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Water Withdrawals in Illinois, 1986

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ABSTRACT

This report, part of a cooperative program with the U. S. Geological Survey, summarizes the 1986 data collected for the Illinois Water Inventory Program. Water use data are presented for the following categories: Public Water Supply (1806.1 mgd), Self-Supplied Industry (35,535.5 mgd), Rural Water Use (305.9 mgd), and Fish and Wildlife Management Areas (36.7 mgd). The data are further categorized by counties, districts, hydrologic units, major aquifer systems, and Standard Metropolitan Statistical Areas.

Illinois water withdrawals during 1986 were 37,684.2 mgd, of which ground water provided 958.8 mgd and surface water sources supplied 36,725.4 mgd. The largest user of water in Illinois is electric power generation, 92.6 percent of the total withdrawals. Excluding electric power withdrawals, 1986 ground-water use was 950.8 mgd, and surface water use was 1849.3 mgd.

INTRODUCTION

Illinois has been considered a water excess state. The state, in a sense, is surrounded by fresh water with the Mississippi River on its western border, the Ohio and Wabash Rivers to the south and east, and Lake Michigan on the northeast. Within the interior the large tributaries to these major water systems are the Illinois, Kaskaskia, Rock, Sangamon, Big Muddy, Embarras, and Kankakee Rivers. They are the principal surface water resources in the state. In addition, the state has abundant ground-water resources; but these water resources are finite and are not distributed uniformly.

It is necessary to document current water uses to permit planning and proper management of Illinois' existing water resources. To this end, the Illinois State Water Survey, in cooperation with the U. S. Geological Survey, has expanded water use inventory activities to include all areas of the state and all water sources. This data collection system is intended to document the state's total water use; assist in coordinating the management of ground-

water resources in the northeastern part of the state, where a major ground-water resource system is currently being "mined" (withdrawn faster than recharged); expedite the exchange of water use information to the benefit of other state agencies; complement resource research and studies with the capability to rapidly aggregate various regional water use patterns; and facilitate planning the most effective use of Illinois water resources for the economic and social well-being of the people of Illinois and the rest of the nation.

This report is the fifth summary of water withdrawals throughout Illinois; the other reports were Illinois State Water Survey Circulars 140, 152, 161, and 163.^{1,2,3,4} It is part of a continuing water use inventory program that will not only show changes in quantities of water used, but will also indicate trends in use and provide the basic data required for establishing water budgets, developing water use plans, and evaluating hydrologic units and aquifer systems.

Previous Studies

Since the early 1940s, the Illinois State Water Survey has become increasingly involved in evaluating the use of the water resources of Illinois. Most of the previous reports on water use have emphasized the regions where water resources are extensively developed or have surveyed withdrawal by a major user category. Appendix A lists these reports.

Present Study

This report presents information compiled from the Illinois Water Inventory Program. It summarizes water withdrawals by major use categories from ground-water and surface water sources in Illinois during 1986 and compares selected data from previous publications with the 1986 data.

Information on the quantity of water withdrawn for use in Illinois was obtained from many sources during the inventory. The data are presented for the following categories: Public Water Supply; Self-Supplied Industry—thermoelectric and hydroelectric power generation, manufacturing, and mineral extraction; Rural Use—domestic, livestock, and irrigation; and Fish and Wildlife Management Areas. The data are further categorized by counties, districts, hydrologic units, major aquifer systems, and Standard Metropolitan Statistical Areas (SMSA's).

For the SMSA's, data are also reported by congressional township. Information concerning drainage district transfers and non-withdrawal uses such as navigation and water-based recreation was not collected.

Acknowledgments

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WATER WITHDRAWALS

Terminology

The term "water use" implies withdrawal use (the amount of water withdrawn from its source). This is equivalent to "intake" or "water requirement" as used in industry and agriculture, respectively. The principal requisite for withdrawal use is that water must be taken from a ground-water or surface water source and conveyed to the place of use. If the water is used more than once by recycling, it will do the work of a greater quantity of water; the amount of this greater quantity, which is commonly called the "gross water use," is not evaluated in this report. If, however, the water is returned to a stream, lake, aquifer, or other source and then withdrawn anew, the summation of successive withdrawals gives the "total or cumulative withdrawal" use.

Illinois defines a "public water supply" as a system for the provision to the public of piped water for human consumption, if the system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days per year. Public water supplies serve domestic, commercial, and industrial users.

If a public supply is either not available or not used, the water is "self-supplied." Individual families and small communities not served by a public water supply system are categorized as "rural" with regard to water use. Industries and commercial establishments using their own water source facilities are categorized as "self-supplied industry."

Water used to generate hydroelectric power is also included as a withdrawal use in this report because of its diversion through power plants. The term "non-withdrawal uses" encompasses all uses

taking place within the river channel itself. Non-withdrawal uses are not included in this report.

Water withdrawal data are reported as average daily quantities, usually derived from the annual use. The use is expressed in million gallons per day (mgd). Common equivalents are given in table 1.

Table 1. Hydraulic Equivalents
(Equivalent values, to three significant figures, are on the same horizontal line)

Million gallons per day	Billion gallons per day	Thousand acre-feet per year	Thousand cubic feet per second	Thousand gallons per minute	Million cubic meters per day
1.0	0.001	1.12	0.00155	0.694	0.00379
1000	1.0	1120	1.55	694	3.79
0.893	0.000893	1.0	0.00138	0.620	0.00338
646	0.646	724	1.0	449	2.45
1.44	0.00144	1.16	0.00223	1.0	0.00545
264	0.264	296	0.409	184	1.0

Geographic Areas

The term "district" is synonymous with Climatological Divisions of the National Oceanic and Atmospheric Administration and with the Crop Reporting Districts (figure 1) of the Illinois Cooperative Crop Reporting Service.⁵ These districts represent divisions with similar climate, soils, and types of farming.

"Major geohydrologic system" is used to identify four groups of ground-water sources. The first group includes all sand and gravel aquifers contained within the alluvial and glacial drift deposits that blanket nearly all of Illinois. The other three groups — the Mississippian-Pennsylvanian, Silurian-Devonian, and Cambrian-Ordovician — consist of sandstone and creviced limestone aquifers within the underlying bedrock. These aquifers have been grouped according to the geologic series in which they occur.

"Hydrologic unit" refers to one of the 12 Hydrologic Accounting Units of the U. S. Geological Survey's Hydrologic Unit Map of 1974 for Illinois.⁶ This map, prepared by the USGS in cooperation with the U. S. Water Resources Council, delineates the boundaries of major U. S. river basins to help standardize the collection and dissemination of water data. A distinct eight-digit code has been assigned to each river basin.

Standard Metropolitan Statistical Areas are integrated economic and social units with a large

volume of daily travel and communication between the central city (with a population of 50,000 or more) and outlying parts of the area. Each area consists of one or more whole counties which, though primarily residential in character, contribute significantly to the labor force of the Industrial counties and are socially and economically integrated with the central city (figure 1). These areas were defined by the Federal Committee on Standard Metropolitan Statistical Areas of the Office of Management and Budget for general purpose use throughout the federal government in presenting economic and social data.⁷

Public Water Supply Use

The total water withdrawal in 1986 for public water supply systems was 1806.1 mgd (see table 9 in Appendix B), a 0.5 percent increase from 1984. Ground water furnished 437.1 mgd while surface water supplied 1369.0 mgd.

Public water supplies furnish 89.7 percent of the state's population (11.580 million)⁸ with potable water, about 10.386 million people. Ground water supplies about 3.518 million people; surface water supplies about 6.473 million people; and combined source water supplies about 0.395 million people. This leaves about 1.194 million people, about 10.3 percent, to furnish their own supply of potable water.

Public water supply withdrawals were compiled from a mail survey of all the public water supplies listed by the Illinois Environmental Protection Agency Division of Public Water Supplies. Those public water supplies that did not respond to mail and telephone follow-up (about 4 percent) were estimated from the latest data available.

Water use data were obtained for over 1900 public water systems. The largest system, in terms of population served, is the Chicago Department of Water, serving more than 4.9 million people. The Chicago system pumped 1022.6 mgd from Lake Michigan in 1986, a 4.3 percent increase from 1984. The largest area served by a public water system is the Rend Lake Conservancy District. Reaching into parts of nine counties (Franklin, Jackson, Jefferson, Hamilton, Marion, Perry, Saline, Washington, and Williamson), the Conservancy District serves an area of more than 1800 square miles and pumped 14.9 mgd from Rend Lake in 1986, a 2.8 percent increase from 1984.

Self-Supplied Industry Water Use

Nearly all the self-supplied industry in Illinois can be divided into four major classifications: thermoelectric power generation, hydroelectric power generation, manufacturing, and mineral extraction. In 1986 the total self-supplied industrial water withdrawals were 35,535.5 mgd (see table 14), including the 22,671.3 mgd diverted through hydroelectric turbines. Ground water supplied 204.2 mgd; surface water sources provided 35,331.3 mgd. Excluding water used for thermoelectric and hydroelectric generation, water used by self-supplied industry was 651.4 mgd (see table 13).

Originally (in 1979) more than 600 self-supplied industries were identified from a mail canvass of more than 4700 industries in the state. More than 900 self-supplied industries have now been identified and were canvassed to determine 1986 water withdrawals.

Follow-up was by a second mailing and then by telephone. Those industrial withdrawals not accounted for by either questionnaire return or telephone contact (about 5 percent) were estimated from the latest data available.

The electric power generation Industry is the largest user of water in the state, accounting for 92.6 percent of the total water use and 98.2 percent of the self-supplied industry water use. This industry withdraws about 34,884.2 million gallons of water a day (see table 10), but more than 99 percent of this water is returned to its source with only an increase in temperature.

Table 2. Historic Water Use for Electric Power Generation

	<i>Thermoelectric (mgd)</i>	<i>Hydroelectric (mgd)</i>
1950-1951	5,927	20,694
1960	9,051.3	21,155
1964-1965	9,120.3	
1970	8,744.9	
1978	19,918.7	22,593.0
1980	14,060.6	25,570.1
1982	8,552.7	21,894.4
1984	12,394.0	21,494.9
1986	12,212.9	22,671.3

Thermoelectric Power Generation

The water withdrawn for steam electric power generation was 12,212.9 mgd in 1986, as shown in table 2. There are 35 fossil fuel thermoelectric stations in the state; the majority of these stations are coal-fired steam turbines. Five stations have a total of nine nuclear reactors providing heat energy for

the boilers. By 1988, four more nuclear reactors are scheduled to be producing electricity. One reactor has been removed from service.

Hydroelectric Power Generation

In 1986, 22,671.3 mgd of surface water were diverted through the six low-head hydroelectric stations in Illinois, including one-half of the hydroelectric diversion on the Mississippi River along the border with Iowa (table 3). The Keokuk station uses 81.0 percent of this water or about 40 percent of the Mississippi River flow.

Table 3. Hydroelectric Plants in Illinois, 1986

<i>Plant name</i>	<i>Water source</i>	<i>Normal head (ft)</i>	<i>Installed capacity (kw)</i>	<i>Average flow through turbines (mgd)</i>
Lockport	Des Plaines River	38	19,900	11,857
Marseilles	Illinois River	15	2,024	219
Dayton	Fox River	32	3,680	703
Rockton	Rock River	11	1,100	819
Moline	Mississippi River	12	3,600	717*
Keokuk	Mississippi River	32	121,600	18,356*
Total Average Flow				22,671

**One-half flow credited to Illinois*

Manufacturing

Self-supplied withdrawal by manufacturing during 1986 totaled 471.7 mgd. Surface water supplied 332.1 mgd while ground water supplied 139.6 mgd (see table 11). Manufacturing is defined as those industries listed under "Division D, Manufacturing" in the Standard Industrial Classification Manual 1972.⁹

The water withdrawal data for the 20 major manufacturing groups, according to the Standard Industrial Classification (SIC) system, were compiled and are presented in table 4. The range of water withdrawals was large, with the primary metals industries surpassing all others. Four self-supplied, major industries groups withdrew 78.0 percent of the total. They are the primary metals industries (198.6 mgd), food and kindred products (75.9 mgd), chemical and allied industries (64.2 mgd), and petroleum refining and related products (29.4 mgd).

The three-digit SIC group numbers were used in examining the water withdrawal data for specific self-supplied manufacturers. The 18 specific self-supplied groups which withdraw water at a rate of more than 5.0 mgd were determined and are given in table 5. These 18 specific manufacturing groups

Table 4. Water Withdrawals by Self-Supplied Industry, Manufacturing, by Major SIC Group, 1986

Major SIC group	Manufacturing groups	Withdrawals (mgd)		
		Ground water	Surface water	Total
20	Food and kindred products	26.4	49.5	75.9
21	Tobacco manufacturers	0	0	0
22	Textile and mill products	1.0	0	1.0
23	Apparel and fabric products	<.1	0	<.1
24	Lumber and wood products	0.1	0	0.1
25	Furniture and fixtures	0.2	16.3	16.5
26	Paper and allied products	9.6	8.4	18.0
27	Printing, publishing, and allied industries	0.2	0.5	0.7
28	Chemical and allied industries	32.4	31.8	64.2
29	Petroleum and coal products	19.1	10.3	29.4
30	Rubber and plastic products	9.1	0	9.1
31	Leather and leather products	0	0	0
32	Stone, clay, and glass	5.6	16.6	22.2
33	Primary metals industries	18.3	180.2	198.6
34	Fabricated metal products	2.9	5.7	8.6
35	Machinery (except electrical)	4.7	12.0	16.7
36	Electrical and electronics	3.1	0.6	3.7
37	Transportation equipment	0.2	0	0.2
38	Instruments and related products	6.7	0	6.7
39	Misc. manufacturing industries	0	0	0
	Totals	199.8	331.9	471.7

Table 5. Water Withdrawals by Self-Supplied industry, Manufacturing, by Specific SIC Group, 1986

Specific SIC group	Manufacturing groups	Withdrawals (mgd)		
		Ground water	Surface water	Total
204	Grain mill products	7.8	23.9	31.7
207	Fats and oils	7.9	0.4	8.3
208	Beverages	3.4	25.2	28.6
251	Household furniture	0	16.3	16.3
262	Paper mills	0.8	6.3	7.1
281	Industrial inorganic chemicals	12.9	9.0	21.9
283	Drugs	3.5	9.6	13.1
286	Industrial organic chemicals	3.2	6.8	10.0
287	Agricultural chemicals	2.9	5.0	7.9
289	Misc. chemical products	7.0	1.3	8.3
291	Petroleum refining	19.0	7.2	26.2
307	Plastic products	6.1	0	6.1
321	Flat glass	0.4	12.4	12.8
331	Steel rolling and finishing	15.6	163.3	178.9
332	Iron and steel foundries	2.0	17.0	19.0
352	Farm and garden machinery	0.2	5.4	5.6
353	Construction, mining, and materials handling machinery and equipment	1.5	4.5	6.0
386	Photographic equipment and supplies	6.3	0	6.3
	Totals	100.4	313.9	414.2

Figures may not add up to totals shown because of independent rounding.

account for about 87.8 percent of the self-supplied manufacturing withdrawal. Ground water provides 100.4 mgd, while surface water provides 313.9 mgd.

Mineral Extraction

Water withdrawals by the mineral extraction industries during 1986 totaled 85.2 mgd. Ground water supplied 33.5 mgd while surface water supplied 51.7 mgd (see table 12). Oil field brine made up 25.5 mgd of this ground water.¹⁰ Much of this brine is injected into the oil-producing formations in water-flooding operations. Most of the surface water is recirculated through its source many times while being used in product preparation or washing. This practice leads to large cumulative withdrawals for the mineral extraction Industries.

The major mineral industries in Illinois are fluorspar mining, quarrying, sand and gravel operations, oil production, and coal mining. Their rates of withdrawal are shown in table 6.

Table 6. Water Withdrawals by Major Mineral Extraction Industries, 1986

Mineral	Ground water (mgd)	Surface water (mgd)	Total (mgd)
Fluorspar	1.1	<.05	1.1
Quarrying	1.0	1.4	2.4
Sand & Gravel	0.7	16.3	17.0
Oil	26.8 *	0.2	27.0
Coal	3.9	28.8	32.7

*Including 25.5 mgd brine

Rural Water Use

For the purpose of this report, rural water use (withdrawals) is divided into three classifications: domestic, livestock, and irrigation. While the amount of water withdrawn for rural uses is small (about 0.8 percent) when compared with the other withdrawal uses in Illinois, rural withdrawals have increased from an estimated 81 mgd in 1970,¹¹ 101 mgd in 1975,¹² and 280.5 mgd in 1980² to an estimated 305.9 mgd during 1986 (see table 15). Most of this increase is due to changes in agricultural irrigation.

There has been no attempt during this study to separate the rural water use estimate into ground-water and surface water sources. Because of the small amount of rural use compared with other withdrawal categories, and the knowledge that most of these withdrawals are from ground water, rural water use is reported as ground-water withdrawals in table 17 and is not shown in table 18.

Domestic

Rural domestic use for 1986 was estimated to be 105.2 mgd. The rural domestic use was computed by multiplying the population that is not served by public water supplies in each county by an estimated rural district per capita water use. This rural per capita water use was derived by averaging the per capita water use of all public water supply systems located outside SMSA's but which serve 800 or fewer persons and two or fewer commercial connections. The derived rural domestic per capita use ranged from 68.4 gallons per day (gpd) in the East-Southeast District to 99.7 in the Northwest District (figure 2).

Livestock

Water withdrawals for livestock use in 1986 were estimated to be 56.9 mgd. The water use estimates for livestock are based on a fixed amount of water use per head for each type of animal. County livestock populations for 1986 were provided by the annual Illinois agricultural census.⁵ Daily consumption rates (table 7) provided the basis for these calculations.

Table 7. Livestock Water Requirements *

Livestock	Water use (gpd)
Milk cow	35
Horse, mule, cattle	12
Hog	4
Sheep	2
Chicken	0.06
Turkey	0.12

*From references 13, 14, and 15

Irrigation

The average amount of water withdrawn for irrigation during 1986 was estimated to be 143.8 mgd. The increase from the estimated 96.8 mgd in 1980 reflects changes in number of acres irrigated and in rainfall. Most of this water is applied during the months of June, July, and August. The water use estimates for irrigation are based on the acreages listed in the 1982 Census of Agriculture.¹⁶ This information was updated with the help of the University of Illinois Cooperative Extension Service and the Illinois State Water Survey Northern Regional Office. Estimates of water withdrawals for Irrigation were based on weekly regional rainfall deficits and the number of acres irrigated.

