

**ANNUAL REPORT**  
of the  
*GREAT LAKES REGIONAL WATER USE  
DATA BASE REPOSITORY*  
*REPRESENTING 1987 WATER USE DATA*

**A report to the Governors and Premiers of the Great Lakes states and provinces  
Prepared at the request of the  
Council of Great Lakes Governors  
February 1989**

## ERRATA

Page 2 of the Regional Overview, paragraph 1 and page A-7 of Appendix A, paragraph five of the Great Lakes Basin Summary:

Daily water use of 655 billion gallons per day was reported as the equivalent of 18 million gallons per day per person living in the Great Lakes Basin assuming a population of 37 million. The correct equivalent figure is 18,000 gallons per person per day.

Page A-7 of Appendix A, paragraph 4 of the Great Lakes Basin Summary:

The amount of water used directly in the Great Lakes Basin (88 percent of 655 bgd) was reported as about 550 bgd. The correct figure is 575 bgd.

**ANNUAL REPORT OF THE  
WATER RESOURCES MANAGEMENT COMMITTEE**

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## EXECUTIVE SUMMARY

This report constitutes the 1988 annual report of the Water Resources Management Committee (WRMC) to the governors and premiers of the Great Lakes states and provinces. It provides an overview of WRMC activities over the past year and includes (as an appendix) an update on development of the Great Lakes Regional Water-Use Data Base (GLRWDB).

The WRMC worked together this past year to achieve substantial progress toward implementation of the principles enumerated in the Great Lakes Charter. The Committee's major accomplishment was to move beyond the design stage in the development of the water-use data base and make it operational. The GLRWDB contains water-use data from most of the Great Lakes states and provinces. This report contains a preliminary analysis of water use throughout the basin based on the current information in the data base, and a discussion of actions needed to improve operation of the data base. Additional items discussed in the report include:

- o Adoption of WRMC recommendations by governors and premiers;
- o Inconsistencies between the Charter and U.S. federal law regarding prior notice and consultation trigger levels;
- o Progress made toward obtaining authority to register and manage water withdrawals;
- o Consultation between the WRMC and the International Joint Commission (IJC) on its Lake Levels Reference;
- o The status of the basin-wide water resources management planning process; and
- o The summer of 1988 diversion proposal and the consultation process.

The events of the past year, most notably the extreme summer drought, underscore the need for and benefits of regional cooperation in the management of the Great Lakes water resources. It is clear that the spirit of mutual cooperation established in the Great Lakes Charter has served to forge a new resolve to pursue common goals across the region.

## REGIONAL OVERVIEW

### Development of the Great Lakes Regional Water-Use Data Base (GLRWDB)

Recognizing that the management of Great Lakes water resources would not be possible without comprehensive information on water use throughout the basin, the governors and premiers included provisions in the Great Lakes Charter requiring development of a common water-use and management data base. The GLRWDB, which was designed and maintained by the Great Lakes Commission, is available to all Great Lakes states and provinces. It contains information regarding the location and type of water use as well as diversion and consumptive uses.

During the past year, the Great Lakes states and provinces submitted 1986 and 1987 water use data to the Commission. Where information gaps existed, the Commission reported water use based on previous data. The data were aggregated and entered into a personal computer using a specially-designed "user friendly" program. The attached report, which was prepared by the Commission and approved by the WRMC, provides additional information on development of the data base and on state and provincial water-use activities.

The data base, which is now operational, categorizes water-use for three types of withdrawal: Great Lakes surface water; other surface water; and ground water. Water-use is further categorized as follows:

- Public supply - domestic and industrial
- Self-supply - domestic (residential, commercial and institutional)
- Self-supply - irrigation
- Self-supply - livestock
- Self-supply - industrial (manufacturing and mining)
- Self-supply - thermoelectric power (fossil fuel plants)
- Self-supply - thermoelectric power (nuclear plants)
- Self-supply - hydroelectric plants
- Other (navigation, sanitation, environmental)

Analysis of the data indicates that water withdrawal in the Great Lakes basin for 1987 totaled approximately 655 billion gallons per day (bgd) or about 2.5 trillion litres per day (tld). Of this amount, at least 88% is used directly from/in the Great Lakes and connecting channels. This is the equivalent of 18 million gallons of water for every person living in the basin (assuming a population of 37 million).

It should be noted that actual withdrawal of Great Lakes water is considerably lower than this amount since hydroelectric use, representing 94% of the total, is considered an in-stream use, i.e., water that is used in-stream but not withdrawn. When hydroelectric use is subtracted from the total, water withdrawals for 1987 were approximately 37 bgd or 140 bld. This would be the equivalent of about 1,000 gallons per day for every person living in the basin. Put another way, if 37 bgd of Great Lakes water were removed by a train of jumbo tanker cars (34,000 gallon capacity, 65 feet long) it would require 1.1 million cars to do the job. This train of cars would be over 13,500 miles long and would circle about half of the earth at the equator.

Moreover, water consumption is still lower since 97% of the 37 bgd is returned. As such, the reported consumptive use of Great Lakes water for 1987 amounted to 1.2 bgd or 4.5 bld. For 1987, the State of Michigan reported the largest consumptive use accounting for nearly half (589 mgd; 2.2 bld) of the total. It should be stressed that the current consumptive use data is underreported due to problems in collection and compilation of data. This matter is exacerbated by the lack of a common methodology for estimating consumptive use. Until improvements in reporting take place, these figures should not be considered highly accurate.

Diversions from the basin totaled 1.6 bgd (6 bld) with nearly 100% of the total diverted from the Illinois Lake Michigan basin. Incoming diversions reported to the data base totaled 2.2 mgd (8.3 mld), all into the Minnesota Lake Superior basin. While the Province of Ontario did not report water use for 1987, it did provide information indicating that the Ogoki and Long Lac diversions into the Ontario Lake Superior watershed amounted to 1.9 bgd (7.1 bld). This is somewhat lower than the long-term average of 3.6 bgd or 13.7 bld.

Several problems arose concerning operation of the data base which the WRMC believes should be addressed during the upcoming year. The attached report in the appendix lists specific deficiencies in individual state/provincial programs. In general, it is suggested that states and provinces:

- o Provide complete data to the data base, for the year coinciding with the year that the report represents, and for all categories of use;

- o Submit data that can be presented by individual sub-basin and water withdrawal type; and
- o Submit data in a timely manner and on computer diskettes or electronically.

The WRMC also continued discussions of developing uniform estimation procedures for water withdrawal data and for varying consumptive uses. The objective is to standardize assumptions as much as possible so that water use data may be compared across all states and provinces. The WRMC is also working to resolve other problems, such as estimation procedures for states and provinces that do not report data on an annual basis.

Adoption of WRMC Recommendations  
by the Great Lakes Governors and Premiers

In February of 1987, the Committee submitted to the governors and premiers recommendations concerning the collection and management of water quantity data and the implementation of the prior notice and consultation process. These recommendations were formally adopted by the governors and premiers during the spring of 1987. The recommendations provide that:

- o The GLRWDB be created and organized by water-use category and aggregated by sub-basin;
- o The GLRWDB include the following elements:
  - Categories of use
  - Withdrawal type
  - Geographic area
  - Annual amount
  - Amount diverted from basin
  - Amount diverted into basin
  - Amount consumed
  - Predominant level of accuracy
  - Predominant level of aggregation
  - Number of facilities withdrawing 100,000 gallons per day or more
  - Total amount of water withdrawn by the facilities identified in the preceding point;
- o The prior notice and consultation process described in the WRMC's February, 1987 report be adopted in its entirety;
- o Illinois, Minnesota, Ontario, Quebec, and Wisconsin met the criteria to participate in the prior notice and consultation process, and are encouraged to include

other states in the process while they are seeking to meet the adopted criteria;

- o The Great Lakes Commission be selected as the central repository for the GLRWDB and be responsible for the maintenance of the database and for the retrieval of data; and
- o The Great Lakes Basin Water Resource Management Committee (an extension of the original WRMC) be created as a permanent oversight group.

#### Inconsistent Trigger Levels in the Charter and the Water Resources Development Act

It came to the attention of the Committee this past year that the Great Lakes Charter and the U.S. Water Resources Development Act of 1986 (WRDA) set different water withdrawal requirements for initiation of the prior notice and consultation process. The Charter provides that the Great Lakes states and provinces must be notified and consulted prior to approval of any new or increased diversion or consumptive use which exceeds five million gallons per day average over 30 days. The WRDA provides that any amount of diversion is prohibited without the approval of all of the governors of the Great Lakes states, but does not provide a trigger level for prior notice and consultation.

The Committee is currently discussing the issue. It should be noted that the trigger level differential is an issue only for the Great Lakes states and governors since the U.S. WRDA does not affect Quebec and Ontario.

#### Progress Toward Obtaining Authority to Register and Manage Water Withdrawals

The Charter provides that the Great Lakes states and provinces will pursue the enactment of legislation authorizing the gathering of information on any new or increased withdrawal in excess of 100,000 gallons per day average over 30 days. Participation in the prior notice and consultation process is contingent on having such authority and on having authority to manage diversions of over two million gallons per day average over 30 days. The states of Illinois, Wisconsin, and Minnesota, and the provinces of Ontario and Quebec had such authority prior to 1988.

During the past year, progress has been made in the other states toward obtaining authority to register and manage water withdrawals. Ohio passed legislation creating a comprehensive water management program providing for registration of



withdrawals, and for the prior notice and consultation process. In recognition of this action, the WRMC took up the question of whether the Ohio legislation met the requirements of the Charter. The Committee determined that Ohio's legislation did indeed meet Charter requirements, and subsequently voted to include Ohio in the group of Great Lakes states and provinces that have met the criteria to participate in the prior notice and consultation process.

In New York, legislation was introduced that would require water withdrawal registration and regulation. Unfortunately, this legislation did not pass. No legislation was introduced in Pennsylvania and Indiana, although both states currently have authority to require water withdrawal registration. In Michigan, draft legislation was prepared by an ad hoc group. All of the states which lack the authorities required under the Charter have pledged to introduce legislation in the next legislative session.

#### Consultation on Lake Levels Reference

The Charter provides that the Great Lakes states and provinces will encourage coordinated efforts to research the "lake levels required to protect fisheries and wildlife, a balanced aquatic environment, navigation, important recreational uses, and the assimilative capacity of the Great Lakes system". This past year, the WRMC agreed to provide informal consultation and advice to the IJC as it prepares a report required under the Great Lakes Levels Reference.

The Reference, which was initiated jointly by the U.S. and Canadian governments in 1986, mandates the IJC to develop a range of potential measures to deal with fluctuating water levels in the Great Lakes-St. Lawrence River basin, and to thoroughly investigate the impacts of such measures. An internal report on development of a comprehensive framework for systemwide evaluation of measures may be available in May 1989. A final report is expected in late 1991.

#### Planning the Basin-wide Water Resources Management Program

The Charter calls for development of a cooperative water resources management program for the Great Lakes basin. In planning such a program, the WRMC must consider elements which would:

- o Minimize the consumptive use of the Basin's water resources; and
- o Guide the coordinated conservation, development, protection, use, and management of water resources.

The first step in this process was development of the Great Lakes Regional Water-Use Data Base. Now that the GLRWDB is operational and data are retrievable, the Committee will begin planning the basinwide management program.

It is expected that the planning process will be a long-term challenge due to the unique nature of such a program. Over the next year, Council staff will prepare a feasibility study that will clarify the original intent behind provisions of the Charter calling for the creation of a basin-wide management program. Other needed activities include:

- o Improvement of the GLRWDB;
- o Definition of major issues to be addressed in the plan;
- o Examination of current state and provincial planning efforts and how these efforts could be incorporated in a basin-wide plan; and
- o Cooperation with the International Joint Commission in the development of its Reference Study on fluctuating lake levels.

#### Diversion Proposal and the Consultation Process

The extreme summer drought of 1988 focused attention on the potential impacts of increasing the diversion of water resources from the Great Lakes basin. While an increased diversion could have varying short-term benefits, it also could have adverse consequences elsewhere in the basin. The advantages and disadvantages of increasing diversions were discussed last summer when the U.S. Army Corps of Engineers considered increasing the Chicago River diversion from Lake Michigan on a short-term basis, to help navigation.

Several lessons may be gleaned from the experience of last summer. First, it is clear that the prior notice and consultation process established in the Charter creates a forum for discussing diversions which could significantly affect the basin. Second, it is important to consider the basin-wide impacts of any potential diversion, the analysis of which is dependent on developing accurate basin-wide data. Finally, when considering the short-term benefits of a diversion, the long-term consequences of such actions should also be considered.

Appendix A

**FIRST ANNUAL REPORT  
of the  
GREAT LAKES  
REGIONAL WATER USE DATA BASE  
REPOSITORY**

to

*The Great Lakes Water Resource Management Committee*

*January 1989*

## ACKNOWLEDGMENTS

The Great Lakes Commission wishes to acknowledge the support and involvement of the Water Resources Management Committee and the Council of Great Lakes Governors in the preparation of this report.

Development and establishment of the Regional Water Use Data Base was made possible through a grant from the National Oceanic and Atmospheric Administration (NOAA) administered through the Council of Great Lakes Governors.

The following individuals through their respective state and provincial agencies provided data and other information to the Repository:

### Illinois

Mr. Daniel Injerd  
Chief, Lake Michigan Management Section  
Illinois Dept. of Transportation  
310 S. Michigan Ave., Rm. 1606  
Chicago, IL 60604  
(312) 793-3123

### Indiana

Mr. Siavash Beik  
Division of Water  
Indiana Dept. of Natural Resources  
2475 Directors Row  
Indianapolis, IN 46241  
(317) 232-4160

### Michigan

Mr. Ron Van Til, Water Use Analyst  
Executive Division  
Michigan Dept. of Natural Resources  
P.O. Box 30028  
Lansing, MI 48909  
(517) 373-0014

### Minnesota

Mr. Rick Gelbmann  
Division of Waters  
Minnesota Dept. of Natural Resources  
500 Lafayette Rd., Box 32  
St. Paul, MN 55155  
(612) 296-2790

### New York

Mr. Larry Brennan  
Water Development Section  
Division of Water  
NYS Dept. of Environmental Conservation  
50 Wolf Rd.  
Albany, NY 12233  
(518) 457-8681

### Ohio

Mr. Richard Bartz  
Special Assistant for Lake Erie  
Division of Water  
Ohio Dept. of Natural Resources  
Fountain Square, Bldg. E-3  
Columbus, OH 43224  
(614) 265-6730

### Ontario

Mr. David Fay, Shoreline Engineer &  
Secretary, Shoreline Management Council  
Great Lakes Water Resources Section  
Ontario Ministry of Natural Resources  
Conservation Authority and Water Mgmt. Sec  
99 Wellesley Street., W.  
Toronto, Ont. M7A 1W3  
(416) 965-1271

### Pennsylvania

Mr. William Gast  
State Water Plan Division  
Bureau of Water Resources Management  
Dept. of Environmental Resources  
Box 1467  
Harrisburg, PA 17120  
(717) 787-5008

### Quebec

Mr. Jacques Deziel  
Direction du milieu hydrique  
Ministere de l'Environnement  
2360 Chemin, 1 etage  
Ste. Foy, Quebec G1V 4H4  
(418) 644-3306

### Wisconsin

Mr. Jeffrey Prey  
Water Use Data Coordinator  
Bureau of Water Resources Management  
Wisconsin Dept. of Natural Resources  
P.O. Box 7921  
Madison, WI 53707  
(608) 267-9351

This report was prepared by Thomas Crane, Natural Resources Management Specialist and Carol Ratza, Microcomputer Specialist, of the Great Lakes Commission staff.

## PREFACE

The following summary of the Great Lakes Regional Water Use Data Base Repository represents the first annual report to the Great Lakes Governors and Premiers on water use activities of the states and provinces in the Great Lakes Basin.

This report is presented by the Great Lakes Commission to the Council of Great Lakes Governors as part of a regional overview to the Governors and Premiers of activities of the Water Resources Management Committee.

The report provides summary water withdrawal and consumptive use information for the Great Lakes Basin, the ten jurisdictions and the individual Lake subbasins for multiple categories of use described later in the report.

The report begins with a brief discussion of priority issues for state and provincial attention prior to the submission of data for the 1989 annual report.

Following this, a brief introduction and background statement describes the Regional Water Use Data Base. Information for the Great Lakes Basin and the ten jurisdictions provided in both summary and table form concludes the report.

Summary tables for the Lake subbasins and the individual categories of use are included as sub-appendices at the end of this report.

## REGIONAL PRIORITY ISSUES REGARDING THE OPERATION OF THE REGIONAL WATER USE DATA BASE

The following represent issues and problems to be addressed by the Great Lakes states and provinces prior to submission of the 1989 annual report of the Regional Water Use Data Base.

