

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

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

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the evolving needs of the Great Lakes state and provincial water resources management programs, that system soon became outdated.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

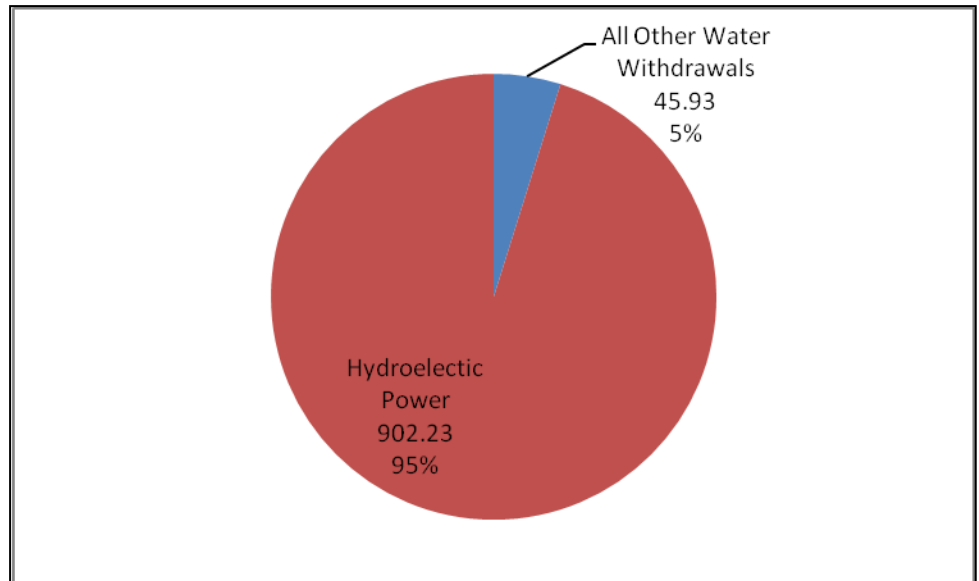
The Great Lakes Commission - the repository for the Great Lakes Regional Water Use Database - annually requests for the previous year’s water use data from the states and provinces. All data are submitted to the repository in a Microsoft Excel or Access format then compiled into a single Microsoft Access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

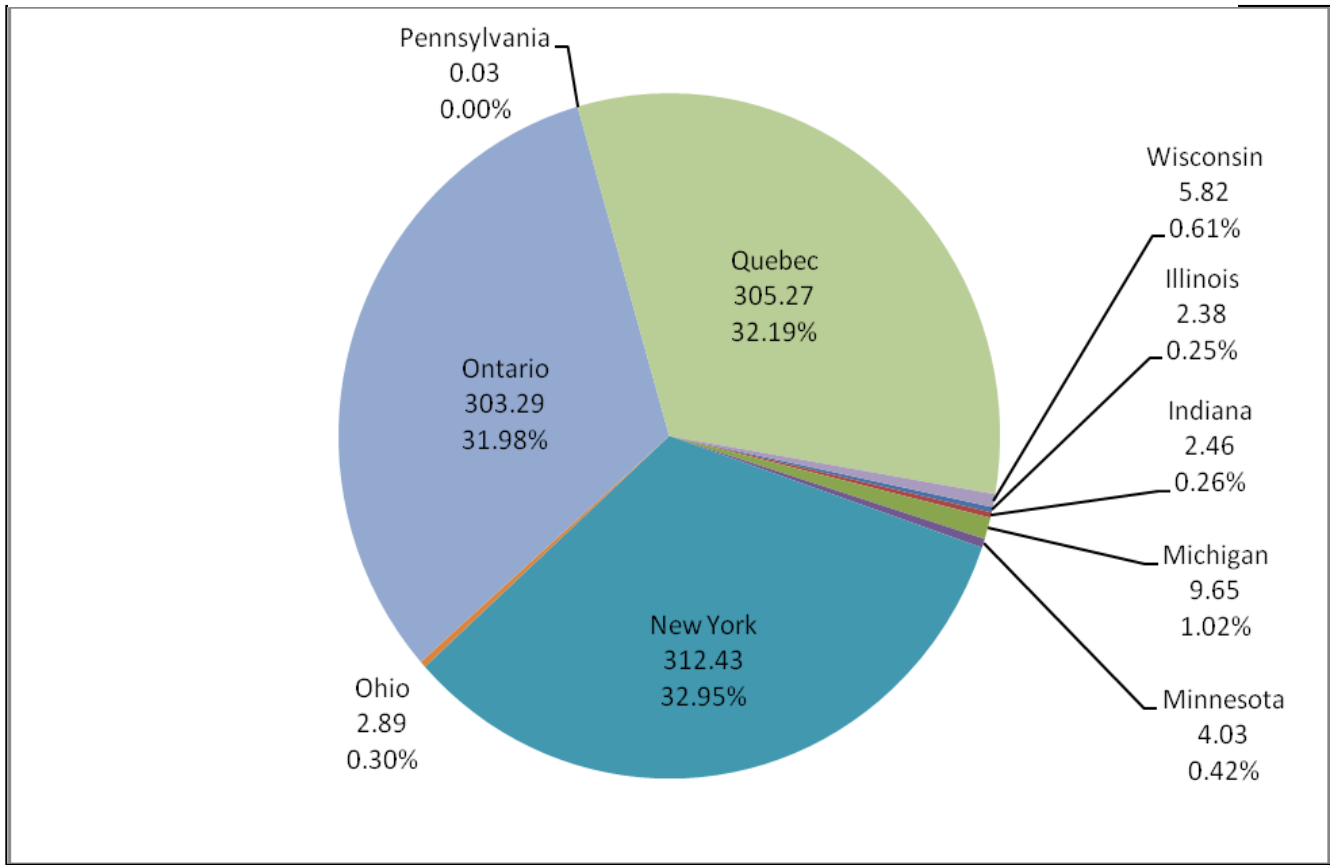
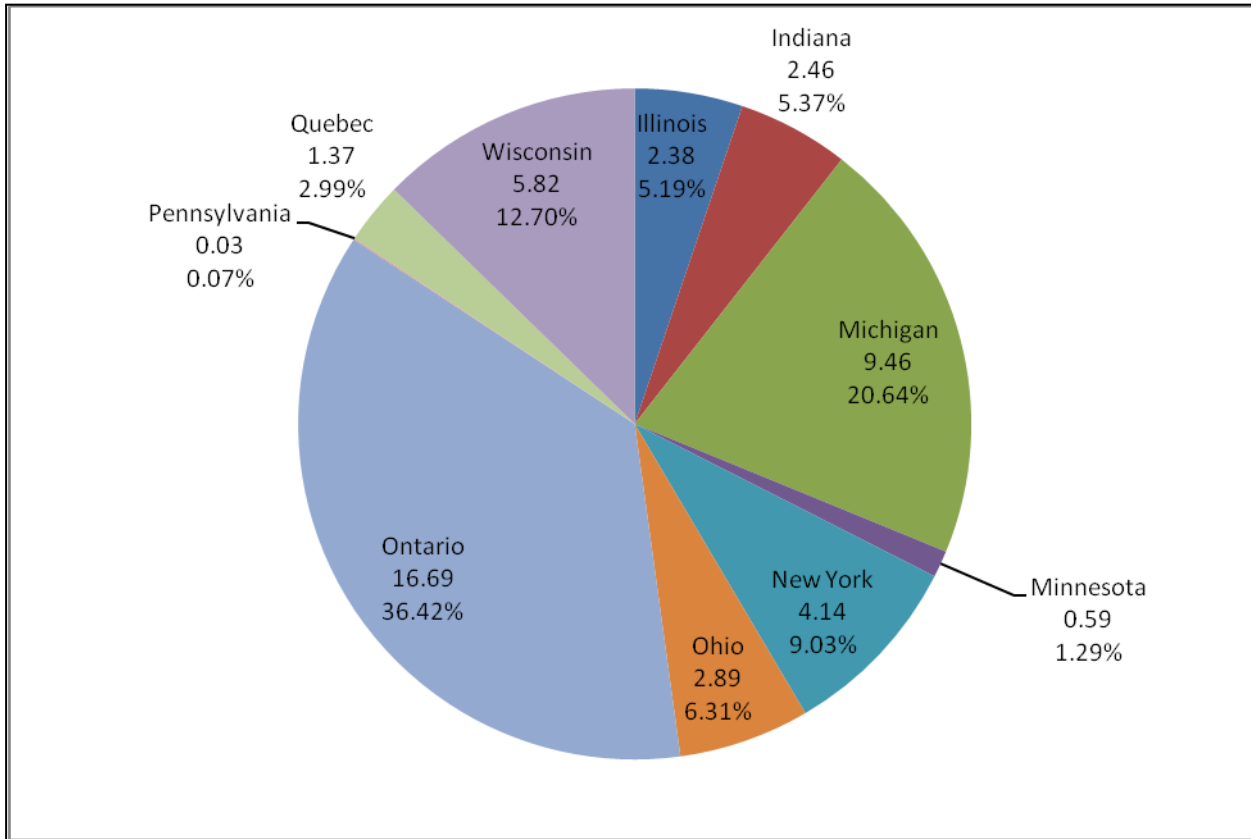


Figure 3 more accurately reflects the actual water withdrawals within the basin, as it does not include self-supply hydroelectric use. Water withdrawals for the eight remaining off-stream categories totaled 45.93 billion gallons per day, or 173.86 billion liters per day.

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



Pie charts showing individual jurisdictional water use, beginning with Illinois on page 14, are in million gallons 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

blb: 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: Bgal(US)/d

Year Of Data: 2009

Water-Use by Jurisdiction - All Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	2.38	0.00	0.00	2.38	0.00	1.16	0.00
Indiana	2.29	0.06	0.10	2.46	0.00	0.08	0.17
Michigan	7.68	1.41	0.47	9.56	0.00		0.76
Minnesota	0.35	3.68	0.01	4.03	0.00	0.01	0.05
New York	131.83	180.45	0.16	312.43	0.00	0.04	0.34
Ohio	1.89	0.84	0.16	2.89	0.00	-0.01	0.17
Ontario	158.28	144.72	0.28	303.29	0.06	-4.01	0.32
Pennsylvania	0.03	0.00	0.00	0.03		0.00	0.01
Quebec	171.59	133.58	0.10	305.27	0.00	0.00	0.16
Wisconsin	4.81	0.89	0.12	5.82	0.00	-0.03	0.12
Total:	481.13	465.63	1.40	948.16	0.06	-2.75	2.10

Water-Use by Jurisdiction - Principal Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	2.38	0.00	0.00	2.38	0.00	1.16	0.00
Indiana	2.29	0.06	0.10	2.46	0.00	0.08	0.17
Michigan	7.68	1.40	0.44	9.52	0.00		0.74
Minnesota	0.35	3.68	0.01	4.03	0.00	0.01	0.05
New York	131.40	0.55	0.02	131.97	0.00	0.04	0.22
Ohio	1.89	0.84	0.08	2.81	0.00	-0.01	0.15
Ontario	157.38	144.67	0.09	302.14	0.06	0.00	0.24
Pennsylvania	0.03	0.00	0.00	0.03			0.01
Quebec	171.59	133.58	0.05	305.21	0.00	0.00	0.13
Wisconsin							
Total:	474.98	284.78	0.78	760.55	0.06	1.28	1.71

SUMMARY REPORT - GREAT LAKES BASIN

Units: Bgal(US)/d

Year Of Data: 2009

Water-Use by Basin - All Facilities

Basin	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Lake Superior	0.92	39.71	0.02	40.65	0.00	-4.00	0.07
Lake Michigan	11.87	1.47	0.54	13.87	0.00	1.21	0.60
Lake Huron	25.40	22.02	0.11	47.52	0.05	0.00	0.34
Lake Erie	54.96	1.73	0.39	57.08	5.82	0.00	0.50
Lake Ontario	47.67	96.48	0.19	144.35	-5.80	0.04	0.38
St. Lawrence River	340.32	304.22	0.15	644.69	0.00	0.00	0.21
Total:	481.13	465.63	1.40	948.16	0.06	-2.75	2.10

Water-Use by Basin - Principal Facilities

Basin	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Lake Superior	0.69	39.71	0.02	40.42	0.00	0.01	0.06
Lake Michigan	7.13	0.57	0.39	8.09	0.00	1.24	0.47
Lake Huron	25.20	22.00	0.08	47.28	0.05	0.00	0.32
Lake Erie	54.58	1.64	0.22	56.43	5.82	0.00	0.42
Lake Ontario	47.23	15.39	0.02	62.64	-5.80	0.04	0.29
St. Lawrence River	340.16	205.48	0.06	545.69	0.00	0.00	0.15
Total:	474.98	284.78	0.78	760.55	0.06	1.28	1.7111

SUMMARY REPORT - GREAT LAKES BASIN

Units: Bgal(US)/d

Year Of Data: 2009

Water-Use by Category - All Facilities

Category	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Public Supply	3.95	1.12	0.48	5.55	0.00	1.00	0.56
Domestic Supply	0.06	0.09	0.33	0.47	0.00	0.00	0.06
Irrigation	0.01	0.26	0.26	0.52	0.00	0.00	0.40
Livestock	0.01	0.04	0.10	0.15	0.00	0.00	0.10
Industrial	3.20	0.77	0.22	4.20	0.00	0.03	0.36
Fossil Fuel Power	14.38	2.77	0.00	17.15	0.00	0.00	0.35
Nuclear Power	17.37	0.00	0.00	17.37	0.00	0.00	0.24
Hydroelectric Power	441.94	460.29	0.00	902.23	0.00	-4.01	0.00
Other	0.23	0.29	0.01	0.53	0.06	0.23	0.04
Total:	481.13	465.63	1.40	948.16	0.06	-2.75	2.10

Water-Use by Category - Principal Facilities

Category	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Public Supply	3.36	0.82	0.36	4.54	0.00	1.00	0.46
Domestic Supply	0.00	0.09	0.06	0.15	0.00	0.00	0.02
Irrigation	0.00	0.21	0.17	0.38	0.00	0.00	0.34
Livestock	0.00	0.01	0.01	0.01	0.00	0.00	0.01
Industrial	2.29	0.56	0.18	3.03	0.00	0.03	0.28
Fossil Fuel Power	11.62	2.12	0.00	13.75	0.00	0.00	0.33
Nuclear Power	15.54	0.00	0.00	15.54	0.00	0.00	0.23
Hydroelectric Power	441.94	280.69	0.00	722.63	0.00	0.00	0.00
Other	0.23	0.28	0.01	0.52	0.06	0.25	0.04
Total:	474.98	284.78	0.78	760.55	0.06	1.28	1.71

Jurisdiction Tables and Analyses

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

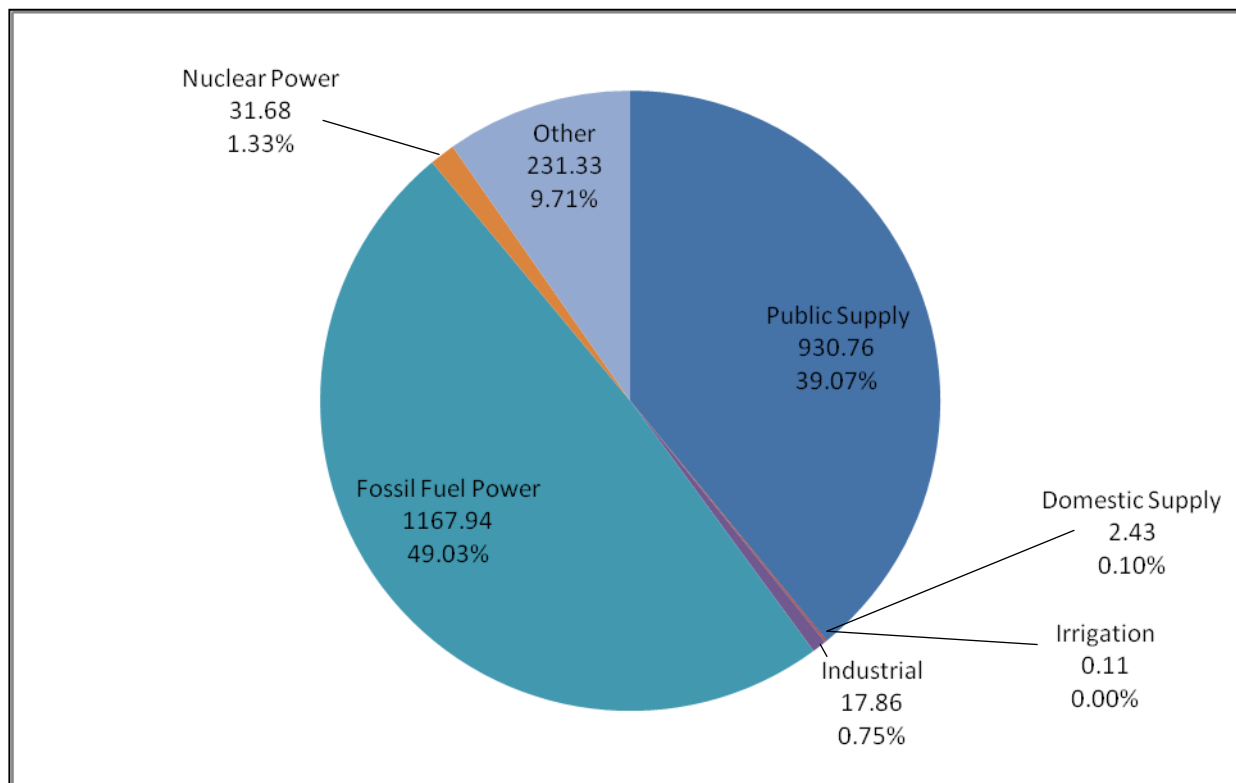
- Withdrawals, diversions and consumptive uses;
- Withdrawals by sources; and
- Jurisdiction totals.

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 2,382.1 mgd – a decrease in water usage from 2008 (2,485.92 mgd).

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



Consumptive Use: No consumptive use information was reported.

