0.09	0.00	0.02	0.00	0.00	0.00	0.09	0.00	0.02
Total	5232.08	0.00	163.51	49.92	0.00	7.30	5282.00	0.00	170.81

b) Withdrawals by Source - Principal facilities

Water- Use Categ.	LAKE MICHIGAN			LAKE ERIE			TOTAL		
	GLSW	OSW	GM	GLSW	OSW	GM	GLSW	OSW	GM
1	89.63	0.00	52.31	0.00	31.96	6.67	89.63	31.96	58.98
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	19.80	6.89	0.00	0.03	0.00	0.00	19.83	6.89
4	0.00	4.55	13.49	0.00	0.15	0.87	0.00	4.70	14.36
5	0.00	1.93	1.12	0.00	0.00	0.00	0.00	1.93	1.12
6	1618.19	8.08	21.61	0.00	8.24	1.73	1618.19	16.32	23.34
7	1032.32	0.00	0.00	0.00	0.00	0.27	1032.32	0.00	0.27
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	2362.07	0.00	0.00	0.00	0.00	0.00	2362.07	0.00
10	0.00	0.05	0.04	0.00	0.00	0.00	0.00	0.05	0.04
Total	2740.14	2396.48	95.46	0.00	40.38	9.54	2740.14	2436.86	105.00

c) Diversions by Type - Principal facilities

Water- Use Categ.	LAKE MICHIGAN			LAKE ERIE			TOTAL		
	Intrabasin	Interbasin		Intrabasin	Interbasin		Intrabasin	Interbasin	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

DATE: 09/27/96

UNITS: Mgal(US)/d  
YEAR OF DATA: 1993

e) Withdrawals, Diversions and Consumptive Use - All facilities

Water- Use Categ.	LAKE SUPERIOR			LAKE MICHIGAN			LAKE HURON			LAKE ERIE			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	NR	123.00*
3	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	NR	NR
4	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	NR	NR
5	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	NR	225.00*
6	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	NR	NR
7	260.77	0.00	3.39	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	NR	132.00*
8	0.00	0.00	0.00	1091.72	0.00	14.20	4221.04	0.00	54.87	NR	0.00	6226.00	NR	NR	80.94
9	NR	0.00	NR	2161.29	0.00	28.10	0.00	0.00	0.00	NR	0.00	2161.29	NR	NR	28.10
10	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	NR	NR
Total	260.77	0.00	3.39	3253.01	0.00	42.30	652.47	0.00	8.480	4221.04	0.00	54.87	11166.29*	0.00	589.04*

b) Withdrawals by Source - All facilities

Water- Use Categ.	LAKE SUPERIOR			LAKE MICHIGAN			LAKE HURON			LAKE ERIE			TOTAL		
	GLSU	OSW	GW	GLSU	OSW	GW	GLSU	OSW	GW	GLSU	OSW	GW	GLSU	OSW	GW
1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
7	260.77	0.00	0.00	965.00	124.44	2.28	652.44	0.03	0.00	4220.95	0.09	0.00	6099.16	124.56	2.28
8	0.00	0.00	0.00	2161.29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2161.29	0.00	0.00
9	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
10	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Total	260.77	0.00	0.00	3126.29	124.44	2.28	652.44	0.03	0.00	4220.95	0.09	0.00	8260.45	124.56	2.28

c) Diversions by Type - All facilities

Water- Use Categ.	LAKE SUPERIOR		LAKE MICHIGAN		LAKE HURON		LAKE ERIE		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	NR	0.00	NR	0.00	NR	0.00	NR	0.00	NR	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

\*This total figure cannot presently be reported by individual sub-basin or withdrawal type.  
NR=not reported

Level of Accuracy of Withdrawal Data: 11% Measured  
Level of Aggregation of Withdrawal Data Source: 98% Site-specific  
87% Partially Measured  
2% Aggregated  
2% Calculated or Estimated

a) Withdrawals, Diversions and Consumptive Use - Principal facilities

Water-Use Categ.	LAKE SUPERIOR			LAKE MICHIGAN			LAKE HURON			LAKE ERIE			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR
3	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR
4	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR
5	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR
6	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR
10	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

b) Withdrawals by Source - Principal facilities

Water-Use Categ.	LAKE SUPERIOR			LAKE MICHIGAN			LAKE HURON			LAKE ERIE			TOTAL		
	GLSW	OSW	GM	GLSW	OSW	GM	GLSW	OSW	GM	GLSW	OSW	GM	GLSW	OSW	GM
1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
10	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

c) Diversions by Type - Principal facilities

Water-Use Categ.	LAKE SUPERIOR			LAKE MICHIGAN			LAKE HURON			LAKE ERIE			TOTAL		
	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin
1	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

NR=not reported

a) Withdrawals, Diversions and Consumptive Use - All facilities

DATE: 01/22/97  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1993

Water-Use Categ.	LAKE SUPERIOR				TOTAL				
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	43.16	0.00	9.89	43.16	0.00	9.06			
2	0.00	0.00	0.00	0.00	0.00	0.00			
3	2.13	0.00	0.17	2.13	0.00	0.17			
4	0.23	0.00	0.21	0.23	0.00	0.21			
5	0.24	0.00	0.00	0.24	0.00	0.00			
6	238.09	0.00	50.00	238.09	0.00	50.00			
7	146.40	0.00	2.93	146.40	0.00	2.93			
8	0.00	0.00	0.00	0.00	0.00	0.00			
9	4598.00	0.00	0.00	4598.00	0.00	0.00			
10	0.15	0.00	0.00	0.15	0.00	0.00			
Total	5028.40	0.00	62.37	5028.40	0.00	62.37			

b) Withdrawals by Source - All facilities

Water-Use Categ.	LAKE SUPERIOR				TOTAL				
	GLSW	OSW	GM	GLSW	OSW	GM	GLSW	OSW	GM
1	33.39	4.80	4.97	33.39	4.80	4.97			
2	0.00	0.00	0.00	0.00	0.00	0.00			
3	1.95	0.17	0.01	1.95	0.17	0.01			
4	0.01	0.21	0.01	0.01	0.21	0.01			
5	0.00	0.03	0.21	0.00	0.03	0.21			
6	152.54	85.46	0.09	152.54	85.46	0.09			
7	0.74	145.64	0.02	0.74	145.64	0.02			
8	0.00	0.00	0.00	0.00	0.00	0.00			
9	0.00	4598.00	0.00	0.00	4598.00	0.00			
10	0.00	0.00	0.15	0.00	0.00	0.15			
Total	188.63	4836.31	5.46	188.63	4836.31	5.46			

c) Diversions by Type - All facilities

Water-Use Categ.	LAKE SUPERIOR				TOTAL			
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 9% Measured  
 Level of Aggregation of Withdrawal Data Source: 9% Site-specific  
 91% Calculated or Estimated  
 91% Aggregated

JURISDICTION REPORT - Minnesota

DATE: 01/22/97

a) Withdrawals, Diversions and Consumptive Use - Principal facilities

UNITS: Mgal(US)/d  
YEAR OF DATA: 1993

Water- Use Categ.	LAKE SUPERIOR			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	42.62	0.00	8.95	42.62	0.00	8.95
2	0.00	0.00	0.00	0.00	0.00	0.00
3	2.09	0.00	0.17	2.09	0.00	0.17
4	0.19	0.00	0.17	0.19	0.00	0.17
5	0.00	0.00	0.00	0.00	0.00	0.00
6	237.68	0.00	49.91	237.68	0.00	49.91
7	146.23	0.00	2.93	146.23	0.00	2.93
8	0.00	0.00	0.00	0.00	0.00	0.00
9	4598.00	0.00	0.00	4598.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
Total	5026.81	0.00	62.13	5026.81	0.00	62.13

b) Withdrawals by Source - Principal facilities

Water- Use Categ.	LAKE SUPERIOR				TOTAL				
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	33.36	4.76	4.49	33.36	4.76	4.49	33.36	4.76	4.49
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	1.95	0.14	0.00	1.95	0.14	0.00	1.95	0.14	0.00
4	0.00	0.19	0.00	0.00	0.19	0.00	0.00	0.19	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	152.54	85.14	0.00	152.54	85.14	0.00	152.54	85.14	0.00
7	0.74	145.49	0.00	0.74	145.49	0.00	0.74	145.49	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	4598.00	0.00	0.00	4598.00	0.00	0.00	4598.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	188.59	4833.72	4.49	188.59	4833.72	4.49	188.59	4833.72	4.49

c) Diversions by Type - Principal facilities

Water- Use Categ.	LAKE SUPERIOR		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 9% Measured  
Level of Aggregation of Withdrawal Data Source: 9% Site-specific

91% Calculated or Estimated  
91% Aggregated

DATE: 09/19/96

a) Withdrawals, Diversions and Consumptive Use - All facilities

UNITS: Mgal(US)/d  
YEAR OF DATA: 1993

Water-Use Categ.	LAKE ERIE			LAKE ONTARIO			ST. LAWRENCE RIVER			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	206.00	0.00	20.60	266.00	0.00	26.60	126.00	0.00	12.60	598.00	0.00	59.80
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	78.00	0.00	7.80	290.00	0.00	29.00	88.00	0.00	9.00	456.00	0.00	45.80
4	1.60	0.00	1.42	8.00	0.00	7.10	1.11	0.00	0.98	10.71	0.00	9.50
5	1.40	0.00	1.10	6.40	0.00	3.30	3.00	0.00	2.40	10.80	0.00	6.80
6	58.40	0.00	5.80	220.00	0.00	22.00	73.00	0.00	7.30	351.40	0.00	35.10
7	437.00	0.00	1.00	1759.00	0.00	8.00	0.00	0.00	0.00	2195.00	0.00	9.00
8	0.00	0.00	0.00	1260.00	0.00	3.00	0.00	0.00	0.00	1260.00	0.00	3.00
9	560.00	0.00	0.00	152036.00	0.00	0.00	150331.00	0.00	0.00	302927.00	0.00	0.00
10	0.00	0.00	0.00	329.00	0.00	0.00	132.00	0.00	0.00	461.00	0.00	0.00
Total	1342.40	0.00	37.72	156174.40	329.00	99.00	150754.11	0.00	32.28	308270.91	329.00	169.00

b) Withdrawals by Source - All facilities

Water-Use Categ.	LAKE ERIE			LAKE ONTARIO			ST. LAWRENCE RIVER			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	160.00	46.00	0.00	96.00	139.00	31.00	101.00	0.00	25.00	357.00	0.00	185.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	10.00	10.00	58.00	101.00	96.00	93.00	51.00	20.00	17.00	162.00	0.00	168.00
4	1.20	0.00	0.40	7.00	0.00	1.00	1.00	0.00	0.11	9.20	0.00	1.51
5	0.50	0.00	0.90	2.50	0.00	3.90	1.00	0.00	2.00	4.00	0.00	6.80
6	55.00	0.00	3.40	180.00	0.00	40.00	68.00	0.00	5.00	303.00	0.00	48.40
7	437.00	0.00	0.00	1759.00	0.00	0.00	0.00	0.00	0.00	2196.00	0.00	0.00
8	0.00	0.00	0.00	1260.00	0.00	0.00	0.00	0.00	0.00	1260.00	0.00	0.00
9	560.00	0.00	0.00	152036.00	0.00	0.00	150331.00	0.00	0.00	302927.00	0.00	0.00
10	0.00	0.00	0.00	329.00	0.00	0.00	132.00	0.00	0.00	461.00	0.00	0.00
Total	1223.70	56.00	62.70	155770.50	235.00	168.90	150685.00	20.00	49.11	307679.20	311.00	280.71

c) Diversions by Type - All facilities

Water-Use Categ.	LAKE ERIE		LAKE ONTARIO		ST. LAWRENCE RIVER		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 2% Measured 61% Partially Measured 37% Calculated or Estimated  
 Level of Accuracy of Withdrawal Data Source: 100% Site-specific

a) Withdrawals, Diversions and Consumptive Use - Principal facilities

UNITS: Mgal(US)/d  
YEAR OF DATA: 1993

Water Use Categ.	LAKE ERIE			LAKE ONTARIO			ST. LAURENCE RIVER			TOTAL		
	Withdr.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7	437.00	0.00	1759.00	0.00	0.00	0.00	0.00	0.00	2196.00	0.00	0.00	
8	0.00	0.00	1260.00	0.00	0.00	0.00	0.00	0.00	1260.00	0.00	0.00	
9	560.00	0.00	55637.00	0.00	0.00	92940.00	0.00	0.00	149137.00	0.00	0.00	
10	0.00	0.00	329.00	0.00	0.00	132.00	132.00	0.00	461.00	132.00	0.00	
Total	997.00	0.00	58985.00	0.00	0.00	95072.00	132.00	0.00	153054.00	132.00	0.00	

b) Withdrawals by Source - Principal facilities

Water Use Categ.	LAKE ERIE			LAKE ONTARIO			ST. LAURENCE RIVER			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	437.00	0.00	0.00	1759.00	0.00	0.00	0.00	0.00	0.00	2196.00	0.00	0.00
8	0.00	0.00	0.00	1260.00	0.00	0.00	0.00	0.00	0.00	1260.00	0.00	0.00
9	560.00	0.00	0.00	55637.00	0.00	0.00	92940.00	0.00	0.00	149137.00	0.00	0.00
10	0.00	0.00	0.00	329.00	0.00	0.00	132.00	132.00	0.00	461.00	0.00	0.00
Total	997.00	0.00	0.00	58985.00	0.00	0.00	95072.00	264.00	0.00	153054.00	264.00	0.00

c) Diversions by Type - Principal facilities

Water Use Categ.	LAKE ERIE			LAKE ONTARIO			ST. LAURENCE RIVER			TOTAL		
	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	132.00	132.00	0.00	132.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	132.00	132.00	0.00	132.00	0.00	0.00

JURISDICTION REPORT - Ohio

a) Withdrawals, Diversions and Consumptive Use - All facilities

Water- Use Categ.	LAKE ERIE				TOTAL				
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	599.87	0.22	89.98	599.87	0.22	89.98			
2	0.00	0.00	0.00	0.00	0.00	0.00			
3	59.70	0.00	8.96	59.70	0.00	8.96			
4	11.09	0.00	9.97	11.09	0.00	9.97			
5	13.13	0.00	10.50	13.13	0.00	10.50			
6	205.26	0.00	20.52	205.26	0.00	20.52			
7	2348.65	0.00	0.08	2348.65	0.00	0.08			
8	118.51	0.00	20.15	118.51	0.00	20.15			
9	0.00	0.00	0.00	0.00	0.00	0.00			
10	5.20	-12.60	0.00	5.20	-12.60	0.00			
Total	3361.41	-12.38	160.16	3361.41	-12.38	160.16			

b) Withdrawals by Source - All facilities

Water- Use Categ.	LAKE ERIE				TOTAL				
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	449.37	115.61	34.89	449.37	115.61	34.89			
2	0.00	0.00	0.00	0.00	0.00	0.00			
3	0.00	0.00	59.70	0.00	0.00	59.70			
4	0.12	8.86	2.11	0.12	8.86	2.11			
5	0.00	2.30	10.83	0.00	2.30	10.83			
6	18.31	151.51	35.44	18.31	151.51	35.44			
7	2309.49	39.16	0.00	2309.49	39.16	0.00			
8	118.51	0.00	0.00	118.51	0.00	0.00			
9	0.00	0.00	0.00	0.00	0.00	0.00			
10	1.31	3.73	0.16	1.31	3.73	0.16			
Total	2897.11	321.17	143.13	2897.11	321.17	143.13			

c) Diversions by Type - All facilities

Water- Use Categ.	LAKE ERIE				TOTAL			
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.22	0.00	0.22	0.00	0.22	0.00	0.22
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	-12.60	0.00	-12.60	0.00	-12.60	0.00	0.00
Total	0.00	-12.38	0.00	-12.38	0.00	-12.38	0.00	-12.38

Level of Accuracy of Withdrawal Data: 100% Partially Measured  
 Level of Aggregation of Withdrawal Data Source: 100% Site-specific

DATE: 09/19/96  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1993



a) Withdrawals, Diversions and Consumptive Use - Principal facilities

Water- Use Categ.	LAKE ERIE				TOTAL
	Withdr.	Diver.	Consum.	Withdr.	
1	594.11	0.22	89.12	594.11	89.12
2	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00
4	5.60	0.00	5.05	5.60	5.05
5	0.86	0.00	0.69	0.86	0.69
6	203.68	0.00	20.37	203.68	20.37
7	2348.65	0.00	0.08	2348.65	0.08
8	118.51	0.00	20.15	118.51	20.15
9	0.00	0.00	0.00	0.00	0.00
10	4.87	-12.60	0.00	4.87	-12.60
Total	3276.28	-12.38	135.46	3276.28	-12.38

b) Withdrawals by Source - Principal facilities

Water- Use Categ.	LAKE ERIE				TOTAL
	GLSW	OSW	GM	GLSM	
1	449.24	115.25	29.62	449.24	115.25
2	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00
4	0.00	4.75	0.85	0.00	4.75
5	0.00	0.70	0.16	0.00	0.70
6	18.28	151.21	34.19	18.28	151.21
7	2309.49	39.16	0.00	2309.49	39.16
8	118.51	0.00	0.00	118.51	0.00
9	0.00	0.00	0.00	0.00	0.00
10	1.31	3.44	0.12	1.31	3.44
Total	2896.83	314.51	64.94	2896.83	314.51

c) Diversions by Type - Principal facilities

Water- Use Categ.	LAKE ERIE			TOTAL
	Intrabasin	Interbasin	Interbasin	
1	0.00	0.22	0.00	0.22
2	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00
10	0.00	-12.60	0.00	-12.60
Total	0.00	-12.38	0.00	-12.38

a) Withdrawals, Diversions and Consumptive Use - All facilities

Water- Use Categ.	LAKE SUPERIOR			LAKE HURON			LAKE ERIE			LAKE ONTARIO			ST. LAURENCE RIVER			TOTAL															
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.														
1	21.06	0.00	0.00	3.16	0.00	0.00	22.63	0.00	0.00	205.20	0.00	0.00	45.28	0.00	0.00	30.74	0.00	0.00	833.85	0.00	0.00	125.08	157.53	0.00	0.00	23.63	1368.49	0.00	0.00	205.23	
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	1.72	0.00	0.00	0.26	0.00	0.00	4.59	0.00	0.00	30.42	0.00	0.00	0.00	0.00	0.00	0.00	4.56	0.00	0.00	36.12	0.00	0.00	5.42	34.77	0.00	0.00	5.21	133.60	0.00	0.00	20.04
4	0.20	0.00	0.00	0.15	0.00	0.00	26.98	0.00	0.00	17.36	0.00	0.00	0.00	0.00	0.00	0.00	98.37	0.00	0.00	28.53	0.00	0.00	22.25	5.44	0.00	0.00	4.24	187.26	0.00	0.00	146.07
5	0.33	0.00	0.00	0.27	0.00	0.00	13.68	0.00	0.00	17.36	0.00	0.00	0.00	0.00	0.00	0.00	13.89	0.00	0.00	8.99	0.00	0.00	7.19	167.91	0.00	0.00	7.89	53.64	0.00	0.00	42.91
6	185.16	0.00	0.00	18.52	0.00	0.00	81.55	0.00	0.00	524.37	0.00	0.00	0.00	0.00	0.00	0.00	52.46	0.00	0.00	917.10	0.00	0.00	91.71	167.91	0.00	0.00	16.79	2610.26	0.00	0.00	261.03
7	199.03	0.00	0.00	1.95	0.00	0.00	0.00	0.00	0.00	1469.23	0.00	0.00	0.00	0.00	0.00	0.00	7590.92	0.00	0.00	236.60	0.00	0.00	2.13	0.00	0.00	0.00	1904.86	0.00	0.00	17.31	
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3706.38	0.00	0.00	0.00	0.00	0.00	0.00	3706.38	0.00	0.00	49806.39	0.00	0.00	67.42	0.00	0.00	0.00	13461.95	0.00	0.00	67.42	
9	39641.11	-3979.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3706.38	0.00	0.00	0.00	0.00	0.00	0.00	3706.38	0.00	0.00	7590.92	0.00	0.00	2.13	0.00	0.00	0.00	218324.26	0.00	0.00	67.42	
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	657.66	0.00	0.00	0.00	0.00	0.00	0.00	657.66	0.00	0.00	128.45	-657.66	0.00	0.00	0.00	0.00	0.00	852.23	0.00	0.00	0.00	
Total	40048.59	-3979.03	0.00	24.30	43345.35	45.28	143.49	6736.95	4318.77	213.24	59486.95	-4364.05	321.20	89278.70	0.00	58.33	238896.53	-3979.03	760.56												

b) Withdrawals by Source - All facilities

Water- Use Categ.	LAKE SUPERIOR			LAKE HURON			LAKE ERIE			LAKE ONTARIO			ST. LAURENCE RIVER			TOTAL		
	GLSU	OSU	GW	GLSU	OSU	GW	GLSU	OSU	GW	GLSU	OSU	GW	GLSU	OSU	GW	OSU	GW	
1	16.46	2.62	1.94	65.68	38.68	46.51	108.64	19.18	77.38	776.04	37.53	20.28	40.67	111.67	5.19	1007.50	209.68	151.30
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	1.72	0.00	0.00	30.57	0.00	0.00	30.42	0.00	0.00	0.00	0.00	0.00	34.77	0.00	0.00	133.60
4	0.00	0.14	0.06	0.00	20.47	6.52	0.00	0.00	92.69	0.00	0.00	0.00	0.00	0.00	1.47	0.00	0.00	49.05
5	0.00	0.00	0.33	0.00	0.00	17.10	0.00	0.00	17.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	53.64
6	172.00	0.00	0.25	722.78	79.80	13.16	487.72	27.29	9.56	801.05	0.00	8.99	0.00	0.00	0.00	0.00	0.00	260.55
7	199.03	0.00	0.00	5971.02	0.00	13.16	1469.23	0.00	0.00	236.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31.58
8	0.00	39641.11	0.00	22846.33	13447.75	0.00	3706.38	0.00	0.00	7590.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	42329.22	7477.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	128.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	387.51	39654.77	6.30	29605.80	13625.69	113.85	6429.63	139.36	167.95	51633.83	7776.70	76.42	89049.53	172.55	56.62	177106.32	61369.06	421.15

c) Diversions by Type - All facilities

Water- Use Categ.	LAKE SUPERIOR		LAKE HURON		LAKE ERIE		LAKE ONTARIO		ST. LAURENCE RIVER		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.00	-45.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	-3979.03	0.00	0.00	4318.77	0.00	-4364.05	0.00	0.00	0.00	0.00	-3979.03

Level of Accuracy of Withdrawal Data: 100% Partially Measured  
 Level of Accuracy of Withdrawal Data Sources: 100% Site-specific  
 \* Ontario did not report its Principal Facility withdrawals for 1993.

a) Withdrawals, Diversions and Consumptive Use - Principal facilities

Water Use Categ.	LAKE SUPERIOR			LAKE HURON			LAKE ERIE			LAKE ONTARIO			ST. LAURENCE RIVER			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

b) Withdrawals by Source - Principal facilities

Water Use Categ.	LAKE SUPERIOR			LAKE HURON			LAKE ERIE			LAKE ONTARIO			ST. LAURENCE RIVER			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

c) Diversions by Type - Principal facilities

Water Use Categ.	LAKE SUPERIOR			LAKE HURON			LAKE ERIE			LAKE ONTARIO			ST. LAURENCE RIVER			TOTAL		
	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 100% Partially Measured  
Level of Accuracy of Withdrawal Data Source: 100% Site-specific

