

Annual Report of the Great Lakes Regional Water Use Database **Representing 2009 Water Use Data**

Prepared by Rebecca Pearson, Great Lakes Commission (in Liters)

Acknowledgements

The Great Lakes Commission wishes to thank each of the jurisdictional representatives listed on page eight for their work in collecting and transmitting the data for this report. The members' attention to detail and commitment to accuracy, and the collective familiarity with the subject matter, are all invaluable contributions to this project.

Forward

The Great Lakes Regional Water Use Database was established by the Great Lakes states and provinces in response to the recommendation of the Great Lakes Charter of 1985, which calls for a uniform, consistent base of data of Great Lakes water withdrawals, diversions and consumptive uses. Beginning in 1987, water use data have been submitted to the repository on an annual basis and reports provided to assist the jurisdictions in Great Lakes-St. Lawrence River water resources planning and management. As specified by the Water Resources Management Committee in its 1987 report, *Managing the Waters of the Great Lakes Basin*, the database catalogs withdrawals by water use category, sub-basin and jurisdiction.

The database became operational in the summer of 1988 following a multi-year cooperative effort. Design and development involved input from many state, provincial, and federal agencies, with the U.S. Geological Survey providing much of the leadership.

The original customized program was developed in 1987 by Acres International on the MS/DOS platform using a modified version of DbaseIII. With the rapid advancement of computer hardware and software and the evolving needs of the Great Lakes state and provincial water resources management programs, that system soon became outdated. In July 1998, the Great Lakes Commission and Eastern Michigan University's Institute for Geospatial Research and Education (formerly the Center for Environmental Information Technology and Application) began work on a revised database which is used for this report. The system was developed using Visual Basic for Applications, based on Microsoft Access, and contains all of the functions of the old system (including data entry, a data check facility and report generation), in addition to new features such as a flexible data interface and automatic data checking.

A Great Lakes Regional Water Use Database to provide comparable water use information on withdrawals, diversions and consumptive use is also required under Article 4 of the Great Lakes—St. Lawrence River Basin Water Resources Compact (hereinafter referred to as “the Compact”) and Article 301 of the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement (hereinafter referred to as “the Agreement”). Under the Compact and the Agreement, the parties (states and provinces) are required to report water use information to the regional database repository and aggregated information will be made available to the public on an annual basis.

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Overview of the Great Lakes Basin Water Use

Introduction

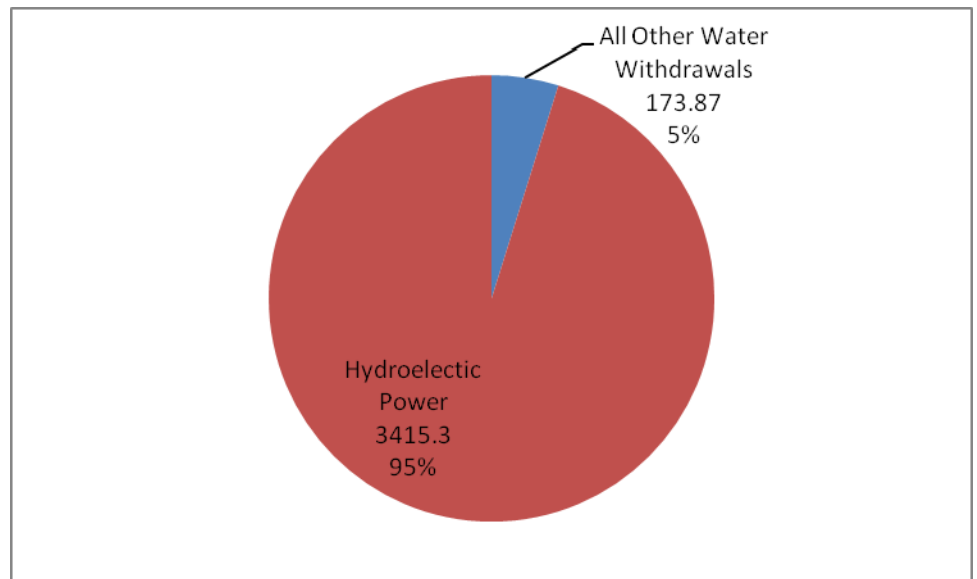
The Great Lakes Commission - the repository for the Great Lakes Regional Water Use Database - annually requests for the previous year's water use data from the states and provinces. All data are submitted to the repository in a Microsoft Excel or Access format then compiled into a single Microsoft Access database.

All data are in one of two unit measures - millions of U.S. gallons per day (mgd) or millions of liters per day (mld). Numeric values are required for all categories of use. A value of zero indicates either zero water use (under All Facilities) or water use which does not meet the Great Lakes Charter trigger level (under Principal Facilities). Definitions and abbreviations of terms used in this report can be found on page 6.

The level of accuracy for each entry is rated as 1) measured, 2) partially measured or 3) estimated, and the level of aggregation is rated as originating from 1) site-specific sources or 2) higher level aggregate sources such as county or census databases. Both measures of quality are based on percentages of total volume.

For this report, self-supply hydroelectric (water used in the generation of electricity at plants where turbine generators are driven by falling water) is treated as a withdrawal, even though all water for this purpose is considered to be returned to the basin. Under the interim reporting protocols adopted in 2009 pursuant to the Compact and the Agreement, hydroelectric will not be considered a "withdrawal", but rather a "use." In future reports starting in 2011, it will be not aggregated with total withdrawals, but rather aggregated separately as a use. As the following chart illustrates, this is the largest single category of withdrawal and represents 95 percent of the total amount of water "withdrawn" in 2009.

Figure 1. 2009 Great Lakes Water Use (In billions of liters per day)



Each of the ten jurisdictions' water use is represented in Figure 2 and Figure 3. Figure 2 includes self-supply hydroelectric use. In total, water withdrawals for the year 2009 were approximately 948.16 billion gallons per day, or about 3,589.18 billion liters per day.

Figure 2. 2009 Great Lakes Water Use by Jurisdiction
 (In billions of liters per day and includes hydroelectric)

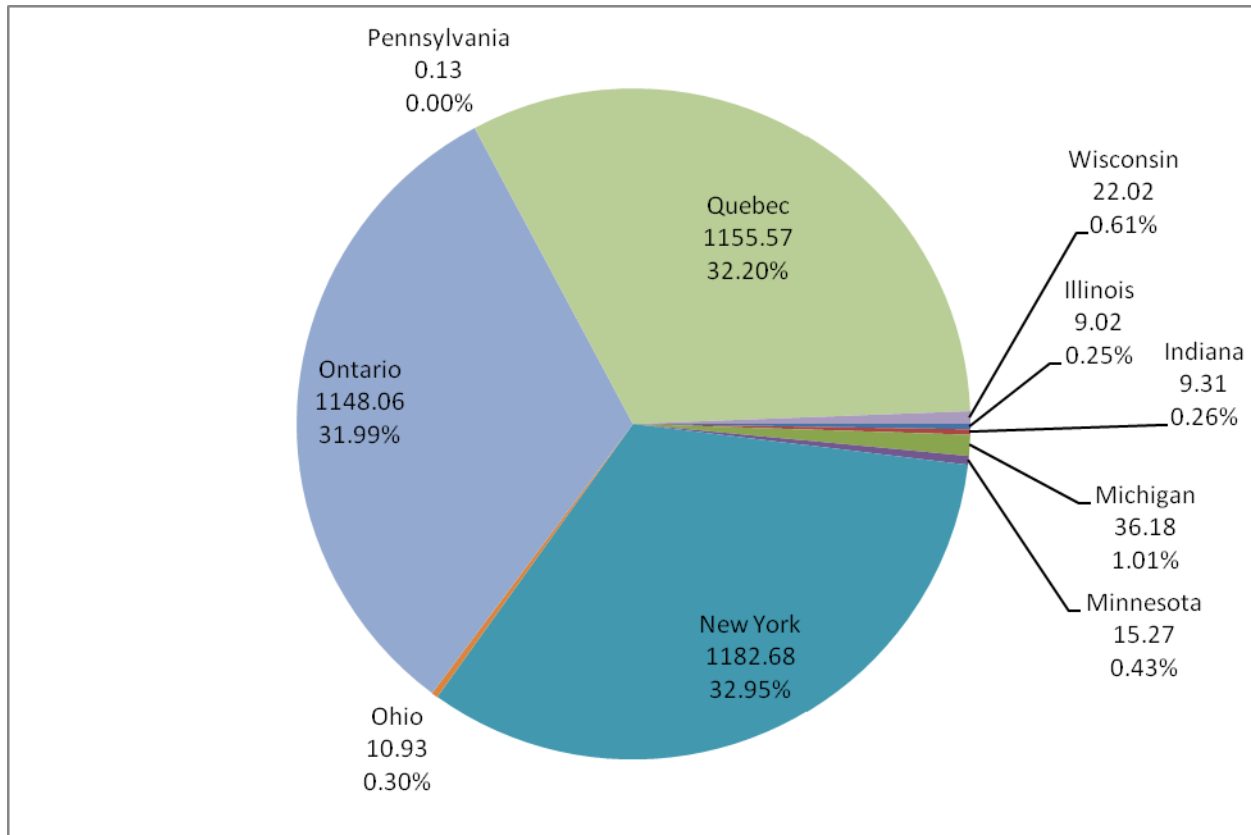
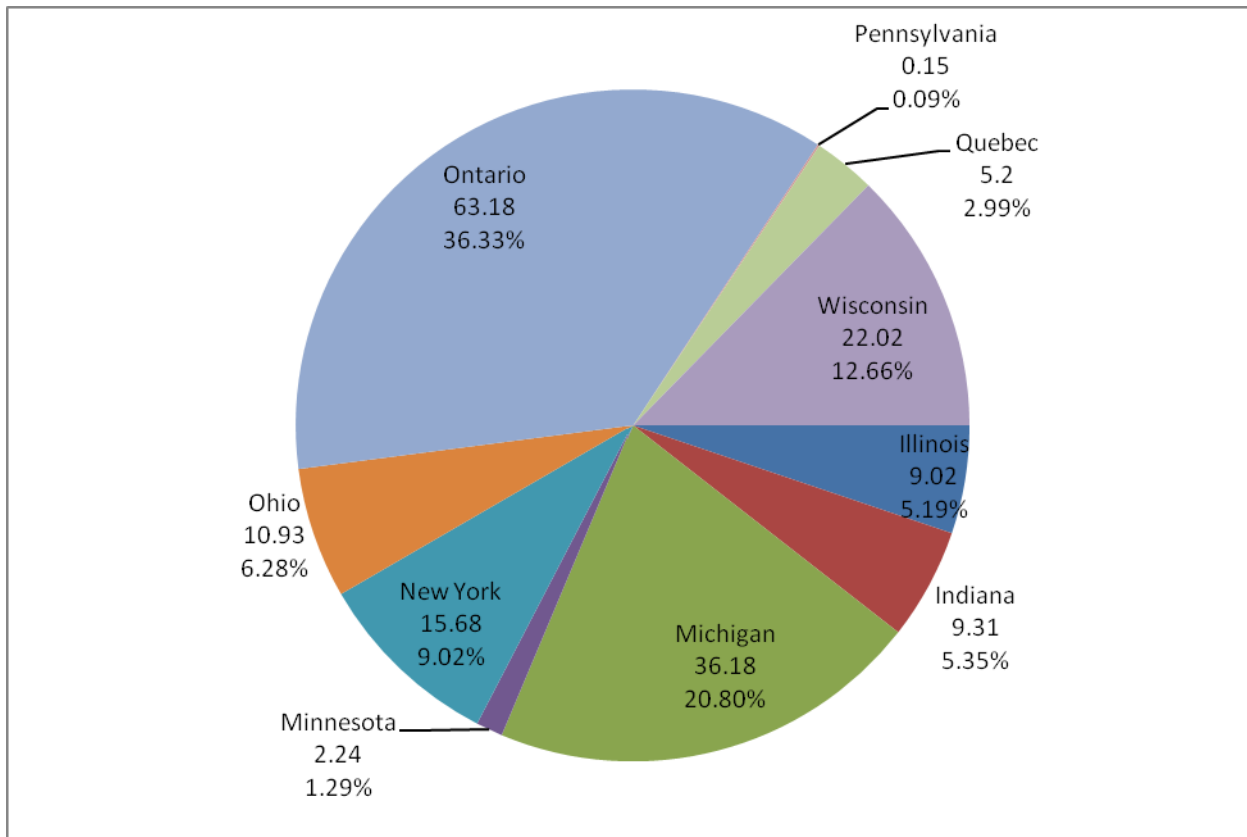


Figure 3 more accurately reflects the actual water withdrawals within the basin, as it does not include self-supply hydroelectric use. Water withdrawals for the eight remaining off-stream categories totaled 45.93 billion gallons per day, or 173.86 billion liters per day.

Figure 3. 2009 Great Lakes Water Use by Jurisdiction
 (In billions of liters per day and excludes hydroelectric)



Pie charts showing individual jurisdictional water use, beginning with Illinois on page 14, are in million liters per day.

Topics of Interest

Diversions

Two types of diversions are reported by the water use database: interbasin (transfers that take place between the Great Lakes basin and another watershed) and intrabasin (transfers that take place between one of the Great Lakes watersheds and another); both types can be either incoming or outgoing.

Of the two types, interbasin diversions (transfers that take place between the Great Lakes basin and another watershed) have traditionally been of greater interest to water supply managers and the public. Interbasin diversions shown in the tables as positive numbers (e.g. without a minus sign) indicate water leaving the Great Lakes basin; interbasin diversions shown in the tables as negative numbers (e.g. with a minus sign) indicate water entering the Great Lakes basin.

For a history of Great Lakes water diversions and removals, please see Great Lakes Diversions and Other Removals by Frank Quinn and Jeff Edstrom, Canadian Water Resources Journal, 2000, vol. 25, #2. Copies of this article can be obtained through the CWRJ website at www.cwra.org/publications, or by calling 519/622-4764.

Consumptive Uses

Collecting and reporting accurate data for consumptive uses of Great Lakes water continues to be a major challenge for the Great Lakes jurisdictions. The states and provinces currently use a variety of methods to obtain consumptive use figures, including measurement and estimation at the facility level. However, the most common practice is to calculate consumptive use for each water use category by multiplying the withdrawn amount by an agreed-upon percentage (consumptive use coefficient). Figure 4 on the following page shows the consumptive use coefficients that were used for this report. Total consumptive use in the basin for 2009 was calculated to be 2.10 bgd (7.85 bld).

For a more detailed overview, please see:

Annotated Bibliography of Consumptive Use in the Great Lakes Region and Basin
(www.glc.org/wateruse/wrmdss/finalreport/pdf/CU_biblio.pdf)

Measuring and Estimating Consumptive Use of Great Lakes Water
(www.glc.org/wateruse/wrmdss/finalreport/pdf/CU_briefing.pdf).

Consumptive Use Coefficients

Water Use Category	Illinois	Indiana	Michigan	Minnesota	New York	Ohio	Ontario	Pennsylvania	Québec	Wisconsin
Public Supply	10-15%	15%	10-15%	10-15%	10%	10-15%	15%	10%	10-15%	10-15%
Domestic	10-15%	15%	10-15%	10-15%	10%	10-15%	15%	10%	10-15%	10-15%
Irrigation	90%	90%	90%	90%	90%	90%	78%	90%	90%	70%
Livestock	80%	80%	80%	80%	90%	80%	80%	80%	80%	90%
Industrial	Varies by plant & SIC code	6%	10-15%	Varies by plant & SIC code	25%	10%; except quarry dewatering which is 0%	Varies by plant & SIC code	Varies by plant & SIC code	10% for pulp & paper industry	10.2% for manufacturing & mining
Fossil Fuel	Individually estimated based on the quantity of make-up water	2%	1-2% for plants using once-through cooling; individual analysis for wet cooling towers	2%	2%	10% for closed cycle cooling facilities & 1% for once-through cooling facilities	.9% based on reports of increased local lake evaporation due to discharge of heated water to lakes	NA (Pennsylvania has no facilities in the basin)	10%; estimates obtained from USGS report	.5-1%
Nuclear	Individually estimated based on the quantity of make-up water	NA (Indiana has no facilities in the basin)	1-2% for plants using once-through cooling; individual analysis for wet cooling towers	NA (Minnesota has no facilities in the basin)	5%	10% for closed cycle cooling facilities & 1% for once-through cooling facilities	.9% based on reports of increased local lake evaporation due to discharge of heated water to lakes	NA (Pennsylvania has no facilities in the basin)	NA (Quebec has no facilities in the basin)	.5-1%
Hydroelectric	Coefficient for all states and provinces is 0%									
Other	0%	12%	Varies based on use	Varies based on use	Varies based on use	Varies based on use	Varies based on use	Varies based on use	Varies based on use	Varies based on use

Figure 4

Definitions and Abbreviations

bgd: billion gallons per day

bld: billion liters per day

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 evapotranspiration, incorporation into products, or other processes

Great Lakes surface water (GLSW): the Great Lakes, their connecting channels (the St. Clair River, the Detroit River, the Niagara River and the St. Marys River), and the St. Lawrence River

groundwater (GW): all subsurface water

interbasin diversion (positive): water transferred from the Great Lakes basin into another watershed

interbasin diversion (negative): water transferred from another watershed into the Great Lakes basin

intrabasin diversion (positive): water transferred out of one Great Lakes watershed into another

intrabasin diversion (negative): water transferred into one Great Lakes watershed from another

level of accuracy: the quality of data based on percentage of total volume and rated as 1) measured; 2) partially measured or: 3) estimated,

level of aggregation: the quality of data based on percentage of total volume and rated as 1) originating from site-specific sources or 2) originating from higher level aggregate sources, such as county or census databases

mgd: million gallons per day

mld: million liters per day

other surface water (OSW): tributary streams, lakes, ponds, and reservoirs within the Great Lakes basin, all surface water in the basin except that within one of the Great Lakes themselves

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

tgd: trillion gallons per day

tld: trillion liters per day

withdrawal amount: water removed or taken from surface or groundwater (including hydroelectric use ^a)

^a Under the draft water use information reporting protocols that will guide the implementation of the new water use information commitments set forth in the Great Lakes-St. Lawrence River Water Resources Compact and Agreement, hydroelectric will not be considered a “withdrawal”, but rather a “use.”

Water Use Category Definitions^b

1. **Public Water Supply:** Water withdrawn for all uses by public and private water suppliers and delivered to users that do not supply their own water. (Water suppliers provide water for a variety of uses such as residential, commercial, industrial and public water use.)
2. **Self-Supply Domestic: (residential, commercial, institutional):** Water not provided by a public water supply and used for normal residential, commercial and institutional purposes. Residential water use includes water used for drinking, food preparation, bathing, washing clothes and dishes, flushing toilets, and watering lawns. Commercial and institutional uses include water used within motels, hotels, restaurants, office buildings and institutions, both civilian and military, mobile homes, hospitals, schools, fire fighting, air conditioning and other similar uses not provided by a public water supply. In addition, this category includes amusement and recreational water uses such as snowmaking and water slides. The use coefficient per capita is 75 gallons a day (U.S.) unless otherwise indicated by the reporting state or province.
3. **Self-Supply Irrigation:** Water artificially applied on lands to assist in the growing of crops and pastures or in the maintenance of recreational lands, such as parks and golf courses.
4. **Self-Supply Livestock:** Water used by horses, cattle, sheep, goats, hogs, poultry and other commercially important animals. Water used in fish hatchery operations is also included under this category.
5. **Self-Supply Industrial (manufacturing and mining):** Industrial water includes water used in the manufacture of metals, chemicals, paper and allied products. Mining water use includes water used in the extraction or washing of minerals; for example solids, such as coal and ores, and liquids such as crude petroleum and natural gas. Water used in quarrying and milling is also included in the industrial category. Brine extraction from oil and gas operations is not included. Withdrawals and consumptive uses for industrial and mining purposes (including dewatering operations) recorded under another category (e.g., public supply) will not be recorded here. Water used in a closed cycle (recirculation) will not be reported as withdrawals. Other situations should be evaluated on a case-by-case basis.
6. **Self-Supply Thermoelectric Power (fossil fuel plants):** Water used by plants fueled by fossil fuels such as coal, oil or natural gas. Withdrawals and consumptive uses already recorded under another category (e.g., public supply) will not be reported here.
7. **Self-Supply Thermoelectric Power (nuclear plants):** Water used by plants fueled by nuclear fuels. Withdrawals and consumptive uses already recorded under another category (e.g., public supply) will not be reported here.
8. **Self-Supply Hydroelectric Power:** Water used to drive turbines that generate electric power. This category includes both instream use where water is used on a once-through basis and offstream use where water is recycled through pumped-storage systems. Neither use is considered a consumptive use.
9. **Self-Supply Other:** Water used for purposes not reported in categories one through nine. Examples include, but are not limited to, withdrawals for fish/wildlife, environmental, recreation, navigation, and water quality purposes. Specifically, water used to maintain levels for navigation, for recreation, for fish and wildlife habitat creation and enhancement (excluding fish hatchery operations included under Category 5), for flow augmentation (or diversion), for sanitation, pollution confinement, and other water quality purposes and agricultural activities (services) other than those directly related to irrigation such as field drainage are included. Water used in temporary or immediate emergency situations (e.g., fighting forest or peat fires) is also reported here.

^b These definitions are used to implement the water use information commitments set forth in the Great Lakes Charter of 1985. Slight modifications to these water use category definitions will occur to implement the new water use information commitments set forth in the Great Lakes-St. Lawrence River Water Resources Compact and Agreement. These modifications will be realized when the regional database is updated in the near future.