Interbasin Diversions: Total diversions from the Lake Michigan basin in 2009 were 930.76 mgd, a decrease of nearly 38.6 percent from the 2008 figure (1516.58 mgd). 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: Mgal(US)/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	930.76	930.76	0.00	930.71	930.71	0.00
	Domestic Supply	2.43	2.42	0.00	2.43	2.42	0.00
	Irrigation	0.11	0.00	0.00	0.11	0.00	0.00
	Livestock						
	Industrial	17.86	0.01	0.00	17.86	0.01	0.00
	Fossil Fuel Power	1167.94	0.00	0.00	1167.94	0.00	0.00
	Nuclear Power	31.68	0.00	0.00	31.68	0.00	0.00
	Hydroelectric Power						
	Other	231.33	231.33	0.00	231.33	231.33	0.00
	Total:	2382.10	1164.52	0.00	2382.05	1164.48	0.00
Grand Total:		2382.10	1164.52	0.00	2382.05	1164.48	0.00

JURISDICTION REPORT- Illinois

Withdrawals by Source

Units: Mgal(US)/d

Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Lake Michigan							
	Public Supply	930.76	0.00	0.00	930.71	0.00	0.00
	Domestic Supply	2.42	0.00	0.00	2.42	0.00	0.00
	Irrigation	0.00	0.00	0.11	0.00	0.00	0.11
	Livestock						
	Industrial	17.86	0.00	0.00	17.86	0.00	0.00
	Fossil Fuel Power	1167.94	0.00	0.00	1167.94	0.00	0.00
	Nuclear Power	31.68	0.00	0.00	31.68	0.00	0.00
	Hydroelectric Power						
	Other	231.33	0.00	0.00	231.33	0.00	0.00
	Total:	2381.99	0.00	0.11	2381.94	0.00	0.11
Grand Total:		2381.99	0.00	0.11	2381.94	0.00	0.11

JURISDICTION REPORT- Illinois

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	930.76	0.00	0.00	930.76	0.00	930.76	0.00
Domestic Supply	2.42	0.00	0.00	2.43	0.00	2.42	0.00
Irrigation	0.00	0.00	0.11	0.11	0.00	0.00	0.00
Livestock							
Industrial	17.86	0.00	0.00	17.86		0.01	0.00
Fossil Fuel Power	1167.94	0.00	0.00	1167.94	0.00	0.00	0.00
Nuclear Power	31.68	0.00	0.00	31.68	0.00	0.00	0.00
Hydroelectric Power							
Other	231.33	0.00	0.00	231.33	0.00	231.33	0.00

Total Report - Principal Facilities

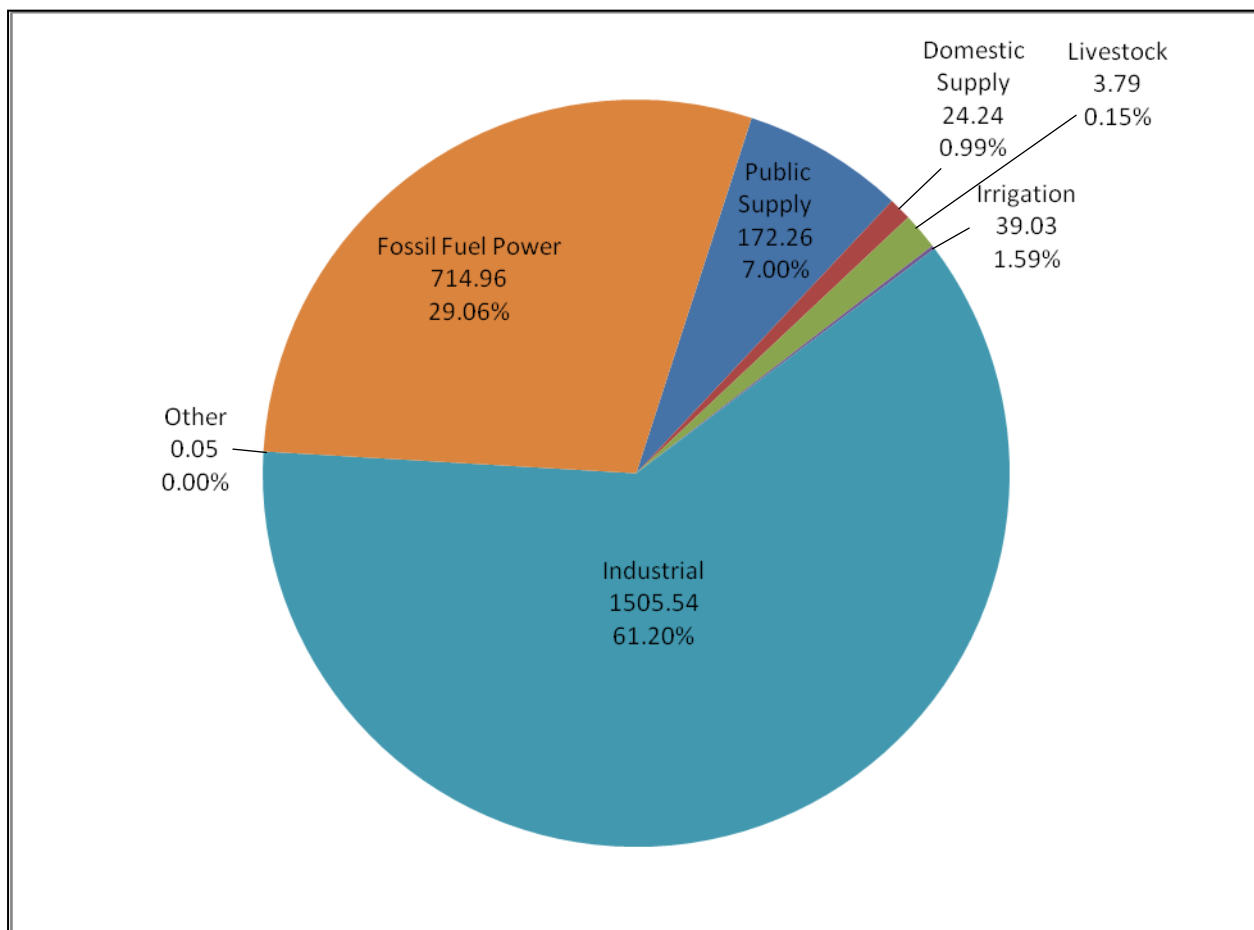
Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	930.71	0.00	0.00	930.71	0.00	930.71	0.00
Domestic Supply	2.42	0.00	0.00	2.43	0.00	2.42	0.00
Irrigation	0.00	0.00	0.11	0.11	0.00	0.00	0.00
Livestock							
Industrial	17.86	0.00	0.00	17.86	0.00	0.01	0.00
Fossil Fuel Power	1167.94	0.00	0.00	1167.94	0.00	0.00	0.00
Nuclear Power	31.68	0.00	0.00	31.68	0.00	0.00	0.00
Hydroelectric Power							
Other	231.33	0.00	0.00	231.33	0.00	231.33	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 2,459.87 mgd compared to the 2008 figure of 2,650.39 mgd. Of this amount, 98 percent of the water used was from the Lake Michigan basin. Industrial was reported as 1,498.32 mgd and fossil fuel power, at 714.69 mgd were the primary uses of Lake Michigan water. The primary use of Lake Erie basin water was public supply, at 38.44 mgd.

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



Consumptive Use: The total consumptive use of water in Indiana’s portion of the Great Lakes basin was 172.29 mgd, compared to 180.27 mgd in 2008. In the Lake Michigan basin, industrial water use category was the largest consumptive use, at 54.5 percent (89.90 mgd of a total of 164.85 mgd) and in the Lake Erie basin public supply was the largest consumptive use, at 77.5 percent (5.77 mgd of a total of 7.44 mgd).

Interbasin Diversions: Diversions from Lake Michigan include one of 51.42 mgd for public supply and another of 21.08 mgd for industrial use. A diversion from the Lake Erie Basin for public supply uses is 7.08 mgd.

JURISDICTION REPORT- Indiana

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 Michigan							
	Public Supply	133.82	51.42	20.08	133.52	51.42	20.03
	Domestic Supply	23.26	0.00	3.49	22.56	0.00	3.39
	Irrigation	37.83	0.00	34.05	36.97	0.00	33.27
	Livestock	3.79	0.00	3.03	3.76	0.00	3.01
	Industrial	1498.32	21.08	89.90	1497.99	21.08	89.88
	Fossil Fuel Power	714.69	0.00	14.29	714.69	0.00	14.29
	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	0.05	0.00	0.01	0.00	0.00	0.00
	Total:	2411.76	72.50	164.85	2409.49	72.50	163.87
Lake Erie							
	Public Supply	38.44	7.08	5.77	38.26	7.08	5.74
	Domestic Supply	0.98	0.00	0.15	0.83	0.00	0.12
	Irrigation	1.20	0.00	1.08	0.97	0.00	0.87
	Livestock	0.00	0.00	0.00	0.00	0.00	0.00
	Industrial	7.22	0.00	0.43	7.07	0.00	0.42
	Fossil Fuel Power	0.27	0.00	0.01	0.27	0.00	0.01
	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:	48.11	7.08	7.44	47.40	7.08	7.16
Grand Total:		2459.87	79.58	172.29	2456.89	79.58	171.03

JURISDICTION REPORT- Indiana

Withdrawals by Source

Units: Mgal(US)/d

Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Lake Michigan							
	Public Supply	89.04	0.00	44.78	89.04	0.00	44.48
	Domestic Supply	0.00	15.52	7.74	0.00	15.50	7.06
	Irrigation	0.00	7.36	30.47	0.00	7.11	29.86
	Livestock	0.00	1.35	2.44	0.00	1.35	2.41
	Industrial	1489.43	2.18	6.71	1489.42	2.18	6.39
	Fossil Fuel Power	714.69	0.00	0.00	714.69	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	0.05	0.00	0.00	0.00
	Total:	2293.16	26.41	92.19	2293.15	26.14	90.20
Lake Erie							
	Public Supply	0.00	32.04	6.40	0.00	32.04	6.22
	Domestic Supply	0.00	0.00	0.98	0.00	0.00	0.83
	Irrigation	0.00	0.28	0.92	0.00	0.23	0.74
	Livestock	0.00	0.00	0.00	0.00	0.00	0.00
	Industrial	0.00	3.55	3.67	0.00	3.52	3.55
	Fossil Fuel Power	0.00	0.00	0.27	0.00	0.00	0.27
	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	35.87	12.24	0.00	35.79	11.61
Grand Total:		2293.16	62.28	104.43	2293.15	61.93	101.81

JURISDICTION REPORT- Indiana

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	89.04	32.04	51.18	172.26	0.00	58.50	25.85
Domestic Supply	0.00	15.52	8.72	24.24	0.00	0.00	3.64
Irrigation	0.00	7.64	31.39	39.03	0.00	0.00	35.13
Livestock	0.00	1.35	2.44	3.79	0.00	0.00	3.03
Industrial	1489.43	5.73	10.38	1505.54	0.00	21.08	90.33
Fossil Fuel Power	714.69	0.00	0.27	714.96	0.00	0.00	14.30
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	0.05	0.05	0.00	0.00	0.01

Total Report - Principal Facilities

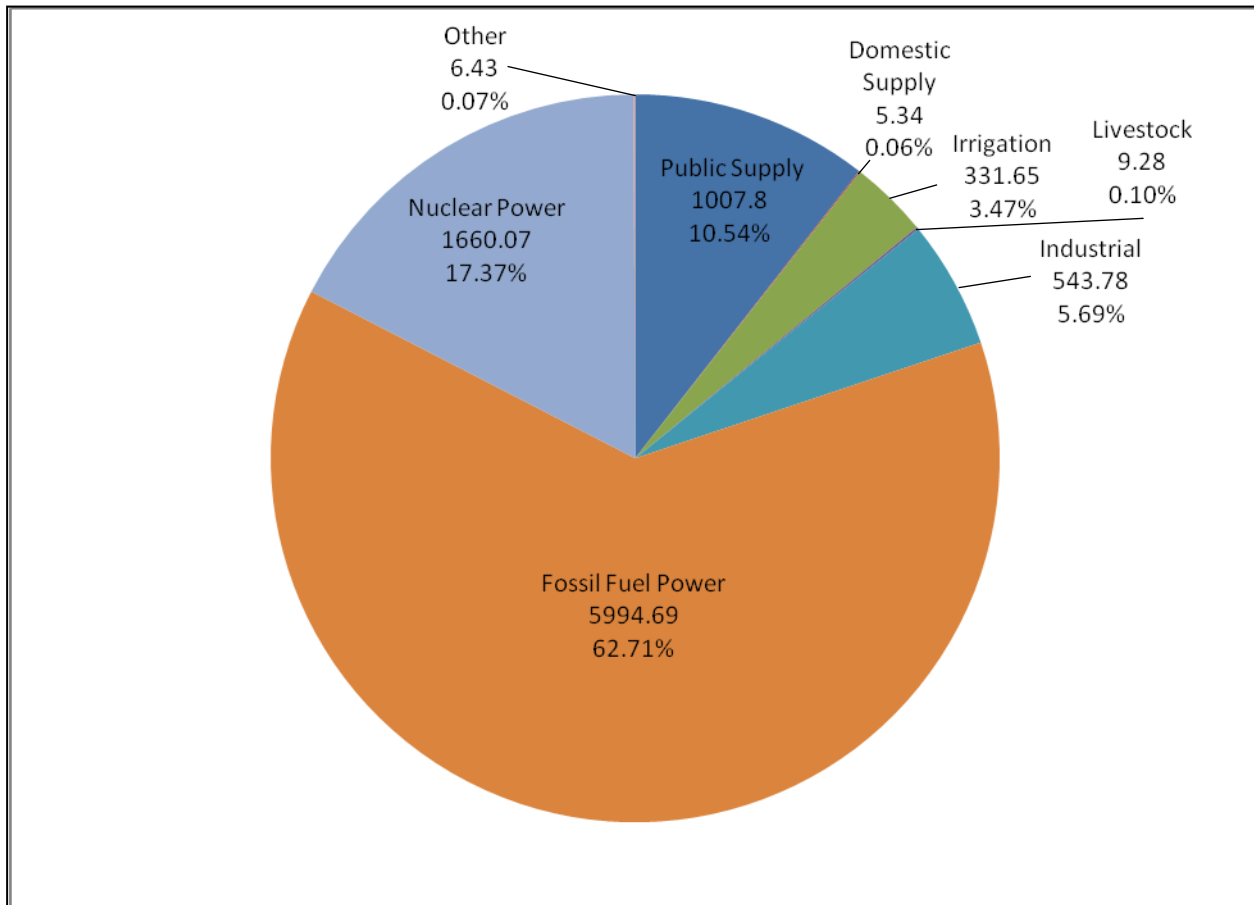
Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	89.04	32.04	50.70	171.78	0.00	58.50	25.77
Domestic Supply	0.00	15.50	7.89	23.39	0.00	0.00	3.51
Irrigation	0.00	7.34	30.60	37.94	0.00	0.00	34.14
Livestock	0.00	1.35	2.41	3.76	0.00	0.00	3.01
Industrial	1489.42	5.70	9.94	1505.06	0.00	21.08	90.30
Fossil Fuel Power	714.69	0.00	0.27	714.96	0.00	0.00	14.30
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 9,559.05 mgd, a decrease of 7.9 percent from 2008 (10,378.46 mgd). Of the four basins, the state of Michigan withdraws the most—about 51.9 percent from Lake Erie (4,963.63 mgd) and the least—about 3 percent from Lake Superior (239.19 mgd). 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 gallons per day)



Consumptive Use: Consumptive uses in the Michigan portion of the Great Lakes basin were calculated to be approximately 764.71 mgd; irrigation was the largest single consumptive use at 298.49 mgd, or about 39 percent of the total consumptive use.

Interbasin Diversions: None reported.

JURISDICTION REPORT- Michigan

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	14.15		1.77	13.32		1.67
	Domestic Supply						
	Irrigation	1.01		0.91	0.96		0.86
	Livestock						
	Industrial	8.79		0.88	8.67		0.87
	Fossil Fuel Power	215.23		0.32	215.23		0.32
	Nuclear Power						
	Hydroelectric Power						
	Other						
	Total:	239.19		3.88	238.18		3.72

Lake Michigan							
	Public Supply	249.31		31.16	240.98		30.12
	Domestic Supply	5.17		0.65	4.89		0.61
	Irrigation	175.89		158.30	160.55		144.50
	Livestock	6.00		4.80	2.46		1.97
	Industrial	206.82		20.68	205.21		20.52
	Fossil Fuel Power	1072.18		86.63	1072.12		86.61
	Nuclear Power	1610.23		19.32	1610.23		19.32
	Hydroelectric Power						
	Other	3.84		0.00	3.84		0.00
	Total:	3329.43		321.55	3300.28		303.64

Lake Huron							
	Public Supply	118.72		14.84	115.39		14.42
	Domestic Supply	0.06		0.01			
	Irrigation	139.78		125.80	137.86		124.07
	Livestock	2.67		2.13	1.82		1.46
	Industrial	79.24		7.92	78.92		7.89
	Fossil Fuel Power	686.33		111.11	686.33		111.11
	Nuclear Power						
	Hydroelectric Power						
	Other						
	Total:	1026.80		261.81	1020.31		258.95

Basin	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Lake Erie							
	Public Supply	625.62		78.20	622.35		77.79
	Domestic Supply	0.11		0.01	0.08		0.01
	Irrigation	14.97		13.47	12.75		11.48
	Livestock	0.61		0.49	0.15		0.12
	Industrial	248.93		24.89	248.93		24.89
	Fossil Fuel Power	4020.95		41.26	4020.95		41.26
	Nuclear Power	49.84		19.14	49.84		19.14
	Hydroelectric Power						
	Other	2.59		0.00	2.59		0.00
	Total:	4963.63		177.46	4957.66		174.69
Grand Total:		9559.05		764.71	9516.43		741.00

JURISDICTION REPORT- Michigan

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	5.20	0.00	8.95	5.20	0.00	8.12
	Domestic Supply						
	Irrigation	0.01	0.42	0.58	0.00	0.38	0.57
	Livestock						
	Industrial	8.67	0.00	0.12	8.67	0.00	0.00
	Fossil Fuel Power	215.23	0.00	0.00	215.23	0.00	0.00
	Nuclear Power						
	Hydroelectric Power						
	Other						
	Total:	229.11	0.42	9.66	229.11	0.38	8.70
Lake Michigan							
	Public Supply	117.42	0.00	131.89	117.42	0.00	123.56
	Domestic Supply	0.00	2.33	2.83	0.00	2.31	2.58
	Irrigation	0.27	45.70	129.92	0.24	40.15	120.16
	Livestock	0.00	1.07	4.93	0.00	1.07	1.39
	Industrial	45.00	111.19	50.63	44.98	111.13	49.10
	Fossil Fuel Power	678.11	391.22	2.85	678.11	391.22	2.80
	Nuclear Power	1610.23	0.00	0.00	1610.23	0.00	0.00
	Hydroelectric Power						
	Other	0.00	0.00	3.84	0.00	0.00	3.84
	Total:	2451.02	551.52	326.89	2450.98	545.88	303.42
Lake Huron							
	Public Supply	92.47	1.02	25.23	92.25	1.02	22.12
	Domestic Supply	0.00	0.00	0.06			
	Irrigation	0.12	128.68	10.99	0.10	127.68	10.07
	Livestock	0.00	0.96	1.70	0.00	0.96	0.86
	Industrial	14.87	38.44	25.93	14.87	38.38	25.67
	Fossil Fuel Power	163.63	521.93	0.76	163.63	521.93	0.76
	Nuclear Power						
	Hydroelectric Power						
	Other						
	Total:	271.10	691.04	64.67	270.85	689.98	59.48