JURISDICTION REPORT - Pennsylvania

DATE: 11/14/96

a) Withdrawals, Diversions and Consumptive Use - All facilities

UNITS: Mgal(US)/d  
YEAR OF DATA: 1993

Water- Use Categ.	LAKE ERIE			LAKE ONTARIO			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	44.21	0.00	4.43	0.12	0.00	0.01	44.33	0.00	4.44
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	1.97	0.00	0.20	0.07	0.00	0.01	2.04	0.00	0.21
4	0.35	0.00	0.32	0.00	0.00	0.00	0.35	0.00	0.32
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	39.60	0.00	8.04	0.00	0.00	0.00	39.60	0.00	8.04
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	86.13	0.00	12.99	0.19	0.00	0.02	86.32	0.00	13.01

b) Withdrawals by Source - All facilities

Water- Use Categ.	LAKE ERIE			LAKE ONTARIO			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	40.60	1.55	2.06	0.00	0.00	0.12	40.60	1.55	2.18
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	1.97	0.00	0.00	0.07	0.00	0.00	2.04
4	0.00	0.29	0.06	0.00	0.00	0.00	0.00	0.29	0.06
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	38.59	0.81	0.20	0.00	0.00	0.00	38.59	0.81	0.20
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	79.19	2.65	4.29	0.00	0.00	0.19	79.19	2.65	4.48

c) Diversions by Type - All facilities

Water- Use Categ.	LAKE ERIE		LAKE ONTARIO		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 51% Measured  
Level of Aggregation of Withdrawal Data Source: 98% Site-specific  
49% Calculated or Estimated  
2% Aggregated

a) Withdrawals, Diversions and Consumptive Use - Principal facilities

Water- Use Categ.	LAKE ERIE			LAKE ONTARIO			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	43.68	0.00	4.37	0.00	0.00	0.00	43.68	0.00	4.37
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.33	0.00	0.30	0.00	0.00	0.00	0.33	0.00	0.30
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	39.44	0.00	8.00	0.00	0.00	0.00	39.44	0.00	8.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	83.45	0.00	12.67	0.00	0.00	0.00	83.45	0.00	12.67

b) Withdrawals by Source - Principal facilities

Water- Use Categ.	LAKE ERIE			LAKE ONTARIO			TOTAL		
	GLSW	OSW	GH	GLSW	OSW	GH	GLSW	OSW	GH
1	40.60	1.55	1.53	0.00	0.00	0.00	40.60	1.55	1.53
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.27	0.06	0.00	0.00	0.00	0.00	0.27	0.06
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	38.59	0.78	0.07	0.00	0.00	0.00	38.59	0.78	0.07
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	79.19	2.60	1.66	0.00	0.00	0.00	79.19	2.60	1.66

c) Diversions by Type - Principal facilities

Water- Use Categ.	LAKE ERIE			LAKE ONTARIO			TOTAL		
	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

JURISDICTION REPORT - Quebec

a) Withdrawals, Diversions and Consumptive Use - All facilities

Water-Use Categ.	ST. LAWRENCE RIVER				TOTAL
	Withdr.	Diver.	Consum.	Withdr.	
1	1100.01	0.00	109.90	1100.01	0.00
2	0.00	0.00	0.00	0.00	109.90
3	71.59	0.00	7.13	71.59	0.00
4	9.22	0.00	8.30	9.22	0.00
5	19.10	0.00	15.28	19.10	0.00
6	125.48	0.00	12.55	125.48	0.00
7	47.02	0.00	4.70	47.02	0.00
8	0.00	0.00	0.00	0.00	4.70
9	307560.31	0.00	0.00	307560.31	0.00
10	0.00	0.00	0.00	0.00	0.00
Total	308932.74	0.00	157.86	308932.74	0.00

b) Withdrawals by Source - All facilities

Water-Use Categ.	ST. LAWRENCE RIVER				TOTAL
	GLSM	OSM	GM	GLSM	
1	602.84	497.17	0.00	602.84	497.17
2	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	71.59	0.00	71.59
4	0.00	0.00	9.22	0.00	9.22
5	0.00	0.00	19.10	0.00	19.10
6	0.00	125.48	0.00	0.00	125.48
7	39.10	7.93	0.00	39.10	7.93
8	0.00	0.00	0.00	0.00	0.00
9	181226.63	126333.68	0.00	181226.63	126333.68
10	0.00	0.00	0.00	0.00	0.00
Total	181868.57	126964.26	99.91	181868.57	126964.26

c) Diversions by Type - All facilities

Water-Use Categ.	ST. LAWRENCE RIVER		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 99.5% Measured  
 Level of Aggregation of Withdrawal Data Source: 100% Site-specific

.4% Partially Measured

.1% Calculated or Estimated

DATE: 10/09/96  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1993

a) Withdrawals, Diversions and Consumptive Use - Principal facilities

Water- Use Categ.	ST. LAWRENCE RIVER				TOTAL
	Withdr.	Diver.	Consum.	Withdr.	
1	1096.05	0.00	109.63	1096.05	0.00
2	0.00	0.00	0.00	0.00	109.63
3	48.61	0.00	4.76	48.61	0.00
4	0.00	0.00	0.00	0.00	4.76
5	0.00	0.00	0.00	0.00	0.00
6	124.95	0.00	12.50	124.95	0.00
7	47.02	0.00	4.70	47.02	0.00
8	0.00	0.00	0.00	0.00	4.70
9	307560.31	0.00	0.00	307560.31	0.00
10	0.00	0.00	0.00	0.00	0.00
Total	308876.94	0.00	131.58	308876.94	0.00
					131.58

b) Withdrawals by Source - Principal facilities

Water- Use Categ.	ST. LAWRENCE RIVER				TOTAL
	GLSW	OSW	GM	GLSM	
1	602.58	493.47	0.00	602.58	493.47
2	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	48.61	0.00	0.00
4	0.00	0.00	0.00	0.00	48.61
5	0.00	0.00	0.00	0.00	0.00
6	0.00	124.95	0.00	0.00	0.00
7	39.10	7.93	0.00	39.10	124.95
8	0.00	0.00	0.00	0.00	7.93
9	181226.63	126333.68	0.00	181226.63	126333.68
10	0.00	0.00	0.00	0.00	0.00
Total	181868.31	126960.03	48.61	181868.31	126960.03
					48.61

c) Diversions by Type - Principal facilities

Water- Use Categ.	ST. LAWRENCE RIVER			TOTAL
	Intrabasin	Interbasin	Interbasin	
1	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 99.5% Measured  
Level of Aggregation of Withdrawal Data Source: 100% Site-specific

.4% Partially Measured .1% Calculated or Estimated

a) Withdrawals, Diversions and Consumptive Use - All facilities

Water- Use Categ.	LAKE SUPERIOR				LAKE MICHIGAN				TOTAL	
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	
1	5.40	0.00	0.81	345.10	0.19	51.71	350.50	0.19	52.52	
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	3.48	0.00	0.52	27.70	0.00	4.10	31.18	0.00	4.62	
4	0.00	0.00	0.00	537.50	0.00	376.25	537.50	0.00	376.25	
5	0.00	0.00	0.00	0.66	0.00	0.53	0.66	0.00	0.53	
6	0.04	0.00	0.00	321.47	0.00	48.13	321.51	0.00	48.13	
7	22.10	0.00	0.00	1231.91	0.00	12.32	1254.01	0.00	12.32	
8	0.00	0.00	0.00	4943.93	0.00	49.44	4943.93	0.00	49.44	
9	147.23	0.00	0.00	4309.74	0.00	0.00	4456.97	0.00	0.00	
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total	178.25	0.00	1.33	11718.01	0.19	542.48	11896.26	0.19	543.81	

b) Withdrawals by Source - All facilities

Water- Use Categ.	LAKE SUPERIOR				LAKE MICHIGAN				TOTAL	
	GLSH	OSW	GW	GLSM	OSW	GW	GLSM	OSW	GW	
1	5.40	0.00	0.00	236.68	24.92	83.50	242.08	24.92	83.50	
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	0.00	0.00	3.48	0.00	0.00	27.70	0.00	0.00	31.18	
4	0.00	0.00	0.00	0.00	0.00	537.50	0.00	0.00	537.50	
5	0.00	0.00	0.00	0.00	0.00	0.66	0.00	0.00	0.66	
6	0.00	0.00	0.00	1.61	307.32	12.54	1.61	307.32	12.58	
7	22.10	0.00	0.00	1225.89	5.52	0.50	1247.99	5.52	0.50	
8	0.00	0.00	0.00	4943.93	0.00	0.00	4943.93	0.00	0.00	
9	0.00	147.23	0.00	0.00	4309.74	0.00	0.00	4456.97	0.00	
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total	27.50	147.23	3.52	6408.11	4647.50	662.40	6435.61	4794.73	655.92	

c) Diversions by Type - All facilities

Water- Use Categ.	LAKE SUPERIOR		LAKE MICHIGAN		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.19	0.00	0.19
2	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.19	0.00	0.19



a) Withdrawals, Diversions and Consumptive Use - Principal facilities

UNITS: Mgal(US)/d  
YEAR OF DATA: 1993

Water- Use Categ.	LAKE SUPERIOR				LAKE MICHIGAN				TOTAL			
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	4.64	0.00	0.70	345.08	0.19	51.70	349.72	0.19	52.40	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	11.02	0.00	7.71	11.02	0.00	7.71	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.04	0.00	0.00	316.45	0.00	47.49	316.49	0.00	47.49	0.00	0.00	0.00
7	20.67	0.00	0.00	1218.42	0.00	12.18	1239.09	0.00	12.18	0.00	0.00	0.00
8	0.00	0.00	0.00	4943.93	0.00	49.44	4943.93	0.00	49.44	0.00	0.00	0.00
9	147.23	0.00	0.00	4309.74	0.00	0.00	4456.97	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	172.58	0.00	0.70	11144.64	0.19	168.52	11317.22	0.19	169.22	0.00	0.00	0.00

b) Withdrawals by Source - Principal facilities

Water- Use Categ.	LAKE SUPERIOR				LAKE MICHIGAN				TOTAL			
	GLSW	OSW	GM	GLSW	OSW	GM	GLSW	OSW	GM	GLSW	OSW	GM
1	4.64	0.00	0.00	236.68	24.90	83.50	241.32	24.90	83.50	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	11.02	0.00	0.00	0.00	0.00	0.00	11.02
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.04	1.61	302.30	12.54	1.61	302.30	12.58	0.00	0.00	0.00
7	20.67	0.00	0.00	1212.90	5.52	0.00	1233.57	5.52	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	4943.93	0.00	0.00	4943.93	0.00	0.00	0.00	0.00	0.00
9	0.00	147.23	0.00	0.00	4309.74	0.00	0.00	4456.97	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	25.31	147.23	0.04	6395.12	4642.46	107.06	6420.43	4789.69	107.10	0.00	0.00	0.00

c) Diversions by Type - Principal facilities

Water- Use Categ.	LAKE SUPERIOR				LAKE MICHIGAN				TOTAL			
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00

a) Withdrawals, Diversions and Consumptive Use - All Facilities

Water- Use Categ.	MICHIGAN*				MINNESOTA				ONTARIO				WISCONSIN				TOTAL	
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	0.00	0.00	0.00	43.16	0.00	0.00	9.06	0.00	21.04	0.00	3.16	5.40	0.00	0.00	69.60	0.00	13.03	
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	0.00	0.00	0.00	4.08	0.00	0.00	0.33	0.00	1.72	0.00	0.26	3.48	0.00	0.00	9.28	0.00	1.11	
4	0.00	0.00	0.00	0.23	0.00	0.00	0.21	0.00	0.20	0.00	0.15	0.00	0.00	0.00	0.43	0.00	0.36	
5	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.33	0.00	0.15	0.00	0.00	0.00	0.57	0.00	0.27	
6	0.00	0.00	0.00	238.09	0.00	0.00	50.00	0.00	185.16	0.00	18.52	0.04	0.00	0.00	423.29	0.00	66.52	
7	260.77	0.00	3.39	146.40	0.00	0.00	2.93	0.00	199.03	0.00	1.95	22.10	0.00	0.00	628.30	0.00	8.27	
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9	0.00	0.00	0.00	4598.00	0.00	0.00	0.00	0.00	39641.11	-3979.03	0.00	147.23	0.00	0.00	44386.34	-3979.03	0.00	
10	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	
Total	260.77	0.00	3.39	5030.35	0.00	0.00	62.53	0.00	40048.59	-3979.03	24.30	178.25	0.00	1.33	45517.96	-3979.03	91.55	

b) Withdrawals by Source - All Facilities

Water- Use Categ.	MICHIGAN*			MINNESOTA			ONTARIO			WISCONSIN			TOTAL	
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GLSW	OSW	GLW
1	0.00	0.00	0.00	33.39	4.80	4.97	16.48	2.62	1.94	5.40	0.00	55.27	7.42	6.91
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	1.95	2.12	0.01	0.00	0.00	1.72	0.00	3.48	1.95	2.12	5.21
4	0.00	0.00	0.00	0.01	0.21	0.01	0.00	0.00	0.06	0.00	0.00	0.01	0.35	0.07
5	0.00	0.00	0.00	0.00	0.03	0.21	0.00	0.00	0.33	0.00	0.00	0.00	0.03	0.54
6	0.00	0.00	0.00	152.54	85.46	0.09	172.00	10.91	2.25	0.00	0.00	374.54	96.37	2.38
7	260.77	0.00	0.00	0.74	145.64	0.02	199.03	0.00	0.00	22.10	0.00	482.64	145.64	0.02
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	4598.00	0.00	0.00	0.00	0.00	0.00	0.00	44386.34	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15
Total	260.77	0.00	0.00	188.63	4836.26	5.46	387.51	39654.77	6.30	27.50	147.23	3.52	864.41	44638.26

c) Diversions by Type - All Facilities

Water- Use Categ.	MICHIGAN*		MINNESOTA		ONTARIO		WISCONSIN		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 39% Measured  
 Level of Accuracy of Withdrawal Data Source: 63% Site-specific  
 The State of Michigan was unable to report by sub-basin for most categories of use. 23% Partially Measured  
 28% Aggregated  
 28% Calculated or Estimated

a) Withdrawals, Diversions and Consumptive Use - Principal Facilities

Water- Use Categ.	MICHIGAN*				MINNESOTA				ONTARIO**				WISCONSIN				TOTAL	
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Consum.	
1	0.00	0.00	0.00	47.09	0.00	9.89	0.00	0.00	0.00	0.00	0.00	0.00	4.64	0.00	0.70	51.73	0.00	10.59
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	2.09	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.09	0.00	0.17
4	0.00	0.00	0.00	0.19	0.00	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00	0.17
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	237.68	0.00	108.66	0.00	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	237.72	0.00	108.66
7	0.00	0.00	0.00	146.23	0.00	2.93	0.00	0.00	0.00	0.00	0.00	0.00	20.67	0.00	0.00	166.90	0.00	2.93
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	4598.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	147.23	0.00	0.00	4745.23	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	5031.28	0.00	121.82	0.00	0.00	0.00	0.00	0.00	0.00	172.58	0.00	0.70	5203.86	0.00	122.52

b) Withdrawals by Source - Principal Facilities

Water- Use Categ.	MICHIGAN*				MINNESOTA				ONTARIO**				WISCONSIN				TOTAL	
	GLSM	OSW	GW	GLSM	OSW	GW	GLSM	OSW	GW	GLSM	OSW	GW	GLSM	OSW	GW	GLSM	OSW	GW
1	0.00	0.00	0.00	33.36	9.24	4.49	0.00	0.00	0.00	0.00	0.00	0.00	4.64	0.00	0.00	38.00	9.24	4.49
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	1.95	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.95	0.14	0.00
4	0.00	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.19	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	152.54	85.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	152.54	85.14	0.00
7	0.00	0.00	0.00	0.74	145.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20.67	0.00	0.00	21.41	145.49	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	4598.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4745.23	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	188.59	4838.20	4.49	0.00	0.00	0.00	0.00	0.00	0.00	25.31	147.23	0.04	213.90	4985.43	4.53

c) Diversions by Type - Principal Facilities

Water- Use Categ.	MICHIGAN*		MINNESOTA		ONTARIO**		WISCONSIN		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 39% Measured 23% Partially Measured 28% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 63% Site-specific 28% Aggregated  
 \* The State of Michigan was unable to report by sub-basin for most categories of use. \*\*Ontario did not report its Principal Facilities withdrawals for 1993.

BASIN REPORT - Lake Michigan

a) Withdrawals, Diversions and Consumptive Use - All Facilities

Water-Use Categ.	ILLINOIS				INDIANA				MICHIGAN*				WISCONSIN				TOTAL	
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	1140.28	1140.28	0.00	142.52	-2.16	21.37	0.00	0.00	0.00	345.10	0.00	51.71	1627.90	1138.12	73.08			
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
3	18.05	3.68	0.00	46.00	0.00	6.90	0.00	0.00	0.00	27.70	0.00	4.10	91.75	3.68	0.00			
4	0.00	0.00	0.00	19.31	0.00	17.37	0.00	0.00	0.00	537.50	0.00	376.25	556.81	0.00	11.00			
5	0.00	0.00	0.00	7.30	0.00	5.85	0.00	0.00	0.00	0.66	0.00	0.53	7.96	0.00	393.62			
6	13.18	2.68	2.06	1649.85	0.00	98.99	0.00	0.00	0.00	321.47	0.00	48.13	1984.50	0.00	6.38			
7	958.90	0.00	0.00	1032.32	0.00	20.65	0.00	0.00	14.20	1231.91	0.00	12.32	4314.85	2.68	149.18			
8	1726.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28.10	4943.93	0.00	49.44	8831.33	0.00	47.17			
9	0.00	0.00	0.00	2362.07	0.00	0.00	0.00	0.00	0.00	4309.74	0.00	0.00	6671.81	0.00	77.54			
10	335.15	335.15	0.00	0.21	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	335.36	0.00	0.03			
Total	4191.67	1481.79	2.06	5259.58	-2.16	171.16	3253.01	0.00	42.30	11718.01	0.00	542.48	24422.27	1479.63	758.00			

DATE: 02/05/97  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1993

b) Withdrawals by Source - All Facilities

Water-Use Categ.	ILLINOIS				INDIANA				MICHIGAN*				WISCONSIN				TOTAL	
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	1140.28	0.00	0.00	89.63	0.00	52.89	0.00	0.00	0.00	236.68	24.92	83.50	1466.59	24.92	136.39			
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
3	17.94	0.02	0.09	0.00	19.81	26.19	0.00	0.00	0.00	0.00	0.00	27.70	17.94	19.83	53.98			
4	0.00	0.00	0.00	0.00	5.07	14.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.07	51.74			
5	0.00	0.00	0.00	0.00	1.93	5.37	0.00	0.00	0.00	0.00	0.00	0.66	0.00	1.93	6.03			
6	13.18	0.00	0.00	1618.19	8.09	23.57	0.00	0.00	0.00	1.61	307.32	12.54	1632.98	315.41	36.11			
7	958.90	0.00	0.00	1032.32	0.00	0.00	0.00	0.00	2.28	1225.89	5.52	0.50	4182.11	129.96	2.78			
8	1726.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4943.93	0.00	0.00	8831.33	0.00	0.00			
9	0.00	0.00	0.00	0.00	2362.07	0.00	0.00	0.00	0.00	4309.74	0.00	0.00	6671.81	0.00	0.00			
10	335.15	0.00	0.00	0.00	0.06	0.15	0.00	0.00	0.00	0.00	0.00	0.00	335.15	0.06	0.15			
Total	4191.56	0.02	0.09	2740.14	2397.03	122.41	3126.29	124.44	2.28	6408.11	4647.50	662.40	16466.10	7168.99	787.18			

c) Diversions by Type - All Facilities

Water-Use Categ.	ILLINOIS				INDIANA				MICHIGAN*				WISCONSIN				TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin		
1	0.00	1140.28	0.00	0.00	-2.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
3	0.00	3.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1138.12			
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.68			
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
6	0.00	2.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.68			
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
10	0.00	335.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	335.15			
Total	0.00	1481.79	0.00	0.00	-2.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1479.63			

\* The state of Michigan was unable to report by sub-basin for most categories of use.  
 Level of Accuracy of Withdrawal Data: 44% Measured, 5% Partially Measured, 41% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 60% Site-specific, 30% Aggregated

a) Withdrawals, Diversions and Consumptive Use - Principal Facilities

Water-Use Categ.	ILLINOIS			INDIANA			MICHIGAN*			WISCONSIN			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	1140.28	1140.28	0.00	141.94	0.00	21.29	0.00	0.00	0.00	345.08	0.28	51.70	1627.30	1140.56	72.99
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	17.94	3.00	0.68	26.69	0.00	4.00	0.00	0.00	0.00	0.00	0.00	44.63	3.00	4.68	
4	0.00	0.00	0.00	18.04	0.00	16.23	0.00	0.00	0.00	11.02	0.00	7.71	29.06	0.00	23.94
5	0.00	0.00	0.00	3.05	0.00	2.45	0.00	0.00	0.00	0.00	0.00	3.05	0.00	0.00	2.45
6	15.18	2.68	2.05	1647.88	0.00	98.87	0.00	0.00	0.00	316.45	0.00	47.49	1979.51	2.68	148.41
7	958.90	0.00	0.00	1032.32	0.00	20.65	0.00	0.00	0.00	1218.42	0.00	12.18	3209.64	0.00	32.83
8	1726.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4943.93	0.00	49.44	6670.04	0.00	49.44
9	0.00	0.00	0.00	2362.07	0.00	0.00	0.00	0.00	0.00	4309.74	0.00	0.00	6671.81	0.00	0.00
10	335.15	335.15	0.00	0.09	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	335.24	335.15	0.02
Total	4193.56	1481.11	2.73	5232.08	0.00	163.51	0.00	0.00	0.00	11144.64	0.28	168.52	20570.28	1481.39	334.76

b) Withdrawals by Source - Principal Facilities

Water-Use Categ.	ILLINOIS			INDIANA			MICHIGAN*			WISCONSIN			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	1140.28	0.00	0.00	89.63	0.00	52.31	0.00	0.00	0.00	236.68	24.90	83.50	1466.59	24.90	135.81
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	17.94	0.00	0.00	0.00	19.80	6.89	0.00	0.00	0.00	0.00	0.00	0.00	17.94	19.80	6.89
4	0.00	0.00	0.00	0.00	4.55	13.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.55	24.51
5	0.00	0.00	0.00	0.00	1.93	1.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.93	1.12
6	15.18	0.00	0.00	1618.19	8.08	21.61	0.00	0.00	0.00	1.61	302.30	12.54	1634.98	310.38	34.15
7	958.90	0.00	0.00	1032.32	0.00	0.00	0.00	0.00	0.00	1212.90	5.52	0.00	3204.12	5.52	0.00
8	1726.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4943.93	0.00	0.00	6670.04	0.00	0.00
9	0.00	0.00	0.00	0.00	2362.07	0.00	0.00	0.00	0.00	0.00	4309.74	0.00	0.00	6671.81	0.00
10	335.15	0.00	0.00	0.00	0.05	0.04	0.00	0.00	0.00	0.00	0.00	0.00	335.15	0.05	0.04
Total	4193.56	0.00	0.00	2740.14	2396.48	95.46	0.00	0.00	0.00	6395.12	4642.46	107.06	13328.82	7038.94	202.52

c) Diversions by Type - Principal Facilities

Water-Use Categ.	ILLINOIS			INDIANA			MICHIGAN*			WISCONSIN			TOTAL		
	Intrabasin	Interbasin		Intrabasin	Interbasin		Intrabasin	Interbasin		Intrabasin	Interbasin		Intrabasin	Interbasin	
1	0.00	1140.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	1140.56	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	3.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	2.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.68	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	335.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	335.15	0.00
Total	0.00	1481.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	1481.39	0.00

\* The state of Michigan was unable to report by sub-basin for most categories of use.  
 Level of Accuracy of Withdrawal Data: 44% Measured 5% Partially Measured  
 Level of Aggregation of Withdrawal Data Source: 60% Site-specific 30% Aggregated  
 41% Calculated or Estimated

BASIN REPORT - Lake Huron

DATE: 05/06/97

UNITS: Mgal(US)/d

YEAR OF DATA: 1993

a) Withdrawals, Diversions and Consumptive Use - All Facilities

Water- Use Categ.	MICHIGAN*					ONTARIO					TOTAL				
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	0.00	0.00	0.00	150.87	45.28	22.63	150.87	45.28	22.63	150.87	45.28	22.63	150.87	45.28	22.63
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	30.57	0.00	4.59	30.57	0.00	4.59	30.57	0.00	4.59	30.57	0.00	4.59
4	0.00	0.00	0.00	26.98	0.00	21.05	26.98	0.00	21.05	26.98	0.00	21.05	26.98	0.00	21.05
5	0.00	0.00	0.00	17.10	0.00	13.68	17.10	0.00	13.68	17.10	0.00	13.68	17.10	0.00	13.68
6	0.00	0.00	0.00	815.53	0.00	81.55	815.53	0.00	81.55	815.53	0.00	81.55	815.53	0.00	81.55
7	652.47	0.00	8.48	0.00	0.00	0.00	0.00	0.00	0.00	652.47	0.00	8.48	0.00	0.00	8.48
8	0.00	0.00	0.00	5971.02	0.00	0.00	5971.02	0.00	0.00	5971.02	0.00	0.00	5971.02	0.00	0.00
9	0.00	0.00	0.00	36294.08	0.00	0.00	36294.08	0.00	0.00	36294.08	0.00	0.00	36294.08	0.00	0.00
10	0.00	0.00	0.00	39.19	0.00	0.00	39.19	0.00	0.00	39.19	0.00	0.00	39.19	0.00	0.00
Total	652.47	0.00	8.48	43345.35	45.28	143.49	43997.82	45.28	151.97	43345.35	45.28	143.49	43997.82	45.28	151.97

b) Withdrawals by Source - All Facilities

Water- Use Categ.	MICHIGAN*					ONTARIO					TOTAL				
	GLSW	OSW	GM	GLSM	OSM	GM	GLSW	OSW	GM	GLSM	OSM	GM	GLSW	OSW	GM
1	0.00	0.00	0.00	65.68	38.68	46.51	65.68	38.68	46.51	65.68	38.68	46.51	65.68	38.68	46.51
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	30.57	0.00	0.00	30.57	0.00	0.00	30.57	0.00	0.00	30.57
4	0.00	0.00	0.00	0.00	20.47	6.52	0.00	0.00	20.47	6.52	0.00	20.47	6.52	0.00	20.47
5	0.00	0.00	0.00	0.00	0.00	17.10	0.00	0.00	17.10	0.00	0.00	17.10	0.00	0.00	17.10
6	0.00	0.00	0.00	722.78	79.60	13.16	722.78	79.60	13.16	722.78	79.60	13.16	722.78	79.60	13.16
7	652.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	652.44	0.00	0.00	0.00	0.00	652.44
8	0.00	0.00	0.00	5971.02	0.00	0.00	5971.02	0.00	0.00	5971.02	0.00	0.00	5971.02	0.00	0.00
9	0.00	0.00	0.00	22846.33	13447.75	0.00	22846.33	13447.75	0.00	22846.33	13447.75	0.00	22846.33	13447.75	0.00
10	0.00	0.00	0.00	0.00	39.19	0.00	0.00	0.00	39.19	0.00	0.00	39.19	0.00	0.00	39.19
Total	652.44	0.03	0.00	29605.80	13625.69	113.85	30258.24	13625.72	113.85	29605.80	13625.69	113.85	30258.24	13625.72	113.85

c) Diversions by Type - All Facilities

Water- Use Categ.	MICHIGAN*			ONTARIO			TOTAL		
	Intrabasin	Interbasin	GM	Intrabasin	Interbasin	GM	Intrabasin	Interbasin	GM
1	0.00	0.00	0.00	45.28	0.00	0.00	45.28	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	45.28	0.00	0.00	45.28	0.00	0.00

Level of Accuracy of Withdrawal Data: 43% Measured 45% Partially Measured 2% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 90% Site-specific 0% Aggregated  
 \* The State of Michigan was unable to report by sub-basin for most categories of use.

a) Withdrawals, Diversions and Consumptive Use - Principal Facilities

Water- Use Categ.	MICHIGAN*				ONTARIO**				TOTAL			
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

b) Withdrawals by Source - Principal Facilities

Water- Use Categ.	MICHIGAN*				ONTARIO**				TOTAL			
	GLSW	OSW	GSW	GH	GLSW	OSW	GSW	GH	GLSW	OSW	GSW	GH
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

c) Diversions by Type - Principal Facilities

Water- Use Categ.	MICHIGAN*				ONTARIO**				TOTAL			
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data:

Level of Aggregation of Withdrawal Data Source: 90% Site-specific

\* The State of Michigan was unable to report by sub-basin for most categories of use. \*\* Ontario did not report its Principal Facility withdrawals for 1993.