1. States and provinces must strive to provide complete data to the data base for all categories of use. There is no "not reporting" option built into the data base. The "not reporting" entries appearing in the 1987 summary tables were entered by the Repository itself. This is extremely time consuming and prevents the generation of multiple reports as the tables must be edited prior to printing.
2. States and provinces must strive to submit data that can be presented by individual subbasin and water withdrawal type. Statewide totals that cannot be "broken down" must be entered into the summary tables by the Repository prior to printing. Since the total figures cannot be entered into the data base without receiving an error message it prevents the generation of multiple tables or summary tables with different units of measurement. It also prevents the Repository from mailing diskette copies of the data base to jurisdictions for their use due to the incomplete nature of the data stored.
3. States and provinces must strive to provide base data coinciding with the year that the report represents.
4. States and provinces should consider submitting 1988 data in ASCII format on formatted computer diskettes or electronically. This will allow the use

of the "GLC Check" program and will reduce possible errors and the time required by the Repository to enter the data into the data base.

5. States and provinces must strive to submit data to the Repository in a timely manner. The deadline date for submission of 1987 data was July 31, 1988. Many of the states and provinces were unable to meet this date. Consideration will be given to changing the deadline so that all of the jurisdictions can comply in a timely manner. An annual deadline date of submission must be selected, agreed to, and met to allow the Repository to meet its obligations to the Water Resources Management Committee.

Following are descriptions of deficiencies in individual state/provincial programs that require attention prior to submission of 1989 water use data.

### Michigan

For the 1988 annual report Michigan submitted base year 1985 data.

Michigan submitted data for only five categories of use: public water supply (category 1), self supply - irrigation (category 4), self supply - industrial (category 6), self supply - thermoelectric (fossil fuel plants) (category 7), and self supply - thermoelectric (nuclear plants) (category 8). Also, complete data were provided only for the last two categories that represent about 75 percent of the total water withdrawals from the Michigan Great Lakes Basin.

The withdrawal and consumptive use data provided for public water supply (category 1), self supply - irrigation (category 4), and self supply - industrial (category 6), cannot presently be reported by individual subbasin or water withdrawal type.

### Minnesota

At the time of preparation of this report, the most current water use data available from Minnesota were for base year 1986. Therefore the information presented in the Minnesota summary tables represents 1986 not 1987. However, for the purpose of completeness in reporting, the 1986 data for Minnesota are presented as 1987 data in the compilation of the basin summaries and water use category reports.

### New York

New York did not submit data for its principal facilities for the 1988 annual report. This information is currently unavailable.

New York also did not report data on the New York State Barge Canal which diverts water from the Niagara River and returns it to Lake Ontario through several tributaries and the Oswego Canal.

### Ohio

Principal facility withdrawal and consumptive use information for Category 6 (self supply - industrial) was unavailable due to the fact that it is estimated data. It is presented as "NR" not reporting on the Ohio summary table for principal facilities.

## Ontario

Ontario presented no data for the 1988 annual report. Water supply and withdrawal data, as required for the data base cannot currently be provided. Data collection and reporting is not done annually and data are unavailable at the subbasin level.

## Pennsylvania

Pennsylvania utilized both its 1986 and 1987 water use reports in submitting data to the Regional Water Use Data Base for the 1988 annual report. Some of the data presented in this report are from calendar year 1986 for both the Lake Erie and Lake Ontario Basins. The figures presented in the Pennsylvania summary tables for both Lake Erie and Lake Ontario are reported as 1987 data.

Pennsylvania's data collection and reporting operations are constrained by the number of personnel available. Data reported by various water users is not added to the Commonwealth's computerized data base annually. As examples, public water suppliers complete and submit an annual water supply report, but only one-half of the reports are entered into the system each year. Also, some 16,000 industrial water users are surveyed on a cycle, which currently would totally update the data files every third year. Other water users are also added to the system on a recurring, but not necessarily annual basis. With the extremely limited number of users and withdrawals in the Great Lakes Basin areas of Pennsylvania, manual tracking can provide the overview necessary to insure that appropriate information is furnished annually.

## BACKGROUND ON THE REGIONAL WATER USE DATA BASE

In November 1983, the Great Lakes Governors and Premiers through the Council of Great Lakes Governors, established a special task force to work toward an initial agreement on common approaches to Great Lakes water resources management. Such an agreement was to assist the Great Lakes Governors and Premiers in effectively deterring efforts to divert Great Lakes water to other regions of North America, while improving their ability to assess the effects of existing diversions and consumptive water uses.

Based on the findings and recommendations of the task force presented in its January 1985 final report on Water Diversions and Great Lakes Institutions, the Great Lakes Governors and Premiers signed the Great Lakes Charter, a series of principles for the management of Great Lakes water resources.

Under the terms of the Charter, the Great Lakes Governors and Premiers agreed to work toward the establishment of a single Great Lakes Regional Water Use Data Base and Repository.

The Great Lakes states and provinces have, for many years, maintained a variety of independent water use data collection, storage and retrieval systems. The concept of a regional water use data base system, to collect and maintain comparable data relating to the location, type and quantities of water use and diversions, has long been of interest to researchers and program managers.

With recent water shortages in arid regions of the USA and Canada, expanded energy development, and growing intrabasin demands on water resources, the Great

Lakes states and provinces have become even more aware of the need to conserve and protect Great Lakes water.

In 1985 a Great Lakes Water Resources Management Committee was established through the Council of Great Lakes Governors to work toward achieving the objectives of the Great Lakes Charter. Based on the recommendation of the Committee in its February, 1987 report to the Great Lakes Governors and Premiers titled "Managing the Waters of the Great Lakes Basin," the Great Lakes Commission (GLC), an interstate compact agency of the Great Lakes states, was recommended as repository for the Regional Water Use Data Base. The function of the Regional Water Use Data Base system is to store, aggregate and manipulate withdrawal, diversion and consumptive use data (provided by the states and provinces) for multiple categories of use.

The Great Lakes Commission has proceeded to carry out this mandate to develop, operate and maintain the Regional Water Use Data Base.

In August, 1987 the GLC contracted Acres International Limited, a consulting engineering firm from Niagara Falls, Ontario, to assist in the development, documentation, installation and demonstration of the water use data base system. State, provincial and GLC staff training in the operation and use of the data base management system occurred in October and November, 1987. User's manuals and system documentation were completed in January, 1988 and presented to the states and provinces by the GLC in February. A test of the system was undertaken using 1986 water use data in the Spring. State and provincial data were provided to the Repository between April and June, 1988. The summary tables were reviewed and discussed by the Water Resources Management Committee in August. Data for base year 1987, presented in this first annual report, were provided to the Repository between late July and mid-October, 1988.

#### DATA BASE DESCRIPTION

The Great Lakes Regional Water Use Data Base has been established for use on an IBM PC-compatible microcomputer in conjunction with the dBASE III Plus commercial data base software package. Routine data base operations are handled by a customized program prepared using dBASE III Plus capabilities. This program performs standard data entry, retrieval and report generation options. It is a user friendly program designed for interaction between user and data base through screen menus and multiple options for entry of data, viewing of records and generating reports.

The Great Lakes Regional Water Use Data Base is designed to serve as a common base of data and information on water use in the Great Lakes Basin as described in the Great Lakes Charter. The data base represents a set of annual data on withdrawals and consumptive uses of Great Lakes water organized by water use category and subbasin as specified by the Water Resources Management Committee.

The categories of use for the Great Lakes Regional Water Use Data Base are listed in Table 1. Category 2 is currently inactive and is intended for future use to allow for any necessary expansion required by the member states and provinces.



Each type of water use category record includes three withdrawal/discharge types. These are:

Great Lakes Surface Water (GLSW) - defined as the Great Lakes and their connecting channels (the St. Clair River, the Detroit River, the Niagara River, the St. Marys River) and the St. Lawrence River.

Other Surface Water (OSW) - defined as tributary streams, lakes, ponds and reservoirs within the Great Lakes Basin.

Groundwater (GW) - defined as all subsurface water distinct from surface water.

Table 1  
Water Use Categories

<u>Number</u>	<u>Name</u>
1	Public Supply - Domestic and Industrial
2	Reserved for Future Use
3	Self Supply - Domestic (Residential, Commercial, Institutional)
4	Self Supply - Irrigation
5	Self Supply - Livestock
6	Self Supply - Industrial (Manufacturing and Mining)
7	Self Supply - Thermoelectric Power - Fossil Fuel Plants
8	Self Supply - Thermoelectric Power - Nuclear Plants
9	Self Supply - Hydroelectric Power
10	Other (Navigation, Sanitation, Environmental) <sup>1</sup>

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1 Covers water use for low-flow augmentation, conservation, fish and wildlife and recreational uses.

A list of other important definitions relevant to the use of the Great Lakes Regional Water Use Data Base summary data tables are:

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 Basin and assumed to be lost or otherwise not returned to the Great Lakes Basin due to evaporation, incorporation into products or other processes.

Principal Facility: A facility withdrawing 100,000 gallons of water per day (380,000 litres) average over a 30 day period from the Great Lakes Basin.

Data submitted to the Regional Water Use Data Base are provided in one of two units: million gallons per day (U.S.) (mgd) or million litres per day (mld). Each jurisdiction is required to select one of these on a consistent basis for all data submissions. The data base records corresponding to the jurisdictions are maintained in the selected units.

All values are initially at zero in the data base. Values are required for all categories of use except Category 2. A zero value implies zero water use, or water use not meeting the Charter trigger level of 100,000 gallons per day (380,000 litres per day) average over a 30 day period. The summary tables with entries of "NR" (not reporting) were edited by hand by the Repository. The "NR" entry is not part of the data base. In the future the states and provinces must strive to submit data for all categories of use.

All nonzero values in the summary tables are positive except for incoming diversion values which are negative.

There are also two measures of the quality of data provided for each data entry; the level of accuracy and the level of aggregation. The level of accuracy provides an indication as to whether the withdrawal data originate from site-specific sources or from higher level aggregate sources such as county or census data bases.

Following are summaries of the Great Lakes Basin report and the individual jurisdiction reports describing state and provincial water use for 1987.

Appendices A-1 and A-2 present the subbasin reports and individual water use category reports in summary table form.

#### GREAT LAKES BASIN SUMMARY

The following tables present Great Lakes water use data submitted to the Regional Water Use Data Base from nine of the ten Great Lakes states and provinces for the nine active categories of use.

The Province of Ontario was unable to provide data to the Regional Water Use Data Base for this annual report. Ontario's status is described more fully in its' jurisdiction report.

Expanded descriptions of the status of the other state and provincial programs appear in the individual jurisdiction reports.

Water uses in the Great Lakes Basin for 1987 totaled approximately 655 billion gallons per day (bgd) or about 2.5 trillion litres per day (tld). Of this, at least 88 percent (about 550 bgd) (2.2 tld) is used directly from/in the Great Lakes and their connecting channels.

Daily water use of 655 billion gallons would be the equivalent of about 18 million gallons of water for every person living in the Great Lakes Basin (assuming a population of 37,000,000).

Put another way, if 655 billion gallons of Great Lakes water were removed by a train of jumbo tanker cars (34,000 gallon capacity, 65 ft long) it would require over 19,000,000 cars to do the job. This train of cars filled with Great Lakes

water would be over 237,000 miles long and would circle the Earth (at the equator) over 9 and a half times.

Finally, 655 billion gallons of water per day is approximately four and one quarter times the average annual outflow of Lake Ontario (238,000 cfs; 154 bgd).

It should be noted that self supply - hydroelectric is the largest single category of use representing over 94 percent (620 bgd; 2.3 tld) of the total. Withdrawals for hydroelectric purposes are considered an in-stream use and not a withdrawal in the traditional sense. The hydroelectric category is included because the data base reports water uses not just water withdrawals. However, subtracting hydroelectric uses from the total gives a clearer picture of the true water withdrawals from the Great Lakes. Water withdrawals from the eight categories of use (minus hydroelectric) for 1987 were approximately 37 bgd or 140 bld.

This would be the equivalent of about 1,000 gallons per day for every person living in the basin, and the train pulling Great Lakes water would only require about 1.1 million cars and would circle only about half of the earth at the equator.

Of the 37 bgd (140 bld) actually withdrawn from the Great Lakes, almost 97 percent of the reported amount (about 35.8 bgd; 135.5 bld) is returned. Consumptive uses of Great Lakes water for 1987 were about 1.2 bgd (4.5 bld). It should be stressed that the current consumptive use data is underreported due to problems in collection and compilation of data. Until improvements in reporting take place these figures should be considered only an estimate. Further work is being done on this subject to improve the reliability of the data.

For 1987, the State of Michigan reported the largest consumptive uses, accounting for nearly half (589 mgd; 2.2 bld) of the total.

Outgoing interbasin diversions totaled 1.6 bgd, (6 bld); with nearly 100 percent of the total diverted from the Illinois Lake Michigan Basin.

Incoming interbasin diversions reported to the data base totaled 2.2 mgd (8.3 mld); all into the Minnesota Lake Superior Basin. While the Province of Ontario did not report water use data for 1987, it did provide information on the Ogoki and Long Lac diversions into the Ontario Lake Superior watershed. For 1987, the two diversions combined were about 7.1 bld (1.9 bgd). This is somewhat lower than the long term average of the two diversions which is about 5,600 cfs (3.6 bgd; 13.7 bld).

## ILLINOIS

The water use data collection activities in Illinois are undertaken by two state agencies; the Department of Transportation, Division of Water Resources and the State Water Survey of the Department of Energy and Natural Resources.

The data submitted to the Regional Water Use Data Base for calendar year 1987 were provided by the Illinois Department of Transportation, Division of Water Resources.

Total withdrawals for 1987 from the Lake Michigan Basin of Illinois were 4.4 billion gallons per day (bgd). Withdrawals for public supply and for thermoelectric power (nuclear plants) represent over 75 percent of this total (3.3 bgd).

Consumptive uses for the Lake Michigan Basin of Illinois were 1.5 mgd all attributed to self supply - industrial uses.

Diversions from the Lake Michigan Basin of Illinois totaled 1.6 bgd. Of this amount, over 71 percent or 1.1 bgd are for public water supply. All diversions for Illinois are outgoing interbasin diversions; that is, water transferred from the Great Lakes Basin into another watershed.

The withdrawal data submitted by the Illinois DOT to the data base were 100 percent measured and 100 percent site specific.

### INDIANA

Data for 1987 submitted to the Regional Water Use Data Base for the Lake Michigan and Lake Erie Basins of Indiana were provided by the Department of Natural Resources, Division of Water which is responsible for the water use data collection program in Indiana.

Total withdrawals from the two basins were 3.2 billion gallons per day (bgd). Over 98 percent (over 3.1 bgd) were from the Lake Michigan Basin, with just under 2 percent (57.4 mgd) from the Lake Erie Basin.

Almost 94 percent of the water withdrawals from the Lake Michigan Basin were from two categories of use; self supply - industrial and self supply - thermoelectric (fossil fuel plants) (2.9 bgd). For the Lake Erie Basin withdrawals for public water supply were 40.9 mgd and represent over 71 percent of the total.

Consumptive uses for the two basins were approximately 184.7 mgd; about 176 mgd (over 95 percent) from the Lake Michigan Basin and 8.7 mgd (almost 5 percent) from the Lake Erie Basin.

Self supply - industrial is the major category for consumptive use in the Indiana Lake Michigan Basin, representing 113.5 mgd or almost 65 percent of the total. For Lake Erie, public water supply uses were 6.1 mgd representing about 70 percent of the total, 8.7 mgd.

There are no interbasin or intrabasin diversions in the Indiana Great Lakes Basin that meet the Charter trigger level of 100,000 gallons per day average over a 30 day period.

For the Indiana Great Lakes Basin the data reported were 6 percent measured, 92 percent partially measured, 2 percent estimated and 99 percent site specific.

### MICHIGAN

Water use data collection activities in Michigan are undertaken by the Department of Natural Resources, the Department of Public Health and the U.S. Geological Survey.

Data submitted to the Regional Water Use Data Base for inclusion in the 1988 annual report were provided by the Michigan Department of Natural Resources.

Though the reported year of data for this summary is 1987, Michigan's base year of data is 1985. The information provided is from Michigan's water management plan (*Water Resources for the Future: Technical Document*, Great Lakes and Water Resources Planning Commission, September, 1987).

Michigan submitted data for five categories of use: public water supply (category 1), self supply - irrigation (category 4), self supply - industrial (category 6), self supply - thermoelectric (fossil fuel plants) (category 7), and self supply - thermoelectric (nuclear plants) (category 8). Complete data were only provided for these last two categories and represent about 75 percent of the total water withdrawals from the Michigan Great Lakes Basin.

Withdrawal and consumptive use data provided for categories 1, 4 and 6 cannot presently be reported by individual subbasin or water withdrawal type. The available data were added to the state totals for the appropriate category to reflect more accurately the aggregate water withdrawals and uses in the state. Michigan estimates that the five water use categories combined represent about 98 percent of its total water uses.

Reported water withdrawals for the Lake Superior, Lake Michigan, Lake Huron and Lake Erie Basins of Michigan were approximately 11.2 billion gallons per day (bgd).

Withdrawals from the Lake Erie Basin account for at least 38 percent (4.2 bgd) of the total.

Self supply - thermoelectric (fossil fuel plants) withdrawals represent the largest single category accounting for almost 56 percent (6.2 bgd) of the total.

Consumptive uses in the Michigan Great Lakes Basin were approximately 589 mgd with self supply - irrigation accounting for over 38 percent of this total.

There are no reported interbasin 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.