Basin	Category	All Facilities			Principal Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Lake Erie							
	Public Supply	573.19	18.48	33.95	573.19	18.41	30.75
	Domestic Supply	0.00	0.00	0.11	0.00	0.00	0.08
	Irrigation	0.17	8.36	6.43	0.05	7.14	5.57
	Livestock	0.00	0.34	0.27	0.00	0.15	0.00
	Industrial	206.29	16.60	26.04	206.29	16.60	26.04
	Fossil Fuel Power	3901.49	119.36	0.10	3901.49	119.36	0.10
	Nuclear Power	49.84	0.00	0.00	49.84	0.00	0.00
	Hydroelectric Power						
	Other	0.00	1.10	1.49	0.00	1.10	1.49
	Total:	4730.98	164.24	68.41	4730.86	162.76	64.04
Grand Total:		7682.22	1407.22	469.61	7681.80	1399.00	435.63

JURISDICTION REPORT- Michigan

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	788.28	19.51	200.02	1007.80	0.00	125.98	
Domestic Supply	0.00	2.33	3.01	5.34		0.67	
Irrigation	0.57	183.17	147.92	331.65		298.49	
Livestock	0.00	2.37	6.91	9.28		7.42	
Industrial	274.83	166.23	102.72	543.78		54.38	
Fossil Fuel Power	4958.46	1032.51	3.72	5994.69		239.31	
Nuclear Power	1660.07	0.00	0.00	1660.07		38.46	
Hydroelectric Power							
Other	0.00	1.10	5.33	6.43		0.00	

Total Report - Principal Facilities

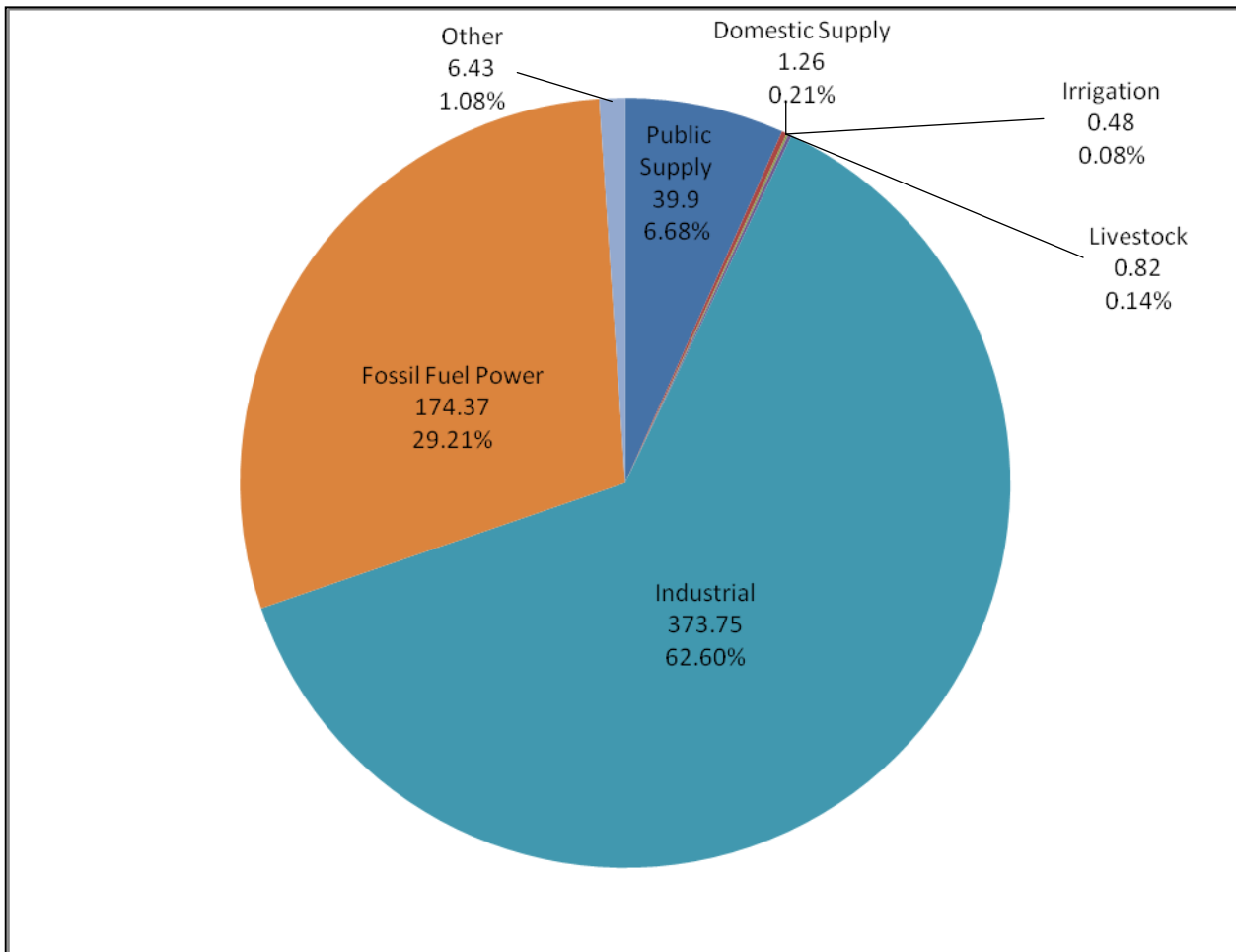
Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	788.06	19.44	184.55	992.04	0.00	124.01	
Domestic Supply	0.00	2.31	2.66	4.97		0.62	
Irrigation	0.39	175.35	136.37	312.12		280.90	
Livestock	0.00	2.18	2.24	4.43		3.54	
Industrial	274.82	166.11	100.81	541.74		54.17	
Fossil Fuel Power	4958.46	1032.51	3.67	5994.64		239.29	
Nuclear Power	1660.07	0.00	0.00	1660.07		38.46	
Hydroelectric Power							
Other	0.00	1.10	5.33	6.43		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 4,034.79 mgd, an decrease of 11 percent from 2008 (4,530.97 mgd). Water used for hydroelectric power generation purposes (3444.12 mgd), 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 gallons per day)



Consumptive Use: The largest consumptive use was calculated to be industrial, at 37.37 mgd, or 81.8 percent of total consumption (45.69 mgd). Public supply was the second largest consumptive use at 3.98 mgd, or 8.7 percent of Minnesota’s total consumptive use.

Interbasin Diversions: A diversion of 6.15 mgd was reported for industrial use.

JURISDICTION REPORT- Minnesota

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	39.90	0.00	3.98	39.60	0.00	3.95
	Domestic Supply	1.26	0.00	0.12	1.15	0.00	0.11
	Irrigation	0.48	0.00	0.00	0.00	0.00	0.00
	Livestock	0.82	0.00	0.73	0.74	0.00	0.67
	Industrial	373.75	6.15	37.37	373.41	6.15	37.34
	Fossil Fuel Power	174.37	0.00	3.49	174.27	0.00	3.49
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	3444.12	0.00	0.00	3444.12	0.00	0.00
	Other	0.09	0.00	0.00	0.00	0.00	0.00
	Total:	4034.79	6.15	45.69	4033.29	6.15	45.56
Grand Total:		4034.79	6.15	45.69	4033.29	6.15	45.56

JURISDICTION REPORT- Minnesota

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	31.94	1.85	6.11	31.91	1.85	5.84
	Domestic Supply	0.80	0.42	0.04	0.73	0.42	0.00
	Irrigation	0.06	0.30	0.12	0.00	0.00	0.00
	Livestock	0.82	0.00	0.00	0.74	0.00	0.00
	Industrial	293.62	80.11	0.02	293.54	79.87	0.00
	Fossil Fuel Power	18.83	155.45	0.09	18.83	155.44	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	0.00	3444.12	0.00	0.00	3444.12	0.00
	Other	0.00	0.00	0.09	0.00	0.00	0.00
	Total:	346.07	3682.25	6.47	345.75	3681.70	5.84
Grand Total:		346.07	3682.25	6.47	345.75	3681.70	5.84

JURISDICTION REPORT- Minnesota

Jurisdiction Totals

Units: Mgal(US)/d

Year Of Data: 2009

Total Report - All Facilities

Category	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Public Supply	31.94	1.85	6.11	39.90	0.00	0.00	3.98
Domestic Supply	0.80	0.42	0.04	1.26	0.00	0.00	0.12
Irrigation	0.06	0.30	0.12	0.48	0.00	0.00	0.00
Livestock	0.82	0.00	0.00	0.82	0.00	0.00	0.73
Industrial	293.62	80.11	0.02	373.75	0.00	6.15	37.37
Fossil Fuel Power	18.83	155.45	0.09	174.37	0.00	0.00	3.49
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydroelectric Power	0.00	3444.12	0.00	3444.12	0.00	0.00	0.00
Other	0.00	0.00	0.09	0.09	0.00	0.00	0.00

Total Report - Principal Facilities

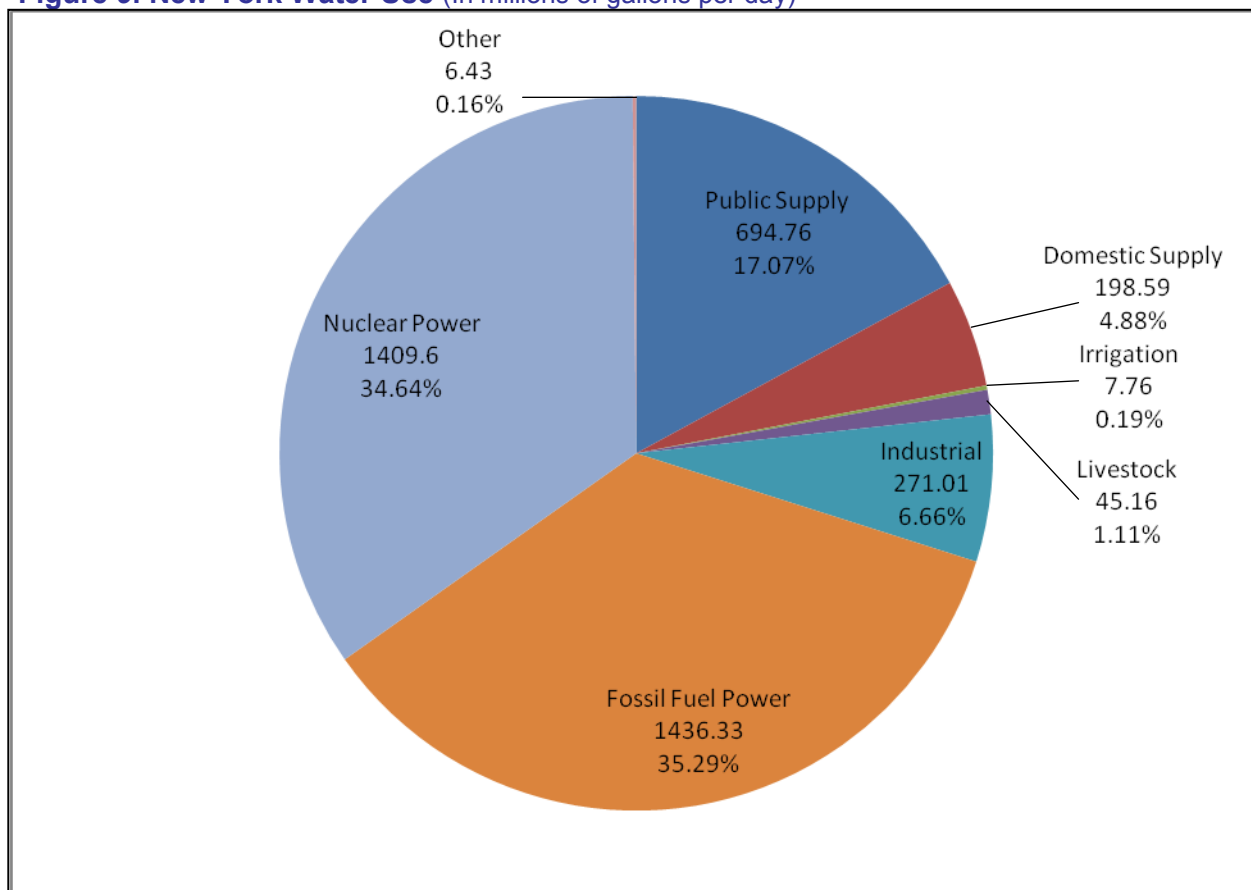
Category	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Public Supply	31.91	1.85	5.84	39.60	0.00	0.00	3.95
Domestic Supply	0.73	0.42	0.00	1.15	0.00	0.00	0.11
Irrigation	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Livestock	0.74	0.00	0.00	0.74	0.00	0.00	0.67
Industrial	293.54	79.87	0.00	373.41	0.00	6.15	37.34
Fossil Fuel Power	18.83	155.44	0.00	174.27	0.00	0.00	3.49
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydroelectric Power	0.00	3444.12	0.00	3444.12	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 312,431.06 mgd. Total withdrawals, not including hydroelectric power, were 4,141.06 mgd. Hydroelectric power uses of 308,290 mgd 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 gallons per day)



Consumptive Use: New York reported total consumptive uses of 344.48 mgd. Lake Ontario comprised 221.78 mgd or 64.4 percent; Lake Erie comprised 93.68 mgd or 27 percent; the St. Lawrence River comprised 29.02 mgd or 8.4 percent. The largest categories of consumptive use were nuclear power (70.48 mgd) and public supply (69.48 mgd), 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 9.59 mgd 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 32 mgd into the Mohawk River basin.

Intrabasin Diversions: No intrabasin diversions were reported.

JURISDICTION REPORT- New York

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 Erie							
	Public Supply	264.03	0.00	26.40		0.00	
	Domestic Supply	44.34	0.00	4.44	3.36	0.00	0.34
	Irrigation	0.49	0.00	0.44	0.49	0.00	0.44
	Livestock	8.86	0.00	7.98		0.00	
	Industrial	157.68	0.00	39.43	157.68	0.00	39.43
	Fossil Fuel Power	704.36	0.00	14.09	704.36	0.00	14.09
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	45584.00	0.00	0.00	45584.00	0.00	0.00
	Other	0.93	0.00	0.90	0.93	0.00	0.09
	Total:	46764.69	0.00	93.68	46450.82	0.00	54.39
Lake Ontario							
	Public Supply	390.73	9.59	39.08		9.59	0.00
	Domestic Supply	131.37	0.00	13.14	61.35	0.00	6.14
	Irrigation	7.27	0.00	6.54	7.27	0.00	6.54
	Livestock	21.27	0.00	19.14		0.00	
	Industrial	80.10	0.00	20.03	80.10	0.00	20.03
	Fossil Fuel Power	731.96	0.00	14.64	731.96	0.00	14.64
	Nuclear Power	1409.60	0.00	70.48	1409.60	0.00	70.48
	Hydroelectric Power	80908.00	0.00	0.00	0.00	0.00	0.00
	Other	67.95	32.00	38.73	67.26	32.00	38.73
	Total:	83748.25	41.59	221.78	2357.54	41.59	156.56
St. Lawrence River							
	Public Supply	40.00	0.00	4.00		0.00	
	Domestic Supply	22.88	0.00	2.29	8.62	0.00	0.86
	Irrigation	0.00	0.00	0.00	0.00	0.00	0.00
	Livestock	15.03	0.00	13.52		0.00	
	Industrial	33.23	0.00	8.31	33.23	0.00	8.31
	Fossil Fuel Power	0.01	0.00	0.00	0.01	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	181798.00	0.00	0.00	83106.00	0.00	0.00
	Other	8.97	0.00	0.90	8.97	0.00	0.90
	Total:	181918.12	0.00	29.02	83156.83	0.00	10.07
Grand Total:		312431.06	41.59	344.48	131965.19	41.59	221.02

JURISDICTION REPORT- New York

Withdrawals by Source

Units: Mgal(US)/d

Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Lake Erie							
	Public Supply	184.58	72.12	7.33			
	Domestic Supply	22.96	3.36	18.02	0.00	3.36	0.00
	Irrigation	0.32	0.17	0.00	0.32	0.17	0.00
	Livestock	0.91	2.92	5.03			
	Industrial	152.70	0.88	4.10	152.70	0.88	4.10
	Fossil Fuel Power	704.36	0.00	0.00	704.36	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	45584.00	0.00	0.00	45584.00	0.00	0.00
	Other	0.00	0.93	0.00	0.00	0.93	0.00
	Total:	46649.83	80.38	34.48	46441.38	5.34	4.10
Lake Ontario							
	Public Supply	187.28	170.27	33.18			
	Domestic Supply	29.33	61.35	40.69	0.00	61.35	0.00
	Irrigation	0.00	5.81	1.46	0.00	5.81	1.46
	Livestock	3.91	7.56	9.80			
	Industrial	16.05	54.94	9.11	16.05	54.94	9.11
	Fossil Fuel Power	420.77	311.19	0.00	420.77	311.19	0.00
	Nuclear Power	1409.60	0.00	0.00	1409.60	0.00	0.00
	Hydroelectric Power	0.00	80908.00	0.00	0.00	0.00	0.00
	Other	0.00	66.97	0.98	0.00	66.37	0.89
	Total:	2066.94	81586.09	95.22	1846.42	499.66	11.46
St. Lawrence River							
	Public Supply	2.80	32.47	4.73			
	Domestic Supply	0.00	8.62	14.26	0.00	8.62	0.00
	Irrigation	0.00	0.00	0.00	0.00	0.00	0.00
	Livestock	0.38	10.56	4.09			
	Industrial	2.73	27.10	3.40	2.73	27.10	3.40
	Fossil Fuel Power	0.01	0.00	0.00	0.01	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	83106.00	98692.00	0.00	83106.00	0.00	0.00
	Other	0.00	8.61	0.36	0.00	8.61	0.36
	Total:	83111.92	98779.36	26.84	83108.74	44.33	3.76
Grand Total:		131828.69	180445.83	156.54	131396.54	549.33	19.32

JURISDICTION REPORT- New York

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	374.66	274.86	45.24	694.76	0.00	9.59	69.48
Domestic Supply	52.29	73.33	72.97	198.59	0.00	0.00	19.87
Irrigation	0.32	5.98	1.46	7.76	0.00	0.00	6.98
Livestock	5.20	21.04	18.92	45.16	0.00	0.00	40.64
Industrial	171.48	82.92	16.61	271.01	0.00	0.00	67.77
Fossil Fuel Power	1125.14	311.19	0.00	1436.33	0.00	0.00	28.73
Nuclear Power	1409.60	0.00	0.00	1409.60	0.00	0.00	70.48
Hydroelectric Power	128690.00	179600.00	0.00	308290.00	0.00	0.00	0.00
Other	0.00	76.51	1.34	77.85	0.00	32.00	40.53

