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ANNUAL WATER USE SURVEY - 1978

BY

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ANNUAL WATER USE SURVEY: 1978

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

BY

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This report describes the nature of annual water use for the year 1978 within the St. Johns River Water Management District. Six categories of water use are detailed: public supply, domestic self-supplied, industrial self-supplied, irrigation, livestock, and thermoelectric power generation. Data in this report is arranged and presented at the District-wide, individual basin, and county levels.

Data collection for this report was a joint effort of the St. Johns River Water Management District and the United States Geological Survey. Data for the public suppliers, self-supplied industries, and thermoelectric power plants was acquired through questionnaires. Irrigation and livestock water use figures were calculated from data provided by representatives of the Florida Cooperative Extension Service, the USDA Soil Conservation Service, and the USDA Agriculture Stabilization and Conservation Service. Domestic self-supplied water use figures were calculated from State of Florida population figures (Bureau of Economic and Business Research, University of Florida, 1979) and St. Johns River Water Management District per capita water use estimates (SJRWMD, 1977).

The Annual Water Use Survey, 1978 is part of an on-going effort by the District to establish a data base from which water use models can be developed. The information in this report reveals 1978 water demand levels for the six categories detailed. This information can be integrated with water availability and demographic statistics to form a base for better water resource decision-making and to identify possible areas of water supply-demand imbalance in the District.

INTRODUCTION

Little emphasis has traditionally been placed on collecting water use data, especially as contrasted with the extensive data collection efforts to determine water supply availability. The United States Geological Survey (USGS) first began collecting general water use data nationally in 1950 (MacKichan, 1951) and continued thereafter at 5-year intervals as reported in MacKichan (1957), MacKichan and Kammerer (1961), Murray (1968), and Murray and Reeves (1972). Water use data specific to Florida was reported only recently by Pride (1970) and (1973).

Water use data specific to the St. Johns River Water Management District was first collected in a 1975 joint effort of the District and the USGS and can be found in Source, Use, and Disposition of Water in Florida, 1975 (Leach, 1978) and in Water Resource Management Plan, Phase I, (SJRWMD, 1977). Water use data for 1977 found in Estimated Water Use In Florida, 1977 (Leach and Healy, 1980), was also collected jointly by the District and the USGS, as was the data for this report. Future District water use data will be collected by District personnel.

Data for this report is presented by type of use, by basin, by county, and by the District as a whole. The water use categories discussed are Public Supply, Domestic Self-Supplied, Industrial Self-Supplied, Irrigation, Livestock, and Thermoelectric Power Generation. These categories are further discussed in the text with accompanying data. Data on golf course water use was not available for this year's survey, but will be collected and reported in future reports.

Water use for each category and total water use are presented in the text for all basins and the District as a whole. Water use data for

counties can be found in Appendices A-2 through A-75. The basins used as units for analysis are similar to naturally-occurring surface water hydrologic units excepting where their outer boundaries must conform with District boundaries as shown in Figures 1 and 2.

Water use is presented in million gallons per day (mgd) for all categories. Irrigation water use data is presented in acre-feet per year as well. Conversions to the metric system can be found in Appendix A-1.

This report is limited to a discussion of the gross amount of water withdrawn. Data on an important component of the total water use picture, water consumed, is not contained in this report. The absence of data on water consumption stems both from disagreement on a working definition of consumption and the fact that little emphasis in the past was placed on collecting consumption data. In future water use surveys, efforts will be made to collect and report data on consumed and recycled water.