43% Measured

45% Partially Measured

0% Aggregated

2% Calculated or Estimated

a) Withdrawals, Diversions and Consumptive Use - All Facilities

Table with columns for Use Category, State (INDIANA, MICHIGAN\*, NEW YORK, OHIO, ONTARIO, PENNSYLVANIA, TOTAL), and various metrics: Withdr., Diver., Consum., Withdr., Diver., Consum., Withdr., Diver., Consum., Withdr., Diver., Consum., Withdr., Diver., Consum., Withdr., Diver., Consum., Withdr., Diver., Consum., Withdr., Diver., Consum.

b) Withdrawals by Source - All Facilities

Table with columns for Use Category, State (INDIANA, MICHIGAN\*, NEW YORK, OHIO, ONTARIO, PENNSYLVANIA, TOTAL), and various metrics: Withdr., Diver., Consum., Withdr., Diver., Consum., Withdr., Diver., Consum., Withdr., Diver., Consum., Withdr., Diver., Consum., Withdr., Diver., Consum., Withdr., Diver., Consum.

c) Diversions by Type - All Facilities

Table with columns for Use Category, State (INDIANA, MICHIGAN\*, NEW YORK, OHIO, ONTARIO, PENNSYLVANIA, TOTAL), and various metrics: Withdr., Diver., Consum., Withdr., Diver., Consum., Withdr., Diver., Consum., Withdr., Diver., Consum., Withdr., Diver., Consum., Withdr., Diver., Consum., Withdr., Diver., Consum.

Level of Accuracy of Withdrawal Data: 19% Measured 34% Partially Measured 37% Calculated or Estimated
Level of Aggregation of Withdrawal Data Source: 60% Site-specific 30% Aggregated
\* The State of Michigan was unable to report by sub-basin for most categories of use.



a) Withdrawals, Diversions and Consumptive Use - Principal Facilities

DATE: 05/06/97  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1993

Water- Use Categ.	INDIANA			MICHIGAN*			NEW YORK			OHIO			ONTARIO**			PENNSYLVANIA			TOTAL	
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.		
1	38.63	0.00	5.79	0.00	0.00	0.00	594.11	0.22	89.12	0.00	0.00	0.00	0.00	0.00	43.68	0.00	4.37	676.42	0.22	99.28
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	1.02	0.00	0.91	0.00	0.00	0.00	5.60	0.00	5.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	9.97	0.00	0.59	0.00	0.00	0.00	203.68	0.00	20.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.95	0.00	6.26
6	0.27	0.00	0.01	0.00	0.00	0.00	2348.65	0.00	0.08	0.00	0.00	0.00	0.00	0.00	39.44	0.00	8.00	233.99	0.00	0.69
8	0.00	0.00	0.00	0.00	0.00	0.00	118.51	0.00	20.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2785.92	0.00	28.86
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	118.51	0.00	20.15
10	0.00	0.00	0.00	0.00	0.00	0.00	4.87	-12.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	560.00	0.00	0.00
Total	49.92	0.00	7.30	997.00	0.00	0.00	3276.28	-12.38	135.46	0.00	0.00	0.00	0.00	0.00	83.45	0.00	12.67	4406.65	-12.38	155.43

b) Withdrawals by Source - Principal Facilities

Water- Use Categ.	INDIANA			MICHIGAN*			NEW YORK			OHIO			ONTARIO**			PENNSYLVANIA			TOTAL	
	GLSW	OSW	GU	GLSW	OSW	GU	GLSW	OSW	GU	GLSW	OSW	GU	GLSW	OSW	GU	GLSW	OSW	GU		
1	0.00	31.96	6.67	0.00	0.00	0.00	469.24	115.25	29.62	0.00	0.00	0.00	0.00	0.00	40.60	1.53	1.53	469.84	148.76	37.82
2	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.15	0.87	0.00	0.00	0.00	0.00	4.75	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	8.24	1.73	0.00	0.00	0.00	18.28	34.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.27	0.00	0.00	0.00	2309.49	151.21	34.19	0.00	0.00	0.00	0.00	0.00	38.59	0.07	0.07	56.87	160.23	35.99
7	0.00	0.00	0.00	0.00	0.00	0.00	118.51	39.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2746.49	39.16	0.27
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	118.51	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	1.51	3.44	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	560.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.51	3.44	0.12
Total	0.00	40.38	9.54	997.00	0.00	0.00	2896.83	316.51	64.94	0.00	0.00	0.00	0.00	0.00	79.19	2.60	1.66	3973.02	357.49	76.14

c) Diversions by Type - Principal Facilities

Water- Use Categ.	INDIANA			MICHIGAN*			NEW YORK			OHIO			ONTARIO**			PENNSYLVANIA			TOTAL	
	Intrabasin	Interbasin	Consum.	Intrabasin	Interbasin	Consum.	Intrabasin	Interbasin	Consum.	Intrabasin	Interbasin	Consum.	Intrabasin	Interbasin	Consum.	Intrabasin	Interbasin	Consum.		
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 19% Measured 34% Partially Measured 37% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 60% Site-specific 30% Aggregated  
 \* The State of Michigan was unable to report by sub-basin for most categories of use. \*\* Ontario did not report its Principal Facility withdrawals for 1993.

BASIN REPORT - Lake Ontario

a) Withdrawals, Diversions and Consumptive Use - All Facilities

Water-Use Categ.	NEW YORK			ONTARIO			PENNSYLVANIA			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.			
1	266.00	0.00	26.60	833.85	0.00	125.08	0.12	0.00	0.01	1099.97	0.00	151.69
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	290.00	0.00	29.00	36.12	0.00	5.42	0.07	0.00	0.01	326.19	0.00	34.43
4	8.00	0.00	7.10	28.53	0.00	22.25	0.00	0.00	0.00	36.53	0.00	29.35
5	6.40	0.00	3.30	8.99	0.00	7.19	0.00	0.00	0.00	15.39	0.00	10.49
6	220.00	0.00	22.00	917.10	0.00	91.71	0.00	0.00	0.00	1137.10	0.00	113.71
7	1759.00	0.00	8.00	236.60	0.00	2.13	0.00	0.00	0.00	1995.60	0.00	10.13
8	1260.00	0.00	3.00	7490.92	0.00	67.42	0.00	0.00	0.00	8750.92	0.00	70.42
9	152036.00	0.00	0.00	49806.39	0.00	0.00	0.00	0.00	0.00	201842.39	0.00	0.00
10	329.00	329.00	0.00	128.45	-3706.38	0.00	0.00	0.00	0.00	457.45	-328.66	0.00
Total	156174.40	329.00	99.00	59486.95	-4364.05	321.20	0.19	0.00	0.02	215661.54	-4035.05	420.22

b) Withdrawals by Source - All Facilities

Water-Use Categ.	NEW YORK			ONTARIO			PENNSYLVANIA			TOTAL		
	GLSM	OSW	GM	GLSM	OSW	GM	GLSM	OSW	GM			
1	96.00	139.00	31.00	776.04	37.53	20.28	0.00	0.00	0.12	872.04	176.53	51.40
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	101.00	96.00	93.00	0.00	0.00	36.12	0.00	0.00	0.07	101.00	96.00	129.19
4	7.00	0.00	1.00	0.00	20.77	7.76	0.00	0.00	0.00	7.00	20.77	8.76
5	2.50	0.00	3.90	0.00	0.00	8.99	0.00	0.00	0.00	2.50	8.76	12.89
6	180.00	0.00	40.00	801.05	0.00	3.28	0.00	0.00	0.00	981.05	112.78	43.28
7	1759.00	0.00	0.00	236.60	0.00	0.00	0.00	0.00	0.00	1995.60	0.00	0.00
8	1260.00	0.00	0.00	7490.92	0.00	0.00	0.00	0.00	0.00	8750.92	0.00	0.00
9	152036.00	0.00	0.00	42329.22	7477.17	0.00	0.00	0.00	0.00	194365.22	7477.17	0.00
10	329.00	0.00	0.00	0.00	128.45	0.00	0.00	0.00	0.00	329.00	128.45	0.00
Total	155770.50	235.00	168.90	51633.83	7776.70	76.42	0.00	0.00	0.19	207404.33	8011.70	245.51

c) Diversions by Type - All Facilities

Water-Use Categ.	NEW YORK			ONTARIO			PENNSYLVANIA			TOTAL		
	Intrabasin	Interbasin		Intrabasin	Interbasin		Intrabasin	Interbasin				
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	329.00	0.00	0.00	-3706.38	0.00	0.00	0.00	0.00	0.00	-3706.38	0.00	0.00
Total	329.00	0.00	0.00	-4364.05	0.00	0.00	0.00	0.00	0.00	-4035.05	0.00	0.00

Level of Accuracy of Withdrawal Data: 4% Measured  
 Level of Aggregation of Withdrawal Data Source: 36% Site-specific 32% Partially Measured 53% Calculated or Estimated  
 54% Aggregated

DATE: 05/06/97  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1993

a) Withdrawals, Diversions and Consumptive Use - Principal Facilities

Water- Use Categ.	NEW YORK			ONTARIO*			PENNSYLVANIA			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	1759.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1759.00	0.00	0.00
8	1260.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1260.00	0.00	0.00
9	55637.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	55637.00	0.00	0.00
10	329.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	329.00	0.00	0.00
Total	58985.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	58985.00	0.00	0.00

b) Withdrawals by Source - Principal Facilities

Water- Use Categ.	NEW YORK			ONTARIO*			PENNSYLVANIA			TOTAL		
	GLSW	OSW	GM	GLSW	OSW	GM	GLSW	OSW	GM	GLSW	OSW	GM
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	1759.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1759.00	0.00	0.00
8	1260.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1260.00	0.00	0.00
9	55637.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	55637.00	0.00	0.00
10	329.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	329.00	0.00	0.00
Total	58985.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	58985.00	0.00	0.00

c) Diversions by Type - Principal Facilities

Water- Use Categ.	NEW YORK			ONTARIO*			PENNSYLVANIA			TOTAL		
	Intrabasin	Interbasin		Intrabasin	Interbasin		Intrabasin	Interbasin		Intrabasin	Interbasin	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 4% Measured 32% Partially Measured 53% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 36% Site-specific 54% Aggregated  
 \* Ontario did not report its Principal Facility Withdrawals for 1993.

e) Withdrawals, Diversions and Consumptive Use - All Facilities

Water-Use Categ.	NEW YORK			ONTARIO			QUEBEC			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	126.00	0.00	12.60	157.53	0.00	23.63	1100.01	0.00	109.90	1383.54	0.00	146.12
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	88.00	0.00	9.00	34.77	0.00	5.21	71.59	0.00	7.13	194.36	0.00	21.35
4	1.11	0.00	0.98	5.44	0.00	4.24	9.22	0.00	8.30	15.77	0.00	13.52
5	3.00	0.00	2.40	9.86	0.00	7.89	19.10	0.00	15.28	31.96	0.00	25.57
6	73.00	0.00	7.30	167.91	0.00	16.79	125.48	0.00	12.55	366.39	0.00	36.64
7	0.00	0.00	0.00	0.00	0.00	0.00	47.02	0.00	4.70	47.02	0.00	4.70
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	150331.00	0.00	0.00	88876.27	0.00	0.57	307560.31	0.00	0.00	546767.58	0.00	0.57
10	132.00	0.00	0.00	26.93	0.00	0.00	0.00	0.00	0.00	158.93	0.00	0.00
Total	150754.11	0.00	32.28	89278.70	0.00	58.33	308932.74	0.00	157.86	548965.55	0.00	248.47

b) Withdrawals by Source - All Facilities

Water-Use Categ.	NEW YORK			ONTARIO			QUEBEC			TOTAL		
	GLSM	OSU	GW	GLSM	OSU	GW	GLSM	OSU	GW	GLSM	OSU	GW
1	101.00	0.00	25.00	40.67	111.67	5.19	602.84	497.17	0.00	744.51	608.84	30.19
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	51.00	20.00	17.00	0.00	0.00	34.77	0.00	0.00	71.59	51.00	20.00	123.36
4	1.00	0.00	0.11	0.00	3.97	1.47	0.00	0.00	9.22	1.00	3.97	10.80
5	1.00	0.00	2.00	0.00	0.00	9.86	0.00	0.00	19.10	1.00	3.97	30.96
6	68.00	0.00	5.00	132.59	29.98	5.34	0.00	125.48	0.00	200.59	155.47	10.34
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.93	0.00	39.10	7.93	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	150331.00	0.00	0.00	88876.27	0.00	0.00	0.00	0.00	0.00	420433.91	126333.68	0.00
10	132.00	0.00	0.00	0.00	26.93	0.00	0.00	0.00	0.00	132.00	26.93	0.00
Total	150685.00	20.00	49.11	89049.53	172.55	56.62	181868.57	126964.26	99.91	421603.10	127756.80	205.64

c) Diversions by Type - All Facilities

Water-Use Categ.	NEW YORK		ONTARIO		QUEBEC		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 3% Measured  
 Level of Aggregation of Withdrawal Data Source: 43% Site-specific  
 36% Partially Measured  
 47% Aggregated  
 51% Calculated or Estimated

DATE: 05/06/97

UNITS: Mgal(US)/d  
YEAR OF DATA: 1993

e) Withdrawals, Diversions and Consumptive Use - Principal Facilities

Water- Use Categ.	NEW YORK			ONTARIO*			QUEBEC			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	0.00	0.00	0.00	0.00	0.00	0.00	1096.05	0.00	109.63	1096.05	0.00	109.63
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	48.61	0.00	4.76	48.61	0.00	4.76
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	124.95	0.00	12.50	124.95	0.00	12.50
7	0.00	0.00	0.00	0.00	0.00	0.00	47.02	0.00	4.70	47.02	0.00	4.70
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	92940.00	0.00	0.00	0.00	0.00	0.00	307560.31	0.00	0.00	400500.31	0.00	0.00
10	132.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	132.00	132.00	0.00	0.00
Total	93072.00	132.00	0.00	0.00	0.00	0.00	308876.94	0.00	131.58	401948.94	132.00	131.58

b) Withdrawals by Source - Principal Facilities

Water- Use Categ.	NEW YORK			ONTARIO*			QUEBEC			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	0.00	0.00	0.00	0.00	0.00	0.00	602.58	493.47	0.00	602.58	493.47	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48.61	0.00	0.00	48.61
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	124.95	0.00	0.00	124.95	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	39.10	7.93	0.00	39.10	7.93	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	92940.00	0.00	0.00	0.00	0.00	0.00	181226.63	126333.68	0.00	274166.63	126333.68	0.00
10	132.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	132.00	132.00	0.00	0.00
Total	93072.00	0.00	0.00	0.00	0.00	0.00	181868.31	126960.03	48.61	274940.31	126960.03	48.61

c) Diversions by Type - Principal Facilities

Water- Use Categ.	NEW YORK			ONTARIO*			QUEBEC			TOTAL		
	Intrabasin	Interbasin		Intrabasin	Interbasin		Intrabasin	Interbasin		Intrabasin	Interbasin	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	132.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	132.00	132.00	0.00	0.00
Total	132.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	132.00	132.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 3% Measured 36% Partially Measured 51% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 43% Site-specific 47% Aggregated  
 \* Ontario did not report its Principal Facility Withdrawals for 1993.

WATER-USE CATEGORY REPORT - Public Supply

a) Water-Use by Basin - All Jurisdictions

DATE: 05/08/97  
UNITS: Mgal(US)/d  
YEAR OR DATA: 1993

Table with columns: Basin, Withdrawals (GLSU, OSW, GW, TOTAL), Diversions (Interbasin, Intra-basin, Interbasin, TOTAL), Consumptive Use, and Principal Facilities (Withdrawals, Diversions, Consumptive Use). Rows include Lake Superior, Lake Michigan, Lake Huron, Lake Erie, Lake Ontario, St. Lawrence River, and Total.

b) Water-Use by Jurisdiction - All Basins

Table with columns: Jurisdiction, Withdrawals (GLSU, OSW, GW, TOTAL), Diversions (Interbasin, Intra-basin, Interbasin, TOTAL), Consumptive Use, and Principal Facilities (Withdrawals, Diversions, Consumptive Use). Rows include Illinois, Indiana, Michigan, Minnesota, New York, Ohio, Ontario, Pennsylvania, Quebec, Wisconsin, and Total.

Level of Accuracy of Withdrawal Data: 42% Measured, 38% Partially Measured, 20% Calculated or Estimated  
Level of Aggregation of Withdrawal Data Source: 73% Site-specific, 27% Aggregated

\*Ontario did not report its Principal Facility withdrawals for 1993.

\*\*The total presented is larger than the sum of water use categories. This is due to the addition of state-wide data from Michigan, Michigan's withdrawals and consumptive uses for this category cannot presently be reported by individual sub-basin or water withdrawal type.

e) Water-Use by Basin - All Jurisdictions

Basin	All Facilities						Principal Facilities										
	Withdrawals			Diversions			Withdrawals			Diversions							
	GLSW	OSW	GV	TOTAL	Intrabasin	Interbasin	TOTAL	Consumptive Use	GLSW	OSW	GV	TOTAL	Intrabasin	Interbasin	TOTAL	Consumptive Use	
Lake Superior	1.95	2.12	5.21	9.28	0.00	0.00	0.00	0.00	1.95	0.14	0.00	2.09	0.00	0.00	0.00	0.00	0.17
Lake Michigan	17.94	19.83	53.98	91.75	0.00	3.68	3.68	11.00	17.94	19.80	6.89	44.63	0.00	3.00	3.00	0.00	4.68
Lake Huron	0.00	0.00	30.57	30.57	0.00	0.00	0.00	4.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Erie	10.00	10.03	155.62	175.65	0.00	0.00	0.00	22.35	0.00	0.03	0.00	0.03	0.00	0.00	0.00	0.00	0.00
Lake Ontario	101.00	96.00	129.19	326.19	0.00	0.00	0.00	34.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
St. Lawrence River	51.00	20.00	123.36	194.36	0.00	0.00	0.00	21.35	0.00	0.00	48.61	48.61	0.00	0.00	0.00	0.00	4.76
Total	181.89	147.98	497.93	827.80	0.00	3.68	3.68	94.82	19.89	19.97	55.50	95.36	0.00	3.00	3.00	0.00	9.61

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	All Facilities						Principal Facilities									
	Withdrawals			Diversions			Withdrawals			Diversions						
	GLSW	OSW	GV	TOTAL	Intrabasin	Interbasin	TOTAL	Consumptive Use	GLSW	OSW	GV	TOTAL	Intrabasin	Interbasin	TOTAL	Consumptive Use
Illinois	17.94	0.02	0.09	18.05	0.00	3.68	3.68	0.00	17.94	0.00	0.00	17.94	0.00	0.00	0.00	0.68
Indiana	0.00	19.84	31.72	51.56	0.00	0.00	0.00	7.73	0.00	19.83	6.89	26.72	0.00	0.00	0.00	4.00
Michigan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Minnesota	1.95	2.12	0.01	4.08	0.00	0.00	0.00	0.33	1.95	0.14	0.00	2.09	0.00	0.00	0.00	0.17
New York	162.00	126.00	168.00	456.00	0.00	0.00	0.00	45.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ohio	0.00	0.00	59.70	59.70	0.00	0.00	0.00	8.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ontario	0.00	0.00	133.60	133.60	0.00	0.00	0.00	20.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pennsylvania	0.00	0.00	2.04	2.04	0.00	0.00	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Quebec	0.00	0.00	71.59	71.59	0.00	0.00	0.00	7.13	0.00	0.00	48.61	48.61	0.00	0.00	0.00	4.76
Wisconsin	0.00	0.00	31.18	31.18	0.00	0.00	0.00	4.62	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	181.89	147.98	497.93	827.80	0.00	3.68	3.68	94.82	19.89	19.97	55.50	95.36	0.00	3.00	3.00	0.00

Level of Accuracy of Withdrawal Data: 29% Measured 27% Partially Measured 44% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 56% Site-specific 44% Aggregated

\*Ontario did not report its Principal Facility withdrawals for 1993.

e) Water-Use by Basin - All Jurisdictions

Basin	All Facilities				Principal Facilities			
	GLSU	OSV	GW	TOTAL	GLSU	OSV	GW	TOTAL
Lake Superior	0.01	0.35	0.07	0.43	0.00	0.00	0.00	0.00
Lake Michigan	0.00	5.07	551.74	556.81	0.00	0.00	0.00	0.00
Lake Huron	0.00	20.47	6.52	26.98	0.00	0.00	0.00	0.00
Lake Erie	1.32	102.35	36.79	140.46	0.00	0.00	0.00	0.00
Lake Ontario	7.00	20.77	8.76	36.53	0.00	0.00	0.00	0.00
St. Lawrence River	1.00	3.97	10.80	15.77	0.00	0.00	0.00	0.00
Total	9.33	152.97	614.67	776.97	0.00	0.00	0.00	0.00

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	All Facilities				Principal Facilities			
	GLSU	OSV	GW	TOTAL	GLSU	OSV	GW	TOTAL
Illinois	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Indiana	0.00	5.38	15.23	20.61	0.00	0.00	0.00	0.00
Michigan	0.00	0.00	0.00	237.00**	0.00	0.00	0.00	0.00
Minnesota	0.01	0.21	0.01	0.23	0.00	0.00	0.00	0.00
New York	9.20	0.00	1.51	10.71	0.00	0.00	0.00	0.00
Ohio	0.12	8.86	2.11	11.09	0.00	0.00	0.00	0.00
Ontario	0.00	138.23	49.03	187.26	0.00	0.00	0.00	0.00
Pennsylvania	0.00	0.29	0.06	0.35	0.00	0.00	0.00	0.00
Quebec	0.00	0.00	9.22	9.22	0.00	0.00	0.00	0.00
Wisconsin	0.00	0.00	537.50	537.50	0.00	0.00	0.00	0.00
Total	9.33	152.97	614.67	1013.97**	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 27% Measured 27% Partially Measured 45% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 66% Site-specific 32% Aggregated

\*\*Ontario did not report its principal facility withdrawals for 1993.