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Great Lakes Basin Summary Tables

Water use tables in this section are organized by:

- Jurisdiction
- Great Lakes or St. Lawrence basin, and
- Water use category

SUMMARY REPORT - GREAT LAKES BASIN

Units: BL/d
Year Of Data: 2009

Water-Use by Jurisdiction - All Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	9.02	0.00	0.00	9.02	0.00	4.41	0.00
Indiana	8.68	0.24	0.40	9.31	0.00	0.30	0.65
Michigan	29.08	5.33	1.78	36.18	0.00		2.89
Minnesota	1.31	13.94	0.02	15.27	0.00	0.02	0.17
New York	499.03	683.06	0.59	1182.68	0.00	0.16	1.30
Ohio	7.16	3.19	0.59	10.93	0.00	-0.04	0.65
Ontario	599.17	547.83	1.06	1148.06	0.23	-15.17	1.21
Pennsylvania	0.11	0.01	0.01	0.13		0.00	0.02
Quebec	649.53	505.66	0.38	1155.57	0.00	0.00	0.60
Wisconsin	18.20	3.37	0.46	22.02	0.00	-0.10	0.45
Total:	1821.27	1762.62	5.28	3589.17	0.23	-10.41	7.96

Water-Use by Jurisdiction - Principal Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	9.02	0.00	0.00	9.02	0.00	4.41	0.00
Indiana	8.68	0.23	0.39	9.30	0.00	0.30	0.65
Michigan	29.08	5.30	1.65	36.02	0.00		2.80
Minnesota	1.31	13.94	0.02	15.27	0.00	0.02	0.17
New York	497.39	2.08	0.07	499.54	0.00	0.16	0.84
Ohio	7.15	3.18	0.31	10.64	0.00	-0.04	0.57
Ontario	595.74	547.65	0.33	1143.72	0.23	0.00	0.93
Pennsylvania	0.11	0.01	0.00	0.12			0.02
Quebec	649.53	505.64	0.18	1155.36	0.00	0.00	0.50
Wisconsin							
Total:	1798.01	1078.02	2.96	2878.99	0.23	4.85	6.48

SUMMARY REPORT - GREAT LAKES BASIN

Units: BL/d
Year Of Data: 2009

Water-Use by Basin - All Facilities

Basin	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Lake Superior	3.47	150.33	0.09	153.89	0.00	-15.15	0.27
Lake Michigan	44.91	5.55	2.04	52.50	0.00	4.59	2.28
Lake Huron	96.13	83.35	0.41	179.89	0.18	0.00	1.28
Lake Erie	208.05	6.54	1.47	216.06	22.02	-0.01	1.88
Lake Ontario	180.44	365.23	0.73	546.41	-21.96	0.16	1.44
St. Lawrence River	1288.26	1151.61	0.55	2440.42	0.00	0.00	0.79
Total:	1821.27	1762.62	5.28	3589.17	0.23	-10.41	7.96

Water-Use by Basin - Principal Facilities

Basin	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Lake Superior	2.60	150.33	0.06	152.99	0.00	0.02	0.22
Lake Michigan	26.98	2.17	1.49	30.63	0.00	4.68	1.77
Lake Huron	95.41	83.28	0.29	178.97	0.18	0.00	1.22
Lake Erie	206.60	6.19	0.82	213.62	22.02	-0.01	1.59
Lake Ontario	178.78	58.24	0.08	237.11	-21.96	0.16	1.11
St. Lawrence River	1287.65	777.82	0.21	2065.67	0.00	0.00	0.58
Total:	1798.01	1078.02	2.96	2878.99	0.23	4.85	6.48

SUMMARY REPORT - GREAT LAKES BASIN

Units: BL/d
Year Of Data: 2009

Water-Use by Category - All Facilities

Category	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Public Supply	14.94	4.25	1.82	21.01	0.00	3.78	2.12
Domestic Supply	0.21	0.35	1.24	1.79	0.00	0.01	0.21
Irrigation	0.02	0.99	0.97	1.98	0.00	0.00	1.50
Livestock	0.03	0.15	0.38	0.56	0.00	0.00	0.36
Industrial	12.13	2.92	0.83	15.88	0.00	0.10	1.36
Fossil Fuel Power	54.42	10.49	0.02	64.92	0.00	0.00	1.31
Nuclear Power	65.74	0.00	0.00	65.74	0.00	0.00	0.92
Hydroelectric Power	1672.91	1742.39	0.00	3415.30	0.00	-15.17	0.00
Other	0.88	1.08	0.04	1.99	0.23	0.86	0.17
Total:	1821.27	1762.62	5.28	3589.17	0.23	-10.41	7.96

Water-Use by Category - Principal Facilities

Category	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Public Supply	12.72	3.11	1.35	17.19	0.00	3.78	1.74
Domestic Supply	0.01	0.35	0.22	0.58	0.00	0.01	0.06
Irrigation	0.01	0.79	0.65	1.45	0.00	0.00	1.30
Livestock	0.00	0.02	0.02	0.05	0.00	0.00	0.04
Industrial	8.66	2.12	0.68	11.45	0.00	0.10	1.05
Fossil Fuel Power	43.99	8.02	0.01	52.03	0.00	0.00	1.25
Nuclear Power	58.82	0.00	0.00	58.82	0.00	0.00	0.88
Hydroelectric Power	1672.91	1062.53	0.00	2735.44	0.00	0.00	0.00
Other	0.88	1.08	0.03	1.98	0.23	0.96	0.16
Total:	1798.01	1078.02	2.96	2878.99	0.23	4.85	6.48

Jurisdiction Tables and Analyses

Each jurisdictional summary includes a water use analysis and three tables:

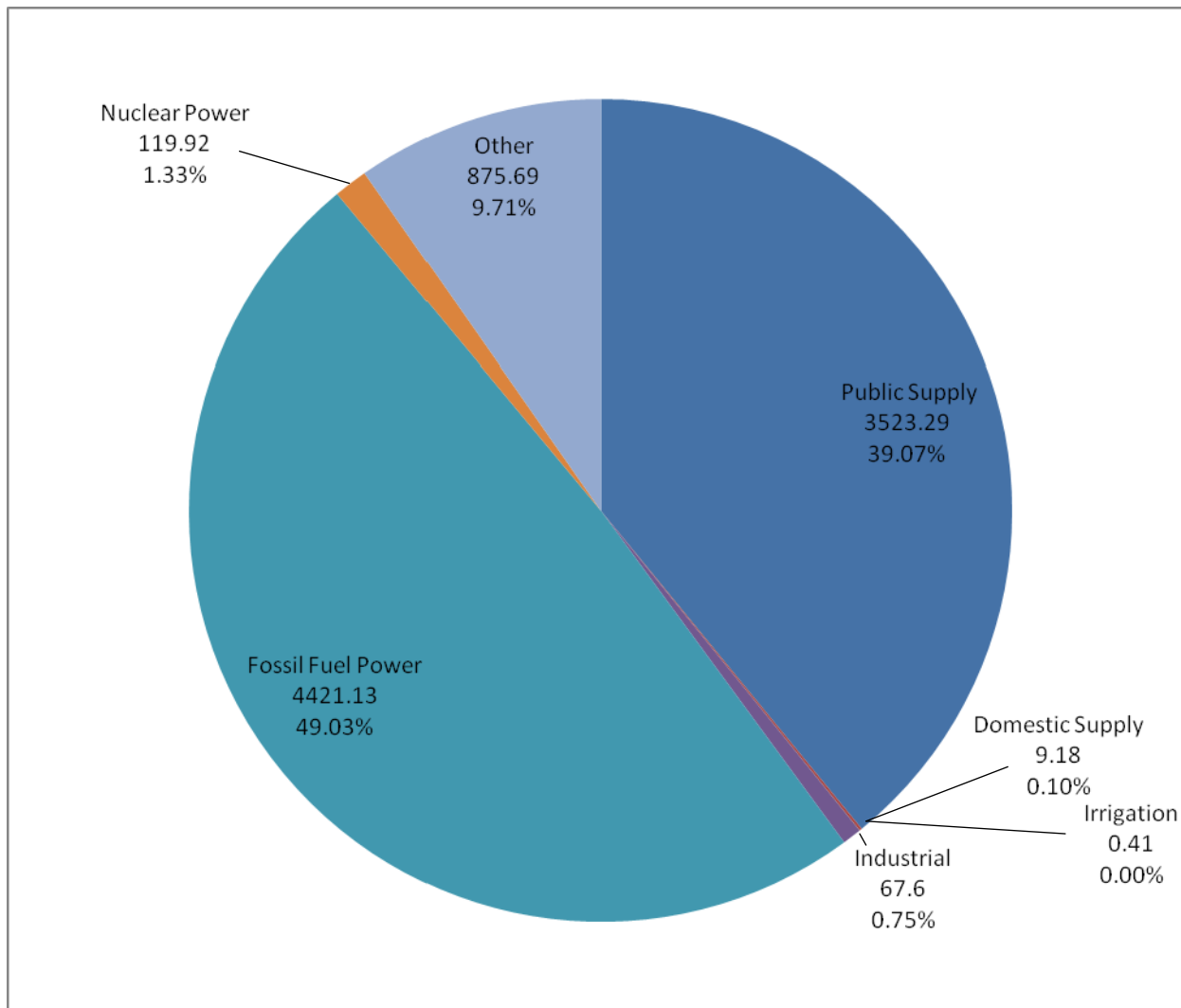
- Withdrawals, diversions and consumptive uses;
- Withdrawals by sources; and
- Jurisdiction totals.

Illinois

Data Sources: Water use data for Illinois were provided by the Department of Natural Resources, Office of Water Resources and the Illinois State Water Survey. Please contact James Casey at 312/793-5947 or james.casey@illinois.gov with specific questions regarding Illinois' data.

Withdrawals: Illinois' water withdrawals from Lake Michigan in 2009 totaled 9,017.23 mld – a decrease in water usage from 2008 (9,410.23 mld).

Figure 5. 2009 Illinois Water Use (In millions of liters per day)



Consumptive Use: No consumptive use information was reported.

Interbasin Diversions: Total diversions from the Lake Michigan basin in 2009 were 3,523.31 mld, a decrease of nearly 38.6 percent from the 2008 figure (5,740.87 mld). Public water supply accounted for about 39 percent of these diversions. All diversions for Illinois are outgoing interbasin diversions – water transferred from the Lake Michigan basin to the Illinois River in the Mississippi River basin.

JURISDICTION REPORT- Illinois

Withdrawals, Diversions and Consumptive Uses Units: ML/d
Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Lake Michigan							
	Public Supply	3523.29	3523.29	0.00	3523.12	3523.12	0.00
	Domestic Supply	9.18	9.17	0.00	9.18	9.17	0.00
	Irrigation	0.41	0.00	0.00	0.41	0.00	0.00
	Livestock						
	Industrial	67.60	0.05	0.00	67.60	0.05	0.00
	Fossil Fuel Power	4421.13	0.00	0.00	4421.13	0.00	0.00
	Nuclear Power	119.92	0.00	0.00	119.92	0.00	0.00
	Hydroelectric Power						
	Other	875.69	875.69	0.00	875.69	875.69	0.00
	Total:	9017.23	4408.20	0.00	9017.06	4408.03	0.00
Grand Total:		9017.23	4408.20	0.00	9017.06	4408.03	0.00

JURISDICTION REPORT- Illinois

Withdrawals by Source

Units: ML/d

Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Lake Michigan							
	Public Supply	3523.29	0.00	0.00	3523.12	0.00	0.00
	Domestic Supply	9.17	0.00	0.02	9.17	0.00	0.02
	Irrigation	0.00	0.00	0.41	0.00	0.00	0.41
	Livestock						
	Industrial	67.60	0.00	0.00	67.60	0.00	0.00
	Fossil Fuel Power	4421.13	0.00	0.00	4421.13	0.00	0.00
	Nuclear Power	119.92	0.00	0.00	119.92	0.00	0.00
	Hydroelectric Power						
	Other	875.69	0.00	0.00	875.69	0.00	0.00
	Total:	9016.80	0.00	0.42	9016.63	0.00	0.42
Grand Total:		9016.80	0.00	0.42	9016.63	0.00	0.42

JURISDICTION REPORT- Illinois

Jurisdiction Totals

Units: ML/d
Year Of Data: 2009

Total Report - All Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	3523.29	0.00	0.00	3523.29	0.00	3523.29	0.00
Domestic Supply	9.17	0.00	0.02	9.18	0.00	9.17	0.00
Irrigation	0.00	0.00	0.41	0.41	0.00	0.00	0.00
Livestock							
Industrial	67.60	0.00	0.00	67.60		0.05	0.00
Fossil Fuel Power	4421.13	0.00	0.00	4421.13	0.00	0.00	0.00
Nuclear Power	119.92	0.00	0.00	119.92	0.00	0.00	0.00
Hydroelectric Power							
Other	875.69	0.00	0.00	875.69	0.00	875.69	0.00

Total Report - Principal Facilities

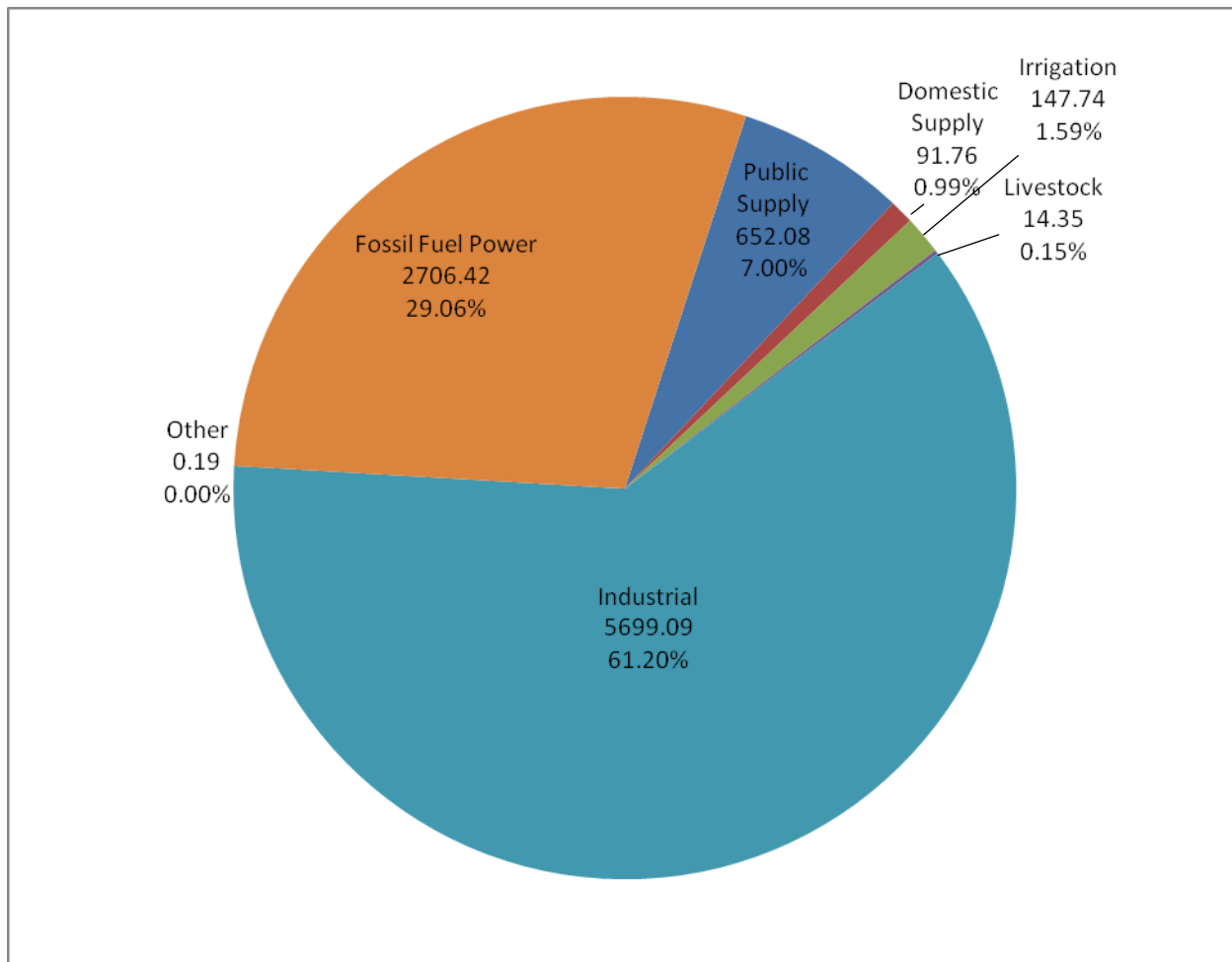
Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	3523.12	0.00	0.00	3523.12	0.00	3523.12	0.00
Domestic Supply	9.17	0.00	0.02	9.18	0.00	9.17	0.00
Irrigation	0.00	0.00	0.41	0.41	0.00	0.00	0.00
Livestock							
Industrial	67.60	0.00	0.00	67.60	0.00	0.05	0.00
Fossil Fuel Power	4421.13	0.00	0.00	4421.13	0.00	0.00	0.00
Nuclear Power	119.92	0.00	0.00	119.92	0.00	0.00	0.00
Hydroelectric Power							
Other	875.69	0.00	0.00	875.69	0.00	875.69	0.00

Indiana

Data Sources: The Indiana Department of Natural Resources, Division of Water compiled the 2009 water use data for the Indiana Lake Erie and Lake Michigan basins. Please contact Ralph Spaeth at 317/234-1101 or rspaeth@dnr.in.gov with questions regarding Indiana’s data.

Withdrawals: In 2009, total use was 9,311.6 mld compared to the 2008 figure of 10,032.81 mld. Of this amount, 98 percent of the water used was from the Lake Michigan basin. Industrial was reported as 5,671.76 mld and fossil fuel power, at 2,705.40 mld were the primary uses of Lake Michigan water. The primary use of Lake Erie basin water was public supply, at 145.51 mld.

Figure 6. Indiana Water Use (In millions of liters per day)



Consumptive Use: The total consumptive use of water in Indiana’s portion of the Great Lakes basin was 652.19 mld, compared to 682.40 mld in 2008. In the Lake Michigan basin, industrial water use category was the largest consumptive use, at 54.5 percent (340.31 mld of a total of 624.03 mld) and in the Lake Erie basin public supply was the largest consumptive use, at 77.5 percent (21.84 mld of a total of 28.16 mld).

Interbasin Diversions: Diversions from Lake Michigan include one of 194.65 mld for public supply and another of 79.80 mld for industrial use. A diversion from the Lake Erie Basin for public supply uses is 26.80 mld.

JURISDICTION REPORT- Indiana

Withdrawals, Diversions and Consumptive Uses Units: ML/d
Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Lake Michigan							
	Public Supply	506.56	194.65	76.01	505.43	194.65	75.82
	Domestic Supply	88.05	0.00	13.21	85.40	0.00	12.83
	Irrigation	143.20	0.00	128.89	139.95	0.00	125.94
	Livestock	14.35	0.00	11.47	14.23	0.00	11.39
	Industrial	5671.76	79.80	340.31	5670.51	79.80	340.23
	Fossil Fuel Power	2705.40	0.00	54.09	2705.40	0.00	54.09
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00
	Other	0.19	0.00	0.04	0.00	0.00	0.00
	Total:	9129.51	274.44	624.03	9120.91	274.44	620.32
Lake Erie							
	Public Supply	145.51	26.80	21.84	144.83	26.80	21.73
	Domestic Supply	3.71	0.00	0.57	3.14	0.00	0.45
	Irrigation	4.54	0.00	4.09	3.67	0.00	3.29
	Livestock	0.00	0.00	0.00	0.00	0.00	0.00
	Industrial	27.33	0.00	1.63	26.76	0.00	1.59
	Fossil Fuel Power	1.02	0.00	0.04	1.02	0.00	0.04
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	0.00	0.00	0.00
	Total:	182.12	26.80	28.16	179.43	26.80	27.10
Grand Total:		9311.62	301.24	652.19	9300.34	301.24	647.42

JURISDICTION REPORT- Indiana

Withdrawals by Source

Units: ML/d
Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Lake Michigan							
	Public Supply	337.05	0.00	169.51	337.05	0.00	168.38
	Domestic Supply	0.00	58.75	29.30	0.00	58.67	26.73
	Irrigation	0.00	27.86	115.34	0.00	26.91	113.03
	Livestock	0.00	5.11	9.24	0.00	5.11	9.12
	Industrial	5638.11	8.25	25.40	5638.07	8.25	24.19
	Fossil Fuel Power	2705.40	0.00	0.00	2705.40	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.19	0.00	0.00	0.00
	Total:	8680.56	99.97	348.98	8680.52	98.95	341.44
Lake Erie							
	Public Supply	0.00	121.28	24.23	0.00	121.28	23.55
	Domestic Supply	0.00	0.00	3.71	0.00	0.00	3.14
	Irrigation	0.00	1.06	3.48	0.00	0.87	2.80
	Livestock	0.00	0.00	0.00	0.00	0.00	0.00
	Industrial	0.00	13.44	13.89	0.00	13.32	13.44
	Fossil Fuel Power	0.00	0.00	1.02	0.00	0.00	1.02
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	0.00	0.00	0.00
	Total:	0.00	135.78	46.33	0.00	135.48	43.95
Grand Total:		8680.56	235.76	395.31	8680.52	234.43	385.39

JURISDICTION REPORT- Indiana

Jurisdiction Totals

Units: ML/d
Year Of Data: 2009

Total Report - All Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	337.05	121.28	193.74	652.08	0.00	221.45	97.85
Domestic Supply	0.00	58.75	33.01	91.76	0.00	0.00	13.78
Irrigation	0.00	28.92	118.82	147.74	0.00	0.00	132.98
Livestock	0.00	5.11	9.24	14.35	0.00	0.00	11.47
Industrial	5638.11	21.69	39.29	5699.09	0.00	79.80	341.94
Fossil Fuel Power	2705.40	0.00	1.02	2706.42	0.00	0.00	54.13
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.19	0.19	0.00	0.00	0.04

Total Report - Principal Facilities

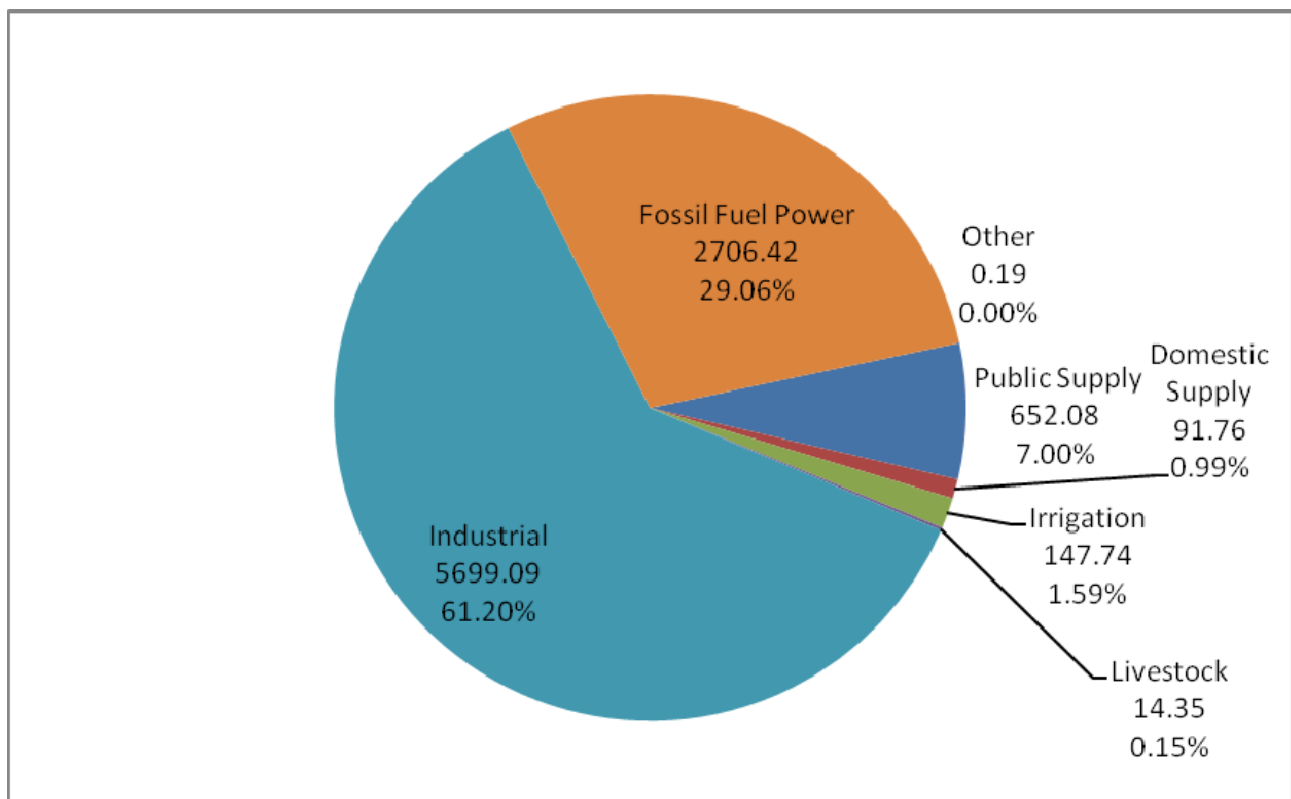
Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	337.05	121.28	191.92	650.26	0.00	221.45	97.55
Domestic Supply	0.00	58.67	29.87	88.54	0.00	0.00	13.29
Irrigation	0.00	27.78	115.83	143.62	0.00	0.00	129.23
Livestock	0.00	5.11	9.12	14.23	0.00	0.00	11.39
Industrial	5638.07	21.58	37.63	5697.27	0.00	79.80	341.82
Fossil Fuel Power	2705.40	0.00	1.02	2706.42	0.00	0.00	54.13
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Michigan

Data Sources: The Michigan Department of Environmental Quality (DEQ) submitted water use data for 2009. All data are directly reported to the Michigan DEQ by the facilities within each category except irrigation, which is divided into agricultural and nonagricultural irrigation. Agricultural irrigation use is reported to the Michigan Department of Agriculture and then transmitted to the DEQ. Nonagricultural irrigation facilities (e.g., golf course, park, etc.) report directly to the DEQ. Please contact Andrew LeBaron at 517/241-1435 or lebarona@michigan.gov with questions regarding Michigan’s water use data.