Over the last several decades the acreage of irrigated agricultural lands has increased substantially,

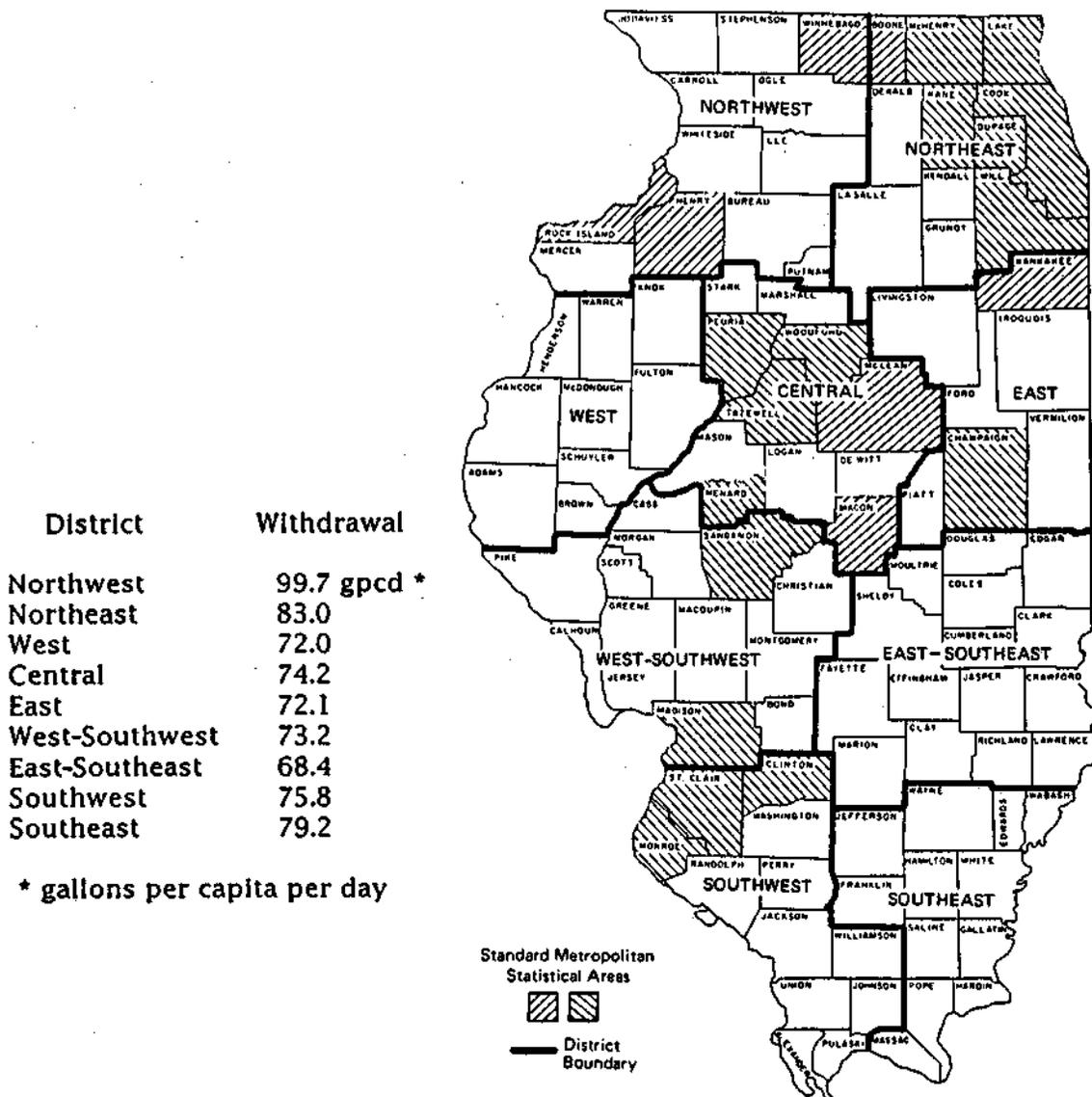


Figure 2. District rural domestic per capita water use, 1986

from 9000 acres in 1950¹⁷ to an estimated 150,000 acres in 1980² and 227,336 acres in 1986. Total acreage (including golf courses, cemeteries, etc.) under irrigation was estimated to be 265,036 acres in 1986.

Fish and Wildlife Management Areas Water Use

The Illinois Department of Conservation, the U.S. Fish and Wildlife Service, and the U. S. Forest Service reported water withdrawals within their

management areas to be 36.7 mgd in 1986. Most of the water was used to flood portions of waterfowl areas during the fall migration. Ground water made up 11.6 mgd of the withdrawals, with surface water providing the other 25.1 mgd (see tables 17 and 18).

Hydrologic Basin Surface Water Use

For the purpose of providing a standard framework for detailed water and related land-resources planning, Illinois has been divided into 12 major

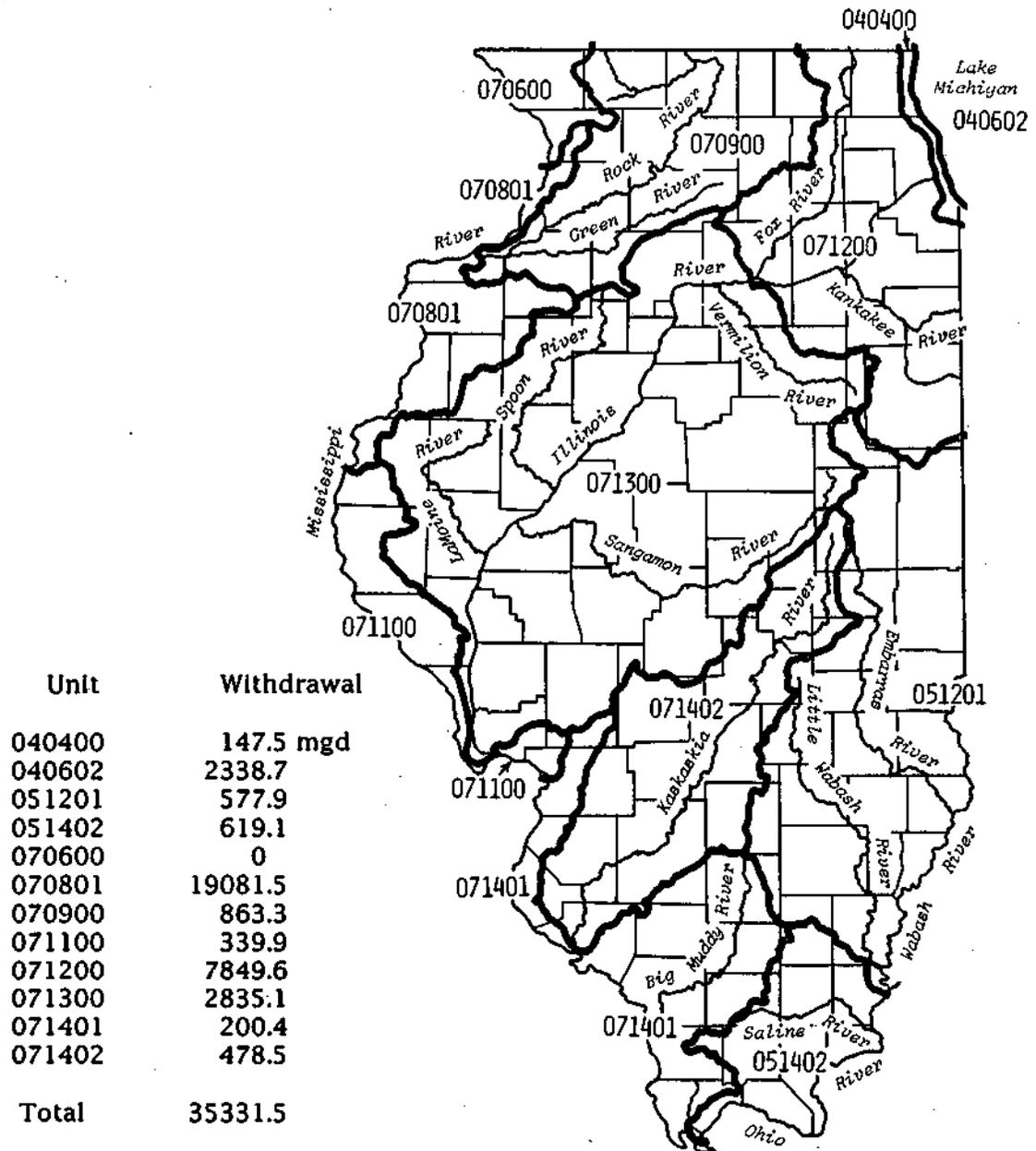


Figure 3. Surface water withdrawals by self-supplied industry by hydrologic units, 1986

hydrologic units by the U. S. Geological Survey.⁶ Generally, the boundaries of these units are equivalent to the watershed boundaries for major river systems in the state (figures 3 and 4). Total surface water (including lakes and ponds) withdrawals within the units (figure 4) ranged from 8.3 mgd in unit 070600 (the Mississippi River area above Lock and Dam 13) to 19,096.0 mgd in unit 070801 (the Mississippi River area upstream from the mouth of the Des Moines River to Lock and Dam 13).

Major Geohydrologic System Water Use

Withdrawals from ground water during 1986 were estimated to be 958.8 mgd. For this report, ground-water use, except rural domestic and livestock use, has been broken down into four major geohydrologic systems. Withdrawals in 1986 from the systems were: Sand and Gravel, 403.3 mgd; Mississippian-Pennsylvanian, 35.2 mgd; Silurian-Devonian, 129.1 mgd; and Cambrian-Ordovician, 229.1 mgd (table 19). Major geohydrologic system data are also reported by township for counties within SMSA's (table 20).

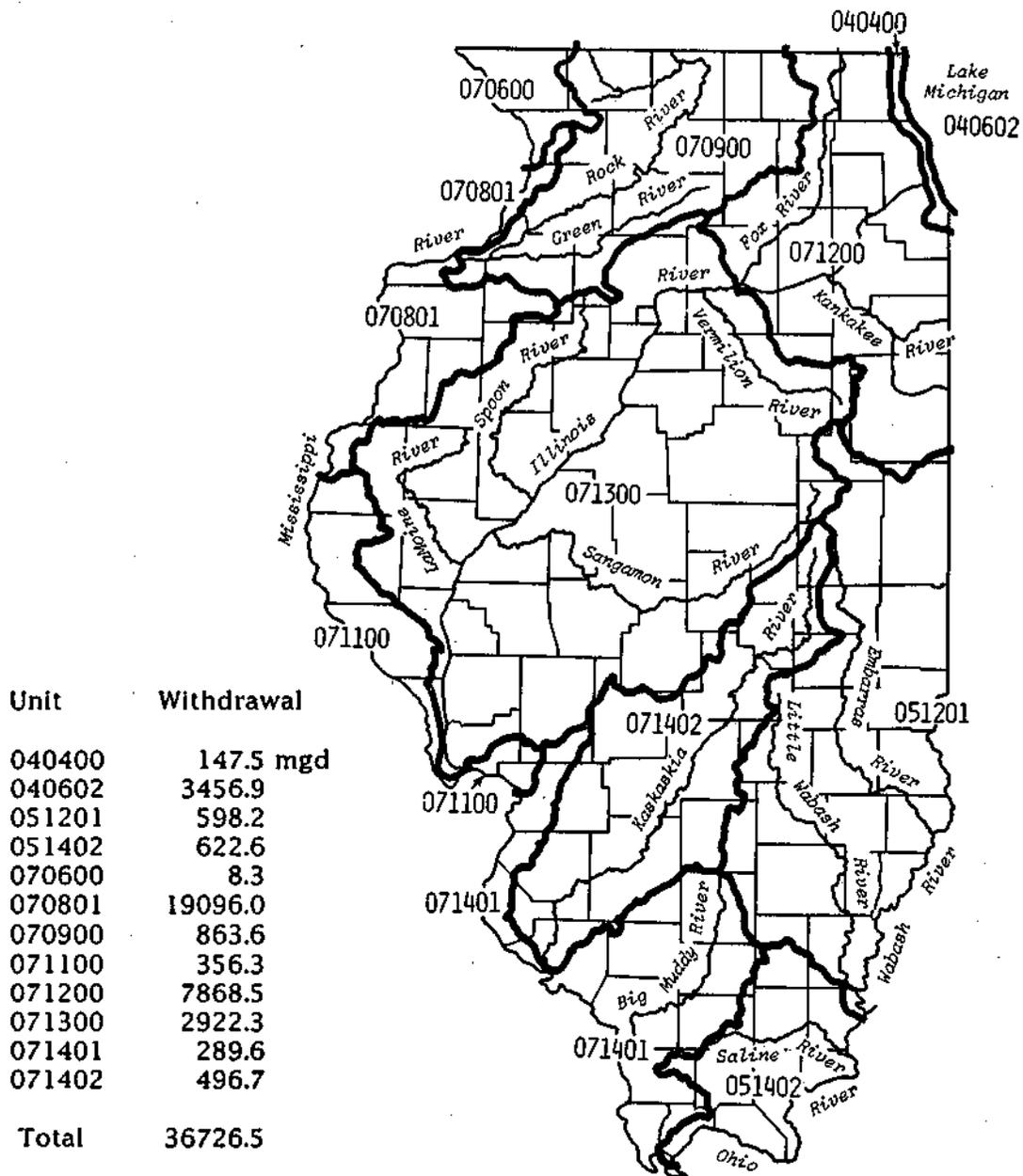


Figure 4. Surface water withdrawals by hydrologic units, 1986

SUMMARY OF ILLINOIS WATER USE

Total water withdrawals in Illinois during 1986 were 37,684.2 mgd (see table 16). Ground water accounted for 958.8 mgd and surface water supplied 36,725.4 mgd (see tables 17 and 18). Excluding electric power withdrawals, 1986 ground-water use was 950.8 mgd, and surface water use was 1849.3 mgd. The water withdrawals by each use category are given in table 8.

Standard Metropolitan Statistical Areas account for 12,046.0 mgd, 32.0 percent, of the total water use in the state. The SMSA's also have 10,305.8 mgd, 29.0 percent, of the state's self-supplied industrial withdrawals (see table 21). Excluding the electric power industry withdrawals, SMSA's account for 2229.4 mgd, 79.6 percent, of the water use in the state (see table 22).

Table 8. Summary of Total Water Withdrawals, 1986

Category	Ground water	Surface water	Total
Public systems	437.1	1369.0	1806.1
Self-supplied industry	204.2	35331.3	35535.5
Rural	305.9*	*	305.9
Fish and wildlife	11.6	25.1	36.7
Total	958.8	36725.4	37684.2

*See page 7

Figures may not add up to totals shown because of independent rounding.

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APPENDIX B

Table 9. Public Water Systems Withdrawals, 1986

District County	Ground water (mgd)	Surface water (mgd)	Total (mgd)
Northwest			
006 Bureau	3.462	0	3.462
008 Carroll	1.548	0	1.548
037 Henry	4.189	0	4.189
043 Jo Daviess	2.165	0	2.165
052 Lee	3.684	0	3.684
066 Mercer	0.914	0	0.914
071 Ogle	5.447	0	5.447
078 Putnam	0.398	0	0.398
081 Rock Island	2.840	14.058	16.898
089 Stephenson	6.130	0	6.130
098 Whiteside	4.234	0	4.234
101 Winnebago	34.191	0	34.191
District total	69.204	14.058	83.261
Northeast			
004 Boone	3.742	0	3.742
016 Cook	40.551	1083.111	1123.662
019 DeKalb	7.226	0	7.226
022 DuPage	81.072	0	81.072
032 Grundy	2.314	0	2.314
045 Kane	26.953	8.078	35.031
047 Kendall	1.635	0	1.635
049 Lake	16.353	35.156	51.509
050 LaSalle	9.548	0	9.548
056 McHenry	12.939	0	12.939
099 Will	31.407	0	31.407
District total	233.739	1126.345	1360.084
West			
001 Adams	1.863	6.745	8.608
005 Brown	0.062	0	0.062
029 Fulton	1.060	1.385	2.445
034 Hancock	0.173	1.000	1.173
036 Henderson	5.624	0	5.624
048 Knox	1.208	0	1.208
055 McDonough	0.808	2.268	3.076
085 Schuyler	0.460	0	0.460
094 Warren	2.209	0	2.209
District total	13.467	11.398	24.865
Central			
020 DeWitt	1.436	0	1.436
054 Logan	3.398	0	3.398
057 McLean	5.094	8.639	13.734
058 Macon	1.218	29.258	30.476
062 Marshall	1.226	0	1.226
063 Mason	0.899	0	0.899
065 Menard	0.747	0	0.747
072 Peoria	15.514	6.971	22.485
088 Stark	0.423	0	0.423
090 Tazewell	13.117	0.522	13.639
102 Woodford	1.492	0	1.492
District total	44.564	45.390	89.954
East			
010 Champaign	20.370	0	20.370
027 Ford	1.410	0	1.410
038 Iroquois	2.092	0	2.092
046 Kankakee	2.304	9.828	12.132
053 Livingston	1.617	4.559	6.175
074 Platt	1.409	0	1.409
092 Vermillion	1.161	8.312	9.474
District total	30.363	22.699	53.063

Table 9. (Concluded)

<i>District County</i>	<i>Ground water (mgd)</i>	<i>Surface water (mgd)</i>	<i>Total (mgd)</i>
W. Southwest			
003 Bond	0.066	0.816	0.882
007 Calhoun	0.344	0	0.344
009 Cass	2.034	0.145	2.178
011 Christian	1.394	1.809	3.203
031 Greene	0.393	0.300	0.693
042 Jersey	0.900	0	0.900
059 Macoupin	0.019	3.480	3.499
060 Madison	12.483	43.565	56.048
068 Montgomery	0.503	2.565	3.067
069 Morgan	0.070	0.517	0.587
075 Pike	0.860	0.434	1.294
084 Sangamon	2.209	20.933	23.141
086 Scott	4.734	0	4.734
<i>District total</i>	<i>26.008</i>	<i>74.563</i>	<i>100.571</i>
E. Southeast			
012 Clark	1.320	0	1.320
013 Clay	0	0.959	0.959
015 Coles	0.384	4.439	4.823
017 Crawford	1.857	0	1.857
018 Cumberland	0.256	0	0.256
021 Douglas	1.092	0	1.092
023 Edgar	0.341	1.387	1.728
025 Effingham	0.259	1.421	1.680
026 Fayette	0.097	1.134	1.231
040 Jasper	0.420	0	0.420
051 Lawrence	1.305	0	1.305
061 Marion	0.030	4.973	5.002
070 Moultrie	0.991	0	0.991
080 Richland	0.081	1.151	1.232
087 Shelby	1.001	1.334	2.335
<i>District total</i>	<i>9.435</i>	<i>16.797</i>	<i>26.232</i>
Southwest			
002 Alexander	0.352	1.418	1.770
014 Clinton	0.223	1.309	1.532
039 Jackson	0.093	8.886	8.979
044 Johnson	0.032	0.550	0.582
067 Monroe	0.123	0.469	0.592
073 Perry	0.048	0.574	0.622
077 Pulaski	0.635	0	0.635
079 Randolph	0.866	2.861	3.727
082 St. Clair	0.182	18.170	18.351
091 Union	1.441	0.148	1.589
095 Washington	0.114	0.555	0.669
100 Williamson	0	2.489	2.489
<i>District total</i>	<i>4.109</i>	<i>37.429</i>	<i>41.538</i>
Southeast			
024 Edwards	0.025	0.108	0.133
028 Franklin	0.010	15.283	15.293
030 Gallatin	2.534	0.035	2.569
033 Hamilton	0.023	0	0.023
035 Hardin	0.148	0.179	0.328
041 Jefferson	0	1.599	1.599
064 Massac	1.475	0	1.475
076 Pope	0	0.085	0.085
083 Saline	0	0.737	0.737
093 Wabash	0.735	1.103	1.838
096 Wayne	0.100	1.226	1.326
097 White	1.127	0	1.127
<i>District total</i>	<i>6.176</i>	<i>20.355</i>	<i>26.531</i>
State total	437.064	1369.034	1806.098

Figures may not add up to totals shown because of independent rounding.