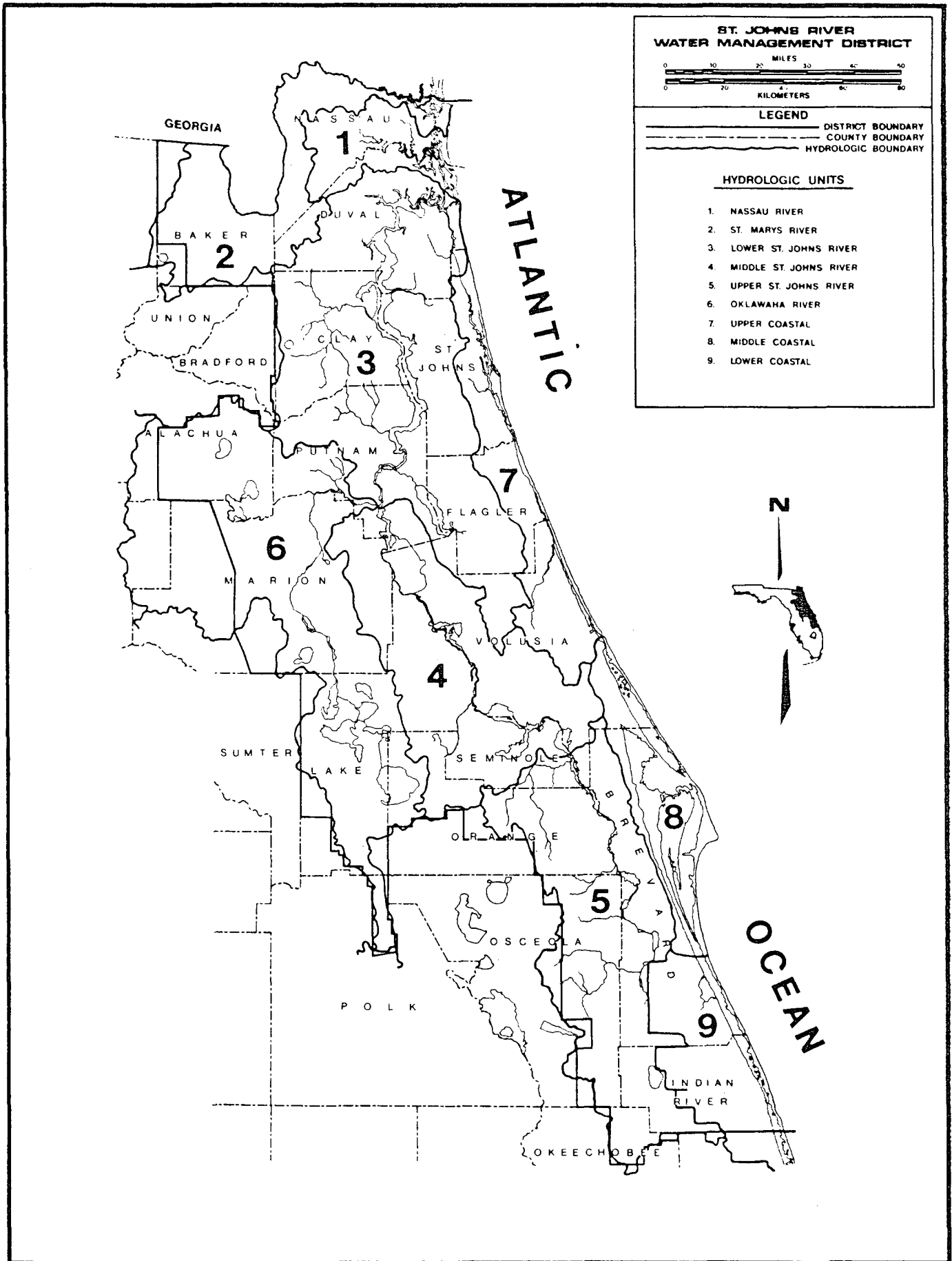


Figure 1 Hydrologic Units Within The SJRWMD

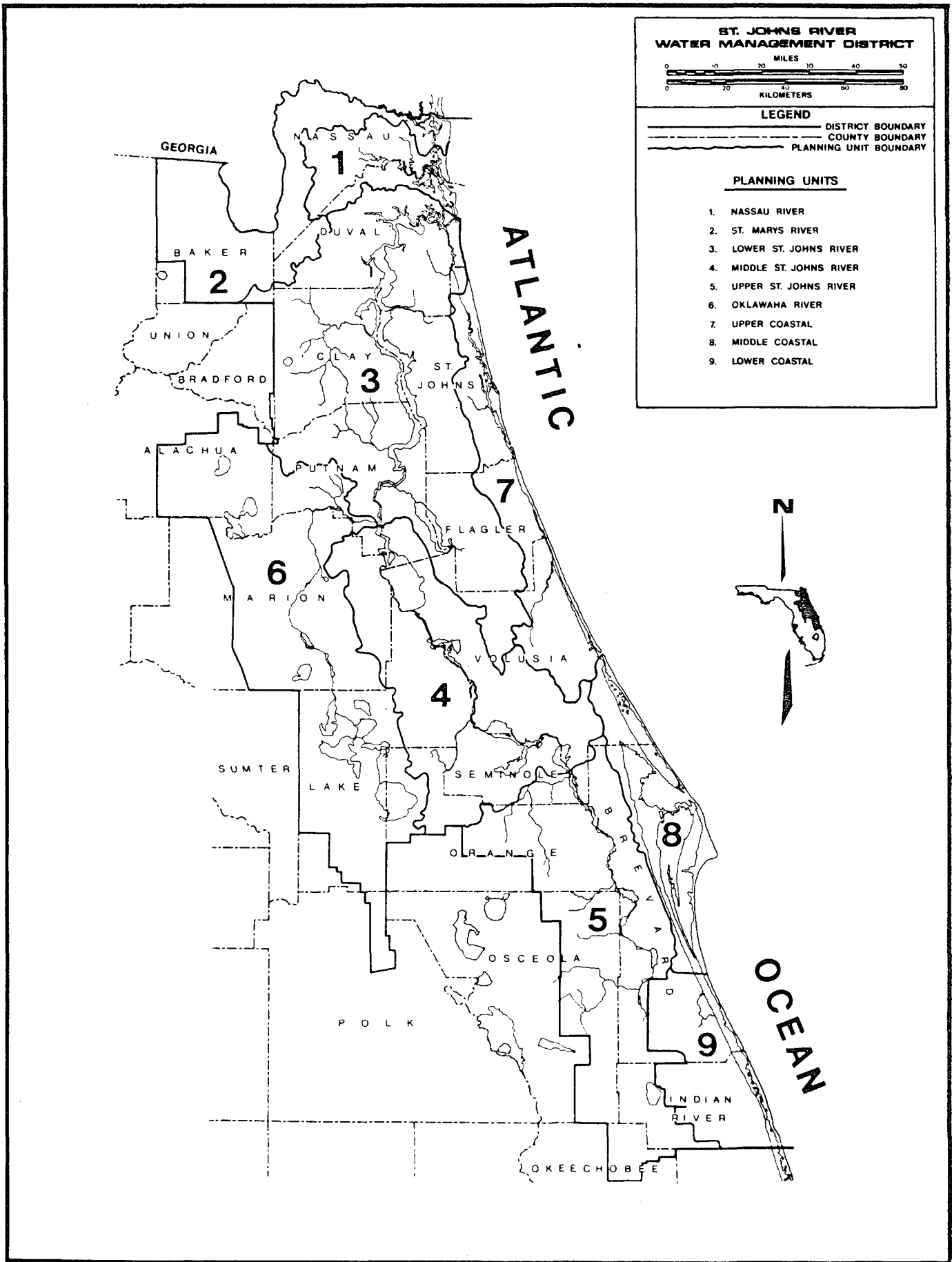


Figure 2 Planning Units (Basins) Within The SJRWMD

PUBLIC SUPPLY WATER USE

Introduction

Public supply water use data was collected by the USGS from 57 private and municipal utilities each serving a population of over 2,000 people. Supply data from all utilities located in a county seat was also included. Public suppliers may serve residential, industrial, commercial and/or institutional users. Water use for the many small public suppliers serving between 25 and 2000 people is reflected in the domestic self-supplied category. Figure 3 graphically illustrates the public supply water use for 1978.

Table 1 shows the water withdrawn for public supply and the per capita use for the District and its nine basins. Population served and total population figures are also shown in this table. As the population served by any utility can only be estimated, an attempt was made to choose the best estimate for each utility surveyed. Sources for these best estimate figures include the Department of Environmental Regulation, interviews with utility company personnel, and various county and city comprehensive plans.

Per capita use is defined as water used divided by population served. Per capita use for the Upper St. Johns River Basin, the Middle Coastal Basin, and the Lower Coastal Basin cannot be determined directly from the data provided on this table because water withdrawn in the Upper St. Johns River Basin is used by populations in the Middle and Lower Coastal Basins, as well.

Findings

In 1978, 233.84 mgd of fresh water was withdrawn for public supply use in the District. Approximately 4% of this total was surface water. Public water use increased almost 10% between 1975 and 1978 (SJRWMD, 1977: I-4). Population served by public supply increased from 61% of the total population in 1975 to 70% of the total population in 1978. These figures reflect both the increasing urbanization of the District and the expansion of the public supply water use survey between 1975 and 1978, as the threshold for inclusion of public suppliers was lowered. Per capita use decreased between 1975 and 1978 from 173 gallons per capita per day (gpcd) to 160 gpcd.