Withdrawals: Water withdrawals for the Lake Superior, Lake Michigan, Lake Huron, and Lake Erie basins of Michigan were approximately 36,184.94 mld, a decrease of 7.9 percent from 2008 (39,286.74 mld). Of the four basins, the state of Michigan withdraws the most about 51.9 percent from Lake Erie (18,789.38 mld) and the least—about 3 percent from Lake Superior (905.43 mld). Fossil fuel power, at 62.7 percent, was the largest withdrawal category for the state of Michigan.

Figure 7. Michigan Water Use (In millions of liters per day)



Consumptive Use: Consumptive uses in the Michigan portion of the Great Lakes basin were calculated to be approximately 2,894.74 mld; irrigation was the largest single consumptive use at 1,129.91 mld, or about 39 percent of the total consumptive use.

Interbasin Diversions: None reported.

JURISDICTION REPORT- Michigan

Withdrawals, Diversions and Consumptive Uses Units: ML/d
Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Lake Superior							
	Public Supply	53.57		6.70	50.43		6.30
	Domestic Supply						
	Irrigation	3.83		3.45	3.62		3.26
	Livestock						
	Industrial	33.29		3.33	32.83		3.28
	Fossil Fuel Power	814.75		1.22	814.75		1.22
	Nuclear Power						
	Hydroelectric Power						
	Other						
	Total:	905.44		14.69	901.62		14.06

Lake Michigan							
	Public Supply	943.74		117.97	912.21		114.03
	Domestic Supply	19.55		2.44	18.51		2.31
	Irrigation	665.80		599.23	607.76		546.98
	Livestock	22.73		18.19	9.30		7.44
	Industrial	782.88		78.29	776.80		77.68
	Fossil Fuel Power	4058.65		327.93	4058.43		327.84
	Nuclear Power	6095.39		73.15	6095.39		73.15
	Hydroelectric Power						
	Other	14.52		0.00	14.52		0.00
	Total:	12603.25		1217.19	12492.92		1149.42

Lake Huron							
	Public Supply	449.40		56.18	436.78		54.60
	Domestic Supply	0.22		0.03			
	Irrigation	529.14		476.22	521.85		469.66
	Livestock	10.09		8.07	6.89		5.52
	Industrial	299.97		30.00	298.75		29.87
	Fossil Fuel Power	2598.03		420.58	2598.03		420.58
	Nuclear Power						
	Hydroelectric Power						
	Other						
	Total:	3886.85		991.07	3862.30		980.23

Basin	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Lake Erie							
	Public Supply	2368.23		296.03	2355.86		294.48
	Domestic Supply	0.42		0.05	0.31		0.04
	Irrigation	56.66		51.00	48.27		43.45
	Livestock	2.31		1.84	0.56		0.45
	Industrial	942.31		94.23	942.31		94.23
	Fossil Fuel Power	15220.96		156.17	15220.96		156.17
	Nuclear Power	188.68		72.45	188.68		72.45
	Hydroelectric Power						
	Other	9.81		0.00	9.81		0.00
	Total:	18789.38		671.77	18766.77		661.27
Grand Total:		36184.93		2894.72	36023.60		2804.98

JURISDICTION REPORT- Michigan

Withdrawals by Source

Units: ML/d
Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Lake Superior							
	Public Supply	19.69	0.00	33.89	19.69	0.00	30.75
	Domestic Supply						
	Irrigation	0.03	1.59	2.21	0.00	1.44	2.17
	Livestock						
	Industrial	32.83	0.00	0.46	32.83	0.00	0.00
	Fossil Fuel Power	814.75	0.00	0.00	814.75	0.00	0.00
	Nuclear Power						
	Hydroelectric Power						
	Other						
	Total:	867.29	1.59	36.56	867.26	1.44	32.92
Lake Michigan							
	Public Supply	444.49	0.00	499.25	444.49	0.00	467.72
	Domestic Supply	0.00	8.82	10.73	0.00	8.75	9.76
	Irrigation	1.01	173.01	491.79	0.92	151.99	454.85
	Livestock	0.00	4.06	18.67	0.00	4.06	5.24
	Industrial	170.34	420.90	191.64	170.28	420.65	185.87
	Fossil Fuel Power	2566.91	1480.93	10.80	2566.91	1480.91	10.61
	Nuclear Power	6095.39	0.00	0.00	6095.39	0.00	0.00
	Hydroelectric Power						
	Other	0.00	0.00	14.52	0.00	0.00	14.52
	Total:	9278.14	2087.72	1237.39	9277.98	2066.37	1148.57
Lake Huron							
	Public Supply	350.03	3.87	95.50	349.19	3.87	83.73
	Domestic Supply	0.00	0.00	0.22			
	Irrigation	0.45	487.10	41.59	0.39	483.32	38.13
	Livestock	0.00	3.65	6.44	0.00	3.65	3.25
	Industrial	56.30	145.52	98.15	56.30	145.29	97.16
	Fossil Fuel Power	619.42	1975.73	2.88	619.42	1975.73	2.88
	Nuclear Power						
	Hydroelectric Power						
	Other						
	Total:	1026.21	2615.86	244.79	1025.29	2611.85	225.15

Basin	Category	All Facilities			Principal Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Lake Erie							
	Public Supply	2169.75	69.97	128.51	2169.75	69.70	116.41
	Domestic Supply	0.00	0.00	0.42	0.00	0.00	0.31
	Irrigation	0.65	31.66	24.36	0.18	27.02	21.07
	Livestock	0.00	1.27	1.03	0.00	0.56	0.00
	Industrial	780.89	62.85	98.58	780.89	62.85	98.58
	Fossil Fuel Power	14768.75	451.81	0.39	14768.75	451.81	0.39
	Nuclear Power	188.68	0.00	0.00	188.68	0.00	0.00
	Hydroelectric Power						
	Other	0.00	4.16	5.64	0.00	4.16	5.64
	Total:	17908.72	621.72	258.94	17908.25	616.11	242.41
Grand Total:		29080.35	5326.89	1777.69	29078.79	5295.78	1649.04

JURISDICTION REPORT- Michigan

Jurisdiction Totals

Units: ML/d
Year Of Data: 2009

Total Report - All Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	2983.96	73.84	757.15	3814.95	0.00	476.87	
Domestic Supply	0.00	8.82	11.38	20.20		2.52	
Irrigation	2.14	693.35	559.94	1255.44		1129.90	
Livestock	0.00	8.98	26.15	35.12		28.10	
Industrial	1040.35	629.26	388.83	2058.45		205.84	
Fossil Fuel Power	18769.83	3908.48	14.08	22692.39		905.90	
Nuclear Power	6284.06	0.00	0.00	6284.06		145.60	
Hydroelectric Power							
Other	0.00	4.16	20.16	24.33		0.00	

Total Report - Principal Facilities

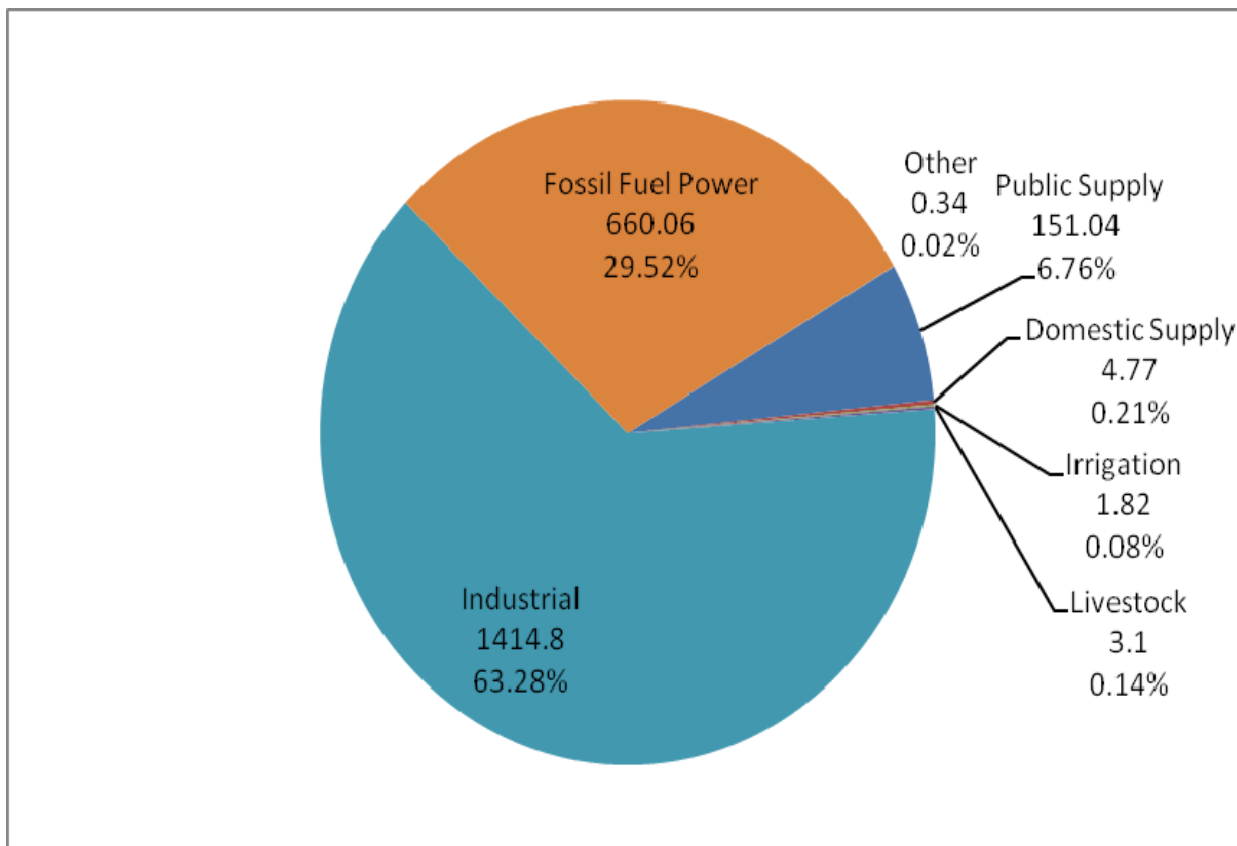
Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	2983.11	73.57	698.59	3755.28	0.00	469.41	
Domestic Supply	0.00	8.75	10.07	18.82		2.35	
Irrigation	1.48	663.78	516.23	1181.49		1063.34	
Livestock	0.00	8.27	8.49	16.76		13.40	
Industrial	1040.30	628.79	381.61	2050.69		205.07	
Fossil Fuel Power	18769.83	3908.46	13.88	22692.17		905.81	
Nuclear Power	6284.06	0.00	0.00	6284.06		145.60	
Hydroelectric Power							
Other	0.00	4.16	20.16	24.33		0.00	

Minnesota

Data Sources: Water use data for Minnesota were provided by the Minnesota Department of Natural Resources, Division of Ecological and Water Resources. Please contact Sean Hunt at 651/259-5679 or sean.hunt@dnr.state.mn.us with specific questions regarding Minnesota’s water use data.

Withdrawals: Total water use from the Minnesota portion of the Lake Superior basin were 15,273.34 mld, an decrease of 11 percent from 2008 (17 151.59 mld). Water used for hydroelectric power generation purposes (13,037.41 mld), accounted for nearly 85.3 percent of Minnesota’s total water use in 2009. Excluding hydroelectric power, industrial and fossil fuel power accounted for the largest uses, together accounting for 91.8 percent of the total.

Figure 8. Minnesota Water Use (In millions of liters per day)



Consumptive Use: The largest consumptive use was calculated to be industrial, at 141.46 mld, or 81.8 percent of total consumption (172.96 mld). Public supply was the second largest consumptive use at 15.07 mld, or 8.7 percent of Minnesota’s total consumptive use.

Interbasin Diversions: A diversion of 23.28 mld was reported for industrial use.

JURISDICTION REPORT- Minnesota

Withdrawals, Diversions and Consumptive Uses Units: ML/d
Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Lake Superior							
	Public Supply	151.04	0.00	15.07	149.90	0.00	14.95
	Domestic Supply	4.77	0.00	0.45	4.35	0.00	0.42
	Irrigation	1.82	0.00	0.00	0.00	0.00	0.00
	Livestock	3.10	0.00	2.76	2.80	0.00	2.54
	Industrial	1414.80	23.28	141.46	1413.51	23.28	141.35
	Fossil Fuel Power	660.06	0.00	13.21	659.68	0.00	13.21
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	13037.41	0.00	0.00	13037.41	0.00	0.00
	Other	0.34	0.00	0.00	0.00	0.00	0.00
	Total:	15273.34	23.28	172.96	15267.66	23.28	172.46
Grand Total:		15273.34	23.28	172.96	15267.66	23.28	172.46

JURISDICTION REPORT- Minnesota

Withdrawals by Source

Units: ML/d

Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Lake Superior							
	Public Supply	120.91	7.00	23.13	120.79	7.00	22.11
	Domestic Supply	3.03	1.59	0.15	2.76	1.59	0.00
	Irrigation	0.23	1.14	0.45	0.00	0.00	0.00
	Livestock	3.10	0.00	0.00	2.80	0.00	0.00
	Industrial	1111.47	303.25	0.08	1111.17	302.34	0.00
	Fossil Fuel Power	71.28	588.44	0.34	71.28	588.40	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	0.00	13037.41	0.00	0.00	13037.41	0.00
	Other	0.00	0.00	0.34	0.00	0.00	0.00
	Total:	1310.02	13938.83	24.49	1308.81	13936.75	22.11
Grand Total:		1310.02	13938.83	24.49	1308.81	13936.75	22.11

JURISDICTION REPORT- Minnesota

Jurisdiction Totals

Units: ML/d
Year Of Data: 2009

Total Report - All Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	120.91	7.00	23.13	151.04	0.00	0.00	15.07
Domestic Supply	3.03	1.59	0.15	4.77	0.00	0.00	0.45
Irrigation	0.23	1.14	0.45	1.82	0.00	0.00	0.00
Livestock	3.10	0.00	0.00	3.10	0.00	0.00	2.76
Industrial	1111.47	303.25	0.08	1414.80	0.00	23.28	141.46
Fossil Fuel Power	71.28	588.44	0.34	660.06	0.00	0.00	13.21
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydroelectric Power	0.00	13037.41	0.00	13037.41	0.00	0.00	0.00
Other	0.00	0.00	0.34	0.34	0.00	0.00	0.00

Total Report - Principal Facilities

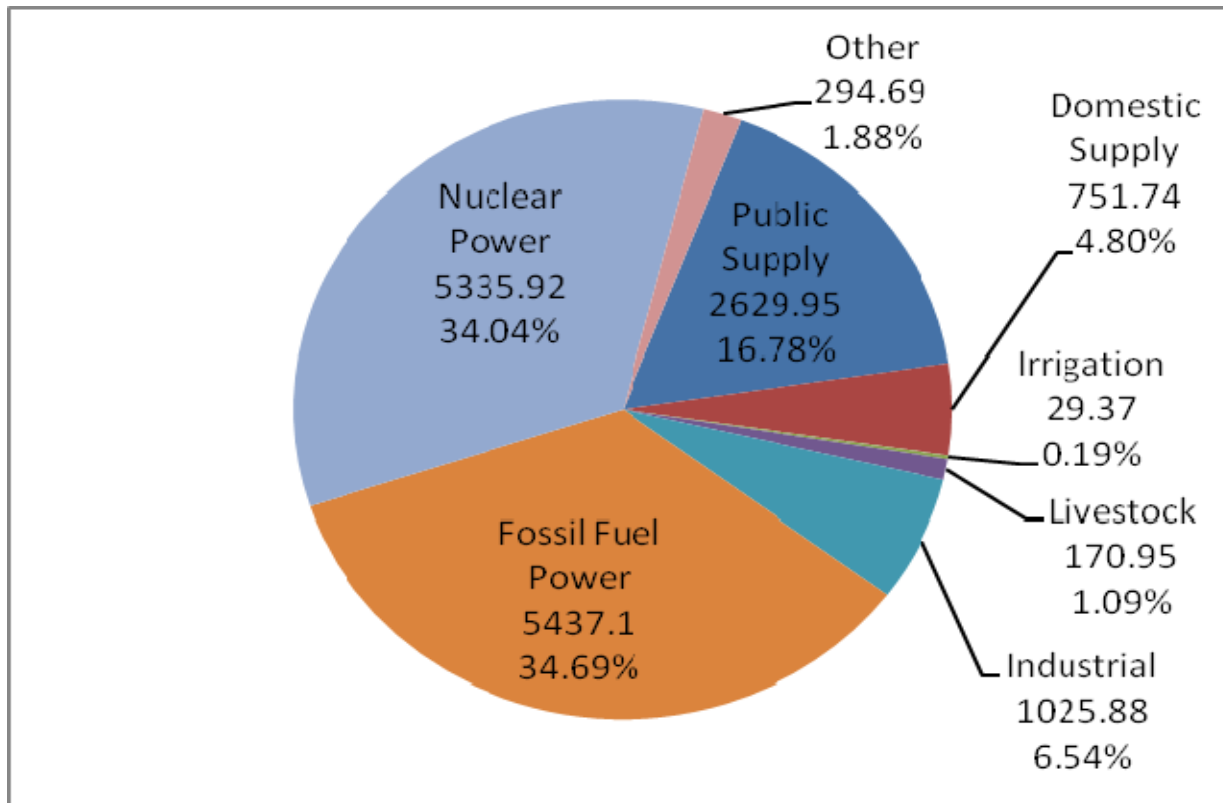
Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	120.79	7.00	22.11	149.90	0.00	0.00	14.95
Domestic Supply	2.76	1.59	0.00	4.35	0.00	0.00	0.42
Irrigation	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Livestock	2.80	0.00	0.00	2.80	0.00	0.00	2.54
Industrial	1111.17	302.34	0.00	1413.51	0.00	23.28	141.35
Fossil Fuel Power	71.28	588.40	0.00	659.68	0.00	0.00	13.21
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydroelectric Power	0.00	13037.41	0.00	13037.41	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00

New York

Data Sources: Water use data collection in New York is performed by the Department of Environmental Conservation—Bureau of Water Resource Management. Please contact Michael Holt at 518/402-8099 or mdholt@gw.dec.state.ny.us with questions regarding New York’s data.

Withdrawals: In 2009, New York’s total water use was 1,182.680 bld. Total withdrawals, not including hydroelectric power, were 15.68 bld. Hydroelectric power uses of 1,167.00 bld represented 98.6 percent of total withdrawals in New York. The next largest categories of use were fossil fuel and nuclear power.

Figure 9. New York Water Use (In millions of liters per day)



Consumptive Use: New York reported total consumptive uses of 1,304.00 bld. Lake Ontario comprised 839.53 mld or 64.4 percent; Lake Erie comprised 354.62 bld or 27 percent; the St. Lawrence River comprised 109.85 mld or 8.4 percent. The largest categories of consumptive use were nuclear power (266.80 mld) and public supply (263.01 mld), both uses are about at 40.6 percent of total consumptive use.