Table 10. Self-Supplied Industry, Electrical Power
Generation Water Withdrawals, Reported 1986
(SIC 4911)

District County	Thermoelectric Ground water (mgd)	Surface water (mgd)	Hydroelectric Surface water (mgd)	Total (mgd)
Northwest				
006 Bureau	0	0	0	0
008 Carroll	0	0	0	0
037 Henry	0	0	0	0
043 Jo Daviess	0	0	0	0
052 Lee	0	0	0	0
066 Mercer	0	0	0	0
071 Ogle	0.107	27.397	0	27.504
078 Putnam	0.101	174.192	0	174.293
081 Rock Island	0.226	0.833	717.356	718.416
089 Stephenson	<.001	0	0	<.001
098 Whiteside	0	0	0	0
101 Winnebago	0	0	818.888	818.888
<i>District total</i>	<i>0.434</i>	<i>202.422</i>	<i>1536.244</i>	<i>1739.101</i>
Northeast				
004 Boone	0	0	0	0
016 Cook	<.001	761.748	0	761.748
019 DeKalb	0	0	0	0
022 DuPage	0.012	0	0	0.012
032 Grundy	1.232	1498.630	0	1499.862
045 Kane	0	0	0	0
047 Kendall	0	0	0	0
049 Lake	0.001	2326.027	0	2326.028
050 LaSalle	0.244	906.301	921.625	1828.170
056 McHenry	0	0	0	0
099 Will	1.894	1778.792	1857.260	3637.946
<i>District total</i>	<i>3.383</i>	<i>7271.500</i>	<i>2778.885</i>	<i>10053.768</i>
West				
001 Adams	0	0	0	0
005 Brown	0	0	0	0
029 Fulton	0	213.238	0	213.238
034 Hancock	0	0	18356.164	18356.164
036 Henderson	0	0	0	0
048 Knox	0	0	0	0
055 McDonough	0	0	0	0
085 Schuyler	0	0	0	0
094 Warren	0	0	0	0
<i>District total</i>	<i>0</i>	<i>213.238</i>	<i>18356.164</i>	<i>18569.403</i>
Central				
020 DeWitt	0	210.137	0	210.137
054 Logan	0	0	0	0
057 McLean	0	0	0	0
058 Macon	0	0	0	0
062 Marshall	0	0	0	0
063 Mason	1.078	102.438	0	103.517
065 Menard	0	0	0	0
072 Peoria	0	332.000	0	332.000
088 Stark	0	0	0	0
090 Tazewell	0.872	580.904	0	581.776
102 Woodford	0	0	0	0
<i>District total</i>	<i>1.950</i>	<i>1225.479</i>	<i>0</i>	<i>1227.430</i>
East				
010 Champaign	0	0	0	0
027 Ford	0	0	0	0
038 Iroquois	0	0	0	0
046 Kankakee	0	0	0	0
053 Livingston	0	0	0	0
074 Platt	0	0	0	0
092 Vermillion	0	2.226	0	2.226
<i>District total</i>	<i>0</i>	<i>2.226</i>	<i>0</i>	<i>2.226</i>

Table 10. (Concluded)

District County	Thermoelectric		Hydroelectric Surface water (mgd)	Total (mgd)
	Ground water (mgd)	Surface water (mgd)		
W. Southwest				
003 Bond	0	0	0	0
007 Calhoun	0	0	0	0
009 Cass	0	0	0	0
011 Christian	0	720.000	0	720.000
031 Greene	0	0	0	0
042 Jersey	0	0	0	0
059 Macoupin	0	0	0	0
060 Madison	0	368.697	0	368.697
068 Montgomery	0	438.356	0	438.356
069 Morgan	0.041	123.288	0	123.328
075 Pike	0.016	12.685	0	12.701
084 Sangamon	0	270.488	0	270.488
086 Scott	0	0	0	0
<i>District total</i>	<i>0.056</i>	<i>1933.515</i>	<i>0</i>	<i>1933.571</i>
E. Southeast				
012 Clark	0	0	0	0
013 Clay	0	0	0	0
015 Coles	0	0	0	0
017 Crawford	0.760	182.339	0	183.099
018 Cumberland	0	0	0	0
021 Douglas	0	0	0	0
023 Edgar	0	0	0	0
025 Effingham	0	0	0	0
026 Fayette	0	0	0	0
040 Jasper	0	387.671	0	387.671
051 Lawrence	0	0	0	0
061 Marion	0	0	0	0
070 Moultrie	0	0	0	0
080 Richland	0	0	0	0
087 Shelby	0	0	0	0
<i>District total</i>	<i>0.760</i>	<i>570.010</i>	<i>0</i>	<i>570.770</i>
Southwest				
002 Alexander	0	0	0	0
014 Clinton	0	0.581	0	0.581
039 Jackson	0.058	142.466	0	142.523
044 Johnson	0	0	0	0
067 Monroe	0	0	0	0
073 Perry	0	0	0	0
077 Pulaski	0	0	0	0
079 Randolph	0	29.096	0	29.096
082 St. Clair	0	0	0	0
091 Union	0	0	0	0
095 Washington	0	0	0	0
100 Williamson	0	98.915	0	98.915
<i>District total</i>	<i>0.058</i>	<i>271.057</i>	<i>0</i>	<i>271.115</i>
Southeast				
024 Edwards	0	0	0	0
028 Franklin	0	0	0	0
030 Gallatin	0	0	0	0
033 Hamilton	0	0	0	0
035 Hardin	0	0	0	0
041 Jefferson	0	0	0	0
064 Massac	1.397	515.378	0	516.775
076 Pope	0	0	0	0
083 Saline	0	0	0	0
093 Wabash	0	0	0	0
096 Wayne	0	0	0	0
097 White	0	0	0	0
<i>District total</i>	<i>1.397</i>	<i>515.378</i>	<i>0</i>	<i>516.775</i>
State total	8.038	12204.826	22671.293	34884.157

Figures may not add up to totals shown because of independent rounding.

Table 11. Self-Supplied Industry, Manufacturing
Water Withdrawals, Reported 1986
(SIC 2000-3999)

District County	Ground water (mgd)	Surface water (mgd)	Total (mgd)
Northwest			
006 Bureau	0.029	0.010	0.039
008 Carroll	2.192	0	2.192
037 Henry	0.021	0	0.021
043 Jo Daviess	1.387	0	1.387
052 Lee	0.051	1.793	1.844
066 Mercer	0	0	0
071 Ogle	1.114	0	1.114
078 Putnam	0.087	4.045	4.132
081 Rock Island	9.591	6.770	16.361
089 Stephenson	2.029	0	2.029
098 Whiteside	2.239	9.058	11.297
101 Winnebago	4.955	0	4.955
District total	23.693	21.676	45.369
Northeast			
004 Boone	0.142	0	0.142
016 Cook	9.460	176.613	186.073
019 DeKalb	0.347	0.294	0.641
022 DuPage	0.348	0	0.348
032 Grundy	7.205	0.049	7.254
045 Kane	1.834	0.148	1.982
047 Kendall	0.677	0	0.677
049 Lake	1.808	12.640	14.448
050 LaSalle	5.570	17.473	23.042
056 McHenry	2.123	1.207	3.330
099 Will	5.364	9.753	15.117
District total	34.877	218.176	253.054
West			
001 Adams	11.469	0	11.469
005 Brown	0	0	0
029 Fulton	0	0	0
034 Hancock	<.001	0	<.001
036 Henderson	0	0	0
048 Knox	0	0	0
055 McDonough	0.015	0	0.015
085 Schuyler	0	0	0
094 Warren	0	0	0
District total	11.484	0	11.484
Central			
020 DeWitt	0.002	0	0.002
054 Logan	0	0	0
057 McLean	0.226	0	0.226
058 Macon	0.001	8.219	8.220
062 Marshall	1.033	0	1.033
063 Mason	0.012	0	0.012
065 Menard	0	0	0
072 Peoria	8.352	41.016	49.368
088 Stark	0	0	0
090 Tazewell	5.637	19.103	24.740
102 Woodford	0.004	0	0.004
District total	15.266	68.338	83.605
East			
010 Champaign	2.359	0	2.359
027 Ford	0	0	0
038 Iroquois	0.085	0	0.085
046 Kankakee	0.216	0	0.216
053 Livingston	0.050	0	0.050
074 Platt	1.265	0	1.265
092 Vermillion	2.948	0	2.948
District total	6.922	0	6.922

Table 11. (Concluded)

District County	Ground water (mgd)	Surface water (mgd)	Total (mgd)
W. Southwest			
003 Bond	0.003	0	0.003
007 Calhoun	0	0	0
009 Cass	0.817	0	0.817
011 Christian	0	0	0
031 Greene	0	0	0
042 Jersey	0	0	0
059 Macoupin	0	0	0
060 Madison	32.969	12.168	45.137
068 Montgomery	0	0.438	0.438
069 Morgan	5.636	0	5.636
075 Pike	0	0	0
084 Sangamon	0	0	0
086 Scott	0	0	0
District total	39.424	12.606	52.030
E. Southeast			
012 Clark	0	0	0
013 Clay	0	0	0
015 Coles	0	0	0
017 Crawford	0	3.824	3.824
018 Cumberland	0	0	0
021 Douglas	0.001	6.877	6.878
023 Edgar	0	0	0
025 Effingham	0	0	0
026 Fayette	0	0	0
040 Jasper	0	0	0
051 Lawrence	0.006	0	0.006
061 Marion	0	0	0
070 Moultrie	0	0	0
080 Richland	0	0	0
087 Shelby	0.288	0	0.288
District total	0.294	10.701	10.995
Southwest			
002 Alexander	0.027	0	0.027
014 Clinton	0	0	0
039 Jackson	0	0	0
044 Johnson	0	0	0
067 Monroe	0	0	0
073 Perry	0	0.576	0.576
077 Pulaski	0	0	0
079 Randolph	0	0	0
082 St. Clair	3.375	0	3.375
091 Union	0.003	0	0.003
095 Washington	0	0	0
100 Williamson	0	0	0
District total	3.405	0.576	3.981
Southeast			
024 Edwards	0	0	0
028 Franklin	0	0	0
030 Gallatin	0	0	0
033 Hamilton	0	0	0
035 Hardin	0	0	0
041 Jefferson	0	0	0
064 Massac	4.275	0	4.275
076 Pope	0	0	0
083 Saline	0	0	0
093 Wabash	0	0	0
096 Wayne	0	0	0
097 White	0	0	0
District total	4.275	0	4.275
State total	139.642	332.073	471.715

Figures may not add up to totals shown because of independent rounding.

Table 12. Self-Supplied Industry, Mineral Extraction
Water Withdrawals, Reported 1986
(SIC 1000-1499)

District County	Ground water		Surface water	Total
	Brine (mgd)	Fresh (mgd)	(mgd)	(mgd)
Northwest				
006 Bureau	0	0.005	0	0.005
008 Carroll	0	0	0	0
037 Henry	0	0	0	0
043 Jo Daviess	0	0	0	0
052 Lee	0	0	0	0
066 Mercer	0	0	0	0
071 Ogle	0	0.105	0	0.105
078 Putnam	0	0	0	0
081 Rock Island	0	0.001	0.336	0.336
089 Stephenson	0	0	0	0
098 Whiteside	0	0.085	0	0.085
101 Winnebago	0	<.001	0.647	0.647
District total	0	0.196	0.983	1.179
Northeast				
004 Boone	0	0	0.137	0.137
016 Cook	0	<.001	0.466	0.466
019 DeKalb	0	<.001	3.080	3.081
022 DuPage	0	0.094	0.915	1.009
032 Grundy	0	<.001	0	<.001
045 Kane	0	0.056	0.789	0.845
047 Kendall	0	<.001	0	<.001
049 Lake	0	0.516	0.529	1.045
050 LaSalle	0	0.012	5.319	5.331
056 McHenry	0	<.001	2.836	2.836
099 Will	0	0	<.001	<.001
District total	0	0.679	14.071	14.750
West				
001 Adams	0	0	0	0
005 Brown	0	0	0	0
029 Fulton	0	0.082	0.685	0.767
034 Hancock	0	0	0	0
036 Henderson	0	0	0	0
048 Knox	0	0	0	0
055 McDonough	0	<.001	0	<.001
085 Schuyler	0	0	0	0
094 Warren	0	0	0	0
District total	0	0.083	0.685	0.767
Central				
020 DeWitt	0	0	0	0
054 Logan	0	0.008	0.013	0.022
057 McLean	0	0	0	0
058 Macon	0	0	0	0
062 Marshall	0	0	0	0
063 Mason	0	0	0	0
065 Menard	0	0	0	0
072 Peoria	0	<.001	0	<.001
088 Stark	0	0	0	0
090 Tazewell	0	0	0	0
102 Woodford	0	0	0	0
District total	0	0.008	0.013	0.022
East				
010 Champaign	0	0	5.212	5.212
027 Ford	0	0	0.049	0.049
038 Iroquois	0	0	0	0
046 Kankakee	0	0.792	0	0.792
053 Livingston	0	0	0	0
074 Piatt	0	0	0.186	0.186
092 Vermillion	0	0	0	0
District total	0	0.792	5.447	6.239

Table 12. (Concluded)

District County	Ground water		Surface water (mgd)	Total (mgd)
	Brine (mgd)	Fresh (mgd)		
W. Southwest				
003 Bond	0.003	<.001	0	0.003
007 Calhoun	0	0	0	0
009 Cass	0	0	0	0
011 Christian	0.458	0.050	0.858	1.366
031 Greene	0	0.001	0	0.001
042 Jersey	0	0	0	0
059 Macoupin	0.005	0	1.833	1.838
060 Madison	0.090	0.006	0	0.095
068 Montgomery	0	0	0.064	0.064
069 Morgan	0	0	0	0
075 Pike	0	0	0	0
084 Sangamon	0	<.001	1.579	1.579
086 Scott	0	0	0	0
District total	0.556	0.056	4.333	4.946
E. Southeast				
012 Clark	0.115	0.114	0	0.230
013 Clay	0.722	0.100	0	0.821
015 Coles	0.120	<.001	0.093	0.214
017 Crawford	3.602	0.140	0	3.742
018 Cumberland	0.106	0.090	0	0.196
021 Douglas	0	0.055	1.724	1.778
023 Edgar	0.087	0	0	0.087
025 Effingham	0.224	0.003	0	0.227
026 Fayette	1.281	0	0	1.281
040 Jasper	1.103	0	0	1.103
051 Lawrence	7.223	0.399	0	7.622
061 Marion	0.653	0.003	0	0.656
070 Moultrie	0	0	0	0
080 Richland	0.906	0	0	0.906
087 Shelby	0.036	0	0	0.036
District total	16.179	0.904	1.817	18.900
Southwest				
002 Alexander	0	0	0	0
014 Clinton	0.312	0.365	1.518	2.195
039 Jackson	0	0	0.641	0.641
044 Johnson	0	0	0.002	0.002
067 Monroe	0	0.001	0	0.001
073 Perry	0.014	1.277	11.858	13.148
077 Pulaski	0	0	0	0
079 Randolph	0	0	0.026	0.026
082 St. Clair	0	0	1.893	1.893
091 Union	0	0	0.003	0.003
095 Washington	0.355	0	0	0.355
100 Williamson	0.030	0.001	3.678	3.709
District total	0.712	1.644	19.619	21.975
Southeast				
024 Edwards	0.486	0.001	0	0.487
028 Franklin	0.233	0.018	1.119	1.370
030 Gallatin	0.273	1.677	0.972	2.921
033 Hamilton	0.510	0	0.877	1.387
035 Hardin	0	1.089	0.013	1.102
041 Jefferson	0.773	0.091	1.375	2.239
064 Massac	0	0	0	0
076 Pope	0	0	0	0
083 Saline	0.351	0	0.362	0.713
093 Wabash	1.234	0.420	0.011	1.664
096 Wayne	1.711	0.025	0	1.737
097 White	2.491	0.296	0	2.787
District total	8.063	3.616	4.728	16.407
State total	25.510	7.979	51.696	85.185

Figures may not add up to totals shown because of independent rounding.