The Michigan data provided to the Repository was 11 percent measured, 87 percent partially measured and 2 percent estimated and 98 percent site specific.

## MINNESOTA

Water use data submitted to the Regional Water Use Data Base for the Lake Superior Basin of Minnesota were provided by the Department of Natural Resources, Division of Waters which is responsible for the water use data collection activities in Minnesota.

At the time of preparation of this report, the most current water use data available from Minnesota were for calendar year 1986. Therefore the information presented in the Minnesota summary tables represents 1986 not 1987. However, for the purpose of completeness in reporting, the 1986 data for Minnesota are presented as 1987 data in the compilation of the basin summaries and water use category reports.

Total withdrawals from the Lake Superior Basin reported by Minnesota were approximately 159 million gallons per day (mgd). Three categories; public water supply, self supply - industrial and self supply - thermoelectric (fossil fuel plants) represent about 133.5 mgd or almost 84 percent of the total.

Consumptive uses for the Minnesota Lake Superior Basin were 70.2 mgd. With self supply - industrial and self supply - thermoelectric (fossil fuel plants) using almost 89 percent of the total (62.5 mgd).

Minnesota has net incoming interbasin diversions of 2.20 mgd represented in category 10 covering water uses for low-flow augmentation, conservation, fish and wildlife, recreation, navigation or other uses. Minnesota has no intrabasin diversion or outgoing interbasin diversions that meet the Charter trigger level of 100,000 gallons per day average over a 30 day period.

The data reported for the Lake Superior Basin of Minnesota were 77 percent measured, 1 percent partially measured and 22 percent estimated and 99.8 percent site-specific.

#### NEW YORK

Water use data collection in New York State is undertaken by the Department of Environmental Conservation, the Department of Health and the U.S. Geological Survey. The 1987 data provided to the Regional Water Use Data Base for the Lake Erie, Lake Ontario and St. Lawrence River Basins of New York were provided by the New York Department of Environmental Conservation, Division of Water.

New York did not present data for its principal facilities for 1987. This information is currently unavailable.

Water use in the New York Great Lakes Basin was 435.4 billion gallons per day (bgd) with Lake Erie uses representing 24 percent of the total (104.4 bgd), Lake Ontario uses representing 22 percent (96.7 bgd) and St. Lawrence River uses representing 54 percent (234.3 bgd).

Withdrawals for self supply - hydroelectric purposes were by far the largest use for all three basins representing almost 99 percent of the total (430 bgd).

New York reported no consumptive uses for the Lake Erie, Lake Ontario and St. Lawrence River Basins meeting the Charter trigger level of 100,000 mgd per day average over a 30 day period.

New York reported no interbasin or intrabasin diversions in the New York Great Lakes Basin meeting the Charter trigger level. Data on the the New York State Barge Canal which diverts water from the Niagara River and returns it to Lake Ontario were unavailable.

For the New York Great Lakes Basin the data reported were 99.8 percent partially measured, 0.2 percent estimated and 99 percent site specific.

## OHIO

Collection of water use data in Ohio is undertaken by the Ohio Department of Natural Resources, Division of Water, the Ohio Environmental Protection Agency, and the U.S. Geological Survey.

Data for the Ohio Lake Erie Basin for 1987 were provided to the Regional Water Use Data Base by the Department of Natural Resources, Division of Water.

Total water withdrawals from the Ohio Lake Erie Basin for 1987 were approximately 3.5 billion gallons per day (bgd). Principal facility withdrawal and consumptive use information for Category 6 (self supply - industrial) was unavailable due to the fact that it is estimated data. It is presented as "NR" not reporting on the Ohio summary table for principal facilities.

Two categories combined, public water supply and self supply - thermoelectric (fossil fuel plants) withdrew about 3.3 bgd, representing over 92 percent of the total.

Consumptive uses for the Ohio Lake Erie Basin were 180.7 mgd; with public water supply responsible for about 55 percent (98.9 mgd) of this total.

Interbasin diversions (outgoing) were around 0.2 mgd for the Lake Erie Basin of Ohio, all under public water supply. Ohio has no intrabasin diversions meeting the Charter trigger level of 100,000 million gallons per day average over a 30 day period.

The withdrawal data reported for 1987 were 100 percent estimated and 94 percent site specific.

## ONTARIO

For Ontario, water use data collection activities are undertaken by the Ministry of the Environment.

The Province of Ontario did not report water use data to the Great Lakes Regional Water Use Data Base for calendar year 1987.

At present, Ontario water supply and withdrawal data, as required for the data base cannot be provided. Data collection and reporting is not done annually and data are not available at the subbasin level.

Ontario is in the process of developing computer software for the aggregation of its water use data to interact with the Regional Water Use Data Base.

For this report, total withdrawals, consumptive use and diversion figures for the Basin Summary, the subbasin reports for Lakes Superior, Huron, Erie, Ontario, the St. Lawrence and all water use category reports do not include Ontario data.

Ontario anticipates the ability to submit data in time for the 1989 water use report to the Governors and Premiers.

## PENNSYLVANIA

Data for 1987 for the Lake Erie and Lake Ontario Basins of Pennsylvania were submitted to the Regional Water Use Data Base by the Department of Environmental Resources, Bureau of Water Resources Management which is responsible for the water use data collection program in Pennsylvania.

Total withdrawals from the two basins were about 396.1 million gallons per day (mgd). Almost 100 percent (395.9 mgd) were from the Lake Erie Basin. Only about 0.2 mgd or less than 0.1 percent were from the Lake Ontario Basin. For the Lake Erie Basin, withdrawals from self supply - thermoelectric (fossil fuel plants) were 300 mgd, over 75 percent of the total.

Consumptive uses for the two basins were 11.7 mgd with consumptive uses from Lake Ontario representing only about 0.4 percent or 50,000 gallons per day of the total. For Lake Erie, public water supply and self supply - industrial combined represent nearly 83 percent of the total (9.6 mgd).

There are no interbasin or intrabasin diversions in the Pennsylvania Great Lakes Basin that meet the Charter trigger level of 100,000 mgd average over a 30 day period.

For Pennsylvania, the data presented were 88 percent measured, 11 percent partially measured, 1 percent estimated and 99 percent site specific.

## QUEBEC

For Quebec, data for 1987 submitted to the Regional Water Use Data Base were provided by the Ministère de l'Environnement, Direction du milieu hydrique, which is responsible for the water use data collection program in Quebec.

For 1987, water uses in the St. Lawrence River Basin of Quebec were over 657 billion litres per day (bld) or 178 billion gallons per day (bgd). Over 97 percent of the total was for self supply - hydroelectric power purposes.

Consumptive uses for the Quebec St. Lawrence River Basin were 51.8 mld (13.7 mgd) all from self supply - industrial sources.

There are no interbasin or intrabasin diversions of water in the Quebec St. Lawrence River Basin that meet the Charter trigger level of 380,000 litres per day average over a 30 day period.

For Quebec, the data reported were 99.6 percent measured, 0.3 percent partially measured, 0.1 percent estimated and 100 percent site specific.

## WISCONSIN

Data for 1987 for the Lake Michigan and Lake Superior Basins of Wisconsin were submitted to the Regional Water Use Data Base by the Department of Natural Resources, Bureau of Water Resources Management, which is responsible for the water use data collection program in Wisconsin.



Total withdrawals from the two basins for 1987 were approximately 18.5 billion gallons per day (bgd). Over 97 percent (18.1 bgd) were from the Lake Michigan Basin with just under 3 percent (476.8 mgd) from the Lake Superior Basin.

Almost 74 percent (13.7 bgd) of the water uses in the Lake Michigan Basin were for self supply - hydroelectric power, with over 92 percent (440 mgd) of the water withdrawn from Lake Superior for the same purpose.

Consumptive uses for the two basins were 162.7 mgd; 159.5 (98 percent) from the Lake Michigan Basin and about 3.2 mgd (2 percent) from the Lake Superior Basin. Public water supply is the major category for consumptive use in the Lake Michigan Basin representing 54.4 mgd or more than one-third of the total use.

There are no interbasin or intrabasin diversions meeting the Charter trigger level of 100,000 mgd average over a 30 day period in the Wisconsin Lake Superior Basin.

For the Wisconsin Lake Michigan Basin, outgoing interbasin diversions total 0.1 mgd reported under public water supply.

For the Wisconsin Great Lakes Basin, the data reported were 2 percent measured, 98 percent estimated and 93 percent aggregated sources.

## **APPENDIX A-1**

### **1987 GREAT LAKES BASIN SUMMARY REPORT**

#### **1987 JURISDICTION REPORTS**

- 1. Illinois (mgd)**
- 2. Indiana (mgd)**
- 3. Michigan (mgd)**
- 4. Minnesota (mgd)**
- 5. New York (mgd)**
- 6. Ohio (mgd)**
- 7. Pennsylvania (mgd)**
- 8. Quebec (mld, mgd)**
- 9. Wisconsin (mgd)**

#### **1987 BASIN SUMMARY REPORTS**

- 1. Lake Superior Basin (mgd)**
- 2. Lake Michigan Basin (mgd)**
- 3. Lake Huron Basin (mgd)**
- 4. Lake Erie Basin (mgd)**
- 5. Lake Ontario Basin (mgd)**
- 6. St. Lawrence River Basin (mgd, mld)**

SUMMARY REPORT - GREAT LAKES BASIN

DATE: 2/15/89

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

UNITS: Mgal(US)/d  
YEAR OF DATA: 1987

Water-Use Category	All Facilities								Principal Facilities							
	Withdrawals				Diversions			Consumptive Use	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL		GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
1	3003.09	919.13	297.27	5443.49*	0.00	1141.11	1141.11	316.38*	2648.51	702.98	155.46	3506.94	0.00	1141.11	1141.11	185.19
3	190.50	125.54	334.23	650.27	0.00	5.72	5.72	19.59	30.44	0.40	18.38	47.22	0.00	5.66	5.66	0.00
4	9.10	13.74	40.57	300.41*	0.00	0.00	0.00	260.09*	0.00	5.68	13.22	18.90	0.00	0.00	0.00	17.88
5	4.00	3.84	65.85	73.69	0.00	0.00	0.00	34.45	0.00	1.13	1.84	2.97	0.00	0.00	0.00	0.45
6	2244.43	4105.65	77.22	7745.30*	0.00	8.65	8.65	381.86*	1914.96	3978.37	30.80	5924.73	0.00	8.65	8.65	166.54
7	15770.86	335.25	5.02	16111.12	0.00	0.00	0.00	157.06	1563.77	202.65	2.34	1768.77	0.00	0.00	0.00	53.21
8	6275.01	0.00	0.01	6275.02	0.00	0.00	0.00	44.56	3123.72	0.00	0.00	3123.72	0.00	0.00	0.00	16.46
9	547035.94	71015.45	0.00	618051.40	0.00	0.00	0.00	0.00	116235.94	71065.45	0.00	187301.40	0.00	0.00	0.00	0.00
10	440.52	23.01	0.39	463.92	0.00	438.32	438.32	0.18	440.52	22.90	0.31	463.73	0.00	438.32	438.32	0.10
Total	574973.45	76541.61	820.56	655114.62*	0.00	1593.80	1593.80	1214.17*	131957.86	75980.17	220.35	208158.38	0.00	1593.74	1593.74	439.83

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

Basin	All Facilities								Principal Facilities							
	Withdrawals				Diversions			Consumptive Use	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL		GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
Lake Superior	323.39	560.47	12.71	896.57	0.00	-2.20	-2.20	76.87	56.72	559.90	5.14	621.76	0.00	-2.20	-2.20	0.42
Lake Michigan	14779.88	13765.14	243.06	28788.08	0.00	1595.77	1595.77	379.20	11653.51	13684.53	156.53	25494.57	0.00	1595.71	1595.71	301.49
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	111871.85	497.92	209.66	112579.43	0.00	0.23	0.23	255.89	3388.50	328.29	42.30	3759.09	0.00	0.23	0.23	124.29
Lake Ontario	96267.50	233.03	168.06	96668.59	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
St. Lawrence River	351078.39	61485.02	187.07	412750.48	0.00	0.00	0.00	13.68	116859.13	61407.45	16.38	178282.96	0.00	0.00	0.00	13.63
Total	574973.45	76541.61	820.56	655114.62*	0.00	1593.80	1593.80	1214.17*	131957.86	75980.17	220.35	208158.38	0.00	1593.74	1593.74	439.83

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

Jurisdiction	All Facilities								Principal Facilities							
	Withdrawals				Diversions			Consumptive Use	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL		GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
Illinois	4331.64	0.04	0.19	4331.87	0.00	1595.67	1595.67	1.48	4331.68	0.00	0.09	4331.67	0.00	1595.61	1595.61	1.48
Indiana	3003.72	53.81	138.72	3196.25	0.00	0.00	0.00	184.66	3003.70	53.36	101.38	3158.44	0.00	0.00	0.00	178.32
Michigan	8260.45	124.55	2.28	11166.29*	NR	0.00	0.00	589.04*	0.00	0.00	0.00	0.00	NR	0.00	0.00	0.00
Minnesota	32.80	120.44	5.77	159.01	0.00	-2.20	-2.20	70.23	32.80	119.90	4.90	157.40	0.00	-2.20	-2.20	0.00
New York	434724.10	314.00	342.60	435380.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ohio	3030.30	398.00	113.60	3541.90	0.00	0.23	0.23	180.70	3005.50	284.90	27.70	3318.10	0.00	0.23	0.23	105.20
Ontario	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Pennsylvania	383.00	7.35	5.74	396.09	0.00	0.00	0.00	11.66	383.00	6.96	2.15	392.11	0.00	0.00	0.00	11.72
Quebec	116859.39	61460.02	81.97	178401.38	0.00	0.00	0.00	13.68	116859.13	61407.45	16.38	178282.96	0.00	0.00	0.00	13.63
Wisconsin	4348.05	14063.39	129.69	18541.13	0.00	0.10	0.10	162.72	4342.35	14107.60	67.75	18517.70	0.00	0.10	0.10	129.48
Total	574973.45	76541.61	820.56	655114.62*	0.00	1593.80	1593.80	1214.17*	131957.86	75980.17	220.35	208158.38	0.00	1593.74	1593.74	439.83

\* The total presented is larger than the sum of the 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 subbasin or water withdrawal type.

NR = Not Reporting

SUMMARY REPORT - GREAT LAKES BASIN (Except Ontario - Not reporting for 1987)

DATE: 2/15/89

UNITS: ML/d  
YEAR OF DATA: 1987

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

Water-Use Category	All Facilities								Principal Facilities									
	Withdrawals				Diversions				Consumptive Use	Withdrawals				Diversions				Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	GLSW		OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL			
1	11367.89	3479.29	1125.28	20605.67*	0.00	4319.55	4319.55	1197.61*	10025.65	2661.05	588.48	13275.18	0.00	4319.55	4319.55	701.02		
3	721.12	475.22	1265.19	2461.53	0.00	21.65	21.65	74.16	115.23	1.51	62.00	178.74	0.00	21.43	21.43	0.00		
4	34.45	52.01	153.59	1137.17*	0.00	0.00	0.00	984.52*	0.00	21.50	50.04	71.54	0.00	0.00	0.00	67.68		
5	15.14	14.54	249.26	278.94	0.00	0.00	0.00	130.41	0.00	4.28	6.97	11.24	0.00	0.00	0.00	1.70		
6	8498.06	15541.53	292.31	29318.92*	0.00	32.74	32.74	1445.50*	7248.88	15062.00	116.59	22427.48	0.00	32.74	32.74	630.43		
7	59698.96	1269.04	19.00	60987.00	0.00	0.00	0.00	594.53	28631.86	767.15	8.86	29407.87	0.00	0.00	0.00	201.42		
8	23753.41	0.00	0.04	23753.44	0.00	0.00	0.00	168.68	11824.52	0.00	0.00	11824.52	0.00	0.00	0.00	62.31		
9	2070749.11	268822.09	0.00	2339571.20	0.00	0.00	0.00	0.00	440000.00	269011.36	0.00	709011.36	0.00	0.00	0.00	0.00		
10	1667.54	87.10	1.48	1756.12	0.00	1659.22	1659.22	0.68	1667.54	86.69	1.17	1755.40	0.00	1659.22	1659.22	0.38		
Total	2176503.68	289740.81	3106.15	2479869.92*	0.00	6033.16	6033.16	4596.09*	499513.69	287615.53	834.11	787963.33	0.00	6032.94	6032.94	1664.94		

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

Basin	All Facilities								Principal Facilities									
	Withdrawals				Diversions				Consumptive Use	Withdrawals				Diversions				Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	GLSW		OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL			
Lake Superior	1224.16	2121.60	48.11	3393.87	0.00	-8.33	-8.33	290.98	214.71	2119.44	19.46	2353.61	0.00	-8.33	-8.33	1.59		
Lake Michigan	55947.72	52106.52	920.08	108974.32	0.00	6040.62	6040.62	1435.42	44113.16	51801.38	592.53	96507.07	0.00	6040.40	6040.40	1141.26		
Lake Huron	2469.74	0.11	0.00	2469.86	0.00	0.00	0.00	32.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Lake Erie	423479.39	1884.82	793.65	426157.86	0.00	0.87	0.87	968.65	12826.82	1242.71	160.12	14229.65	0.00	0.87	0.87	470.49		
Lake Ontario	364410.72	882.11	636.17	365929.01	0.00	0.00	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
St. Lawrence River	1328971.95	232745.63	708.14	1562425.72	0.00	0.00	0.00	51.80	442359.00	232452.00	62.00	674873.00	0.00	0.00	0.00	51.60		
Total	2176503.68	289740.81	3106.15	2479869.92*	0.00	6033.16	6033.16	4596.09*	499513.69	287615.53	834.11	787963.33	0.00	6032.94	6032.94	1664.94		

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

Jurisdiction	All Facilities								Principal Facilities									
	Withdrawals				Diversions				Consumptive Use	Withdrawals				Diversions				Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	GLSW		OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL			
Illinois	16396.98	0.15	0.72	16397.85	0.00	6040.24	6040.24	5.60	16396.75	0.00	0.34	16397.09	0.00	6040.02	6040.02	5.60		
Indiana	11370.27	203.69	525.11	12099.08	0.00	0.00	0.00	699.01	11370.20	201.99	393.76	11955.95	0.00	0.00	0.00	675.01		
Michigan	31269.08	471.51	8.63	42268.57*	NR	0.00	0.00	2229.70*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Minnesota	124.16	455.91	21.84	601.92	0.00	-8.33	-8.33	265.85	123.40	453.87	18.55	595.82	0.00	-8.33	-8.33	0.00		
New York	1645603.39	1188.61	1296.87	1648088.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Ohio	11470.89	1506.59	430.02	13407.50	0.00	0.87	0.87	684.02	11377.01	1078.46	104.86	12560.33	0.00	0.87	0.87	349.22		
Ontario	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR		
Pennsylvania	1449.81	27.82	21.73	1499.36	0.00	0.00	0.00	44.14	1449.81	26.35	8.14	1484.29	0.00	0.00	0.00	44.36		
Quebec	442360.00	232651.00	310.30	675321.30	0.00	0.00	0.00	51.80	442359.00	232452.00	62.00	674873.00	0.00	0.00	0.00	51.60		
Wisconsin	16459.10	53235.52	490.93	70185.54	0.00	0.38	0.38	615.96	16437.52	53402.87	256.46	70096.85	0.00	0.38	0.38	490.13		
Total	2176503.68	289740.81	3106.15	2479869.92*	0.00	6033.16	6033.16	4596.09*	499513.69	287615.53	834.11	787963.33	0.00	6032.94	6032.94	1664.94		

\* The total presented is larger than the sum of the 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 subbasin or water withdrawal type.