The Lower St. Johns River Basin, which includes the Jacksonville area, experienced the largest withdrawal of water for public supply, 27% of the total public supply water withdrawn in the District. This withdrawal serviced the needs of 63% of the Basin's total population. Approximately 89% of the Middle St. Johns River Basin total population was served by public supply, using 23% of the total water withdrawn for public supply. In the Middle Coastal Basin, approximately 97% of the total population was served by public supply, using 3% of the total water withdrawn for public supply.

Of the surface water used for public supply within the District, the sole source was Lake Washington in the Upper St. Johns River Basin. Lake Washington serviced the needs of Southern Brevard County.

County public supply water use can be found in Appendix A-2.

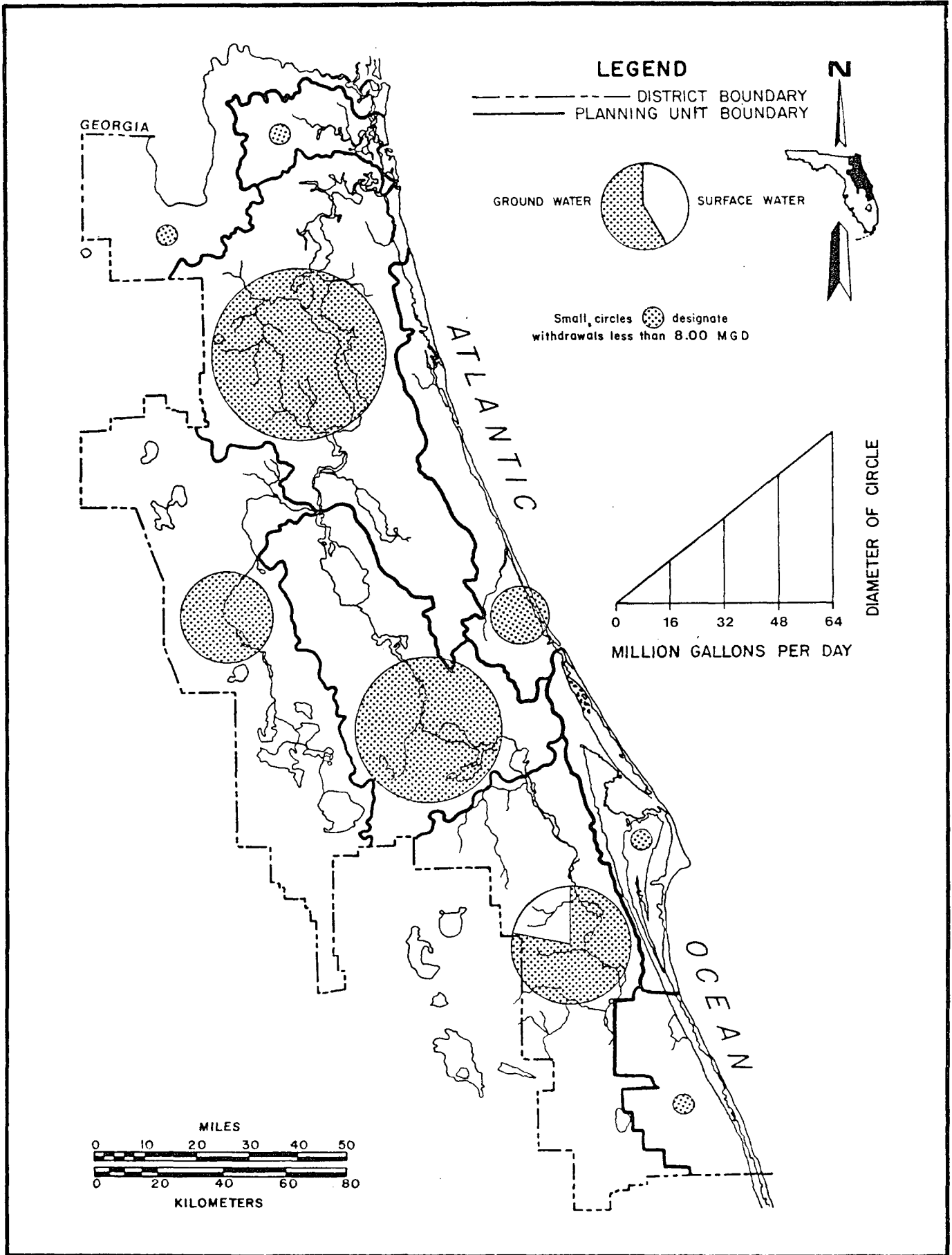


Figure 3 Public Supply Water Use by Basins, 1978

TABLE 1 PUBLIC SUPPLY WATER USE

BASINS

1978

BASINS	TOTAL ¹ POPULATION (THOUSANDS)	POPULATION SERVED (THOUSANDS)	FRESH WATER WITHDRAWN (MGD)			PER CAPITA USE (GPD)
			GROUND	SURFACE	TOTAL	
NASSAU RIVER	17.4	1.1	0.23	0.0	0.23	209.1
ST. MARYS RIVER	35.2	15.1	3.02	0.0	3.02	200.0
LOWER ST. JOHNS RIVER	643.1	403.1	63.57	0.0	63.57	157.7
MIDDLE ST. JOHNS RIVER	363.4	323.1	53.49	0.0	53.49	165.5
UPPER ST. JOHNS RIVER	218.3	150.7	34.05	9.46	43.51	149.0 ²
OKLAWAHA RIVER	305.2	188.3	33.77	0.0	33.77	179.3
UPPER COASTAL	224.4	147.1	21.24	0.0	21.24	144.4
MIDDLE COASTAL	184.5	178.6	6.28	0.0	6.28	126.3 ²
LOWER COASTAL	97.1	53.8	8.73	0.0	8.73	200.5 ²
DISTRICT TOTAL	2,088.6	1,460.9	224.38	9.46	233.84	160.0

1. POPULATIONS FIGURES ARE ESTIMATES FOR JULY 1, 1978 OBTAINED FROM REJECTIONS OF FLORIDA POPULATION BY COUNTY, BUREAU OF ECONOMIC AND BUSINESS RESEARCH, UNIVERSITY OF FLORIDA.

2. PER CAPITA USE CANNOT BE DETERMINED DIRECTLY FROM THE DATA IN THE TABLE DUE TO INTER-BASIN DIVERSIONS.

DOMESTIC SELF-SUPPLIED WATER USE

Introduction