\*\*The total presented is larger than the sum of water use categories. This is due to the addition of state-wide data from Michigan, Michigan's withdrawals and consumptive uses for this category cannot presently be reported by individual sub-basin or water withdrawal type.



a) Water-Use by Basin - All Jurisdictions

Basin	All Facilities						Principal Facilities								
	Withdrawals			Diversions			Withdrawals			Diversions			Consumptive Use		
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	GLSW	OSW	GW	TOTAL	Intrabasin		Interbasin	TOTAL
Lake Superior	0.00	0.03	0.54	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Michigan	0.00	1.93	6.03	7.96	0.00	0.00	0.00	0.00	1.93	1.12	3.05	0.00	0.00	0.00	0.00
Lake Huron	0.00	0.00	17.10	17.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Erie	0.50	2.30	31.03	33.83	0.00	0.00	0.00	0.00	0.70	0.16	0.86	0.00	0.00	0.00	0.00
Lake Ontario	2.50	0.00	12.89	15.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
St. Lawrence River	1.00	0.00	30.96	31.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.00	4.26	98.55	106.81	0.00	0.00	0.00	0.00	2.63	1.28	3.91	0.00	0.00	0.00	3.14

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	All Facilities						Principal Facilities								
	Withdrawals			Diversions			Withdrawals			Diversions			Consumptive Use		
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	GLSW	OSW	GW	TOTAL	Intrabasin		Interbasin	TOTAL
Illinois	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Indiana	0.00	1.93	7.31	9.24	0.00	0.00	0.00	0.00	0.00	1.12	3.05	0.00	0.00	0.00	2.45
Michigan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Minnesota	0.00	0.03	0.21	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New York	4.00	0.00	6.80	10.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ohio	0.00	2.30	10.83	13.13	0.00	0.00	0.00	0.00	0.70	0.16	0.86	0.00	0.00	0.00	0.69
Ontario	0.00	0.00	53.64	53.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00*	0.00	0.00	0.00	0.00*
Pennsylvania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Quebec	0.00	0.00	19.10	19.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wisconsin	0.00	0.00	0.66	0.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	4.00	4.26	98.55	106.81	0.00	0.00	0.00	0.00	2.63	1.28	3.91	0.00	0.00	0.00	3.14

Level of Accuracy of Withdrawal Data: 23% Measured 27% Partially Measured 50% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 52% Site-specific 48% Aggregated

\*Ontario did not report its Principal facility withdrawals for 1993.

Water-Use by Basin - All Jurisdictions

Basin	All Facilities				Principal Facilities			
	GLSW	OSW	GW	TOTAL	GLSW	OSW	GW	TOTAL
Lake Superior	326.54	96.37	2.38	425.29	152.54	85.14	0.04	237.72
Lake Michigan	1632.98	315.41	36.11	1984.50	1634.98	310.38	34.15	1979.51
Lake Huron	722.78	79.60	13.16	815.53	0.00	0.00	0.00	0.00
Lake Erie	599.42	187.89	50.68	838.19	56.87	160.23	35.99	253.09
Lake Ontario	981.05	112.78	43.28	1137.10	0.00	0.00	0.00	0.00
St. Lawrence River	200.59	155.47	10.34	366.39	0.00	124.95	0.00	124.95
Total	4461.55	947.51	155.94	5565.00	1844.39	680.70	70.18	2595.27

Water-Use by Jurisdiction - All Basins

Jurisdiction	All Facilities				Principal Facilities			
	GLSW	OSW	GW	TOTAL	GLSW	OSW	GW	TOTAL
Illinois	13.18	0.00	0.00	13.18	15.18	0.00	0.00	15.18
Indiana	1618.19	16.37	25.65	1660.21	1618.19	16.32	23.34	1657.85
Michigan	0.00	0.00	0.00	1318.00**	0.00	0.00	0.00	0.00
Minnesota	152.54	85.46	0.09	238.09	152.54	85.14	0.00	237.68
New York	303.00	0.00	48.40	351.40	0.00	0.00	0.00	0.00
Ohio	18.31	151.51	35.44	205.26	18.28	151.21	34.19	203.68
Ontario	2316.13	260.55	33.58	2610.26	0.00	0.00	0.00	0.00
Pennsylvania	38.59	0.81	0.20	39.60	38.59	0.78	0.07	39.44
Quebec	0.00	125.48	0.00	125.48	0.00	124.95	0.00	124.95
Wisconsin	1.61	307.32	12.58	321.51	1.61	302.30	12.58	316.49
Total	4461.55	947.51	155.94	6882.99**	1844.39	680.70	70.18	2595.27

Level of Accuracy of Withdrawal Data: 27% Measured  
 Level of Aggregation of Withdrawal Data Source: 71% Site-specific 29% Aggregated

\*Ontario did not report its Principal facility withdrawals for 1993.

\*\*The total presented is larger than the sum of water use categories. This is due to the addition of state-wide data from Michigan, Michigan's withdrawals and consumptive uses for this category cannot presently be reported by individual sub-basin or water withdrawal type.

a) Water-Use by Basin - All Jurisdictions

Basin	All Facilities						Principal Facilities									
	Withdrawals			Diversions			Withdrawals			Diversions						
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	Consumptive Use	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	Consumptive Use
Lake Superior	482.64	145.64	0.02	628.30	0.00	0.00	0.00	0.27	21.41	145.49	0.00	166.90	0.00	0.00	0.00	2.93
Lake Michigan	4182.11	129.96	2.78	4314.85	0.00	0.00	0.00	47.17	3204.12	5.52	0.00	3209.64	0.00	0.00	0.00	32.43
Lake Huron	652.44	0.03	0.00	652.47	0.00	0.00	0.00	8.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Erie	8436.67	39.25	0.27	8476.19	0.00	0.00	0.00	69.18	2746.49	39.16	0.27	2785.92	0.00	0.00	0.00	0.09
Lake Ontario	1995.60	0.00	0.00	1995.60	0.00	0.00	0.00	10.13	1759.00	0.00	0.00	1759.00	0.00	0.00	0.00	0.00
St. Lawrence River	39.10	7.93	0.00	47.02	0.00	0.00	0.00	4.70	39.10	7.93	0.00	47.02	0.00	0.00	0.00	4.70
Total	15788.56	322.81	3.07	16114.44	0.00	0.00	0.00	147.94	7770.12	198.10	0.27	7968.48	0.00	0.00	0.00	40.55

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	All Facilities						Principal Facilities									
	Withdrawals			Diversions			Withdrawals			Diversions						
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	Consumptive Use	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	Consumptive Use
Illinois	958.90	0.00	0.00	958.90	0.00	0.00	0.00	0.00	958.90	0.00	0.00	958.90	0.00	0.00	0.00	0.00
Indiana	1032.32	0.00	0.27	1032.59	0.00	0.00	0.00	20.66	1032.32	0.00	0.27	1032.59	0.00	0.00	0.00	20.66
Michigan	6099.16	124.56	2.28	6226.00	0.00	0.00	0.00	80.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Minnesota	0.74	145.64	0.02	146.40	0.00	0.00	0.00	2.93	0.74	145.49	0.00	146.23	0.00	0.00	0.00	2.93
New York	2196.00	0.00	0.00	2196.00	0.00	0.00	0.00	9.00	2196.00	0.00	0.00	2196.00	0.00	0.00	0.00	0.00
Ohio	2309.49	39.16	0.00	2348.65	0.00	0.00	0.00	0.08	2309.49	39.16	0.00	2348.65	0.00	0.00	0.00	0.08
Ontario	1904.86	0.00	0.00	1904.86	0.00	0.00	0.00	17.31	0.00	0.00	0.00	0.00*	0.00	0.00	0.00	0.00*
Pennsylvania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Quebec	39.10	7.93	0.00	47.02	0.00	0.00	0.00	4.70	39.10	7.93	0.00	47.02	0.00	0.00	0.00	4.70
Wisconsin	1247.99	5.52	0.50	1254.01	0.00	0.00	0.00	12.32	1233.57	5.52	0.00	1239.09	0.00	0.00	0.00	12.18
Total	15788.56	322.81	3.07	16114.44	0.00	0.00	0.00	147.94	7770.12	198.10	0.27	7968.48	0.00	0.00	0.00	40.55

Level of Accuracy of Withdrawal Data: 21% Measured 36% Partially Measured 42% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 70% Site-specific 30% Aggregated

\*Ontario did not report its Principal Facility withdrawals for 1993.

a) Water-Use by Basin - All Jurisdictions

Basin	All Facilities					Principal Facilities				
	GLSU	OSU	GW	TOTAL	Consumptive Use	GLSU	OSU	GW	TOTAL	Consumptive Use
Lake Superior	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Michigan	8831.33	0.00	0.00	8831.33	0.00	0.00	0.00	0.00	0.00	0.00
Lake Huron	5971.02	0.00	0.00	5971.02	0.00	0.00	0.00	0.00	0.00	0.00
Lake Erie	118.51	0.00	0.00	118.51	0.00	0.00	0.00	0.00	0.00	0.00
Lake Ontario	8750.92	0.00	0.00	8750.92	0.00	0.00	0.00	0.00	0.00	0.00
St-Lawrence River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	23671.79	0.00	0.00	23671.79	168.11	8048.55	0.00	8048.55	0.00	69.59

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	All Facilities					Principal Facilities				
	GLSU	OSU	GW	TOTAL	Consumptive Use	GLSU	OSU	GW	TOTAL	Consumptive Use
Illinois	1726.11	0.00	0.00	1726.11	0.00	1726.11	0.00	0.00	1726.11	0.00
Indiana	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Michigan	2161.29	0.00	0.00	2161.29	0.00	0.00	0.00	0.00	0.00	0.00
Minnesota	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New York	1260.00	0.00	0.00	1260.00	0.00	1260.00	0.00	0.00	1260.00	0.00
Ohio	118.51	0.00	0.00	118.51	0.00	118.51	0.00	0.00	118.51	0.00
Ontario	13461.95	0.00	0.00	13461.95	67.42	0.00*	0.00	0.00	0.00	20.15
Pennsylvania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00*
Quebec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wisconsin	4943.93	0.00	0.00	4943.93	49.44	4943.93	0.00	0.00	4943.93	49.44
Total	23671.79	0.00	0.00	23671.79	168.11	8048.55	0.00	8048.55	0.00	69.59

Level of Accuracy of Withdrawal Data: 27% Measured 27% Partially Measured 45% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 56% Site-specific 44% Aggregated

Ontario did not report its Principal Facility withdrawals for 1993.

DATE: 05/21/97  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1993

a) Water-Use by Basin - All Jurisdictions

Basin	All Facilities											
	Withdrawals					Diversions					Consumptive Use	
	GLSU	OSU	GW	TOTAL	Intrabasin	Interbasin	TOTAL	Intrabasin	Interbasin	TOTAL		
Lake Superior	0.00	44386.34	0.00	44386.34	0.00	-3979.03	-3979.03	0.00	0.00	0.00	0.00	0.00
Lake Michigan	0.00	6671.81	0.00	6671.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Huron	22846.33	13447.75	0.00	36294.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Erie	4266.38	0.00	0.00	4266.38	3706.38	0.00	3706.38	0.00	0.00	560.00	0.00	0.00
Lake Ontario	194385.22	7477.17	0.00	201862.39	-3706.38	0.00	-3706.38	0.00	0.00	55637.00	0.00	0.00
St. Lawrence River	420433.91	126333.68	0.00	546767.58	0.00	0.00	0.00	0.00	0.00	274166.63	126333.68	400500.31
Total	641911.84	198316.75	0.00	840228.59	0.00	-3979.03	-3979.03	0.00	0.00	330363.63	137750.72	468114.35

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	All Facilities											
	Withdrawals					Diversions					Consumptive Use	
	GLSU	OSU	GW	TOTAL	Intrabasin	Interbasin	TOTAL	Intrabasin	Interbasin	TOTAL		
Illinois	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Indiana	0.00	2362.07	0.00	2362.07	0.00	0.00	0.00	0.00	0.00	0.00	2362.07	2362.07
Michigan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Minnesota	0.00	4598.00	0.00	4598.00	0.00	0.00	0.00	0.00	0.00	0.00	4598.00	4598.00
New York	302927.00	0.00	0.00	302927.00	0.00	0.00	0.00	0.00	0.00	149137.00	0.00	149137.00
Ohio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ontario	157758.21	60566.03	0.00	218324.24	0.00	-3979.03	-3979.03	0.00	0.00	0.00	0.00	0.00*
Pennsylvania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Quebec	181226.63	126333.68	0.00	307560.31	0.00	0.00	0.00	0.00	0.00	0.00	181226.63	307560.31
Wisconsin	0.00	4456.97	0.00	4456.97	0.00	0.00	0.00	0.00	0.00	0.00	4456.97	4456.97
Total	641911.84	198316.75	0.00	840228.59	0.00	-3979.03	-3979.03	0.00	0.00	330363.63	137750.72	468114.35

Level of Accuracy of Withdrawal Data: 26% Measured 29% Partially Measured 45% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 64% Site-specific 36% Aggregated

\*Ontario did not report its Principal Facility withdrawals for 1993.

*APPENDIX C*  
*IN MILLION LITERS PER DAY*

*1993 GREAT LAKES BASIN SUMMARY REPORT*

- JURISDICTION REPORTS
  - Illinois
  - Indiana
  - Michigan
  - Minnesota
  - New York
  - Ohio
  - Ontario
  - Quebec
  - Pennsylvania
  - Wisconsin
  
- BASIN SUMMARY REPORTS
  - Lake Superior
  - Lake Michigan
  - Lake Huron
  - Lake Erie
  - Lake Ontario
  - St. Lawrence River
  
- WATER USE CATEGORY REPORTS
  - Public Supply
  - Self Supply - Domestic
  - Self Supply - Irrigation
  - Self Supply - Livestock
  - Self Supply - Industrial
  - Self Supply - Thermoelectric Power, Fossil Fuel
  - Self Supply - Thermoelectric Power, Nuclear
  - Self Supply - Hydroelectric Power
  - Other



All Facilities

Water-Use Category	Withdrawals			Diversions			Consumptive Use									
	GLSU	OSU	GW	GLSU	OSU	GW	GLSU	OSU	GW							
1	15000.36	4033.05	1487.03	25173.78*	0.00	4309.07	4309.07	2578.43*	9330.71	2560.35	674.25	13065.31	0.00	4318.31	4318.31	1107.20
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	688.53	560.16	1884.86	3133.55	0.00	13.93	13.93	358.94	75.29	75.59	210.08	360.97	0.00	11.36	11.36	36.36
4	35.32	579.07	2326.77	3838.30*	0.00	0.00	0.00	3006.18*	0.00	37.51	99.52	137.03	0.00	0.00	0.00	114.96
5	15.14	16.13	373.05	404.32	0.00	0.00	0.00	315.80*	0.00	9.94	4.85	14.80	0.00	0.00	0.00	11.89
6	16880.77	3586.69	590.28	26054.90*	0.00	10.14	10.14	2532.60*	6981.75	2576.73	4.85	9824.14	0.00	0.00	0.00	1130.04
7	59765.99	1221.95	11.62	60799.56	0.00	0.00	0.00	560.01	29412.98	749.87	1.02	30163.87	0.00	0.00	0.00	153.51
8	89607.20	0.00	0.00	89607.20	0.00	0.00	0.00	636.35	125058.78	521442.03	0.00	30466.96	0.00	0.00	0.00	263.43
9	242983.57	750708.91	0.00	893692.48	0.00	-15062.22	-15062.22	2.14	3018.70	13.21	0.61	1772000.81	0.00	0.00	0.00	0.00
10	5508.22	750.87	1.74	6260.83	1245.40	1220.98	2466.38	0.11				3032.52	499.67	1220.98	1720.65	0.00
Total	2617403.11	761476.81	6675.35	3396074.80*	1245.40	-9508.10	-8262.70	9990.56*	1330345.18	527465.26	1255.99	1859066.42	499.67	5560.79	6060.46	2817.45

b) Water-Use by Basin - All Categories, All Jurisdictions

Basin	Withdrawals			Diversions			Consumptive Use									
	GLSU	OSU	GW	GLSU	OSU	GW	GLSU	OSU	GW							
Lake Superior	3272.16	168973.82	57.84	172303.82	0.00	-15062.22	-15062.22	346.57	809.70	18871.63	17.15	19698.68	0.00	0.00	0.00	663.79
Lake Michigan	62330.73	27137.47	2979.78	92467.99	0.00	5600.99	5600.99	2869.33	50454.88	26645.18	766.62	77886.68	0.00	5607.65	5607.65	1267.20
Lake Huron	114339.67	51578.84	430.98	166547.50	171.40	0.00	171.40	575.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Erie	56215.39	2119.30	1498.95	59833.64	16318.28	-46.86	16301.42	1851.17	15039.46	1353.24	288.22	16680.92	0.00	-46.86	-46.86	588.36
Lake Ontario	785108.12	30327.51	929.34	816364.98	-15274.28	0.00	-15274.28	1590.69	223281.65	0.00	223281.65	0.00	0.00	0.00	0.00	0.00
St. Lawrence River	1595937.04	481339.87	778.44	2078055.35	0.00	0.00	0.00	940.54	1040759.49	480595.00	184.00	1521538.49	499.67	0.00	499.67	498.10
Total	2617403.11	761476.81	6675.35	3385553.27	1245.40	-9508.10	-8262.70	8173.59	1330345.18	527465.26	1255.99	1859066.42	499.67	5560.79	6060.46	2817.45

c) Water-Use by Jurisdiction - All Categories, All Basins

Jurisdiction	Withdrawals			Diversions			Consumptive Use									
	GLSU	OSU	GW	GLSU	OSU	GW	GLSU	OSU	GW							
Illinois	15866.72	0.08	0.34	15867.14	0.00	5609.16	5609.16	7.80	15874.29	0.00	0.00	15874.29	0.00	5606.59	5606.59	10.33
Indiana	10372.52	9227.36	531.17	20131.05	0.00	-8.18	-8.18	685.95	10372.52	9224.48	397.47	19996.47	0.00	0.00	0.00	646.38
Michigan	31269.08	471.51	8.63	42268.85*	0.00	0.00	0.00	2229.73*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Minnesota	714.04	18307.17	20.67	19041.87	0.00	0.00	0.00	236.70	713.89	18314.51	0.00	19045.39	0.00	0.00	0.00	461.14
New York	1164687.98	1177.26	1062.60	1166927.84	1245.40	0.00	1245.40	639.73	579370.18	0.00	0.00	579370.18	499.67	0.00	499.67	0.00
Ohio	10966.71	1215.76	541.80	12724.27	0.00	-46.86	-46.86	2879.04	10965.65	1190.55	245.82	12402.02	0.00	-46.86	-46.86	512.77
Ontario	670418.95	232306.70	1594.21	904319.86	0.00	-15062.22	-15062.22	49.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pennsylvania	299.77	10.03	16.96	326.76	0.00	0.00	0.00	47.35	299.77	9.84	6.28	315.89	0.00	0.00	0.00	47.96
Quebec	688446.00	480611.00	378.20	1169435.20	0.00	0.00	0.00	2058.54	688445.00	480595.00	184.00	1169224.00	0.00	0.00	0.00	498.10
Wisconsin	24361.34	18169.96	2520.77	45032.07	0.00	0.00	0.00	2058.54	24303.88	18130.88	405.42	42860.17	0.00	1.06	1.06	640.36
Total	2617403.11	761476.81	6675.35	3396074.80*	1245.40	-9508.10	-8262.70	9990.56*	1330345.18	527465.26	1255.99	1859066.42	499.67	5560.79	6060.46	2817.45

\*The total presented is larger than the sum of water use categories. This is due to the addition of state-wide data from Michigan.  
Michigan's withdrawals and consumptive uses for this category cannot presently be reported by individual sub-basin or water withdrawal type.  
\*\*Ontario did not report its principal facility withdrawals for 1993.





a) Withdrawals, Diversions and Consumptive Use - All facilities

Water-Use Categ.	LAKE MICHIGAN				TOTAL				
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	4316.41	4316.41	0.00	4316.41	4316.41	0.00			
2	0.00	0.00	0.00	0.00	0.00	0.00			
3	68.33	13.93	0.00	68.33	13.93	0.00			
4	0.00	0.00	0.00	0.00	0.00	0.00			
5	0.00	0.00	0.00	0.00	0.00	0.00			
6	49.89	10.14	0.00	49.89	10.14	0.00			
7	3629.82	0.00	0.00	3629.82	0.00	0.00			
8	6534.01	0.00	0.00	6534.01	0.00	0.00			
9	0.00	0.00	0.00	0.00	0.00	0.00			
10	1268.68	1268.68	0.00	1268.68	1268.68	0.00			
Total	15867.14	5609.16	7.80	15867.14	5609.16	7.80			

b) Withdrawals by Source - All facilities

Water-Use Categ.	LAKE MICHIGAN					TOTAL				
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	
1	4316.41	0.00	0.00	4316.41	0.00	0.00				
2	0.00	0.00	0.00	0.00	0.00	0.00				
3	67.91	0.08	0.34	67.91	0.08	0.34				
4	0.00	0.00	0.00	0.00	0.00	0.00				
5	0.00	0.00	0.00	0.00	0.00	0.00				
6	49.89	0.00	0.00	49.89	0.00	0.00				
7	3629.82	0.00	0.00	3629.82	0.00	0.00				
8	6534.01	0.00	0.00	6534.01	0.00	0.00				
9	0.00	0.00	0.00	0.00	0.00	0.00				
10	1268.68	0.00	0.00	1268.68	0.00	0.00				
Total	15866.72	0.08	0.34	15866.72	0.08	0.34				

c) Diversions by Type - All facilities

Water-Use Categ.	LAKE MICHIGAN				TOTAL			
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	4316.41	0.00	4316.41	0.00	4316.41	0.00	4316.41
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	13.93	0.00	13.93	0.00	13.93	0.00	13.93
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	10.14	0.00	10.14	0.00	10.14	0.00	10.14
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	1268.68	0.00	1268.68	0.00	1268.68	0.00	1268.68
Total	0.00	5609.16	0.00	5609.16	0.00	5609.16	0.00	5609.16

Level of Accuracy of Withdrawal Data: 100% Measured  
Level of Aggregation of Withdrawal Data Source: 100% Site-specific

a) Withdrawals, Diversions and Consumptive Use - Principal facilities

Water- Use Categ.	LAKE MICHIGAN				TOTAL
	Withdr.	Diver.	Consum.	Withdr.	
1	4316.41	4316.41	0.00	4316.41	4316.41
2	0.00	0.00	0.00	0.00	0.00
3	67.91	11.36	2.57	67.91	11.36
4	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00
6	57.46	10.14	7.76	57.46	10.14
7	3629.82	0.00	0.00	3629.82	0.00
8	6534.01	0.00	0.00	6534.01	0.00
9	0.00	0.00	0.00	0.00	0.00
10	1268.68	1268.68	0.00	1268.68	1268.68
Total	15874.29	5606.59	10.33	15874.29	5606.59

b) Withdrawals by Source - Principal facilities

Water- Use Categ.	LAKE MICHIGAN				TOTAL
	GLSW	OSW	GM	GLSW	
1	4316.41	0.00	0.00	4316.41	0.00
2	0.00	0.00	0.00	0.00	0.00
3	67.91	0.00	0.00	67.91	0.00
4	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00
6	57.46	0.00	0.00	57.46	0.00
7	3629.82	0.00	0.00	3629.82	0.00
8	6534.01	0.00	0.00	6534.01	0.00
9	0.00	0.00	0.00	0.00	0.00
10	1268.68	0.00	0.00	1268.68	0.00
Total	15874.29	0.00	0.00	15874.29	0.00

c) Diversions by Type - Principal facilities

Water- Use Categ.	LAKE MICHIGAN			TOTAL
	Intrabasin	Interbasin	Interbasin	
1	0.00	4316.41	0.00	4316.41
2	0.00	0.00	0.00	0.00
3	0.00	11.36	0.00	11.36
4	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00
6	0.00	10.14	0.00	10.14
7	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00
10	0.00	1268.68	0.00	1268.68
Total	0.00	5606.59	0.00	5606.59