NR = Not Reported

JURISDICTION REPORT - Illinois

DATE: 10/07/88  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

a) Withdrawals, Diversions and Consumptive Use - All facilities

Water- Use Categ.	LAKE MICHIGAN			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	1140.78	1140.78	0.00	1140.78	1140.78	0.00
3	29.24	5.72	0.00	29.24	5.72	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	11.18	8.65	1.48	11.18	8.65	1.48
7	573.16	0.00	0.00	573.16	0.00	0.00
8	2136.99	0.00	0.00	2136.99	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00
10	440.52	440.52	0.00	440.52	440.52	0.00
Total	4331.87	1595.67	1.48	4331.87	1595.67	1.48

b) Withdrawals by Source - All facilities

Water- Use Categ.	LAKE MICHIGAN			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW
1	1140.69	0.00	0.09	1140.69	0.00	0.09
3	29.10	0.04	0.10	29.10	0.04	0.10
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	11.18	0.00	0.00	11.18	0.00	0.00
7	573.16	0.00	0.00	573.16	0.00	0.00
8	2136.99	0.00	0.00	2136.99	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00
10	440.52	0.00	0.00	440.52	0.00	0.00
Total	4331.64	0.04	0.19	4331.64	0.04	0.19

c) Diversions by Type - All facilities

Water- Use Categ.	LAKE MICHIGAN		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	1140.78	0.00	1140.78
3	0.00	5.72	0.00	5.72
4	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00
6	0.00	8.65	0.00	8.65
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	440.52	0.00	440.52
Total	0.00	1595.67	0.00	1595.67

Level of Accuracy of Withdrawal Data: 100% Measured

Level of Aggregation of Withdrawal Data Source: 100% Site specific

JURISDICTION REPORT - Illinois

DATE: 10/07/88  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

a) Withdrawals, Diversions and Consumptive Use - Principal facilities

Water- Use Categ.	LAKE MICHIGAN			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	1140.78	1140.78	0.00	1140.78	1140.78	0.00
3	29.04	5.66	0.00	29.04	5.66	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	11.18	8.65	1.48	11.18	8.65	1.48
7	573.16	0.00	0.00	573.16	0.00	0.00
8	2136.99	0.00	0.00	2136.99	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00
10	440.52	440.52	0.00	440.52	440.52	0.00
Total	4331.67	1595.61	1.48	4331.67	1595.61	1.48

b) Withdrawals by Source - Principal facilities

Water- Use Categ.	LAKE MICHIGAN			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW
1	1140.69	0.00	0.09	1140.69	0.00	0.09
3	29.04	0.00	0.00	29.04	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	11.18	0.00	0.00	11.18	0.00	0.00
7	573.16	0.00	0.00	573.16	0.00	0.00
8	2136.99	0.00	0.00	2136.99	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00
10	440.52	0.00	0.00	440.52	0.00	0.00
Total	4331.58	0.00	0.09	4331.58	0.00	0.09

c) Diversions by Type - Principal facilities

Water- Use Categ.	LAKE MICHIGAN		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	1140.78	0.00	1140.78
3	0.00	5.66	0.00	5.66
4	0.00	0.00	0.00	0.00
5	0.00	0.00	0.00	0.00
6	0.00	8.65	0.00	8.65
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	440.52	0.00	440.52
Total	0.00	1595.61	0.00	1595.61

Level of Accuracy of Withdrawal Data: % Measured

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

JURISDICTION REPORT - Indiana

DATE: 10/05/88  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

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.
1	147.28	0.00	22.09	40.87	0.00	6.13	188.15	0.00	28.22
3	27.30	0.00	4.10	8.02	0.00	1.20	35.32	0.00	5.30
4	15.28	0.00	14.52	0.99	0.00	0.94	16.27	0.00	15.46
5	2.97	0.00	0.45	0.00	0.00	0.00	2.97	0.00	0.45
6	1892.21	0.00	113.54	6.92	0.00	0.42	1899.13	0.00	113.96
7	1053.62	0.00	21.07	0.59	0.00	0.02	1054.21	0.00	21.09
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	0.20	0.00	0.18	0.00	0.00	0.00	0.20	0.00	0.18
Total	3138.86	0.00	175.95	57.39	0.00	8.71	3196.25	0.00	184.66

b) Withdrawals by Source - All facilities

Water- Use Categ.	LAKE MICHIGAN			LAKE ERIE			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	89.46	0.02	57.80	0.00	32.28	8.59	89.46	32.30	66.39
3	0.00	0.00	27.30	0.00	0.00	8.02	0.00	0.00	35.32
4	0.00	5.28	10.00	0.00	0.27	0.72	0.00	5.55	10.72
5	0.00	1.13	1.84	0.00	0.00	0.00	0.00	1.13	1.84
6	1862.78	10.84	18.59	0.00	3.62	3.30	1862.78	14.46	21.89
7	1051.48	0.02	2.12	0.00	0.34	0.25	1051.48	0.36	2.37
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	0.01	0.19	0.00	0.00	0.00	0.00	0.01	0.19
Total	3003.72	17.30	117.84	0.00	36.51	20.88	3003.72	53.81	138.72

c) Diversions by Type - All 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
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:

6% Measured      92% Partially Measured      2% Calculated or Estimated





JURISDICTION REPORT - Michigan

DATE: 10/07/88  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

a) 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	1224*	NR	123*
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	237*	0.00	225*
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	1318*	0.00	132*
7	250.77	0.00	3.39	1091.72	0.00	14.20	652.47	0.00	8.48	4221.04	0.00	54.87	6226.00	0.00	80.94
8	0.00	0.00	0.00	2161.29	0.00	28.10	0.00	0.00	0.00	0.00	0.00	0.00	2161.29	0.00	28.10
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	250.77	0.00	3.39	3253.01	0.00	42.30	652.47	0.00	8.48	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		
	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	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 subbasin or water withdrawal type.

NR = Not Reporting

Level of Accuracy of Withdrawal Data: 11% Measured 87% Partially Measured 2% Calculated or Estimated

JURISDICTION REPORT - Michigan

DATE: 10/07/88  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

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

NR = Not Reported

JURISDICTION REPORT - Minnesota

DATE: 10/05/88  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

a) Withdrawals, Diversions and Consumptive Use - All facilities

Water- Use Categ.	LAKE SUPERIOR			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	36.40	0.00	6.24	36.40	0.00	6.24
3	1.90	0.00	1.17	1.90	0.00	1.17
4	0.13	0.00	0.10	0.13	0.00	0.10
5	0.27	0.00	0.27	0.27	0.00	0.27
6	62.60	0.00	39.54	62.60	0.00	39.54
7	34.51	0.00	22.91	34.51	0.00	22.91
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	23.20	-2.20	NR	23.20	-2.20	NR
Total	159.01	-2.20	70.23	159.01	-2.20	70.23

b) Withdrawals by Source - All facilities

Water- Use Categ.	LAKE SUPERIOR			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW
1	28.60	2.60	5.20	28.60	2.60	5.20
3	1.40	0.50	0.00	1.40	0.50	0.00
4	0.00	0.10	0.03	0.00	0.10	0.03
5	NR	0.04	0.23	NR	0.04	0.23
6	2.00	60.50	0.10	2.00	60.50	0.10
7	0.80	33.70	0.01	0.80	33.70	0.01
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	23.00	0.20	0.00	23.00	0.20
Total	32.80	120.44	5.77	32.80	120.44	5.77

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
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	-2.20	0.00	-2.20
Total	0.00	-2.20	0.00	-2.20

NR = Not Reporting

Level of Accuracy of Withdrawal Data:

77% Measured 1% Partially Measured 22% Calculated or Estimated

JURISDICTION REPORT - Minnesota

DATE: 10/05/88

a) Withdrawals, Diversions and Consumptive Use - Principal facilities

UNITS: Mgal(US)/d  
YEAR OF DATA: 1987

Water- Use Categ.	LAKE SUPERIOR			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	35.80	0.00	0.00	35.80	0.00	0.00
3	1.80	0.00	0.00	1.80	0.00	0.00
4	NR	NR	NR	NR	NR	NR
5	0.00	0.00	0.00	0.00	0.00	0.00
6	62.30	0.00	0.00	62.30	0.00	0.00
7	34.40	0.00	0.00	34.40	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	23.10	-2.20	0.00	23.10	-2.20	0.00
Total	157.40	-2.20	0.00	157.40	-2.20	0.00

b) Withdrawals by Source - Principal facilities

Water- Use Categ.	LAKE SUPERIOR			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW
1	28.50	2.60	4.70	28.50	2.60	4.70
3	1.40	0.40	0.00	1.40	0.40	0.00
4	NR	NR	NR	NR	NR	NR
5	0.00	0.00	0.00	0.00	0.00	0.00
6	1.90	60.40	0.00	1.90	60.40	0.00
7	0.80	33.60	0.00	0.80	33.60	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	22.90	0.20	0.00	22.90	0.20
Total	32.60	119.90	4.90	32.60	119.90	4.90

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
3	0.00	0.00	0.00	0.00
4	NR	NR	NR	NR
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	-2.20	0.00	-2.20
Total	0.00	-2.20	0.00	-2.20

NR = Not Reporting

JURISDICTION REPORT - New York

DATE: 12/14/88  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

a) Withdrawals, Diversions and Consumptive Use - All facilities

Water-Use Categ.	LAKE ERIE			LAKE ONTARIO			ST. LAWRENCE RIVER			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	213.00	0.00	0.00	264.00	0.00	0.00	184.00	0.00	0.00	661.00	0.00	0.00
3	77.00	0.00	0.00	287.00	0.00	0.00	89.00	0.00	0.00	453.00	0.00	0.00
4	1.50	0.00	0.00	8.00	0.00	0.00	1.10	0.00	0.00	10.60	0.00	0.00
5	1.30	0.00	0.00	6.40	0.00	0.00	3.00	0.00	0.00	10.70	0.00	0.00
6	58.40	0.00	0.00	218.00	0.00	0.00	72.00	0.00	0.00	348.40	0.00	0.00
7	1012.00	0.00	0.00	1095.00	0.00	0.00	0.00	0.00	0.00	2107.00	0.00	0.00
8	0.00	0.00	0.00	990.00	0.00	0.00	0.00	0.00	0.00	990.00	0.00	0.00
9	103000.00	0.00	0.00	93800.00	0.00	0.00	234000.00	0.00	0.00	430800.00	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	104363.20	0.00	0.00	96668.40	0.00	0.00	234349.10	0.00	0.00	435380.70	0.00	0.00

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	159.00	46.00	8.00	95.00	138.00	31.00	100.00	0.00	84.00	354.00	184.00	123.00
3	10.00	10.00	57.00	100.00	95.00	92.00	50.00	20.00	19.00	160.00	125.00	168.00
4	1.10	0.00	0.40	7.00	0.00	1.00	1.00	0.00	0.10	9.10	0.00	1.50
5	0.50	0.00	0.80	2.50	0.00	3.90	1.00	0.00	2.00	4.00	0.00	6.70
6	55.00	0.00	3.40	178.00	0.00	40.00	67.00	5.00	0.00	300.00	5.00	43.40
7	1012.00	0.00	0.00	1095.00	0.00	0.00	0.00	0.00	0.00	2107.00	0.00	0.00
8	0.00	0.00	0.00	990.00	0.00	0.00	0.00	0.00	0.00	990.00	0.00	0.00
9	103000.00	0.00	0.00	93800.00	0.00	0.00	234000.00	0.00	0.00	430800.00	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	104237.60	56.00	69.60	96267.50	233.00	167.90	234219.00	25.00	105.10	434724.10	314.00	342.60

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
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:  
 0% Measured 99.8% Partially Measured 0.2% Calculated or Estimated

JURISDICTION REPORT - Ohio

DATE: 2/15/89  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

a) Withdrawals, Diversions and Consumptive Use - All facilities

Water- Use Categ.	LAKE ERIE			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	658.90	0.23	98.90	658.90	0.23	98.90
3	67.20	0.00	10.10	67.20	0.00	10.10
4	11.30	0.00	11.30	11.30	0.00	11.30
5	10.80	0.00	10.80	10.80	0.00	10.80
6	128.50	0.00	42.30	128.50	0.00	42.30
7	2615.10	0.00	0.20	2615.10	0.00	0.20
8	50.10	0.00	7.10	50.10	0.00	7.10
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	3541.90	0.23	180.70	3541.90	0.23	180.70

b) Withdrawals by Source - All facilities

Water- Use Categ.	LAKE ERIE			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW
1	501.10	125.00	32.80	501.10	125.00	32.80
3	0.00	0.00	67.20	0.00	0.00	67.20
4	0.00	7.10	4.20	0.00	7.10	4.20
5	0.00	1.60	9.20	0.00	1.60	9.20
6	24.60	103.70	0.20	24.60	103.70	0.20
7	2454.50	160.60	0.00	2454.50	160.60	0.00
8	50.10	0.00	0.00	50.10	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	3030.30	398.00	113.60	3030.30	398.00	113.60

c) Diversions by Type - All facilities

Water- Use Categ.	LAKE ERIE		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.23	0.00	0.23
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	0.23	0.00	0.23

NR = Not Reporting

Level of Accuracy of Withdrawal Data:

0% Measured 0% Partially Measured 100% Calculated or Estimated

JURISDICTION REPORT - Ohio

DATE: 2/15/89  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

a) Withdrawals, Diversions and Consumptive Use - Principal facilities

Water- Use Categ.	LAKE ERIE			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	652.90	0.23	97.90	652.90	0.23	97.90
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	NR	0.00	NR	NR	0.00	NR
7	2615.10	0.00	0.20	2615.10	0.00	0.20
8	50.10	0.00	7.10	50.10	0.00	7.10
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	3318.10	0.23	105.20	3318.10	0.23	105.20

b) Withdrawals by Source - Principal facilities

Water- Use Categ.	LAKE ERIE			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW
1	500.90	124.30	27.70	500.90	124.30	27.70
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	NR	NR	NR	NR	NR	NR
7	2454.50	160.60	0.00	2454.50	160.60	0.00
8	50.10	0.00	0.00	50.10	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	3005.50	284.90	27.70	3005.50	284.90	27.70

c) Diversions by Type - Principal facilities

Water- Use Categ.	LAKE ERIE		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.23	0.00	0.23
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	0.23	0.00	0.23