In determining that portion of the total population which is self-supplied, the difference between total population in each unit of analysis and that part served by public water supply, was computed. Domestic self-supplied water use then, is a derived estimate determined by multiplying the self-supplied population by an estimated per capita use rate. Domestic self-supplied water use includes both residential and commercial uses. For the purposes of this report, it also reflects public supply, industrial, and institutional water users not inventoried in 1978.

In previous water use reports, 100 gallons per capita per day (gpcd) was used to calculate domestic self-supplied water use. However, as in-house residential water use in Florida is estimated to be 80 gpcd, and the average per capita use for public supply in the District is 160 gpcd, we have determined that the best estimate at this time for domestic self-supplied per capita use is midway between these two figures. Therefore, in this report, a factor of 120 gpcd is used. Several studies are presently underway to refine the factor used to determine domestic self-supplied water use for future reports.

Findings

Domestic self-supplied water use is graphically displayed in Figure 4. Approximately 75.29 mgd of fresh ground water was withdrawn for domestic self-supplied water use in 1978 as shown on Table 2. This withdrawal serviced a population of 627,700. In 1975, approximately 78.80 mgd of fresh ground water was used for domestic self-supply, serving a population of 787,980 (SJRWMD, 1977: I-11). Unfortunately, the

water use figure for 1975 is not directly comparable with its 1978 counterpart as different per capita use factors were employed in computing the 1978 figures, and a lower population served (2000 persons) threshold was used in the collection of public supply data for the current report. Despite these differences in methodology, however, it appears that a greater proportion of the total population within the District is now being served by public supply.

The Lower St. Johns River Basin and the Oklawaha River Basin had the largest total withdrawals for domestic self-supplied water use, 28.80 mgd and 14.03 mgd, respectively. The Nassau River Basin, however, had the highest percentage of its total population requiring self-supplied water, 94%. Conversely, the Middle Coastal Basin had the lowest percentage of its total population using self-supplied water, approximately 3%.