DATE: 09/19/96

UNITS: ML/d  
YEAR OF DATA: 1993

a) Withdrawals, Diversions and Consumptive Use - All facilities

Water- Use Categ.	LAKE MICHIGAN				LAKE ERIE				TOTAL			
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	539.49	-8.18	80.89	147.90	0.00	22.18	687.39	-8.18	103.08			
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
3	174.13	0.00	26.12	21.05	0.00	3.14	195.18	0.00	29.26			
4	73.10	0.00	65.75	4.92	0.00	4.43	78.02	0.00	70.18			
5	27.63	0.00	22.14	7.34	0.00	5.87	34.98	0.00	28.01			
6	6245.34	0.00	374.72	39.22	0.00	2.38	6284.55	0.00	377.10			
7	3907.74	0.00	78.17	1.02	0.00	0.04	3908.76	0.00	78.21			
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
9	8941.37	0.00	0.00	0.00	0.00	0.00	8941.37	0.00	0.00			
10	0.79	0.00	0.11	0.00	0.00	0.00	8941.37	0.00	0.00			
Total	19909.60	-8.18	647.91	221.45	0.00	38.04	20131.05	-8.18	685.95			

b) Withdrawals by Source - All facilities

Water- Use Categ.	LAKE MICHIGAN				LAKE ERIE				TOTAL			
	GLSW	OSW	GM	GLSW	OSW	GM	GLSW	OSW	GM	GLSW	OSW	GM
1	339.29	0.00	200.21	0.00	121.02	26.88	339.29	121.02	227.09			
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
3	0.00	74.99	99.14	0.00	0.11	20.93	0.00	75.10	120.07			
4	0.00	19.19	53.90	0.00	1.17	3.75	0.00	20.37	57.65			
5	0.00	7.31	20.33	0.00	0.00	7.34	0.00	7.31	27.67			
6	6125.49	30.62	89.22	0.00	31.34	7.87	6125.49	61.97	97.10			
7	3907.74	0.00	0.00	0.00	0.00	1.02	3907.74	0.00	1.02			
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
9	0.00	8941.37	0.00	0.00	0.00	0.00	8941.37	0.00	0.00			
10	0.00	0.23	0.57	0.00	0.00	0.00	0.00	8941.37	0.57			
Total	10372.52	9073.71	463.37	0.00	153.65	67.80	10372.52	9227.36	531.17			

c) Diversions by Type - All facilities

Water- Use Categ.	LAKE MICHIGAN		LAKE ERIE		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	-8.18	0.00	0.00	0.00	-8.18
2	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	-8.18	0.00	0.00	0.00	-8.18

Level of Accuracy of Withdrawal Data:  
Level of Aggregation of Withdrawal Data Source:

3% Measured  
99% Site-specific

51% Partially Measured  
1% Aggregated

46% Calculated or Estimated

a) Withdrawals, Diversions and Consumptive Use - Principal facilities

Water- Use Categ.	LAKE MICHIGAN			LAKE ERIE			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	537.30	0.00	80.59	146.23	0.00	21.92	683.53	0.00	102.51
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	101.03	0.00	15.14	0.11	0.00	0.00	101.15	0.00	15.14
4	68.29	0.00	61.44	3.86	0.00	3.44	72.15	0.00	64.88
5	11.55	0.00	9.27	0.00	0.00	0.00	11.55	0.00	9.27
6	6237.88	0.00	374.26	37.74	0.00	2.23	6275.62	0.00	376.50
7	3907.74	0.00	78.17	1.02	0.00	0.04	3908.76	0.00	78.21
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	8941.37	0.00	0.00	0.00	0.00	0.00	8941.37	0.00	0.00
10	0.34	0.00	0.08	0.00	0.00	0.00	0.34	0.00	0.08
Total	19805.50	0.00	618.95	188.97	0.00	27.63	19994.47	0.00	646.58

b) Withdrawals by Source - Principal facilities

Water- Use Categ.	LAKE MICHIGAN			LAKE ERIE			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	339.29	0.00	198.01	0.00	120.98	25.25	339.29	120.98	223.26
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	74.95	26.08	0.00	0.11	0.00	0.00	75.06	26.08
4	0.00	17.22	51.07	0.00	0.57	3.29	0.00	17.79	54.36
5	0.00	7.31	4.24	0.00	0.00	0.00	0.00	7.31	4.24
6	6125.49	30.59	81.80	0.00	31.19	6.55	6125.49	61.78	88.35
7	3907.74	0.00	0.00	0.00	0.00	1.02	3907.74	0.00	1.02
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	8941.37	0.00	0.00	0.00	0.00	0.00	8941.37	0.00
10	0.00	0.19	0.15	0.00	0.00	0.00	0.00	0.19	0.15
Total	10372.52	9071.63	361.35	0.00	152.85	36.11	10372.52	9224.48	397.47

c) Diversions by Type - Principal facilities

Water- Use Categ.	LAKE MICHIGAN			LAKE ERIE			TOTAL		
	Intrabasin	Interbasin		Intrabasin	Interbasin		Intrabasin	Interbasin	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data:

3% Measured

51% Partially Measured

1% Aggregated

99% Site-specific

46% Calculated or Estimated

a) Withdrawals, Diversions and Consumptive Use - All facilities

UNITS: ML/d  
YEAR OF DATA: 1993

Water- Use Categ.	LAKE SUPERIOR			LAKE MICHIGAN			LAKE HURON			LAKE ERIE			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	4633.33*	0.00	465.59*
2	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	NR	NR	NR	0.00	NR
3	NR	0.00	NR	NR	0.00	0.00	NR	0.00	NR	NR	NR	NR	897.14*	0.00	NR
4	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	NR	NR	NR	0.00	851.71*
5	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	NR	NR	NR	0.00	NR
6	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	NR	NR	4989.16*	0.00	499.67*
7	987.12	0.00	12.83	4132.59	0.00	53.75	2469.86	0.00	32.10	15978.31	0.00	207.70	23567.88	0.00	306.39
8	0.00	0.00	0.00	8181.34	0.00	106.37	0.00	0.00	0.00	0.00	0.00	0.00	8181.34	0.00	106.37
9	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	NR	NR	NR	0.00	NR
10	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	NR	NR	NR	0.00	NR
Total	987.12	0.00	12.83	12313.93	0.00	160.12	2469.86	0.00	32.10	15978.31	0.00	207.70	42268.85*	0.00	2229.73*

b) Withdrawals by Source - All facilities

Water- Use Categ.	LAKE SUPERIOR			LAKE MICHIGAN			LAKE HURON			LAKE ERIE			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
7	987.12	0.00	0.00	3652.91	471.05	8.63	2469.74	0.11	0.00	15977.97	0.34	0.00	23087.74	471.51	8.63
8	0.00	0.00	0.00	8181.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8181.34	0.00	0.00
9	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
10	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Total	987.12	0.00	0.00	11834.25	471.05	8.63	2469.74	0.11	0.00	15977.97	0.34	0.00	31269.08	471.51	8.63

c) Diversions by Type - All facilities

Water- Use Categ.	LAKE SUPERIOR			LAKE MICHIGAN			LAKE HURON			LAKE ERIE			TOTAL		
	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

\*This total figure cannot presently be reported by individual sub-basin or withdrawal type. NR=not reported  
 Level of Accuracy of Withdrawal Data: 11% Measured 87% Partially Measured 2% Calculated or Estimated  
 Level of Accuracy of Withdrawal Data: 98% Site-specific 2% Aggregated

a) Withdrawals, Diversions and Consumptive Use - Principal facilities

Water-Use Categ.	LAKE SUPERIOR			LAKE MICHIGAN			LAKE HURON			LAKE ERIE			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR
3	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR
4	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR
5	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR
6	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR
10	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR	NR	0.00	NR
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

b) Withdrawals by Source - Principal facilities

Water-Use Categ.	LAKE SUPERIOR			LAKE MICHIGAN			LAKE HURON			LAKE ERIE			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
2	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
3	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
4	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
5	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
6	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
10	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

c) Diversions by Type - Principal facilities

Water-Use Categ.	LAKE SUPERIOR		LAKE MICHIGAN		LAKE HURON		LAKE ERIE		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	NR	0.00	NR	0.00	NR	0.00	NR	0.00	NR	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

e) Withdrawals, Diversions and Consumptive Use - All facilities

DATE: 01/22/97  
 UNITS: ML/D  
 YEAR OF DATA: 1993

Water- Use Categ.	LAKE SUPERIOR				TOTAL			
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.		
1	163.38	0.00	34.30	163.38	0.00	34.30		
2	0.00	0.00	0.00	0.00	0.00	0.00		
3	7.99	0.00	0.64	7.99	0.00	0.64		
4	0.87	0.00	0.79	0.87	0.00	0.79		
5	0.91	0.00	0.00	0.91	0.00	0.00		
6	901.27	0.00	189.27	901.27	0.00	189.27		
7	554.18	0.00	11.09	554.18	0.00	11.09		
8	0.00	0.00	0.00	0.00	0.00	0.00		
9	17405.26	0.00	0.00	17405.26	0.00	0.00		
10	0.57	0.00	0.00	0.57	0.00	0.00		
Total	19034.43	0.00	236.09	19034.43	0.00	236.09		

b) Withdrawals by Source - All facilities

Water- Use Categ.	LAKE SUPERIOR				TOTAL			
	GLSW	OSW	GW	GLSW	OSW	GW		
1	126.39	18.17	18.81	126.39	18.17	18.81		
2	0.00	0.00	0.00	0.00	0.00	0.00		
3	7.38	.64	0.04	7.38	.64	0.04		
4	0.04	0.79	0.04	0.04	0.79	0.04		
5	0.00	0.11	0.79	0.00	0.11	0.79		
6	577.42	323.50	0.34	577.42	323.50	0.34		
7	2.80	551.31	0.08	2.80	551.31	0.08		
8	0.00	0.00	0.00	0.00	0.00	0.00		
9	0.00	17405.26	0.00	0.00	17405.26	0.00		
10	0.00	0.00	0.57	0.00	0.00	0.57		
Total	714.04	18299.78	20.67	714.04	18299.78	20.67		

c) Diversions by Type - All facilities

Water- Use Categ.	LAKE SUPERIOR		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 9% Measured  
 Level of Aggregation of Withdrawal Data Source: 9% Site-specific 91% Calculated or Estimated  
 91% Aggregated



a) Withdrawals, Diversions and Consumptive Use - Principal facilities

Water- Use Categ.	LAKE SUPERIOR				TOTAL
	Withdr.	Diver.	Consum.	Withdr.	
1	161.33	0.00	33.88	161.33	0.00
2	0.00	0.00	0.00	0.00	33.88
3	7.91	0.00	0.64	7.91	0.00
4	0.72	0.00	0.64	0.72	0.64
5	0.00	0.00	0.00	0.00	0.00
6	899.71	0.00	188.92	899.71	188.92
7	553.54	0.00	11.09	553.54	11.09
8	0.00	0.00	0.00	0.00	0.00
9	17405.26	0.00	0.00	17405.26	0.00
10	0.00	0.00	0.00	0.00	0.00
Total	19028.47	0.00	235.17	19028.47	0.00

b) Withdrawals by Source - Principal facilities

Water- Use Categ.	LAKE SUPERIOR					TOTAL
	GLSW	OSW	GV	GLSW	OSW	
1	126.28	18.02	17.00	126.28	18.02	17.00
2	0.00	0.00	0.00	0.00	0.00	0.00
3	7.38	0.53	0.00	7.38	0.53	0.00
4	0.00	0.72	0.00	0.00	0.72	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00
6	577.42	322.29	0.00	577.42	322.29	0.00
7	2.80	550.74	0.00	2.80	550.74	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	17405.26	0.00	0.00	17405.26	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
Total	713.89	18297.56	17.00	713.89	18297.56	17.00

c) Diversions by Type - Principal facilities

Water- Use Categ.	LAKE SUPERIOR			TOTAL
	Intrabasin	Interbasin	Interbasin	
1	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00

a) Withdrawals, Diversions and Consumptive Use - All facilities

Vetter- Use Categ.	LAKE ERIE			LAKE ONTARIO			ST. LAWRENCE RIVER			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	779.79	0.00	77.98	1006.92	0.00	100.69	476.96	0.00	47.70	2263.67	0.00	226.37
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	295.26	0.00	29.53	1097.77	0.00	109.78	333.11	0.00	34.07	1726.14	0.00	173.37
4	6.06	0.00	5.38	30.28	0.00	26.88	4.20	0.00	3.71	40.54	0.00	35.96
5	5.30	0.00	4.16	24.23	0.00	12.49	11.36	0.00	9.08	40.88	0.00	25.74
6	221.07	0.00	21.96	832.79	0.00	85.28	276.33	0.00	27.63	1330.19	0.00	132.87
7	1654.22	0.00	3.79	6658.51	0.00	30.28	0.00	0.00	0.00	8312.73	0.00	34.07
8	0.00	0.00	0.00	4769.60	0.00	11.36	0.00	0.00	0.00	4769.60	0.00	11.36
9	2119.82	0.00	0.00	575516.65	0.00	0.00	0.00	0.00	0.00	4769.60	0.00	11.36
10	0.00	0.00	0.00	1245.40	0.00	0.00	499.67	0.00	0.00	1745.07	0.00	0.00
Total	5081.52	0.00	142.79	591182.14	1245.40	374.75	570664.19	0.00	122.19	1166927.8	1245.40	639.73

b) Withdrawals by Source - All facilities

Vetter- Use Categ.	LAKE ERIE			LAKE ONTARIO			ST. LAWRENCE RIVER			TOTAL		
	GLSM	OSW	GM	GLSM	OSW	GM	GLSM	OSW	GM	GLSM	OSW	GM
1	605.66	174.13	0.00	363.40	526.17	117.35	382.33	0.00	94.63	1351.39	700.30	211.98
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	37.85	37.85	219.55	382.33	363.40	352.04	193.06	75.71	64.35	613.23	476.96	635.95
4	4.54	0.00	1.51	26.50	0.00	3.79	3.79	0.00	4.42	34.83	0.00	5.72
5	1.89	0.00	3.41	9.46	0.00	14.76	3.79	0.00	7.57	15.14	0.00	25.74
6	208.20	0.00	12.87	681.37	0.00	151.62	257.41	0.00	18.93	1146.98	0.00	183.21
7	1654.22	0.00	0.00	6658.51	0.00	0.00	0.00	0.00	0.00	8312.73	0.00	0.00
8	0.00	0.00	0.00	4769.60	0.00	0.00	0.00	0.00	0.00	4769.60	0.00	0.00
9	2119.82	0.00	0.00	575516.65	0.00	0.00	0.00	0.00	0.00	1146699.0	0.00	0.00
10	0.00	0.00	0.00	1245.40	0.00	0.00	499.67	0.00	0.00	1745.07	0.00	0.00
Total	4632.19	211.98	237.34	589653.21	889.57	639.35	570402.58	75.71	185.90	1164688.0	1177.26	1062.60

c) Diversions by Type - All facilities

Vetter- Use Categ.	LAKE ERIE			LAKE ONTARIO			ST. LAWRENCE RIVER			TOTAL		
	Intrabasin	Interbasin		Intrabasin	Interbasin		Intrabasin	Interbasin		Intrabasin	Interbasin	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 2% Measured  
 Level of Aggregation of Withdrawal Data Source: 100% Site-specific  
 61% Partially Measured  
 37% Calculated or Estimated

a) Withdrawals, Diversions and Consumptive Use - Principal facilities

UNITS: ML/d  
YEAR OF DATA: 1993

Water Use Categ.	LAKE ERIE			LAKE ONTARIO			ST. LAWRENCE RIVER			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	1654.22	0.00	0.00	6658.51	0.00	0.00	0.00	0.00	8312.73	0.00	0.00	0.00
8	0.00	0.00	0.00	4769.60	0.00	0.00	0.00	0.00	4769.60	0.00	0.00	0.00
9	2119.82	0.00	0.00	210608.14	0.00	0.00	351814.82	0.00	564542.78	0.00	0.00	0.00
10	0.00	0.00	0.00	1245.40	0.00	0.00	499.67	499.67	1745.07	499.67	499.67	0.00
Total	3774.04	0.00	0.00	223281.65	0.00	0.00	352314.49	499.67	579370.18	499.67	499.67	0.00

b) Withdrawals by Source - Principal facilities

Water Use Categ.	LAKE ERIE			LAKE ONTARIO			ST. LAWRENCE RIVER			TOTAL		
	ELSW	OSW	GM	GLSW	OSW	GM	GLSW	OSW	GM	GLSW	OSW	GM
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	1654.22	0.00	0.00	6658.51	0.00	0.00	0.00	0.00	8312.73	0.00	0.00	0.00
8	0.00	0.00	0.00	4769.60	0.00	0.00	0.00	0.00	4769.60	0.00	0.00	0.00
9	2119.82	0.00	0.00	210608.14	0.00	0.00	351814.82	0.00	564542.78	0.00	0.00	0.00
10	0.00	0.00	0.00	1245.40	0.00	0.00	499.67	499.67	1745.07	499.67	499.67	0.00
Total	3774.04	0.00	0.00	223281.65	0.00	0.00	352314.49	499.67	579370.18	499.67	499.67	0.00

c) Diversions by Type - Principal facilities

Water Use Categ.	LAKE ERIE		LAKE ONTARIO		ST. LAWRENCE RIVER		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	499.67	0.00	499.67	0.00
10	0.00	0.00	0.00	0.00	499.67	0.00	499.67	0.00
Total	0.00	0.00	0.00	0.00	499.67	0.00	499.67	0.00

JURISDICTION REPORT - Ohio

DATE: 09/19/96

UNITS: ML/d  
YEAR OF DATA: 1993

a) Withdrawals, Diversions and Consumptive Use - All facilities

Water-Use Categ.	LAKE ERIE				TOTAL				
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	2270.75	0.83	340.61	2270.75	0.83	340.61			
2	0.00	0.00	0.00	0.00	0.00	0.00			
3	225.99	0.00	33.92	225.99	0.00	33.92			
4	41.98	0.00	37.74	41.98	0.00	37.74			
5	49.70	0.00	39.75	49.70	0.00	39.75			
6	776.99	0.00	77.68	776.99	0.00	77.68			
7	8890.57	0.00	0.30	8890.57	0.00	0.30			
8	448.61	0.00	76.28	448.61	0.00	76.28			
9	0.00	0.00	0.00	0.00	0.00	0.00			
10	19.68	-47.70	0.00	19.68	-47.70	0.00			
Total	12724.27	-46.86	606.27	12724.27	-46.86	606.27			

b) Withdrawals by Source - All facilities

Water-Use Categ.	LAKE ERIE				TOTAL				
	GLSM	OSW	GM	GLSM	OSW	GM	GLSM	OSW	GM
1	1701.04	437.63	132.07	1701.04	437.63	132.07			
2	0.00	0.00	0.00	0.00	0.00	0.00			
3	0.00	0.00	225.99	0.00	0.00	225.99			
4	0.45	33.54	7.99	0.45	33.54	7.99			
5	0.00	8.71	41.00	0.00	8.71	41.00			
6	69.31	573.53	134.15	69.31	573.53	134.15			
7	8742.34	148.24	0.00	8742.34	148.24	0.00			
8	448.61	0.00	0.00	448.61	0.00	0.00			
9	0.00	0.00	0.00	0.00	0.00	0.00			
10	4.96	14.12	0.61	4.96	14.12	0.61			
Total	10966.71	1215.76	541.80	10966.71	1215.76	541.80			

c) Diversions by Type - All facilities

Water-Use Categ.	LAKE ERIE				TOTAL			
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.83	0.00	0.83	0.00	0.83	0.00	0.83
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	-47.70	0.00	-47.70	0.00	-47.70	0.00	-47.70
Total	0.00	-46.86	0.00	-46.86	0.00	-46.86	0.00	-46.86

Level of Accuracy of Withdrawal Data: 100% Partially Measured  
Level of Aggregation of Withdrawal Data Source: 100% Site-specific

a) Withdrawals, Diversions and Consumptive Use - Principal facilities

Water- Use Categ.	LAKE ERIE				TOTAL			
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Consum.
1	2248.94	0.83	337.35	2248.94	0.83	337.35	0.83	337.35
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	21.20	0.00	19.12	21.20	0.00	19.12	0.00	19.12
5	3.26	0.00	2.61	3.26	0.00	2.61	0.00	2.61
6	771.01	0.00	77.11	771.01	0.00	77.11	0.00	77.11
7	8990.57	0.00	0.30	8990.57	0.00	0.30	0.00	0.30
8	448.61	0.00	76.28	448.61	0.00	76.28	0.00	76.28
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	18.43	-47.70	0.00	18.43	-47.70	0.00	-47.70	0.00
Total	12402.02	-46.86	512.77	12402.02	-46.86	512.77	-46.86	512.77

b) Withdrawals by Source - Principal facilities

Water- Use Categ.	LAKE ERIE				TOTAL			
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW
1	1700.55	436.27	112.12	1700.55	436.27	112.12	1700.55	436.27
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	17.98	3.22	0.00	17.98	3.22	0.00	17.98
5	0.00	2.65	0.61	0.00	2.65	0.61	0.00	2.65
6	69.20	572.39	129.42	69.20	572.39	129.42	69.20	572.39
7	8742.34	148.24	0.00	8742.34	148.24	0.00	8742.34	148.24
8	448.61	0.00	0.00	448.61	0.00	0.00	448.61	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	4.96	13.02	0.45	4.96	13.02	0.45	4.96	13.02
Total	10965.65	1190.55	245.82	10965.65	1190.55	245.82	10965.65	1190.55

c) Diversions by Type - Principal facilities

Water- Use Categ.	LAKE ERIE				TOTAL			
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.83	0.00	0.00	0.00	0.83	0.00	0.83
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	-47.70	0.00	0.00	0.00	-47.70	0.00	-47.70
Total	0.00	-46.86	0.00	0.00	0.00	-46.86	0.00	-46.86

Level of Accuracy of Withdrawal Data: 100% Partially Measured  
 Level of Aggregation of Withdrawal Data Source: 100% Site-specific

a) Withdrawals, Diversions and Consumptive Use - All facilities

Water Use Category	LAKE SUPERIOR			LAKE HURON			LAKE ERIE			LAKE ONTARIO			ST. LAURENCE RIVER			TOTAL		
	Withdraw.	Diver.	Consum.	Withdraw.	Diver.	Consum.	Withdraw.	Diver.	Consum.	Withdraw.	Diver.	Consum.	Withdraw.	Diver.	Consum.	Withdraw.	Diver.	Consum.
1	79.65	0.00	11.95	571.10	171.40	85.66	776.76	-171.40	116.35	3156.46	0.00	473.47	596.30	0.00	89.44	5180.27	0.00	776.87
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	6.51	0.00	0.98	115.73	0.00	17.36	115.15	0.00	17.27	136.72	0.00	20.51	131.61	0.00	19.74	505.72	0.00	75.86
4	0.74	0.00	0.38	102.14	0.00	79.67	477.41	0.00	372.38	107.99	0.00	84.23	20.59	0.00	16.06	706.87	0.00	552.92
5	1.26	0.00	1.01	64.72	0.00	51.78	65.72	0.00	52.58	34.02	0.00	27.22	37.33	0.00	29.86	203.05	0.00	162.45
6	700.90	0.00	70.09	3087.10	0.00	308.71	1985.70	0.00	198.57	3471.60	0.00	347.16	635.60	0.00	63.56	9880.90	0.00	980.09
7	753.42	0.00	7.39	0.00	0.00	0.00	5561.64	0.00	50.05	895.62	0.00	8.07	0.00	0.00	7210.68	0.00	85.51	
8	0.00	0.00	0.00	22602.74	0.00	0.00	0.00	0.00	28356.16	-14030.16	0.00	255.20	0.00	0.00	0.00	50958.90	0.00	255.20
9	150057.60	-15062.22	0.00	137287.75	0.00	0.00	14030.16	2489.52	188937.22	486.52	0.00	0.00	101.93	0.00	2.16	826445.43	-15062.22	2.16
10	0.00	0.00	0.00	148.36	0.00	0.00	2489.52	2489.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3226.04	0.00	0.00
Total	151600.08	-15062.22	92.00	164079.64	171.40	543.18	25502.06	16348.28	807.20	225182.12	-16519.68	1215.86	337955.96	0.00	220.80	904319.86	-15062.22	2879.04

b) Withdrawals by Source - All facilities

Water Use Category	LAKE SUPERIOR			LAKE HURON			LAKE ERIE			LAKE ONTARIO			ST. LAURENCE RIVER			TOTAL		
	GLSU	OSU	GW	GLSU	OSU	GW	GLSU	OSU	GW	GLSU	OSU	GW	GLSU	OSU	GW	GLSU	OSU	GW
1	62.38	9.91	7.36	248.61	146.43	176.06	411.23	72.61	292.92	2937.62	142.07	76.77	153.96	422.71	19.63	3813.80	793.73	572.76
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	6.51	0.00	0.00	115.73	0.00	0.00	115.15	0.00	0.00	0.00	0.00	0.00	131.61	0.00	505.72	0.00
4	0.00	0.00	0.74	0.00	0.00	26.67	0.00	0.00	25.78	0.00	0.00	0.00	0.00	0.00	29.86	0.00	185.60	0.00
5	0.00	0.00	0.52	0.00	0.00	77.47	0.00	0.00	65.72	0.00	0.00	0.00	0.00	0.00	37.33	0.00	203.05	0.00
6	651.10	41.30	1.26	2736.00	0.00	64.72	1846.20	0.00	103.30	36.20	3032.30	426.90	12.40	0.00	20.20	8767.50	986.30	127.10
7	753.42	0.00	0.00	0.00	0.00	0.00	5561.64	0.00	0.00	893.62	0.00	0.00	0.00	0.00	7210.68	0.00	0.00	0.00
8	0.00	0.00	0.00	22602.74	0.00	0.00	0.00	0.00	28356.16	28356.16	0.00	0.00	0.00	0.00	0.00	50958.90	0.00	0.00
9	0.00	0.00	0.00	86482.58	50905.17	0.00	14030.16	0.00	0.00	160233.21	28304.11	0.00	0.00	0.00	0.00	597178.55	229264.88	0.00
10	0.00	0.00	0.00	0.00	148.36	0.00	2489.52	0.00	0.00	0.00	486.23	0.00	0.00	0.00	0.00	2489.52	736.52	0.00
Total	1466.90	150109.33	23.85	112069.93	51578.73	430.98	24338.75	527.54	635.77	195454.91	29437.94	289.27	337088.46	653.16	214.36	670418.93	232306.70	1594.21

c) Diversions by Type - All facilities

Water Use Category	LAKE SUPERIOR		LAKE HURON		LAKE ERIE		LAKE ONTARIO		ST. LAURENCE RIVER		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	171.40	0.00	-171.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	-15062.22	0.00	0.00	14030.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	2489.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	-15062.22	171.40	0.00	-16519.68	0.00	0.00	0.00	0.00	0.00	0.00	-15062.22