Interbasin Diversions: Two outgoing interbasin diversions occur between the Lake Ontario basin and the Mohawk River basin. A withdrawal of 36.30 mld from the Tagasoke Reservoir on the East Branch of Fish Creek (Lake Ontario basin) is made by the city of Rome for public water supply and emptied into the Mohawk River basin. The Forestport/Black River Canal (Lake Ontario basin) was decommissioned in the 1980s but still allows for residual flow of up to 121.13 mld into the Mohawk River basin.

Intrabasin Diversions: No intrabasin diversions were reported.

JURISDICTION REPORT- New York

Withdrawals, Diversions and Consumptive Uses Units: ML/d
Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Lake Erie							
	Public Supply	999.46	0.00	99.93		0.00	
	Domestic Supply	167.85	0.00	16.81	12.72	0.00	1.29
	Irrigation	1.85	0.00	1.67	1.85	0.00	1.67
	Livestock	33.54	0.00	30.21		0.00	
	Industrial	596.88	0.00	149.26	596.88	0.00	149.26
	Fossil Fuel Power	2666.29	0.00	53.34	2666.29	0.00	53.34
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	172554.22	0.00	0.00	172554.22	0.00	0.00
	Other	3.52	0.00	3.41	3.52	0.00	0.34
	Total:	177023.62	0.00	354.62	175835.49	0.00	205.89
Lake Ontario							
	Public Supply	1479.07	36.30	147.93		36.30	0.00
	Domestic Supply	497.29	0.00	49.74	232.24	0.00	23.24
	Irrigation	27.52	0.00	24.76	27.52	0.00	24.76
	Livestock	80.52	0.00	72.45		0.00	
	Industrial	303.21	0.00	75.82	303.21	0.00	75.82
	Fossil Fuel Power	2770.77	0.00	55.42	2770.77	0.00	55.42
	Nuclear Power	5335.92	0.00	266.80	5335.92	0.00	266.80
	Hydroelectric Power	306270.11	0.00	0.00	0.00	0.00	0.00
	Other	257.22	121.13	146.61	254.61	121.13	146.61
	Total:	317021.63	157.44	839.53	8924.26	157.44	592.64
St. Lawrence River							
	Public Supply	151.42	0.00	15.14		0.00	
	Domestic Supply	86.61	0.00	8.67	32.63	0.00	3.26
	Irrigation	0.00	0.00	0.00	0.00	0.00	0.00
	Livestock	56.89	0.00	51.18		0.00	
	Industrial	125.79	0.00	31.46	125.79	0.00	31.46
	Fossil Fuel Power	0.04	0.00	0.00	0.04	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	688180.33	0.00	0.00	314590.45	0.00	0.00
	Other	33.96	0.00	3.41	33.96	0.00	3.41
	Total:	688635.03	0.00	109.85	314782.86	0.00	38.12
Grand Total:		1182680.28	157.44	1304.00	499542.61	157.44	836.65

JURISDICTION REPORT- New York

Withdrawals by Source

Units: ML/d
Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Lake Erie							
	Public Supply	698.71	273.00	27.75			
	Domestic Supply	86.91	12.72	68.21	0.00	12.72	0.00
	Irrigation	1.21	0.64	0.00	1.21	0.64	0.00
	Livestock	3.44	11.05	19.04			
	Industrial	578.03	3.33	15.52	578.03	3.33	15.52
	Fossil Fuel Power	2666.29	0.00	0.00	2666.29	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	172554.22	0.00	0.00	172554.22	0.00	0.00
	Other	0.00	3.52	0.00	0.00	3.52	0.00
	Total:	176588.83	304.27	130.52	175799.76	20.21	15.52
Lake Ontario							
	Public Supply	708.93	644.54	125.60			
	Domestic Supply	111.03	232.24	154.03	0.00	232.24	0.00
	Irrigation	0.00	21.99	5.53	0.00	21.99	5.53
	Livestock	14.80	28.62	37.10			
	Industrial	60.76	207.97	34.49	60.76	207.97	34.49
	Fossil Fuel Power	1592.79	1177.98	0.00	1592.79	1177.98	0.00
	Nuclear Power	5335.92	0.00	0.00	5335.92	0.00	0.00
	Hydroelectric Power	0.00	306270.11	0.00	0.00	0.00	0.00
	Other	0.00	253.51	3.71	0.00	251.24	3.37
	Total:	7824.22	308836.96	360.45	6989.46	1891.42	43.38
St. Lawrence River							
	Public Supply	10.60	122.91	17.90			
	Domestic Supply	0.00	32.63	53.98	0.00	32.63	0.00
	Irrigation	0.00	0.00	0.00	0.00	0.00	0.00
	Livestock	1.44	39.97	15.48			
	Industrial	10.33	102.58	12.87	10.33	102.58	12.87
	Fossil Fuel Power	0.04	0.00	0.00	0.04	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	314590.45	373589.88	0.00	314590.45	0.00	0.00
	Other	0.00	32.59	1.36	0.00	32.59	1.36
	Total:	314612.86	373920.57	101.60	314600.82	167.81	14.23
Grand Total:		499025.91	683061.81	592.57	497390.04	2079.44	73.13

JURISDICTION REPORT- New York

Jurisdiction Totals

Units: ML/d
Year Of Data: 2009

Total Report - All Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	1418.24	1040.46	171.25	2629.95	0.00	36.30	263.01
Domestic Supply	197.94	277.58	276.22	751.74	0.00	0.00	75.22
Irrigation	1.21	22.64	5.53	29.37	0.00	0.00	26.42
Livestock	19.68	79.65	71.62	170.95	0.00	0.00	153.84
Industrial	649.12	313.89	62.88	1025.88	0.00	0.00	256.54
Fossil Fuel Power	4259.12	1177.98	0.00	5437.10	0.00	0.00	108.75
Nuclear Power	5335.92	0.00	0.00	5335.92	0.00	0.00	266.80
Hydroelectric Power	487144.67	679860.00	0.00	1167004.67	0.00	0.00	0.00
Other	0.00	289.62	5.07	294.69	0.00	121.13	153.42

Total Report - Principal Facilities

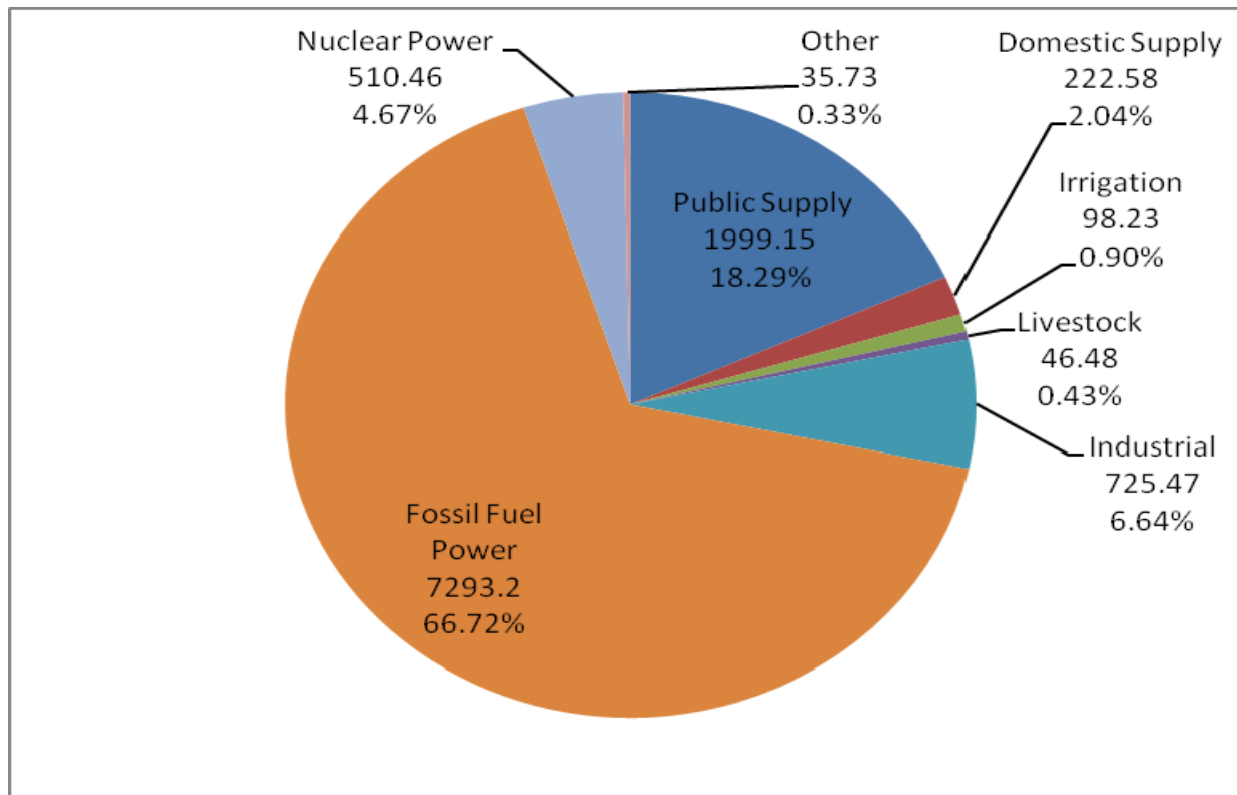
Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply					0.00	36.30	0.00
Domestic Supply	0.00	277.58	0.00	277.58	0.00	0.00	27.78
Irrigation	1.21	22.64	5.53	29.37	0.00	0.00	26.42
Livestock					0.00	0.00	
Industrial	649.12	313.89	62.88	1025.88	0.00	0.00	256.54
Fossil Fuel Power	4259.12	1177.98	0.00	5437.10	0.00	0.00	108.75
Nuclear Power	5335.92	0.00	0.00	5335.92	0.00	0.00	266.80
Hydroelectric Power	487144.67	0.00	0.00	487144.67	0.00	0.00	0.00
Other	0.00	287.35	4.73	292.08	0.00	121.13	150.36

Ohio

Data Sources: Water use data for Ohio are collected by the Ohio Department of Natural Resources-Division of Soil & Water Resources, the Ohio Environmental Protection Agency and the U.S. Geological Survey. Please contact Lenn Black at leonard.black@dnr.state.oh.us or 614/265-6758 with questions regarding Ohio’s water use data.

Withdrawals: Total withdrawals from the Ohio Lake Erie basin for 2009 were 10.93 bld. Fossil fuel power was by far the largest use of water at 7.29 bld (66.7%); public supply was the second largest withdrawal at 1,999.15 mld (18.3%).

Figure 10. Ohio Water Use (In millions of liters per day)



Consumptive Use: Total consumptive uses were calculated to be 651.17 mld. Public supply represents the largest consumptive use sector at 299.88 mld and accounts for 46 percent of the total. The next three largest consumptive use categories were irrigation at 88.39 mld, fossil fuel power at 72.94 mld and industrial facilities at 55.42 mld.

Interbasin Diversions: Two permitted Lake Erie basin diversions provided drinking water to service areas outside the basin without return, resulting in total outgoing diversions of 1.21 mld. Releases from the Ohio & Erie Canal into the Lake Erie basin resulted in incoming diversions of 36.45 mld.

JURISDICTION REPORT- Ohio

Withdrawals, Diversions and Consumptive Uses Units: ML/d
Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Lake Erie							
	Public Supply	1999.15	1.21	299.88	1984.73	1.21	297.72
	Domestic Supply	222.58	0.00	33.39	1.14	0.00	0.19
	Irrigation	98.23	0.00	88.39	90.85	0.00	81.76
	Livestock	46.48	0.00	37.17	3.33	0.00	2.65
	Industrial	725.47	0.00	55.42	723.20	0.00	55.19
	Fossil Fuel Power	7293.20	0.00	72.94	7293.20	0.00	72.94
	Nuclear Power	510.46	0.00	51.07	510.46	0.00	51.07
	Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00
	Other	35.73	-36.45	12.91	35.20	-36.45	12.49
	Total:	10931.32	-35.24	651.17	10642.12	-35.24	574.02
Grand Total:		10931.32	-35.24	651.17	10642.12	-35.24	574.02

JURISDICTION REPORT- Ohio

Withdrawals by Source

Units: ML/d
Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Lake Erie							
	Public Supply	1505.04	375.10	119.01	1504.93	374.64	105.16
	Domestic Supply	1.14	0.26	221.18	1.14	0.00	0.00
	Irrigation	10.49	76.31	11.43	10.45	71.32	9.08
	Livestock	0.00	5.68	40.81	0.00	1.67	1.67
	Industrial	151.57	378.69	195.21	151.45	378.12	193.62
	Fossil Fuel Power	4974.03	2319.17	0.00	4974.03	2319.17	0.00
	Nuclear Power	510.46	0.00	0.00	510.46	0.00	0.00
	Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00
	Other	2.38	31.00	2.35	2.20	30.96	2.04
	Total:	7155.11	3186.22	589.99	7154.66	3175.88	311.58
Grand Total:		7155.11	3186.22	589.99	7154.66	3175.88	311.58

JURISDICTION REPORT- Ohio

Jurisdiction Totals

Units: ML/d
Year Of Data: 2009

Total Report - All Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	1505.04	375.10	119.01	1999.15	0.00	1.21	299.88
Domestic Supply	1.14	0.26	221.18	222.58	0.00	0.00	33.39
Irrigation	10.49	76.31	11.43	98.23	0.00	0.00	88.39
Livestock	0.00	5.68	40.81	46.48	0.00	0.00	37.17
Industrial	151.57	378.69	195.21	725.47	0.00	0.00	55.42
Fossil Fuel Power	4974.03	2319.17	0.00	7293.20	0.00	0.00	72.94
Nuclear Power	510.46	0.00	0.00	510.46	0.00	0.00	51.07
Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	2.38	31.00	2.35	35.73	0.00	-36.45	12.91

Total Report - Principal Facilities

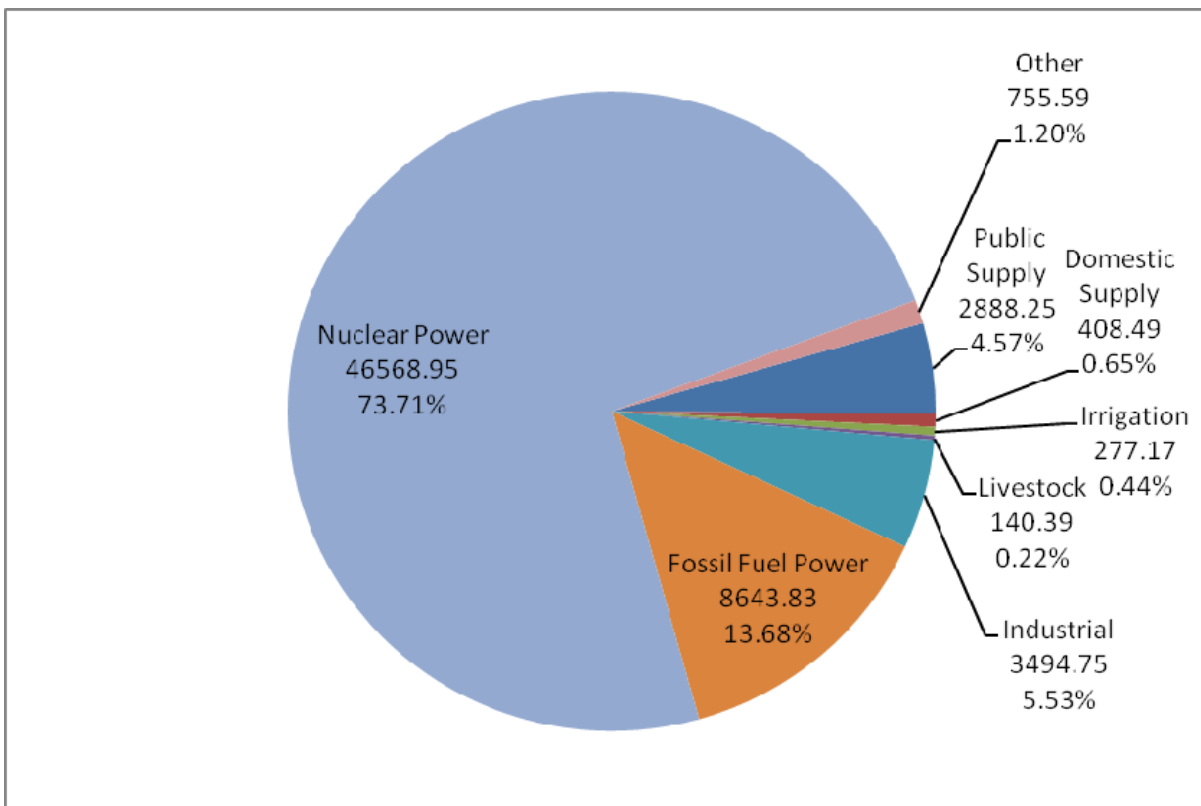
Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	1504.93	374.64	105.16	1984.73	0.00	1.21	297.72
Domestic Supply	1.14	0.00	0.00	1.14	0.00	0.00	0.19
Irrigation	10.45	71.32	9.08	90.85	0.00	0.00	81.76
Livestock	0.00	1.67	1.67	3.33	0.00	0.00	2.65
Industrial	151.45	378.12	193.62	723.20	0.00	0.00	55.19
Fossil Fuel Power	4974.03	2319.17	0.00	7293.20	0.00	0.00	72.94
Nuclear Power	510.46	0.00	0.00	510.46	0.00	0.00	51.07
Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	2.20	30.96	2.04	35.20	0.00	-36.45	12.49

Ontario

Data Sources: Water use data reporting for Ontario was coordinated by the Ontario Ministry of Natural Resources. Calendar year 2009 data are used for the hydropower, thermoelectric, nuclear water use sectors, and inter-basin diversion and intra-basin transfer reporting (unless otherwise noted). Calendar year 2000-01 data are used for other sectors because: 1) water use estimates for 2009 are not anticipated to be greatly different than those reported for 2000 assuming a similar data collection and assessment approach, and 2) the provincial government has phased-in new regulatory reporting requirements for permitted water takers. Water use information from the new reporting program will represent a significant enhancement in estimating the reported overall water use in the province. Permit holders are now required to collect and record data on the volume of water taken and report the data on an annual basis.

Calendar year 2009 data for the water power sectors and inter-basin diversion and intra-basin diversion categories were obtained primarily through contact with individual operators and generation companies during 2010. This information may not be directly comparable to those previously reported in 2001 due to assessment methodologies applied and number of facilities contacted. Calendar year 2000-01 data for other sectors were obtained from several sources available at that time. Please contact Jonathan Staples at Jonathan.Staples@ontario.ca, Ontario Ministry of Natural Resources with questions regarding Ontario’s water use data.

Figure 11. Ontario Water Use (In millions of liters per day)



Although this water withdrawal report accounts for the majority of water use within Ontario, data for a limited number of water users is not available, therefore this database does not represent all water use in the province.

Withdrawals: The reported 2009, Great Lakes water uses for were approximately 1,148.06 bld. However, hydroelectric withdrawals represented more than 94.5 percent of the total, leaving total use at 63.18 bld. Thermoelectric—nuclear plant uses (not including hydropower) were the largest at 73.7 percent (46,568.95 mld).

Consumptive Use: Total consumptive uses were calculated to be 1,211.5 mld. Public supply represents the largest consumptive use sector at 433.24 mld and accounts for 35.7 percent of the total. The next two largest consumptive uses were nuclear power and industrial use, at 419.12 mld and 220.15 mld respectively.

Interbasin Diversions: Ontario reported incoming interbasin diversions into the Lake Superior basin from the Hudson Bay basin for hydroelectric purposes (the Ogoki and Long Lac projects) amounting to 14,385 mld.

Intrabasin Diversions: Summarized in the table below are intrabasin diversions that occurred between lakes Huron, Erie and Ontario.