Total Report - Principal Facilities

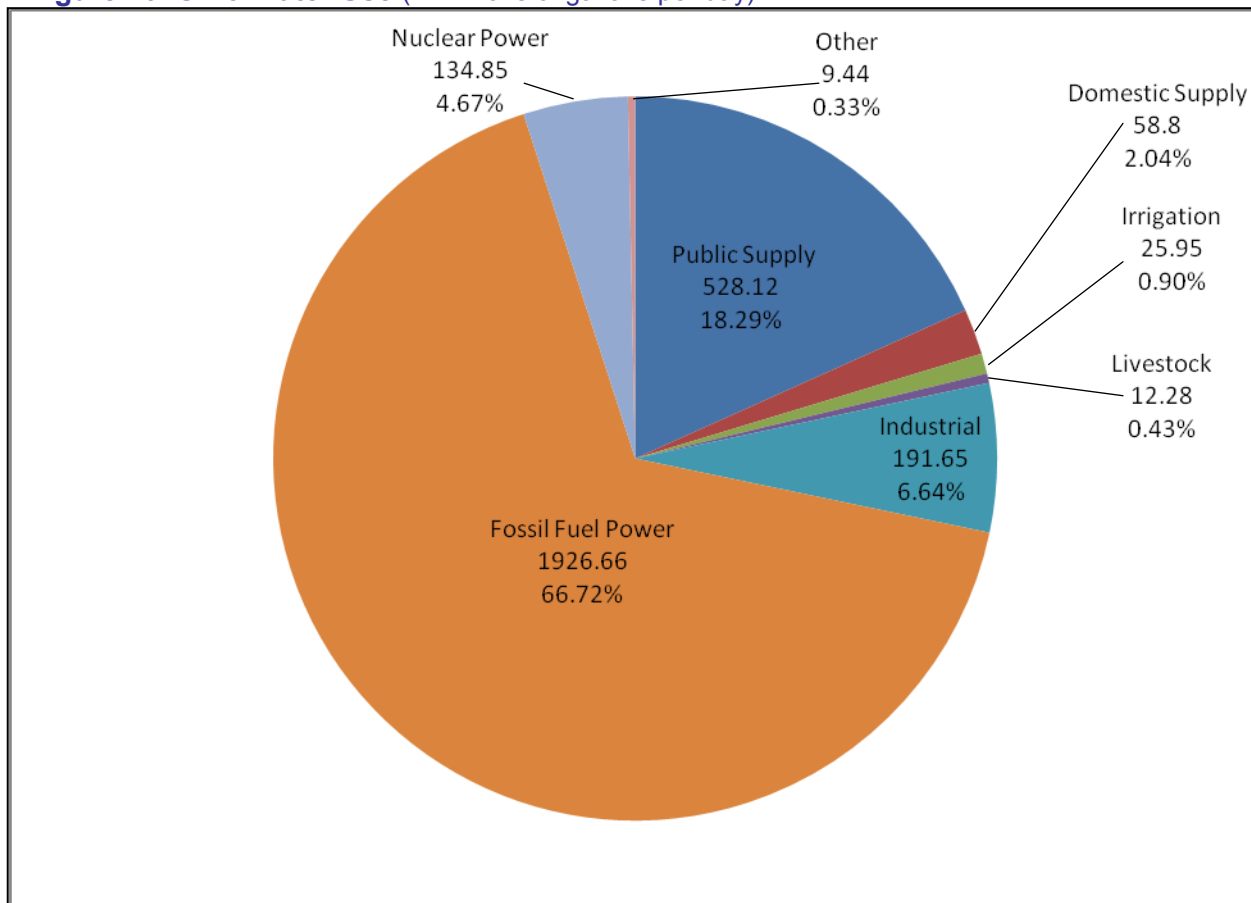
Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply					0.00	9.59	0.00
Domestic Supply	0.00	73.33	0.00	73.33	0.00	0.00	7.34
Irrigation	0.32	5.98	1.46	7.76	0.00	0.00	6.98
Livestock					0.00	0.00	
Industrial	171.48	82.92	16.61	271.01	0.00	0.00	67.77
Fossil Fuel Power	1125.14	311.19	0.00	1436.33	0.00	0.00	28.73
Nuclear Power	1409.60	0.00	0.00	1409.60	0.00	0.00	70.48
Hydroelectric Power	128690.00	0.00	0.00	128690.00	0.00	0.00	0.00
Other	0.00	75.91	1.25	77.16	0.00	32.00	39.72

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 2,887.75 mgd. Fossil fuel power was by far the largest use of water at 1,926.66 mgd (66.7%); public supply was the second largest withdrawal at 528.12 mgd (18.3%).

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



Consumptive Use: Total consumptive uses were calculated to be 172.02 mgd. Public supply represents the largest consumptive use sector at 79.22 mgd and accounts for 46 percent of the total. The next three largest consumptive use categories were irrigation at 23.35 mgd, fossil fuel power at 19.27 mgd and industrial facilities at 14.64 mgd.

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 0.32 mgd. Releases from the Ohio & Erie Canal into the Lake Erie basin resulted in incoming diversions of 9.63 mgd.

JURISDICTION REPORT- Ohio

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 Erie							
	Public Supply	528.12	0.32	79.22	524.31	0.32	78.65
	Domestic Supply	58.80	0.00	8.82	0.30	0.00	0.05
	Irrigation	25.95	0.00	23.35	24.00	0.00	21.60
	Livestock	12.28	0.00	9.82	0.88	0.00	0.70
	Industrial	191.65	0.00	14.64	191.05	0.00	14.58
	Fossil Fuel Power	1926.66	0.00	19.27	1926.66	0.00	19.27
	Nuclear Power	134.85	0.00	13.49	134.85	0.00	13.49
	Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00
	Other	9.44	-9.63	3.41	9.30	-9.63	3.30
	Total:	2887.75	-9.31	172.02	2811.35	-9.31	151.64
Grand Total:		2887.75	-9.31	172.02	2811.35	-9.31	151.64

JURISDICTION REPORT- Ohio

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

Basin	Category	All Facilities			Principal Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Lake Erie							
	Public Supply	397.59	99.09	31.44	397.56	98.97	27.78
	Domestic Supply	0.30	0.07	58.43	0.30	0.00	0.00
	Irrigation	2.77	20.16	3.02	2.76	18.84	2.40
	Livestock	0.00	1.50	10.78	0.00	0.44	0.44
	Industrial	40.04	100.04	51.57	40.01	99.89	51.15
	Fossil Fuel Power	1314.00	612.66	0.00	1314.00	612.66	0.00
	Nuclear Power	134.85	0.00	0.00	134.85	0.00	0.00
	Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00
	Other	0.63	8.19	0.62	0.58	8.18	0.54
	Total:	1890.18	841.71	155.86	1890.06	838.98	82.31
Grand Total:		1890.18	841.71	155.86	1890.06	838.98	82.31

JURISDICTION REPORT- Ohio

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	397.59	99.09	31.44	528.12	0.00	0.32	79.22
Domestic Supply	0.30	0.07	58.43	58.80	0.00	0.00	8.82
Irrigation	2.77	20.16	3.02	25.95	0.00	0.00	23.35
Livestock	0.00	1.50	10.78	12.28	0.00	0.00	9.82
Industrial	40.04	100.04	51.57	191.65	0.00	0.00	14.64
Fossil Fuel Power	1314.00	612.66	0.00	1926.66	0.00	0.00	19.27
Nuclear Power	134.85	0.00	0.00	134.85	0.00	0.00	13.49
Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.63	8.19	0.62	9.44	0.00	-9.63	3.41

Total Report - Principal Facilities

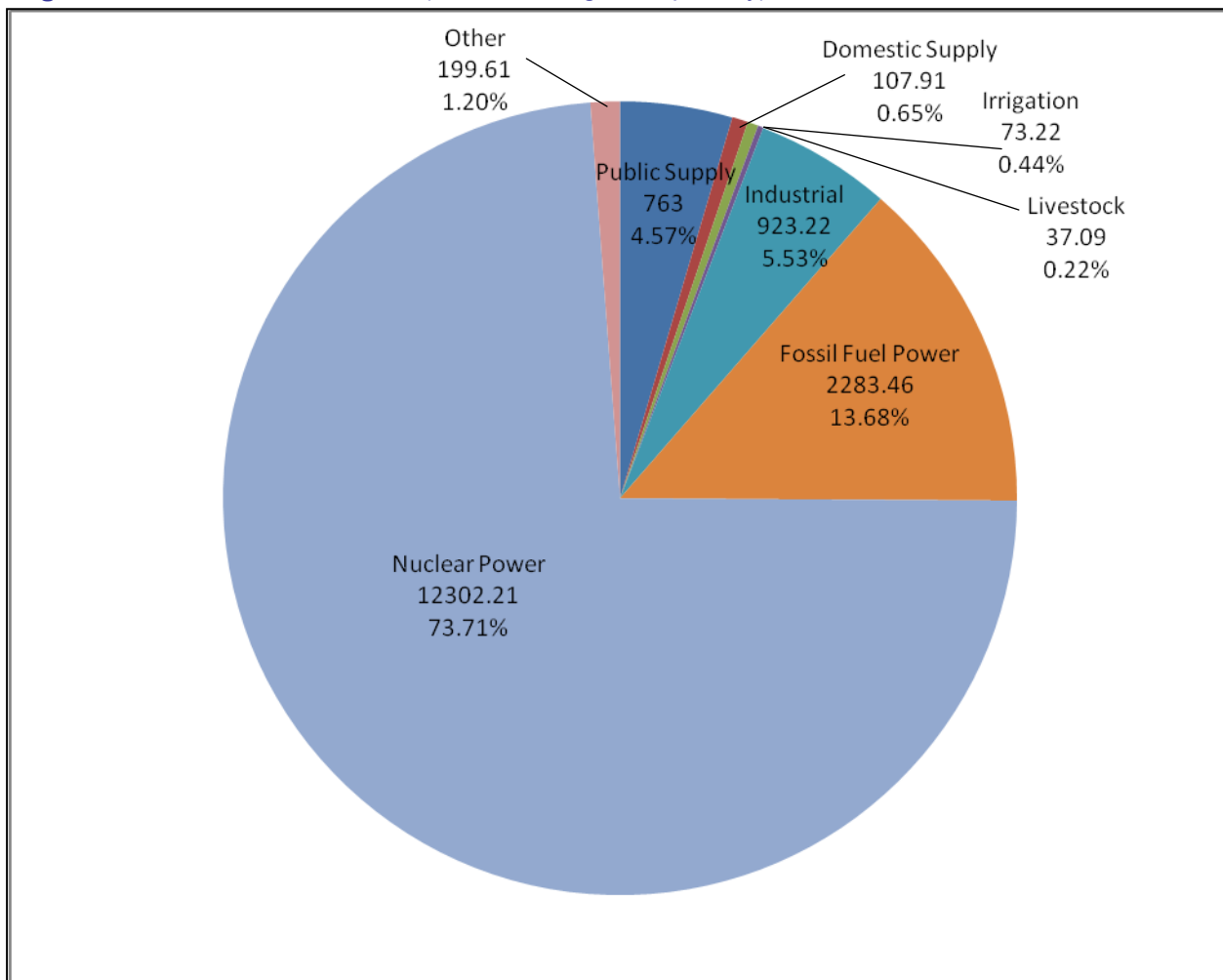
Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	397.56	98.97	27.78	524.31	0.00	0.32	78.65
Domestic Supply	0.30	0.00	0.00	0.30	0.00	0.00	0.05
Irrigation	2.76	18.84	2.40	24.00	0.00	0.00	21.60
Livestock	0.00	0.44	0.44	0.88	0.00	0.00	0.70
Industrial	40.01	99.89	51.15	191.05	0.00	0.00	14.58
Fossil Fuel Power	1314.00	612.66	0.00	1926.66	0.00	0.00	19.27
Nuclear Power	134.85	0.00	0.00	134.85	0.00	0.00	13.49
Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	0.58	8.18	0.54	9.30	0.00	-9.63	3.30

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 gallons 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 303,285.46 mgd. However, hydroelectric withdrawals represented more than 94.5 percent of the total, leaving total use at 286,595.75mgd (75,710.5 mld). Thermoelectric—nuclear plant uses (not including hydropower) were the largest at 73.7 percent (12,302.21mgd or 1,084 882.9 mld).

Consumptive Use: Total consumptive uses were calculated to be 320.06 mgd (1,211.5mld). Public supply represents the largest consumptive use sector at 114.45 mgd (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 110.72 mgd (419 mld) and 58.16 mgd (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 (3,800 mgd).

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 ,73.5 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: 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	45.77	0.00	6.87	45.58	0.00	6.84
	Domestic Supply	1.75	0.00	0.26	0.00	0.00	0.00
	Irrigation	0.37	0.00			0.00	
	Livestock	0.14	0.00			0.00	
	Industrial	162.12	0.00	10.21	0.00	0.00	0.00
	Fossil Fuel Power	81.06	0.00	0.73	81.06	0.00	0.73
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	36016.95	-4007.75	0.00	36016.95	0.00	0.00
	Other		0.00			0.00	
	Total:	36308.17	-4007.75	18.07	36143.59	0.00	7.57

Lake Huron							
	Public Supply	84.37	0.00	12.65	81.66	0.00	12.25
	Domestic Supply	10.61	0.00	1.59	0.00	0.00	0.00
	Irrigation	20.91	0.00			0.00	
	Livestock	12.41	0.00			0.00	
	Industrial	190.19	0.00	11.98	0.00	0.00	0.00
	Fossil Fuel Power	0.00	0.00	0.00	0.00	0.00	0.00
	Nuclear Power	5695.74	0.00	51.26	5695.74	0.00	51.26
	Hydroelectric Power	40433.38	0.00	0.00	40433.38	0.00	0.00
	Other	47.97	0.00	0.00	47.97	0.00	0.00
	Total:	46495.59	0.00	77.49	46258.75	0.00	63.51

Lake Erie							
	Public Supply	93.89	0.00	14.08	92.84	0.00	13.92
	Domestic Supply	19.94	0.00	2.99	0.00	0.00	0.00
	Irrigation	31.85	0.00			0.00	
	Livestock	13.22	0.00			0.00	
	Industrial	180.45	0.00	11.37	0.00	0.00	0.00
	Fossil Fuel Power	1479.36	0.00	13.31	1479.36	0.00	13.31
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	560.31	0.00	0.00	560.31	0.00	0.00
	Other		0.00			0.00	
	Total:	2379.03	0.00	41.76	2132.51	0.00	27.24

Basin	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Lake Ontario							
	Public Supply	465.93	0.00	69.89	464.62	0.00	69.69
	Domestic Supply	64.17	0.00	9.63	0.00	0.00	0.00
	Irrigation	17.73	0.00			0.00	
	Livestock	5.40	0.00			0.00	
	Industrial	229.64	0.00	14.47	0.00	0.00	0.00
	Fossil Fuel Power	723.03	0.00	6.51	723.03	0.00	6.51
	Nuclear Power	6606.47	0.00	59.46	6606.47	0.00	59.46
	Hydroelectric Power	52353.09	0.00	0.00	52353.09	0.00	0.00
	Other	132.35	0.00	0.00	132.35	0.00	0.00
	Total:	60597.81	0.00	159.95	60279.56	0.00	135.66
St. Lawrence River							
	Public Supply	73.03	0.00	10.96	72.08	0.00	10.82
	Domestic Supply	11.45	0.00	1.72	0.00	0.00	0.00
	Irrigation	2.35	0.00			0.00	
	Livestock	5.91	0.00			0.00	
	Industrial	160.81	0.00	10.13	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	157232.03	0.00	0.00	157232.03	0.00	0.00
	Other	19.28	0.00	0.00	19.28	0.00	0.00
	Total:	157504.86	0.00	22.80	157323.39	0.00	10.82
Grand Total:		303285.46	-4007.75	320.06	302137.81	0.00	244.79

JURISDICTION REPORT- Ontario

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	30.10	13.03	2.65	30.07	12.96	2.55
	Domestic Supply	0.00	0.00	1.75	0.00	0.00	0.00
	Irrigation	0.02	0.31	0.05			
	Livestock	0.00	0.14	0.00			
	Industrial	162.12	0.00	0.00	0.00	0.00	0.00
	Fossil Fuel Power	81.06	0.00	0.00	81.06	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	0.00	36016.95	0.00	0.00	36016.95	0.00
	Other						
	Total:	273.30	36030.43	4.44	111.13	36029.91	2.55
Lake Huron							
	Public Supply	42.66	23.57	18.14	42.02	23.23	16.40
	Domestic Supply	0.00	0.00	10.61	0.00	0.00	0.00
	Irrigation	0.15	15.41	5.35			
	Livestock	2.93	3.07	6.41			
	Industrial	187.41	0.00	2.78	0.00	0.00	0.00
	Fossil Fuel Power	0.00	0.00	0.00	0.00	0.00	0.00
	Nuclear Power	5695.74	0.00	0.00	5695.74	0.00	0.00
	Hydroelectric Power	19195.27	21238.11	0.00	19195.27	21238.11	0.00
	Other	0.00	47.97	0.00	0.00	47.97	0.00
	Total:	25124.17	21328.13	43.29	24933.03	21309.31	16.40
Lake Erie							
	Public Supply	8.97	29.26	55.66	8.97	29.23	54.64
	Domestic Supply	0.00	0.00	19.94	0.00	0.00	0.00
	Irrigation	0.59	12.11	19.15			
	Livestock	0.02	0.89	12.31			
	Industrial	173.24	0.00	7.21	0.00	0.00	0.00
	Fossil Fuel Power	1479.36	0.00	0.00	1479.36	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	0.00	560.31	0.00	0.00	560.31	0.00
	Other						
	Total:	1662.18	602.57	114.27	1488.33	589.54	54.64

Basin	Category	All Facilities			Principal Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Lake Ontario							
	Public Supply	401.52	52.86	11.56	401.47	52.68	10.47
	Domestic Supply	0.00	0.00	64.17	0.00	0.00	0.00
	Irrigation	1.08	9.53	7.12			
	Livestock	0.00	0.94	4.46			
	Industrial	218.17	0.00	11.46	0.00	0.00	0.00
	Fossil Fuel Power	723.03	0.00	0.00	723.03	0.00	0.00
	Nuclear Power	6606.47	0.00	0.00	6606.47	0.00	0.00
	Hydroelectric Power	37651.12	14701.97	0.00	37651.12	14701.97	0.00
	Other	0.00	132.35	0.00	0.00	132.35	0.00
	Total:	45601.40	14897.64	98.77	45382.10	14886.99	10.47
St. Lawrence River							
	Public Supply	10.64	58.84	3.56	10.64	58.52	2.93
	Domestic Supply	0.00	0.00	11.45	0.00	0.00	0.00
	Irrigation	0.01	2.04	0.30			
	Livestock	0.00	3.63	2.28			
	Industrial	159.76	0.00	1.05	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	85452.52	71779.51	0.00	85452.52	71779.51	0.00
	Other	0.00	19.28	0.00	0.00	19.28	0.00
	Total:	85622.93	71863.29	18.65	85463.16	71857.31	2.93
Grand Total:		158283.98	144722.06	279.43	157377.75	144673.06	87.00