Level of Accuracy of Withdrawal Data: 100% Partially Measured  
 Level of Aggregation of Withdrawal Data Source: 100% Site-specific  
 \* Ontario did not report its principal facility withdrawals for 1995.

a) Withdrawals, Diversions and Consumptive Use - Principal facilities

Water Use Categ.	LAKE SUPERIOR			LAKE HURON			LAKE ERIE			LAKE ONTARIO			ST. LAWRENCE RIVER			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

b) Withdrawals by Source - Principal facilities

Water Use Categ.	LAKE SUPERIOR			LAKE HURON			LAKE ERIE			LAKE ONTARIO			ST. LAWRENCE RIVER			TOTAL		
	GLSU	OSU	GV	GLSU	OSU	GV	GLSU	OSU	GV	GLSU	OSU	GV	GLSU	OSU	GV	GLSU	OSU	GV
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

c) Diversions by Type - Principal facilities

Water Use Categ.	LAKE SUPERIOR		LAKE HURON		LAKE ERIE		LAKE ONTARIO		ST. LAWRENCE RIVER		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 100% Partially Measured  
Level of Aggregation of Withdrawal Data Source: 100% Site-specific

a) Withdrawals, Diversions and Consumptive Use - All facilities

Water-Use Categ.	LAKE ERIE			LAKE ONTARIO			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	167.35	0.00	16.77	0.45	0.00	0.04	167.81	0.00	16.81
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	7.46	0.00	0.76	0.26	0.00	0.04	7.72	0.00	0.79
4	1.32	0.00	1.21	0.00	0.00	0.00	1.32	0.00	1.21
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	149.90	0.00	30.43	0.00	0.00	0.00	149.90	0.00	30.43
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	326.04	0.00	49.17	0.72	0.00	0.08	326.76	0.00	49.25

b) Withdrawals by Source - All facilities

Water-Use Categ.	LAKE ERIE			LAKE ONTARIO			TOTAL		
	GLSM	OSM	GM	GLSM	OSM	GM	GLSM	OSM	GM
1	153.69	5.87	7.80	0.00	0.00	0.45	153.69	5.87	8.25
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	7.46	0.00	0.00	0.26	0.00	0.00	7.72
4	0.00	1.10	0.23	0.00	0.00	0.00	0.00	1.10	0.23
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	146.08	3.07	0.76	0.00	0.00	0.00	146.08	3.07	0.76
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	299.77	10.03	16.24	0.00	0.00	0.72	299.77	10.03	16.96

c) Diversions by Type - All facilities

Water-Use Categ.	LAKE ERIE		LAKE ONTARIO		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 51% Measured 49% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 98% Site-specific 2% Aggregated



a) Withdrawals, Diversions and Consumptive Use - Principal facilities

UNITS: ML/d  
YEAR OF DATA: 1993

Water-Use Categ.	LAKE ERIE				LAKE ONTARIO				TOTAL	
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Consum.
1	165.35	0.00	16.54	0.00	0.00	0.00	165.35	0.00	16.54	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	1.25	0.00	1.14	0.00	0.00	0.00	1.25	0.00	1.14	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	149.30	0.00	30.28	0.00	0.00	0.00	149.30	0.00	30.28	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	315.89	0.00	47.96	0.00	0.00	0.00	315.89	0.00	47.96	0.00

b) Withdrawals by Source - Principal facilities

Water-Use Categ.	LAKE ERIE				LAKE ONTARIO				TOTAL	
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GW
1	153.69	5.87	5.79	0.00	0.00	0.00	153.69	5.87	5.79	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	1.02	0.23	0.00	0.00	0.00	0.00	1.02	0.23	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	146.08	2.95	0.26	0.00	0.00	0.00	146.08	2.95	0.26	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	299.77	9.84	6.28	0.00	0.00	0.00	299.77	9.84	6.28	0.00

c) Diversions by Type - Principal facilities

Water-Use Categ.	LAKE ERIE				LAKE ONTARIO				TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

a) Withdrawals, Diversions and Consumptive Use - All facilities

Water- Use Categ.	ST. LAWRENCE RIVER					TOTAL				
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	
1	4164.00	0.00	416.00	4164.00	0.00	416.00	0.00	0.00	416.00	
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	271.00	0.00	27.00	271.00	0.00	27.00	0.00	0.00	27.00	
4	34.90	0.00	3.41	34.90	0.00	3.41	0.00	0.00	3.41	
5	72.30	0.00	57.84	72.30	0.00	57.84	0.00	0.00	57.84	
6	475.00	0.00	47.50	475.00	0.00	47.50	0.00	0.00	47.50	
7	178.00	0.00	17.80	178.00	0.00	17.80	0.00	0.00	17.80	
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9	1164240.0	0.00	0.00	1164240.0	0.00	0.00	0.00	0.00	0.00	
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Total	1169435.2	0.00	597.55	1169435.2	0.00	597.55	0.00	0.00	597.55	

b) Withdrawals by Source - All facilities

Water- Use Categ.	ST. LAWRENCE RIVER				TOTAL			
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW
1	2282.00	1882.00	0.00	2282.00	1882.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	271.00	0.00	0.00	271.00	0.00	0.00
4	0.00	0.00	34.90	0.00	0.00	34.90	0.00	0.00
5	0.00	0.00	72.30	0.00	0.00	72.30	0.00	0.00
6	0.00	475.00	0.00	0.00	475.00	0.00	0.00	0.00
7	148.00	30.00	0.00	148.00	30.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	686016.00	478224.00	0.00	686016.00	478224.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	688446.00	480611.00	378.20	688446.00	480611.00	378.20	0.00	0.00

c) Diversions by Type - All facilities

Water- Use Categ.	ST. LAWRENCE RIVER		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 99.5% Measured  
Level of Aggregation of Withdrawal Data Source: 100% Site-specific

.4% Partially Measured

.1% Calculated or Estimated

a) Withdrawals, Diversions and Consumptive Use - Principal facilities

Water- Use Categ.	ST. LAWRENCE RIVER				TOTAL
	Withdr.	Diver.	Consum.	Withdr.	
1	4149.00	0.00	415.00	4149.00	0.00
2	0.00	0.00	0.00	0.00	415.00
3	184.00	0.00	18.00	184.00	0.00
4	0.00	0.00	0.00	0.00	18.00
5	0.00	0.00	0.00	0.00	0.00
6	473.00	0.00	47.30	473.00	0.00
7	178.00	0.00	17.80	178.00	0.00
8	0.00	0.00	0.00	0.00	47.30
9	1164240.0	0.00	0.00	1164240.0	0.00
10	0.00	0.00	0.00	0.00	17.80
Total	1169224.0	0.00	498.10	1169224.0	0.00

b) Withdrawals by Source - Principal facilities

Water- Use Categ.	ST. LAWRENCE RIVER				TOTAL
	GLSW	OSW	GLSW	OSW	
1	2281.00	1868.00	0.00	2281.00	1868.00
2	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	184.00	0.00	184.00
4	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00
6	0.00	473.00	0.00	0.00	473.00
7	148.00	30.00	0.00	148.00	30.00
8	0.00	0.00	0.00	0.00	0.00
9	686016.00	478224.00	0.00	686016.00	478224.00
10	0.00	0.00	0.00	0.00	0.00
Total	688445.00	480595.00	184.00	688445.00	480595.00

c) Diversions by Type - Principal facilities

Water- Use Categ.	ST. LAWRENCE RIVER				TOTAL
	Intrabasin	Interbasin	Intrabasin	Interbasin	
1	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 99.5% Measured  
Level of Aggregation of Withdrawal Data Source: 100% Site-specific

.4% Partially Measured

.1% Calculated or Estimated

a) Withdrawals, Diversions and Consumptive Use - All facilities

Water- Use Categ.	LAKE SUPERIOR			LAKE MICHIGAN			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	20.44	0.00	3.07	1306.34	0.72	195.74	1326.78	0.72	198.81
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	13.17	0.00	1.97	104.86	0.00	15.52	118.03	0.00	17.49
4	0.00	0.00	0.00	2034.65	0.00	1424.26	2034.65	0.00	1424.26
5	0.00	0.00	0.00	2.50	0.00	2.01	2.50	0.00	2.01
6	0.15	0.00	0.00	1216.89	0.00	182.19	1217.04	0.00	182.19
7	83.66	0.00	0.00	4663.27	0.00	46.64	4746.93	0.00	46.64
8	0.00	0.00	0.00	18714.74	0.00	187.15	18714.74	0.00	187.15
9	557.32	0.00	0.00	16314.08	0.00	0.00	16871.40	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	674.75	0.00	5.03	44357.32	0.72	2053.50	45032.07	0.72	2058.54

b) Withdrawals by Source - All facilities

Water- Use Categ.	LAKE SUPERIOR			LAKE MICHIGAN			TOTAL		
	GLSH	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	20.44	0.00	0.00	895.93	94.33	316.08	916.37	94.33	316.08
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	13.17	0.00	0.00	104.86	0.00	0.00	118.03
4	0.00	0.00	0.00	0.00	0.00	2034.65	0.00	0.00	2034.65
5	0.00	0.00	0.00	0.00	0.00	2.50	0.00	0.00	2.50
6	0.00	0.00	0.15	6.09	0.00	6.09	6.09	0.00	6.09
7	83.66	0.00	0.00	4640.48	20.90	1.89	4724.14	20.90	1.89
8	0.00	0.00	0.00	18714.74	0.00	0.00	18714.74	0.00	0.00
9	0.00	557.32	0.00	0.00	16314.08	0.00	0.00	16871.40	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	104.10	557.32	13.32	24257.24	17592.63	2507.45	24361.34	18149.96	2520.77

c) Diversions by Type - All facilities

Water- Use Categ.	LAKE SUPERIOR		LAKE MICHIGAN		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.72	0.00	0.72
2	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.72	0.00	0.72

Level of Accuracy of Withdrawal Data: 100% Calculated or Estimated  
Level of Aggregation of Withdrawal Data Source: 100% Aggregated

a) Withdrawals, Diversions and Consumptive Use - Principal facilities

UNITS: ML/d  
YEAR OF DATA: 1993

Water- Use Categ.	LAKE SUPERIOR				LAKE MICHIGAN				TOTAL			
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	17.56	0.00	2.65	1306.26	0.72	195.71	1323.83	0.72	198.35	0.72	0.00	198.35
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	41.72	0.00	29.19	41.72	0.00	29.19	0.00	0.00	29.19
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.15	0.00	0.00	1197.89	0.00	179.77	1198.04	0.00	179.77	0.00	0.00	179.77
7	78.24	0.00	0.00	4612.20	0.00	46.11	4690.45	0.00	46.11	0.00	0.00	46.11
8	0.00	0.00	0.00	18714.74	0.00	187.15	18714.74	0.00	187.15	0.00	0.00	187.15
9	557.32	0.00	0.00	16314.08	0.00	0.00	16871.40	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	653.28	0.00	2.65	42186.89	0.72	637.92	42840.17	0.72	640.56	0.72	0.00	640.56

b) Withdrawals by Source - Principal facilities

Water- Use Categ.	LAKE SUPERIOR				LAKE MICHIGAN				TOTAL			
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	17.56	0.00	0.00	895.93	94.26	316.08	913.49	94.26	316.08	94.26	0.00	316.08
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	41.72	0.00	0.00	0.00	0.00	0.00	41.72
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.15	6.09	1144.33	47.47	6.09	1144.33	47.62	1144.33	0.00	47.62
7	78.24	0.00	0.00	4591.31	20.90	0.00	4669.55	20.90	0.00	4669.55	0.00	20.90
8	0.00	0.00	0.00	18714.74	0.00	0.00	18714.74	0.00	0.00	18714.74	0.00	0.00
9	0.00	557.32	0.00	0.00	16314.08	0.00	0.00	16871.40	0.00	16871.40	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16871.40	0.00	0.00
Total	95.81	557.32	0.15	24208.07	17573.56	405.26	24303.88	18130.88	405.42	24303.88	0.00	405.42

c) Diversions by Type - Principal facilities

Water- Use Categ.	LAKE SUPERIOR				LAKE MICHIGAN				TOTAL			
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72

a) Withdrawals, Diversions and Consumptive Use - All Facilities

Water-Use Categ.	MICHIGAN*					MINNESOTA					ONTARIO					WISCONSIN					TOTAL				
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.				
1	0.00	0.00	0.00	163.38	0.00	34.30	79.65	0.00	11.95	20.44	0.00	3.07	263.47	0.00	0.00	0.00	49.31								
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
3	0.00	0.00	0.00	15.44	0.00	1.25	6.51	0.00	0.98	13.17	0.00	1.97	35.13	0.00	0.00	0.00	4.20								
4	0.00	0.00	0.00	0.87	0.00	0.79	0.74	0.00	0.58	0.00	0.00	0.00	1.61	0.00	0.00	0.00	1.37								
5	0.00	0.00	0.00	0.91	0.00	0.00	1.26	0.00	1.01	0.00	0.00	0.00	2.17	0.00	0.00	0.00	1.01								
6	0.00	0.00	0.00	901.27	0.00	189.27	700.90	0.00	70.09	0.15	0.00	0.00	1602.32	0.00	0.00	0.00	259.36								
7	987.12	0.00	12.83	554.18	0.00	11.09	753.42	0.00	7.39	83.66	0.00	0.00	2378.38	0.00	0.00	0.00	31.31								
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00								
9	0.00	0.00	0.00	17405.26	0.00	0.00	150057.60	-15062.22	0.00	557.32	0.00	0.00	168020.18	-15062.22	0.00	0.00	0.00	0.00							
10	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00								
Total	987.12	0.00	12.83	19041.87	0.00	236.70	151600.08	-15062.22	92.00	674.75	0.00	5.03	172303.82	-15062.22	0.00	0.00	346.57								

b) Withdrawals by Source - All Facilities

Water-Use Categ.	MICHIGAN*					MINNESOTA					ONTARIO					WISCONSIN					TOTAL				
	GLSW	OSU	GW	GLSW	OSU	GW	GLSW	OSU	GW	GLSW	OSU	GW	GLSW	OSU	GW	GLSW	OSU	GW	GLSW	OSU	GW				
1	0.00	0.00	0.00	126.39	18.17	18.81	62.38	9.91	7.36	20.44	0.00	0.00	209.22	28.08	0.00	0.00	0.00	26.17							
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00							
3	0.00	0.00	0.00	7.36	8.03	0.04	0.00	0.00	6.51	0.00	0.00	13.17	7.38	8.03	0.00	0.00	0.00	19.72							
4	0.00	0.00	0.00	0.04	0.79	0.04	0.00	0.52	0.22	0.00	0.00	0.00	0.04	0.11	0.00	0.00	0.26								
5	0.00	0.00	0.00	0.00	0.11	0.79	0.00	0.00	1.26	0.00	0.00	0.00	0.00	0.15	0.00	0.00	2.05								
6	0.00	0.00	0.00	577.42	323.50	0.34	651.10	41.30	8.50	0.00	0.00	0.15	1228.52	364.80	0.00	0.00	8.99								
7	987.12	0.00	0.00	2.80	551.31	0.08	753.42	0.00	0.00	83.66	0.00	0.00	1827.00	551.31	0.00	0.00	0.08								
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00								
9	0.00	0.00	0.00	0.00	17405.26	0.00	150057.60	0.00	0.00	0.00	0.00	0.00	168020.18	0.00	0.00	0.00	0.00	0.00							
10	0.00	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57								
Total	987.12	0.00	0.00	714.04	18307.17	20.67	1466.90	150109.33	23.85	104.10	557.32	13.32	3272.16	168973.82	57.84										

c) Diversions by Type - All Facilities

Water-Use Categ.	MICHIGAN*		MINNESOTA		ONTARIO		WISCONSIN		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 39% Measured  
 Level of Aggregation of Withdrawal Data Source: 63% Site-specific  
 \* The State of Michigan was unable to report by sub-basin for most categories of use. 23% Partially Measured  
 28% Aggregated  
 28% Calculated or Estimated

BASIN REPORT - Lake Superior

DATE: 05/06/97  
 UNITS: ML/d  
 YEAR OF DATA: 1993

a) Withdrawals, Diversions and Consumptive Use - Principal Facilities

Water- Use Categ.	MICHIGAN*			MINNESOTA			ONTARIO**			WISCONSIN			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	0.00	0.00	0.00	178.25	0.00	37.44	0.00	0.00	0.00	17.56	0.00	2.65	195.82	0.00	40.09
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	7.91	0.00	0.64	0.00	0.00	0.00	0.00	0.00	0.00	7.91	0.00	0.64
4	0.00	0.00	0.00	0.72	0.00	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00	0.64
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	899.71	0.00	411.32	0.00	0.00	0.00	0.15	0.00	0.00	899.86	0.00	411.32
7	0.00	0.00	0.00	533.54	0.00	11.09	0.00	0.00	0.00	78.24	0.00	0.00	631.78	0.00	11.09
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	17405.26	0.00	0.00	0.00	0.00	0.00	557.32	0.00	0.00	17962.58	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	19045.39	0.00	461.14	0.00	0.00	0.00	653.28	0.00	2.65	19698.68	0.00	463.79

b) Withdrawals by Source - Principal Facilities

Water- Use Categ.	MICHIGAN*			MINNESOTA			ONTARIO**			WISCONSIN			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	0.00	0.00	0.00	126.28	34.98	17.00	0.00	0.00	0.00	17.56	0.00	0.00	143.85	34.98	17.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	7.38	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.38	0.53	0.00
4	0.00	0.00	0.00	0.00	0.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.72	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	577.42	322.29	0.00	0.00	0.00	0.00	0.00	0.00	0.15	577.42	322.29	0.15
7	0.00	0.00	0.00	2.80	550.74	0.00	0.00	0.00	0.00	78.24	0.00	0.00	81.05	550.74	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	17405.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	557.32	17962.58	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	713.89	18314.51	17.00	0.00	0.00	0.00	95.81	557.32	0.15	809.70	18871.83	17.15

c) Diversions by Type - Principal Facilities

Water- Use Categ.	MICHIGAN*			MINNESOTA			ONTARIO**			WISCONSIN			TOTAL		
	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 39% Measured 23% Partially Measured 28% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 63% Site-specific 28% Aggregated

\* The State of Michigan was unable to report by sub-basin for most categories of use. \*\* Ontario did not report its Principal Facility withdrawals for 1993.

a) Withdrawals, Diversions and Consumptive Use - All Facilities

Water-Use Categ.	ILLINOIS					INDIANA					MICHIGAN*					WISCONSIN					TOTAL				
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.				
1	4316.41	4316.41	0.00	539.49	-8.18	80.89	0.00	0.00	0.00	0.00	0.00	1306.34	0.00	195.74	6162.25	4308.24	276.64								
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00								
3	68.33	13.93	0.00	174.13	0.00	26.12	0.00	0.00	0.00	0.00	104.86	0.00	15.52	347.31	13.93	41.64									
4	0.00	0.00	0.00	73.10	0.00	65.75	0.00	0.00	0.00	0.00	2034.65	0.00	1424.26	2107.75	0.00	1490.01									
5	0.00	0.00	0.00	27.63	0.00	22.14	0.00	0.00	0.00	0.00	2.50	0.00	2.01	30.13	0.00	24.15									
6	49.89	10.14	0.00	6245.34	0.00	374.72	0.00	0.00	0.00	0.00	1216.89	0.00	182.19	7512.12	10.14	564.71									
7	3629.82	0.00	0.00	3907.74	0.00	78.17	0.00	0.00	0.00	53.75	4663.27	0.00	46.64	16333.42	0.00	178.56									
8	6534.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	106.37	18714.74	0.00	187.15	33430.09	0.00	293.52									
9	0.00	0.00	0.00	8941.37	0.00	0.00	0.00	0.00	0.00	0.00	16314.08	0.00	0.00	25255.45	0.00	0.00									
10	1268.68	1268.68	0.00	0.79	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1269.47	1268.68	0.11									
Total	15867.14	5609.16	7.80	19909.60	-8.18	647.91	12313.93	0.00	160.12	44357.32	0.00	2053.50	92447.99	5600.99	2869.33										

b) Withdrawals by Source - All Facilities

Water-Use Categ.	ILLINOIS					INDIANA					MICHIGAN*					WISCONSIN					TOTAL				
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW				
1	4316.41	0.00	0.00	339.29	0.00	200.21	0.00	0.00	0.00	0.00	895.93	94.33	316.08	5551.63	94.33	516.29									
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00								
3	67.91	0.08	0.34	0.00	74.99	99.14	0.00	0.00	0.00	0.00	0.00	0.00	104.86	67.91	75.06	204.34									
4	0.00	0.00	0.00	0.00	19.19	53.90	0.00	0.00	0.00	0.00	0.00	0.00	2034.65	0.00	19.19	2088.56									
5	0.00	0.00	0.00	0.00	7.31	20.33	0.00	0.00	0.00	0.00	0.00	0.00	2.50	7.31	22.83										
6	49.89	0.00	0.00	6125.49	30.62	89.22	0.00	0.00	0.00	6.09	1163.33	0.00	47.47	6181.48	1193.95	136.69									
7	3629.82	0.00	0.00	3907.74	0.00	0.00	0.00	0.00	0.00	4640.48	20.90	1.89	15830.09	491.95	10.52										
8	6534.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18714.74	0.00	0.00	33430.09	0.00	0.00										
9	0.00	0.00	0.00	0.00	8941.37	0.00	0.00	0.00	0.00	0.00	16314.08	0.00	0.00	25255.45	0.00	0.00									
10	1268.68	0.00	0.00	0.00	0.23	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1268.68	0.23	0.57									
Total	15866.72	0.08	0.34	10372.52	9073.71	463.37	11834.25	471.05	8.63	24257.24	17592.63	2507.45	62330.73	27137.47	2979.79										

c) Diversions by Type - All Facilities

Water-Use Categ.	ILLINOIS		INDIANA		MICHIGAN*		WISCONSIN		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	4316.41	0.00	-8.18	0.00	0.00	0.00	0.00	0.00	4308.24
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	13.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13.93
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	10.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.14
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	1268.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1268.68
Total	0.00	5609.16	0.00	-8.18	0.00	0.00	0.00	0.00	0.00	5600.99