Table 13. Self-Supplied Industry, Excluding Electrical Power Generation Water Withdrawals, Reported 1986

<i>District County</i>	<i>Ground water* (mgd)</i>	<i>Surface water (mgd)</i>	<i>Total (mgd)</i>
Northwest			
006 Bureau	0.121	0.010	0.131
008 Carroll	2.317	0	2.317
037 Henry	0.024	0	0.024
043 Jo Daviess	1.511	0	1.511
052 Lee	0.100	1.793	1.893
066 Mercer	0	0	0
071 Ogle	1.221	0	1.221
078 Putnam	0.087	4.045	4.132
081 Rock Island	9.591	7.111	16.703
089 Stephenson	2.046	0	2.046
098 Whiteside	2.325	9.058	11.382
101 Winnebago	6.584	0.647	7.231
District total	25.927	22.664	48.590
Northeast			
004 Boone	0.143	0.137	0.280
016 Cook	14.452	244.389	258.841
019 DeKalb	0.376	3.374	3.750
022 DuPage	1.740	3.813	5.553
032 Grundy	7.454	0.058	7.512
045 Kane	1.959	2.097	4.056
047 Kendall	0.685	0	0.685
049 Lake	2.549	13.171	15.720
050 LaSalle	5.585	22.792	28.377
056 McHenry	2.212	4.043	6.254
099 Will	5.835	9.768	15.603
District total	42.990	303.641	346.631
West			
001 Adams	11.469	0	11.469
005 Brown	0	0	0
029 Fulton	0.082	0.685	0.767
034 Hancock	<.001	0	<.001
036 Henderson	0	0	0
048 Knox	0	0	0
055 McDonough	0.015	0	0.015
085 Schuyler	0	0	0
094 Warren	0	0	0
District total	11.567	0.685	12.251
Central			
020 DeWitt	0.002	0	0.002
054 Logan	0.008	0.013	0.022
057 McLean	0.229	0	0.229
058 Macon	0.001	8.219	8.220
062 Marshall	1.033	0	1.033
063 Mason	0.015	0	0.015
065 Menard	0	0	0
072 Peoria	8.717	41.016	49.733
088 Stark	0	0	0
090 Tazewell	5.639	19.103	24.742
102 Woodford	0.004	0	0.004
District total	15.648	68.352	83.999
East			
010 Champaign	4.457	5.212	9.668
027 Ford	0	0.049	0.049
038 Iroquois	0.085	0	0.085
046 Kankakee	1.008	0	1.008
053 Livingston	0.053	0	0.053
074 Platt	1.265	0.186	1.452
092 Vermillion	2.948	0	2.948
District total	9.815	5.447	15.263

Table 13. (Concluded)

<i>District County</i>	<i>Ground water* (mgd)</i>	<i>Surface water (mgd)</i>	<i>Total (mgd)</i>
W. Southwest			
003 Bond	0.006	0	0.006
007 Calhoun	0	0	0
009 Cass	0.817	0	0.817
011 Christian	0.508	0.858	1.366
031 Greene	0.001	0	0.001
042 Jersey	0	0	0
059 Macoupin	0.005	1.833	1.838
060 Madison	33.078	12.168	45.246
068 Montgomery	0	0.503	0.503
069 Morgan	5.636	0	5.636
075 Pike	0.041	0	0.041
084 Sangamon	<.001	1.579	1.579
086 Scott	0	0	0
District total	40.092	16.940	57.031
E. Southeast			
012 Clark	0.230	0	0.230
013 Clay	0.821	0	0.821
015 Coles	0.121	0.093	0.214
017 Crawford	3.742	3.824	7.566
018 Cumberland	0.196	0	0.196
021 Douglas	0.056	8.600	8.656
023 Edgar	0.088	0	0.088
025 Effingham	0.227	0	0.227
026 Fayette	1.281	0	1.281
040 Jasper	1.103	0	1.103
051 Lawrence	7.628	0	7.628
061 Marion	0.656	0	0.656
070 Moultrie	0	0	0
080 Richland	0.906	0	0.906
087 Shelby	0.324	0	0.324
District total	17.379	12.518	29.896
Southwest			
002 Alexander	0.027	0	0.027
014 Clinton	0.706	1.518	2.224
039 Jackson	0	0.641	0.641
044 Johnson	0	0.002	0.002
067 Monroe	0.001	0	0.001
073 Perry	1.291	12.433	13.724
077 Pulaski	0	0	0
079 Randolph	0.001	0.026	0.027
082 St. Clair	14.408	1.893	16.301
091 Union	0.003	0.003	0.006
095 Washington	0.355	0	0.355
100 Williamson	0.031	3.678	3.709
District total	16.823	20.195	37.018
Southeast			
024 Edwards	0.487	0	0.487
028 Franklin	0.251	1.119	1.370
030 Gallatin	1.950	0.972	2.921
033 Hamilton	0.510	0.877	1.387
035 Hardin	1.089	0.013	1.102
041 Jefferson	0.865	1.375	2.239
064 Massac	4.275	0	4.275
076 Pope	0	0	0
083 Saline	0.351	0.362	0.713
093 Wabash	1.654	0.011	1.664
096 Wayne	1.737	0	1.737
097 White	2.787	0	2.787
District total	15.955	4.728	20.683
State total	196.194	455.168	651.363

*Includes 25.510 mgd brine.

Figures may not add up to totals shown because of independent rounding.

Table 14. Self-Supplied Industry. Total
Water Withdrawals, Reported 1986

District County	Ground water* (mgd)	Surface water (mgd)	Total (mgd)
Northwest			
006 Bureau	0.121	0.010	0.131
008 Carroll	2.317	0	2.317
037 Henry	0.024	0	0.024
043 Jo Daviess	1.511	0	1.511
052 Lee	0.100	1.793	1.893
066 Mercer	0	0	0
071 Ogle	1.328	27.397	28.726
078 Putnam	0.187	178.237	178.424
081 Rock Island	9.818	725.301	735.118
089 Stephenson	2.047	0	2.047
098 Whiteside	2.325	9.058	11.382
101 Winnebago	6.584	819.535	826.119
District total	26.361	1761.330	1787.691
Northeast			
004 Boone	0.143	0.137	0.280
016 Cook	14.453	1006.137	1020.589
019 DeKalb	0.376	3.374	3.750
022 DuPage	1.752	3.813	5.565
032 Grundy	8.686	1498.688	1507.375
045 Kane	1.959	2.097	4.056
047 Kendall	0.685	0	0.685
049 Lake	2.550	2339.198	2341.748
050 LaSalle	5.829	1850.718	1856.547
056 McHenry	2.212	4.043	6.254
099 Will	7.729	3645.820	3653.549
District total	46.373	10354.025	10400.399
West			
001 Adams	11.469	0	11.469
005 Brown	0	0	0
029 Fulton	0.082	213.923	214.006
034 Hancock	<.001	18356.164	18356.165
036 Henderson	0	0	0
048 Knox	0	0	0
055 McDonough	0.015	0	0.015
085 Schuyler	0	0	0
094 Warren	0	0	0
District total	11.567	18570.088	18581.654
Central			
020 DeWitt	0.002	210.137	210.139
054 Logan	0.008	0.013	0.022
057 McLean	0.229	0	0.229
058 Macon	0.001	8.219	8.220
062 Marshall	1.033	0	1.033
063 Mason	1.093	102.438	103.532
065 Menard	0	0	0
072 Peoria	8.717	373.016	381.733
088 Stark	0	0	0
090 Tazewell	6.511	600.007	606.518
102 Woodford	0.004	0	0.004
District total	17.598	1293.831	1311.429
East			
010 Champaign	4.457	5.212	9.668
027 Ford	0	0.049	0.049
038 Iroquois	0.085	0	0.085
046 Kankakee	1.008	0	1.008
053 Livingston	0.053	0	0.053
074 Platt	1.265	0.186	1.452
092 Vermillion	2.948	2.226	5.174
District total	9.815	7.673	17.488

Table 14. (Concluded)

<i>District County</i>	<i>Ground water* (mgd)</i>	<i>Surface water (mgd)</i>	<i>Total (mgd)</i>
W. Southwest			
003 Bond	0.006	0	0.006
007 Calhoun	0	0	0
009 Cass	0.817	0	0.817
011 Christian	0.508	720.858	721.366
031 Greene	0.001	0	0.001
042 Jersey	0	0	0
059 Macoupin	0.005	1.833	1.838
060 Madison	33.078	380.865	413.943
068 Montgomery	0	438.859	438.859
069 Morgan	5.676	123.288	128.964
075 Pike	0.057	12.685	12.742
084 Sangamon	<.001	272.067	272.067
086 Scott	0	0	0
District total	40.148	1950.454	1990.602
E. Southeast			
012 Clark	0.230	0	0.230
013 Clay	0.821	0	0.821
015 Coles	0.121	0.093	0.214
017 Crawford	4.502	186.163	190.665
018 Cumberland	0.196	0	0.196
021 Douglas	0.056	8.600	8.656
023 Edgar	0.088	0	0.088
025 Effingham	0.227	0	0.227
026 Fayette	1.281	0	1.281
040 Jasper	1.103	387.671	388.774
051 Lawrence	7.628	0	7.628
061 Marion	0.656	0	0.656
070 Moultrie	0	0	0
080 Richland	0.906	0	0.906
087 Shelby	0.324	0	0.324
District total	18.138	582.528	600.666
Southwest			
002 Alexander	0.027	0	0.027
014 Clinton	0.706	2.099	2.804
039 Jackson	0.058	143.107	143.165
044 Johnson	0	0.002	0.002
067 Monroe	0.001	0	0.001
073 Perry	1.291	12.433	13.724
077 Pulaski	0	0	0
079 Randolph	0.001	29.122	29.123
082 St. Clair	14.408	1.893	16.301
091 Union	0.003	0.003	0.006
095 Washington	0.355	0	0.355
100 Williamson	0.031	102.593	102.624
District total	16.880	291.252	308.132
Southeast			
024 Edwards	0.487	0	0.487
028 Franklin	0.251	1.119	1.370
030 Gallatin	1.950	0.972	2.921
033 Hamilton	0.510	0.877	1.387
035 Hardin	1.089	0.013	1.102
041 Jefferson	0.865	1.375	2.239
064 Massac	5.672	515.378	521.050
076 Pope	0	0	0
083 Saline	0.351	0.362	0.713
093 Wabash	1.654	0.011	1.664
096 Wayne	1.737	0	1.737
097 White	2.787	0	2.787
District total	17.352	520.106	537.457
State total	204.232	35331.287	35535.519

*Includes 25.510 mgd brine.

Figures may not add up to totals shown because of independent rounding.

Table 15. Estimated Rural Water Withdrawals, 1986

<i>District County</i>	<i>Domestic (mgd)</i>	<i>Livestock (mgd)</i>	<i>Irrigation (mgd)</i>	<i>Total (mgd)</i>
Northwest				
006 Bureau	0.941	0.953	0.698	2.593
008 Carroll	0.577	1.282	3.541	5.400
037 Henry	1.049	2.032	1.564	4.645
043 Jo Daviess	0.859	1.945	0.152	2.956
052 Lee	0.596	0.750	6.856	8.202
066 Mercer	0.803	0.917	0.421	2.142
071 Ogle	1.909	1.527	1.142	4.578
078 Putnam	0.082	0.136	0.499	0.717
081 Rock Island	1.552	0.607	0.849	3.008
089 Stephenson	1.145	2.408	0.460	4.013
098 Whiteside	1.958	1.325	7.588	10.871
101 Winnebago	6.634	0.771	1.857	9.262
<i>District total</i>	<i>18.104</i>	<i>14.655</i>	<i>25.628</i>	<i>58.387</i>
Northeast				
004 Boone	0.926	0.508	0.224	1.659
016 Cook	0.632	0.026	11.141	11.799
019 DeKalb	3.929	1.162	0.371	5.463
022 DuPage	8.118	0.023	6.721	14.862
032 Grundy	0.828	0.148	0.111	1.088
045 Kane	3.099	0.692	1.486	5.277
047 Kendall	1.756	0.304	0.072	2.131
049 Lake	8.510	0.111	3.775	12.396
050 LaSalle	1.253	0.697	0.208	2.159
056 McHenry	5.162	0.990	2.674	8.826
099 Will	7.226	0.360	2.486	10.072
<i>District total</i>	<i>41.440</i>	<i>5.022</i>	<i>29.269</i>	<i>75.731</i>
West				
001 Adams	0.508	1.311	0.486	2.306
005 Brown	0.082	0.276	0	0.358
029 Fulton	0.220	0.813	0.464	1.497
034 Hancock	0.624	1.057	0.274	1.956
036 Henderson	0.436	0.548	2.303	3.286
048 Knox	0.436	1.261	0	1.697
055 McDonough	0.497	0.742	0	1.239
085 Schuyler	0.212	0.403	0.034	0.650
094 Warren	0.441	0.959	0	1.400
<i>District total</i>	<i>3.457</i>	<i>7.370</i>	<i>3.562</i>	<i>14.389</i>
Central				
020 DeWitt	0.370	0.164	0	0.533
054 Logan	0.534	0.491	0	1.025
057 McLean	3.390	0.765	0.367	4.521
058 Macon	2.044	0.167	0	2.211
062 Marshall	0.254	0.334	1.164	1.752
063 Mason	0.601	0.239	43.299	44.139
065 Menard	0.211	0.352	0	0.563
072 Peoria	0.859	0.447	3.235	4.542
088 Stark	0.203	0.270	0.504	0.977
090 Tazewell	0.946	0.616	11.391	12.953
102 Woodford	0.785	0.594	0.503	1.882
<i>District total</i>	<i>10.196</i>	<i>4.438</i>	<i>60.463</i>	<i>75.098</i>
East				
010 Champaign	2.197	0.270	0.372	2.839
027 Ford	0.285	0.269	0.071	0.626
038 Iroquois	0.748	0.840	0.731	2.319
046 Kankakee	1.860	0.268	2.922	5.050
053 Livingston	0.964	0.706	0	1.670
074 Platt	0.321	0.190	0.015	0.526
092 Vermillion	1.241	0.392	0.004	1.636
<i>District total</i>	<i>7.615</i>	<i>2.936</i>	<i>4.116</i>	<i>14.667</i>

Table 15. (Concluded)

<i>District County</i>	<i>Domestic (mgd)</i>	<i>Livestock (mgd)</i>	<i>Irrigation (mgd)</i>	<i>Total (mgd)</i>
W. Southwest				
003 Bond	0.379	0.476	0.031	0.885
007 Calhoun	0.271	0.305	0.011	0.587
009 Cass	0.247	0.433	1.177	1.856
011 Christian	0.436	0.256	0.013	0.705
031 Greene	0.234	0.791	1.234	2.259
042 Jersey	0.176	0.439	0.226	0.841
059 Macoupin	0.537	1.055	0.137	1.729
060 Madison	2.191	0.690	1.149	4.030
068 Montgomery	0.649	0.731	0.009	1.389
069 Morgan	0.074	0.707	0.674	1.454
075 Pike	0.408	1.485	0.860	2.753
084 Sangamon	0.385	0.666	0.104	1.155
086 Scott	0.172	0.273	1.150	1.595
<i>District total</i>	<i>6.159</i>	<i>8.307</i>	<i>6.773</i>	<i>21.239</i>
E. Southeast				
012 Clark	0.401	0.464	2.464	3.329
013 Clay	0.472	0.273	0.053	0.797
015 Coles	0.379	0.244	0.006	0.629
017 Crawford	0.350	0.319	0.241	0.910
018 Cumberland	0.401	0.320	0.025	0.746
021 Douglas	0.373	0.233	0	0.606
023 Edgar	0.486	0.486	0.019	0.991
025 Effingham	0.587	0.799	0.061	1.447
026 Fayette	0.785	0.461	0.037	1.284
040 Jasper	0.481	0.493	0	0.973
051 Lawrence	0.377	0.140	2.997	3.514
061 Marion	0.201	0.362	0.040	0.603
070 Moultrie	0.192	0.242	0	0.434
080 Richland	0.413	0.302	0	0.715
087 Shelby	0.605	0.564	0.183	1.352
<i>District total</i>	<i>6.503</i>	<i>5.701</i>	<i>6.127</i>	<i>18.332</i>
Southwest				
002 Alexander	0.042	0.057	0.607	0.706
014 Clinton	0.832	1.254	0.061	2.147
039 Jackson	0.195	0.406	0.107	0.709
044 Johnson	0.501	0.393	0	0.894
067 Monroe	0.703	0.354	0.656	1.712
073 Perry	0.582	0.380	0.269	1.230
077 Pulaski	0.234	0.138	0.052	0.424
079 Randolph	0.416	0.633	0.269	1.317
082 St. Clair	3.460	0.516	0.917	4.893
091 Union	0.506	0.290	0.159	0.955
095 Washington	0.235	0.782	0.292	1.309
100 Williamson	0.180	0.197	0.016	0.393
<i>District total</i>	<i>7.887</i>	<i>5.398</i>	<i>3.404</i>	<i>16.689</i>
Southeast				
024 Edwards	0.301	0.357	0	0.658
028 Franklin	0.177	0.180	0	0.357
030 Gallatin	0.087	0.143	2.482	2.711
033 Hamilton	0.310	0.257	0	0.566
035 Hardin	0.114	0.105	0	0.219
041 Jefferson	0.856	0.391	0.029	1.276
064 Massac	0.166	0.288	0.985	1.440
076 Pope	0.153	0.177	0	0.330
083 Saline	0.141	0.164	0	0.304
093 Wabash	0.251	0.162	0.084	0.497
096 Wayne	0.609	0.548	0	1.157
097 White	0.684	0.285	0.863	1.831
<i>District total</i>	<i>3.848</i>	<i>3.055</i>	<i>4.443</i>	<i>11.347</i>
State total	105.211	56.883	143.784	305.878

Figures may not add up to totals shown because of independent rounding.