JURISDICTION REPORT- Ontario

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	493.88	177.55	91.57	763.00	0.00	0.00	114.45
Domestic Supply	0.00	0.00	107.91	107.91	0.00	0.00	16.19
Irrigation	1.86	39.39	31.97	73.22	0.00	0.00	
Livestock	2.95	8.67	25.47	37.09	0.00	0.00	
Industrial	900.71	0.00	22.51	923.22	0.00	0.00	58.16
Fossil Fuel Power	2283.46	0.00	0.00	2283.46	0.00	0.00	20.55
Nuclear Power	12302.21	0.00	0.00	12302.21	0.00	0.00	110.72
Hydroelectric Power	142298.91	144296.84	0.00	286595.75	0.00	-4007.75	0.00
Other	0.00	199.61	0.00	199.61	61.97	0.00	0.00

Total Report - Principal Facilities

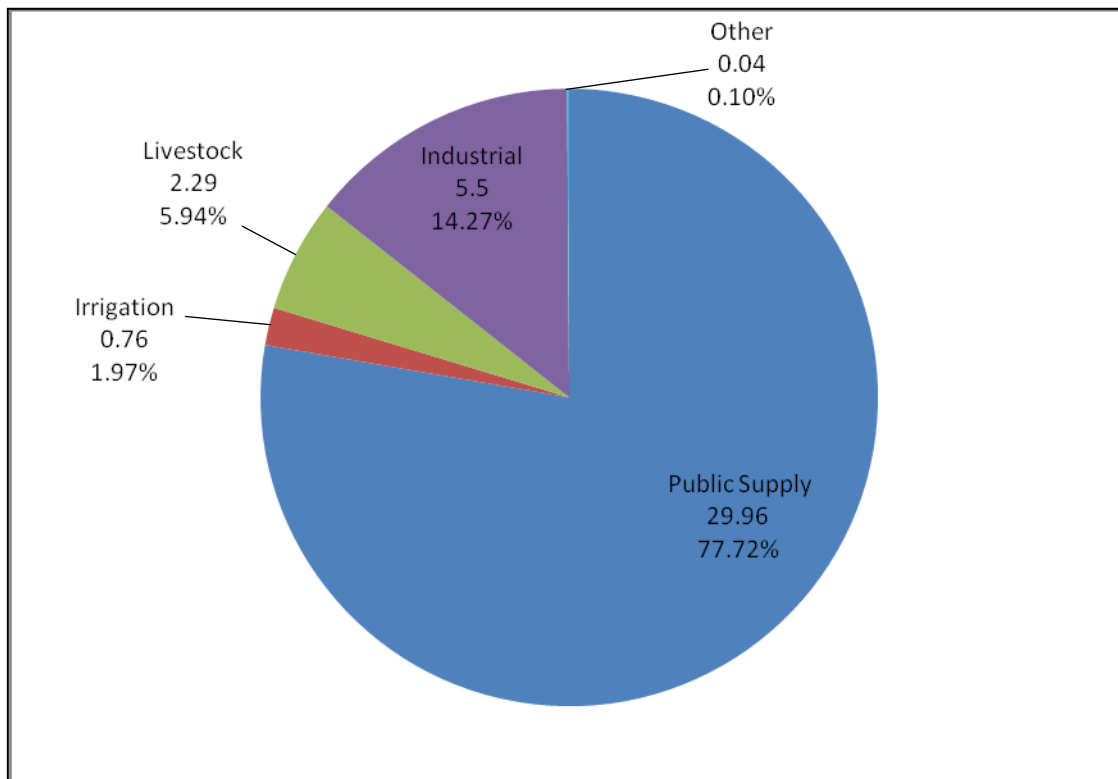
Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	493.17	176.61	87.00	756.78	0.00	0.00	113.52
Domestic Supply	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Irrigation					0.00	0.00	
Livestock					0.00	0.00	
Industrial	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fossil Fuel Power	2283.46	0.00	0.00	2283.46	0.00	0.00	20.55
Nuclear Power	12302.21	0.00	0.00	12302.21	0.00	0.00	110.72
Hydroelectric Power	142298.91	144296.84	0.00	286595.75	0.00	0.00	0.00
Other	0.00	199.61	0.00	199.61	61.97	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 37.53 mgd. Public supply at 29.96 mgd or over 77 percent, and industrial at 5.5 mgd or 14.3 percent, constituted the primary uses of water.

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



Consumptive Use: Consumptive use totaled 6.50 mgd.

JURISDICTION REPORT- Pennsylvania

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 Erie							
	Public Supply	29.91		2.99	29.06		2.91
	Domestic Supply						
	Irrigation	0.76		0.68	0.75		0.68
	Livestock	2.29		1.83	2.29		1.83
	Industrial	5.50		0.55	5.43		0.54
	Fossil Fuel Power						
	Nuclear Power						
	Hydroelectric Power						
	Other	0.04					
	Total:	38.50		6.05	37.53		5.96
Lake Ontario							
	Public Supply	0.05	0.01				
	Total:	0.05	0.01				
Grand Total:		38.55	0.01	6.05	37.53		5.96

JURISDICTION REPORT- Pennsylvania

Withdrawals by Source

Units: Mgal(US)/d

Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Lake Erie							
	Public Supply	28.02	0.12	1.77	28.02	0.12	0.92
	Domestic Supply						
	Irrigation	0.00	0.75	0.00	0.00	0.75	0.00
	Livestock	0.00	2.08	0.22	0.00	2.08	0.22
	Industrial	5.43	0.00	0.07	5.43	0.00	0.00
	Fossil Fuel Power						
	Nuclear Power						
	Hydroelectric Power						
	Other	0.00	0.04	0.00			
	Total:	33.44	2.99	2.06	33.44	2.95	1.14
Lake Ontario							
	Public Supply	0.00	0.00	0.05			
	Total:	0.00	0.00	0.05			
Grand Total:		33.44	2.99	2.11	33.44	2.95	1.14

JURISDICTION REPORT- Pennsylvania

Jurisdiction Totals

Units: Mgal(US)/d

Year Of Data: 2009

Total Report - All Facilities

Category	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Public Supply	28.02	0.12	1.82	29.96		0.01	2.99
Domestic Supply							
Irrigation	0.00	0.75	0.00	0.76			0.68
Livestock	0.00	2.08	0.22	2.29			1.83
Industrial	5.43	0.00	0.07	5.50			0.55
Fossil Fuel Power							
Nuclear Power							
Hydroelectric Power							
Other	0.00	0.04	0.00	0.04			

Total Report - Principal Facilities

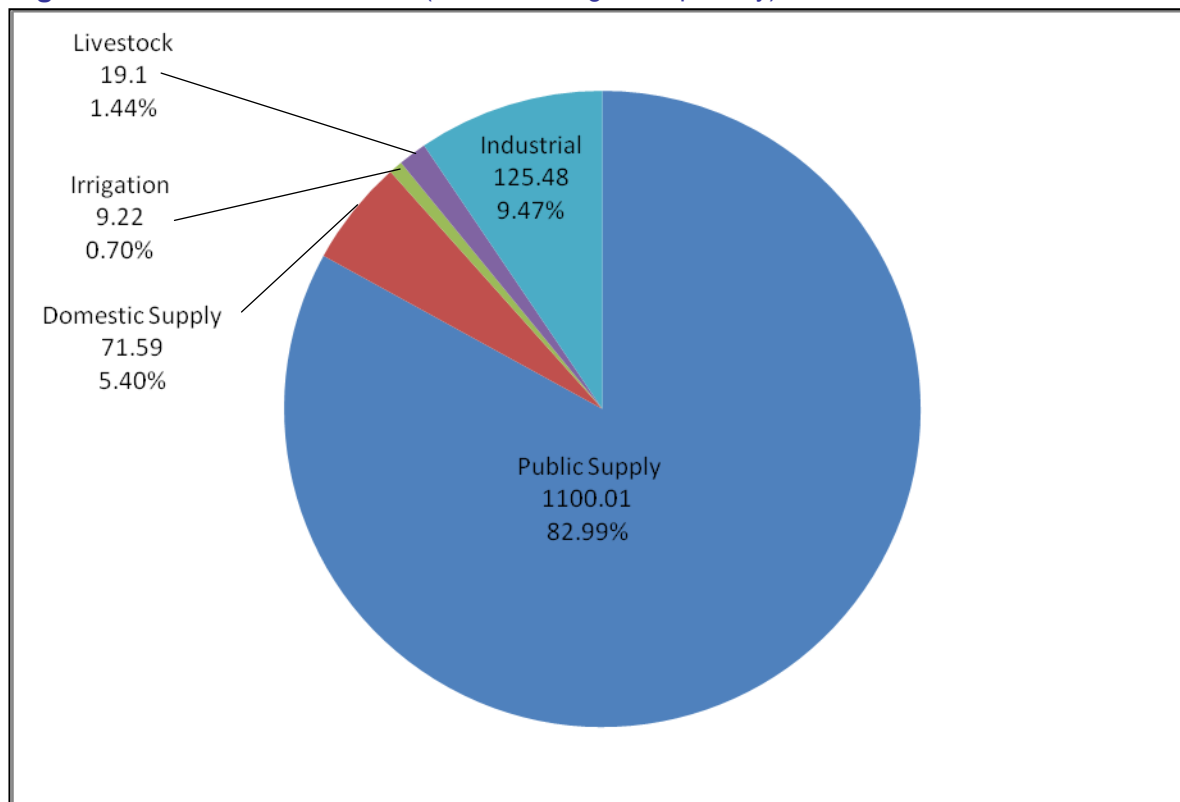
Category	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Public Supply	28.02	0.12	0.92	29.06			2.91
Domestic Supply							
Irrigation	0.00	0.75	0.00	0.75			0.68
Livestock	0.00	2.08	0.22	2.29			1.83
Industrial	5.43	0.00	0.00	5.43			0.54
Fossil Fuel Power							
Nuclear 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 304 bgd, the total water withdrawals from Québec's St. Lawrence River basin was approximately 1,372.43 mgd.

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



Consumptive Use: Total consumptive use was 597.5 mld (157.8 mgd). Public supply accounted for 416 mld (109.9 mgd), 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: Mgal(US)/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	1100.01	0.00	109.90	1096.05	0.00	109.63
	Domestic Supply	71.59	0.00	7.13	48.61	0.00	4.76
	Irrigation	9.22	0.00	8.30		0.00	
	Livestock	19.10	0.00	15.28		0.00	
	Industrial	125.48	0.00	12.55	124.95	0.00	12.50
	Fossil Fuel Power	47.02	0.00	4.70	47.02	0.00	4.70
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	303895.85	0.00	0.00	303895.85	0.00	0.00
	Other		0.00			0.00	
	Total:	305268.28	0.00	157.86	305212.48	0.00	131.58
Grand Total:		305268.28	0.00	157.86	305212.48	0.00	131.58

JURISDICTION REPORT- Quebec

Withdrawals by Source

Units: Mgal(US)/d

Year Of Data: 2009

Basin	Category	All Facilities			Principal Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
St. Lawrence River							
	Public Supply	602.84	497.17	0.00	602.58	493.47	0.00
	Domestic Supply	0.00	0.00	71.59	0.00	0.00	48.61
	Irrigation	0.00	0.00	9.22			
	Livestock	0.00	0.00	19.10			
	Industrial	0.00	125.48	0.00	0.00	124.95	0.00
	Fossil Fuel Power	39.10	7.93	0.00	39.10	7.93	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	170946.25	132949.60	0.00	170946.25	132949.60	0.00
	Other						
	Total:	171588.19	133580.18	99.91	171587.93	133575.95	48.61
Grand Total:		171588.19	133580.18	99.91	171587.93	133575.95	48.61

JURISDICTION REPORT- Quebec

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	602.84	497.17	0.00	1100.01	0.00	0.00	109.90
Domestic Supply	0.00	0.00	71.59	71.59	0.00	0.00	7.13
Irrigation	0.00	0.00	9.22	9.22	0.00	0.00	8.30
Livestock	0.00	0.00	19.10	19.10	0.00	0.00	15.28
Industrial	0.00	125.48	0.00	125.48	0.00	0.00	12.55
Fossil Fuel Power	39.10	7.93	0.00	47.02	0.00	0.00	4.70
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydroelectric Power	170946.25	132949.60	0.00	303895.85	0.00	0.00	0.00
Other					0.00	0.00	

Total Report - Principal Facilities

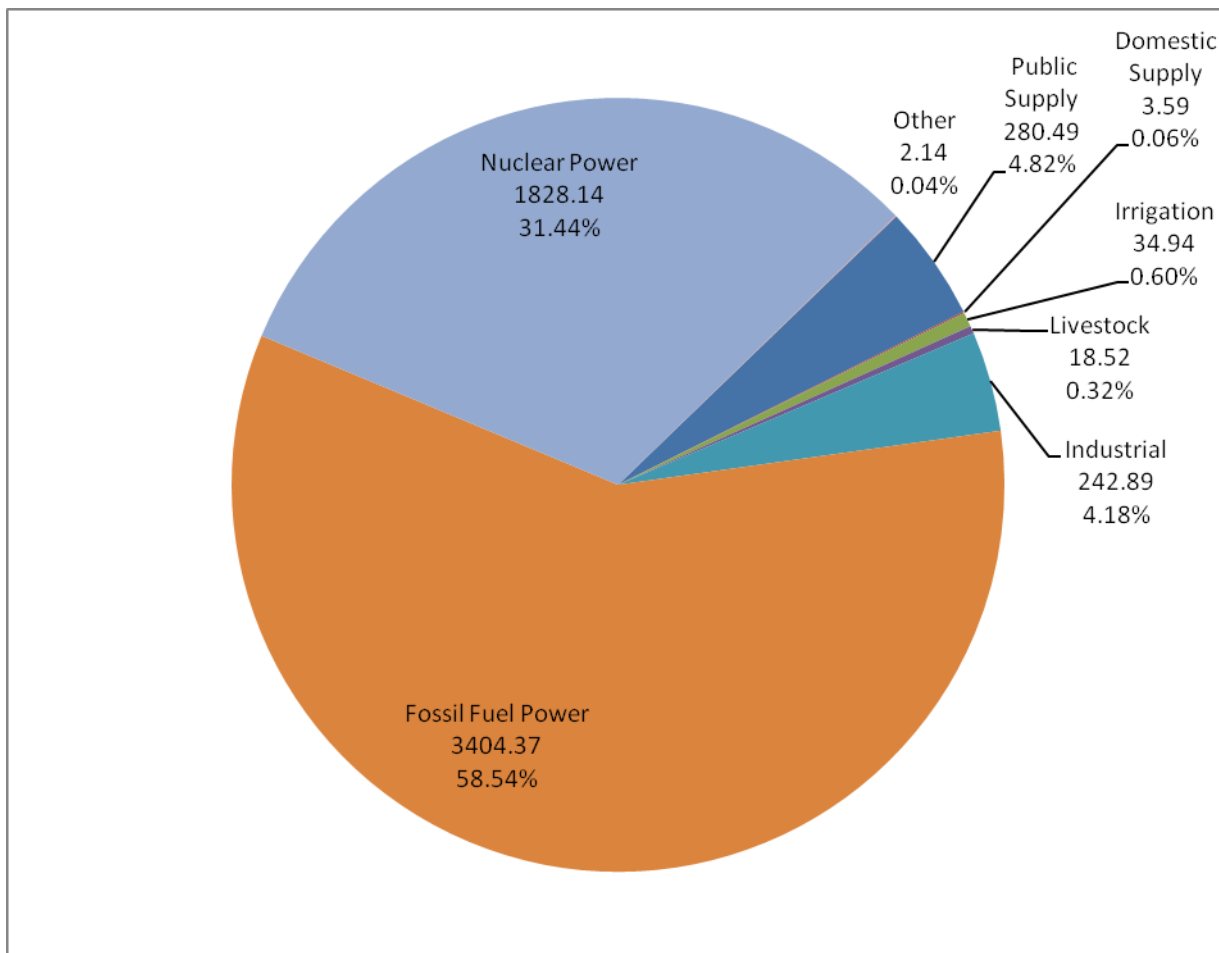
Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	602.58	493.47	0.00	1096.05	0.00	0.00	109.63
Domestic Supply	0.00	0.00	48.61	48.61	0.00	0.00	4.76
Irrigation					0.00	0.00	
Livestock					0.00	0.00	
Industrial	0.00	124.95	0.00	124.95	0.00	0.00	12.50
Fossil Fuel Power	39.10	7.93	0.00	47.02	0.00	0.00	4.70
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydroelectric Power	170946.25	132949.60	0.00	303895.85	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: Mgal(US)/d
Year Of Data: 2009

Jurisdiction	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Michigan							
	Public Supply	14.15		1.77	13.32		1.67
	Domestic Supply						
	Irrigation	1.01		0.91	0.96		0.86
	Livestock						
	Industrial	8.79		0.88	8.67		0.87
	Fossil Fuel Power	215.23		0.32	215.23		0.32
	Nuclear Power						
	Hydroelectric Power						
	Other						
	Total	239.19		3.88	238.18		3.72
Minnesota							
	Public Supply	39.90	0.00	3.98	39.60	0.00	3.95
	Domestic Supply	1.26	0.00	0.12	1.15	0.00	0.11
	Irrigation	0.48	0.00	0.00	0.00	0.00	0.00
	Livestock	0.82	0.00	0.73	0.74	0.00	0.67
	Industrial	373.75	6.15	37.37	373.41	6.15	37.34
	Fossil Fuel Power	174.37	0.00	3.49	174.27	0.00	3.49
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	3444.12	0.00	0.00	3444.12	0.00	0.00
	Other	0.09	0.00	0.00	0.00	0.00	0.00
	Total	4034.79	6.15	45.69	4033.29	6.15	45.56
Ontario							
	Public Supply	45.77	0.00	6.87	45.58	0.00	6.84
	Domestic Supply	1.75	0.00	0.26	0.00	0.00	0.00
	Irrigation	0.37	0.00			0.00	
	Livestock	0.14	0.00			0.00	
	Industrial	162.12	0.00	10.21	0.00	0.00	0.00
	Fossil Fuel Power	81.06	0.00	0.73	81.06	0.00	0.73
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	36016.95	-4007.75	0.00	36016.95	0.00	0.00
	Other		0.00			0.00	
	Total	36308.17	-4007.75	18.07	36143.59	0.00	7.57

Jurisdiction	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Wisconsin							
	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			
Grand Total:		40650.19	-4001.60	70.96	40415.06	6.15	56.84