NR = Not Reported

JURISDICTION REPORT - Pennsylvania

DATE: 10/05/88  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

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	47.33	0.00	4.73	0.08	0.00	0.01	47.41	0.00	4.74
3	1.97	0.00	0.20	0.07	0.00	0.01	2.04	0.00	0.21
4	1.30	0.00	1.30	0.00	0.00	0.00	1.30	0.00	1.30
5	0.75	0.00	0.10	0.04	0.00	0.03	0.79	0.00	0.13
6	44.45	0.00	4.88	0.00	0.00	0.00	44.45	0.00	4.88
7	300.10	0.00	0.40	0.00	0.00	0.00	300.10	0.00	0.40
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	395.90	0.00	11.61	0.19	0.00	0.05	396.09	0.00	11.66

b) Withdrawals by Source - All facilities

Water-Use Categ.	LAKE ERIE			LAKE ONTARIO			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	43.80	1.42	2.11	0.00	0.00	0.08	43.80	1.42	2.19
3	0.00	0.00	1.97	0.00	0.00	0.07	0.00	0.00	2.04
4	0.00	0.70	0.60	0.00	0.00	0.00	0.00	0.70	0.60
5	0.00	0.07	0.68	0.00	0.03	0.01	0.00	0.10	0.69
6	39.10	5.13	0.22	0.00	0.00	0.00	39.10	5.13	0.22
7	300.10	0.00	0.00	0.00	0.00	0.00	300.10	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	383.00	7.32	5.58	0.00	0.03	0.16	383.00	7.35	5.74

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
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:  
 88% Measured    11% Partially Measured    1% Calculated or Estimated

Level of Aggregation of Withdrawal Data Source:





JURISDICTION REPORT - Quebec

DATE: 10/14/88  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

a) Withdrawals, Diversions and Consumptive Use - All facilities

Water- Use Categ.	ST. LAWRENCE RIVER			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	1118.24	0.00	0.00	1118.24	0.00	0.00
3	43.06	0.00	0.00	43.06	0.00	0.00
4	16.11	0.00	0.00	16.11	0.00	0.00
5	22.80	0.00	0.00	22.80	0.00	0.00
6	3592.75	0.00	13.68	3592.75	0.00	13.68
7	47.02	0.00	0.00	47.02	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00
9	173561.40	0.00	0.00	173561.40	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
Total	178401.38	0.00	13.68	178401.38	0.00	13.68

b) Withdrawals by Source - All facilities

Water- Use Categ.	ST. LAWRENCE RIVER			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW
1	584.35	533.89	0.00	584.35	533.89	0.00
3	0.00	0.00	43.06	0.00	0.00	43.06
4	0.00	0.00	16.11	0.00	0.00	16.11
5	0.00	0.00	22.80	0.00	0.00	22.80
6	0.00	3592.75	0.00	0.00	3592.75	0.00
7	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
9	116235.94	57325.45	0.00	116235.94	57325.45	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
Total	116859.39	61460.02	81.97	116859.39	61460.02	81.97

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
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:  
 99.6% Measured 0.3% Partially Measured 0.1% Calculated or Estimated

JURISDICTION REPORT - Quebec

DATE: 10/14/88  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

a) Withdrawals, Diversions and Consumptive Use - Principal facilities

Water- Use Categ.	ST. LAWRENCE RIVER			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	1086.54	0.00	0.00	1086.54	0.00	0.00
3	16.38	0.00	0.00	16.38	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	3579.54	0.00	13.63	3579.54	0.00	13.63
7	39.10	0.00	0.00	39.10	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00
9	173561.40	0.00	0.00	173561.40	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
Total	178282.96	0.00	13.63	178282.96	0.00	13.63

b) Withdrawals by Source - Principal facilities

Water- Use Categ.	ST. LAWRENCE RIVER			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW
1	584.09	502.46	0.00	584.09	502.46	0.00
3	0.00	0.00	16.38	0.00	0.00	16.38
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	3579.54	0.00	0.00	3579.54	0.00
7	39.10	0.00	0.00	39.10	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00
9	116235.94	57325.45	0.00	116235.94	57325.45	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
Total	116859.13	61407.45	16.38	116859.13	61407.45	16.38

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
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

JURISDICTION REPORT - Quebec

DATE: 10/14/88  
 UNITS: ML/d  
 YEAR OF DATA: 1987

a) Withdrawals, Diversions and Consumptive Use - All facilities

Water- Use Categ.	ST. LAWRENCE RIVER			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	4233.00	0.00	0.00	4233.00	0.00	0.00
3	163.00	0.00	0.00	163.00	0.00	0.00
4	61.00	0.00	0.00	61.00	0.00	0.00
5	86.30	0.00	0.00	86.30	0.00	0.00
6	13600.00	0.00	51.80	13600.00	0.00	51.80
7	178.00	0.00	0.00	178.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00
9	657000.00	0.00	0.00	657000.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
Total	675321.30	0.00	51.80	675321.30	0.00	51.80

b) Withdrawals by Source - All facilities

Water- Use Categ.	ST. LAWRENCE RIVER			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW
1	2212.00	2021.00	0.00	2212.00	2021.00	0.00
3	0.00	0.00	163.00	0.00	0.00	163.00
4	0.00	0.00	61.00	0.00	0.00	61.00
5	0.00	0.00	86.30	0.00	0.00	86.30
6	0.00	13600.00	0.00	0.00	13600.00	0.00
7	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
9	440000.00	217000.00	0.00	440000.00	217000.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
Total	442360.00	232651.00	310.30	442360.00	232651.00	310.30

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
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:

99.6% Measured    0.3% Partially Measured    0.1% Calculated or Estimated

JURISDICTION REPORT - Quebec

DATE: 10/14/88  
 UNITS: ML/d  
 YEAR OF DATA: 1987

a) Withdrawals, Diversions and Consumptive Use - Principal facilities

Water- Use Categ.	ST. LAWRENCE RIVER			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	4113.00	0.00	0.00	4113.00	0.00	0.00
3	62.00	0.00	0.00	62.00	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	13550.00	0.00	51.60	13550.00	0.00	51.60
7	148.00	0.00	0.00	148.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00
9	657000.00	0.00	0.00	657000.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
Total	674873.00	0.00	51.60	674873.00	0.00	51.60

b) Withdrawals by Source - Principal facilities

Water- Use Categ.	ST. LAWRENCE RIVER			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW
1	2211.00	1902.00	0.00	2211.00	1902.00	0.00
3	0.00	0.00	62.00	0.00	0.00	62.00
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	13550.00	0.00	0.00	13550.00	0.00
7	148.00	0.00	0.00	148.00	0.00	0.00
8	0.00	0.00	0.00	0.00	0.00	0.00
9	440000.00	217000.00	0.00	440000.00	217000.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00
Total	442359.00	232452.00	62.00	442359.00	232452.00	62.00

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
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

JURISDICTION REPORT - Wisconsin

DATE: 10/05/88  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

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	6.08	0.00	0.91	362.53	0.10	54.37	368.61	0.10	55.28
3	0.21	0.00	0.07	18.30	0.00	2.74	18.51	0.00	2.81
4	0.01	0.00	0.01	7.69	0.00	6.92	7.70	0.00	6.93
5	1.75	0.00	1.56	23.61	0.00	21.24	25.36	0.00	22.80
6	4.77	0.00	0.47	335.52	0.00	33.55	340.29	0.00	34.02
7	23.97	0.00	0.23	3130.05	0.00	31.29	3154.02	0.00	31.52
8	0.00	0.00	0.00	936.64	0.00	9.36	936.64	0.00	9.36
9	440.00	0.00	0.00	13250.00	0.00	0.00	13690.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	476.79	0.00	3.25	18064.34	0.10	159.47	18541.13	0.10	162.72

b) Withdrawals by Source - All facilities

Water- Use Categ.	LAKE SUPERIOR			LAKE MICHIGAN			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	1.08	0.00	5.00	260.01	39.92	62.60	261.09	39.92	67.60
3	0.00	0.00	0.21	0.00	0.00	18.30	0.00	0.00	18.51
4	0.00	0.00	0.01	0.00	0.29	7.40	0.00	0.29	7.41
5	0.00	0.03	1.72	0.00	0.94	22.67	0.00	0.97	24.39
6	4.77	0.00	0.00	0.00	324.11	11.41	4.77	324.11	11.41
7	23.97	0.00	0.00	3121.59	8.10	0.36	3145.56	8.10	0.36
8	0.00	0.00	0.00	936.63	0.00	0.01	936.63	0.00	0.01
9	0.00	440.00	0.00	0.00	13250.00	0.00	0.00	13690.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	29.82	440.03	6.94	4318.23	13623.36	122.75	4348.05	14063.39	129.69

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	0.10	0.00	0.10
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	0.10	0.00	0.10

Level of Accuracy of Withdrawal Data:

2% Measured

0% Partially Measured

98% Calculated or Estimated

JURISDICTION REPORT - Wisconsin

DATE: 10/05/88  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

a) Withdrawals, Diversions and Consumptive Use - Principal facilities

Water- Use Categ.	LAKE SUPERIOR			LAKE MICHIGAN			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	1.32	0.00	0.19	355.54	0.10	53.32	356.86	0.10	53.51
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	2.45	0.00	2.20	2.45	0.00	2.20
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	329.03	0.00	32.89	329.03	0.00	32.89
7	23.04	0.00	0.23	3129.69	0.00	31.29	3152.73	0.00	31.52
8	0.00	0.00	0.00	936.63	0.00	9.36	936.63	0.00	9.36
9	440.00	0.00	0.00	13300.00	0.00	0.00	13740.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	464.36	0.00	0.42	18053.34	0.10	129.06	18517.70	0.10	129.48

b) Withdrawals by Source - Principal facilities

Water- Use Categ.	LAKE SUPERIOR			LAKE MICHIGAN			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	1.08	0.00	0.24	260.01	39.92	55.61	261.09	39.92	55.85
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	2.45	0.00	0.00	2.45
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	319.58	9.45	0.00	319.58	9.45
7	23.04	0.00	0.00	3121.59	8.10	0.00	3144.63	8.10	0.00
8	0.00	0.00	0.00	936.63	0.00	0.00	936.63	0.00	0.00
9	0.00	440.00	0.00	0.00	13300.00	0.00	0.00	13740.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	24.12	440.00	0.24	4318.23	13667.60	67.51	4342.35	14107.60	67.75

c) Diversions by Type - Principal facilities

Water- Use Categ.	LAKE SUPERIOR		LAKE MICHIGAN		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	0.00	0.10	0.00	0.10
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	0.10	0.00	0.10

BASIN REPORT - Lake Superior (Excluding Ontario - not reporting for 1987)

DATE: 10/07/88  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

a) Withdrawals, Diversions and Consumptive Use - All Facilities

Water-Use Categ.	MICHIGAN			MINNESOTA			WISCONSIN			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	NR	NR	NR	36.40	0.00	6.24	6.08	0.00	0.91	42.48	0.00	7.15
3	NR	0.00	NR	1.90	0.00	1.17	0.21	0.00	0.07	2.11	0.00	1.24
4	NR	0.00	NR	0.13	0.00	0.10	0.01	0.00	0.01	0.14	0.00	0.11
5	NR	0.00	NR	0.27	0.00	0.27	1.75	0.00	1.56	2.02	0.00	1.83
6	NR	0.00	NR	62.60	0.00	39.54	4.77	0.00	0.47	67.37	0.00	40.01
7	260.77	0.00	3.39	34.51	0.00	22.91	23.97	0.00	0.23	319.25	0.00	26.53
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	NR	0.00	NR	0.00	0.00	0.00	440.00	0.00	0.00	440.00	0.00	0.00
10	NR	0.00	NR	23.20	-2.20	NR	0.00	0.00	0.00	23.20	-2.20	0.00
Total	260.77	0.00	3.39	159.01	-2.20	70.23	476.79	0.00	3.25	896.57	-2.20	76.87

b) Withdrawals by Source - All Facilities

Water-Use Categ.	MICHIGAN			MINNESOTA			WISCONSIN			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	NR	NR	NR	28.60	2.60	5.20	1.08	0.00	5.00	29.68	2.60	10.20
3	NR	NR	NR	1.40	0.50	0.00	0.00	0.00	0.21	1.40	0.50	0.21
4	NR	NR	NR	0.00	0.10	0.03	0.00	0.00	0.01	0.00	0.10	0.04
5	NR	NR	NR	0.00	0.04	0.23	0.00	0.03	1.72	0.00	0.07	1.95
6	NR	NR	NR	2.00	60.50	0.10	4.77	0.00	0.00	6.77	60.50	0.10
7	260.77	0.00	0.00	0.80	33.70	0.01	23.97	0.00	0.00	285.54	33.70	0.01
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	NR	NR	NR	0.00	0.00	0.00	0.00	440.00	0.00	0.00	440.00	0.00
10	NR	NR	NR	0.00	23.00	0.20	0.00	0.00	0.00	0.00	23.00	0.20
Total	260.77	0.00	0.00	32.80	120.44	5.77	29.82	440.03	6.94	323.39	560.47	12.71

c) Diversions by Type - All Facilities

Water-Use Categ.	MICHIGAN		MINNESOTA		WISCONSIN		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	NR	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	-2.20	0.00	0.00	0.00	-2.20
Total	0.00	0.00	0.00	-2.20	0.00	0.00	0.00	-2.20

NR = Not Reporting

Level of Accuracy of Withdrawal Data: 14.3% Measured 29.3% Partially Measured 56.4% Calculated or Estimated



BASIN REPORT - Lake Superior (Excluding Ontario - not reporting for 1987)

DATE: 10/07/88  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

a) Withdrawals, Diversions and Consumptive Use - Principal Facilities

Water- Use Categ.	MICHIGAN			MINNESOTA			WISCONSIN			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	NR	NR	NR	35.80	0.00	0.00	1.32	0.00	0.19	37.12	0.00	0.19
3	NR	0.00	NR	1.80	0.00	0.00	0.00	0.00	0.00	1.80	0.00	0.00
4	NR	0.00	NR	NR	NR	NR	0.00	0.00	0.00	0.00	0.00	0.00
5	NR	0.00	NR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	NR	0.00	NR	62.30	0.00	0.00	0.00	0.00	0.00	62.30	0.00	0.00
7	0.00	0.00	0.00	34.40	0.00	0.00	23.04	0.00	0.23	57.44	0.00	0.23
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	NR	0.00	NR	0.00	0.00	0.00	440.00	0.00	0.00	440.00	0.00	0.00
10	NR	0.00	NR	23.10	-2.20	0.00	0.00	0.00	0.00	23.10	-2.20	0.00
Total	0.00	0.00	0.00	157.40	-2.20	0.00	464.36	0.00	0.42	621.76	-2.20	0.42

b) Withdrawals by Source - Principal Facilities

Water- Use Categ.	MICHIGAN			MINNESOTA			WISCONSIN			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	NR	NR	NR	28.50	2.60	4.70	1.08	0.00	0.24	29.58	2.60	4.94
3	NR	NR	NR	1.40	0.40	0.00	0.00	0.00	0.00	1.40	0.40	0.00
4	NR	NR	NR	NR	NR	NR	0.00	0.00	0.00	0.00	0.00	0.00
5	NR	NR	NR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6	NR	NR	NR	1.90	60.40	0.00	0.00	0.00	0.00	1.90	60.40	0.00
7	0.00	0.00	0.00	0.80	33.60	0.00	23.04	0.00	0.00	23.84	33.60	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	NR	NR	NR	0.00	0.00	0.00	0.00	440.00	0.00	0.00	440.00	0.00
10	NR	NR	NR	0.00	22.90	0.20	0.00	0.00	0.00	0.00	22.90	0.20
Total	0.00	0.00	0.00	32.60	119.90	4.90	24.12	440.00	0.24	56.72	559.90	5.14

c) Diversions by Type - Principal Facilities

Water- Use Categ.	MICHIGAN		MINNESOTA		WISCONSIN		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	NR	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	NR	NR	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	-2.20
Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-2.20

NR = Not Reporting

BASIN REPORT - Lake Michigan

DATE: 10/07/88  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

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.
1	1140.78	1140.78	0.00	147.28	0.00	22.09	NR	NR	NR	362.53	0.10	54.37	1650.59	1140.88	76.46
3	29.24	5.72	0.00	27.30	0.00	4.10	NR	0.00	NR	18.30	0.00	2.74	74.84	5.72	6.84
4	0.00	0.00	0.00	15.28	0.00	14.52	NR	0.00	NR	7.69	0.00	6.92	22.97	0.00	21.44
5	0.00	0.00	0.00	2.97	0.00	0.45	NR	0.00	NR	23.61	0.00	21.24	26.58	0.00	21.69
6	11.18	8.65	1.48	1892.21	0.00	113.54	NR	0.00	NR	335.52	0.00	33.55	2238.91	8.65	148.57
7	573.16	0.00	0.00	1053.62	0.00	21.07	1091.72	0.00	14.20	3130.05	0.00	31.29	5848.55	0.00	66.56
8	2136.99	0.00	0.00	0.00	0.00	0.00	2161.29	0.00	28.10	936.64	0.00	9.36	5234.92	0.00	37.46
9	0.00	0.00	0.00	0.00	0.00	0.00	NR	0.00	NR	13250.00	0.00	0.00	13250.00	0.00	0.00
10	440.52	440.52	0.00	0.20	0.00	0.18	NR	0.00	NR	0.00	0.00	0.00	440.72	440.52	0.18
Total	4331.87	1595.67	1.48	3138.86	0.00	175.95	3253.01	0.00	42.30	18064.34	0.10	159.47	28788.08	1595.77	379.20