Table 1: Intrabasin Diversions in Ontario

Name of Receiving Watershed	Amount in mld
Erie	19,584 (Other – seaway) (5,733.5 mgd)
Huron	161.76 (Public Supply) (42.7 mgd)
Ontario	12.22 (Public Supply) (3.2 mgd)

JURISDICTION REPORT- Ontario

Withdrawals, Diversions and Consumptive Uses Units: ML/d
Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Lake Superior							
	Public Supply	173.27	0.00	26.00	172.52	0.00	25.88
	Domestic Supply	6.61	0.00	0.99	0.00	0.00	0.00
	Irrigation	1.42	0.00			0.00	
	Livestock	0.53	0.00			0.00	
	Industrial	613.70	0.00	38.66	0.00	0.00	0.00
	Fossil Fuel Power	306.85	0.00	2.76	306.85	0.00	2.76
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	136339.00	-15170.99	0.00	136339.00	0.00	0.00
	Other		0.00			0.00	
	Total:	137441.38	-15170.99	68.41	136818.37	0.00	28.64
Lake Huron							
	Public Supply	319.38	0.00	47.90	309.12	0.00	46.36
	Domestic Supply	40.15	0.00	6.02	0.00	0.00	0.00
	Irrigation	79.17	0.00			0.00	
	Livestock	46.99	0.00			0.00	
	Industrial	719.96	0.00	45.35	0.00	0.00	0.00
	Fossil Fuel Power	0.00	0.00	0.00	0.00	0.00	0.00
	Nuclear Power	21560.73	0.00	194.05	21560.73	0.00	194.05
	Hydroelectric Power	153057.00	0.00	0.00	153057.00	0.00	0.00
	Other	181.59	0.00	0.00	181.59	0.00	0.00
	Total:	176004.96	0.00	293.32	175108.44	0.00	240.41
Lake Erie							
	Public Supply	355.41	0.00	53.31	351.42	0.00	52.71
	Domestic Supply	75.48	0.00	11.32	0.00	0.00	0.00
	Irrigation	120.57	0.00			0.00	
	Livestock	50.04	0.00			0.00	
	Industrial	683.08	0.00	43.03	0.00	0.00	0.00
	Fossil Fuel Power	5600.00	0.00	50.40	5600.00	0.00	50.40
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	2121.00	0.00	0.00	2121.00	0.00	0.00
	Other		0.00			0.00	
	Total:	9005.59	0.00	158.06	8072.42	0.00	103.11

Basin	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Lake Ontario							
	Public Supply	1763.74	0.00	264.56	1758.79	0.00	263.82
	Domestic Supply	242.90	0.00	36.44	0.00	0.00	0.00
	Irrigation	67.13	0.00			0.00	
	Livestock	20.45	0.00			0.00	
	Industrial	869.27	0.00	54.76	0.00	0.00	0.00
	Fossil Fuel Power	2736.98	0.00	24.63	2736.98	0.00	24.63
	Nuclear Power	25008.22	0.00	225.07	25008.22	0.00	225.07
	Hydroelectric Power	198178.00	0.00	0.00	198178.00	0.00	0.00
	Other	501.00	0.00	0.00	501.00	0.00	0.00
	Total:	229387.69	0.00	605.47	228182.99	0.00	513.53
St. Lawrence River							
	Public Supply	276.45	0.00	41.47	272.87	0.00	40.94
	Domestic Supply	43.35	0.00	6.50	0.00	0.00	0.00
	Irrigation	8.89	0.00			0.00	
	Livestock	22.37	0.00			0.00	
	Industrial	608.74	0.00	38.35	0.00	0.00	0.00
	Fossil Fuel Power	0.00	0.00	0.00	0.00	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	595188.00	0.00	0.00	595188.00	0.00	0.00
	Other	73.00	0.00	0.00	73.00	0.00	0.00
	Total:	596220.81	0.00	86.32	595533.87	0.00	40.94
Grand Total:		1148060.42	-15170.99	1211.57	1143716.08	0.00	926.62

JURISDICTION REPORT- Ontario

Withdrawals by Source

Units: ML/d
Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Lake Superior							
	Public Supply	113.93	49.31	10.03	113.83	49.05	9.65
	Domestic Supply	0.00	0.00	6.61	0.00	0.00	0.00
	Irrigation	0.08	1.16	0.17			
	Livestock	0.00	0.53	0.00			
	Industrial	613.69	0.00	0.01	0.00	0.00	0.00
	Fossil Fuel Power	306.85	0.00	0.00	306.85	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	0.00	136339.00	0.00	0.00	136339.00	0.00
	Other						
	Total:	1034.55	136390.00	16.82	420.68	136388.05	9.65
Lake Huron							
	Public Supply	161.49	89.21	68.68	159.08	87.94	62.10
	Domestic Supply	0.00	0.00	40.15	0.00	0.00	0.00
	Irrigation	0.59	58.33	20.25			
	Livestock	11.08	11.63	24.27			
	Industrial	709.43	0.00	10.53	0.00	0.00	0.00
	Fossil Fuel Power	0.00	0.00	0.00	0.00	0.00	0.00
	Nuclear Power	21560.73	0.00	0.00	21560.73	0.00	0.00
	Hydroelectric Power	72662.00	80395.00	0.00	72662.00	80395.00	0.00
	Other	0.00	181.59	0.00	0.00	181.59	0.00
	Total:	95105.32	80735.76	163.88	94381.81	80664.53	62.10
Lake Erie							
	Public Supply	33.94	110.78	210.70	33.94	110.63	206.85
	Domestic Supply	0.00	0.00	75.48	0.00	0.00	0.00
	Irrigation	2.23	45.84	72.50			
	Livestock	0.08	3.36	46.60			
	Industrial	655.80	0.00	27.28	0.00	0.00	0.00
	Fossil Fuel Power	5600.00	0.00	0.00	5600.00	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	0.00	2121.00	0.00	0.00	2121.00	0.00
	Other						
	Total:	6292.05	2280.98	432.56	5633.94	2231.63	206.85

Basin	Category	All Facilities			Principal Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Lake Ontario							
	Public Supply	1519.90	200.08	43.76	1519.74	199.41	39.64
	Domestic Supply	0.00	0.00	242.90	0.00	0.00	0.00
	Irrigation	4.11	36.06	26.96			
	Livestock	0.00	3.56	16.89			
	Industrial	825.88	0.00	43.39	0.00	0.00	0.00
	Fossil Fuel Power	2736.98	0.00	0.00	2736.98	0.00	0.00
	Nuclear Power	25008.22	0.00	0.00	25008.22	0.00	0.00
	Hydroelectric Power	142525.00	55653.00	0.00	142525.00	55653.00	0.00
	Other	0.00	501.00	0.00	0.00	501.00	0.00
	Total:	172620.09	56393.70	373.90	171789.94	56353.41	39.64
St. Lawrence River							
	Public Supply	40.27	222.72	13.46	40.27	221.52	11.08
	Domestic Supply	0.00	0.00	43.35	0.00	0.00	0.00
	Irrigation	0.03	7.73	1.13			
	Livestock	0.00	13.73	8.65			
	Industrial	604.75	0.00	3.99	0.00	0.00	0.00
	Fossil Fuel Power	0.00	0.00	0.00	0.00	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	323473.00	271715.00	0.00	323473.00	271715.00	0.00
	Other	0.00	73.00	0.00	0.00	73.00	0.00
	Total:	324118.05	272032.17	70.58	323513.27	272009.52	11.08
Grand Total:		599170.06	547832.62	1057.75	595739.63	547647.14	329.31

JURISDICTION REPORT- Ontario

Jurisdiction Totals

Units: ML/d
Year Of Data: 2009

Total Report - All Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	1869.53	672.09	346.63	2888.25	0.00	0.00	433.24
Domestic Supply	0.00	0.00	408.49	408.49	0.00	0.00	61.27
Irrigation	7.04	149.13	121.01	277.17	0.00	0.00	
Livestock	11.16	32.81	96.42	140.39	0.00	0.00	
Industrial	3409.55	0.00	85.20	3494.75	0.00	0.00	220.15
Fossil Fuel Power	8643.83	0.00	0.00	8643.83	0.00	0.00	77.79
Nuclear Power	46568.95	0.00	0.00	46568.95	0.00	0.00	419.12
Hydroelectric Power	538660.00	546223.00	0.00	1084883.00	0.00	-15170.99	0.00
Other	0.00	755.59	0.00	755.59	234.59	0.00	0.00

Total Report - Principal Facilities

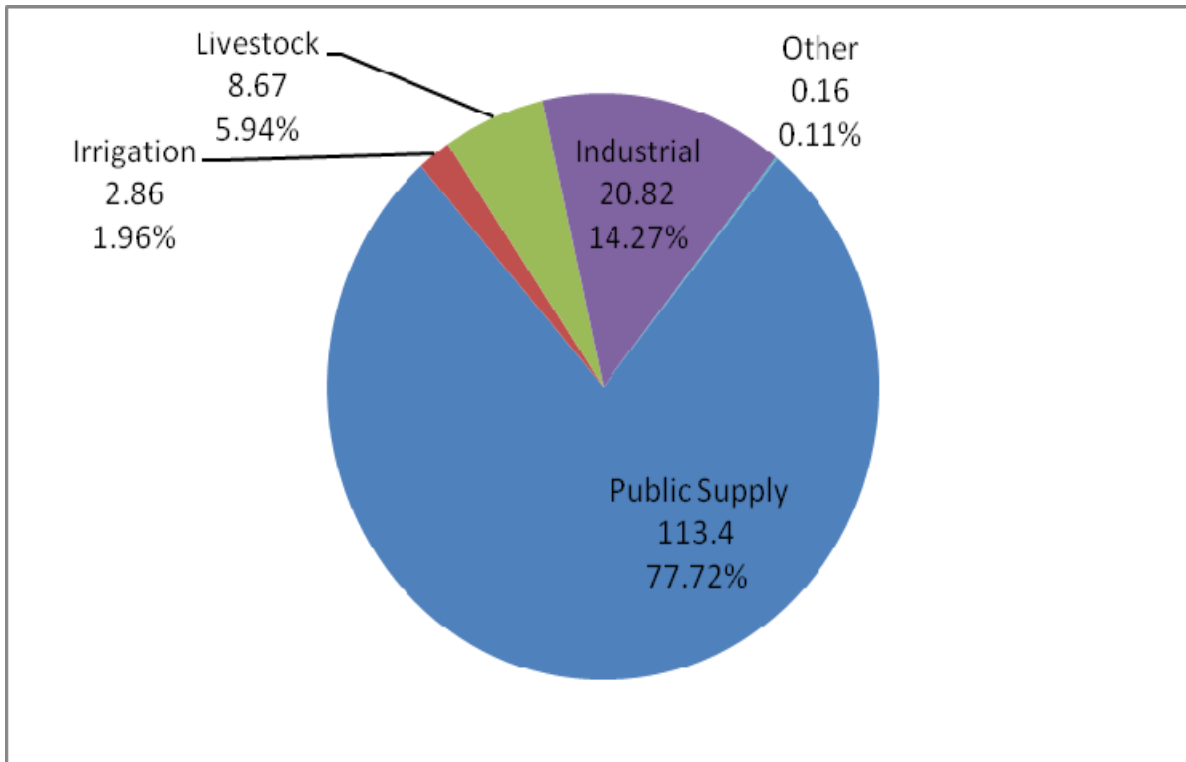
Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	1866.85	668.55	329.31	2864.71	0.00	0.00	429.71
Domestic Supply	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Irrigation					0.00	0.00	
Livestock					0.00	0.00	
Industrial	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fossil Fuel Power	8643.83	0.00	0.00	8643.83	0.00	0.00	77.79
Nuclear Power	46568.95	0.00	0.00	46568.95	0.00	0.00	419.12
Hydroelectric Power	538660.00	546223.00	0.00	1084883.00	0.00	0.00	0.00
Other	0.00	755.59	0.00	755.59	234.59	0.00	0.00

Pennsylvania

Data Sources: The Department of Environmental Protection – Bureau of Watershed Management submitted water use data for the Lake Erie and Lake Ontario basins of Pennsylvania. Please contact David Jostenski at 717/772-5659 or djostenski@state.pa.us with questions regarding Pennsylvania’s water use data.

Withdrawals: Total withdrawals from Lake Erie were 142.07 mld. Public supply at 113.41 mld or over 77 percent, and industrial at 20.82 mld or 14.3 percent, constituted the primary uses of water.

Figure 12. Pennsylvania Water Use (In millions of liters per day)



Consumptive Use: Consumptive use totaled 24.61 mld.

JURISDICTION REPORT- Pennsylvania

Withdrawals, Diversions and Consumptive Uses Units: ML/d
Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Lake Erie							
	Public Supply	113.21		11.32	110.01		11.00
	Domestic Supply						
	Irrigation	2.86		2.58	2.86		2.57
	Livestock	8.67		6.94	8.67		6.94
	Industrial	20.82		2.08	20.54		2.05
	Fossil Fuel Power						
	Nuclear Power						
	Hydroelectric Power						
	Other	0.16					
	Total:	145.73		22.92	142.08		22.56
Lake Ontario							
	Public Supply	0.19	0.02				
	Total:	0.19	0.02				
Grand Total:		145.92	0.02	22.92	142.08		22.56

JURISDICTION REPORT- Pennsylvania Withdrawals by Source

Units: ML/d
Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Lake Erie							
	Public Supply	106.06	0.45	6.70	106.06	0.45	3.49
	Domestic Supply						
	Irrigation	0.00	2.86	0.01	0.00	2.86	0.00
	Livestock	0.00	7.86	0.82	0.00	7.86	0.82
	Industrial	20.54	0.00	0.28	20.54	0.00	0.00
	Fossil Fuel Power						
	Nuclear Power						
	Hydroelectric Power						
	Other	0.00	0.16	0.00			
	Total:	126.60	11.32	7.80	126.60	11.17	4.31
Lake Ontario							
	Public Supply	0.00	0.00	0.19			
	Total:	0.00	0.00	0.19			
Grand Total:		126.60	11.32	7.99	126.60	11.17	4.31

JURISDICTION REPORT- Pennsylvania

Jurisdiction Totals

Units: ML/d

Year Of Data: 2009

Total Report - All Facilities

Category	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Public Supply	106.06	0.45	6.88	113.40		0.02	11.32
Domestic Supply							
Irrigation	0.00	2.86	0.01	2.86			2.58
Livestock	0.00	7.86	0.82	8.67			6.94
Industrial	20.54	0.00	0.28	20.82			2.08
Fossil Fuel Power							
Nuclear Power							
Hydroelectric Power							
Other	0.00	0.16	0.00	0.16			

Total Report - Principal Facilities

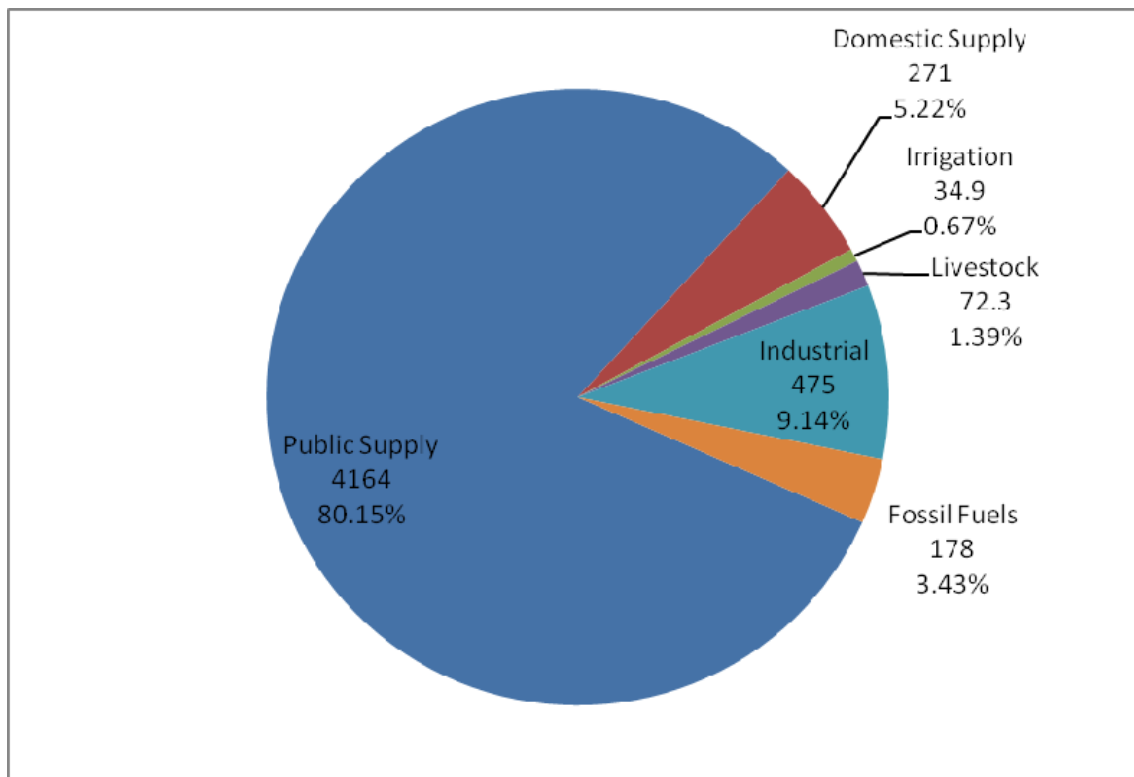
Category	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Public Supply	106.06	0.45	3.49	110.01			11.00
Domestic Supply							
Irrigation	0.00	2.86	0.00	2.86			2.57
Livestock	0.00	7.86	0.82	8.67			6.94
Industrial	20.54	0.00	0.00	20.54			2.05
Fossil Fuel Power							
Nuclear Power							
Hydroelectric Power							
Other							

Québec

Data Source: Water use data was provided by the Ministère du Développement durable, de l'Environnement et des Parcs—Centre d'expertise hydrique du Québec for this report. The Centre has compiled water use data primarily to support hydrologic and hydraulic research, floodplain delineation and hydrometric network management. Data from 1993 is being used for this report until a proposed regulation to support collection of water withdrawal data is adopted. The adoption of the regulation is expected in the fall of 2011. Please contact Veronique Lavoie at veronique.lavoie@mddep.gouv.qc.ca with questions regarding Québec's data. See the following page for an update on the status of water quantity management in Québec.

Withdrawals: Excluding hydroelectric power which accounts for 1,150.77 bld, the total water withdrawals from Québec's St. Lawrence River basin was approximately 5,195.21 mld.

Figure 13. Québec Water Use (In millions of liters per day)



Consumptive Use: Total consumptive use was 597.5 mld. Public supply accounted for 416 mld, or nearly 70 percent of the total consumptive use.

Diversions: Diversions are currently being inventoried.

Historically, water withdrawals have not been a source of great conflict in Québec; however, water shortage caused by severe drought and increasing demands for water withdrawal have brought the problem to the forefront. Since the adoption of a Water Policy by Québec's National Assembly in 2002, existing regulations have been amended to improve water management. One of the guiding principles is that users must be accountable for the utilization and degradation of water by means of a user-pays and polluter-pays approach. In June 2009, Québec adopted an Act to affirm the collective nature of water resources and provide for increased water resource protection. The implementation of this new legislation will enable Québec to implement the Agreement on its territory and to fulfill its commitments. It will also allow Québec to meet the requirements of Article 301 of the Great Lakes-St. Lawrence River Basin Sustainable Water Resources Agreement. (See http://www.mddep.gouv.qc.ca/eau/protection/index_en.htm for highlights and the complete text.)

JURISDICTION REPORT- Quebec

Withdrawals, Diversions and Consumptive Uses Units: ML/d
Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
St. Lawrence River							
	Public Supply	4164.00	0.00	416.00	4149.00	0.00	415.00
	Domestic Supply	271.00	0.00	27.00	184.00	0.00	18.00
	Irrigation	34.90	0.00	31.41		0.00	
	Livestock	72.30	0.00	57.84		0.00	
	Industrial	475.00	0.00	47.50	473.00	0.00	47.30
	Fossil Fuel Power	178.00	0.00	17.80	178.00	0.00	17.80
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	1150371.00	0.00	0.00	1150371.00	0.00	0.00
	Other		0.00			0.00	
	Total:	1155566.20	0.00	597.55	1155355.00	0.00	498.10
Grand Total:		1155566.20	0.00	597.55	1155355.00	0.00	498.10

JURISDICTION REPORT- Quebec

Withdrawals by Source

Units: ML/d
Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
St. Lawrence River							
	Public Supply	2282.00	1882.00	0.00	2281.00	1868.00	0.00
	Domestic Supply	0.00	0.00	271.00	0.00	0.00	184.00
	Irrigation	0.00	0.00	34.90			
	Livestock	0.00	0.00	72.30			
	Industrial	0.00	475.00	0.00	0.00	473.00	0.00
	Fossil Fuel Power	148.00	30.00	0.00	148.00	30.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	647102.00	503269.00	0.00	647102.00	503269.00	0.00
	Other						
	Total:	649532.00	505656.00	378.20	649531.00	505640.00	184.00
Grand Total:		649532.00	505656.00	378.20	649531.00	505640.00	184.00

JURISDICTION REPORT- Quebec

Jurisdiction Totals

Units: ML/d
Year Of Data: 2009

Total Report - All Facilities

Category	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Public Supply	2282.00	1882.00	0.00	4164.00	0.00	0.00	416.00
Domestic Supply	0.00	0.00	271.00	271.00	0.00	0.00	27.00
Irrigation	0.00	0.00	34.90	34.90	0.00	0.00	31.41
Livestock	0.00	0.00	72.30	72.30	0.00	0.00	57.84
Industrial	0.00	475.00	0.00	475.00	0.00	0.00	47.50
Fossil Fuel Power	148.00	30.00	0.00	178.00	0.00	0.00	17.80
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydroelectric Power	647102.00	503269.00	0.00	1150371.00	0.00	0.00	0.00
Other					0.00	0.00	

Total Report - Principal Facilities

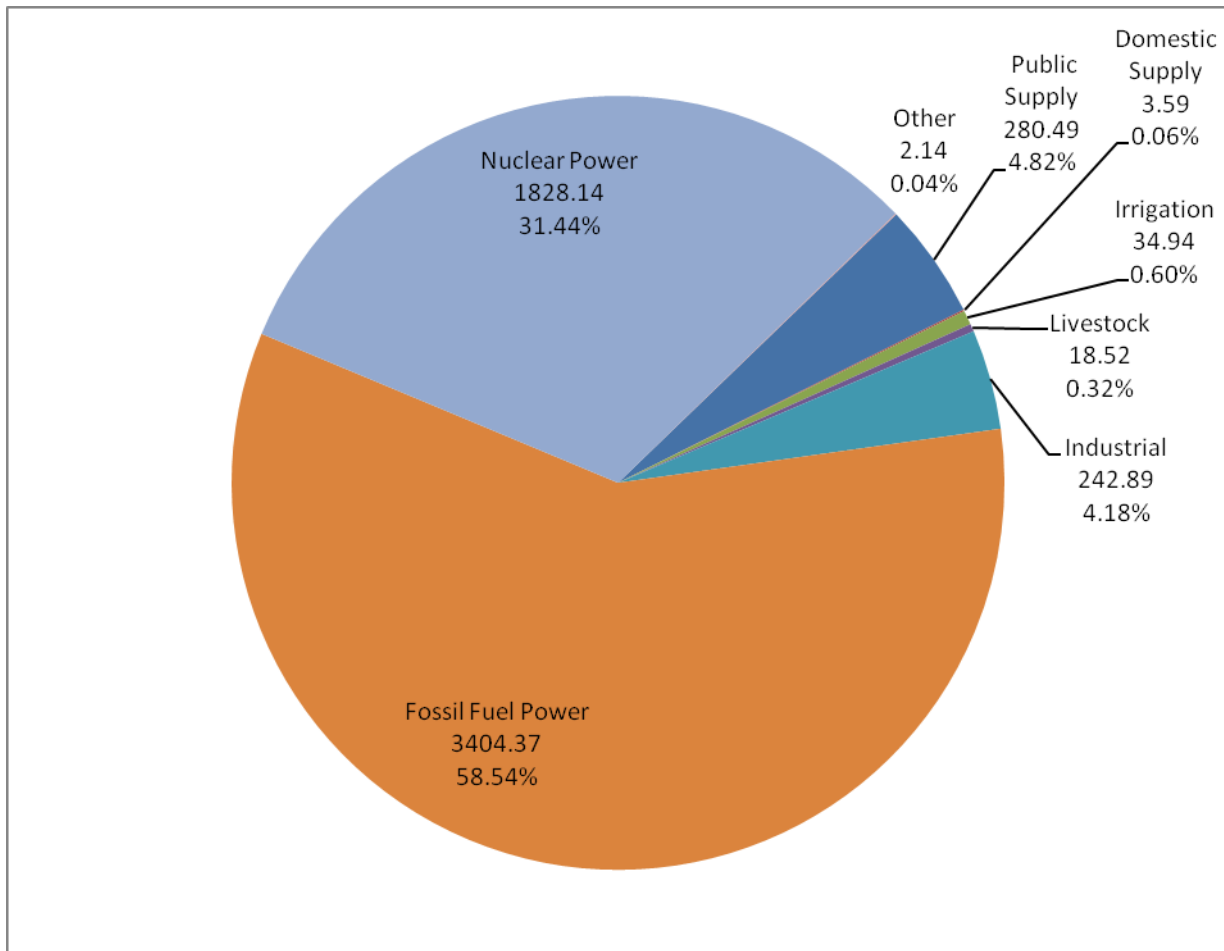
Category	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Public Supply	2281.00	1868.00	0.00	4149.00	0.00	0.00	415.00
Domestic Supply	0.00	0.00	184.00	184.00	0.00	0.00	18.00
Irrigation					0.00	0.00	
Livestock					0.00	0.00	
Industrial	0.00	473.00	0.00	473.00	0.00	0.00	47.30
Fossil Fuel Power	148.00	30.00	0.00	178.00	0.00	0.00	17.80
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydroelectric Power	647102.00	503269.00	0.00	1150371.00	0.00	0.00	0.00
Other					0.00	0.00	

Wisconsin

Data Sources: Wisconsin 2009 water use data for the Lake Michigan and Lake Superior basins were submitted by the Wisconsin Department of Natural Resources—Bureau of Water Resources Management. Contact Shaili Pfeiffer at 608/267-7630 or Shaili.Pfeiffer@wisconsin.gov with questions regarding Wisconsin’s water use data.