BASIN REPORT- Lake Superior

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

Jurisdiction	Category	All Facilities			Principle Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Michigan							
	Public Supply	5.20	0.00	8.95	5.20	0.00	8.12
	Domestic Supply						
	Irrigation	0.01	0.42	0.58	0.00	0.38	0.57
	Livestock						
	Industrial	8.67	0.00	0.12	8.67	0.00	0.00
	Fossil Fuel Power	215.23	0.00	0.00	215.23	0.00	0.00
	Nuclear Power						
	Hydroelectric Power						
	Other						
	TOTAL	229.11	0.42	9.66	229.11	0.38	8.70
Minnesota							
	Public Supply	31.94	1.85	6.11	31.91	1.85	5.84
	Domestic Supply	0.80	0.42	0.04	0.73	0.42	0.00
	Irrigation	0.06	0.30	0.12	0.00	0.00	0.00
	Livestock	0.82	0.00	0.00	0.74	0.00	0.00
	Industrial	293.62	80.11	0.02	293.54	79.87	0.00
	Fossil Fuel Power	18.83	155.45	0.09	18.83	155.44	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	0.00	3444.12	0.00	0.00	3444.12	0.00
	Other	0.00	0.00	0.09	0.00	0.00	0.00
	TOTAL	346.07	3682.25	6.47	345.75	3681.70	5.84
Ontario							
	Public Supply	30.10	13.03	2.65	30.07	12.96	2.55
	Domestic Supply	0.00	0.00	1.75	0.00	0.00	0.00
	Irrigation	0.02	0.31	0.05			
	Livestock	0.00	0.14	0.00			
	Industrial	162.12	0.00	0.00	0.00	0.00	0.00
	Fossil Fuel Power	81.06	0.00	0.00	81.06	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	0.00	36016.95	0.00	0.00	36016.95	0.00
	Other						
	TOTAL	273.30	36030.43	4.44	111.13	36029.91	2.55

Jurisdiction	Category	All Facilities			Principle Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Wisconsin							
	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			
Grand Total:		913.51	39713.82	22.86	685.99	39711.99	17.08

BASIN REPORT- Lake Superior

Basin 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	67.91	14.88	18.42	101.21	-0.35	0.00	12.76
Domestic Supply	0.80	0.42	1.83	3.05	0.00	0.00	0.38
Irrigation	0.09	1.18	0.77	2.04	0.00	0.00	1.03
Livestock	0.82	0.17	1.51	2.50	0.00	0.00	2.12
Industrial	478.21	80.21	0.15	558.58	0.00	6.15	49.88
Fossil Fuel Power	365.68	155.89	0.09	521.66	0.00	0.00	4.79
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydroelectric Power	0.00	39461.07	0.00	39461.07	0.00	-4007.75	0.00
Other	0.00	0.00	0.09	0.09	0.00	0.00	0.00

Total Report - Principal Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	67.18	14.81	16.51	98.50	-0.35	0.00	12.45
Domestic Supply	0.73	0.42	0.00	1.15	0.00	0.00	0.11
Irrigation	0.00	0.38	0.57	0.96	0.00	0.00	0.86
Livestock	0.74	0.00	0.00	0.74	0.00	0.00	0.67
Industrial	302.21	79.87	0.00	382.08	0.00	6.15	38.21
Fossil Fuel Power	315.12	155.44	0.00	470.56	0.00	0.00	4.54
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydroelectric Power	0.00	39461.07	0.00	39461.07	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: Mgal(US)/d
Year Of Data: 2009

Jurisdiction	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Illinois							
	Public Supply	930.76	930.76	0.00	930.71	930.71	0.00
	Domestic Supply	2.43	2.42	0.00	2.43	2.42	0.00
	Irrigation	0.11	0.00	0.00	0.11	0.00	0.00
	Livestock						
	Industrial	17.86	0.01	0.00	17.86	0.01	0.00
	Fossil Fuel Power	1167.94	0.00	0.00	1167.94	0.00	0.00
	Nuclear Power	31.68	0.00	0.00	31.68	0.00	0.00
	Hydroelectric Power						
	Other	231.33	231.33	0.00	231.33	231.33	0.00
	Total	2382.10	1164.52	0.00	2382.05	1164.48	0.00
Indiana							
	Public Supply	133.82	51.42	20.08	133.52	51.42	20.03
	Domestic Supply	23.26	0.00	3.49	22.56	0.00	3.39
	Irrigation	37.83	0.00	34.05	36.97	0.00	33.27
	Livestock	3.79	0.00	3.03	3.76	0.00	3.01
	Industrial	1498.32	21.08	89.90	1497.99	21.08	89.88
	Fossil Fuel Power	714.69	0.00	14.29	714.69	0.00	14.29
	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	0.05	0.00	0.01	0.00	0.00	0.00
	Total	2411.76	72.50	164.85	2409.49	72.50	163.87
Michigan							
	Public Supply	249.31		31.16	240.98		30.12
	Domestic Supply	5.17		0.65	4.89		0.61
	Irrigation	175.89		158.30	160.55		144.50
	Livestock	6.00		4.80	2.46		1.97
	Industrial	206.82		20.68	205.21		20.52
	Fossil Fuel Power	1072.18		86.63	1072.12		86.61
	Nuclear Power	1610.23		19.32	1610.23		19.32
	Hydroelectric Power						
	Other	3.84		0.00	3.84		0.00
	Total	3329.43		321.55	3300.28		303.64

Jurisdiction	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Wisconsin							
	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:		13870.33	1211.67	601.99	8091.82	1236.98	467.51

BASIN REPORT- Lake Michigan

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

Jurisdiction	Category	All Facilities			Principle Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Illinois							
	Public Supply	930.76	0.00	0.00	930.71	0.00	0.00
	Domestic Supply	2.42	0.00	0.00	2.42	0.00	0.00
	Irrigation	0.00	0.00	0.11	0.00	0.00	0.11
	Livestock						
	Industrial	17.86	0.00	0.00	17.86	0.00	0.00
	Fossil Fuel Power	1167.94	0.00	0.00	1167.94	0.00	0.00
	Nuclear Power	31.68	0.00	0.00	31.68	0.00	0.00
	Hydroelectric Power						
	Other	231.33	0.00	0.00	231.33	0.00	0.00
	TOTAL	2381.99	0.00	0.11	2381.94	0.00	0.11
Indiana							
	Public Supply	89.04	0.00	44.78	89.04	0.00	44.48
	Domestic Supply	0.00	15.52	7.74	0.00	15.50	7.06
	Irrigation	0.00	7.36	30.47	0.00	7.11	29.86
	Livestock	0.00	1.35	2.44	0.00	1.35	2.41
	Industrial	1489.43	2.18	6.71	1489.42	2.18	6.39
	Fossil Fuel Power	714.69	0.00	0.00	714.69	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	0.05	0.00	0.00	0.00
	TOTAL	2293.16	26.41	92.19	2293.15	26.14	90.20
Michigan							
	Public Supply	117.42	0.00	131.89	117.42	0.00	123.56
	Domestic Supply	0.00	2.33	2.83	0.00	2.31	2.58
	Irrigation	0.27	45.70	129.92	0.24	40.15	120.16
	Livestock	0.00	1.07	4.93	0.00	1.07	1.39
	Industrial	45.00	111.19	50.63	44.98	111.13	49.10
	Fossil Fuel Power	678.11	391.22	2.85	678.11	391.22	2.80
	Nuclear Power	1610.23	0.00	0.00	1610.23	0.00	0.00
	Hydroelectric Power						
	Other	0.00	0.00	3.84	0.00	0.00	3.84
	TOTAL	2451.02	551.52	326.89	2450.98	545.88	303.42

Jurisdiction	Category	All Facilities			Principle Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Wisconsin							
	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:		11865.16	1466.70	538.47	7126.08	572.02	393.73

BASIN REPORT- Lake Michigan

Basin Totals

Units: Mgal(US)/d

Year Of Data: 2009

Total Report - All Facilities

Category	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Public Supply	1343.23	20.86	228.91	1592.99	0.44	982.68	79.15
Domestic Supply	2.42	17.85	14.13	34.40	0.00	2.42	4.50
Irrigation	0.27	56.96	191.36	248.60	0.00	0.00	216.69
Livestock	0.00	4.46	22.31	26.77	0.00	0.00	23.12
Industrial	1554.13	325.02	72.83	1951.97	0.00	21.09	132.36
Fossil Fuel Power	5263.79	1041.54	2.85	6308.18	0.00	0.00	117.69
Nuclear Power	3470.00	0.00	0.05	3470.05	0.00	0.00	28.46
Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	231.33	0.00	6.03	237.36	0.00	205.48	0.01

Total Report - Principal Facilities

Category	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Public Supply	1137.17	0.00	168.04	1305.21	0.44	982.13	50.15
Domestic Supply	2.42	17.81	9.64	29.88	0.00	2.42	4.00
Irrigation	0.24	47.26	150.13	197.63	0.00	0.00	177.77
Livestock	0.00	2.42	3.80	6.22	0.00	0.00	4.98
Industrial	1552.26	113.31	55.49	1721.06	0.00	21.09	110.40
Fossil Fuel Power	2560.74	391.22	2.80	2954.75	0.00	0.00	100.90
Nuclear Power	1641.91	0.00	0.00	1641.91	0.00	0.00	19.32
Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other	231.33	0.00	3.84	235.17	0.00	231.33	0.00

BASIN REPORT - Lake Huron

Withdrawals, Diversions
and Consumptive Uses

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

Jurisdiction	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Michigan							
	Public Supply	118.72		14.84	115.39		14.42
	Domestic Supply	0.06		0.01			
	Irrigation	139.78		125.80	137.86		124.07
	Livestock	2.67		2.13	1.82		1.46
	Industrial	79.24		7.92	78.92		7.89
	Fossil Fuel Power	686.33		111.11	686.33		111.11
	Nuclear Power						
	Hydroelectric Power						
	Other						
	Total	1026.80		261.81	1020.31		258.95
Ontario							
	Public Supply	84.37	0.00	12.65	81.66	0.00	12.25
	Domestic Supply	10.61	0.00	1.59	0.00	0.00	0.00
	Irrigation	20.91	0.00			0.00	
	Livestock	12.41	0.00			0.00	
	Industrial	190.19	0.00	11.98	0.00	0.00	0.00
	Fossil Fuel Power	0.00	0.00	0.00	0.00	0.00	0.00
	Nuclear Power	5695.74	0.00	51.26	5695.74	0.00	51.26
	Hydroelectric Power	40433.38	0.00	0.00	40433.38	0.00	0.00
	Other	47.97	0.00	0.00	47.97	0.00	0.00
	Total	46495.59	0.00	77.49	46258.75	0.00	63.51
Grand Total:		47522.39	0.00	339.30	47279.06	0.00	322.46

BASIN REPORT- Lake Huron

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

Jurisdiction	Category	All Facilities			Principle Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Michigan							
	Public Supply	92.47	1.02	25.23	92.25	1.02	22.12
	Domestic Supply	0.00	0.00	0.06			
	Irrigation	0.12	128.68	10.99	0.10	127.68	10.07
	Livestock	0.00	0.96	1.70	0.00	0.96	0.86
	Industrial	14.87	38.44	25.93	14.87	38.38	25.67
	Fossil Fuel Power	163.63	521.93	0.76	163.63	521.93	0.76
	Nuclear Power						
	Hydroelectric Power						
	Other						
	TOTAL	271.10	691.04	64.67	270.85	689.98	59.48
Ontario							
	Public Supply	42.66	23.57	18.14	42.02	23.23	16.40
	Domestic Supply	0.00	0.00	10.61	0.00	0.00	0.00
	Irrigation	0.15	15.41	5.35			
	Livestock	2.93	3.07	6.41			
	Industrial	187.41	0.00	2.78	0.00	0.00	0.00
	Fossil Fuel Power	0.00	0.00	0.00	0.00	0.00	0.00
	Nuclear Power	5695.74	0.00	0.00	5695.74	0.00	0.00
	Hydroelectric Power	19195.27	21238.11	0.00	19195.27	21238.11	0.00
	Other	0.00	47.97	0.00	0.00	47.97	0.00
	TOTAL	25124.17	21328.13	43.29	24933.03	21309.31	16.40
Grand Total:		25395.26	22019.17	107.96	25203.89	21999.29	75.88

BASIN REPORT- Lake Huron

Basin Totals

Units: Mgal(US)/d

Year Of Data: 2009

Total Report - All Facilities

Category	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Public Supply	135.13	24.59	43.37	203.09	0.00	0.00	27.49
Domestic Supply	0.00	0.00	10.67	10.67	0.00	0.00	1.60
Irrigation	0.27	144.09	16.34	160.70	0.00	0.00	125.80
Livestock	2.93	4.04	8.11	15.08	0.00	0.00	2.13
Industrial	202.28	38.44	28.71	269.44	0.00	0.00	19.90
Fossil Fuel Power	163.63	521.93	0.76	686.33	0.00	0.00	111.11
Nuclear Power	5695.74	0.00	0.00	5695.74	0.00	0.00	51.26
Hydroelectric Power	19195.27	21238.11	0.00	40433.38	0.00	0.00	0.00
Other	0.00	47.97	0.00	47.97	47.97	0.00	0.00

Total Report - Principal Facilities

Category	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Public Supply	134.27	24.25	38.52	197.05	0.00	0.00	26.67
Domestic Supply	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Irrigation	0.10	127.68	10.07	137.86	0.00	0.00	124.07
Livestock	0.00	0.96	0.86	1.82	0.00	0.00	1.46
Industrial	14.87	38.38	25.67	78.92	0.00	0.00	7.89
Fossil Fuel Power	163.63	521.93	0.76	686.33	0.00	0.00	111.11
Nuclear Power	5695.74	0.00	0.00	5695.74	0.00	0.00	51.26
Hydroelectric Power	19195.27	21238.11	0.00	40433.38	0.00	0.00	0.00
Other	0.00	47.97	0.00	47.97	47.97	0.00	0.00

BASIN REPORT - Lake Erie

Withdrawals, Diversions
and Consumptive Uses

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

Jurisdiction	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Indiana							
	Public Supply	38.44	7.08	5.77	38.26	7.08	5.74
	Domestic Supply	0.98	0.00	0.15	0.83	0.00	0.12
	Irrigation	1.20	0.00	1.08	0.97	0.00	0.87
	Livestock	0.00	0.00	0.00	0.00	0.00	0.00
	Industrial	7.22	0.00	0.43	7.07	0.00	0.42
	Fossil Fuel Power	0.27	0.00	0.01	0.27	0.00	0.01
	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	48.11	7.08	7.44	47.40	7.08	7.16
Michigan							
	Public Supply	625.62		78.20	622.35		77.79
	Domestic Supply	0.11		0.01	0.08		0.01
	Irrigation	14.97		13.47	12.75		11.48
	Livestock	0.61		0.49	0.15		0.12
	Industrial	248.93		24.89	248.93		24.89
	Fossil Fuel Power	4020.95		41.26	4020.95		41.26
	Nuclear Power	49.84		19.14	49.84		19.14
	Hydroelectric Power						
	Other	2.59		0.00	2.59		0.00
	Total	4963.63		177.46	4957.66		174.69
New York							
	Public Supply	264.03	0.00	26.40		0.00	
	Domestic Supply	44.34	0.00	4.44	3.36	0.00	0.34
	Irrigation	0.49	0.00	0.44	0.49	0.00	0.44
	Livestock	8.86	0.00	7.98		0.00	
	Industrial	157.68	0.00	39.43	157.68	0.00	39.43
	Fossil Fuel Power	704.36	0.00	14.09	704.36	0.00	14.09
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	45584.00	0.00	0.00	45584.00	0.00	0.00
	Other	0.93	0.00	0.90	0.93	0.00	0.09
	Total	46764.69	0.00	93.68	46450.82	0.00	54.39

Jurisdiction	Category	All Facilities			Principal Facilities		
		Withdr.	Inter-Basin Diver.	Consum.	Withdr.	Inter-Basin Diver.	Consum.
Ohio							
	Public Supply	528.12	0.32	79.22	524.31	0.32	78.65
	Domestic Supply	58.80	0.00	8.82	0.30	0.00	0.05
	Irrigation	25.95	0.00	23.35	24.00	0.00	21.60
	Livestock	12.28	0.00	9.82	0.88	0.00	0.70
	Industrial	191.65	0.00	14.64	191.05	0.00	14.58
	Fossil Fuel Power	1926.66	0.00	19.27	1926.66	0.00	19.27
	Nuclear Power	134.85	0.00	13.49	134.85	0.00	13.49
	Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00
	Other	9.44	-9.63	3.41	9.30	-9.63	3.30
	Total	2887.75	-9.31	172.02	2811.35	-9.31	151.64
Ontario							
	Public Supply	93.89	0.00	14.08	92.84	0.00	13.92
	Domestic Supply	19.94	0.00	2.99	0.00	0.00	0.00
	Irrigation	31.85	0.00			0.00	
	Livestock	13.22	0.00			0.00	
	Industrial	180.45	0.00	11.37	0.00	0.00	0.00
	Fossil Fuel Power	1479.36	0.00	13.31	1479.36	0.00	13.31
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	560.31	0.00	0.00	560.31	0.00	0.00
	Other		0.00			0.00	
	Total	2379.03	0.00	41.76	2132.51	0.00	27.24
Pennsylvania							
	Public Supply	29.91		2.99	29.06		2.91
	Domestic Supply						
	Irrigation	0.76		0.68	0.75		0.68
	Livestock	2.29		1.83	2.29		1.83
	Industrial	5.50		0.55	5.43		0.54
	Fossil Fuel Power						
	Nuclear Power						
	Hydroelectric Power						
	Other	0.04					
	Total	38.50		6.05	37.53		5.96
Grand Total:		57081.70	-2.23	498.41	56437.27	-2.23	421.08

BASIN REPORT- Lake Erie

Units: Mgal(US)/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	32.04	6.40	0.00	32.04	6.22
	Domestic Supply	0.00	0.00	0.98	0.00	0.00	0.83
	Irrigation	0.00	0.28	0.92	0.00	0.23	0.74
	Livestock	0.00	0.00	0.00	0.00	0.00	0.00
	Industrial	0.00	3.55	3.67	0.00	3.52	3.55
	Fossil Fuel Power	0.00	0.00	0.27	0.00	0.00	0.27
	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	35.87	12.24	0.00	35.79	11.61
Michigan							
	Public Supply	573.19	18.48	33.95	573.19	18.41	30.75
	Domestic Supply	0.00	0.00	0.11	0.00	0.00	0.08
	Irrigation	0.17	8.36	6.43	0.05	7.14	5.57
	Livestock	0.00	0.34	0.27	0.00	0.15	0.00
	Industrial	206.29	16.60	26.04	206.29	16.60	26.04
	Fossil Fuel Power	3901.49	119.36	0.10	3901.49	119.36	0.10
	Nuclear Power	49.84	0.00	0.00	49.84	0.00	0.00
	Hydroelectric Power						
	Other	0.00	1.10	1.49	0.00	1.10	1.49
	TOTAL	4730.98	164.24	68.41	4730.86	162.76	64.04
New York							
	Public Supply	184.58	72.12	7.33			
	Domestic Supply	22.96	3.36	18.02	0.00	3.36	0.00
	Irrigation	0.32	0.17	0.00	0.32	0.17	0.00
	Livestock	0.91	2.92	5.03			
	Industrial	152.70	0.88	4.10	152.70	0.88	4.10
	Fossil Fuel Power	704.36	0.00	0.00	704.36	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	45584.00	0.00	0.00	45584.00	0.00	0.00
	Other	0.00	0.93	0.00	0.00	0.93	0.00
	TOTAL	46649.83	80.38	34.48	46441.38	5.34	4.10