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
1	1140.69	0.00	0.09	89.46	0.02	57.80	NR	NR	NR	260.01	39.92	62.60	1490.16	39.94	120.49
3	29.10	0.04	0.10	0.00	0.00	27.30	NR	NR	NR	0.00	0.00	18.30	29.10	0.04	45.70
4	0.00	0.00	0.00	0.00	5.28	10.00	NR	NR	NR	0.00	0.29	7.40	0.00	5.57	17.40
5	0.00	0.00	0.00	0.00	1.13	1.84	NR	NR	NR	0.00	0.94	22.67	0.00	2.07	24.51
6	11.18	0.00	0.00	1862.78	10.84	18.59	NR	NR	NR	0.00	324.11	11.41	1873.96	334.95	30.00
7	573.16	0.00	0.00	1051.48	0.02	2.12	965.00	124.44	2.28	3121.59	8.10	0.36	5711.23	132.56	4.76
8	2136.99	0.00	0.00	0.00	0.00	0.00	2161.29	0.00	0.00	936.63	0.00	0.01	5234.91	0.00	0.01
9	0.00	0.00	0.00	0.00	0.00	0.00	NR	NR	NR	0.00	13250.00	0.00	0.00	13250.00	0.00
10	440.52	0.00	0.00	0.00	0.01	0.19	NR	NR	NR	0.00	0.00	0.00	440.52	0.01	0.19
Total	4331.64	0.04	0.19	3003.72	17.30	117.84	3126.29	124.44	2.28	4318.23	13623.36	122.75	14779.88	13765.14	243.06

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	1140.78	0.00	0.00	NR	0.00	0.00	0.10	0.00	1140.88
3	0.00	5.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.72
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	8.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.65
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	440.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	440.52
Total	0.00	1595.67	0.00	0.00	0.00	0.00	0.00	0.10	0.00	1595.77

NR = Not Reporting

Level of Accuracy of Withdrawal Data: 16.9% Measured 21.6% Partially Measured 61.5% Calculated 0.0% Estimated

Level of Aggregation of Withdrawal Data Source: 41.7% Site-specific 58.3% Aggregated

BASIN REPORT - Lake Michigan

DATE: 10/07/88  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

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	1140.78	1140.78	0.00	146.56	0.00	21.99	NR	NR	NR	355.54	0.10	53.32	1642.88	1140.88	75.31
3	29.04	5.66	0.00	0.00	0.00	0.00	NR	0.00	NR	0.00	0.00	0.00	29.04	5.66	0.00
4	0.00	0.00	0.00	14.56	0.00	13.83	NR	0.00	NR	2.45	0.00	2.20	17.01	0.00	16.03
5	0.00	0.00	0.00	2.97	0.00	0.45	NR	0.00	NR	0.00	0.00	0.00	2.97	0.00	0.45
6	11.18	8.65	1.48	1891.76	0.00	113.51	NR	0.00	NR	329.03	0.00	32.89	2231.97	8.65	147.88
7	573.16	0.00	0.00	1053.60	0.00	21.07	0.00	0.00	0.00	3129.69	0.00	31.29	4756.45	0.00	52.36
8	2136.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	936.63	0.00	9.36	3073.62	0.00	9.36
9	0.00	0.00	0.00	0.00	0.00	0.00	NR	0.00	NR	13300.00	0.00	0.00	13300.00	0.00	0.00
10	440.52	440.52	0.00	0.11	0.00	0.10	NR	0.00	NR	0.00	0.00	0.00	440.63	440.52	0.10
Total	4331.67	1595.61	1.48	3109.56	0.00	170.95	0.00	0.00	0.00	18053.34	0.10	129.06	25494.57	1595.71	301.49

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	1140.69	0.00	0.09	89.44	0.02	57.10	NR	NR	NR	260.01	39.92	55.61	1490.14	39.94	112.80
3	29.04	0.00	0.00	0.00	0.00	0.00	NR	NR	NR	0.00	0.00	0.00	29.04	0.00	0.00
4	0.00	0.00	0.00	0.00	4.94	9.62	NR	NR	NR	0.00	0.00	2.45	0.00	4.94	12.07
5	0.00	0.00	0.00	0.00	1.13	1.84	NR	NR	NR	0.00	0.00	0.00	0.00	1.13	1.84
6	11.18	0.00	0.00	1862.78	10.82	18.16	NR	NR	NR	0.00	319.58	9.45	1873.96	330.40	27.61
7	573.16	0.00	0.00	1051.48	0.02	2.10	0.00	0.00	0.00	3121.59	8.10	0.00	4746.23	8.12	2.10
8	2136.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	936.63	0.00	0.00	3073.62	0.00	0.00
9	0.00	0.00	0.00	0.00	0.00	0.00	NR	NR	NR	0.00	13300.00	0.00	0.00	13300.00	0.00
10	440.52	0.00	0.00	0.00	0.00	0.11	NR	NR	NR	0.00	0.00	0.00	440.52	0.00	0.11
Total	4331.58	0.00	0.09	3003.70	16.93	88.93	0.00	0.00	0.00	4318.23	13667.60	67.51	11653.51	13684.53	156.53

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	1140.78	0.00	0.00	NR	0.00	0.00	0.10	0.00	1140.88
3	0.00	5.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.66
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	8.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.65
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	440.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	440.52
Total	0.00	1595.61	0.00	0.00	0.00	0.00	0.00	0.10	0.00	1595.71

NR = Not Reporting

BASIN REPORT - Lake Huron  
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 (Excluding Ontario - not reporting for 1987)

DATE: 10/07/88  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

a) Withdrawals, Diversions and Consumptive Use - All Facilities

Water- Use Categ.	MICHIGAN			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	NR	NR	NR	NR	NR	NR
3	NR	0.00	NR	NR	0.00	NR
4	NR	0.00	NR	NR	0.00	NR
5	NR	0.00	NR	NR	0.00	NR
6	NR	0.00	NR	NR	0.00	NR
7	652.47	0.00	8.48	652.47	0.00	8.48
8	0.00	0.00	0.00	0.00	0.00	0.00
9	NR	0.00	NR	NR	0.00	NR
10	NR	0.00	NR	NR	0.00	NR
Total	652.47	0.00	8.48	652.47	0.00	8.48

b) Withdrawals by Source - All Facilities

Water- Use Categ.	MICHIGAN			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW
1	NR	NR	NR	NR	NR	NR
3	NR	NR	NR	NR	NR	NR
4	NR	NR	NR	NR	NR	NR
5	NR	NR	NR	NR	NR	NR
6	NR	NR	NR	NR	NR	NR
7	652.44	0.03	0.00	652.44	0.03	0.00
8	0.00	0.00R	0.00	0.00	0.00	0.00
9	NR	NR	NR	NR	NR	NR
10	NR	NR	NR	NR	NR	NR
Total	652.44	0.03	0.00	652.44	0.03	0.00

c) Diversions by Type - All Facilities

Water- Use Categ.	MICHIGAN		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin
1	NR	0.00	NR	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

NR = Not Reporting

Level of Accuracy of Withdrawal Data:

0% Measured 100% Partially Measured 0% Calculated or Estimated

BASIN REPORT - Lake Huron  
 ----- (Excluding Ontario - not reporting for 1987)

DATE: 10/07/88  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

a) Withdrawals, Diversions and Consumptive Use - Principal Facilities

Water- Use Categ.	MICHIGAN			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	NR	NR	NR	NR	NR	NR
3	NR	0.00	NR	NR	0.00	NR
4	NR	0.00	NR	NR	0.00	NR
5	NR	0.00	NR	NR	0.00	NR
6	NR	0.00	NR	NR	0.00	NR
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	NR	0.00	NR	NR	0.00	NR
10	NR	0.00	NR	NR	0.00	NR
Total	0.00	0.00	0.00	0.00	0.00	0.00

b) Withdrawals by Source - Principal Facilities

Water- Use Categ.	MICHIGAN			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW
1	NR	NR	NR	NR	NR	NR
3	NR	NR	NR	NR	NR	NR
4	NR	NR	NR	NR	NR	NR
5	NR	NR	NR	NR	NR	NR
6	NR	NR	NR	NR	NR	NR
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	NR	NR	NR	NR	NR	NR
10	NR	NR	NR	NR	NR	NR
Total	0.00	0.00	0.00	0.00	0.00	0.00

c) Diversions by Type - Principal Facilities

Water- Use Categ.	MICHIGAN		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin
1	NR	0.00	NR	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

NR = Not Reporting

BASIN REPORT - Lake Erie (Except Ontario - Not reporting for 1987)

DATE: 2/15/89  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

a) Withdrawals, Diversions and Consumptive Use - All Facilities

Water-Use Categ.	INDIANA			MICHIGAN			NEW YORK			OHIO			PENNSYLVANIA			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	40.87	0.00	6.13	NR	NR	NR	213.00	0.00	0.00	658.90	0.23	98.90	47.33	0.00	4.73	960.10	0.16	109.76
3	8.02	0.00	1.20	NR	0.00	NR	77.00	0.00	0.00	67.20	0.00	10.10	1.97	0.00	0.20	154.19	0.00	11.50
4	0.99	0.00	0.94	NR	0.00	NR	1.50	0.00	0.00	11.30	0.00	11.30	1.30	0.00	1.30	15.09	0.00	13.54
5	0.00	0.00	0.00	NR	0.00	NR	1.30	0.00	0.00	10.80	0.00	10.80	0.75	0.00	0.10	12.85	0.00	10.90
6	6.92	0.00	0.42	NR	0.00	NR	58.40	0.00	0.00	128.50	0.00	42.30	44.45	0.00	4.88	238.27	0.00	47.60
7	0.59	0.00	0.02	4221.04	0.00	54.87	1012.00	0.00	0.00	2615.10	0.00	0.20	300.10	0.00	0.40	148.83	0.00	55.49
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.10	0.00	7.10	0.00	0.00	0.00	50.10	0.00	7.10
9	0.00	0.00	0.00	NR	0.00	NR	103000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	103000.00	0.00	0.00
10	0.00	0.00	0.00	NR	0.00	NR	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	57.39	0.00	8.71	4221.04	0.00	54.87	104363.20	0.00	0.00	3541.90	0.23	180.70	395.90	0.00	11.61	112579.43	0.16	255.89

b) Withdrawals by Source - All Facilities

Water-Use Categ.	INDIANA			MICHIGAN			NEW YORK			OHIO			PENNSYLVANIA			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	0.00	32.28	8.59	NR	NR	NR	159.00	46.00	8.00	501.10	125.00	32.80	43.80	1.42	2.11	703.90	204.70	51.50
3	0.00	0.00	8.02	NR	NR	NR	10.00	10.00	57.00	0.00	0.00	67.20	0.00	0.00	1.97	10.00	10.00	134.19
4	0.00	0.27	0.72	NR	NR	NR	1.10	0.00	0.40	0.00	7.10	4.20	0.00	0.70	0.60	1.10	8.07	5.92
5	0.00	0.00	0.00	NR	NR	NR	0.50	0.00	0.80	0.00	1.60	9.20	0.00	0.07	0.68	0.50	1.67	10.68
6	0.00	3.62	3.30	0.00	NR	NR	55.00	0.00	3.40	24.60	103.70	0.20	39.10	5.13	0.22	118.70	112.45	7.12
7	0.00	0.34	0.25	4220.95	0.09	0.00	1012.00	0.00	0.00	2454.50	160.60	0.00	300.10	0.00	0.00	7987.55	161.03	0.25
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.10	0.00	0.00	0.00	0.00	0.00	50.10	0.00	0.00
9	0.00	0.00	0.00	0.00	NR	NR	103000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	103000.00	0.00	0.00
10	0.00	0.00	0.00	0.00	NR	NR	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	36.51	20.88	4220.95	0.09	0.00	104237.60	56.00	69.60	3030.30	398.00	113.60	383.00	7.32	5.58	111871.85	497.92	209.66

c) Diversions by Type - All Facilities

Water-Use Categ.	INDIANA		MICHIGAN		NEW YORK		OHIO		PENNSYLVANIA		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	NR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.16
3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.23	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	0.23	0.00	0.00	0.00	0.16

NR = Not Reporting

Level of Accuracy of Withdrawal Data: 0.5% Measured 96.3% Partially Measured 3.2% Calculated or Estimated

Level of Aggregation of Withdrawal Data Source: 99% Measured 1% Aggregated

BASIN REPORT - Lake Erie (Except Ontario - Not reporting for 1987)

DATE: 10/12/88  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

a) Withdrawals, Diversions and Consumptive Use - Principal Facilities

Water-Use Categ.	INDIANA			MICHIGAN			NEW YORK			OHIO			PENNSYLVANIA			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	40.75	0.00	6.11	NR	NR	NR	0.00	0.00	0.00	652.90	0.23	97.90	46.75	0.00	5.68	740.40	0.23	109.69
3	0.00	0.00	0.00	NR	0.00	NR	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	0.87	0.00	0.83	NR	0.00	NR	0.00	0.00	0.00	0.00	0.00	0.00	1.02	0.00	1.02	1.89	0.00	1.85
5	0.00	0.00	0.00	NR	0.00	NR	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	6.68	0.00	0.41	NR	0.00	NR	0.00	0.00	0.00	NR	0.00	NR	44.24	0.00	4.62	50.92	0.00	5.03
7	0.58	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	2615.10	0.00	0.20	300.10	0.00	0.40	2915.78	0.00	0.62
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.10	0.00	7.10	0.00	0.00	0.00	50.10	0.00	7.10
9	0.00	0.00	0.00	NR	0.00	NR	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	NR	0.00	NR	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	48.88	0.00	7.37	0.00	0.00	0.00	0.00	0.00	0.00	3318.10	0.23	105.20	392.11	0.00	11.72	3759.09	0.23	124.29

b) Withdrawals by Source - Principal Facilities

Water-Use Categ.	INDIANA			MICHIGAN			NEW YORK			OHIO			PENNSYLVANIA			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	0.00	32.28	8.47	NR	NR	NR	0.00	0.00	0.00	500.90	124.30	27.70	43.80	1.40	1.55	544.70	157.98	37.72
3	0.00	0.00	0.00	NR	NR	NR	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	0.22	0.65	NR	NR	NR	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.52	0.50	0.00	0.74	1.15
5	0.00	0.00	0.00	NR	NR	NR	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	3.59	3.09	NR	NR	NR	0.00	0.00	0.00	NR	NR	NR	39.10	5.04	0.10	39.10	8.63	3.19
7	0.00	0.34	0.24	0.00	0.00	0.00	0.00	0.00	0.00	2454.50	160.60	0.00	300.10	0.00	0.00	2754.60	160.94	0.24
8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	50.10	0.00	0.00	0.00	0.00	0.00	50.10	0.00	0.00
9	0.00	0.00	0.00	NR	NR	NR	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	NR	NR	NR	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	36.43	12.45	0.00	0.00	0.00	0.00	0.00	0.00	3005.50	284.90	27.70	383.00	6.96	2.15	3388.50	328.29	42.30

c) Diversions by Type - Principal Facilities

Water-Use Categ.	INDIANA		MICHIGAN		NEW YORK		OHIO		PENNSYLVANIA		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	0.00	0.00	NR	0.00	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.23
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	0.23	0.00	0.00	0.00	0.00	0.23

NR = Not Reporting

BASIN REPORT - Lake Ontario (Except Ontario - Not reporting for 1987)

DATE: 10/12/88  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

a) Withdrawals, Diversions and Consumptive Use - All Facilities

Water- Use Categ.	NEW YORK			PENNSYLVANIA			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	264.00	0.00	0.00	0.08	0.00	0.01	264.08	0.00	0.01
3	287.00	0.00	0.00	0.07	0.00	0.01	287.07	0.00	0.01
4	8.00	0.00	0.00	0.00	0.00	0.00	8.00	0.00	0.00
5	6.40	0.00	0.00	0.04	0.00	0.03	6.44	0.00	0.03
6	218.00	0.00	0.00	0.00	0.00	0.00	218.00	0.00	0.00
7	1095.00	0.00	0.00	0.00	0.00	0.00	1095.00	0.00	0.00
8	990.00	0.00	0.00	0.00	0.00	0.00	990.00	0.00	0.00
9	93800.00	0.00	0.00	0.00	0.00	0.00	93800.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	96668.40	0.00	0.00	0.19	0.00	0.05	96668.59	0.00	0.05

b) Withdrawals by Source - All Facilities

Water- Use Categ.	NEW YORK			PENNSYLVANIA			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	95.00	138.00	31.00	0.00	0.00	0.08	95.00	138.00	31.08
3	100.00	95.00	92.00	0.00	0.00	0.07	100.00	95.00	92.07
4	7.00	0.00	1.00	0.00	0.00	0.00	7.00	0.00	1.00
5	2.50	0.00	3.90	0.00	0.03	0.01	2.50	0.03	3.91
6	178.00	0.00	40.00	0.00	0.00	0.00	178.00	0.00	40.00
7	1095.00	0.00	0.00	0.00	0.00	0.00	1095.00	0.00	0.00
8	990.00	0.00	0.00	0.00	0.00	0.00	990.00	0.00	0.00
9	93800.00	0.00	0.00	0.00	0.00	0.00	93800.00	0.00	0.00
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	96267.50	233.00	167.90	0.00	0.03	0.16	96267.50	233.03	168.06

c) Diversions by Type - All Facilities

Water- Use Categ.	NEW YORK		PENNSYLVANIA		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	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: 0% Measured 99% Partially Measured 1% Calculated or Estimated