Table 16. Total Water Withdrawals, Estimated and Reported 1986

<i>District County</i>	<i>Public systems (mgd)</i>	<i>Self-supplied industry (mgd)</i>	<i>Rural (mgd)</i>	<i>Fish and wildlife (mgd)</i>	<i>Total (mgd)</i>
Northwest					
006 Bureau	3.462	0.131	2.593	<.001	6.187
008 Carroll	1.548	2.317	5.400	8.263	17.528
037 Henry	4.189	0.024	4.645	0.010	8.868
043 Jo Davless	2.165	1.511	2.956	0.004	6.636
052 Lee	3.684	1.893	8.202	0.001	13.780
066 Mercer	0.914	0	2.142	0	3.056
071 Ogle	5.447	28.726	4.578	0.009	38.760
078 Putnam	0.398	178.424	0.717	0	179.540
081 Rock Island	16.898	735.118	3.008	0	755.024
089 Stephenson	6.130	2.047	4.013	0.002	12.192
098 Whiteside	4.234	11.382	10.871	0.005	26.492
101 Winnebago	34.191	826.119	9.262	0.001	869.573
District total	83.261	1787.691	58.387	8.294	1937.633
Northeast					
004 Boone	3.742	0.280	1.659	0	5.681
016 Cook	1123.662	1020.589	11.799	<.001	2156.050
019 DeKalb	7.226	3.750	5.463	0	16.439
022 DuPage	81.072	5.565	14.862	0	101.499
032 Grundy	2.314	1507.375	1.088	0.002	1510.778
045 Kane	35.031	4.056	5.277	0	44.364
047 Kendall	1.635	0.685	2.131	0.001	4.453
049 Lake	51.509	2341.748	12.396	0.003	2405.656
050 LaSalle	9.548	1856.547	2.159	0.030	1868.284
056 McHenry	12.939	6.254	8.826	0.103	28.123
099 Will	31.407	3653.549	10.072	0.412	3695.440
District total	1360.084	10400.399	75.731	0.552	11836.766
West					
001 Adams	8.608	11.469	2.306	0.001	22.384
005 Brown	0.062	0	0.358	0	0.420
029 Fulton	2.445	214.006	1.497	2.961	220.908
034 Hancock	1.173	18356.165	1.956	0	18359.294
036 Henderson	5.624	0	3.286	0.051	8.961
048 Knox	1.208	0	1.697	0	2.905
055 McDonough	3.076	0.015	1.239	<.001	4.330
085 Schuyler	0.460	0	0.650	<.001	1.110
094 Warren	2.209	0	1.400	0	3.609
District total	24.865	18581.654	14.389	3.013	18623.921
Central					
020 DeWitt	1.436	210.139	0.533	<.001	212.109
054 Logan	3.398	0.022	1.025	0	4.445
057 McLean	13.734	0.229	4.521	0.009	18.492
058 Macon	30.476	8.220	2.211	<.001	40.907
062 Marshall	1.226	1.033	1.752	<.001	4.011
063 Mason	0.899	103.532	44.139	8.191	156.761
065 Menard	0.747	0	0.563	<.001	1.310
072 Peoria	22.485	381.733	4.542	0.002	408.761
088 Stark	0.423	0	0.977	0	1.400
090 Tazewell	13.639	606.518	12.953	<.001	633.110
102 Woodford	1.492	0.004	1.882	0.001	3.378
District total	89.954	1311.429	75.098	8.203	1484.683
East					
010 Champaign	20.370	9.668	2.839	0.001	32.879
027 Ford	1.410	0.049	0.626	0	2.085
038 Iroquois	2.092	0.085	2.319	<.001	4.497
046 Kankakee	12.132	1.008	5.050	0.002	18.191
053 Livingston	6.175	0.053	1.670	0	7.898
074 Piatt	1.409	1.452	0.526	0.017	3.403
092 Vermillion	9.474	5.174	1.636	0.004	16.288
District total	53.063	17.488	14.667	0.024	85.241

Table 16. (Concluded)

District County	Public systems (mgd)	Self-supplied industry (mgd)	Rural (mgd)	Fish and wildlife (mgd)	Total (mgd)
W. Southwest					
003 Bond	0.882	0.006	0.885	0	1.774
007 Calhoun	0.344	0	0.587	0.448	1.379
009 Cass	2.178	0.817	1.856	0	4.851
011 Christian	3.203	721.366	0.705	0.003	725.276
031 Greene	0.693	0.001	2.259	0	2.953
042 Jersey	0.900	0	0.841	2.887	4.628
059 Macoupin	3.499	1.838	1.729	0.001	7.067
060 Madison	56.048	413.943	4.030	<.001	474.022
068 Montgomery	3.067	438.859	1.389	0	443.315
069 Morgan	0.587	128.964	1.454	0	131.005
075 Pike	1.294	12.742	2.753	0	16.789
084 Sangamon	23.141	272.067	1.155	0.001	296.364
086 Scott	4.734	0	1.595	0	6.329
District total	100.571	1990.602	21.239	3.339	2115.752
E. Southeast					
012 Clark	1.320	0.230	3.329	0	4.879
013 Clay	0.959	0.821	0.797	0	2.577
015 Coles	4.823	0.214	0.629	0.001	5.666
017 Crawford	1.857	190.665	0.910	0	193.432
018 Cumberland	0.256	0.196	0.746	0	1.198
021 Douglas	1.092	8.656	0.606	0.012	10.366
023 Edger	1.728	0.088	0.991	0	2.806
025 Effingham	1.680	0.227	1.447	0	3.354
026 Fayette	1.231	1.281	1.284	1.677	5.473
040 Jasper	0.420	388.774	0.973	<.001	390.168
051 Lawrence	1.305	7.628	3.514	<.001	12.447
061 Marion	5.002	0.656	0.603	0.004	6.265
070 Moultrie	0.991	0	0.434	0.708	2.134
080 Richland	1.232	0.906	0.715	0	2.853
087 Shelby	2.335	0.324	1.352	<.001	4.012
District total	26.232	600.666	18.332	2.402	647.631
Southwest					
002 Alexander	1.770	0.027	0.706	0.127	2.630
014 Clinton	1.532	2.804	2.147	0	6.484
039 Jackson	8.979	143.165	0.709	1.953	154.806
044 Johnson	0.582	0.002	0.894	0	1.477
067 Monroe	0.592	0.001	1.712	0	2.305
073 Perry	0.622	13.724	1.230	<.001	15.576
077 Pulaski	0.635	0	0.424	0	1.059
079 Randolph	3.727	29.123	1.317	0.001	34.168
082 St. Clair	18.351	16.301	4.893	<.001	39.546
091 Union	1.589	0.006	0.955	0.651	3.201
095 Washington	0.669	0.355	1.309	<.001	2.334
100 Williamson	2.489	102.624	0.393	0	105.506
District total	41.538	308.132	16.689	2.732	369.092
Southeast					
024 Edwards	0.133	0.487	0.658	0	1.277
028 Franklin	15.293	1.370	0.357	7.782	24.801
030 Gallatin	2.569	2.921	2.711	0	8.202
033 Hamilton	0.023	1.387	0.566	<.001	1.976
035 Hardin	0.328	1.102	0.219	0	1.649
041 Jefferson	1.599	2.239	1.276	0	5.114
064 Massac	1.475	521.050	1.440	0.384	524.349
076 Pope	0.085	0	0.330	0	0.415
083 Saline	0.737	0.713	0.304	0.001	1.755
093 Wabash	1.838	1.664	0.497	<.001	3.999
096 Wayne	1.326	1.737	1.157	<.001	4.220
097 White	1.127	2.787	1.831	0	5.745
District total	26.531	537.457	11.347	8.167	583.503
State total	1806.098	35535.519	305.878	36.726	37684.222

Figures may not add up to totals shown because of independent rounding.

Table 17. Total Ground-Water Withdrawals, Estimated and Reported 1986

District County	Public systems (mgd)	Self-supplied industry (mgd)	Rural* (mgd)	Fish and wildlife (mgd)	Total (mgd)
Northwest					
006 Bureau	3.462	0.121	2.593	<.001	6.177
008 Carroll	1.548	2.317	5.400	0.004	9.269
037 Henry	4.189	0.024	4.645	0.010	8.868
043 Jo Daviess	2.165	1.511	2.956	0.004	6.636
052 Lee	3.684	0.100	8.202	0.001	11.987
066 Mercer	0.914	0	2.142	0	3.056
071 Ogle	5.447	1.328	4.578	0.009	11.362
078 Putnam	0.398	0.187	0.717	0	1.303
081 Rock Island	2.840	9.818	3.008	0	15.666
089 Stephenson	6.130	2.047	4.013	0.002	12.192
098 Whiteside	4.234	2.325	10.871	0.005	17.434
101 Winnebago	34.191	6.584	9.262	0.001	50.038
District total	69.204	26.361	58.387	0.035	153.987
Northeast					
004 Boone	3.742	0.143	1.659	0	5.544
016 Cook	40.551	14.453	11.799	<.001	66.802
019 DeKalb	7.226	0.376	5.463	0	13.065
022 DuPage	81.072	1.752	14.862	0	97.686
032 Grundy	2.314	8.686	1.088	0.002	12.090
045 Kane	26.953	1.959	5.277	0	34.189
047 Kendall	1.635	0.685	2.131	0.001	4.453
049 Lake	16.353	2.550	12.396	0.003	31.302
050 LaSalle	9.548	5.829	2.159	0.030	17.566
056 McHenry	12.939	2.212	8.826	0.103	24.080
099 Will	31.407	7.729	10.072	0.001	49.209
District total	233.739	46.373	75.731	0.141	355.985
West					
001 Adams	1.863	11.469	2.306	0.001	15.639
005 Brown	0.062	0	0.358	0	0.420
029 Fulton	1.060	0.082	1.497	<.001	2.640
034 Hancock	0.173	<.001	1.956	0	2.129
036 Henderson	5.624	0	3.286	0.051	8.961
048 Knox	1.208	0	1.697	0	2.905
055 McDonough	0.808	0.015	1.239	<.001	2.062
085 Schuyler	0.460	0	0.650	<.001	1.110
094 Warren	2.209	0	1.400	0	3.609
District total	13.467	11.567	14.389	0.052	39.475
Central					
020 DeWitt	1.436	0.002	0.533	<.001	1.972
054 Logan	3.398	0.008	1.025	0	4.431
057 McLean	5.094	0.229	4.521	0.009	9.853
058 Macon	1.218	0.001	2.211	<.001	3.430
062 Marshall	1.226	1.033	1.752	<.001	4.011
063 Mason	0.899	1.093	44.139	8.191	54.322
065 Menard	0.747	0	0.563	<.001	1.310
072 Peoria	15.514	8.717	4.542	0.002	28.774
088 Stark	0.423	0	0.977	0	1.400
090 Tazewell	13.117	6.511	12.953	<.001	32.581
102 Woodford	1.492	0.004	1.882	0.001	3.378
District total	44.564	17.598	75.098	8.203	145.463
East					
010 Champaign	20.370	4.457	2.839	0.001	27.667
027 Ford	1.410	0	0.626	0	2.036
038 Iroquois	2.092	0.085	2.319	<.001	4.497
046 Kankakee	2.304	1.008	5.050	0.002	8.363
053 Livingston	1.617	0.053	1.670	0	3.340
074 Piatt	1.409	1.265	0.526	0.017	3.217
092 Vermilion	1.161	2.948	1.636	0.004	5.750
District total	30.363	9.815	14.667	0.024	54.869

Table 17. (Concluded)

<i>District County</i>	<i>Public systems (mgd)</i>	<i>Self-supplied industry (mgd)</i>	<i>Rural* (mgd)</i>	<i>Fish and wildlife (mgd)</i>	<i>Total (mgd)</i>
W. Southwest					
003 Bond	0.066	0.006	0.885	0	0.958
007 Calhoun	0.344	0	0.587	0	0.931
009 Cass	2.034	0.817	1.856	0	4.706
011 Christian	1.394	0.508	0.705	0.003	2.609
031 Greene	0.393	0.001	2.259	0	2.653
042 Jersey	0.900	0	0.841	0.074	1.815
059 Macoupin	0.019	0.005	1.729	0.001	1.753
060 Madison	12.483	33.078	4.030	<.001	49.592
068 Montgomery	0.503	0	1.389	0	1.892
069 Morgan	0.070	5.676	1.454	0	7.201
075 Pike	0.860	0.057	2.753	0	3.670
084 Sangamon	2.209	<.001	1.155	0.001	3.364
086 Scott	4.734	0	1.595	0	6.329
<i>District total</i>	<i>26.008</i>	<i>40.148</i>	<i>21.239</i>	<i>0.078</i>	<i>87.472</i>
E. Southeast					
012 Clark	1.320	0.230	3.329	0	4.879
013 Clay	0	0.821	0.797	0	1.619
015 Coles	0.384	0.121	0.629	0.001	1.135
017 Crawford	1.857	4.502	0.910	0	7.269
018 Cumberland	0.256	0.196	0.746	0	1.198
021 Douglas	1.092	0.056	0.606	0.012	1.766
023 Edgar	0.341	0.088	0.991	0	1.419
025 Effingham	0.259	0.227	1.447	0	1.933
026 Fayette	0.097	1.281	1.284	<.001	2.662
040 Jasper	0.420	1.103	0.973	<.001	2.496
051 Lawrence	1.305	7.628	3.514	<.001	12.447
061 Marion	0.030	0.656	0.603	0.004	1.292
070 Moultrie	0.991	0	0.434	<.001	1.426
080 Richland	0.081	0.906	0.715	0	1.702
087 Shelby	1.001	0.324	1.352	<.001	2.678
<i>District total</i>	<i>9.435</i>	<i>18.138</i>	<i>18.332</i>	<i>0.017</i>	<i>45.922</i>
Southwest					
002 Alexander	0.352	0.027	0.706	0.124	1.209
014 Clinton	0.223	0.706	2.147	0	3.076
039 Jackson	0.093	0.058	0.709	1.953	2.812
044 Johnson	0.032	0	0.894	0	0.925
067 Monroe	0.123	0.001	1.712	0	1.836
073 Perry	0.048	1.291	1.230	<.001	2.569
077 Pulaski	0.635	0	0.424	0	1.059
079 Randolph	0.866	0.001	1.317	0.001	2.186
082 St. Clair	0.182	14.408	4.893	<.001	19.483
091 Union	1.441	0.003	0.955	0.651	3.050
095 Washington	0.114	0.355	1.309	<.001	1.779
100 Williamson	0	0.031	0.393	0	0.424
<i>District total</i>	<i>4.109</i>	<i>16.880</i>	<i>16.689</i>	<i>2.730</i>	<i>40.407</i>
Southeast					
024 Edwards	0.025	0.487	0.658	0	1.169
028 Franklin	0.010	0.251	0.357	0	0.618
030 Gallatin	2.534	1.950	2.711	0	7.195
033 Hamilton	0.023	0.510	0.566	<.001	1.100
035 Hardin	0.148	1.089	0.219	0	1.456
041 Jefferson	0	0.865	1.276	0	2.141
064 Massac	1.475	5.672	1.440	0.384	8.970
076 Pope	0	0	0.330	0	0.330
083 Saline	0	0.351	0.304	0	0.656
093 Wabash	0.735	1.654	0.497	<.001	2.885
096 Wayne	0.100	1.737	1.157	<.001	2.994
097 White	1.127	2.787	1.831	0	5.745
<i>District total</i>	<i>6.176</i>	<i>17.352</i>	<i>11.347</i>	<i>0.385</i>	<i>35.259</i>
State total	437.064	204.232	305.878	11.665	958.839

*Includes estimated rural water withdrawals regardless of source.
 Figures may not add up to totals shown because of independent rounding.

Table 18. Total Surface Water Withdrawals, Reported 1986

District County	Public systems (mgd)	Self-supplied Industry (mgd)	Fish and wildlife (mgd)	Total* (mgd)
Northwest				
006 Bureau	0	0.010	0	0.010
008 Carroll	0	0	8.259	8.259
037 Henry	0	0	0	0
043 Jo Daviess	0	0	0	0
052 Lee	0	1.793	0	1.793
066 Mercer	0	0	0	0
071 Ogle	0	27.397	0	27.397
078 Putnam	0	178.237	0	178.237
081 Rock Island	14.058	725.301	0	739.358
089 Stephenson	0	0	0	0
098 Whiteside	0	9.058	0	9.058
101 Winnebago	0	819.535	0	819.535
District total	14.058	1761.330	8.259	1783.646
Northeast				
004 Boone	0	0.137	0	0.137
016 Cook	1083.111	1006.137	0	2089.248
019 DeKalb	0	3.374	0	3.374
022 DuPage	0	3.813	0	3.813
032 Grundy	0	1498.688	0	1498.688
045 Kane	8.078	2.097	0	10.174
047 Kendall	0	0	0	0
049 Lake	35.156	2339.198	0	2374.354
050 LaSalle	0	1850.718	0	1850.718
056 McHenry	0	4.043	0	4.043
099 Will	0	3645.820	0.411	3646.231
District total	1126.345	10354.025	0.411	11480.781
West				
001 Adams	6.745	0	0	6.745
005 Brown	0	0	0	0
029 Fulton	1.385	213.923	2.960	218.269
034 Hancock	1.000	18356.164	0	18357.164
036 Henderson	0	0	0	0
048 Knox	0	0	0	0
055 McDonough	2.268	0	0	2.268
085 Schuyler	0	0	0	0
094 Warren	0	0	0	0
District total	11.398	18570.088	2.960	18584.446
Central				
020 DeWitt	0	210.137	0	210.137
054 Logan	0	0.013	0	0.013
057 McLean	8.639	0	0	8.639
058 Macon	29.258	8.219	0	37.477
062 Marshall	0	0	0	0
063 Mason	0	102.438	0	102.438
065 Menard	0	0	0	0
072 Peoria	6.971	373.016	0	379.987
088 Stark	0	0	0	0
090 Tazewell	0.522	600.007	0	600.529
102 Woodford	0	0	0	0
District total	45.390	1293.831	0	1339.221
East				
010 Champaign	0	5.212	0	5.212
027 Ford	0	0.049	0	0.049
038 Iroquois	0	0	0	0
046 Kankakee	9.828	0	0	9.828
053 Livingston	4.559	0	0	4.559
074 Piatt	0	0.186	0	0.186
092 Vermillion	8.312	2.226	0	10.538
District total	22.699	7.673	0	30.372

Table 18. (Concluded)