Jurisdiction	Category	All Facilities			Principle Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
Ohio							
	Public Supply	397.59	99.09	31.44	397.56	98.97	27.78
	Domestic Supply	0.30	0.07	58.43	0.30	0.00	0.00
	Irrigation	2.77	20.16	3.02	2.76	18.84	2.40
	Livestock	0.00	1.50	10.78	0.00	0.44	0.44
	Industrial	40.04	100.04	51.57	40.01	99.89	51.15
	Fossil Fuel Power	1314.00	612.66	0.00	1314.00	612.66	0.00
	Nuclear Power	134.85	0.00	0.00	134.85	0.00	0.00
	Hydroelectric Power	0.00	0.00	0.00	0.00	0.00	0.00
	Other	0.63	8.19	0.62	0.58	8.18	0.54
	TOTAL	1890.18	841.71	155.86	1890.06	838.98	82.31
Ontario							
	Public Supply	8.97	29.26	55.66	8.97	29.23	54.64
	Domestic Supply	0.00	0.00	19.94	0.00	0.00	0.00
	Irrigation	0.59	12.11	19.15			
	Livestock	0.02	0.89	12.31			
	Industrial	173.24	0.00	7.21	0.00	0.00	0.00
	Fossil Fuel Power	1479.36	0.00	0.00	1479.36	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	0.00	560.31	0.00	0.00	560.31	0.00
	Other						
	TOTAL	1662.18	602.57	114.27	1488.33	589.54	54.64
Pennsylvania							
	Public Supply	28.02	0.12	1.77	28.02	0.12	0.92
	Domestic Supply						
	Irrigation	0.00	0.75	0.00	0.00	0.75	0.00
	Livestock	0.00	2.08	0.22	0.00	2.08	0.22
	Industrial	5.43	0.00	0.07	5.43	0.00	0.00
	Fossil Fuel Power						
	Nuclear Power						
	Hydroelectric Power						
	Other	0.00	0.04	0.00			
	TOTAL	33.44	2.99	2.06	33.44	2.95	1.14
Grand Total:		54966.62	1727.76	387.32	54584.07	1635.35	217.84

BASIN REPORT- Lake Erie

Basin 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	1192.34	251.12	136.55	1580.01	-0.09	7.40	206.67
Domestic Supply	23.26	3.43	97.48	124.17	0.00	0.00	16.41
Irrigation	3.85	41.84	29.53	75.22	0.00	0.00	39.02
Livestock	0.93	7.72	28.61	37.26	0.00	0.00	20.12
Industrial	577.70	121.07	92.66	791.43	0.00	0.00	91.31
Fossil Fuel Power	7399.22	732.02	0.37	8131.61	0.00	0.00	87.94
Nuclear Power	184.69	0.00	0.00	184.69	0.00	0.00	32.63
Hydroelectric Power	45584.00	560.31	0.00	46144.31	0.00	0.00	0.00
Other	0.63	10.26	2.11	13.00	5816.39	-9.63	4.31

Total Report - Principal Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	1007.73	178.77	120.32	1306.82	-0.09	7.40	179.01
Domestic Supply	0.30	3.36	0.91	4.57	0.00	0.00	0.52
Irrigation	3.13	27.13	8.71	38.97	0.00	0.00	35.07
Livestock	0.00	2.66	0.66	3.32	0.00	0.00	2.65
Industrial	404.42	120.89	84.84	610.16	0.00	0.00	79.87
Fossil Fuel Power	7399.22	732.02	0.37	8131.61	0.00	0.00	87.94
Nuclear Power	184.69	0.00	0.00	184.69	0.00	0.00	32.63
Hydroelectric Power	45584.00	560.31	0.00	46144.31	0.00	0.00	0.00
Other	0.58	10.21	2.03	12.82	5816.39	-9.63	3.39

BASIN REPORT- Lake Ontario

Withdrawals, Diversions
and Consumptive Uses

Units: Mgal(US)/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	390.73	9.59	39.08		9.59	0.00
	Domestic Supply	131.37	0.00	13.14	61.35	0.00	6.14
	Irrigation	7.27	0.00	6.54	7.27	0.00	6.54
	Livestock	21.27	0.00	19.14		0.00	
	Industrial	80.10	0.00	20.03	80.10	0.00	20.03
	Fossil Fuel Power	731.96	0.00	14.64	731.96	0.00	14.64
	Nuclear Power	1409.60	0.00	70.48	1409.60	0.00	70.48
	Hydroelectric Power	80908.00	0.00	0.00	0.00	0.00	0.00
	Other	67.95	32.00	38.73	67.26	32.00	38.73
	Total	83748.25	41.59	221.78	2357.54	41.59	156.56
Ontario							
	Public Supply	465.93	0.00	69.89	464.62	0.00	69.69
	Domestic Supply	64.17	0.00	9.63	0.00	0.00	0.00
	Irrigation	17.73	0.00			0.00	
	Livestock	5.40	0.00			0.00	
	Industrial	229.64	0.00	14.47	0.00	0.00	0.00
	Fossil Fuel Power	723.03	0.00	6.51	723.03	0.00	6.51
	Nuclear Power	6606.47	0.00	59.46	6606.47	0.00	59.46
	Hydroelectric Power	52353.09	0.00	0.00	52353.09	0.00	0.00
	Other	132.35	0.00	0.00	132.35	0.00	0.00
	Total	60597.81	0.00	159.95	60279.56	0.00	135.66
Pennsylvania							
	Public Supply	0.05	0.01				
	Total	0.05	0.01				
Grand Total:		144346.11	41.60	381.73	62637.10	41.59	292.22

BASIN REPORT- Lake Ontario

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

Jurisdiction	Category	All Facilities			Principle Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
New York							
	Public Supply	187.28	170.27	33.18			
	Domestic Supply	29.33	61.35	40.69	0.00	61.35	0.00
	Irrigation	0.00	5.81	1.46	0.00	5.81	1.46
	Livestock	3.91	7.56	9.80			
	Industrial	16.05	54.94	9.11	16.05	54.94	9.11
	Fossil Fuel Power	420.77	311.19	0.00	420.77	311.19	0.00
	Nuclear Power	1409.60	0.00	0.00	1409.60	0.00	0.00
	Hydroelectric Power	0.00	80908.00	0.00	0.00	0.00	0.00
	Other	0.00	66.97	0.98	0.00	66.37	0.89
	TOTAL	2066.94	81586.09	95.22	1846.42	499.66	11.46
Ontario							
	Public Supply	401.52	52.86	11.56	401.47	52.68	10.47
	Domestic Supply	0.00	0.00	64.17	0.00	0.00	0.00
	Irrigation	1.08	9.53	7.12			
	Livestock	0.00	0.94	4.46			
	Industrial	218.17	0.00	11.46	0.00	0.00	0.00
	Fossil Fuel Power	723.03	0.00	0.00	723.03	0.00	0.00
	Nuclear Power	6606.47	0.00	0.00	6606.47	0.00	0.00
	Hydroelectric Power	37651.12	14701.97	0.00	37651.12	14701.97	0.00
	Other	0.00	132.35	0.00	0.00	132.35	0.00
	TOTAL	45601.40	14897.64	98.77	45382.10	14886.99	10.47
Pennsylvania							
	Public Supply	0.00	0.00	0.05			
	TOTAL	0.00	0.00	0.05			
Grand Total:		47668.34	96483.73	194.04	47228.52	15386.65	21.93

BASIN REPORT- Lake Ontario

Basin 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	588.80	223.13	44.79	856.71	0.00	9.60	108.97
Domestic Supply	29.33	61.35	104.86	195.54	0.00	0.00	22.77
Irrigation	1.08	15.34	8.58	25.00	0.00	0.00	6.54
Livestock	3.91	8.50	14.26	26.67	0.00	0.00	19.14
Industrial	234.22	54.94	20.57	309.74	0.00	0.00	34.50
Fossil Fuel Power	1143.80	311.19	0.00	1454.99	0.00	0.00	21.15
Nuclear Power	8016.07	0.00	0.00	8016.07	0.00	0.00	129.94
Hydroelectric Power	37651.12	95609.97	0.00	133261.09	0.00	0.00	0.00
Other	0.00	199.32	0.98	200.30	-5802.39	32.00	38.73

Total Report - Principal Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	401.47	52.68	10.47	464.62	0.00	9.59	69.69
Domestic Supply	0.00	61.35	0.00	61.35	0.00	0.00	6.14
Irrigation	0.00	5.81	1.46	7.27	0.00	0.00	6.54
Livestock					0.00	0.00	
Industrial	16.05	54.94	9.11	80.10	0.00	0.00	20.03
Fossil Fuel Power	1143.80	311.19	0.00	1454.99	0.00	0.00	21.15
Nuclear Power	8016.07	0.00	0.00	8016.07	0.00	0.00	129.94
Hydroelectric Power	37651.12	14701.97	0.00	52353.09	0.00	0.00	0.00
Other	0.00	198.72	0.89	199.61	-5802.39	32.00	38.73

BASIN REPORT- St. Lawrence River

Withdrawals, Diversions
and Consumptive Uses

Units: Mgal(US)/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	40.00	0.00	4.00	0.00		
	Domestic Supply	22.88	0.00	2.29	8.62	0.00	0.86
	Irrigation	0.00	0.00	0.00	0.00	0.00	0.00
	Livestock	15.03	0.00	13.52		0.00	
	Industrial	33.23	0.00	8.31	33.23	0.00	8.31
	Fossil Fuel Power	0.01	0.00	0.00	0.01	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	181798.00	0.00	0.00	83106.00	0.00	0.00
	Other	8.97	0.00	0.90	8.97	0.00	0.90
	Total	181918.12	0.00	29.02	83156.83	0.00	10.07
Ontario							
	Public Supply	73.03	0.00	10.96	72.08	0.00	10.82
	Domestic Supply	11.45	0.00	1.72	0.00	0.00	0.00
	Irrigation	2.35	0.00			0.00	
	Livestock	5.91	0.00			0.00	
	Industrial	160.81	0.00	10.13	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	157232.03	0.00	0.00	157232.03	0.00	0.00
	Other	19.28	0.00	0.00	19.28	0.00	0.00
	Total	157504.86	0.00	22.80	157323.39	0.00	10.82
Quebec							
	Public Supply	1100.01	0.00	109.90	1096.05	0.00	109.63
	Domestic Supply	71.59	0.00	7.13	48.61	0.00	4.76
	Irrigation	9.22	0.00	8.30		0.00	
	Livestock	19.10	0.00	15.28		0.00	
	Industrial	125.48	0.00	12.55	124.95	0.00	12.50
	Fossil Fuel Power	47.02	0.00	4.70	47.02	0.00	4.70
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	303895.85	0.00	0.00	303895.85	0.00	0.00
	Other		0.00			0.00	
	Total	305268.28	0.00	157.86	305212.48	0.00	131.58
Grand Total:		644691.26	0.00	209.68	545692.71	0.00	152.47

BASIN REPORT- St. Lawrence River

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

Jurisdiction	Category	All Facilities			Principle Facilities		
		GLSW	OSW	GW	GLSW	OSW	GW
New York							
	Public Supply	2.80	32.47	4.73			
	Domestic Supply	0.00	8.62	14.26	0.00	8.62	0.00
	Irrigation	0.00	0.00	0.00	0.00	0.00	0.00
	Livestock	0.38	10.56	4.09			
	Industrial	2.73	27.10	3.40	2.73	27.10	3.40
	Fossil Fuel Power	0.01	0.00	0.00	0.01	0.00	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	83106.00	98692.00	0.00	83106.00	0.00	0.00
	Other	0.00	8.61	0.36	0.00	8.61	0.36
	TOTAL	83111.92	98779.36	26.84	83108.74	44.33	3.76
Ontario							
	Public Supply	10.64	58.84	3.56	10.64	58.52	2.93
	Domestic Supply	0.00	0.00	11.45	0.00	0.00	0.00
	Irrigation	0.01	2.04	0.30			
	Livestock	0.00	3.63	2.28			
	Industrial	159.76	0.00	1.05	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	85452.52	71779.51	0.00	85452.52	71779.51	0.00
	Other	0.00	19.28	0.00	0.00	19.28	0.00
	TOTAL	85622.93	71863.29	18.65	85463.16	71857.31	2.93
Quebec							
	Public Supply	602.84	497.17	0.00	602.58	493.47	0.00
	Domestic Supply	0.00	0.00	71.59	0.00	0.00	48.61
	Irrigation	0.00	0.00	9.22			
	Livestock	0.00	0.00	19.10			
	Industrial	0.00	125.48	0.00	0.00	124.95	0.00
	Fossil Fuel Power	39.10	7.93	0.00	39.10	7.93	0.00
	Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00
	Hydroelectric Power	170946.25	132949.60	0.00	170946.25	132949.60	0.00
	Other						
	TOTAL	171588.19	133580.18	99.91	171587.93	133575.95	48.61
Grand Total:		340323.04	304222.83	145.40	340159.83	205477.59	55.29

BASIN REPORT- St. Lawrence River

Basin 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	616.28	588.48	8.29	1213.04	0.00	0.00	124.85
Domestic Supply	0.00	8.62	97.30	105.92	0.00	0.00	11.14
Irrigation	0.01	2.04	9.52	11.57	0.00	0.00	8.30
Livestock	0.38	14.19	25.47	40.04	0.00	0.00	28.80
Industrial	162.49	152.58	4.45	319.52	0.00	0.00	30.99
Fossil Fuel Power	39.11	7.93	0.00	47.03	0.00	0.00	4.70
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydroelectric Power	339504.78	303421.10	0.00	642925.88	0.00	0.00	0.00
Other	0.00	27.89	0.36	28.25	0.00	0.00	0.90

Total Report - Principal Facilities

Category	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Public Supply	613.22	551.99	2.93	1168.13	0.00	0.00	120.45
Domestic Supply	0.00	8.62	48.61	57.23	0.00	0.00	5.62
Irrigation	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Livestock					0.00	0.00	
Industrial	2.73	152.05	3.40	158.18	0.00	0.00	20.81
Fossil Fuel Power	39.11	7.93	0.00	47.03	0.00	0.00	4.70
Nuclear Power	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Hydroelectric Power	339504.78	204729.10	0.00	544233.88	0.00	0.00	0.00
Other	0.00	27.89	0.36	28.25	0.00	0.00	0.90

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: Mgal(US)/d

Year Of Data: 2009

Water-Use by Jurisdiction - All Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	930.76	0.00	0.00	930.76	0.00	930.76	0.00
Indiana	89.04	32.04	51.18	172.26	0.00	58.50	25.85
Michigan	788.28	19.51	200.02	1007.80	0.00		125.98
Minnesota	31.94	1.85	6.11	39.90	0.00	0.00	3.98
New York	374.66	274.86	45.24	694.76	0.00	9.59	69.48
Ohio	397.59	99.09	31.44	528.12	0.00	0.32	79.22
Ontario	493.88	177.55	91.57	763.00	0.00	0.00	114.45
Pennsylvania	28.02	0.12	1.82	29.96		0.01	2.99
Quebec	602.84	497.17	0.00	1100.01	0.00	0.00	109.90
Wisconsin	206.68	20.86	52.95	280.49	0.00	0.50	28.05

Water-Use by Jurisdiction - Principal Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	930.71	0.00	0.00	930.71	0.00	930.71	0.00
Indiana	89.04	32.04	50.70	171.78	0.00	58.50	25.77
Michigan	788.06	19.44	184.55	992.04	0.00		124.01
Minnesota	31.91	1.85	5.84	39.60	0.00	0.00	3.95
New York					0.00	9.59	0.00
Ohio	397.56	98.97	27.78	524.31	0.00	0.32	78.65
Ontario	493.17	176.61	87.00	756.78	0.00	0.00	113.52
Pennsylvania	28.02	0.12	0.92	29.06			2.91
Quebec	602.58	493.47	0.00	1096.05	0.00	0.00	109.63
Wisconsin							

WATER-USE CATEGORY REPORT- Public Supply

Units: Mgal(US)/d

Year Of Data: 2009

Water-Use by Basin - All Facilities

Basin	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Lake Superior	67.91	14.88	18.42	101.21	-0.35	0.00	12.76
Lake Michigan	1343.23	20.86	228.91	1592.99	0.44	982.68	79.15
Lake Huron	135.13	24.59	43.37	203.09	0.00	0.00	27.49
Lake Erie	1192.34	251.12	136.55	1580.01	-0.09	7.40	206.67
Lake Ontario	588.80	223.13	44.79	856.71	0.00	9.60	108.97
St. Lawrence River	616.28	588.48	8.29	1213.04	0.00	0.00	124.85

Water-Use by Basin - Principal Facilities

Basin	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Lake Superior	67.18	14.81	16.51	98.50	-0.35	0.00	12.45
Lake Michigan	1137.17	0.00	168.04	1305.21	0.44	982.13	50.15
Lake Huron	134.27	24.25	38.52	197.05	0.00	0.00	26.67
Lake Erie	1007.73	178.77	120.32	1306.82	-0.09	7.40	179.01
Lake Ontario	401.47	52.68	10.47	464.62	0.00	9.59	69.69
St. Lawrence River	613.22	551.99	2.93	1168.13	0.00	0.00	120.45

WATER-USE CATEGORY REPORT- Domestic Supply

Units: Mgal(US)/d

Year Of Data: 2009

Water-Use by Jurisdiction - All Facilities

Jurisdiction	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Illinois	2.42	0.00	0.00	2.43	0.00	2.42	0.00
Indiana	0.00	15.52	8.72	24.24	0.00	0.00	3.64
Michigan	0.00	2.33	3.01	5.34			0.67
Minnesota	0.80	0.42	0.04	1.26	0.00	0.00	0.12
New York	52.29	73.33	72.97	198.59	0.00	0.00	19.87
Ohio	0.30	0.07	58.43	58.80	0.00	0.00	8.82
Ontario	0.00	0.00	107.91	107.91	0.00	0.00	16.19
Pennsylvania							
Quebec	0.00	0.00	71.59	71.59	0.00	0.00	7.13
Wisconsin	0.00	0.00	3.59	3.59	0.00	0.00	0.36

Water-Use by Jurisdiction - Principal Facilities

Jurisdiction	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Illinois	2.42	0.00	0.00	2.43	0.00	2.42	0.00
Indiana	0.00	15.50	7.89	23.39	0.00	0.00	3.51
Michigan	0.00	2.31	2.66	4.97			0.62
Minnesota	0.73	0.42	0.00	1.15	0.00	0.00	0.11
New York	0.00	73.33	0.00	73.33	0.00	0.00	7.34
Ohio	0.30	0.00	0.00	0.30	0.00	0.00	0.05
Ontario	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pennsylvania							
Quebec	0.00	0.00	48.61	48.61	0.00	0.00	4.76
Wisconsin							

WATER-USE CATEGORY REPORT- Domestic Supply

Units: Mgal(US)/d

Year Of Data: 2009

Water-Use by Basin - All Facilities

Basin	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Lake Superior	0.80	0.42	1.83	3.05	0.00	0.00	0.38
Lake Michigan	2.42	17.85	14.13	34.40	0.00	2.42	4.50
Lake Huron	0.00	0.00	10.67	10.67	0.00	0.00	1.60
Lake Erie	23.26	3.43	97.48	124.17	0.00	0.00	16.41
Lake Ontario	29.33	61.35	104.86	195.54	0.00	0.00	22.77
St. Lawrence River	0.00	8.62	97.30	105.92	0.00	0.00	11.14