BASIN REPORT - Lake Ontario (Except Ontario - Not reporting for 1987)

DATE: 10/12/88  
 UNITS: Mgal(US)/d  
 YEAR OF DATA: 1987

a) Withdrawals, Diversions and Consumptive Use - Principal Facilities

Water- Use Categ.	NEW YORK			PENNSYLVANIA			TOTAL		
	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
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

b) Withdrawals by Source - Principal Facilities

Water- Use Categ.	NEW YORK			PENNSYLVANIA			TOTAL		
	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
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

c) Diversions by Type - Principal Facilities

Water- Use Categ.	NEW YORK		PENNSYLVANIA		TOTAL	
	Intrabasin	Interbasin	Intrabasin	Interbasin	Intrabasin	Interbasin
1	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

BASIN REPORT - St. Lawrence River (Except Ontario - Not reporting)

DATE: 12/14/88

a) Withdrawals, Diversions and Consumptive Use - All Facilities

UNITS: ML/d  
YEAR OF DATA: 1987

Water-Use Categ.	NEW YORK			ONTARIO			QUEBEC			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	696.51	0.00	0.00	0.00	0.00	0.00	4233.00	0.00	0.00	4929.51	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	336.90	0.00	0.00	0.00	0.00	0.00	163.00	0.00	0.00	499.90	0.00	0.00
4	4.16	0.00	0.00	0.00	0.00	0.00	61.00	0.00	0.00	65.16	0.00	0.00
5	11.36	0.00	0.00	0.00	0.00	0.00	85.30	0.00	0.00	97.66	0.00	0.00
6	272.55	0.00	0.00	0.00	0.00	0.00	1360.00	0.00	51.80	13872.55	0.00	51.80
7	0.00	0.00	0.00	0.00	0.00	0.00	178.00	0.00	0.00	178.00	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	885782.94	0.00	0.00	0.00	0.00	0.00	657000.00	0.00	0.00	1542782.9	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	887104.43	0.00	0.00	0.00	0.00	0.00	675321.30	0.00	51.80	1562425.7	0.00	51.80

b) Withdrawals by Source - All Facilities

Water-Use Categ.	NEW YORK			ONTARIO			QUEBEC			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	378.54	0.00	317.97	0.00	0.00	0.00	2212.00	2021.00	0.00	2590.54	2021.00	317.97
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	189.27	75.71	71.92	0.00	0.00	0.00	0.00	0.00	163.00	189.27	75.71	234.92
4	3.79	0.00	0.38	0.00	0.00	0.00	0.00	0.00	61.00	3.79	0.00	61.38
5	3.79	0.00	7.57	0.00	0.00	0.00	0.00	0.00	86.30	3.79	0.00	93.87
6	253.62	18.93	0.00	0.00	0.00	0.00	0.00	13600.00	0.00	253.62	13618.93	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
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	885782.94	0.00	0.00	0.00	0.00	0.00	440000.00	217000.00	0.00	1325782.9	217000.00	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	886611.95	94.63	397.84	0.00	0.00	0.00	442360.00	232651.00	310.30	1328972.0	232745.63	708.14

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: 43% Measured 56.9% Partially Measured 0.1% Calculated or Estimated



BASIN REPORT - St. Lawrence River (Except Ontario - Not reporting)

DATE: 12/14/88

a) Withdrawals, Diversions and Consumptive Use - All Facilities

UNITS: Mgal(US)/d  
YEAR OF DATA: 1987

Water- Use Categ.	NEW YORK			ONTARIO			QUEBEC			TOTAL		
	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.	Withdr.	Diver.	Consum.
1	184.00	0.00	0.00	0.00	0.00	0.00	1118.24	0.00	0.00	1302.24	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	89.00	0.00	0.00	0.00	0.00	0.00	43.06	0.00	0.00	132.06	0.00	0.00
4	1.10	0.00	0.00	0.00	0.00	0.00	16.11	0.00	0.00	17.21	0.00	0.00
5	3.00	0.00	0.00	0.00	0.00	0.00	22.80	0.00	0.00	25.80	0.00	0.00
6	72.00	0.00	0.00	0.00	0.00	0.00	3592.75	0.00	13.68	3664.75	0.00	13.68
7	0.00	0.00	0.00	0.00	0.00	0.00	47.02	0.00	0.00	47.02	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	234000.00	0.00	0.00	0.00	0.00	0.00	173561.40	0.00	0.00	407551.40	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	234349.10	0.00	0.00	0.00	0.00	0.00	178401.38	0.00	13.68	412750.48	0.00	13.68

b) Withdrawals by Source - All Facilities

Water- Use Categ.	NEW YORK			ONTARIO			QUEBEC			TOTAL		
	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW	GLSW	OSW	GW
1	100.00	0.00	84.00	0.00	0.00	0.00	584.35	533.89	0.00	684.35	533.89	84.00
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	50.00	20.00	19.00	0.00	0.00	0.00	0.00	0.00	43.06	50.00	20.00	62.06
4	1.00	0.00	0.10	0.00	0.00	0.00	0.00	0.00	16.11	1.00	0.00	16.21
5	1.00	0.00	2.00	0.00	0.00	0.00	0.00	0.00	22.80	1.00	0.00	24.80
6	67.00	5.00	0.00	0.00	0.00	0.00	0.00	3592.75	0.00	67.00	3597.75	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	234000.00	0.00	0.00	0.00	0.00	0.00	116235.94	57325.45	0.00	350235.94	57325.45	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	234219.00	25.00	105.10	0.00	0.00	0.00	116859.39	61460.02	81.97	351078.39	61485.02	187.07

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: 43% Measured 56.9% Partially Measured 0.1% Calculated or Estimated

Level of Aggregation of Withdrawal Data Source: 99.9% Site-specific 0.1% Aggregated



## APPENDIX A-2

### 1987 WATER USE CATEGORY REPORTS

1. Public Supply - Domestic and Industrial (mgd)
3. Self Supply - Domestic (Residential, Commercial, Institutional)(mgd)
4. Self Supply - Irrigation (mgd)
5. Self Supply - Livestock (mgd)
6. Self Supply - Industrial (Manufacturing and Mining) (mgd)
7. Self Supply - Thermoelectric Power - Fossil Fuel Plants (mgd)
8. Self Supply - Thermoelectric Power - Nuclear Plants (mgd)
9. Self Supply - Hydroelectric Power (mgd)
10. Other (Navigation, Sanitation, Environmental) (mgd)

WATER-USE CATEGORY REPORT - Public Supply - domestic & industrial

DATE: 2/15/89

a) Water-Use by Basin - All Jurisdictions Except Ontario

UNITS: Mgal(US)/d  
YEAR OF DATA: 1987

Basin	All Facilities								Principal Facilities							
	Withdrawals				Diversions			Consumptive Use	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL		GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
Lake Superior	29.68	2.60	10.20	42.48	0.00	0.00	0.00	7.15	29.58	2.60	4.94	37.12	0.00	0.00	0.00	0.19
Lake Michigan	1490.16	39.94	120.49	1650.59	0.00	1140.88	1140.88	76.46	1490.14	39.94	112.80	1642.88	0.00	1140.88	1140.88	75.31
Lake Huron	0.00	0.00	0.00	0.00	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	703.90	204.70	51.50	960.10	0.00	0.23	0.23	109.76	544.70	157.98	37.72	740.40	0.00	0.23	0.23	109.69
Lake Ontario	95.00	138.00	31.08	264.08	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
St. Lawrence River	684.35	533.99	24.00	1242.24	0.00	0.00	0.00	0.00	584.09	502.46	0.00	1086.54	0.00	0.00	0.00	0.00
Total	3003.09	919.13	237.27	5383.49*	0.00	1141.11	1141.11	316.38*	2648.51	702.98	155.46	3506.94	0.00	1141.11	1141.11	185.19

\* The total presented is larger than the sum of the six subbasins. 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 subbasin.

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	All Facilities								Principal Facilities							
	Withdrawals				Diversions			Consumptive Use	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL		GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
Illinois	1140.69	0.00	0.09	1140.78	0.00	1140.78	1140.78	0.00	1140.69	0.00	0.09	1140.78	0.00	1140.78	1140.78	0.00
Indiana	89.46	32.30	66.39	188.15	0.00	0.00	0.00	28.22	89.44	32.30	65.57	187.31	0.00	0.00	0.00	28.10
Michigan	NR	NR	NR	1224.00	NR	0.00	0.00	123.00	NR	NR	NR	NR	NR	0.00	0.00	NR
Minnesota	28.60	2.60	5.20	36.40	0.00	0.00	0.00	6.24	28.50	2.60	4.70	35.80	0.00	0.00	0.00	0.00
New York	354.00	184.00	63.00	601.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ohio	501.10	125.00	32.80	658.90	0.00	0.23	0.23	98.90	500.90	124.30	27.70	652.90	0.00	0.23	0.23	97.90
Ontario	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Pennsylvania	43.80	1.42	2.19	47.41	0.00	0.00	0.00	4.74	43.80	1.40	1.55	46.75	0.00	0.00	0.00	5.68
Quebec	584.35	533.99	0.00	1118.24	0.00	0.00	0.00	0.00	584.09	502.46	0.00	1086.54	0.00	0.00	0.00	0.00
Wisconsin	261.09	39.92	67.60	368.61	0.00	0.10	0.10	55.28	261.09	39.92	55.85	356.86	0.00	0.10	0.10	53.51
Total	3003.09	919.13	237.27	5383.49	0.00	1141.11	1141.11	316.38	2648.51	702.98	155.46	3506.94	0.00	1141.11	1141.11	185.19

NR = Not Reporting

WATER-USE CATEGORY REPORT - Self-supply - domestic (residential, commercial, institutional)

DATE: 10/14/88

a) Water-Use by Basin - All Jurisdictions Except Michigan and Ontario

UNITS: Mgal(US)/d  
YEAR OF DATA: 1987

Basin	All Facilities							
	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
Lake Superior	1.40	0.50	0.21	2.11	0.00	0.00	0.00	1.24
Lake Michigan	29.10	0.04	45.70	74.84	0.00	5.72	5.72	6.84
Lake Huron	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Erie	10.00	10.00	134.19	154.19	0.00	0.00	0.00	11.50
Lake Ontario	100.00	95.00	92.07	287.07	0.00	0.00	0.00	0.01
St. Lawrence River	50.00	20.00	62.06	132.06	0.00	0.00	0.00	0.00
Total	190.50	125.54	334.23	650.27	0.00	5.72	5.72	19.59

	Principal Facilities							
	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
	1.40	0.40	0.00	1.80	0.00	0.00	0.00	0.00
	29.04	0.00	0.00	29.04	0.00	5.66	5.66	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	16.38	16.38	0.00	0.00	0.00	0.00
Total	30.44	0.40	16.38	47.22	0.00	5.66	5.66	0.00

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	All Facilities							
	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
Illinois	29.10	0.04	0.10	29.24	0.00	5.72	5.72	0.00
Indiana	0.00	0.00	35.32	35.32	0.00	0.00	0.00	5.30
Michigan	NR	NR	NR	NR	0.00	0.00	0.00	NR
Minnesota	1.40	0.50	0.00	1.90	0.00	0.00	0.00	1.17
New York	160.00	125.00	160.00	453.00	0.00	0.00	0.00	0.00
Ohio	0.00	0.00	67.20	67.20	0.00	0.00	0.00	10.10
Ontario	NR	NR	NR	NR	NR	NR	NR	NR
Pennsylvania	0.00	0.00	2.04	2.04	0.00	0.00	0.00	0.21
Quebec	0.00	0.00	43.06	43.06	0.00	0.00	0.00	0.00
Wisconsin	0.00	0.00	18.51	18.51	0.00	0.00	0.00	2.81
Total	190.50	125.54	334.23	650.27	0.00	5.72	5.72	19.59

	Principal Facilities							
	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
	29.04	0.00	0.00	29.04	0.00	5.66	5.66	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	NR	NR	NR	NR	0.00	0.00	0.00	NR
	1.40	0.40	0.00	1.80	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	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	NR	NR	NR	NR	NR	NR	NR
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	16.38	16.38	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	30.44	0.40	16.38	47.22	0.00	5.66	5.66	0.00

NR = Not Reporting



WATER USE CATEGORY REPORT - Self-supply - Irrigation

DATE: 10/14/88

a) Water-Use by Basin - All Jurisdictions Except Ontario

UNITS: Mgal(US)/d  
YEAR OF DATA: 1987

Basin	All Facilities								Principal Facilities									
	Withdrawals				Diversions				Consumptive Use	Withdrawals				Diversions				Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	GLSW		OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL			
Lake Superior	0.00	0.10	0.04	0.14	0.00	0.00	0.00	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Lake Michigan	0.00	5.57	17.40	22.97	0.00	0.00	0.00	21.44	0.00	4.94	12.07	17.01	0.00	0.00	0.00	0.00	16.03	
Lake Huron	0.00	0.00	0.00	0.00	0.00	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	1.10	8.07	5.92	15.09	0.00	0.00	0.00	13.54	0.00	0.74	1.15	1.89	0.00	0.00	0.00	0.00	1.85	
Lake Ontario	7.00	0.00	1.00	8.00	0.00	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	1.00	0.00	16.21	17.21	0.00	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	9.10	13.74	40.57	300.41*	0.00	0.00	0.00	260.09*	0.00	5.68	13.22	18.90	0.00	0.00	0.00	0.00	17.88	

\* The total presented is larger than the sum of the six subbasins. 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 subbasin.

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	All Facilities								Principal Facilities									
	Withdrawals				Diversions				Consumptive Use	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	0.00	0.00	
Indiana	0.00	5.55	10.72	16.27	0.00	0.00	0.00	15.46	0.00	5.16	10.27	15.43	0.00	0.00	0.00	0.00	14.66	
Michigan	NR	NR	NR	237	0.00	0.00	0.00	225	NR	NR	NR	NR	0.00	0.00	0.00	0.00	NR	
Minnesota	0.00	0.10	0.03	0.13	0.00	0.00	0.00	0.10	NR	NR	NR	NR	0.00	0.00	0.00	0.00	NR	
New York	9.10	0.00	1.50	10.60	0.00	0.00	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	7.10	4.20	11.30	0.00	0.00	0.00	11.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Ontario	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	
Pennsylvania	0.00	0.70	0.60	1.30	0.00	0.00	0.00	1.30	0.00	0.52	0.50	1.02	0.00	0.00	0.00	0.00	1.02	
Quebec	0.00	0.00	16.11	16.11	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	
Wisconsin	0.00	0.29	7.41	7.70	0.00	0.00	0.00	6.93	0.00	0.00	2.45	2.45	0.00	0.00	0.00	0.00	2.20	
Total	9.10	13.74	40.57	300.41	0.00	0.00	0.00	260.09	0.00	5.68	13.22	18.90	0.00	0.00	0.00	0.00	17.88	

NR = Not Reporting

WATER-USE CATEGORY REPORT - Self-supply - Livestock

DATE: 10/14/88

a) Water-Use by Basin - All Jurisdictions Except Michigan and Ontario

UNITS: Mgal(US)/d  
YEAR OF DATA: 1987

Basin	All Facilities							
	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
Lake Superior	0.00	0.07	1.95	2.02	0.00	0.00	0.00	1.83
Lake Michigan	0.00	2.07	24.51	26.58	0.00	0.00	0.00	21.69
Lake Huron	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Erie	0.50	1.67	10.68	12.85	0.00	0.00	0.00	10.90
Lake Ontario	2.50	0.03	3.91	6.44	0.00	0.00	0.00	0.03
St. Lawrence River	1.00	0.00	24.80	25.80	0.00	0.00	0.00	0.00
Total	4.00	3.84	65.85	73.69	0.00	0.00	0.00	34.45

	Principal Facilities							
	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	1.13	1.84	2.97	0.00	0.00	0.00	0.45
	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
	0.00	0.00	0.00	0.00	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	1.13	1.84	2.97	0.00	0.00	0.00	0.45

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	All Facilities							
	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
Illinois	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Indiana	0.00	1.13	1.84	2.97	0.00	0.00	0.00	0.45
Michigan	NR	NR	NR	NR	0.00	0.00	0.00	NR
Minnesota	NR	0.04	0.23	0.27	0.00	0.00	0.00	0.27
New York	4.00	0.00	6.70	10.70	0.00	0.00	0.00	0.00
Ohio	0.00	1.60	9.20	10.80	0.00	0.00	0.00	10.90
Ontario	NR	NR	NR	NR	NR	NR	NR	NR
Pennsylvania	0.00	0.10	0.69	0.79	0.00	0.00	0.00	0.13
Quebec	0.00	0.00	22.80	22.80	0.00	0.00	0.00	0.00
Wisconsin	0.00	0.97	24.39	25.36	0.00	0.00	0.00	22.80
Total	4.00	3.84	65.85	73.69	0.00	0.00	0.00	34.45

	Principal Facilities							
	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	1.13	1.84	2.97	0.00	0.00	0.00	0.45
	NR	NR	NR	NR	0.00	0.00	0.00	NR
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	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	1.13	1.84	2.97	0.00	0.00	0.00	0.45

NR = Not Reporting

WATER-USE CATEGORY REPORT - Self-supply - Industrial (manufacturing and mining)

DATE: 10/14/88

a) Water-Use by Basin - All Jurisdictions Except Ontario

UNITS: Mgal(US)/d  
YEAR OF DATA: 1987

Basin	All Facilities								Principal Facilities									
	Withdrawals				Diversions				Consumptive Use	Withdrawals				Diversions				Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	GLSW		OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL			
Lake Superior	6.77	60.50	0.10	67.37	0.00	0.00	0.00	40.01	1.90	60.40	0.00	62.30	0.00	0.00	0.00	0.00		
Lake Michigan	1873.96	334.95	30.00	2238.91	0.00	8.65	8.65	148.57	1873.96	330.40	27.61	2231.97	0.00	8.65	8.65	147.88		
Lake Huron	0.00	0.00	0.00	0.00	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	118.70	112.45	7.12	238.27	0.00	0.00	0.00	47.60	0.00	8.63	3.19	50.92	0.00	0.00	0.00	5.03		
Lake Ontario	178.00	0.00	40.00	218.00	0.00	0.00	0.00	0.00	39.10	8.63	3.19	50.92	0.00	0.00	0.00	0.00		
St. Lawrence River	67.00	3597.75	0.00	3664.75	0.00	0.00	0.00	13.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Total	2244.43	4105.65	77.22	7745.30*	0.00	8.65	8.65	381.86*	1914.96	3978.97	30.80	5924.73	0.00	8.65	8.65	166.54		

\* The total presented is larger than the sum of the six subbasins. 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 subbasin.