<i>District County</i>	<i>Public systems (mgd)</i>	<i>Self-supplied industry (mgd)</i>	<i>Fish and wildlife (mgd)</i>	<i>Total* (mgd)</i>
W. Southwest				
003 Bond	0.816	0	0	0.816
007 Calhoun	0	0	0.448	0.448
009 Cass	0.145	0	0	0.145
011 Christian	1.809	720.858	0	722.667
031 Greene	0.300	0	0	0.300
042 Jersey	0	0	2.813	2.813
059 Macoupin	3.480	1.833	0	5.313
060 Madison	43.565	380.865	0	424.430
068 Montgomery	2.565	438.859	0	441.423
069 Morgan	0.517	123.288	0	123.804
075 Pike	0.434	12.685	0	13.119
084 Sangamon	20.933	272.067	0	293.000
086 Scott	0	0	0	0
<i>District total</i>	<i>74.563</i>	<i>1950.454</i>	<i>3.262</i>	<i>2028.280</i>
E. Southeast				
012 Clark	0	0	0	0
013 Clay	0.959	0	0	0.959
015 Coles	4.439	0.093	0	4.532
017 Crawford	0	186.163	0	186.163
018 Cumberland	0	0	0	0
021 Douglas	0	8.600	0	8.600
023 Edgar	1.387	0	0	1.387
025 Effingham	1.421	0	0	1.421
026 Fayette	1.134	0	1.677	2.811
040 Jasper	0	387.671	0	387.671
051 Lawrence	0	0	0	0
061 Marion	4.973	0	0	4.973
070 Moultrie	0	0	0.708	0.708
080 Richland	1.151	0	0	1.151
087 Shelby	1.334	0	0	1.334
<i>District total</i>	<i>16.797</i>	<i>582.528</i>	<i>2.385</i>	<i>601.710</i>
Southwest				
002 Alexander	1.418	0	0.003	1.421
014 Clinton	1.309	2.099	0	3.408
039 Jackson	8.886	143.107	0	151.994
044 Johnson	0.550	0.002	0	0.552
067 Monroe	0.469	0	0	0.469
073 Perry	0.574	12.433	0	13.007
077 Pulaski	0	0	0	0
079 Randolph	2.861	29.122	0	31.983
082 St. Clair	18.170	1.893	0	20.063
091 Union	0.148	0.003	0	0.151
095 Washington	0.555	0	0	0.555
100 Williamson	2.489	102.593	0	105.082
<i>District total</i>	<i>37.429</i>	<i>291.252</i>	<i>0.003</i>	<i>328.684</i>
Southeast				
024 Edwards	0.108	0	0	0.108
028 Franklin	15.283	1.119	7.782	24.183
030 Gallatin	0.035	0.972	0	1.007
033 Hamilton	0	0.877	0	0.877
035 Hardin	0.179	0.013	0	0.193
041 Jefferson	1.599	1.375	0	2.974
064 Massac	0	515.378	0	515.378
076 Pope	0.085	0	0	0.085
083 Saline	0.737	0.362	0.001	1.100
093 Wabash	1.103	0.011	0	1.114
096 Wayne	1.226	0	0	1.226
097 White	0	0	0	0
<i>District total</i>	<i>20.355</i>	<i>520.106</i>	<i>7.783</i>	<i>548.244</i>
State total	1369.034	35331.287	25.062	36725.383

*Rural water withdrawals not included (see table 17 and page 7)
 Figures may not add up to totals shown because of Independent rounding.

Table 19 Estimated Ground-Water Withdrawals from Major Geohydrologic Systems, Excluding Rural Domestic and Livestock, 1986

District County	Sand and gravel (mgd)	Mississippian- Pennsylvanian (mgd)	Aquifer system		Total (mgd)
			Silurian- Devonian (mgd)	Cambrian- Ordovician (mgd)	
Northwest					
006 Bureau	2.874	0	0.119	1.289	4.282
008 Carroll	5.394	0	0.177	1.840	7.410
037 Henry	2.473	<.001	1.168	2.146	5.787
043 Jo Daviess	1.710	0	0	2.122	3.832
052 Lee	6.650	0.013	0.350	3.627	10.641
066 Mercer	0.607	0	0.378	0.350	1.335
071 Ogle	0.008	0	0.069	7.849	7.926
078 Putnam	0.899	0	0	0.186	1.085
081 Rock Island	6.825	0	3.864	2.822	13.510
089 Stephenson	2.203	0	0.097	6.339	8.639
098 Whiteside	9.486	0	0.433	4.233	14.151
101 Winnebago	15.694	0	1.176	25.882	42.752
District total	54.822	0.013	7.832	58.684	121.350
Northeast					
004 Boone	1.017	0	0.056	3.036	4.109
016 Cook	3.448	0	25.442	37.254	66.144
019 DeKalb	0.129	0	0.253	7.592	7.974
022 DuPage	1.486	0	56.438	31.621	89.545
032 Grundy	0.196	0.065	0	10.852	11.113
045 Kane	7.305	0	2.463	20.630	30.398
047 Kendall	0.727	0	0.151	1.516	2.393
049 Lake	5.290	0	6.227	11.224	22.681
050 LaSalle	2.235	<.001	0.072	13.308	15.615
056 McHenry	9.918	0	3.664	4.346	17.928
099 Will	1.796	0.005	17.366	22.456	41.623
District total	33.488	0.070	112.131	163.834	309.523
West					
001 Adams	13.541	0.279	0	0	13.820
005 Brown	0.049	0.012	0	0	0.062
029 Fulton	1.039	0.017	0	0.551	1.606
034 Hancock	0.421	0.033	0	0	0.453
036 Henderson	7.847	0.090	0	0.040	7.977
048 Knox	0	0.040	0.334	0.833	1.208
055 McDonough	0.065	0.105	0.101	0.558	0.828
085 Schuyler	0.460	0.034	0	0	0.494
094 Warren	0.100	0	0.040	2.069	2.209
District total	23.522	0.610	0.475	4.051	28.658
Central					
020 DeWitt	1.438	0	0	0	1.438
054 Logan	3.406	0	0	0	3.406
057 McLean	5.536	0	0	0.163	5.699
058 Macon	1.219	0	0	0	1.219
062 Marshall	3.173	0	0.006	0.244	3.423
063 Mason	53.497	0	0	0	53.497
065 Menard	0.747	0	0	0	0.747
072 Peoria	26.142	0.039	0.018	1.268	27.467
088 Stark	0.504	0	0.091	0.331	0.927
090 Tazewell	31.025	0	0	0	31.025
102 Woodford	1.786	<.001	0	0.213	2.000
District total	128.475	0.040	0.116	2.218	130.849
East					
010 Champaign	25.201	0	0	0	25.201
027 Ford	1.458	0	0.024	0	1.481
038 Iroquois	2.218	0	0.691	0	2.909
046 Kankakee	0.089	0	6.127	0.020	6.235
053 Livingston	1.445	0.002	0.007	0.216	1.670
074 Piatt	2.705	0	0	0	2.705
092 Vermillion	4.093	0.025	0	0	4.118
District total	37.208	0.027	6.849	0.236	44.320

Table 19. (Concluded)

District County	Sand and gravel (mgd)	Mississippi- Pennsylvanian (mgd)	Aquifer system Silurian- Devonian (mgd)	Cambrian- Ordovician (mgd)	Total (mgd)
W. Southwest					
003 Bond	0.100	0.003	0	0	0.103
007 Calhoun	0.354	0	0	0	0.354
009 Cass	4.027	0	0	0	4.027
011 Christian	1.450	0.016	0.451	0	1.917
031 Greene	1.458	0.170	0	0	1.628
042 Jersey	1.200	0	0	0	1.200
059 Macoupin	0.156	0.005	0	0	0.161
060 Madison	46.568	0.072	0.071	0	46.711
068 Montgomery	0.512	0	0	0	0.512
069 Morgan	6.420	0	0	0	6.420
075 Pike	1.733	0.043	0	0	1.777
084 Sangamon	2.313	0	0	0	2.313
086 Scott	5.626	0.257	0	0	5.883
<i>District total</i>	<i>71.917</i>	<i>0.568</i>	<i>0.522</i>	<i>0</i>	<i>73.006</i>
E. Southeast					
012 Clark	3.604	0.381	0	0.029	4.014
013 Clay	0.079	0.795	0	0	0.874
015 Coles	0.391	0.121	0	0	0.512
017 Crawford	3.123	3.478	0	0	6.600
018 Cumberland	0.371	0.106	0	0	0.477
021 Douglas	0.541	0.242	0.377	0	1.160
023 Edgar	0.360	0.087	0	0	0.447
025 Effingham	0.323	0.215	0.009	0	0.547
026 Fayette	0.135	1.281	0	0	1.416
040 Jasper	0.392	1.131	0	0	1.523
051 Lawrence	4.574	7.356	0	0	11.930
061 Marion	0.046	0.669	0.014	0	0.729
070 Moultrie	0.991	<.001	0	0	0.991
080 Richland	0	0.987	0	0	0.987
087 Shelby	1.473	0.036	0	0	1.508
<i>District total</i>	<i>16.404</i>	<i>16.885</i>	<i>0.400</i>	<i>0.029</i>	<i>33.717</i>
Southwest					
002 Alexander	1.056	0.055	0	0	1.110
014 Clinton	0.640	0.132	0.216	0.002	0.990
039 Jackson	2.177	0.034	0	0	2.210
044 Johnson	0.032	0	0	0	0.032
067 Monroe	0.771	0.008	0	0	0.779
073 Perry	1.529	0.078	0	0	1.607
077 Pulaski	0.179	0	0.508	0	0.687
079 Randolph	0.393	0.744	0	0	1.137
082 St. Clair	15.503	0.003	0	0	15.507
091 Union	2.091	0.163	0	0	2.254
095 Washington	0.114	0.321	0.011	0.023	0.469
100 Williamson	0.017	0.030	0	0	0.047
<i>District total</i>	<i>24.501</i>	<i>1.568</i>	<i>0.735</i>	<i>0.025</i>	<i>26.830</i>
Southeast					
024 Edwards	0.025	0.486	0	0	0.511
028 Franklin	0.010	0.251	0	0	0.261
030 Gallatin	6.693	0.273	0	0	6.966
033 Hamilton	0.013	0.520	0	0	0.533
035 Hardin	0.058	1.180	0	0	1.237
041 Jefferson	0.120	0.773	0	0	0.894
064 Massac	2.603	5.912	0	0	8.516
076 Pope	0	0	0	0	0
083 Saline	0	0.351	0	0	0.351
093 Wabash	1.249	1.224	0	0	2.473
096 Wayne	0.025	1.812	0	0	1.837
097 White	2.122	2.654	0	0	4.776
<i>District total</i>	<i>12.919</i>	<i>15.437</i>	<i>0</i>	<i>0</i>	<i>28.356</i>
State total	403.255	35.218	129.059	229.077	796.609

Figures may not add up to totals shown because of independent rounding.

Table 20. Township Water Withdrawals,
SMSA's, 1986
(mgd)

SMSA County Township and range	Public					Self-supplied industry					Total ground water		
	Surface water	Sand and gravel	Mississippian- Pennsylvanian	Silurian- Devonian	Cambrian- Ordovician	Surface water	Sand and gravel	Mississippian- Pennsylvanian	Silurian- Devonian	Cambrian- Ordovician			
Bloomington-Normal													
Mc Lean County													
05721N02E	0	0.079	0	0	0	0.079	0	0	0	0	0	0.079	
05722N01W	0	0.096	0	0	0	0.096	0	0	0	0	0	0.096	
05722N02E	0	0.081	0	0	0	0.081	0	0	0	0	0	0.081	
05722N03E	0	0.046	0	0	0	0.046	0	0	0	0	0	0.046	
05722N04E	0	0.217	0	0	0	0.217	0	0	0	0	0	0.217	
05722N06E	0	0.041	0	0	0	0.041	0	0	0	0	0	0.041	
05723N01E	0	1.050	0	0	0	1.050	0	0	0	0	0	1.050	
05723N01W	0	0.073	0	0	0	0.073	0	0	0	0	0	0.073	
05723N02E	0	0.402	0	0	0	0.402	0	0.227	0	0	0.227	0.629	
05723N03E	0	0.001	0	0	0	0.001	0	0	0	0	0	0.001	
05723N04E	0	0.019	0	0	0	0.019	0	0	0	0	0	0.019	
05723N05E	0	0.030	0	0	0	0.030	0	0	0	0	0	0.030	
05723N06E	0	0.077	0	0	0	0.077	0	0	0	0	0	0.077	
05724N01W	0	0.696	0	0	0	0.696	0	0	0	0	0	0.696	
05724N02E	0	1.590	0	0	0	1.590	0	0.002	0	0	0.002	1.592	
05724N04E	0	0.018	0	0	0	0.018	0	0	0	0	0	0.018	
05724N05E	0	0.054	0	0	0	0.054	0	0	0	0	0	0.054	
05724N06E	0	0.009	0	0	0	0.009	0	0	0	0	0	0.009	
05725N01E	0	0.044	0	0	0	0.044	0	0	0	0	0	0.044	
05725N02E	8.639	<.001	0	0	0	<.001	0	0	0	0	0	8.639	
05725N03E	0	0.010	0	0	0	0.010	0	0	0	0	0	0.010	
05725N04E	0	0.151	0	0	0	0.151	0	0	0	0	0	0.151	
05725N06E	0	0.005	0	0	0	0.005	0	0	0	0	0	0.005	
05726N03E	0	0.110	0	0	0	0.110	0	0	0	0	0	0.110	
05726N04E	0	0.031	0	0	0.163	0.194	0	0	0	0	0	0.194	
Total	8.639	4.932	0	0	0.163	5.094	0	0.229	0	0	0	0.229	13.962
Champaign-Urbana-Rantoul													
Champaign County													
01017N07E	0	0.026	0	0	0	0.026	0	0	0	0	0	0.026	
01017N08E	0	0.089	0	0	0	0.089	0	0	0	0	0	0.089	
01017N11E	0	0.015	0	0	0	0.015	0	0	0	0	0	0.015	
01017N14W	0	0.015	0	0	0	0.015	0	0	0	0	0	0.015	
01018N08E	0	0.228	0	0	0	0.228	0	0	0	0	0	0.228	
01018N10E	0	0.078	0	0	0	0.078	0	0.001	0	0	0.001	0.079	
01018N14W	0	0.097	0	0	0	0.097	0	0	0	0	0	0.097	
01019N07E	0	0.007	0	0	0	0.007	0	0	0	0	0	0.007	
01019N08E	0	11.205	0	0	0	11.205	0	2.355	0	0	2.355	13.560	
01019N09E	0	0.726	0	0	0	0.726	0	0	0	0	0	0.726	
01019N10E	0	0.192	0	0	0	0.192	0	0	0	0	0	0.192	
01019N10W	0	0	0	0	0	0	0	<.001	0	0	<.001	<.001	
01019N14W	0	0.065	0	0	0	0.065	0	0	0	0	0	0.065	
01020N07E	0	0.515	0	0	0	0.515	4.713	0	0	0	0	5.228	
01020N08E	0	4.944	0	0	0	4.944	0	0	0	0	0	4.944	
01020N09E	0	0.025	0	0	0	0.025	0	0	0	0	0	0.025	
01020N14W	0	0.027	0	0	0	0.027	0	0	0	0	0	0.027	
01021N09E	0	0.942	0	0	0	0.942	0.499	2.099	0	0	2.099	3.539	
01021N10E	0	0.079	0	0	0	0.079	0	0	0	0	0	0.079	
01021N14W	0	0.024	0	0	0	0.024	0	0	0	0	0	0.024	
01022N07E	0	0.174	0	0	0	0.174	0	0	0	0	0	0.174	
01022N08E	0	0.014	0	0	0	0.014	0	0	0	0	0	0.014	
01022N09E	0	0.875	0	0	0	0.875	0	0	0	0	0	0.875	
01022N10E	0	0.009	0	0	0	0.009	0	0.001	0	0	0.001	0.010	
01022N14W	0	0.003	0	0	0	0.003	0	0	0	0	0	0.003	
Total	0	20.372	0	0	0	20.372	5.212	4.457	0	0	0	4.457	30.040
Chicago													
Cook County													
01635N13E	0	0	0	3.197	0.407	3.603	0	0	0	0.445	0	0.445	4.049
01635N14E	0	0	0	3.446	0	3.446	0	0	0	0.183	0	0.183	3.629
01635N15E	0	0.024	0	0.241	0	0.265	0	0	0	0	0	0	0.265

Table 20. (Continued)