Water-Use by Basin - Principal Facilities

Basin	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Lake Superior	0.73	0.42	0.00	1.15	0.00	0.00	0.11
Lake Michigan	2.42	17.81	9.64	29.88	0.00	2.42	4.00
Lake Huron H	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Erie	0.30	3.36	0.91	4.57	0.00	0.00	0.52
Lake Ontario	0.00	61.35	0.00	61.35	0.00	0.00	6.14
St. Lawrence River	0.00	8.62	48.61	57.23	0.00	0.00	5.62

WATER-USE CATEGORY REPORT- Irrigation

Units: Mgal(US)/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	0.11	0.11	0.00	0.00	0.00
Indiana	0.00	7.64	31.39	39.03	0.00	0.00	35.13
Michigan	0.57	183.17	147.92	331.65			298.49
Minnesota	0.06	0.30	0.12	0.48	0.00	0.00	0.00
New York	0.32	5.98	1.46	7.76	0.00	0.00	6.98
Ohio	2.77	20.16	3.02	25.95	0.00	0.00	23.35
Ontario	1.86	39.39	31.97	73.22	0.00	0.00	
Pennsylvania	0.00	0.75	0.00	0.76			0.68
Quebec	0.00	0.00	9.22	9.22	0.00	0.00	8.30
Wisconsin	0.00	4.05	30.89	34.94	0.00	0.00	24.46

Water-Use by Jurisdiction - Principal Facilities

Jurisdiction	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Illinois	0.00	0.00	0.11	0.11	0.00	0.00	0.00
Indiana	0.00	7.34	30.60	37.94	0.00	0.00	34.14
Michigan	0.39	175.35	136.37	312.12			280.90
Minnesota	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New York	0.32	5.98	1.46	7.76	0.00	0.00	6.98
Ohio	2.76	18.84	2.40	24.00	0.00	0.00	21.60
Ontario					0.00	0.00	
Pennsylvania	0.00	0.75	0.00	0.75			0.68
Quebec					0.00	0.00	
Wisconsin							

WATER-USE CATEGORY REPORT- Irrigation

Units: Mgal(US)/d

Year Of Data: 2009

Water-Use by Basin - All Facilities

Basin	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Lake Superior	0.09	1.18	0.77	2.04	0.00	0.00	1.03
Lake Michigan	0.27	56.96	191.36	248.60	0.00	0.00	216.69
Lake Huron	0.27	144.09	16.34	160.70	0.00	0.00	125.80
Lake Erie	3.85	41.84	29.53	75.22	0.00	0.00	39.02
Lake Ontario	1.08	15.34	8.58	25.00	0.00	0.00	6.54
St. Lawrence River	0.01	2.04	9.52	11.57	0.00	0.00	8.30

Water-Use by Basin - Principal Facilities

Basin	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Lake Superior	0.00	0.38	0.57	0.96	0.00	0.00	0.86
Lake Michigan	0.24	47.26	150.13	197.63	0.00	0.00	177.77
Lake Huron	0.10	127.68	10.07	137.86	0.00	0.00	124.07
Lake Erie	3.13	27.13	8.71	38.97	0.00	0.00	35.07
Lake Ontario	0.00	5.81	1.46	7.27	0.00	0.00	6.54
St. Lawrence River	0.00	0.00	0.00	0.00	0.00	0.00	0.00

WATER-USE CATEGORY REPORT- Livestock

Units: Mgal(US)/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	1.35	2.44	3.79	0.00	0.00	3.03
Michigan	0.00	2.37	6.91	9.28			7.42
Minnesota	0.82	0.00	0.00	0.82	0.00	0.00	0.73
New York	5.20	21.04	18.92	45.16	0.00	0.00	40.64
Ohio	0.00	1.50	10.78	12.28	0.00	0.00	9.82
Ontario	2.95	8.67	25.47	37.09	0.00	0.00	
Pennsylvania	0.00	2.08	0.22	2.29			1.83
Quebec	0.00	0.00	19.10	19.10	0.00	0.00	15.28
Wisconsin	0.00	2.07	16.45	18.52	0.00	0.00	16.68

Water-Use by Jurisdiction - Principal Facilities

Jurisdiction	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Illinois							
Indiana	0.00	1.35	2.41	3.76	0.00	0.00	3.01
Michigan	0.00	2.18	2.24	4.43			3.54
Minnesota	0.74	0.00	0.00	0.74	0.00	0.00	0.67
New York					0.00	0.00	
Ohio	0.00	0.44	0.44	0.88	0.00	0.00	0.70
Ontario					0.00	0.00	
Pennsylvania	0.00	2.08	0.22	2.29			1.83
Quebec					0.00	0.00	
Wisconsin							

WATER-USE CATEGORY REPORT- Livestock

Units: Mgal(US)/d

Year Of Data: 2009

Water-Use by Basin - All Facilities

Basin	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Lake Superior	0.82	0.17	1.51	2.50	0.00	0.00	2.12
Lake Michigan	0.00	4.46	22.31	26.77	0.00	0.00	23.12
Lake Huron	2.93	4.04	8.11	15.08	0.00	0.00	2.13
Lake Erie	0.93	7.72	28.61	37.26	0.00	0.00	20.12
Lake Ontario	3.91	8.50	14.26	26.67	0.00	0.00	19.14
St. Lawrence River	0.38	14.19	25.47	40.04	0.00	0.00	28.80

Water-Use by Basin - Principal Facilities

Basin	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Lake Superior	0.74	0.00	0.00	0.74	0.00	0.00	0.67
Lake Michigan	0.00	2.42	3.80	6.22	0.00	0.00	4.98
Lake Huron H	0.00	0.96	0.86	1.82	0.00	0.00	1.46
Lake Erie	0.00	2.66	0.66	3.32	0.00	0.00	2.65
Lake Ontario					0.00	0.00	
St. Lawrence River					0.00	0.00	

WATER-USE CATEGORY REPORT- Industrial

Units: Mgal(US)/d

Year Of Data: 2009

Water-Use by Jurisdiction - All Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	17.86	0.00	0.00	17.86		0.01	0.00
Indiana	1489.43	5.73	10.38	1505.54	0.00	21.08	90.33
Michigan	274.83	166.23	102.72	543.78			54.38
Minnesota	293.62	80.11	0.02	373.75	0.00	6.15	37.37
New York	171.48	82.92	16.61	271.01	0.00	0.00	67.77
Ohio	40.04	100.04	51.57	191.65	0.00	0.00	14.64
Ontario	900.71	0.00	22.51	923.22	0.00	0.00	58.16
Pennsylvania							
Quebec	0.00	125.48	0.00	125.48	0.00	0.00	12.55
Wisconsin	15.64	211.75	15.50	242.89	0.00	0.00	23.20

Water-Use by Jurisdiction - Principal Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	17.86	0.00	0.00	17.86	0.00	0.01	0.00
Indiana	1489.42	5.70	9.94	1505.06	0.00	21.08	90.30
Michigan	274.82	166.11	100.81	541.74			54.17
Minnesota	293.54	79.87	0.00	373.41	0.00	6.15	37.34
New York	171.48	82.92	16.61	271.01	0.00	0.00	67.77
Ohio	40.01	99.89	51.15	191.05	0.00	0.00	14.58
Ontario	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pennsylvania							
Quebec	0.00	124.95	0.00	124.95	0.00	0.00	12.50
Wisconsin							

WATER-USE CATEGORY REPORT- Industrial

Units: Mgal(US)/d

Year Of Data: 2009

Water-Use by Basin - All Facilities

Basin	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Lake Superior	478.21	80.21	0.15	558.58	0.00	6.15	49.88
Lake Michigan	1554.13	325.02	72.83	1951.97	0.00	21.09	132.36
Lake Huron	202.28	38.44	28.71	269.44	0.00	0.00	19.90
Lake Erie	572.27	121.07	92.59	785.93	0.00	0.00	90.76
Lake Ontario	234.22	54.94	20.57	309.74	0.00	0.00	34.50
St. Lawrence River	162.49	152.58	4.45	319.52	0.00	0.00	30.99

Water-Use by Basin - Principal Facilities

Basin	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Lake Superior	302.21	79.87	0.00	382.08	0.00	6.15	38.21
Lake Michigan	1552.26	113.31	55.49	1721.06	0.00	21.09	110.40
Lake Huron	14.87	38.38	25.67	78.92	0.00	0.00	7.89
Lake Erie	399.00	120.89	84.84	604.73	0.00	0.00	79.32
Lake Ontario	16.05	54.94	9.11	80.10	0.00	0.00	20.03
St. Lawrence River	2.73	152.05	3.40	158.18	0.00	0.00	20.81

WATER-USE CATEGORY REPORT- Fossil Fuel Power

Units: Mgal(US)/d

Year Of Data: 2009

Water-Use by Jurisdiction - All Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	1167.94	0.00	0.00	1167.94	0.00	0.00	0.00
Indiana	714.69	0.00	0.27	714.96	0.00	0.00	14.30
Michigan	4958.46	1032.51	3.72	5994.69			239.31
Minnesota	18.83	155.45	0.09	174.37	0.00	0.00	3.49
New York	1125.14	311.19	0.00	1436.33	0.00	0.00	28.73
Ohio	1314.00	612.66	0.00	1926.66	0.00	0.00	19.27
Ontario	2283.46	0.00	0.00	2283.46	0.00	0.00	20.55
Pennsylvania							
Quebec	39.10	7.93	0.00	47.02	0.00	0.00	4.70
Wisconsin	2753.61	650.76	0.00	3404.37	0.00	0.00	17.02

Water-Use by Jurisdiction - Principal Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	1167.94	0.00	0.00	1167.94	0.00	0.00	0.00
Indiana	714.69	0.00	0.27	714.96	0.00	0.00	14.30
Michigan	4958.46	1032.51	3.67	5994.64			239.29
Minnesota	18.83	155.44	0.00	174.27	0.00	0.00	3.49
New York	1125.14	311.19	0.00	1436.33	0.00	0.00	28.73
Ohio	1314.00	612.66	0.00	1926.66	0.00	0.00	19.27
Ontario	2283.46	0.00	0.00	2283.46	0.00	0.00	20.55
Pennsylvania							
Quebec	39.10	7.93	0.00	47.02	0.00	0.00	4.70
Wisconsin							

WATER-USE CATEGORY REPORT- Fossil Fuel Power

Units: Mgal(US)/d

Year Of Data: 2009

Water-Use by Basin - All Facilities

Basin	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Lake Superior	365.68	155.89	0.09	521.66	0.00	0.00	4.79
Lake Michigan	5263.79	1041.54	2.85	6308.18	0.00	0.00	117.69
Lake Huron	163.63	521.93	0.76	686.33	0.00	0.00	111.11
Lake Erie	7399.22	732.02	0.37	8131.61	0.00	0.00	87.94
Lake Ontario	1143.80	311.19	0.00	1454.99	0.00	0.00	21.15
St. Lawrence River	39.11	7.93	0.00	47.03	0.00	0.00	4.70

Water-Use by Basin - Principal Facilities

Basin	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Lake Superior	315.12	155.44	0.00	470.56	0.00	0.00	4.54
Lake Michigan	2560.74	391.22	2.80	2954.75	0.00	0.00	100.90
Lake Huron	163.63	521.93	0.76	686.33	0.00	0.00	111.11
Lake Erie	7399.22	732.02	0.37	8131.61	0.00	0.00	87.94
Lake Ontario	1143.80	311.19	0.00	1454.99	0.00	0.00	21.15
St. Lawrence River	39.11	7.93	0.00	47.03	0.00	0.00	4.70

WATER-USE CATEGORY REPORT- Nuclear Power

Units: Mgal(US)/d

Year Of Data: 2009

Water-Use by Jurisdiction - All Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	31.68	0.00	0.00	31.68	0.00	0.00	0.00
Indiana	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Michigan	1660.07	0.00	0.00	1660.07			38.46
Minnesota	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New York	1409.60	0.00	0.00	1409.60	0.00	0.00	70.48
Ohio	134.85	0.00	0.00	134.85	0.00	0.00	13.49
Ontario	12302.21	0.00	0.00	12302.21	0.00	0.00	110.72
Pennsylvania							
Quebec	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wisconsin	1828.09	0.00	0.05	1828.14	0.00	0.00	9.14

Water-Use by Jurisdiction - Principal Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	31.68	0.00	0.00	31.68	0.00	0.00	0.00
Indiana	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Michigan	1660.07	0.00	0.00	1660.07			38.46
Minnesota	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New York	1409.60	0.00	0.00	1409.60	0.00	0.00	70.48
Ohio	134.85	0.00	0.00	134.85	0.00	0.00	13.49
Ontario	12302.21	0.00	0.00	12302.21	0.00	0.00	110.72
Pennsylvania							
Quebec	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Wisconsin							

WATER-USE CATEGORY REPORT- Nuclear Power

Units: Mgal(US)/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	3470.00	0.00	0.05	3470.05	0.00	0.00	28.46
Lake Huron	5695.74	0.00	0.00	5695.74	0.00	0.00	51.26
Lake Erie	184.69	0.00	0.00	184.69	0.00	0.00	32.63
Lake Ontario	8016.07	0.00	0.00	8016.07	0.00	0.00	129.94
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	1641.91	0.00	0.00	1641.91	0.00	0.00	19.32
Lake Huron	5695.74	0.00	0.00	5695.74	0.00	0.00	51.26
Lake Erie	184.69	0.00	0.00	184.69	0.00	0.00	32.63
Lake Ontario	8016.07	0.00	0.00	8016.07	0.00	0.00	129.94
St. Lawrence River	0.00	0.00	0.00	0.00	0.00	0.00	0.00

WATER-USE CATEGORY REPORT- Hydroelectric Power

Units: Mgal(US)/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	0.00	0.00	0.00	0.00	0.00	0.00
Michigan							
Minnesota	0.00	3444.12	0.00	3444.12	0.00	0.00	0.00
New York	128690.00	179600.00	0.00	308290.00	0.00	0.00	0.00
Ohio	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ontario	142298.91	144296.84	0.00	286595.75	0.00	-4007.75	0.00
Pennsylvania							
Quebec	170946.25	132949.60	0.00	303895.85	0.00	0.00	0.00
Wisconsin	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Water-Use by Jurisdiction - Principal Facilities

Jurisdiction	Withdrawals				Diversions		Consumptive Use
	GLSW	OSW	GW	TOTAL	Intrabasin	Interbasin	
Illinois							
Indiana	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Michigan							
Minnesota	0.00	3444.12	0.00	3444.12	0.00	0.00	0.00
New York	128690.00	0.00	0.00	128690.00	0.00	0.00	0.00
Ohio	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Ontario	142298.91	144296.84	0.00	286595.75	0.00	0.00	0.00
Pennsylvania							
Quebec	170946.25	132949.60	0.00	303895.85	0.00	0.00	0.00
Wisconsin							

WATER-USE CATEGORY REPORT- Hydroelectric Power

Units: Mgal(US)/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	39461.07	0.00	39461.07	0.00	-4007.75	0.00
Lake Michigan	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Huron	19195.27	21238.11	0.00	40433.38	0.00	0.00	0.00
Lake Erie	45584.00	560.31	0.00	46144.31	0.00	0.00	0.00
Lake Ontario	37651.12	95609.97	0.00	133261.09	0.00	0.00	0.00
St. Lawrence River	339504.78	303421.10	0.00	642925.88	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	39461.07	0.00	39461.07	0.00	0.00	0.00
Lake Michigan	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Lake Huron	19195.27	21238.11	0.00	40433.38	0.00	0.00	0.00
Lake Erie	45584.00	560.31	0.00	46144.31	0.00	0.00	0.00
Lake Ontario	37651.12	14701.97	0.00	52353.09	0.00	0.00	0.00
St. Lawrence River	339504.78	204729.10	0.00	544233.88	0.00	0.00	0.00

WATER-USE CATEGORY REPORT- Other

Units: Mgal(US)/d

Year Of Data: 2009

Water-Use by Jurisdiction - All Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	231.33	0.00	0.00	231.33	0.00	231.33	0.00
Indiana	0.00	0.00	0.05	0.05	0.00	0.00	0.01
Michigan	0.00	1.10	5.33	6.43			0.00
Minnesota	0.00	0.00	0.09	0.09	0.00	0.00	0.00
New York	0.00	76.51	1.34	77.85	0.00	32.00	40.53
Ohio	0.63	8.19	0.62	9.44	0.00	-9.63	3.41
Ontario	0.00	199.61	0.00	199.61	61.97	0.00	0.00
Pennsylvania	0.00	0.04	0.00	0.04			
Quebec					0.00	0.00	
Wisconsin	0.00	0.00	2.14	2.14	0.00	-25.85	0.00

Water-Use by Jurisdiction - Principal Facilities

Jurisdiction	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Illinois	231.33	0.00	0.00	231.33	0.00	231.33	0.00
Indiana	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Michigan	0.00	1.10	5.33	6.43			0.00
Minnesota	0.00	0.00	0.00	0.00	0.00	0.00	0.00
New York	0.00	75.91	1.25	77.16	0.00	32.00	39.72
Ohio	0.58	8.18	0.54	9.30	0.00	-9.63	3.30
Ontario	0.00	199.61	0.00	199.61	61.97	0.00	0.00
Pennsylvania							
Quebec					0.00	0.00	
Wisconsin							

WATER-USE CATEGORY REPORT- Public Supply

Units: Mgal(US)/d

Year Of Data: 2009

Water-Use by Basin - All Facilities

Basin	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Lake Superior	70.73	14.88	18.42	104.03	-0.35	0.00	13.04
Lake Michigan	1343.23	20.86	228.91	1592.99	0.44	982.68	79.15
Lake Huron	135.13	24.59	43.37	203.09	0.00	0.00	27.49
Lake Erie	1192.34	251.12	136.55	1580.01	-0.09	7.40	206.67
Lake Ontario	588.80	223.13	44.79	856.71	0.00	9.60	108.97
St. Lawrence River	616.28	588.48	8.29	1213.04	0.00	0.00	124.85

Water-Use by Basin - Principal Facilities

Basin	Withdrawals			TOTAL	Diversions		Consumptive Use
	GLSW	OSW	GW		Intrabasin	Interbasin	
Lake Superior	67.18	14.81	16.51	98.50	-0.35	0.00	12.45
Lake Michigan	1137.17	0.00	168.04	1305.21	0.44	982.13	50.15
Lake Huron	134.27	24.25	38.52	197.05	0.00	0.00	26.67
Lake Erie	1007.73	178.77	120.32	1306.82	-0.09	7.40	179.01
Lake Ontario	401.47	52.68	10.47	464.62	0.00	9.59	69.69
St. Lawrence River	613.22	551.99	2.93	1168.13	0.00	0.00	120.45