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	All Facilities								Principal Facilities									
	Withdrawals				Diversions				Consumptive Use	Withdrawals				Diversions				Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	GLSW		OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL			
Illinois	11.18	0.00	0.00	11.18	0.00	8.65	8.65	1.48	11.18	0.00	0.00	11.18	0.00	8.65	8.65	1.48		
Indiana	1862.78	14.46	21.89	1899.13	0.00	0.00	0.00	113.96	1862.78	14.41	21.25	1898.44	0.00	0.00	0.00	113.92		
Michigan	NR	NR	NR	1318.00	0.00	0.00	0.00	132.00	NR	NR	NR	NR	0.00	0.00	0.00	NR		
Minnesota	2.00	60.50	0.10	62.60	0.00	0.00	0.00	39.54	1.90	60.40	0.00	62.30	0.00	0.00	0.00	0.00		
New York	300.00	5.00	43.40	348.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Ohio	24.60	103.70	0.20	128.50	0.00	0.00	0.00	42.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
Ontario	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	0.00	0.00	0.00	NR		
Pennsylvania	39.10	5.13	0.22	44.45	0.00	0.00	0.00	4.88	NR	NR	NR	NR	NR	NR	NR	NR		
Quebec	0.00	3592.75	0.00	3592.75	0.00	0.00	0.00	13.68	39.10	5.04	0.10	44.24	0.00	0.00	0.00	4.62		
Wisconsin	4.77	324.11	11.41	340.29	0.00	0.00	0.00	34.02	0.00	3579.54	0.00	3579.54	0.00	0.00	0.00	13.63		
Total	2244.43	4105.65	77.22	7745.30	0.00	8.65	8.65	381.86	1914.96	3978.97	30.80	5924.73	0.00	8.65	8.65	166.54		

NR = Not Reporting

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

DATE: 10/14/88

a) Water-Use by Basin - All Jurisdictions Except Ontario

UNITS: Mgal(US)/d  
YEAR OF DATA: 1987

Basin	All Facilities								Principal Facilities							
	Withdrawals				Diversions			Consumptive Use	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL		GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
Lake Superior	285.54	33.70	0.01	319.25	0.00	0.00	0.00	25.53	23.84	33.60	0.00	57.44	0.00	0.00	0.00	0.23
Lake Michigan	5711.23	132.56	4.76	5848.55	0.00	0.00	0.00	66.56	4746.23	8.12	2.10	4756.45	0.00	0.00	0.00	52.36
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	7987.55	161.03	0.25	8148.83	0.00	0.00	0.00	55.49	2754.60	160.94	0.24	2915.78	0.00	0.00	0.00	0.62
Lake Ontario	1095.00	0.00	0.00	1095.00	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	39.10	7.93	0.00	47.02	0.00	0.00	0.00	0.00	39.10	0.00	0.00	39.10	0.00	0.00	0.00	0.00
Total	15770.86	335.25	5.02	16111.12	0.00	0.00	0.00	157.06	7563.77	202.66	2.34	7768.77	0.00	0.00	0.00	53.21

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	All Facilities								Principal Facilities							
	Withdrawals				Diversions			Consumptive Use	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL		GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
Illinois	573.16	0.00	0.00	573.16	0.00	0.00	0.00	0.00	573.16	0.00	0.00	573.16	0.00	0.00	0.00	0.00
Indiana	1051.48	0.36	2.37	1054.21	0.00	0.00	0.00	21.09	1051.48	0.36	2.34	1054.18	0.00	0.00	0.00	21.09
Michigan	6099.16	124.55	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	0.80	33.70	0.01	34.51	0.00	0.00	0.00	22.91	0.80	33.60	0.00	34.40	0.00	0.00	0.00	0.00
New York	2107.00	0.00	0.00	2107.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ohio	2454.50	160.60	0.00	2615.10	0.00	0.00	0.00	0.20	2454.50	160.60	0.00	2615.10	0.00	0.00	0.00	0.20
Ontario	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Pennsylvania	300.10	0.00	0.00	300.10	0.00	0.00	0.00	0.40	300.10	0.00	0.00	300.10	0.00	0.00	0.00	0.40
Quebec	39.10	7.93	0.00	47.02	0.00	0.00	0.00	0.00	39.10	0.00	0.00	39.10	0.00	0.00	0.00	0.00
Wisconsin	3145.56	8.10	0.36	3154.02	0.00	0.00	0.00	31.52	3144.63	8.10	0.00	3152.73	0.00	0.00	0.00	31.52
Total	15770.86	335.25	5.02	16111.12	0.00	0.00	0.00	157.06	7563.77	202.66	2.34	7768.77	0.00	0.00	0.00	53.21

NR = Not Reporting

WATER-USE CATEGORY REPORT - Self-supply - thermoelectric power - nuclear plants

DATE: 10/14/88

a) Water-Use by Basin - All Jurisdictions Except Ontario

UNITS: Mgal(US)/d  
YEAR OF DATA: 1987

Basin	All Facilities							
	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
Lake Superior	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Michigan	5234.91	0.00	0.01	5234.92	0.00	0.00	0.00	37.46
Lake Huron	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Erie	50.10	0.00	0.00	50.10	0.00	0.00	0.00	7.10
Lake Ontario	990.00	0.00	0.00	990.00	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
<b>Total</b>	<b>6275.01</b>	<b>0.00</b>	<b>0.01</b>	<b>6275.02</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>44.56</b>

	Principal Facilities							
	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	3073.62	0.00	0.00	3073.62	0.00	0.00	0.00	9.36
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	50.10	0.00	0.00	50.10	0.00	0.00	0.00	7.10
	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
<b>Total</b>	<b>3123.72</b>	<b>0.00</b>	<b>0.00</b>	<b>3123.72</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>16.46</b>

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	All Facilities							
	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
Illinois	2136.99	0.00	0.00	2136.99	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
Michigan	2161.29	0.00	0.00	2161.29	0.00	0.00	0.00	28.10
Minnesota	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New York	990.00	0.00	0.00	990.00	0.00	0.00	0.00	0.00
Ohio	50.10	0.00	0.00	50.10	0.00	0.00	0.00	7.10
Ontario	NR	NR	NR	NR	NR	NR	NR	NR
Pennsylvania	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
Wisconsin	936.63	0.00	0.01	936.64	0.00	0.00	0.00	9.36
<b>Total</b>	<b>6275.01</b>	<b>0.00</b>	<b>0.01</b>	<b>6275.02</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>44.56</b>

	Principal Facilities							
	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
	2136.99	0.00	0.00	2136.99	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	50.10	0.00	0.00	50.10	0.00	0.00	0.00	7.10
	NR	NR	NR	NR	NR	NR	NR	NR
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	936.63	0.00	0.00	936.63	0.00	0.00	0.00	9.36
<b>Total</b>	<b>3123.72</b>	<b>0.00</b>	<b>0.00</b>	<b>3123.72</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>16.46</b>

NR = Not Reporting

WATER-USE CATEGORY REPORT - Self-supply - hydroelectric power

DATE: 10/14/88

a) Water-Use by Basin - All Jurisdictions Except Michigan and Ontario

UNITS: Mgal(US)/d  
YEAR OF DATA: 1987

Basin	All Facilities								Principal Facilities									
	Withdrawals				Diversions				Consumptive Use	Withdrawals				Diversions				Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	GLSW		OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL			
Lake Superior	0.00	440.00	0.00	440.00	0.00	0.00	0.00	0.00	0.00	440.00	0.00	440.00	0.00	0.00	0.00	0.00		
Lake Michigan	0.00	13250.00	0.00	13250.00	0.00	0.00	0.00	0.00	0.00	13300.00	0.00	13300.00	0.00	0.00	0.00	0.00		
Lake Huron	0.00	0.00	0.00	0.00	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	103000.00	0.00	0.00	103000.00	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 Ontario	93800.00	0.00	0.00	93800.00	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	350235.94	57325.45	0.00	407561.40	0.00	0.00	0.00	0.00	116235.94	57325.45	0.00	173561.40	0.00	0.00	0.00	0.00		
Total	547035.94	71015.45	0.00	618051.40	0.00	0.00	0.00	0.00	116235.94	71065.45	0.00	187301.40	0.00	0.00	0.00	0.00		

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	All Facilities								Principal Facilities									
	Withdrawals				Diversions				Consumptive Use	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	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	0.00	0.00	0.00		
Michigan	NR	NR	NR	NR	0.00	0.00	0.00	NR	NR	NR	NR	NR	0.00	0.00	0.00	NR		
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	0.00	0.00	0.00		
New York	430800.00	0.00	0.00	430800.00	0.00	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	0.00	0.00	0.00	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	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR		
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	116235.94	57325.45	0.00	173561.40	0.00	0.00	0.00	0.00	116235.94	57325.45	0.00	173561.40	0.00	0.00	0.00	0.00		
Wisconsin	0.00	13690.00	0.00	13690.00	0.00	0.00	0.00	0.00	0.00	13740.00	0.00	13740.00	0.00	0.00	0.00	0.00		
Total	547035.94	71015.45	0.00	618051.40	0.00	0.00	0.00	0.00	116235.94	71065.45	0.00	187301.40	0.00	0.00	0.00	0.00		

NR = Not Reporting

WATER-USE CATEGORY REPORT - Other (navigation, sanitation, environmental)

DATE: 2/15/89

a) Water-Use by Basin - All Jurisdictions Except Michigan and Ontario

UNITS: Mgal(US)/d  
YEAR OF DATA: 1987

Basin	All Facilities							
	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
Lake Superior	0.00	23.00	0.20	23.20	0.00	-2.20	-2.20	0.00
Lake Michigan	440.52	0.01	0.19	440.72	0.00	440.52	440.52	0.18
Lake Huron	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Erie	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Ontario	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
Total	440.52	23.01	0.39	463.92	0.00	438.32	438.32	0.18

Basin	Principal Facilities							
	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
Lake Superior	0.00	22.90	0.20	23.10	0.00	-2.20	-2.20	0.00
Lake Michigan	440.52	0.00	0.11	440.63	0.00	440.52	440.52	0.10
Lake Huron	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Erie	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Ontario	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
Total	440.52	22.90	0.31	463.73	0.00	438.32	438.32	0.10

b) Water-Use by Jurisdiction - All Basins

Jurisdiction	All Facilities							
	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
Illinois	440.52	0.00	0.00	440.52	0.00	440.52	440.52	0.00
Indiana	0.00	0.01	0.19	0.20	0.00	0.00	0.00	0.18
Michigan	NR	NR	NR	NR	0.00	0.00	0.00	NR
Minnesota	0.00	23.00	0.20	23.20	0.00	-2.20	-2.20	NR
New York	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
Ontario	NR	NR	NR	NR	NR	NR	NR	NR
Pennsylvania	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
Wisconsin	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	440.52	23.01	0.39	463.92	0.00	438.32	438.32	0.18

Jurisdiction	Principal Facilities							
	Withdrawals				Diversions			Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	TOTAL	
Illinois	440.52	0.00	0.00	440.52	0.00	440.52	440.52	0.00
Indiana	0.00	0.00	0.11	0.11	0.00	0.00	0.00	0.10
Michigan	NR	NR	NR	NR	0.00	0.00	0.00	NR
Minnesota	0.00	22.90	0.20	23.10	0.00	-2.20	-2.20	0.00
New York	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
Ontario	NR	NR	NR	NR	NR	NR	NR	NR
Pennsylvania	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
Wisconsin	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	440.52	22.90	0.31	463.73	0.00	438.32	438.32	0.10

NR = Not Reporting

## APPENDIX B

### ACKNOWLEDGEMENTS

The following individuals serve on the Water Resources Management Committee (WRMC):

#### Illinois

Mr. Neil R. Fulton, Chief  
Bureau of Resource Management  
Division of Water Resources  
Illinois Dept. of Transportation  
310 S. Michigan Ave., 10th Floor  
Chicago, Illinois 60604

#### Wisconsin

Mr. Bruce Baker, Director  
Bureau of Water Resources  
Management  
Wisconsin Dept. of Natural  
Resources  
101 S. Webster St.  
Madison, Wisconsin 53702

#### Ohio

Mr. Richard S. Bartz  
Special Assistant for Lake Erie  
Division of Water  
Ohio Dept. of Natural Resources  
Fountain Square, Building E-3  
Columbus, Ohio 43224

#### Indiana

Mr. Thomas M. Bruns  
Deputy Director  
Indiana Dept. of Natural  
Resources  
608 State Office Building  
Indianapolis, Indiana 46204

#### Minnesota

Mr. Jack Ditmore, Deputy Director  
State Planning Agency  
300 Centennial Building  
658 Cedar St.  
St. Paul, Minnesota 55155

#### Michigan

Mr. Thomas D. Martin  
Director, Office of the  
Great Lakes  
Mason Building, 7th Floor  
Lansing, Michigan 48090

#### Quebec

Mr. Claude Pesant, Directeur  
Direction de L'Hydraulique  
Ministere de l'Environnement  
2360 Chemim, 1 etage  
Ste. Foy, Quebec  
Canada G1V 4H2

#### Ontario

Mr. David Strelchuk  
Great Lakes Water Resources  
Supervisor  
Conservation Authorities and  
Water Management Branch  
99 Wellesley St., West  
Room 5620  
Toronto, Ontario  
Canada M7A 1W3



New York

Mr. Darryl Banks  
Deputy Commissioner for  
Environmental Quality  
New York State Dept. of  
Environmental Conservation  
50 Wolf Road  
Albany, New York 12233

Pennsylvania

Mr. Joseph K. Hoffman  
Assistant Director  
Bureau of Water Resources  
Management  
Pennsylvania Dept. of  
Environmental Resources  
P.O. Box 1467  
Harrisburg, Pennsylvania  
17120

The Committee would like to acknowledge contributions by state/provincial staff to activities conducted under the Charter. The following staff actively participated in WRMC discussions:

Mr. Dan Injerd  
Bureau of Resource Management  
Division of Water Resources  
Illinois Dept. of Transportation  
310 S. Michigan Ave., 10th Fl.  
Chicago, Illinois 60604

Mr. James Hebenstreit  
Assistant Director  
Division of Water  
Indiana Dept. of Natural  
Resources  
2475 Directors Row  
Indianapolis, Indiana 46241

Mr. Al Shea  
Bureau of Water Resources Management  
Wisconsin Dept. of Natural Resources  
101 S. Webster St.  
Madison, Wisconsin 53702

Mr. Jayson Chung  
Coastal Management Program  
Wisconsin Dept of Admin.  
P.O. Box 7868  
Madison, Wisconsin 53707

The Committee also wishes to acknowledge the support of the following staff from the Council of Great Lakes Governors and the Great Lakes Commission in the preparation of this report.

Bonnie Koenig, Executive Director  
Council of Great Lakes Governors  
310 S. Michigan Ave., 10th Floor  
Chicago, Illinois 60604

Van Esser  
Program Associate  
Council of Great Lakes  
Governors

Tom Crane, Natural Resources  
Specialist  
Great Lakes Commission  
The Argus II Building  
400 S. Fourth St.  
Ann Arbor, Michigan 48103-4816

Carol Ratza  
Microcomputer Specialist  
Great Lakes Commission

Finally, the Committee would like to thank the National Oceanic and Atmospheric Administration for its support of activities conducted under the Great Lakes Charter.