SMSA County Township and range	Public						Self-supplied Industry						Total ground water
	Surface water	Sand and gravel	Mississippian- Pennsylvanian	Silurian- Devonian	Cambrian- Ordovician	Total ground water	Surface water	Sand and gravel	Mississippian- Pennsylvanian	Silurian- Devonian	Cambrian- Ordovician	Total ground water	
Cook County Cont.													
01636N12E	0	0	0	0.257	0	0.257	0	0	0	0.236	0	0.236	0.494
01636N13E	0	0	0	0	0	0	0	0	0	0.261	0.004	0.265	0.265
01636N14E	0	0	0	0	0	0	0.534	0	0	0.006	0	0.006	0.540
01637N11E	0	0	0	0	0.719	0.719	0	0	0	<.001	0.171	0.172	0.891
01637N12E	0	0	0	0.023	0.411	0.434	0	0	0	0.057	0	0.057	0.491
01637N13E	0	0	0	0	0	0	6.336	0	0	0.014	0	0.014	6.351
01637N14E	0	0	0	0	0	0	17.251	0	0	0.002	0.053	0.054	17.305
01637N15E	0	0	0	0	0	0	131.462	0	0	0	0	0	131.462
01638N12E	0	0	0	0.036	2.176	2.212	0	0	0	4.728	3.829	8.557	10.769
01638N13E	0	0	0	0	0	0	43.200	0	0	0.001	1.632	1.634	44.834
01638N14E	0.003	0	0	0	0	0	321.746	0	0	0.007	0.273	0.280	322.028
01638N15E	438.644	0	0	0	0	0	0	0	0	0	0	0	438.644
01639N12E	0	0	0	0	3.253	3.253	0.655	0	0	0.205	0.190	0.395	4.302
01639N13E	0	0	0	0	0	0	0	0	0	0	0.216	0.216	0.216
01639N14E	583.910	0	0	0	0	0	464.957	0	0	0	<.001	<.001	1048.867
01640N12E	0	0	0	0	0	0	0	0	0	0.009	0.528	0.537	0.537
01641N09E	0	1.129	0	0.053	1.064	2.247	0.466	0	0	<.001	0	<.001	2.713
01641N10E	0	0.975	0	1.536	4.281	6.792	0	0.002	0	0.056	0	0.058	6.851
01641N11E	0	0	0	0.184	3.505	3.689	0	0	0	0.002	0.013	0.015	3.704
01641N12E	0	0	0	0	2.370	2.370	0	0	0	0	0	0	2.370
01641N13E	0	0	0	0	0	0	4.032	0	0	0	0.275	0.275	4.307
01641N14E	39.217	0	0	0	0	0	15.466	0	0	0	0	0	54.683
01642N09E	0	0.017	0	1.271	0	1.289	0	0.006	0	0.234	0.028	0.268	1.556
01642N10E	0	0.291	0	0.057	1.445	1.792	0	0	0	0.041	0.013	0.054	1.846
01642N11E	0	0	0	0.354	7.467	7.821	0	0	0	0.002	0	0.002	7.823
01642N12E	5.376	0	0	0.144	0.197	0.341	0.032	0	0	0.001	0.729	0.730	6.479
01642N13E	15.962	0	0	0	0	0	0	0	0	0	0	0	15.962
Total	1083.111	2.436	0	10.819	27.295	40.551	1006.137	0.009	0	6.490	7.954	14.453	2144.251
Dupage County													
02237N11E	0	0	0	0.265	0.338	0.604	0	0	0	0.979	0	0.979	1.582
02238N09E	0	0	0	4.627	2.590	7.217	0	0	0	0.103	0	0.103	7.320
02238N10E	0	0	0	8.182	1.939	10.120	0	0	0	0.066	0.048	0.114	10.235
02238N11E	0	0	0	9.764	3.325	13.089	0	0	0	0.197	0	0.197	13.286
02239N09E	0	0	0	1.365	1.732	3.096	2.880	0	0	0.076	<.001	0.076	6.053
02239N10E	0	0	0	9.899	0	9.899	0	0	0	0.059	0.006	0.065	9.963
02239N11E	0	0	0	3.561	11.815	15.376	0	0	0	0.002	0	0.002	15.393
02240N09E	0	0.347	0	0.352	0.926	1.624	0	0	0	0.154	0	0.154	1.779
02240N10E	0	0.604	0	5.254	2.821	8.679	0.004	0	0	0.003	0	0.003	8.686
02240N11E	0	0.219	0	5.202	5.946	11.367	0	0	0	0.011	0	0.011	11.378
02241N09E	0	0	0	0	0	0	0	0.047	0	0	0	0.047	0.963
Total	0	1.170	0	48.470	31.432	81.072	2.883	0.047	0	1.650	0.055	1.752	86.637
Kane County													
04538N07E	0	0.220	0	0	2.276	2.496	0	0	0	0	0	0	2.496
04538N08E	0	0	0	0.115	9.734	9.848	0	0	0	1.326	0.217	1.543	11.391
04539N06E	0	0	0	0	0	0	0.789	0	0	0	0	0	0.789
04539N07E	0	0	0	0	0.035	0.035	0	0	0	0	0.044	0.044	0.079
04539N08E	0	0	0	0	4.060	4.060	1.160	0	0	0.069	0.018	0.086	5.306
04540N06E	0	0	0	0	0.051	0.051	0	0	0	0	0	0	0.051
04540N07E	0	0.056	0	0	0.096	0.152	0	0	0	0	0	0	0.152
04540N08E	0	1.795	0	0.004	2.102	3.902	0	0	0	0	<.001	<.001	3.902
04541N06E	0	0	0	0	0.061	0.061	0	0	0	0	0	0	0.061
04541N08E	8.078	0.740	0	0.016	1.471	2.227	0.148	0.029	0	0.168	0.004	0.201	10.654
04542N06E	0	0	0	0	0.164	0.164	0	0	0	0	0.027	0.027	0.191
04542N07E	0	0.005	0	0	0	0.005	0	0	0	0	0	0	0.005
04542N08E	0	3.880	0	0.037	0.033	3.950	0	0.001	0	0	0	0.001	3.951
Total	8.078	6.699	0	0.172	20.082	26.953	2.097	0.086	0	1.563	0.310	1.959	39.087
Lake County													
04943N09E	0	0.654	0	0.038	0	0.692	0	0.106	0	0.032	0	0.138	0.830
04943N10E	0	0	0	0.149	2.889	3.038	0	0.008	0	0	0.067	0.074	3.130
04943N11E	0	0.038	0	0.459	0.414	0.910	0.005	0	0	<.001	0.024	0.024	0.957

Table 20. (Continued)

SMSA County Township and range	Public						Self-supplied Industry						Total
	Surface water	Sand and gravel	Mississippian- Pennsylvanian	Silurian- Devonian	Cambrian- Ordovician	Total ground water	Surface water	Sand and gravel	Mississippian- Pennsylvanian	Silurian- Devonian	Cambrian- Ordovician	Total ground water	
Lake County Cont.													
04943N12E	8.588	0	0	0	0	0	0	0	0	0	0.486	0.486	9.074
04944N09E	0	0.184	0	0.497	0.029	0.709	0	0	0	0	0	0	0.709
04944N10E	0	0.517	0	0.117	0.762	1.396	0	0	0	0.005	0	0.005	1.402
04944N11E	0	0	0	0.714	2.137	2.851	0	0.249	0	0.279	0	0.528	3.379
04944N12E	14.667	0.009	0	0.005	0	0.014	9.607	0	0	<.001	0.008	0.008	24.296
04945N09E	0	0.491	0	0	0.225	0.717	0	0.048	0	0.008	0.533	0.590	1.306
04945N10E	0	0.557	0	1.354	1.456	3.366	0	0	0	<.001	0	<.001	3.370
04945N11E	0	0.249	0	0.010	0.817	1.076	0	0	0	0	0.144	0.144	1.221
04945N12E	9.872	0	0	0	0.038	0.038	411.252	0	0	0	0	0	421.162
04946N09E	0	0.113	0	0	0	0.113	0.524	0	0	0.516	0	0.516	1.153
04946N10E	0	1.075	0	0	0	1.075	0	0	0	0	0	0	1.075
04946N11E	0	0	0	<.001	0.014	0.014	0	0	0	0	0	0	0.014
04946N12E	0	0.098	0	0.005	0.238	0.342	1917.808	0	0	0	0	0	1918.150
04946N13E	2.029	0	0	0	0	0	0	0	0	0	0	0	2.029
Total	35.156	3.985	0	3.348	9.019	16.353	2339.196	0.411	0	0.842	1.261	2.514	2393.257
Mc Henry County													
05643N05E	0	0	0	0	0	0	0	0	0	0.002	0	0.002	0.002
05643N06E	0	0.026	0	0.054	0	0.080	0	0.004	0	0.004	0	0.008	0.087
05643N07E	0	0.374	0	0.034	0	0.408	0	0.020	0	0	0	0.020	0.428
05643N08E	0	1.789	0	0.897	2.062	4.748	2.800	0.004	0	0.010	0.013	0.026	7.574
05643N09E	0	0	0	0.410	0	0.410	0	0	0	0	0	0	0.410
05644N05E	0	0.524	0	0	0	0.524	0	0	0	0	0.146	0.146	0.669
05644N06E	0	0	0	0	0	0	0	<.001	0	0	0	<.001	<.001
05644N07E	0	0.589	0	0	0	0.589	1.207	0.025	0	0.024	0	0.050	1.846
05644N08E	0	0.049	0	0.375	0.862	1.286	0	0.107	0	0.161	0	0.268	1.554
05644N09E	0	0.112	0	0.020	0	0.132	0	0	0	0	0	0	0.132
05645N06E	0	0	0	0.009	0	0.009	0	0.001	0	0	<.001	0.002	0.015
05645N07E	0	1.977	0	0	0	1.977	0	0	0	0	0	0	1.977
05645N08E	0	0.624	0	0.626	0	1.251	0	0.008	0	0.252	0.752	1.012	2.263
05645N09E	0	0.012	0	0.365	0	0.377	0.036	0	0	<.001	0.005	0.006	0.418
05646N05E	0	0.789	0	0	0	0.789	0	0	0	0	0.210	0.210	0.999
05646N07E	0	0.136	0	0	0	0.136	0	<.001	0	0	0	<.001	0.137
05646N08E	0	0.071	0	0.098	0.055	0.224	0	0.456	0	0	0	0.456	0.680
05646N09E	0	0	0	0	0	0	0	0.002	0	0	0	0.002	0.002
Total	0	7.070	0	2.890	2.979	12.939	4.043	0.627	0	0.453	1.126	2.207	19.194
Will County													
09932N09E	0	0	0	0.013	0.431	0.444	131.671	0	0.005	0	0.008	0.013	132.128
09932N10E	0	0	0	0	0.006	0.006	0	0	0	0	0.002	0.002	0.008
09933N09E	0	0	0	0.001	0.650	0.651	0	0	0	0	0	0	0.651
09933N10E	0	0	0	0	0	0	0	0	0	0	0.248	0.248	0.248
09933N12E	0	0	0	0.418	0	0.418	0	0	0	<.001	0	<.001	0.419
09933N14E	0	0	0	0.298	0	0.298	0	0	0	0.002	0	0.002	0.299
09934N09E	0	0	0	0.019	0.016	0.036	3.140	0	0	0.016	2.962	2.978	6.154
09934N10E	0	0	0	0.074	0	0.074	0	0	0	0	0.241	0.241	0.314
09934N11E	0	0	0	0.159	0	0.159	0	<.001	0	0	0	<.001	0.159
09934N13E	0	0	0	1.304	0	1.304	0	0	0	0.158	0	0.158	1.461
09934N14E	0	0	0	1.137	0	1.137	0	0	0	0.007	0	0.007	1.144
09934N15E	0	0	0	0.173	0	0.173	0	0	0	0	0	0	0.173
09935N09E	0	0	0	0.283	2.252	2.535	0.375	0.003	0	0.098	0.130	0.232	3.142
09935N10E	0	0	0	0.461	5.280	5.741	1059.783	<.001	0	0.247	2.005	2.252	1067.776
09935N11E	0	0.848	0	0.811	2.257	3.916	0	0	0	0.024	0	0.024	3.982
09935N12E	0	0	0	1.877	0	1.877	0	0	0	0.020	0	0.020	1.898
09936N09E	0	0.005	0	0.279	1.366	1.651	<.001	0.001	0	0.001	0	0.002	1.653
09936N10E	0	0	0	1.000	1.643	2.643	587.471	0	0	0.032	1.305	1.337	591.451
09936N11E	0	0.938	0	1.107	0.128	2.173	1857.260	0	0	0	0	0	1859.433
09937N09E	0	0	0	0.004	0.877	0.881	0	0	0	0	0	0	0.881
09937N10E	0	0	0	4.828	0.464	5.293	6.104	0	0	0	0.184	0.184	11.581
Total	0	1.792	0	14.246	15.370	31.407	3645.806	0.004	0.005	0.605	7.086	7.700	3684.956

Table 20. (Continued)

SMSA County Township and range	Public					Self-Supplied Industry					Total ground water		
	Surface water	Sand and gravel	Mississippian- Pennsylvanian	Silurian- Devonian	Cambrian- Ordovician	Surface water	Sand and gravel	Mississippian- Pennsylvanian	Silurian- Devonian	Cambrian- Ordovician			
Davenport-Rock Island-Moline (IL)													
Henry County													
03714N01E	0	0	0	0	0.079	0.079	0	0	0	0	0	0	0.079
03714N02E	0	0	0	0	0.088	0.088	0	0	0	0	0	0	0.088
03714N04E	0	0	0	0	0.442	0.442	0	0	0	0	0	0	0.442
03714N05E	0	0	0	0.004	0.891	0.894	0	0	0	0	0	0	0.894
03715N01E	0	0	0	0.022	0	0.022	0	0	<.001	0	0	<.001	0.023
03715N02E	0	0	0	0.044	0	0.044	0	0	0	0	0	0	0.044
03715N03E	0	0	0	0	0.263	0.263	0	0	0	0	0	0	0.263
03715N05E	0	0	0	0	0.383	0.383	0	0	0	0	0	0	0.383
03716N01E	0	0	0	0.228	0	0.228	0	0	0	0.021	0	0.021	0.404
03716N02E	0	0	0	0.015	0	0.015	0	0	0	0	0	0	0.015
03716N03E	0	0	0	0.016	0	0.016	0	0	0	0	0	0	0.016
03716N05E	0	0	0	0.073	0	0.073	0	0	0	0	0	0	0.073
03717N01E	0	0.002	0	0.453	0	0.456	0	0	0	0	0	0	0.456
03717N03E	0	0.899	0	0.003	0	0.902	0	0	0	0.002	0	0.002	0.904
03717N04E	0	0	0	0.111	0	0.111	0	0	<.001	0	<.001	<.001	0.111
03718N02E	0	0	0	0.062	0	0.062	0	0	0	0	0	0	0.062
03718N03E	0	0	0	0.092	0	0.092	0	0	0	0	0	0	0.092
Total	0	0.903	0	1.140	2.146	4.189	0	0	<.001	0.023	0	0.024	4.213
Rock Island County													
08116N01W	0	0	0	0.033	0	0.033	0	0	0	0	0	0	0.033
08116N02W	0	0	0	0.155	0.038	0.193	0	0	0	0	0	0	0.193
08116N03W	0	0	0	0.110	0	0.110	0	0	0	0	0	0	0.110
08116N04W	0	0	0	0.005	0	0.005	0	0	0	0	0	0	0.005
08117N01E	0	0	0	0.132	<.001	0.132	0	0	0	0	0.012	0.012	0.143
08117N01W	0	0.003	0	0.371	0	0.374	0	0	0	<.001	0.007	0.008	0.381
08117N02W	0	0	0	0.021	0.771	0.792	0.007	0	0	0.041	0	0.041	0.840
08117N03W	0	0	0	0.105	0	0.105	0.005	0	0	<.001	0	<.001	0.110
08117N04W	0	0	0	0.003	0	0.003	0	0	0	0	0	0	0.003
08118N01E	0	0.005	0	0.575	0.342	0.922	5.273	0	0	0.005	1.646	1.651	7.846
08118N01W	7.858	0	0	0	0	0	717.984	0.007	0	0	0.006	0.013	725.854
08118N02E	0	0	0	0	0	0	0	0	0	1.571	0	1.571	1.571
08118N02W	6.200	0	0	0	0	0	1.316	0	0	0	0	0	7.516
08119N01E	0	0	0	0.093	0	0.093	0	0	0	0	0	0	0.093
08119N02E	0	0	0	0.012	0	0.012	0	0	0	0	0	0	0.012
08119N03E	0	0	0	0.018	0	0.018	0	0	0	0	0	0	0.018
08120N02E	0	0	0	0.051	0	0.051	0.715	6.301	0	0.221	0	6.523	7.289
Total	14.058	0.007	0	1.685	1.151	2.844	725.301	6.308	0	1.839	1.670	9.818	752.019
Decatur													
Macon County													
05814N01E	0	0.141	0	0	0	0.141	0	0	0	0	0	0	0.141
05814N02E	0	0.095	0	0	0	0.095	0	0	0	0	0	0	0.095
05815N01E	0	0.062	0	0	0	0.062	0	0	0	0	0	0	0.062
05815N02E	0	0.062	0	0	0	0.062	0	0	0	0	0	0	0.062
05816N01E	0	0.082	0	0	0	0.082	0	<.001	0	0	0	<.001	0.082
05816N01W	0	0.109	0	0	0	0.109	0	0	0	0	0	0	0.109
05816N02E	19.934	0.033	0	0	0	0.033	0	0	0	0	0	0	19.966
05816N03E	9.324	0	0	0	0	0	8.219	0.001	0	0	0	0.001	17.544
05817N01E	0	0.110	0	0	0	0.110	0	0	0	0	0	0	0.110
05817N02E	0	0.134	0	0	0	0.134	0	0	0	0	0	0	0.134
05817N03E	0	0.189	0	0	0	0.189	0	0	0	0	0	0	0.189
05818N02E	0	0.152	0	0	0	0.152	0	0	0	0	0	0	0.152
05818N03E	0	0.049	0	0	0	0.049	0	0	0	0	0	0	0.049
Total	29.258	1.218	0	0	0	1.218	8.219	0.001	0	0	0	0.001	38.696
Kankakee													
Kankakee County													
04629N12W	0	0	0	0.182	0	0.182	0	0	0	0	0	0	0.182
04629N13W	0	0	0	0.004	0	0.004	0	0	0	0	0	0	0.004

Table 20. (Continued)