\* The state of Michigan was unable to report by sub-basin for most categories of use.  
 Level of Accuracy of Withdrawal Data: 44% Measured 5% Partially Measured 41% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 60% Site-specific 30% Aggregated



a) Withdrawals, Diversions and Consumptive Use - Principal Facilities

Water-Use Categ.	ILLINOIS			INDIANA			MICHIGAN*			WISCONSIN			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	4316.41	4316.41	0.00	537.30	0.00	80.59	0.00	0.00	0.00	1306.26	1.06	195.71	6159.98	4317.47	276.30
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	67.91	11.36	2.57	101.03	0.00	15.14	0.00	0.00	0.00	0.00	0.00	0.00	168.94	11.36	17.72
4	0.00	0.00	0.00	68.29	0.00	61.44	0.00	0.00	0.00	41.72	0.00	29.19	110.00	0.00	90.62
5	0.00	0.00	0.00	11.55	0.00	9.27	0.00	0.00	0.00	0.00	0.00	0.00	11.55	0.00	9.27
6	57.46	10.14	7.76	6237.88	0.00	374.26	0.00	0.00	0.00	1197.89	0.00	179.77	7493.23	10.14	561.79
7	3629.82	0.00	0.00	3907.74	0.00	78.17	0.00	0.00	0.00	4612.20	0.00	46.11	12149.76	0.00	124.27
8	6534.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18714.74	0.00	187.15	25248.75	0.00	187.15
9	0.00	0.00	0.00	8941.37	0.00	0.00	0.00	0.00	0.00	16314.08	0.00	0.00	25255.45	0.00	0.00
10	1268.68	1268.68	0.00	0.34	0.00	0.08	0.00	0.00	0.00	0.00	0.00	0.00	1269.02	1268.68	0.08
Total	15874.29	5606.59	10.33	19805.50	0.00	618.95	0.00	0.00	0.00	42186.89	1.06	637.92	77866.68	5607.65	1267.20

b) Withdrawals by Source - Principal Facilities

Water-Use Categ.	ILLINOIS			INDIANA			MICHIGAN*			WISCONSIN			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GH	GLSW	OSW	OSW	GLSM	OSW	GW	GLSM	OSW	GW
1	4316.41	0.00	0.00	339.29	0.00	198.01	0.00	0.00	0.00	895.93	94.26	316.08	5551.63	94.26	514.09
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	67.91	0.00	0.00	0.00	74.95	26.08	0.00	0.00	0.00	0.00	0.00	0.00	67.91	74.95	26.08
4	0.00	0.00	0.00	0.00	17.22	51.07	0.00	0.00	0.00	0.00	0.00	41.72	0.00	17.22	92.78
5	0.00	0.00	0.00	0.00	7.31	4.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.31	4.24
6	57.46	0.00	0.00	6125.49	30.59	81.80	0.00	0.00	0.00	6.09	1144.33	47.47	6189.05	1174.91	129.27
7	3629.82	0.00	0.00	3907.74	0.00	0.00	0.00	0.00	0.00	4591.31	20.90	0.00	12128.87	20.90	0.00
8	6534.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18714.74	0.00	0.00	25248.75	0.00	0.00
9	0.00	0.00	0.00	0.00	8941.37	0.00	0.00	0.00	0.00	0.00	16314.08	0.00	0.00	25255.45	0.00
10	1268.68	0.00	0.00	0.00	0.19	0.15	0.00	0.00	0.00	0.00	0.00	0.00	1268.68	0.19	0.15
Total	15874.29	0.00	0.00	10372.52	9071.63	361.35	0.00	0.00	0.00	24208.07	17573.56	405.26	50454.88	26645.18	766.62

c) Diversions by Type - Principal Facilities

Water-Use Categ.	ILLINOIS			INDIANA			MICHIGAN*			WISCONSIN			TOTAL		
	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	4316.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.06	0.00	0.00	4317.47	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	11.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11.36	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	10.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.14	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	1268.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1268.68	0.00
Total	0.00	5606.59	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.06	0.00	0.00	5607.65	0.00

\* The state of Michigan was unable to report by sub-basin for most categories of use.  
 Level of Accuracy of Withdrawal Data: 44% Measured 5% Partially Measured  
 Level of Aggregation of Withdrawal Data Source: 60% Site-specific 30% Aggregated

a) Withdrawals, Diversions and Consumptive Use - All Facilities

Water- Use Categ.	MICHIGAN*			ONTARIO			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	0.00	0.00	0.00	571.10	171.40	85.66	571.10	171.40	85.66
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	115.73	0.00	17.36	115.73	0.00	17.36
4	0.00	0.00	0.00	102.14	0.00	79.67	102.14	0.00	79.67
5	0.00	0.00	0.00	64.72	0.00	51.78	64.72	0.00	51.78
6	0.00	0.00	0.00	3087.10	0.00	308.71	3087.10	0.00	308.71
7	2469.86	0.00	32.10	0.00	0.00	0.00	2469.86	0.00	32.10
8	0.00	0.00	0.00	22602.74	0.00	22602.74	22602.74	0.00	22602.74
9	0.00	0.00	0.00	137387.75	0.00	137387.75	137387.75	0.00	137387.75
10	0.00	0.00	0.00	148.36	0.00	148.36	148.36	0.00	148.36
Total	2469.86	0.00	32.10	164079.64	171.40	543.18	165549.50	171.40	575.28

b) Withdrawals by Source - All Facilities

Water- Use Categ.	MICHIGAN*			ONTARIO			TOTAL		
	GLSW	OSW	GM	GLSW	OSW	GM	GLSW	OSW	GM
1	0.00	0.00	0.00	248.61	146.43	176.06	248.61	146.43	176.06
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	115.73	0.00	0.00	115.73
4	0.00	0.00	0.00	0.00	77.47	24.67	0.00	77.47	24.67
5	0.00	0.00	0.00	0.00	0.00	64.72	0.00	0.00	64.72
6	0.00	0.00	0.00	2736.00	301.30	49.80	2736.00	301.30	49.80
7	2469.74	0.11	0.00	0.00	0.00	0.11	2469.74	0.11	0.00
8	0.00	0.00	0.00	22602.74	0.00	22602.74	22602.74	0.00	22602.74
9	0.00	0.00	0.00	86482.58	50905.17	86482.58	86482.58	50905.17	86482.58
10	0.00	0.00	0.00	0.00	148.36	0.00	0.00	148.36	0.00
Total	2469.74	0.11	0.00	112069.93	51578.73	430.98	114539.67	51578.84	430.98

c) Diversions by Type - All Facilities

Water- Use Categ.	MICHIGAN*		ONTARIO		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	171.40	0.00	171.40	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	171.40	0.00	171.40	0.00

Level of Accuracy of Withdrawal Data: 43% Measured 45% Partially Measured 2% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 90% Site-specific 0% Aggregated  
 \* The State of Michigan was unable to report by sub-basin for most categories of use.

a) Withdrawals, Diversions and Consumptive Use - Principal Facilities

UNITS: ML/d  
YEAR OF DATA: 1993

Water- Use Categ.	MICHIGAN*				ONTARIO**				TOTAL			
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

b) Withdrawals by Source - Principal Facilities

Water- Use Categ.	MICHIGAN*				ONTARIO**				TOTAL			
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

c) Diversions by Type - Principal Facilities

Water- Use Categ.	MICHIGAN*				ONTARIO**				TOTAL			
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 43% Measured 45% Partially Measured 2% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 90% Site-specific 0% Aggregated  
 \* The State of Michigan was unable to report by sub-basin for most categories of use. \*\* Ontario did not report its Principal Facility withdrawals for 1993.

a) Withdrawals, Diversions and Consumptive Use - All Facilities

Water: INDIANA MICHIGAN\* NEW YORK OHIO ONTARIO PENNSYLVANIA TOTAL

Use Category	INDIANA			MICHIGAN*			NEW YORK			OHIO			ONTARIO			PENNSYLVANIA			TOTAL		
	Withdraw.	Diver.	Consum.	Withdraw.	Diver.	Consum.	Withdraw.	Diver.	Consum.	Withdraw.	Diver.	Consum.	Withdraw.	Diver.	Consum.	Withdraw.	Diver.	Consum.			
1	147.90	0.00	22.18	0.00	0.00	0.00	779.79	0.00	77.98	2270.75	0.83	340.61	776.76	-171.40	116.35	167.35	0.00	16.77	4142.55	-170.57	573.89
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	21.05	0.00	3.14	0.00	0.00	0.00	295.26	0.00	29.53	225.99	0.00	33.92	115.15	0.00	17.27	7.44	0.00	0.76	664.90	0.00	84.61
4	4.92	0.00	4.43	0.00	0.00	0.00	6.66	0.00	5.38	41.98	0.00	37.74	477.41	0.00	372.58	1.32	0.00	1.21	531.69	0.00	421.14
5	7.34	0.00	5.87	0.00	0.00	0.00	5.30	0.00	4.16	49.70	0.00	39.75	65.72	0.00	52.58	0.00	0.00	0.00	128.07	0.00	102.36
6	39.22	0.00	2.38	0.00	0.00	0.00	221.07	0.00	21.96	776.99	0.00	77.68	1985.70	0.00	198.57	149.90	0.00	0.00	3172.68	0.00	331.02
7	1.02	0.00	0.04	0.00	0.00	0.00	1834.22	0.00	3.79	8890.57	0.00	0.30	5861.64	0.00	50.05	0.00	0.00	32085.77	0.00	261.88	
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	448.61	0.00	76.28	0.00	0.00	0.00	0.00	0.00	448.61	0.00	76.28	
9	0.00	0.00	0.00	0.00	0.00	0.00	2119.82	0.00	0.00	0.00	0.00	0.00	14030.16	0.00	0.00	0.00	0.00	16159.98	0.00	14030.16	
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19.68	-47.70	0.00	2489.52	14030.16	0.00	0.00	0.00	0.00	2509.20	2489.52	261.88
Total	221.45	0.00	38.04	15978.31	0.00	207.70	5081.52	0.00	142.79	12224.27	-46.86	606.27	25302.06	16348.28	807.20	326.04	0.00	49.17	59833.64	16301.42	1851.17

b) Withdrawals by Source - All Facilities

Use Category	INDIANA			MICHIGAN*			NEW YORK			OHIO			ONTARIO			PENNSYLVANIA			TOTAL		
	GLSU	OSU	GU	GLSU	OSU	GU	GLSU	OSU	GU	GLSU	OSU	GU	GLSU	OSU	GU	GLSU	OSU	GU			
1	0.00	121.02	26.88	0.00	0.00	0.00	605.66	174.13	0.00	1701.04	437.43	132.07	411.23	72.61	292.92	153.69	5.87	7.80	2871.42	811.25	459.47
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.11	20.93	0.00	0.00	0.00	37.85	37.85	219.55	0.00	0.00	223.99	0.00	0.00	115.15	0.00	0.00	7.46	37.85	37.87	589.08
4	0.00	1.17	3.75	0.00	0.00	0.00	4.54	1.51	1.51	0.45	33.54	7.99	0.00	331.63	125.78	0.00	1.10	0.23	5.00	387.44	139.26
5	0.00	0.00	7.34	0.00	0.00	0.00	1.89	0.00	3.41	0.00	8.71	41.00	0.00	0.00	65.72	0.00	0.00	0.00	1.89	211.23	117.47
6	0.00	31.36	7.87	0.00	0.00	0.00	208.20	0.00	12.87	49.31	573.53	134.15	0.00	1846.20	36.20	146.08	3.07	0.76	2369.79	711.23	191.86
7	0.00	0.00	1.02	15977.97	0.34	0.00	1654.22	0.00	0.00	872.34	148.24	0.00	5561.64	0.00	0.00	0.00	0.00	0.00	1448.61	148.53	1.02
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	448.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16149.98	148.53	1.02
9	0.00	0.00	0.00	0.00	0.00	0.00	2119.82	0.00	0.00	4.96	14.12	0.00	14030.16	0.00	0.00	0.00	0.00	0.00	2494.48	14.12	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.96	14.12	0.00	2489.52	0.00	0.00	0.00	0.00	0.00	2494.48	14.12	0.00
Total	0.00	153.65	67.80	15977.97	0.34	0.00	4632.19	211.98	237.34	10966.71	1215.76	541.80	24338.75	527.54	635.77	299.77	10.03	16.24	56215.39	2119.30	1498.95

c) Diversions by Type - All Facilities

Use Category	INDIANA			MICHIGAN*			NEW YORK			OHIO			ONTARIO			PENNSYLVANIA			TOTAL		
	Intrabasin	Interbasin	Consum.	Intrabasin	Interbasin	Consum.	Intrabasin	Interbasin	Consum.	Intrabasin	Interbasin	Consum.	Intrabasin	Interbasin	Consum.	Intrabasin	Interbasin	Consum.			
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 19% Measured  
 Level of Aggregation of Withdrawal Data Source: 40% Site-specific 30% Aggregated  
 The State of Michigan was unable to report by sub-basin for most categories of use.

e) Withdrawals, Diversions and Consumptive Use - Principal Facilities

DATE: 05/06/97  
 UNITS: ML/d  
 YEAR OF DATA: 1993

Water- Use Categ.	INDIANA			MICHIGAN*			NEW YORK			OHIO			ONTARIO**			PENNSYLVANIA			TOTAL
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	
1	146.23	0.00	21.92	0.00	0.00	0.00	2248.94	0.83	337.35	0.00	0.00	0.00	165.35	0.00	16.54	2560.52	0.83	375.81	
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	
4	3.86	0.00	3.44	0.00	0.00	0.00	21.20	0.00	19.12	0.00	0.00	0.00	1.25	0.00	1.14	26.31	0.00	23.70	
5	0.00	0.00	0.00	0.00	0.00	0.00	3.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.26	0.00	2.61	
6	37.74	0.00	2.23	0.00	0.00	0.00	771.01	0.00	77.11	0.00	0.00	0.00	149.30	0.00	30.28	958.05	0.00	109.63	
7	1.02	0.00	0.04	0.00	0.00	0.00	8990.57	0.00	0.30	0.00	0.00	0.00	0.00	0.00	0.00	446.61	0.00	0.34	
8	0.00	0.00	0.00	0.00	0.00	0.00	448.61	0.00	76.28	0.00	0.00	0.00	0.00	0.00	0.00	446.61	0.00	0.00	
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2119.82	0.00	76.28	
10	0.00	0.00	0.00	0.00	0.00	0.00	18.43	-47.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18.43	-47.70	0.00	
Total	188.97	0.00	27.63	0.00	0.00	0.00	12402.02	-46.86	512.77	0.00	0.00	0.00	315.89	0.00	47.96	16680.92	-46.86	588.36	

b) Withdrawals by Source - Principal Facilities

Water- Use Categ.	INDIANA			MICHIGAN*			NEW YORK			OHIO			ONTARIO**			PENNSYLVANIA			TOTAL
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	
1	0.00	120.98	25.25	0.00	0.00	0.00	1700.55	436.27	112.12	0.00	0.00	0.00	153.69	5.87	5.79	1854.24	563.12	143.16	
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4	0.00	0.57	3.29	0.00	0.00	0.00	0.00	17.98	3.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.65	0.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6	0.00	31.19	6.33	0.00	0.00	0.00	69.20	-572.39	129.42	0.00	0.00	0.00	146.08	2.95	0.26	215.28	606.53	136.24	
7	0.00	0.00	1.02	0.00	0.00	0.00	8742.34	148.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10396.56	148.24	1.02	
8	0.00	0.00	0.00	0.00	0.00	0.00	448.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	448.61	0.00	0.00	
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2119.82	0.00	0.00	
10	0.00	0.00	0.00	0.00	0.00	0.00	4.96	13.02	0.45	0.00	0.00	0.00	0.00	0.00	0.00	4.96	13.02	0.45	
Total	0.00	152.85	36.11	0.00	0.00	0.00	10965.65	1190.55	245.82	0.00	0.00	0.00	299.77	9.84	6.28	15039.46	1353.26	288.22	

c) Diversions by Type - Principal Facilities

Water- Use Categ.	INDIANA			MICHIGAN*			NEW YORK			OHIO			ONTARIO**			PENNSYLVANIA			TOTAL
	Intrabasin	Interbasin	Consum.	Intrabasin	Interbasin	Consum.	Intrabasin	Interbasin	Consum.	Intrabasin	Interbasin	Consum.	Intrabasin	Interbasin	Consum.	Intrabasin	Interbasin	Consum.	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83	
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-67.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-67.70	
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-46.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-46.86	

Level of Accuracy of Withdrawal Data: 10% Measured 34% Partially Measured 37% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 60% Site-specific 30% Aggregated  
 \* The State of Michigan was unable to report by sub-basin for most categories of use. \*\*Ontario did not report its Principal Facility withdrawals for 1993.

a) Withdrawals, Diversions and Consumptive Use - All Facilities

Water-Use Categ.	NEW YORK				ONTARIO				PENNSYLVANIA				TOTAL	
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Consum.
1	1006.92	0.00	100.69	3156.46	0.00	473.47	0.45	0.00	0.04	4163.83	0.00	574.20	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	1097.77	0.00	109.78	136.72	0.00	20.51	0.26	0.00	0.04	1234.75	0.00	130.32	0.00	0.00
4	30.28	0.00	26.88	107.99	0.00	84.23	0.00	0.00	0.00	138.27	0.00	111.11	0.00	0.00
5	24.23	0.00	12.49	34.02	0.00	27.22	0.00	0.00	0.00	58.25	0.00	39.71	0.00	0.00
6	832.79	0.00	83.28	3471.60	0.00	347.16	0.00	0.00	4304.39	0.00	430.44	0.00	0.00	0.00
7	6658.51	0.00	30.28	895.62	0.00	8.07	0.00	0.00	7554.13	0.00	430.44	0.00	0.00	0.00
8	4769.60	0.00	11.36	28356.16	0.00	255.20	0.00	0.00	33125.76	0.00	266.56	0.00	0.00	0.00
9	57516.65	0.00	0.00	188537.32	0.00	0.00	0.00	0.00	764053.97	0.00	0.00	0.00	0.00	0.00
10	1245.40	0.00	0.00	486.23	0.00	0.00	0.00	0.00	1731.63	0.00	0.00	0.00	0.00	0.00
Total	59182.14	1245.40	374.75	225182.12	-16519.68	1215.86	0.72	0.00	0.08	816364.98	-15274.28	1590.69	0.00	0.00

b) Withdrawals by Source - All Facilities

Water-Use Categ.	NEW YORK			ONTARIO			PENNSYLVANIA			TOTAL		
	GLSM	OSU	GW	GLSM	OSU	GW	GLSM	OSU	GW	GLSM	OSU	GW
1	363.40	526.17	117.35	2937.62	142.07	76.77	0.00	0.00	0.45	3301.02	668.24	194.57
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	382.33	363.40	352.04	0.00	0.00	136.72	0.00	0.00	0.26	382.33	363.40	489.03
4	26.50	0.00	3.79	0.00	78.63	29.36	0.00	0.00	0.00	26.50	78.63	33.15
5	9.46	0.00	14.76	0.00	0.00	34.02	0.00	0.00	0.00	9.46	48.78	163.82
6	681.37	0.00	151.42	3032.30	426.90	12.40	0.00	0.00	0.00	3713.67	426.90	163.82
7	6658.51	0.00	0.00	895.62	0.00	0.00	0.00	0.00	0.00	7554.13	0.00	0.00
8	4769.60	0.00	0.00	28356.16	0.00	0.00	0.00	0.00	0.00	33125.76	0.00	0.00
9	57516.65	0.00	0.00	160233.21	28304.11	0.00	0.00	0.00	0.00	735749.86	28304.11	0.00
10	1245.40	0.00	0.00	486.23	0.00	0.00	0.00	0.00	0.00	1245.40	486.23	0.00
Total	589653.21	889.57	639.35	195454.91	29437.94	289.27	0.00	0.00	0.72	785108.12	30327.51	929.34

c) Diversions by Type - All Facilities

Water-Use Categ.	NEW YORK		ONTARIO		PENNSYLVANIA		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	1245.40	0.00	-2489.52	-14030.16	0.00	0.00	-14030.16	0.00
Total	1245.40	0.00	-16519.68	0.00	0.00	0.00	-15274.28	0.00

Level of Accuracy of Withdrawal Data: 4% Measured  
 Level of Aggregation of Withdrawal Data Source: 36% Site-specific 32% Partially Measured 54% Aggregated 53% Calculated or Estimated

a) Withdrawals, Diversions and Consumptive Use - Principal Facilities

Water-Use Categ.	NEW YORK			ONTARIO*			PENNSYLVANIA			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	6658.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6658.51	0.00	0.00	0.00
8	4769.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4769.60	0.00	0.00	0.00
9	210608.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	210608.14	0.00	0.00	0.00
10	1245.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1245.40	0.00	0.00	0.00
Total	223281.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	223281.65	0.00	0.00	0.00

b) Withdrawals by Source - Principal Facilities

Water-Use Categ.	NEW YORK			ONTARIO*			PENNSYLVANIA			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	6658.51	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6658.51	0.00	0.00	0.00
8	4769.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4769.60	0.00	0.00	0.00
9	210608.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	210608.14	0.00	0.00	0.00
10	1245.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1245.40	0.00	0.00	0.00
Total	223281.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	223281.65	0.00	0.00	0.00

c) Diversions by Type - Principal Facilities

Water-Use Categ.	NEW YORK			ONTARIO*			PENNSYLVANIA			TOTAL		
	Intrabasin	Interbasin		Intrabasin	Interbasin		Intrabasin	Interbasin		Intrabasin	Interbasin	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 4% Measured  
 Level of Aggregation of Withdrawal Data Source: 36% Site-specific  
 \* Ontario did not report its Principal facility withdrawals for 1993.  
 32% Partially Measured  
 54% Aggregated  
 53% Calculated or Estimated

a) Withdrawals, Diversions and Consumptive Use - All Facilities

Water-Use Categ.	NEW YORK			ONTARIO			QUEBEC			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	476.96	0.00	47.70	596.30	0.00	89.44	4164.00	0.00	416.00	5237.26	0.00	553.14
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	333.11	0.00	34.07	131.61	0.00	19.74	271.00	0.00	27.00	735.72	0.00	80.81
4	4.20	0.00	3.71	20.59	0.00	16.06	34.90	0.00	31.41	59.69	0.00	51.18
5	11.36	0.00	9.08	37.33	0.00	29.86	72.30	0.00	57.84	120.99	0.00	96.78
6	276.33	0.00	27.63	635.60	0.00	63.56	475.00	0.00	47.50	1386.93	0.00	138.69
7	0.00	0.00	0.00	0.00	0.00	0.00	178.00	0.00	17.80	178.00	0.00	17.80
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	569062.55	0.00	0.00	336432.60	0.00	2.14	1164240.0	0.00	0.00	2069735.2	0.00	2.14
10	499.67	0.00	0.00	101.93	0.00	0.00	0.00	0.00	0.00	601.60	0.00	0.00
Total	570664.19	0.00	122.19	337955.96	0.00	220.80	1169435.2	0.00	597.55	2078055.4	0.00	940.54

b) Withdrawals by Source - All Facilities

Water-Use Categ.	NEW YORK			ONTARIO			QUEBEC			TOTAL		
	GLSM	OSW	GM	GLSM	OSW	GM	GLSM	OSW	GM	GLSM	OSW	GM
1	382.33	0.00	94.63	153.96	422.71	19.63	2282.00	1882.00	0.00	2818.29	2304.71	114.26
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	193.06	75.71	64.35	0.00	0.00	131.61	0.00	0.00	271.00	193.06	75.71	466.96
4	3.79	0.00	0.42	0.00	15.02	5.57	0.00	0.00	34.90	3.79	15.02	40.89
5	3.79	0.00	7.57	0.00	0.00	37.33	0.00	0.00	72.30	3.79	0.00	117.20
6	257.41	0.00	18.93	501.90	113.50	20.20	0.00	475.00	0.00	759.31	588.50	39.13
7	0.00	0.00	0.00	0.00	0.00	0.00	148.00	30.00	0.00	148.00	30.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	569062.55	0.00	0.00	336432.60	0.00	0.00	686016.00	478224.00	0.00	1591511.2	478224.00	0.00
10	499.67	0.00	0.00	0.00	101.93	0.00	0.00	0.00	0.00	499.67	101.93	0.00
Total	570402.58	75.71	185.90	337088.46	653.16	214.34	688446.00	480611.00	378.20	1595937.0	481339.87	778.44

c) Diversions by Type - All Facilities

Water-Use Categ.	NEW YORK		ONTARIO		QUEBEC		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Level of Accuracy of Withdrawal Data: 3% Measured 36% Partially Measured 51% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 43% Site-specific 47% Aggregated



DATE: 05/06/97

UNITS: ML/d  
YEAR OF DATA: 1993

a) Withdrawals, Diversions and Consumptive Use - Principal Facilities

Water-Use Categ.	NEW YORK				ONTARIO*				QUEBEC				TOTAL			
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	
1	0.00	0.00	0.00	0.00	0.00	0.00	4149.00	0.00	0.00	415.00	0.00	415.00	0.00	0.00	415.00	
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	0.00	0.00	0.00	0.00	0.00	0.00	184.00	0.00	0.00	18.00	0.00	18.00	0.00	0.00	18.00	
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6	0.00	0.00	0.00	0.00	0.00	0.00	473.00	0.00	0.00	47.30	0.00	47.30	0.00	0.00	47.30	
7	0.00	0.00	0.00	0.00	0.00	0.00	178.00	0.00	0.00	17.80	0.00	17.80	0.00	0.00	17.80	
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9	351814.82	0.00	0.00	0.00	0.00	0.00	1164240.0	0.00	0.00	1516054.8	0.00	1516054.8	0.00	0.00	1516054.8	
10	499.67	499.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	499.67	0.00	499.67	0.00	0.00	499.67	
Total	352314.49	499.67	0.00	0.00	0.00	0.00	1169224.0	0.00	0.00	1521538.5	0.00	1521538.5	499.67	499.67	498.10	

b) Withdrawals by Source - Principal Facilities

Water-Use Categ.	NEW YORK				ONTARIO*				QUEBEC				TOTAL			
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	
1	0.00	0.00	0.00	0.00	0.00	0.00	2281.00	1868.00	0.00	2281.00	1868.00	0.00	2281.00	1868.00	0.00	
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	184.00	0.00	184.00	0.00	0.00	184.00	
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
7	0.00	0.00	0.00	0.00	0.00	0.00	148.00	30.00	0.00	148.00	30.00	0.00	148.00	30.00	0.00	
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9	351814.82	0.00	0.00	0.00	0.00	0.00	686016.00	478224.00	0.00	1037830.8	478224.00	0.00	1037830.8	478224.00	0.00	
10	499.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	499.67	0.00	499.67	0.00	0.00	0.00	
Total	352314.49	0.00	0.00	0.00	0.00	0.00	688445.00	480595.00	184.00	1040759.5	480595.00	184.00	1040759.5	480595.00	184.00	

c) Diversions by Type - Principal Facilities

Water-Use Categ.	NEW YORK			ONTARIO*			QUEBEC			TOTAL		
	Intrabasin	Interbasin		Intrabasin	Interbasin		Intrabasin	Interbasin		Intrabasin	Interbasin	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10	499.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	499.67	0.00	0.00	499.67
Total	499.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	499.67	0.00	0.00	499.67