Withdrawals: Total withdrawals were 5,815.08 mgd: 5,747.04 mgd from Lake Michigan (98.8% of the total) and 68.04 mgd from Lake Superior. Water use in the Lake Michigan basin was primarily for fossil fuel (3,353.37 mgd) and nuclear power (1,828.14 mgd)—at 58 percent and 32 percent respectively. Of the Lake Superior uses, the largest single use was for fossil fuel at 51.00 mgd at 75 percent.

Figure 14. Wisconsin Water Use (In millions of gallons per day)



Consumptive Use: Consumptive uses from Wisconsin’s portion of the basin were calculated to be 118.91 mgd.

Interbasin Diversions: A withdrawal for public supply at Pleasant Prairie diverts 0.50 mgd from the Lake Michigan basin to the Mississippi River basin.

JURISDICTION REPORT- Wisconsin

Withdrawals, Diversions and Consumptive Uses Units: Mgal(US)/d
Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Lake Superior							
	Public Supply	1.38	0.00	0.14			
	Domestic Supply	0.04	0.00	0.00			
	Irrigation	0.17	0.00	0.12			
	Livestock	1.54	0.00	1.39			
	Industrial	13.91	0.00	1.42			
	Fossil Fuel Power	51.00	0.00	0.25			
	Nuclear Power	0.00	0.00	0.00			
	Hydroelectric Power	0.00	0.00	0.00			
	Other	0.00	0.00	0.00			
	Total:	68.04	0.00	3.32			
Lake Michigan							
	Public Supply	279.11	0.50	27.91			
	Domestic Supply	3.55	0.00	0.36			
	Irrigation	34.77	0.00	24.34			
	Livestock	16.98	0.00	15.29			
	Industrial	228.98	0.00	21.78			
	Fossil Fuel Power	3353.37	0.00	16.77			
	Nuclear Power	1828.14	0.00	9.14			
	Hydroelectric Power	0.00	0.00	0.00			
	Other	2.14	-25.85				
	Total:	5747.04	-25.35	115.59			
Grand Total:		5815.08	-25.35	118.91			

JURISDICTION REPORT- Wisconsin

Withdrawals by Source

Units: Mgal(US)/d
Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Lake Superior							
	Public Supply	0.67	0.00	0.71			
	Domestic Supply	0.00	0.00	0.04			
	Irrigation	0.00	0.15	0.02			
	Livestock	0.00	0.03	1.51			
	Industrial	13.80	0.10	0.01			
	Fossil Fuel Power	50.56	0.44	0.00			
	Nuclear Power	0.00	0.00	0.00			
	Hydroelectric Power	0.00	0.00	0.00			
	Other	0.00	0.00	0.00			
	Total:	65.03	0.72	2.29			
Lake Michigan							
	Public Supply	206.01	20.86	52.24			
	Domestic Supply	0.00	0.00	3.55			
	Irrigation	0.00	3.90	30.87			
	Livestock	0.00	2.04	14.94			
	Industrial	1.84	211.65	15.49			
	Fossil Fuel Power	2703.05	650.32	0.00			
	Nuclear Power	1828.09	0.00	0.05			
	Hydroelectric Power	0.00	0.00	0.00			
	Other	0.00	0.00	2.14			
	Total:	4738.99	888.77	119.28			
Grand Total:		4804.02	889.49	121.57			

JURISDICTION REPORT- Wisconsin

Jurisdiction Totals

Units: Mgal(US)/d

Year Of Data: 2009

Total Report - All Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	206.68	20.86	52.95	280.49	0.00	0.50	28.05
Domestic Supply	0.00	0.00	3.59	3.59	0.00	0.00	0.36
Irrigation	0.00	4.05	30.89	34.94	0.00	0.00	24.46
Livestock	0.00	2.07	16.45	18.52	0.00	0.00	16.68
Industrial	15.64	211.75	15.50	242.89	0.00	0.00	23.20
Fossil Fuel Power	2753.61	650.76	0.00	3404.37	0.00	0.00	17.02
Nuclear Power	1828.09	0.00	0.05	1828.14	0.00	0.00	9.14
Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.00	0.00	2.14	2.14	0.00	-25.85	0.00

Total Report - Principal Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply							
Domestic Supply							
Irrigation							
Livestock							
Industrial							
Fossil Fuel Power							
Nuclear Power							
Hydroelectric Power							
Other							

Basin Tables

Each Great Lake and St. Lawrence River basin is represented by three tables:

- Withdrawals, diversions and consumptive uses;
- Withdrawals by sources; and
- Basin totals.

BASIN REPORT - Lake Superior

Withdrawals, Diversions
and Consumptive Uses

Units: ML/d
Year Of Data: 2009

Jurisdiction	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Michigan							
	Public Supply	53.57		6.70	50.43		6.30
	Domestic Supply						
	Irrigation	3.83		3.45	3.62		3.26
	Livestock						
	Industrial	33.29		3.33	32.83		3.28
	Fossil Fuel Power	814.75		1.22	814.75		1.22
	Nuclear Power						
	Hydroelectric Power						
	Other						
	Total	905.44		14.69	901.62		14.06
Minnesota							
	Public Supply	151.04	0.00	15.07	149.90	0.00	14.95
	Domestic Supply	4.77	0.00	0.45	4.35	0.00	0.42
	Irrigation	1.82	0.00	0.00	0.00	0.00	0.00
	Livestock	3.10	0.00	2.76	2.80	0.00	2.54
	Industrial	1414.80	23.28	141.46	1413.51	23.28	141.35
	Fossil Fuel Power	660.06	0.00	13.21	659.68	0.00	13.21
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	13037.41	0.00	0.00	13037.41	0.00	0.00
	Other	0.34	0.00	0.00	0.00	0.00	0.00
	Total	15273.34	23.28	172.96	15267.66	23.28	172.46
Ontario							
	Public Supply	173.27	0.00	26.00	172.52	0.00	25.88
	Domestic Supply	6.61	0.00	0.99	0.00	0.00	0.00
	Irrigation	1.42	0.00			0.00	
	Livestock	0.53	0.00			0.00	
	Industrial	613.70	0.00	38.66	0.00	0.00	0.00
	Fossil Fuel Power	306.85	0.00	2.76	306.85	0.00	2.76
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	136339.00	-15170.99	0.00	136339.00	0.00	0.00
	Other		0.00			0.00	
	Total	137441.38	-15170.99	68.41	136818.37	0.00	28.64

Jurisdiction	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Wisconsin							
	Public Supply	5.22	0.00	0.53			
	Domestic Supply	0.15	0.00	0.00			
	Irrigation	0.64	0.00	0.45			
	Livestock	5.83	0.00	5.26			
	Industrial	52.66	0.00	5.38			
	Fossil Fuel Power	193.06	0.00	0.95			
	Nuclear Power	0.00	0.00	0.00			
	Hydroelectric Power	0.00	0.00	0.00			
	Other	0.00	0.00	0.00			
	Total	257.56	0.00	12.57			
Grand Total:		153877.72	-15147.71	268.63	152987.66	23.28	215.17

BASIN REPORT- Lake Superior

Units: ML/d
 Withdrawals by Source
 Year Of Data: 2009

Jurisdiction	Category	All Facilities			Principle Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Michigan							
	Public Supply	19.69	0.00	33.89	19.69	0.00	30.75
	Domestic Supply						
	Irrigation	0.03	1.59	2.21	0.00	1.44	2.17
	Livestock						
	Industrial	32.83	0.00	0.46	32.83	0.00	0.00
	Fossil Fuel Power	814.75	0.00	0.00	814.75	0.00	0.00
	Nuclear Power						
	Hydroelectric Power						
	Other						
	TOTAL	867.29	1.59	36.56	867.26	1.44	32.92
Minnesota							
	Public Supply	120.91	7.00	23.13	120.79	7.00	22.11
	Domestic Supply	3.03	1.59	0.15	2.76	1.59	0.00
	Irrigation	0.23	1.14	0.45	0.00	0.00	0.00
	Livestock	3.10	0.00	0.00	2.80	0.00	0.00
	Industrial	1111.47	303.25	0.08	1111.17	302.34	0.00
	Fossil Fuel Power	71.28	588.44	0.34	71.28	588.40	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	0.00	13037.41	0.00	0.00	13037.41	0.00
	Other	0.00	0.00	0.34	0.00	0.00	0.00
	TOTAL	1310.02	13938.83	24.49	1308.81	13936.75	22.11
Ontario							
	Public Supply	113.93	49.31	10.03	113.83	49.05	9.65
	Domestic Supply	0.00	0.00	6.61	0.00	0.00	0.00
	Irrigation	0.08	1.16	0.17			
	Livestock	0.00	0.53	0.00			
	Industrial	613.69	0.00	0.01	0.00	0.00	0.00
	Fossil Fuel Power	306.85	0.00	0.00	306.85	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	0.00	136339.00	0.00	0.00	136339.00	0.00
	Other						
	TOTAL	1034.55	136390.00	16.82	420.68	136388.05	9.65

Jurisdiction	Category	All Facilities			Principle Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Wisconsin							
	Public Supply	2.54	0.00	2.69			
	Domestic Supply	0.00	0.00	0.15			
	Irrigation	0.00	0.57	0.08			
	Livestock	0.00	0.11	5.72			
	Industrial	52.24	0.38	0.04			
	Fossil Fuel Power	191.39	1.67	0.00			
	Nuclear Power	0.00	0.00	0.00			
	Hydroelectric Power	0.00	0.00	0.00			
	Other	0.00	0.00	0.00			
	TOTAL	246.17	2.73	8.67			
Grand Total:		3458.03	150333.16	86.54	2596.74	150326.24	64.67

BASIN REPORT- Lake Superior

Basin Totals

Units: ML/d
Year Of Data: 2009

Total Report - All Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	257.06	56.31	69.73	383.11	-1.33	0.00	48.29
Domestic Supply	3.03	1.59	6.91	11.53	0.00	0.00	1.44
Irrigation	0.34	4.46	2.91	7.71	0.00	0.00	3.90
Livestock	3.10	0.65	5.72	9.47	0.00	0.00	8.03
Industrial	1810.23	303.63	0.58	2114.44	0.00	23.28	188.82
Fossil Fuel Power	1384.27	590.11	0.34	1974.71	0.00	0.00	18.14
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydroelectric Power	0.00	149376.41	0.00	149376.41	0.00	-15170.99	0.00
Other	0.00	0.00	0.34	0.34	0.00	0.00	0.00

Total Report - Principal Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	254.31	56.05	62.50	372.86	-1.33	0.00	47.14
Domestic Supply	2.76	1.59	0.00	4.35	0.00	0.00	0.42
Irrigation	0.00	1.44	2.17	3.62	0.00	0.00	3.26
Livestock	2.80	0.00	0.00	2.80	0.00	0.00	2.54
Industrial	1144.00	302.34	0.00	1446.34	0.00	23.28	144.63
Fossil Fuel Power	1192.87	588.40	0.00	1781.28	0.00	0.00	17.20
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydroelectric Power	0.00	149376.41	0.00	149376.41	0.00	0.00	0.00
Other	0.00	0.00	0.00	0.00	0.00	0.00	0.00

BASIN REPORT- Lake Michigan

Withdrawals, Diversions
and Consumptive Uses

Units: ML/d
Year Of Data: 2009

Jurisdiction	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Illinois							
	Public Supply	3523.29	3523.29	0.00	3523.12	3523.12	0.00
	Domestic Supply	9.18	9.17	0.00	9.18	9.17	0.00
	Irrigation	0.41	0.00	0.00	0.41	0.00	0.00
	Livestock						
	Industrial	67.60	0.05	0.00	67.60	0.05	0.00
	Fossil Fuel Power	4421.13	0.00	0.00	4421.13	0.00	0.00
	Nuclear Power	119.92	0.00	0.00	119.92	0.00	0.00
	Hydroelectric Power						
	Other	875.69	875.69	0.00	875.69	875.69	0.00
	Total	9017.23	4408.20	0.00	9017.06	4408.03	0.00
Indiana							
	Public Supply	506.56	194.65	76.01	505.43	194.65	75.82
	Domestic Supply	88.05	0.00	13.21	85.40	0.00	12.83
	Irrigation	143.20	0.00	128.89	139.95	0.00	125.94
	Livestock	14.35	0.00	11.47	14.23	0.00	11.39
	Industrial	5671.76	79.80	340.31	5670.51	79.80	340.23
	Fossil Fuel Power	2705.40	0.00	54.09	2705.40	0.00	54.09
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00
	Other	0.19	0.00	0.04	0.00	0.00	0.00
	Total	9129.51	274.44	624.03	9120.91	274.44	620.32
Michigan							
	Public Supply	943.74		117.97	912.21		114.03
	Domestic Supply	19.55		2.44	18.51		2.31
	Irrigation	665.80		599.23	607.76		546.98
	Livestock	22.73		18.19	9.30		7.44
	Industrial	782.88		78.29	776.80		77.68
	Fossil Fuel Power	4058.65		327.93	4058.43		327.84
	Nuclear Power	6095.39		73.15	6095.39		73.15
	Hydroelectric Power						
	Other	14.52		0.00	14.52		0.00
	Total	12603.25		1217.19	12492.92		1149.42

Jurisdiction	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Wisconsin							
	Public Supply	1056.55	1.89	105.65			
	Domestic Supply	13.44	0.00	1.36			
	Irrigation	131.62	0.00	92.14			
	Livestock	64.28	0.00	57.88			
	Industrial	866.78	0.00	82.45			
	Fossil Fuel Power	12693.89	0.00	63.48			
	Nuclear Power	6920.26	0.00	34.60			
	Hydroelectric Power	0.00	0.00	0.00			
	Other	8.10	-97.85				
	Total	21754.91	-95.96	437.56			
Grand Total:		52504.90	4586.69	2278.77	30630.88	4682.48	1769.73

BASIN REPORT- Lake Michigan

Units: ML/d
 Withdrawals by Source
 Year Of Data: 2009

Jurisdiction	Category	All Facilities			Principle Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Illinois							
	Public Supply	3523.29	0.00	0.00	3523.12	0.00	0.00
	Domestic Supply	9.17	0.00	0.02	9.17	0.00	0.02
	Irrigation	0.00	0.00	0.41	0.00	0.00	0.41
	Livestock						
	Industrial	67.60	0.00	0.00	67.60	0.00	0.00
	Fossil Fuel Power	4421.13	0.00	0.00	4421.13	0.00	0.00
	Nuclear Power	119.92	0.00	0.00	119.92	0.00	0.00
	Hydroelectric Power						
	Other	875.69	0.00	0.00	875.69	0.00	0.00
	TOTAL	9016.80	0.00	0.42	9016.63	0.00	0.42
Indiana							
	Public Supply	337.05	0.00	169.51	337.05	0.00	168.38
	Domestic Supply	0.00	58.75	29.30	0.00	58.67	26.73
	Irrigation	0.00	27.86	115.34	0.00	26.91	113.03
	Livestock	0.00	5.11	9.24	0.00	5.11	9.12
	Industrial	5638.11	8.25	25.40	5638.07	8.25	24.19
	Fossil Fuel Power	2705.40	0.00	0.00	2705.40	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.19	0.00	0.00	0.00
	TOTAL	8680.56	99.97	348.98	8680.52	98.95	341.44
Michigan							
	Public Supply	444.49	0.00	499.25	444.49	0.00	467.72
	Domestic Supply	0.00	8.82	10.73	0.00	8.75	9.76
	Irrigation	1.01	173.01	491.79	0.92	151.99	454.85
	Livestock	0.00	4.06	18.67	0.00	4.06	5.24
	Industrial	170.34	420.90	191.64	170.28	420.65	185.87
	Fossil Fuel Power	2566.91	1480.93	10.80	2566.91	1480.91	10.61
	Nuclear Power	6095.39	0.00	0.00	6095.39	0.00	0.00
	Hydroelectric Power						
	Other	0.00	0.00	14.52	0.00	0.00	14.52
	TOTAL	9278.14	2087.72	1237.39	9277.98	2066.37	1148.57

Jurisdiction	Category	All Facilities			Principle Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Wisconsin							
	Public Supply	779.83	78.96	197.75			
	Domestic Supply	0.00	0.00	13.44			
	Irrigation	0.00	14.76	116.86			
	Livestock	0.00	7.72	56.55			
	Industrial	6.97	801.18	58.64			
	Fossil Fuel Power	10232.16	2461.73	0.00			
	Nuclear Power	6920.07	0.00	0.19			
	Hydroelectric Power	0.00	0.00	0.00			
	Other	0.00	0.00	8.10			
	TOTAL	17939.03	3364.36	451.52			
Grand Total:		44914.52	5552.06	2038.32	26975.13	2165.32	1490.43

BASIN REPORT- Lake Michigan

Basin Totals

Units: ML/d
Year Of Data: 2009

Total Report - All Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	5084.67	78.96	866.51	6030.14	1.65	3719.83	299.63
Domestic Supply	9.17	67.57	53.48	130.22	0.00	9.17	17.02
Irrigation	1.01	215.63	724.39	941.03	0.00	0.00	820.26
Livestock	0.00	16.89	84.46	101.35	0.00	0.00	87.53
Industrial	5883.00	1230.33	275.68	7389.02	0.00	79.85	501.04
Fossil Fuel Power	19925.59	3942.66	10.80	23879.06	0.00	0.00	445.50
Nuclear Power	13135.38	0.00	0.19	13135.57	0.00	0.00	107.74
Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	875.69	0.00	22.81	898.50	0.00	777.84	0.04

Total Report - Principal Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	4304.66	0.00	636.09	4940.76	1.65	3717.77	189.85
Domestic Supply	9.17	67.43	36.50	113.09	0.00	9.17	15.15
Irrigation	0.92	178.90	568.29	748.11	0.00	0.00	672.92
Livestock	0.00	9.17	14.37	23.53	0.00	0.00	18.83
Industrial	5875.94	428.91	210.06	6514.91	0.00	79.85	417.91
Fossil Fuel Power	9693.44	1480.91	10.61	11184.96	0.00	0.00	381.93
Nuclear Power	6215.31	0.00	0.00	6215.31	0.00	0.00	73.15
Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	875.69	0.00	14.52	890.21	0.00	875.69	0.00

BASIN REPORT - Lake Huron

Withdrawals, Diversions
and Consumptive Uses

Units: ML/d
Year Of Data: 2009

Jurisdiction	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Michigan							
	Public Supply	449.40		56.18	436.78		54.60
	Domestic Supply	0.22		0.03			
	Irrigation	529.14		476.22	521.85		469.66
	Livestock	10.09		8.07	6.89		5.52
	Industrial	299.97		30.00	298.75		29.87
	Fossil Fuel Power	2598.03		420.58	2598.03		420.58
	Nuclear Power						
	Hydroelectric Power						
	Other						
	Total	3886.85		991.07	3862.30		980.23
Ontario							
	Public Supply	319.38	0.00	47.90	309.12	0.00	46.36
	Domestic Supply	40.15	0.00	6.02	0.00	0.00	0.00
	Irrigation	79.17	0.00			0.00	
	Livestock	46.99	0.00			0.00	
	Industrial	719.96	0.00	45.35	0.00	0.00	0.00
	Fossil Fuel Power	0.00	0.00	0.00	0.00	0.00	0.00
	Nuclear Power	21560.73	0.00	194.05	21560.73	0.00	194.05
	Hydroelectric Power	153057.00	0.00	0.00	153057.00	0.00	0.00
	Other	181.59	0.00	0.00	181.59	0.00	0.00
	Total	176004.96	0.00	293.32	175108.44	0.00	240.41
Grand Total:		179891.82	0.00	1284.38	178970.74	0.00	1220.64

BASIN REPORT- Lake Huron

Units: ML/d
 Withdrawals by Source
 Year Of Data: 2009

Jurisdiction	Category	All Facilities			Principle Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Michigan							
	Public Supply	350.03	3.87	95.50	349.19	3.87	83.73
	Domestic Supply	0.00	0.00	0.22			
	Irrigation	0.45	487.10	41.59	0.39	483.32	38.13
	Livestock	0.00	3.65	6.44	0.00	3.65	3.25
	Industrial	56.30	145.52	98.15	56.30	145.29	97.16
	Fossil Fuel Power	619.42	1975.73	2.88	619.42	1975.73	2.88
	Nuclear Power						
	Hydroelectric Power						
	Other						
	TOTAL	1026.21	2615.86	244.79	1025.29	2611.85	225.15
Ontario							
	Public Supply	161.49	89.21	68.68	159.08	87.94	62.10
	Domestic Supply	0.00	0.00	40.15	0.00	0.00	0.00
	Irrigation	0.59	58.33	20.25			
	Livestock	11.08	11.63	24.27			
	Industrial	709.43	0.00	10.53	0.00	0.00	0.00
	Fossil Fuel Power	0.00	0.00	0.00	0.00	0.00	0.00
	Nuclear Power	21560.73	0.00	0.00	21560.73	0.00	0.00
	Hydroelectric Power	72662.00	80395.00	0.00	72662.00	80395.00	0.00
	Other	0.00	181.59	0.00	0.00	181.59	0.00
	TOTAL	95105.32	80735.76	163.88	94381.81	80664.53	62.10
Grand Total:		96131.53	83351.62	408.67	95407.10	83276.38	287.25