SMSA County Township and range	Public					Self-supplied industry					Total ground water		
	Surface water	Sand and gravel	Mississippian- Pennsylvanian	Silurian- Devonian	Cambrian- Ordovician	Surface water	Sand and gravel	Mississippian- Pennsylvanian	Silurian- Devonian	Cambrian- Ordovician			
Kankakee County Cont.													
04629N14W	0	0.069	0	0	0	0.069	0	0	0	0	0	0	0.069
04630N09E	0	0	0	0.027	0.020	0.047	0	0	0	0	0	0	0.047
04630N10E	0	0	0	0.115	0	0.115	0	0	0	0	0	0	0.115
04630N12W	0	0	0	0.008	0	0.008	0	0	0	0	0	0	0.008
04630N13W	9.828	0.019	0	0.117	0	0.137	0	0	0	0	0	0	9.965
04630N14W	0	0	0	0.021	0	0.021	0	0	0	0	0	0	0.021
04631N11E	0	0	0	0.051	0	0.051	0	0	0	0.054	0	0.054	0.105
04631N12E	0	0	0	0.114	0	0.114	0	0	0	0.125	0	0.125	0.238
04631N13E	0	0	0	1.071	0	1.071	0	0	0	0.037	0	0.037	1.109
04631N14E	0	0	0	0.013	0	0.013	0	0	0	0	0	0	0.013
04632N12E	0	0	0	0.368	0	0.368	0	0	0	0.792	0	0.792	1.160
04632N13E	0	0	0	0.007	0	0.007	0	0	0	0	0	0	0.007
04632N14E	0	0	0	0.097	0	0.097	0	0	0	0	0	0	0.097
Total	9.828	0.089	0	2.195	0.020	2.304	0	0	0	1.008	0	1.008	13.140
Peoria County													
07207N06E	0	0	0	0	0.139	0.139	0	0	0	0	0	0	0.139
07207N07E	0	0	0.018	0	0	0.018	343.559	0.761	0	0	0	0.761	344.337
07208N05E	0	0	0	0.018	0	0.018	0	<.001	0	0	0	<.001	0.018
07208N06E	0	0	0	0	0.115	0.115	0	0	0	0	0	0	0.115
07208N07E	0.062	0.290	0	0	0	0.290	0	0	0	0	0	0	0.352
07208N08E	0	6.323	0	0	0	6.323	27.666	5.381	0	0.361	0	5.742	39.730
07209N05E	0	0	0	0	0.218	0.218	0	<.001	0	0	0	<.001	0.218
07209N08E	6.909	6.847	0	0	0	6.847	1.792	0.962	0	0	0	0.962	16.510
07210N05E	0	0.001	0.001	0	0.063	0.065	0	0	0	0	0	0	0.065
07210N06E	0	0	0.020	0	0	0.020	0	0	0	0	0	0	0.020
07210N07E	0	0.010	0	0	0	0.010	0	0	0	0	0	0	0.010
07210N08E	0	0.083	0	0	0	0.083	0	1.251	0	0	0	1.251	1.334
07210N09E	0	0.041	0	0	0	0.041	0	<.001	0	0	0	<.001	0.042
07211N06E	0	0	0	0	0.361	0.361	0	0	0	0	0	0	0.361
07211N07E	0	0	0	0	0	0	0	<.001	0	0	0	<.001	<.001
07211N08E	0	0.032	0	0	0.012	0.043	0	0	0	0	0	0	0.043
07211N09E	0	0.923	0	0	0	0.923	0	0	0	0	0	0	0.923
Total	6.971	14.550	0.039	0.018	0.907	15.514	373.016	8.356	0	0	0.361	8.717	404.218
Tazewell County													
09022N02W	0	0.027	0	0	0	0.027	0	0	0	0	0	0	0.027
09022N04W	0	0.152	0	0	0	0.152	0	0	0	0	0	0	0.152
09023N02W	0	0.137	0	0	0	0.137	0	0	0	0	0	0	0.137
09023N03W	0	0.041	0	0	0	0.041	0	0	0	0	0	0	0.041
09023N04W	0	0.019	0	0	0	0.019	0	0	0	0	0	0	0.019
09023N05W	0	0.051	0	0	0	0.051	0	0	0	0	0	0	0.051
09024N02W	0	0.155	0	0	0	0.155	0	0	0	0	0	0	0.155
09024N03W	0	0.295	0	0	0	0.295	0	0	0	0	0	0	0.295
09024N05W	0	3.888	0	0	0	3.888	595.479	5.804	0	0	0	5.804	605.171
09025N02W	0	0.052	0	0	0	0.052	0	0	0	0	0	0	0.052
09025N03W	0	2.207	0	0	0	2.207	0	0.080	0	0	0	0.080	2.288
09025N04W	0	0.013	0	0	0	0.013	0	0	0	0	0	0	0.013
09025N05W	0	1.877	0	0	0	1.877	0	0.002	0	0	0	0.002	1.879
09026N02W	0.522	0.048	0	0	0	0.048	0	0	0	0	0	0	0.569
09026N03W	0	0.989	0	0	0	0.989	0	0.089	0	0	0	0.089	1.079
09026N04W	0	3.159	0	0	0	3.159	4.528	0.535	0	0	0	0.535	8.222
Total	0.522	13.123	0	0	0	13.123	600.007	6.511	0	0	0	6.511	620.162
Woodford County													
10225N01W	0	0.033	0	0	0	0.033	0	0.004	<.001	0	0	0.004	0.037
10225N02W	0	0.046	0	0	0	0.046	0	0	0	0	0	0	0.046
10226N01E	0	0.039	0	0	0	0.039	0	0	0	0	0	0	0.039
10226N02E	0	0.282	0	0	0	0.282	0	0	0	0	0	0	0.282
10227N01W	0	0.219	0	0	0	0.219	0	0	0	0	0	0	0.219
10227N02W	0	0.096	0	0	0	0.096	0	<.001	0	0	0	<.001	0.096
10227N03W	0	0.385	0	0	0	0.385	0	0	0	0	0	0	0.385

Table 20. (Continued)

SMSA County Township and range	Public						Self-supplied industry						Total
	Surface water	Sand and gravel	Mississippian- Pennsylvanian	Silurian- Devonian	Cambrian- Ordovician	Total ground water	Surface water	Sand and gravel	Mississippian- Pennsylvanian	Silurian- Devonian	Cambrian- Ordovician	Total ground water	
Woodford County Cont.													
10227N04W	0	0.008	0	0	0	0.008	0	0	0	0	0	0	0.008
10228N01E	0	0.029	0	0	0	0.029	0	0	0	0	0	0	0.029
10228N02E	0	0	0	0	0.108	0.108	0	0	0	0	0	0	0.108
10228N02W	0	0.143	0	0	0	0.143	0	0	0	0	0	0	0.143
10229N02E	0	0	0	0	0.106	0.106	0	0	0	0	0	0	0.106
Total	0	1.279	0	0	0.213	1.492	0	0.004	<.001	0	0	0.004	1.496
Rockford													
Boone County													
00443N03E	0	0	0	0	0.028	0.028	0	0	0	0	0	0	0.028
00443N04E	0	0	0	0	<.001	<.001	0	0	0	0	0.016	0.016	0.016
00444N03E	0	0.644	0	0.009	2.835	3.488	0.137	0.009	0	0	0.083	0.091	3.716
00444N04E	0	0	0	0	0	0	0	0	0	0	0.015	0.015	0.015
00445N03E	0	0.034	0	0.046	0	0.080	0	0	0	0	0	0	0.080
00445N04E	0	0.087	0	0	0.060	0.146	0	0.021	0	0	0	0.021	0.167
Total	0	0.764	0	0.056	2.923	3.742	0.137	0.030	0	0	0.113	0.143	4.022
Winnebago County													
10126N10E	0	0	0	0.002	0	0.002	0	0	0	0	0	0	0.002
10126N11E	0	0	0	0	0.205	0.205	0	<.001	0	0	0.001	0.001	0.206
10127N10E	0	0	0	0	0.551	0.551	0	0	0	0	0	0	0.551
10127N11E	0	0	0	0	0	0	0	0.001	0	0	0	0.001	0.001
10128N10E	0	0	0	0	0.365	0.365	0	0	0	0	0	0	0.365
10143N01E	0	2.438	0	0	0.087	2.525	0	1.586	0	0.015	0	1.601	4.126
10143N02E	0	0	0	0.001	1.196	1.196	0	0.001	0	0.001	0	0.002	1.199
10144N01E	0	1.485	0	0.017	4.712	6.213	0	0	0	1.022	1.501	2.523	8.737
10144N02E	0	4.548	0	0	14.007	18.555	0	1.219	0	0	0.911	2.129	20.684
10145N01E	0	1.750	0	0	0.040	1.790	0	0	0	0	0.001	0.001	1.791
10145N02E	0	1.444	0	0	0.674	2.118	0	<.001	0	0	0.025	0.026	2.144
10146N01E	0	0.375	0	0	0.144	0.519	818.888	0.153	0	0	0.025	0.178	819.585
10146N02E	0	0.015	0	0	0.136	0.151	0.647	0.233	0	0.007	0.001	0.241	1.039
Total	0	12.056	0	0.020	22.116	34.191	819.535	3.193	0	1.045	2.465	6.703	860.429
St. Louis													
Clinton County													
01401N01W	0	0	0	0	0	0	0.025	0	0.026	0.150	0	0.175	0.201
01401N02W	0	0	0	0	0	0	0	0	0.032	0	0	0.032	0.032
01401N03W	0	0.026	0	0	0	0.026	0	0	0.008	0	0	0.008	0.034
01401N04W	0	0.051	0.023	0	0	0.074	0	0.210	0	0	0	0.210	0.284
01401N05W	0	0.056	<.001	0	0	0.056	1.493	0.140	0.015	0.058	0	0.213	1.762
01401S05W	0	0	0	0	0	0	0	0.027	0	0	0	0.027	0.027
01402N01W	0	0	0	0	0	0	0	0	0.008	0	0.002	0.010	0.010
01402N02W	0.694	0	0	0	0	0	0	0	0	0	0	0	0.694
01402N03W	0.581	0	0	0	0	0	0	0	0	0	0	0	0.581
01402N04W	0	0.066	0	0	0	0.066	0.581	0	0	0.009	0	0.009	0.656
01403N02W	0.035	0	0	0	0	0	0	0.001	0	0	0	0.001	0.036
01403N03W	0	0	0	0	0	0	0	0	0.020	0	0	0.020	0.020
Total	1.309	0.200	0.023	0	0	0.223	2.099	0.379	0.109	0.216	0.002	0.706	4.337
Madison County													
06003N06W	0	0.001	0.028	0	0	0.029	0	0	0	0.036	0	0.036	0.065
06003N08W	0	4.806	0	0	0	4.806	0	0	0	0	0	0	4.806
06003N09W	0	0.069	0	0	0	0.069	0	5.080	0	0	0	5.080	5.149
06003N10W	0	0	0	0	0	0	40.941	4.907	0	0	0	4.907	45.848
06004N05W	1.126	0	0	0	0	0	0	0	0	0	0	0	1.126
06004N06W	0	0.062	0	0	0	0.062	0	0	0	0.035	0	0.035	0.097
06004N08W	0	0	0	0	0	0	0	0.014	0	0	0	0.014	0.014
06004N09W	0	2.942	0	0	0	2.942	0	0.088	0	0	0	0.088	3.030
06004N10W	32.821	0	0	0	0	0	0	0	0	0	0	0	32.821
06005N06W	0	0.092	0.026	0	0	0.118	0	0	0	0	0	0	0.118
06005N09W	0	4.328	0	0	0	4.328	339.924	20.803	0	0	0	20.803	365.055
06005N10W	9.482	0	0	0	0	0	0	2.090	0	0	0	2.090	11.573
06006N06W	0	0.060	0	0	0	0.060	0	0.005	0.019	0	0	0.024	0.084

Table 20. (Concluded)

SMSA County Township and range	Public					Self-supplied industry					Total ground water	Total		
	Surface water	Sand and gravel	Mississippian- Pennsylvanian	Silurian- Devonian	Cambrian- Ordovician	Surface water	Sand and gravel	Mississippian- Pennsylvanian	Silurian- Devonian	Cambrian- Ordovician				
Madison County Cont.														
06006N07W	0	0.070	0	0	0	0.070	0	0	0	0	0	0	0	0.070
06006N08W	0.136	0	0	0	0	0	0	0	0	0	0	0	0	0.136
06006N10W	0	0	0	0	0	0	0	<.001	0	0	0	0	<.001	<.001
Total	43.565	12.430	0.053	0	0	12.483	380.865	32.988	0.019	0.071	0	33.078	469.992	
Monroe County														
06702S10W	0.469	0	0	0	0	0	0	0	0	0	0	0	0	0.469
06703S09W	0	0	0.007	0	0	0.007	0	0	0.001	0	0	0	0.001	0.008
06703S11W	0	0.104	0	0	0	0.104	0	0	0	0	0	0	0	0.104
06704S11W	0	0.012	0	0	0	0.012	0	0	0	0	0	0	0	0.012
Total	0.469	0.116	0.007	0	0	0.123	0	0	0.001	0	0	0.001	0.593	
St. Clair County														
08201N07W	0	0.018	0	0	0	0.018	0	0	0	0	0	0	0	0.018
08201N10W	0	0	0	0	0	0	0.247	0	0	0	0	0	0	0.247
08201S06W	1.586	0	0	0	0	0	0	0	0	0	0	0	0	1.586
08201S07W	0	0	0	0	0	0	1.647	0	0	0	0	0	0	1.647
08202N07W	0	0.007	0	0	0	0.007	0	0	0	0	0	0	0	0.007
08202N09W	0	0.082	0	0	0	0.082	0	9.436	0	0	0	0	9.436	9.518
08202N10W	15.864	0	0	0	0	0	0	2.091	0	0	0	0	2.091	17.956
08202S06W	0	0.071	0	0	0	0.071	0	0.001	0	0	0	0	0.001	0.071
08202S07W	0.720	0	0	0	0	0	0	0	0	0	0	0	0	0.720
08202S08W	0	0	0.003	0	0	0.003	0	0	0	0	0	0	0	0.003
08203N10W	0	0	0	0	0	0	0	2.879	0	0	0	0	2.879	2.879
Total	18.170	0.178	0.003	0	0	0.182	1.893	14.408	0	0	0	14.408	34.653	
Springfield														
Menard County														
06517N06W	0	0.148	0	0	0	0.148	0	0	0	0	0	0	0	0.148
06518N06W	0	0.056	0	0	0	0.056	0	0	0	0	0	0	0	0.056
06518N07W	0	0.126	0	0	0	0.126	0	0	0	0	0	0	0	0.126
06519N05W	0	0.041	0	0	0	0.041	0	0	0	0	0	0	0	0.041
06519N06W	0	0.085	0	0	0	0.085	0	0	0	0	0	0	0	0.085
06519N07W	0	0.247	0	0	0	0.247	0	0	0	0	0	0	0	0.247
06519N08W	0	0.044	0	0	0	0.044	0	0	0	0	0	0	0	0.044
Total	0	0.747	0	0	0	0.747	0	0	0	0	0	0	0	0.747
Sangamon County														
08414N07W	0.059	0	0	0	0	0	0	0	0	0	0	0	0	0.059
08415N03W	0	0.059	0	0	0	0.059	0.894	<.001	0	0	0	0	<.001	0.953
08415N05W	0	0	0	0	0	0	270.488	0	0	0	0	0	0	270.488
08415N07W	0.112	0	0	0	0	0	0	0	0	0	0	0	0	0.112
08416N01W	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08416N02W	0	1.199	0	0	0	1.199	0	0	0	0	0	0	0	1.199
08416N03W	0	0.059	0	0	0	0.059	0	0	0	0	0	0	0	0.059
08416N04W	0	0.441	0	0	0	0.441	0.685	0	0	0	0	0	0	1.126
08416N05W	20.762	0.007	0	0	0	0.007	0	0	0	0	0	0	0	20.769
08416N06W	0	0.348	0	0	0	0.348	0	0	0	0	0	0	0	0.348
08417N04W	0	0	0	0	0	0	0	0	0	0	0	0	0	0
08417N06W	0	0.096	0	0	0	0.096	0	0	0	0	0	0	0	0.096
08417N07W	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	20.933	2.209	0	0	0	2.209	272.067	<.001	0	0	0	<.001	295.208	

Table 21. Water Withdrawals within SMSA's,
Estimated and Reported 1986

SMSA's*	Public supply (mgd)	Self-supplied industry (mgd)	Rural (mgd)	Fish and wildlife (mgd)	Total
Bloomington-Normal	13.734	0.229	4.521	0.009	18.492
Champaign-Urbana-Rantoul	20.370	9.668	2.839	0.001	32.879
Chicago	1335.619	7031.762	63.232	0.518	8431.132
Davenport-Rock Island-Moline (IL)	21.087	735.142	7.653	0.010	763.892
Decatur	30.476	8.220	2.211	<.001	40.907
Kankakee	12.132	1.008	5.050	0.002	18.191
Peoria	37.615	988.255	19.376	0.003	1045.249
Rockford	37.933	826.399	10.920	0.001	875.254
St. Louis (IL)	76.524	433.049	12.782	0.001	522.357
Springfield	23.888	272.067	1.718	0.001	297.674
<i>SMSA areas</i>	<i>1609.380</i>	<i>10305.798</i>	<i>130.302</i>	<i>0.545</i>	<i>12046.026</i>
<i>Non-SMSA areas</i>	<i>196.718</i>	<i>25229.721</i>	<i>175.576</i>	<i>36.181</i>	<i>25638.196</i>
State total	1806.098	35535.519	305.878	36.726	37684.222

Table 22. Water Withdrawals within SMSA's, Excluding
Electrical Power Generation, Reported 1986

SMSA's*	Public supply (mgd)	Self-supplied industry (mgd)	Rural (mgd)	Fish and wildlife (mgd)	Total
Bloomington-Normal	13.734	0.229	4.521	0.009	18.492
Champaign-Urbana-Rantoul	20.370	9.668	2.839	0.001	32.879
Chicago	1335.619	306.027	63.232	0.518	1705.396
Davenport-Rock Island-Moline (IL)	21.087	16.726	7.653	0.010	45.476
Decatur	30.476	8.220	2.211	<.001	40.907
Kankakee	12.132	1.008	5.050	0.002	18.191
Peoria	37.615	74.479	19.376	0.003	131.473
Rockford	37.933	7.511	10.920	0.001	56.366
St. Louis (IL)	76.524	63.771	12.782	0.001	153.079
Springfield	23.888	1.579	1.718	0.001	27.185
<i>SMSA areas</i>	<i>1609.380</i>	<i>489.217</i>	<i>130.302</i>	<i>0.545</i>	<i>2229.445</i>
<i>Non-SMSA areas</i>	<i>196.718</i>	<i>162.146</i>	<i>175.576</i>	<i>36.181</i>	<i>570.621</i>
State total	1806.098	651.363	305.878	36.726	2800.066

* Bloomington-Normal - McLean Co.

Champaign-Urbana-Rantoul - Champaign Co.

Chicago - Cook, DuPage, Kane, Lake, McHenry, & Will Co.

Davenport-Rock Island-Moline (IL) - Rock Island & Henry Co.

Decatur - Macon Co.

Kankakee - Kankakee Co.

Peoria - Peoria, Tazewell, & Woodford Co.

Rockford - Boone & Winnebago Co.

St. Louis (IL) - Clinton, Madison, Monroe, & St. Clair Co.

Springfield - Menard & Sangamon Co.

Figures may not add up to totals shown because of independent rounding.