Level of Accuracy of Withdrawal Data: 3X Measured 36% Partially Measured 51% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 43% Site-specific 47% Aggregated  
 \* Ontario did not report its Principal Facility withdrawals for 1993.

e) Water-Use by Basin - All Jurisdictions

Basin	Withdrawals			TOTAL	Principal Facilities			TOTAL	Diversions			TOTAL	Consumptive Use								
	GLSW	OSW	GW		GLSW	OSW	GW		GLSW	OSW	GW		GLSW	OSW	GW						
Lake Superior	209.22	28.08	26.17	263.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49.31	143.85	34.98	17.00	195.82	0.00	0.00	40.09	
Lake Michigan	5551.65	94.33	516.29	6162.25	0.00	4308.24	4308.24	0.00	0.00	0.00	0.00	0.00	276.64	5551.65	94.28	514.09	6159.98	0.00	0.00	276.30	
Lake Huron	246.61	146.43	176.06	571.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	85.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Lake Erie	2871.62	811.25	439.67	4162.55	-171.40	0.83	-170.57	0.00	0.00	0.00	0.00	0.00	573.89	1854.24	563.12	143.16	2560.52	0.00	0.83	373.81	
Lake Ontario	3301.02	668.24	194.57	4163.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	574.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
St. Lawrence River	2818.29	2304.71	114.26	5237.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	553.14	2281.00	1868.00	0.00	4149.00	0.00	0.00	415.00	
<b>Total</b>	<b>15000.38</b>	<b>4053.05</b>	<b>1487.03</b>	<b>20540.45</b>	<b>0.00</b>	<b>4309.07</b>	<b>4309.07</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2112.84</b>	<b>9830.71</b>	<b>2560.35</b>	<b>674.25</b>	<b>13065.31</b>	<b>0.00</b>	<b>4318.31</b>	<b>4318.31</b>	<b>1107.20</b>

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	Withdrawals			TOTAL	Principal Facilities			TOTAL	Diversions			TOTAL	Consumptive Use								
	GLSW	OSW	GW		GLSW	OSW	GW		GLSW	OSW	GW		GLSW	OSW	GW						
Illinois	4316.41	0.00	0.00	4316.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4316.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Indiana	339.29	121.02	227.09	687.39	0.00	-8.18	-8.18	0.00	0.00	0.00	0.00	0.00	103.08	339.29	120.96	223.26	683.53	0.00	0.00	102.51	0.00
Michigan	0.00	0.00	0.00	4633.33**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	465.59**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Minnesota	126.39	18.17	18.81	163.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	34.30	126.28	34.98	17.00	178.25	0.00	0.00	37.44	0.00
New York	1351.39	700.30	211.98	2263.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	226.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ohio	1701.04	437.63	132.07	2270.75	0.00	0.83	0.83	0.00	0.00	0.00	0.00	0.00	340.61	1700.55	436.27	112.12	2268.94	0.00	0.83	337.35	0.00
Ontario	3813.80	793.73	572.74	5180.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	776.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pennsylvania	153.69	5.87	8.25	167.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16.81	153.69	5.87	5.79	165.35	0.00	0.00	16.54	0.00
Quebec	2282.00	1882.00	0.00	4164.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	416.00	2281.00	1868.00	0.00	4169.00	0.00	0.00	415.00	0.00
Wisconsin	916.37	94.33	316.08	1326.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	198.81	913.49	94.26	316.08	1323.83	0.00	1.06	198.35	0.00
<b>Total</b>	<b>15000.38</b>	<b>4053.05</b>	<b>1487.03</b>	<b>25173.79**</b>	<b>0.00</b>	<b>4309.07</b>	<b>4309.07</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>2378.44**</b>	<b>9830.71</b>	<b>2560.35</b>	<b>674.25</b>	<b>13065.31</b>	<b>0.00</b>	<b>4318.31</b>	<b>4318.31</b>	<b>1107.20</b>

Level of Accuracy of Withdrawal Data: 42% Measured 38% Partially Measured 20% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 73% Site-Specific 27% Aggregated

\*Ontario did not report its Principal Facility withdrawals for 1993.

\*\*The total presented is larger than the sum of water use categories. This is due to the addition of state-wide data from Michigan. Michigan's withdrawals and consumptive uses for this category cannot presently be reported by individual sub-basin or water withdrawal type.

a) Water-Use by Basin - All Jurisdictions

Basin	All Facilities										
	Withdrawals					Diversions					Consumptive Use
	GLSU	OSV	GV	TOTAL	Intrabasin	Interbasin	TOTAL	OSV	GV	TOTAL	
Lake Superior	7.38	8.03	19.72	35.13	0.00	0.00	0.00	4.20	0.00	0.00	4.20
Lake Michigan	67.91	75.06	204.34	347.31	0.00	13.93	13.93	41.64	0.00	0.00	41.64
Lake Huron	0.00	0.00	115.73	115.73	0.00	0.00	0.00	17.36	0.00	0.00	17.36
Lake Erie	37.85	37.97	589.08	664.90	0.00	0.00	0.00	84.61	0.00	0.00	84.61
Lake Ontario	382.33	363.40	489.03	1234.75	0.00	0.00	0.00	130.32	0.00	0.00	130.32
St. Lawrence River	193.06	75.71	466.96	735.72	0.00	0.00	0.00	80.81	0.00	0.00	80.81
Total	688.53	560.16	1884.86	3133.55	0.00	13.93	13.93	358.94	0.00	0.00	358.94

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	All Facilities										
	Withdrawals					Diversions					Consumptive Use
	GLSU	OSV	GV	TOTAL	Intrabasin	Interbasin	TOTAL	OSV	GV	TOTAL	
Illinois	67.91	0.00	0.34	68.33	0.00	13.93	13.93	0.00	0.00	0.00	0.00
Indiana	0.00	75.10	120.07	195.18	0.00	0.00	0.00	29.26	0.00	0.00	29.26
Michigan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Minnesota	7.38	8.03	0.04	15.44	0.00	0.00	0.00	1.25	0.00	0.00	1.25
New York	613.23	476.96	635.95	1726.14	0.00	0.00	0.00	173.37	0.00	0.00	173.37
Ohio	0.00	0.00	225.99	225.99	0.00	0.00	0.00	33.92	0.00	0.00	33.92
Ontario	0.00	0.00	505.72	505.72	0.00	0.00	0.00	75.86	0.00	0.00	75.86
Pennsylvania	0.00	0.00	7.72	7.72	0.00	0.00	0.00	0.79	0.00	0.00	0.79
Quebec	0.00	0.00	271.00	271.00	0.00	0.00	0.00	27.00	0.00	0.00	27.00
Wisconsin	0.00	0.00	118.03	118.03	0.00	0.00	0.00	17.49	0.00	0.00	17.49
Total	688.53	560.16	1884.86	3133.55	0.00	13.93	13.93	358.94	0.00	0.00	358.94

Level of Accuracy of Withdrawal Data: 20% Measured 27% Partially Measured 44% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 56% Site-specific 44% Aggregated

\*Ontario did not report its Principal Facility withdrawals for 1993.

a) Water-use by Basin - All Jurisdictions

UNITS: ML/D  
YEAR OF DATA: 1993

Basin	All Facilities				Principal Facilities			
	GLSW	OSW	GW	TOTAL	GLSW	OSW	GW	TOTAL
Lake Superior	0.06	1.31	0.26	1.61	0.00	0.72	0.00	0.72
Lake Michigan	0.00	19.19	2008.56	2107.75	0.00	17.22	92.78	110.00
Lake Huron	0.00	77.47	24.67	102.14	0.00	0.00	0.00	0.00
Lake Erie	5.00	307.44	139.26	531.69	0.00	19.57	6.75	26.31
Lake Ontario	26.50	78.43	33.15	138.27	0.00	0.00	0.00	0.00
St. Lawrence River	3.79	15.02	40.89	59.69	0.00	0.00	0.00	0.00
Total	35.32	579.07	2326.77	2941.16	0.00	37.51	99.52	137.03

b) Water-use by Jurisdiction - All Basins

Jurisdiction	All Facilities				Principal Facilities			
	GLSW	OSW	GW	TOTAL	GLSW	OSW	GW	TOTAL
Illinois	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Indiana	0.00	20.37	57.65	78.02	0.00	17.79	54.36	72.15
Michigan	0.00	0.00	0.00	897.14**	0.00	0.00	0.00	0.00
Minnesota	0.04	0.79	0.04	0.87	0.00	0.72	0.00	0.72
New York	34.83	0.00	5.72	40.54	0.00	0.00	0.00	0.00
Ohio	0.45	33.54	7.99	41.98	0.00	17.98	3.22	21.20
Ontario	0.00	523.27	185.60	708.87	0.00	0.00	0.00	0.00
Pennsylvania	0.00	1.10	0.23	1.32	0.00	1.02	0.23	1.25
Quebec	0.00	0.00	34.90	34.90	0.00	0.00	0.00	0.00
Wisconsin	0.00	0.00	2034.65	2034.65	0.00	0.00	41.72	41.72
Total	35.32	579.07	2326.77	3838.29**	0.00	37.51	99.52	137.03

Level of Accuracy of Withdrawal Data: 27% Measured 27% Partially Measured 45% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 68% Site-specific 32% Aggregated

\*Ontario did not report its Principal Facility Withdrawals for 1993.  
 \*\*The total presented is larger than the sum of water use categories. This is due to the addition of state-wide data from Michigan.  
 Michigan's withdrawals and consumptive uses for this category cannot presently be reported by individual sub-basin or water withdrawal type.

a) Water-Use by Basin - All Jurisdictions

Basin	All Facilities										Principal Facilities										
	Withdrawals					Diversions					Withdrawals					Diversions					
	GLSW	OSV	GU	TOTAL	Consumptive Use	Intrabasin	Interbasin	TOTAL	GLSW	OSV	GU	TOTAL	Intrabasin	Interbasin	TOTAL	GLSW	OSV	GU	TOTAL	Consumptive Use	
Lake Superior	0.00	0.11	2.05	2.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Michigan	0.00	7.31	22.83	30.13	24.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.24	11.55	0.00	0.00	0.00
Lake Huron	0.00	0.00	64.72	64.72	51.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Erie	1.89	8.71	117.47	128.07	102.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.65	9.61	3.26	0.00	0.00
Lake Ontario	9.46	0.00	48.78	58.25	39.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
St. Lawrence River	3.79	0.00	117.20	120.99	96.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	15.14	16.13	373.05	404.32	315.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.96	4.85	14.80	0.00	0.00

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	All Facilities										Principal Facilities										
	Withdrawals					Diversions					Withdrawals					Diversions					
	GLSW	OSV	GU	TOTAL	Consumptive Use	Intrabasin	Interbasin	TOTAL	GLSW	OSV	GU	TOTAL	Intrabasin	Interbasin	TOTAL	GLSW	OSV	GU	TOTAL	Consumptive Use	
Illinois	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Indiana	0.00	7.31	27.67	34.98	28.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.24	11.55	0.00	0.00	0.00
Michigan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Minnesota	0.00	0.11	0.79	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New York	15.14	0.00	25.74	40.88	25.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.65	9.61	3.26	0.00	0.00
Ohio	0.00	8.71	41.00	49.70	39.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ontario	0.00	0.00	203.05	203.05	162.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pennsylvania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Quebec	0.00	0.00	72.30	72.30	57.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wisconsin	0.00	0.00	2.50	2.50	2.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	15.14	16.13	373.05	404.32	315.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.96	4.85	14.80	0.00	0.00

Level of Accuracy of Withdrawal Data: 23% Measured 27% Partially Measured 50% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 52% Site-specific 48% Aggregated

\*Ontario did not report its Principal Facility withdrawals for 1993.

e) Water-Use by Basin - All Jurisdictions

Basin	All Facilities			Principal Facilities							
	GLSW	OSW	GW	GLSW	OSW	GW					
Lake Superior	1228.52	364.80	8.99	577.42	322.29	0.15					
Lake Michigan	6181.46	1193.95	136.69	6189.05	1174.91	129.27					
Lake Huron	2736.00	301.30	49.86	0.00	0.00	0.00					
Lake Erie	2269.79	711.23	191.86	215.28	606.53	136.24					
Lake Ontario	3713.67	426.90	163.82	0.00	0.00	0.00					
St. Lawrence River	759.31	588.50	39.13	0.00	473.00	0.00					
<b>Total</b>	<b>16888.77</b>	<b>3586.69</b>	<b>590.28</b>	<b>6981.75</b>	<b>2576.73</b>	<b>265.66</b>					
							<b>9824.14</b>	<b>0.00</b>	<b>10.14</b>	<b>10.14</b>	<b>1130.04</b>

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	All Facilities			Principal Facilities							
	GLSW	OSW	GW	GLSW	OSW	GW					
Illinois	49.89	0.00	0.00	57.46	0.00	0.00					
Indiana	6125.49	61.97	97.10	6125.49	61.78	88.35					
Michigan	0.00	0.00	0.00	0.00	0.00	0.00					
Minnesota	577.42	323.50	0.34	577.42	322.29	0.00					
New York	1146.98	0.00	183.21	0.00	0.00	0.00					
Ohio	69.31	573.53	134.15	69.20	572.39	129.42					
Ontario	8767.50	986.30	127.10	0.00	0.00	0.00					
Pennsylvania	146.08	3.07	0.76	146.08	2.95	0.26					
Quebec	0.00	475.00	0.00	0.00	473.00	0.00					
Wisconsin	6.09	1163.33	47.62	6.09	1144.33	47.62					
<b>Total</b>	<b>16888.77</b>	<b>3586.69</b>	<b>590.28</b>	<b>6981.75</b>	<b>2576.73</b>	<b>265.66</b>					
							<b>9824.14</b>	<b>0.00</b>	<b>10.14</b>	<b>10.14</b>	<b>1130.04</b>

Level of Accuracy of Withdrawal Data: 27% Measured 30% Partially Measured 36% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 71% Site-specific 29% Aggregated

Ontario did not report its Principal facility withdrawals for 1993.  
 \*\*The total presented is larger than the sum of water use categories. This is due to the addition of state-wide data from Michigan.  
 Michigan's withdrawals and consumptive uses for this category cannot presently be reported by individual sub-basin or water withdrawal type.

WATER-USE CATEGORY REPORT - Self-supply - thermoelectric power - fossil-fuel plants

DATE: 05/21/97  
 UNITS: ML/d  
 YEAR OF DATA: 1993

a) Water-Use by Basin - All Jurisdictions

Basin	All Facilities										
	Withdrawals					Diversions					Consumptive Use
	GLSU	OSU	GW	TOTAL	Intrabasin	Interbasin	TOTAL	OSU	GW	TOTAL	
Lake Superior	1827.00	551.31	0.08	2378.38	0.00	0.00	0.00	31.31	0.00	0.00	31.31
Lake Michigan	15830.95	491.95	10.52	16333.42	0.00	0.00	0.00	178.56	0.00	0.00	178.56
Lake Huron	2469.74	0.11	0.00	2469.86	0.00	0.00	0.00	32.10	0.00	0.00	32.10
Lake Erie	31936.17	148.58	1.02	32085.77	0.00	0.00	0.00	261.88	0.00	0.00	261.88
Lake Ontario	7554.13	0.00	0.00	7554.13	0.00	0.00	0.00	38.55	0.00	0.00	38.55
St. Lawrence River	148.00	30.00	0.00	178.00	0.00	0.00	0.00	17.60	0.00	0.00	17.60
Total	59765.99	1221.95	11.62	60999.56	0.00	0.00	0.00	560.01	0.00	0.00	560.01

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	All Facilities										
	Withdrawals					Diversions					Consumptive Use
	GLSU	OSU	GW	TOTAL	Intrabasin	Interbasin	TOTAL	OSU	GW	TOTAL	
Illinois	3629.82	0.00	0.00	3629.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Indiana	3907.74	0.00	1.02	3908.76	0.00	0.00	0.00	78.21	0.00	0.00	78.21
Michigan	23087.74	471.51	8.63	23567.88	0.00	0.00	0.00	306.39	0.00	0.00	306.39
Minnesota	2.80	551.31	0.08	554.18	0.00	0.00	0.00	11.09	0.00	0.00	11.09
New York	8312.73	0.00	0.00	8312.73	0.00	0.00	0.00	34.07	0.00	0.00	34.07
Ohio	8742.34	148.24	0.00	8890.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ontario	7210.68	0.00	0.00	7210.68	0.00	0.00	0.00	65.51	0.00	0.00	65.51
Pennsylvania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Quebec	148.00	30.00	0.00	178.00	0.00	0.00	0.00	17.80	0.00	0.00	17.80
Wisconsin	4724.14	20.90	1.89	4746.93	0.00	0.00	0.00	46.64	0.00	0.00	46.64
Total	59765.99	1221.95	11.62	60999.56	0.00	0.00	0.00	560.01	0.00	0.00	560.01

Level of Accuracy of Withdrawal Data: 21% Measured 36% Partially Measured 42% Calculated or Estimated

Level of Aggregation of Withdrawal Data Source: 70% Site-specific 30% Aggregated

\*Ontario did not report its Principal Facility withdrawals for 1993.

a) Water-Use by Basin - All Jurisdictions

Basin	Withdrawals			All Facilities			Principal Facilities			Diversions			Consumptive Use
	GLSU	OSV	GW	TOTAL	Intrabasin	Interbasin	TOTAL	Intrabasin	Interbasin	TOTAL	Intrabasin	Interbasin	
Lake Superior	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Michigan	33430.09	0.00	0.00	33430.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Huron	22802.74	0.00	0.00	22802.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Erie	448.61	0.00	0.00	448.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Ontario	33125.76	0.00	0.00	33125.76	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
St. Lawrence River	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	89607.20	0.00	0.00	89607.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	636.35

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	Withdrawals			All Facilities			Principal Facilities			Diversions			Consumptive Use
	GLSU	OSV	GW	TOTAL	Intrabasin	Interbasin	TOTAL	Intrabasin	Interbasin	TOTAL	Intrabasin	Interbasin	
Illinois	6534.01	0.00	0.00	6534.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Indiana	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Michigan	8181.34	0.00	0.00	8181.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Minnesota	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New York	4769.60	0.00	0.00	4769.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ohio	448.61	0.00	0.00	448.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ontario	50958.90	0.00	0.00	50958.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pennsylvania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Quebec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wisconsin	18714.74	0.00	0.00	18714.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	89607.20	0.00	0.00	89607.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	636.35

Level of Accuracy of Withdrawal Data: 27% Measured 27% Partially Measured 45% Calculated or Estimated  
 Level of Aggregation of Withdrawal Data Source: 56% Site-specific 44% Aggregated  
 Ontario did not report its principal facility withdrawals for 1993.



a) Water-Use by Basin - All Jurisdictions

Basin	All Facilities											
	Withdrawals					Diversions					Consumptive Use	
	GLSU	OSV	GW	TOTAL	Intrabasin	Interbasin	TOTAL	Intrabasin	Interbasin	TOTAL		
Lake Superior	0.00	168020.18	0.00	168020.18	0.00	-15062.22	-15062.22	0.00	0.00	0.00	0.00	0.00
Lake Michigan	0.00	25255.45	0.00	25255.45	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Huron	86482.58	50905.17	0.00	137387.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Erie	16149.98	0.00	0.00	16149.98	14030.16	0.00	14030.16	0.00	0.00	0.00	0.00	0.00
Lake Ontario	735749.86	28304.11	0.00	764053.97	-14030.16	0.00	-14030.16	0.00	0.00	0.00	0.00	0.00
St. Lawrence River	1591511.15	478224.00	0.00	2069735.15	0.00	0.00	0.00	2.14	0.00	0.00	2.14	0.00
Total	2429893.57	750708.91	0.00	3180602.48	0.00	-15062.22	-15062.22	2.14	0.00	0.00	2.14	0.00

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	All Facilities											
	Withdrawals					Diversions					Consumptive Use	
	GLSU	OSV	GW	TOTAL	Intrabasin	Interbasin	TOTAL	Intrabasin	Interbasin	TOTAL		
Illinois	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Indiana	0.00	8941.37	0.00	8941.37	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Michigan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Minnesota	0.00	17405.26	0.00	17405.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New York	1146699.02	0.00	0.00	1146699.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ohio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ontario	597178.55	229266.88	0.00	826445.43	0.00	-15062.22	-15062.22	2.14	0.00	0.00	2.14	0.00
Pennsylvania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Quebec	686016.00	478224.00	0.00	1164240.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wisconsin	0.00	16871.40	0.00	16871.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	2429893.57	750708.91	0.00	3180602.48	0.00	-15062.22	-15062.22	2.14	0.00	0.00	2.14	0.00

Level of Accuracy of Withdrawal Data: 26% Measured 29% Partially Measured 45% Calculated or Estimated

Level of Aggregation of Withdrawal Data Source: 64% Site-specific 36% Aggregated

\*Ontario did not report its Principal Facility withdrawals for 1993.

a) Water-Use by Basin - All Jurisdictions

Basin	Withdrawals			All Facilities			Principal Facilities									
	GLSW	OSV	GW	TOTAL	Intrabasin	Interbasin	TOTAL	Consumptive Use	GLSW	OSV	GW	TOTAL	Intrabasin	Interbasin	TOTAL	Consumptive Use
Lake Superior	0.00	0.00	0.57	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Michigan	1268.68	0.23	0.57	1269.47	0.00	1268.68	1268.68	0.11	1268.68	0.19	0.15	1269.02	0.00	0.00	1268.68	1.08
Lake Huron	0.00	148.36	0.00	148.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Erie	2494.48	14.12	0.61	2509.20	0.00	-47.70	2461.50	0.00	4.96	13.02	0.45	18.43	0.00	0.00	-47.70	0.00
Lake Ontario	1245.40	486.23	0.00	1731.63	-1244.12	0.00	-1244.12	0.00	1245.40	0.00	0.00	1245.40	0.00	0.00	0.00	0.00
St. Lawrence River	499.67	101.93	0.00	601.60	0.00	0.00	0.00	0.00	499.67	0.00	0.00	499.67	0.00	0.00	0.00	1.00
Total	5508.22	750.87	1.74	6260.83	1245.40	1220.98	2466.38	0.11	3018.70	13.21	0.61	3032.52	499.67	1220.98	1720.65	2.08

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	Withdrawals			All Facilities			Principal Facilities									
	GLSW	OSV	GW	TOTAL	Intrabasin	Interbasin	TOTAL	Consumptive Use	GLSW	OSV	GW	TOTAL	Intrabasin	Interbasin	TOTAL	Consumptive Use
Illinois	1268.68	0.00	0.00	1268.68	0.00	1268.68	1268.68	0.00	1268.68	0.00	0.00	1268.68	0.00	0.00	1268.68	0.00
Indiana	0.00	0.23	0.57	0.79	0.00	0.00	0.00	0.11	0.00	0.19	0.15	0.34	0.00	0.00	0.00	0.08
Michigan	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Minnesota	0.00	0.00	0.57	0.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New York	1745.07	0.00	0.00	1745.07	0.00	0.00	1745.07	0.00	1745.07	0.00	0.00	1745.07	0.00	0.00	1745.07	0.00
Ohio	4.96	14.12	0.61	19.68	0.00	-47.70	-47.70	0.00	4.96	13.02	0.45	18.43	0.00	0.00	-47.70	0.00
Ontario	2494.48	736.52	0.00	3230.99	0.00	0.00	3230.99	0.00	2494.48	0.00	0.00	2494.48	0.00	0.00	2494.48	0.00
Pennsylvania	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Quebec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wisconsin	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	5508.22	750.87	1.74	6260.83	1245.40	1220.98	2466.38	0.11	3018.70	13.21	0.61	3032.52	499.67	1220.98	1720.65	2.08

Level of Accuracy of Withdrawal Data: 30% Measured  
 Level of Aggregation of Withdrawal Data Source: 67% Site-specific 33% Aggregated  
 27% Partially Measured 42% Calculated or Estimated  
 Ontario did not report its Principal Facility withdrawals for 1993.



**APPENDIX D**  
**TECHNICAL WORK GROUP OF THE**  
**WATER RESOURCES MANAGEMENT COMMITTEE**

January 29, 1999

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