BASIN REPORT- Lake Huron

Basin Totals

Units: ML/d
Year Of Data: 2009

Total Report - All Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	511.53	93.07	164.18	768.78	0.00	0.00	104.08
Domestic Supply	0.00	0.00	40.37	40.37	0.00	0.00	6.05
Irrigation	1.04	545.43	61.84	608.31	0.00	0.00	476.22
Livestock	11.08	15.28	30.72	57.08	0.00	0.00	8.07
Industrial	765.73	145.52	108.68	1019.93	0.00	0.00	75.35
Fossil Fuel Power	619.42	1975.73	2.88	2598.03	0.00	0.00	420.58
Nuclear Power	21560.73	0.00	0.00	21560.73	0.00	0.00	194.05
Hydroelectric Power	72662.00	80395.00	0.00	153057.00	0.00	0.00	0.00
Other	0.00	181.59	0.00	181.59	181.59	0.00	0.00

Total Report - Principal Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	508.27	91.81	145.82	745.90	0.00	0.00	100.96
Domestic Supply	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Irrigation	0.39	483.32	38.13	521.85	0.00	0.00	469.66
Livestock	0.00	3.65	3.25	6.89	0.00	0.00	5.52
Industrial	56.30	145.29	97.16	298.75	0.00	0.00	29.87
Fossil Fuel Power	619.42	1975.73	2.88	2598.03	0.00	0.00	420.58
Nuclear Power	21560.73	0.00	0.00	21560.73	0.00	0.00	194.05
Hydroelectric Power	72662.00	80395.00	0.00	153057.00	0.00	0.00	0.00
Other	0.00	181.59	0.00	181.59	181.59	0.00	0.00

BASIN REPORT - Lake Erie

Withdrawals, Diversions
and Consumptive Uses

Units: ML/d
Year Of Data: 2009

Jurisdiction	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Indiana							
	Public Supply	145.51	26.80	21.84	144.83	26.80	21.73
	Domestic Supply	3.71	0.00	0.57	3.14	0.00	0.45
	Irrigation	4.54	0.00	4.09	3.67	0.00	3.29
	Livestock	0.00	0.00	0.00	0.00	0.00	0.00
	Industrial	27.33	0.00	1.63	26.76	0.00	1.59
	Fossil Fuel Power	1.02	0.00	0.04	1.02	0.00	0.04
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	0.00	0.00	0.00
	Total	182.12	26.80	28.16	179.43	26.80	27.10
Michigan							
	Public Supply	2368.23		296.03	2355.86		294.48
	Domestic Supply	0.42		0.05	0.31		0.04
	Irrigation	56.66		51.00	48.27		43.45
	Livestock	2.31		1.84	0.56		0.45
	Industrial	942.31		94.23	942.31		94.23
	Fossil Fuel Power	15220.96		156.17	15220.96		156.17
	Nuclear Power	188.68		72.45	188.68		72.45
	Hydroelectric Power						
	Other	9.81		0.00	9.81		0.00
	Total	18789.38		671.77	18766.77		661.27
New York							
	Public Supply	999.46	0.00	99.93		0.00	
	Domestic Supply	167.85	0.00	16.81	12.72	0.00	1.29
	Irrigation	1.85	0.00	1.67	1.85	0.00	1.67
	Livestock	33.54	0.00	30.21		0.00	
	Industrial	596.88	0.00	149.26	596.88	0.00	149.26
	Fossil Fuel Power	2666.29	0.00	53.34	2666.29	0.00	53.34
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	172554.22	0.00	0.00	172554.22	0.00	0.00
	Other	3.52	0.00	3.41	3.52	0.00	0.34
	Total	177023.62	0.00	354.62	175835.49	0.00	205.89

Jurisdiction	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Ohio							
	Public Supply	1999.15	1.21	299.88	1984.73	1.21	297.72
	Domestic Supply	222.58	0.00	33.39	1.14	0.00	0.19
	Irrigation	98.23	0.00	88.39	90.85	0.00	81.76
	Livestock	46.48	0.00	37.17	3.33	0.00	2.65
	Industrial	725.47	0.00	55.42	723.20	0.00	55.19
	Fossil Fuel Power	7293.20	0.00	72.94	7293.20	0.00	72.94
	Nuclear Power	510.46	0.00	51.07	510.46	0.00	51.07
	Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00
	Other	35.73	-36.45	12.91	35.20	-36.45	12.49
	Total	10931.32	-35.24	651.17	10642.12	-35.24	574.02
Ontario							
	Public Supply	355.41	0.00	53.31	351.42	0.00	52.71
	Domestic Supply	75.48	0.00	11.32	0.00	0.00	0.00
	Irrigation	120.57	0.00			0.00	
	Livestock	50.04	0.00			0.00	
	Industrial	683.08	0.00	43.03	0.00	0.00	0.00
	Fossil Fuel Power	5600.00	0.00	50.40	5600.00	0.00	50.40
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	2121.00	0.00	0.00	2121.00	0.00	0.00
	Other		0.00			0.00	
	Total	9005.59	0.00	158.06	8072.42	0.00	103.11
Pennsylvania							
	Public Supply	113.21		11.32	110.01		11.00
	Domestic Supply						
	Irrigation	2.86		2.58	2.86		2.57
	Livestock	8.67		6.94	8.67		6.94
	Industrial	20.82		2.08	20.54		2.05
	Fossil Fuel Power						
	Nuclear Power						
	Hydroelectric Power						
	Other	0.16					
	Total	145.73		22.92	142.08		22.56
Grand Total:		216077.76	-8.44	1886.70	213638.30	-8.44	1593.96

BASIN REPORT- Lake Erie

Units: ML/d
Withdrawals by Source
Year Of Data: 2009

Jurisdiction	Category	All Facilities			Principle Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Indiana							
	Public Supply	0.00	121.28	24.23	0.00	121.28	23.55
	Domestic Supply	0.00	0.00	3.71	0.00	0.00	3.14
	Irrigation	0.00	1.06	3.48	0.00	0.87	2.80
	Livestock	0.00	0.00	0.00	0.00	0.00	0.00
	Industrial	0.00	13.44	13.89	0.00	13.32	13.44
	Fossil Fuel Power	0.00	0.00	1.02	0.00	0.00	1.02
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00
	Other	0.00	0.00	0.00	0.00	0.00	0.00
	TOTAL	0.00	135.78	46.33	0.00	135.48	43.95
Michigan							
	Public Supply	2169.75	69.97	128.51	2169.75	69.70	116.41
	Domestic Supply	0.00	0.00	0.42	0.00	0.00	0.31
	Irrigation	0.65	31.66	24.36	0.18	27.02	21.07
	Livestock	0.00	1.27	1.03	0.00	0.56	0.00
	Industrial	780.89	62.85	98.58	780.89	62.85	98.58
	Fossil Fuel Power	14768.75	451.81	0.39	14768.75	451.81	0.39
	Nuclear Power	188.68	0.00	0.00	188.68	0.00	0.00
	Hydroelectric Power						
	Other	0.00	4.16	5.64	0.00	4.16	5.64
	TOTAL	17908.72	621.72	258.94	17908.25	616.11	242.41
New York							
	Public Supply	698.71	273.00	27.75			
	Domestic Supply	86.91	12.72	68.21	0.00	12.72	0.00
	Irrigation	1.21	0.64	0.00	1.21	0.64	0.00
	Livestock	3.44	11.05	19.04			
	Industrial	578.03	3.33	15.52	578.03	3.33	15.52
	Fossil Fuel Power	2666.29	0.00	0.00	2666.29	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	172554.22	0.00	0.00	172554.22	0.00	0.00
	Other	0.00	3.52	0.00	0.00	3.52	0.00
	TOTAL	176588.83	304.27	130.52	175799.76	20.21	15.52

Jurisdiction	Category	All Facilities			Principle Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Ohio							
	Public Supply	1505.04	375.10	119.01	1504.93	374.64	105.16
	Domestic Supply	1.14	0.26	221.18	1.14	0.00	0.00
	Irrigation	10.49	76.31	11.43	10.45	71.32	9.08
	Livestock	0.00	5.68	40.81	0.00	1.67	1.67
	Industrial	151.57	378.69	195.21	151.45	378.12	193.62
	Fossil Fuel Power	4974.03	2319.17	0.00	4974.03	2319.17	0.00
	Nuclear Power	510.46	0.00	0.00	510.46	0.00	0.00
	Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00
	Other	2.38	31.00	2.35	2.20	30.96	2.04
	TOTAL	7155.11	3186.22	589.99	7154.66	3175.88	311.58
Ontario							
	Public Supply	33.94	110.78	210.70	33.94	110.63	206.85
	Domestic Supply	0.00	0.00	75.48	0.00	0.00	0.00
	Irrigation	2.23	45.84	72.50			
	Livestock	0.08	3.36	46.60			
	Industrial	655.80	0.00	27.28	0.00	0.00	0.00
	Fossil Fuel Power	5600.00	0.00	0.00	5600.00	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	0.00	2121.00	0.00	0.00	2121.00	0.00
	Other						
	TOTAL	6292.05	2280.98	432.56	5633.94	2231.63	206.85
Pennsylvania							
	Public Supply	106.06	0.45	6.70	106.06	0.45	3.49
	Domestic Supply						
	Irrigation	0.00	2.86	0.01	0.00	2.86	0.00
	Livestock	0.00	7.86	0.82	0.00	7.86	0.82
	Industrial	20.54	0.00	0.28	20.54	0.00	0.00
	Fossil Fuel Power						
	Nuclear Power						
	Hydroelectric Power						
	Other	0.00	0.16	0.00			
	TOTAL	126.60	11.32	7.80	126.60	11.17	4.31
Grand Total:		208071.30	6540.30	1466.16	206623.20	6190.49	824.61

BASIN REPORT- Lake Erie

Basin Totals

Units: ML/d
Year Of Data: 2009

Total Report - All Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	4513.50	950.59	516.90	5980.98	-0.32	28.01	782.32
Domestic Supply	88.05	12.98	369.01	470.04	0.00	0.00	62.14
Irrigation	14.58	158.37	111.78	284.73	0.00	0.00	147.72
Livestock	3.52	29.22	108.30	141.04	0.00	0.00	76.16
Industrial	2186.83	458.31	350.77	2995.90	0.00	0.00	345.65
Fossil Fuel Power	28009.08	2770.98	1.42	30781.48	0.00	0.00	332.89
Nuclear Power	699.14	0.00	0.00	699.14	0.00	0.00	123.52
Hydroelectric Power	172554.22	2121.00	0.00	174675.22	0.00	0.00	0.00
Other	2.38	38.84	7.99	49.22	22017.43	-36.45	16.32

Total Report - Principal Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	3814.68	676.72	455.45	4946.85	-0.32	28.01	677.64
Domestic Supply	1.14	12.72	3.46	17.31	0.00	0.00	1.97
Irrigation	11.84	102.71	32.96	147.51	0.00	0.00	132.74
Livestock	0.00	10.08	2.48	12.57	0.00	0.00	10.04
Industrial	1530.91	457.63	321.16	2309.70	0.00	0.00	302.32
Fossil Fuel Power	28009.08	2770.98	1.42	30781.48	0.00	0.00	332.89
Nuclear Power	699.14	0.00	0.00	699.14	0.00	0.00	123.52
Hydroelectric Power	172554.22	2121.00	0.00	174675.22	0.00	0.00	0.00
Other	2.20	38.65	7.69	48.53	22017.43	-36.45	12.83

BASIN REPORT - Lake Ontario

Withdrawals, Diversions
and Consumptive Uses

Units: ML/d
Year Of Data: 2009

Jurisdiction	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
New York							
	Public Supply	1479.07	36.30	147.93		36.30	0.00
	Domestic Supply	497.29	0.00	49.74	232.24	0.00	23.24
	Irrigation	27.52	0.00	24.76	27.52	0.00	24.76
	Livestock	80.52	0.00	72.45		0.00	
	Industrial	303.21	0.00	75.82	303.21	0.00	75.82
	Fossil Fuel Power	2770.77	0.00	55.42	2770.77	0.00	55.42
	Nuclear Power	5335.92	0.00	266.80	5335.92	0.00	266.80
	Hydroelectric Power	306270.11	0.00	0.00	0.00	0.00	0.00
	Other	257.22	121.13	146.61	254.61	121.13	146.61
	Total	317021.63	157.44	839.53	8924.26	157.44	592.64
Ontario							
	Public Supply	1763.74	0.00	264.56	1758.79	0.00	263.82
	Domestic Supply	242.90	0.00	36.44	0.00	0.00	0.00
	Irrigation	67.13	0.00			0.00	
	Livestock	20.45	0.00			0.00	
	Industrial	869.27	0.00	54.76	0.00	0.00	0.00
	Fossil Fuel Power	2736.98	0.00	24.63	2736.98	0.00	24.63
	Nuclear Power	25008.22	0.00	225.07	25008.22	0.00	225.07
	Hydroelectric Power	198178.00	0.00	0.00	198178.00	0.00	0.00
	Other	501.00	0.00	0.00	501.00	0.00	0.00
	Total	229387.69	0.00	605.47	228182.99	0.00	513.53
Pennsylvania							
	Public Supply	0.19	0.02				
	Total	0.19	0.02				
Grand Total:		546409.50	157.45	1445.00	237107.25	157.44	1106.17

BASIN REPORT- Lake Ontario

Units: ML/d
Withdrawals by Source
Year Of Data: 2009

Jurisdiction	Category	All Facilities			Principle Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
New York							
	Public Supply	708.93	644.54	125.60			
	Domestic Supply	111.03	232.24	154.03	0.00	232.24	0.00
	Irrigation	0.00	21.99	5.53	0.00	21.99	5.53
	Livestock	14.80	28.62	37.10			
	Industrial	60.76	207.97	34.49	60.76	207.97	34.49
	Fossil Fuel Power	1592.79	1177.98	0.00	1592.79	1177.98	0.00
	Nuclear Power	5335.92	0.00	0.00	5335.92	0.00	0.00
	Hydroelectric Power	0.00	306270.11	0.00	0.00	0.00	0.00
	Other	0.00	253.51	3.71	0.00	251.24	3.37
	TOTAL	7824.22	308836.96	360.45	6989.46	1891.42	43.38
Ontario							
	Public Supply	1519.90	200.08	43.76	1519.74	199.41	39.64
	Domestic Supply	0.00	0.00	242.90	0.00	0.00	0.00
	Irrigation	4.11	36.06	26.96			
	Livestock	0.00	3.56	16.89			
	Industrial	825.88	0.00	43.39	0.00	0.00	0.00
	Fossil Fuel Power	2736.98	0.00	0.00	2736.98	0.00	0.00
	Nuclear Power	25008.22	0.00	0.00	25008.22	0.00	0.00
	Hydroelectric Power	142525.00	55653.00	0.00	142525.00	55653.00	0.00
	Other	0.00	501.00	0.00	0.00	501.00	0.00
	TOTAL	172620.09	56393.70	373.90	171789.94	56353.41	39.64
Pennsylvania							
	Public Supply	0.00	0.00	0.19			
	TOTAL	0.00	0.00	0.19			
Grand Total:		180444.31	365230.66	734.54	178779.40	58244.83	83.02

BASIN REPORT- Lake Ontario

Basin Totals

Units: ML/d
Year Of Data: 2009

Total Report - All Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	2228.83	844.62	169.55	3243.00	0.00	36.32	412.49
Domestic Supply	111.03	232.24	396.93	740.19	0.00	0.00	86.18
Irrigation	4.11	58.06	32.48	94.65	0.00	0.00	24.76
Livestock	14.80	32.17	53.99	100.96	0.00	0.00	72.45
Industrial	886.64	207.97	77.88	1172.48	0.00	0.00	130.58
Fossil Fuel Power	4329.77	1177.98	0.00	5507.75	0.00	0.00	80.05
Nuclear Power	30344.14	0.00	0.00	30344.14	0.00	0.00	491.87
Hydroelectric Power	142525.00	361923.11	0.00	504448.11	0.00	0.00	0.00
Other	0.00	754.51	3.71	758.22	-21964.43	121.13	146.61

Total Report - Principal Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	1519.74	199.41	39.64	1758.79	0.00	36.30	263.82
Domestic Supply	0.00	232.24	0.00	232.24	0.00	0.00	23.24
Irrigation	0.00	21.99	5.53	27.52	0.00	0.00	24.76
Livestock					0.00	0.00	
Industrial	60.76	207.97	34.49	303.21	0.00	0.00	75.82
Fossil Fuel Power	4329.77	1177.98	0.00	5507.75	0.00	0.00	80.05
Nuclear Power	30344.14	0.00	0.00	30344.14	0.00	0.00	491.87
Hydroelectric Power	142525.00	55653.00	0.00	198178.00	0.00	0.00	0.00
Other	0.00	752.24	3.37	755.61	-21964.43	121.13	146.61

BASIN REPORT- St. Lawrence River

Withdrawals, Diversions
and Consumptive Uses

Units: ML/d
Year Of Data: 2009

Jurisdiction	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
New York							
	Public Supply	151.42	0.00	15.14		0.00	
	Domestic Supply	86.61	0.00	8.67	32.63	0.00	3.26
	Irrigation	0.00	0.00	0.00	0.00	0.00	0.00
	Livestock	56.89	0.00	51.18		0.00	
	Industrial	125.79	0.00	31.46	125.79	0.00	31.46
	Fossil Fuel Power	0.04	0.00	0.00	0.04	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	688180.33	0.00	0.00	314590.45	0.00	0.00
	Other	33.96	0.00	3.41	33.96	0.00	3.41
	Total	688635.03	0.00	109.85	314782.86	0.00	38.12
Ontario							
	Public Supply	276.45	0.00	41.47	272.87	0.00	40.94
	Domestic Supply	43.35	0.00	6.50	0.00	0.00	0.00
	Irrigation	8.89	0.00			0.00	
	Livestock	22.37	0.00			0.00	
	Industrial	608.74	0.00	38.35	0.00	0.00	0.00
	Fossil Fuel Power	0.00	0.00	0.00	0.00	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	595188.00	0.00	0.00	595188.00	0.00	0.00
	Other	73.00	0.00	0.00	73.00	0.00	0.00
	Total	596220.81	0.00	86.32	595533.87	0.00	40.94
Quebec							
	Public Supply	4164.00	0.00	416.00	4149.00	0.00	415.00
	Domestic Supply	271.00	0.00	27.00	184.00	0.00	18.00
	Irrigation	34.90	0.00	31.41		0.00	
	Livestock	72.30	0.00	57.84		0.00	
	Industrial	475.00	0.00	47.50	473.00	0.00	47.30
	Fossil Fuel Power	178.00	0.00	17.80	178.00	0.00	17.80
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	1150371.00	0.00	0.00	1150371.00	0.00	0.00
	Other		0.00			0.00	
	Total	1155566.20	0.00	597.55	1155355.00	0.00	498.10
Grand Total:		2440422.04	0.00	793.72	2065671.73	0.00	577.16

BASIN REPORT- St. Lawrence River

Units: ML/d
 Withdrawals by Source
 Year Of Data: 2009

Jurisdiction	Category	All Facilities			Principle Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
New York							
	Public Supply	10.60	122.91	17.90			
	Domestic Supply	0.00	32.63	53.98	0.00	32.63	0.00
	Irrigation	0.00	0.00	0.00	0.00	0.00	0.00
	Livestock	1.44	39.97	15.48			
	Industrial	10.33	102.58	12.87	10.33	102.58	12.87
	Fossil Fuel Power	0.04	0.00	0.00	0.04	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	314590.45	373589.88	0.00	314590.45	0.00	0.00
	Other	0.00	32.59	1.36	0.00	32.59	1.36
	TOTAL	314612.86	373920.57	101.60	314600.82	167.81	14.23
Ontario							
	Public Supply	40.27	222.72	13.46	40.27	221.52	11.08
	Domestic Supply	0.00	0.00	43.35	0.00	0.00	0.00
	Irrigation	0.03	7.73	1.13			
	Livestock	0.00	13.73	8.65			
	Industrial	604.75	0.00	3.99	0.00	0.00	0.00
	Fossil Fuel Power	0.00	0.00	0.00	0.00	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	323473.00	271715.00	0.00	323473.00	271715.00	0.00
	Other	0.00	73.00	0.00	0.00	73.00	0.00
	TOTAL	324118.05	272032.17	70.58	323513.27	272009.52	11.08
Quebec							
	Public Supply	2282.00	1882.00	0.00	2281.00	1868.00	0.00
	Domestic Supply	0.00	0.00	271.00	0.00	0.00	184.00
	Irrigation	0.00	0.00	34.90			
	Livestock	0.00	0.00	72.30			
	Industrial	0.00	475.00	0.00	0.00	473.00	0.00
	Fossil Fuel Power	148.00	30.00	0.00	148.00	30.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	647102.00	503269.00	0.00	647102.00	503269.00	0.00
	Other						
	TOTAL	649532.00	505656.00	378.20	649531.00	505640.00	184.00
Grand Total:		1288262.91	1151608.74	550.38	1287645.09	777817.33	209.31

BASIN REPORT- St. Lawrence River

Basin Totals

Units: ML/d
Year Of Data: 2009

Total Report - All Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	2332.87	2227.63	31.37	4591.87	0.00	0.00	472.61
Domestic Supply	0.00	32.63	368.33	400.96	0.00	0.00	42.17
Irrigation	0.03	7.73	36.03	43.79	0.00	0.00	31.41
Livestock	1.44	53.70	96.43	151.57	0.00	0.00	109.02
Industrial	615.08	577.58	16.86	1209.53	0.00	0.00	117.31
Fossil Fuel Power	148.04	30.00	0.00	178.04	0.00	0.00	17.80
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydroelectric Power	1285165.45	1148573.88	0.00	2433739.33	0.00	0.00	0.00
Other	0.00	105.59	1.36	106.96	0.00	0.00	3.41

Total Report - Principal Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	2321.27	2089.52	11.08	4421.87	0.00	0.00	455.94
Domestic Supply	0.00	32.63	184.00	216.63	0.00	0.00	21.26
Irrigation	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Livestock					0.00	0.00	
Industrial	10.33	575.58	12.87	598.79	0.00	0.00	78.76
Fossil Fuel Power	148.04	30.00	0.00	178.04	0.00	0.00	17.80
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydroelectric Power	1285165.45	774984.00	0.00	2060149.45	0.00	0.00	0.00
Other	0.00	105.59	1.36	106.96	0.00	0.00	3.41

Water Use Category Tables

Each of the 9 water use categories is represented by two tables:

- Water use by jurisdiction; and
- Water use by basin.

WATER-USE CATEGORY REPORT- Public Supply

Units: ML/d

Year Of Data: 2009

Water-Use by Jurisdiction - All Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	3523.29	0.00	0.00	3523.29	0.00	3523.29	0.00
Indiana	337.05	121.28	193.74	652.08	0.00	221.45	97.85
Michigan	2983.96	73.84	757.15	3814.95	0.00		476.87
Minnesota	120.91	7.00	23.13	151.04	0.00	0.00	15.07
New York	1418.24	1040.46	171.25	2629.95	0.00	36.30	263.01
Ohio	1505.04	375.10	119.01	1999.15	0.00	1.21	299.88
Ontario	1869.53	672.09	346.63	2888.25	0.00	0.00	433.24
Pennsylvania	106.06	0.45	6.88	113.40		0.02	11.32
Quebec	2282.00	1882.00	0.00	4164.00	0.00	0.00	416.00
Wisconsin	782.37	78.96	200.44	1061.77	0.00	1.89	106.18

Water-Use by Jurisdiction - Principal Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	3523.12	0.00	0.00	3523.12	0.00	3523.12	0.00
Indiana	337.05	121.28	191.92	650.26	0.00	221.45	97.55
Michigan	2983.11	73.57	698.59	3755.28	0.00		469.41
Minnesota	120.79	7.00	22.11	149.90	0.00	0.00	14.95
New York					0.00	36.30	0.00
Ohio	1504.93	374.64	105.16	1984.73	0.00	1.21	297.72
Ontario	1866.85	668.55	329.31	2864.71	0.00	0.00	429.71
Pennsylvania	106.06	0.45	3.49	110.01			11.00
Quebec	2281.00	1868.00	0.00	4149.00	0.00	0.00	415.00
Wisconsin							

WATER-USE CATEGORY REPORT- Public Supply

Units: ML/d

Year Of Data: 2009

Water-Use by Basin - All Facilities

Basin	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Lake Superior	257.06	56.31	69.73	383.11	-1.33	0.00	48.29
Lake Michigan	5084.67	78.96	866.51	6030.14	1.65	3719.83	299.63
Lake Huron	511.53	93.07	164.18	768.78	0.00	0.00	104.08
Lake Erie	4513.50	950.59	516.90	5980.98	-0.32	28.01	782.32
Lake Ontario	2228.83	844.62	169.55	3243.00	0.00	36.32	412.49
St. Lawrence River	2332.87	2227.63	31.37	4591.87	0.00	0.00	472.61

Water-Use by Basin - Principal Facilities

Basin	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Lake Superior	254.31	56.05	62.50	372.86	-1.33	0.00	47.14
Lake Michigan	4304.66	0.00	636.09	4940.76	1.65	3717.77	189.85
Lake Huron	508.27	91.81	145.82	745.90	0.00	0.00	100.96
Lake Erie	3814.68	676.72	455.45	4946.85	-0.32	28.01	677.64
Lake Ontario	1519.74	199.41	39.64	1758.79	0.00	36.30	263.82
St. Lawrence River	2321.27	2089.52	11.08	4421.87	0.00	0.00	455.94

WATER-USE CATEGORY REPORT- Domestic Supply

Units: ML/d

Year Of Data: 2009

Water-Use by Jurisdiction - All Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	9.17	0.00	0.02	9.18	0.00	9.17	0.00
Indiana	0.00	58.75	33.01	91.76	0.00	0.00	13.78
Michigan	0.00	8.82	11.38	20.20			2.52
Minnesota	3.03	1.59	0.15	4.77	0.00	0.00	0.45
New York	197.94	277.58	276.22	751.74	0.00	0.00	75.22
Ohio	1.14	0.26	221.18	222.58	0.00	0.00	33.39
Ontario	0.00	0.00	408.49	408.49	0.00	0.00	61.27
Pennsylvania							
Quebec	0.00	0.00	271.00	271.00	0.00	0.00	27.00
Wisconsin	0.00	0.00	13.59	13.59	0.00	0.00	1.36

Water-Use by Jurisdiction - Principal Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	9.17	0.00	0.02	9.18	0.00	9.17	0.00
Indiana	0.00	58.67	29.87	88.54	0.00	0.00	13.29
Michigan	0.00	8.75	10.07	18.82			2.35
Minnesota	2.76	1.59	0.00	4.35	0.00	0.00	0.42
New York	0.00	277.58	0.00	277.58	0.00	0.00	27.78
Ohio	1.14	0.00	0.00	1.14	0.00	0.00	0.19
Ontario	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pennsylvania							
Quebec	0.00	0.00	184.00	184.00	0.00	0.00	18.00
Wisconsin							

WATER-USE CATEGORY REPORT- Domestic Supply

Units: ML/d

Year Of Data: 2009

Water-Use by Basin - All Facilities

Basin	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Lake Superior	3.03	1.59	6.91	11.53	0.00	0.00	1.44
Lake Michigan	9.17	67.57	53.48	130.22	0.00	9.17	17.02
Lake Huron	0.00	0.00	40.37	40.37	0.00	0.00	6.05
Lake Erie	88.05	12.98	369.01	470.04	0.00	0.00	62.14
Lake Ontario	111.03	232.24	396.93	740.19	0.00	0.00	86.18
St. Lawrence River	0.00	32.63	368.33	400.96	0.00	0.00	42.17

Water-Use by Basin - Principal Facilities

Basin	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Lake Superior	2.76	1.59	0.00	4.35	0.00	0.00	0.42
Lake Michigan	9.17	67.43	36.50	113.09	0.00	9.17	15.15
Lake Huron	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Erie	1.14	12.72	3.46	17.31	0.00	0.00	1.97
Lake Ontario	0.00	232.24	0.00	232.24	0.00	0.00	23.24
St. Lawrence River	0.00	32.63	184.00	216.63	0.00	0.00	21.26

WATER-USE CATEGORY REPORT- Irrigation

Units: ML/d

Year Of Data: 2009

Water-Use by Jurisdiction - All Facilities

Jurisdiction	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Illinois	0.00	0.00	0.41	0.41	0.00	0.00	0.00
Indiana	0.00	28.92	118.82	147.74	0.00	0.00	132.98
Michigan	2.14	693.35	559.94	1255.44			1129.90
Minnesota	0.23	1.14	0.45	1.82	0.00	0.00	0.00
New York	1.21	22.64	5.53	29.37	0.00	0.00	26.42
Ohio	10.49	76.31	11.43	98.23	0.00	0.00	88.39
Ontario	7.04	149.13	121.01	277.17	0.00	0.00	
Pennsylvania	0.00	2.86	0.01	2.86			2.58
Quebec	0.00	0.00	34.90	34.90	0.00	0.00	31.41
Wisconsin	0.00	15.33	116.93	132.26	0.00	0.00	92.59

Water-Use by Jurisdiction - Principal Facilities

Jurisdiction	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Illinois	0.00	0.00	0.41	0.41	0.00	0.00	0.00
Indiana	0.00	27.78	115.83	143.62	0.00	0.00	129.23
Michigan	1.48	663.78	516.23	1181.49			1063.34
Minnesota	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New York	1.21	22.64	5.53	29.37	0.00	0.00	26.42
Ohio	10.45	71.32	9.08	90.85	0.00	0.00	81.76
Ontario					0.00	0.00	
Pennsylvania	0.00	2.86	0.00	2.86			2.57
Quebec					0.00	0.00	
Wisconsin							

WATER-USE CATEGORY REPORT- Irrigation

Units: ML/d

Year Of Data: 2009

Water-Use by Basin - All Facilities

Basin	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Lake Superior	0.34	4.46	2.91	7.71	0.00	0.00	3.90
Lake Michigan	1.01	215.63	724.39	941.03	0.00	0.00	820.26
Lake Huron	1.04	545.43	61.84	608.31	0.00	0.00	476.22
Lake Erie	14.58	158.37	111.78	284.73	0.00	0.00	147.72
Lake Ontario	4.11	58.06	32.48	94.65	0.00	0.00	24.76
St. Lawrence River	0.03	7.73	36.03	43.79	0.00	0.00	31.41

Water-Use by Basin - Principal Facilities

Basin	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Lake Superior	0.00	1.44	2.17	3.62	0.00	0.00	3.26
Lake Michigan	0.92	178.90	568.29	748.11	0.00	0.00	672.92
Lake Huron	0.39	483.32	38.13	521.85	0.00	0.00	469.66
Lake Erie	11.84	102.71	32.96	147.51	0.00	0.00	132.74
Lake Ontario	0.00	21.99	5.53	27.52	0.00	0.00	24.76
St. Lawrence River	0.00	0.00	0.00	0.00	0.00	0.00	0.00

WATER-USE CATEGORY REPORT- Livestock

Units: ML/d

Year Of Data: 2009

Water-Use by Jurisdiction - All Facilities

Jurisdiction	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Illinois							
Indiana	0.00	5.11	9.24	14.35	0.00	0.00	11.47
Michigan	0.00	8.98	26.15	35.12			28.10
Minnesota	3.10	0.00	0.00	3.10	0.00	0.00	2.76
New York	19.68	79.65	71.62	170.95	0.00	0.00	153.84
Ohio	0.00	5.68	40.81	46.48	0.00	0.00	37.17
Ontario	11.16	32.81	96.42	140.39	0.00	0.00	
Pennsylvania	0.00	7.86	0.82	8.67			6.94
Quebec	0.00	0.00	72.30	72.30	0.00	0.00	57.84
Wisconsin	0.00	7.84	62.27	70.11	0.00	0.00	63.14

Water-Use by Jurisdiction - Principal Facilities

Jurisdiction	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Illinois							
Indiana	0.00	5.11	9.12	14.23	0.00	0.00	11.39
Michigan	0.00	8.27	8.49	16.76			13.40
Minnesota	2.80	0.00	0.00	2.80	0.00	0.00	2.54
New York					0.00	0.00	
Ohio	0.00	1.67	1.67	3.33	0.00	0.00	2.65
Ontario					0.00	0.00	
Pennsylvania	0.00	7.86	0.82	8.67			6.94
Quebec					0.00	0.00	
Wisconsin							

WATER-USE CATEGORY REPORT- Livestock

Units: ML/d

Year Of Data: 2009

Water-Use by Basin - All Facilities

Basin	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Lake Superior	3.10	0.65	5.72	9.47	0.00	0.00	8.03
Lake Michigan	0.00	16.89	84.46	101.35	0.00	0.00	87.53
Lake Huron	11.08	15.28	30.72	57.08	0.00	0.00	8.07
Lake Erie	3.52	29.22	108.30	141.04	0.00	0.00	76.16
Lake Ontario	14.80	32.17	53.99	100.96	0.00	0.00	72.45
St. Lawrence River	1.44	53.70	96.43	151.57	0.00	0.00	109.02

Water-Use by Basin - Principal Facilities

Basin	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Lake Superior	2.80	0.00	0.00	2.80	0.00	0.00	2.54
Lake Michigan	0.00	9.17	14.37	23.53	0.00	0.00	18.83
Lake Huron	0.00	3.65	3.25	6.89	0.00	0.00	5.52
Lake Erie	0.00	10.08	2.48	12.57	0.00	0.00	10.04
Lake Ontario					0.00	0.00	
St. Lawrence River					0.00	0.00	

WATER-USE CATEGORY REPORT- Industrial

Units: ML/d

Year Of Data: 2009

Water-Use by Jurisdiction - All Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	67.60	0.00	0.00	67.60		0.05	0.00
Indiana	5638.11	21.69	39.29	5699.09	0.00	79.80	341.94
Michigan	1040.35	629.26	388.83	2058.45			205.84
Minnesota	1111.47	303.25	0.08	1414.80	0.00	23.28	141.46
New York	649.12	313.89	62.88	1025.88	0.00	0.00	256.54
Ohio	151.57	378.69	195.21	725.47	0.00	0.00	55.42
Ontario	3409.55	0.00	85.20	3494.75	0.00	0.00	220.15
Pennsylvania							
Quebec	0.00	475.00	0.00	475.00	0.00	0.00	47.50
Wisconsin	59.20	801.56	58.67	919.44	0.00	0.00	87.82

Water-Use by Jurisdiction - Principal Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	67.60	0.00	0.00	67.60	0.00	0.05	0.00
Indiana	5638.07	21.58	37.63	5697.27	0.00	79.80	341.82
Michigan	1040.30	628.79	381.61	2050.69			205.07
Minnesota	1111.17	302.34	0.00	1413.51	0.00	23.28	141.35
New York	649.12	313.89	62.88	1025.88	0.00	0.00	256.54
Ohio	151.45	378.12	193.62	723.20	0.00	0.00	55.19
Ontario	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pennsylvania							
Quebec	0.00	473.00	0.00	473.00	0.00	0.00	47.30
Wisconsin							

WATER-USE CATEGORY REPORT- Industrial

Units: ML/d

Year Of Data: 2009

Water-Use by Basin - All Facilities

Basin	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Lake Superior	1810.23	303.63	0.58	2114.44	0.00	23.28	188.82
Lake Michigan	5883.00	1230.33	275.68	7389.02	0.00	79.85	501.04
Lake Huron	765.73	145.52	108.68	1019.93	0.00	0.00	75.35
Lake Erie	2166.29	458.31	350.49	2975.08	0.00	0.00	343.57
Lake Ontario	886.64	207.97	77.88	1172.48	0.00	0.00	130.58
St. Lawrence River	615.08	577.58	16.86	1209.53	0.00	0.00	117.31

Water-Use by Basin - Principal Facilities

Basin	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Lake Superior	1144.00	302.34	0.00	1446.34	0.00	23.28	144.63
Lake Michigan	5875.94	428.91	210.06	6514.91	0.00	79.85	417.91
Lake Huron	56.30	145.29	97.16	298.75	0.00	0.00	29.87
Lake Erie	1510.38	457.63	321.16	2289.16	0.00	0.00	300.27
Lake Ontario	60.76	207.97	34.49	303.21	0.00	0.00	75.82
St. Lawrence River	10.33	575.58	12.87	598.79	0.00	0.00	78.76

WATER-USE CATEGORY REPORT- Fossil Fuel Power

Units: ML/d

Year Of Data: 2009

Water-Use by Jurisdiction - All Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	4421.13	0.00	0.00	4421.13	0.00	0.00	0.00
Indiana	2705.40	0.00	1.02	2706.42	0.00	0.00	54.13
Michigan	18769.83	3908.48	14.08	22692.39			905.90
Minnesota	71.28	588.44	0.34	660.06	0.00	0.00	13.21
New York	4259.12	1177.98	0.00	5437.10	0.00	0.00	108.75
Ohio	4974.03	2319.17	0.00	7293.20	0.00	0.00	72.94
Ontario	8643.83	0.00	0.00	8643.83	0.00	0.00	77.79
Pennsylvania							
Quebec	148.00	30.00	0.00	178.00	0.00	0.00	17.80
Wisconsin	10423.55	2463.39	0.00	12886.94	0.00	0.00	64.43

Water-Use by Jurisdiction - Principal Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	4421.13	0.00	0.00	4421.13	0.00	0.00	0.00
Indiana	2705.40	0.00	1.02	2706.42	0.00	0.00	54.13
Michigan	18769.83	3908.46	13.88	22692.17			905.81
Minnesota	71.28	588.40	0.00	659.68	0.00	0.00	13.21
New York	4259.12	1177.98	0.00	5437.10	0.00	0.00	108.75
Ohio	4974.03	2319.17	0.00	7293.20	0.00	0.00	72.94
Ontario	8643.83	0.00	0.00	8643.83	0.00	0.00	77.79
Pennsylvania							
Quebec	148.00	30.00	0.00	178.00	0.00	0.00	17.80
Wisconsin							

WATER-USE CATEGORY REPORT- Fossil Fuel Power

Units: ML/d

Year Of Data: 2009

Water-Use by Basin - All Facilities

Basin	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Lake Superior	1384.27	590.11	0.34	1974.71	0.00	0.00	18.14
Lake Michigan	19925.59	3942.66	10.80	23879.06	0.00	0.00	445.50
Lake Huron	619.42	1975.73	2.88	2598.03	0.00	0.00	420.58
Lake Erie	28009.08	2770.98	1.42	30781.48	0.00	0.00	332.89
Lake Ontario	4329.77	1177.98	0.00	5507.75	0.00	0.00	80.05
St. Lawrence River	148.04	30.00	0.00	178.04	0.00	0.00	17.80

Water-Use by Basin - Principal Facilities

Basin	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Lake Superior	1192.87	588.40	0.00	1781.28	0.00	0.00	17.20
Lake Michigan	9693.44	1480.91	10.61	11184.96	0.00	0.00	381.93
Lake Huron	619.42	1975.73	2.88	2598.03	0.00	0.00	420.58
Lake Erie	28009.08	2770.98	1.42	30781.48	0.00	0.00	332.89
Lake Ontario	4329.77	1177.98	0.00	5507.75	0.00	0.00	80.05
St. Lawrence River	148.04	30.00	0.00	178.04	0.00	0.00	17.80

WATER-USE CATEGORY REPORT- Nuclear Power

Units: ML/d

Year Of Data: 2009

Water-Use by Jurisdiction - All Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	119.92	0.00	0.00	119.92	0.00	0.00	0.00
Indiana	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Michigan	6284.06	0.00	0.00	6284.06			145.60
Minnesota	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New York	5335.92	0.00	0.00	5335.92	0.00	0.00	266.80
Ohio	510.46	0.00	0.00	510.46	0.00	0.00	51.07
Ontario	46568.95	0.00	0.00	46568.95	0.00	0.00	419.12
Pennsylvania							
Quebec	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wisconsin	6920.07	0.00	0.19	6920.26	0.00	0.00	34.60

Water-Use by Jurisdiction - Principal Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	119.92	0.00	0.00	119.92	0.00	0.00	0.00
Indiana	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Michigan	6284.06	0.00	0.00	6284.06			145.60
Minnesota	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New York	5335.92	0.00	0.00	5335.92	0.00	0.00	266.80
Ohio	510.46	0.00	0.00	510.46	0.00	0.00	51.07
Ontario	46568.95	0.00	0.00	46568.95	0.00	0.00	419.12
Pennsylvania							
Quebec	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wisconsin							

WATER-USE CATEGORY REPORT- Nuclear Power

Units: ML/d

Year Of Data: 2009

Water-Use by Basin - All Facilities

Basin	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Lake Superior	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Michigan	13135.38	0.00	0.19	13135.57	0.00	0.00	107.74
Lake Huron	21560.73	0.00	0.00	21560.73	0.00	0.00	194.05
Lake Erie	699.14	0.00	0.00	699.14	0.00	0.00	123.52
Lake Ontario	30344.14	0.00	0.00	30344.14	0.00	0.00	491.87
St. Lawrence River	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Water-Use by Basin - Principal Facilities

Basin	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Lake Superior	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Michigan	6215.31	0.00	0.00	6215.31	0.00	0.00	73.15
Lake Huron	21560.73	0.00	0.00	21560.73	0.00	0.00	194.05
Lake Erie	699.14	0.00	0.00	699.14	0.00	0.00	123.52
Lake Ontario	30344.14	0.00	0.00	30344.14	0.00	0.00	491.87
St. Lawrence River	0.00	0.00	0.00	0.00	0.00	0.00	0.00

WATER-USE CATEGORY REPORT- Other

Units: ML/d

Year Of Data: 2009

Water-Use by Jurisdiction - All Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	875.69	0.00	0.00	875.69	0.00	875.69	0.00
Indiana	0.00	0.00	0.19	0.19	0.00	0.00	0.04
Michigan	0.00	4.16	20.16	24.33			0.00
Minnesota	0.00	0.00	0.34	0.34	0.00	0.00	0.00
New York	0.00	289.62	5.07	294.69	0.00	121.13	153.42
Ohio	2.38	31.00	2.35	35.73	0.00	-36.45	12.91
Ontario	0.00	755.59	0.00	755.59	234.59	0.00	0.00
Pennsylvania	0.00	0.16	0.00	0.16			
Quebec					0.00	0.00	
Wisconsin	0.00	0.00	8.10	8.10	0.00	-97.85	0.00

Water-Use by Jurisdiction - Principal Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	875.69	0.00	0.00	875.69	0.00	875.69	0.00
Indiana	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Michigan	0.00	4.16	20.16	24.33			0.00
Minnesota	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New York	0.00	287.35	4.73	292.08	0.00	121.13	150.36
Ohio	2.20	30.96	2.04	35.20	0.00	-36.45	12.49
Ontario	0.00	755.59	0.00	755.59	234.59	0.00	0.00
Pennsylvania							
Quebec					0.00	0.00	
Wisconsin							

WATER-USE CATEGORY REPORT- Other

Units: ML/d

Year Of Data: 2009

Water-Use by Basin - All Facilities

Basin	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Lake Superior	0.00	0.00	0.34	0.34	0.00	0.00	0.00
Lake Michigan	875.69	0.00	22.81	898.50	0.00	777.84	0.04
Lake Huron	0.00	181.59	0.00	181.59	181.59	0.00	0.00
Lake Erie	2.38	38.84	7.99	49.22	22017.43	-36.45	16.32
Lake Ontario	0.00	754.51	3.71	758.22	-21964.43	121.13	146.61
St. Lawrence River	0.00	105.59	1.36	106.96	0.00	0.00	3.41

Water-Use by Basin - Principal Facilities

Basin	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Lake Superior	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Michigan	875.69	0.00	14.52	890.21	0.00	875.69	0.00
Lake Huron	0.00	181.59	0.00	181.59	181.59	0.00	0.00
Lake Erie	2.20	38.65	7.69	48.53	22017.43	-36.45	12.83
Lake Ontario	0.00	752.24	3.37	755.61	-21964.43	121.13	146.61
St. Lawrence River	0.00	105.59	1.36	106.96	0.00	0.00	3.41