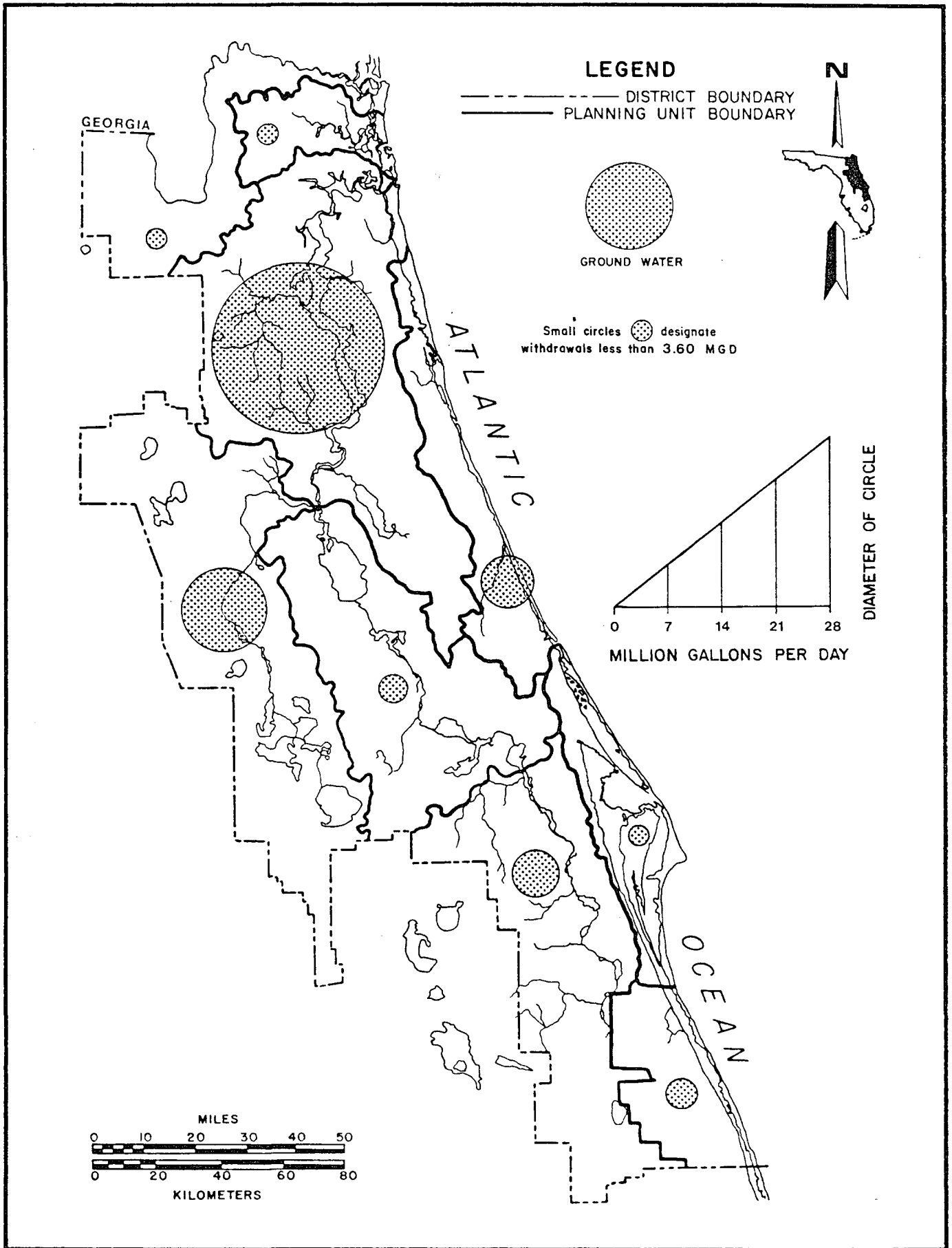


Figure 4

Domestic Self Supplied Water Use by Basins, 1978

TABLE 2 DOMESTIC SELF-SUPPLIED WATER USE

BASINS

1978

BASINS	SELF-SUPPLIED POPULATION (THOUSANDS)	WATER WITHDRAWN (MGD) ¹		
		GROUND	SURFACE	TOTAL
NASSAU RIVER	16.3	1.95	0.0	1.95
ST. MARYS RIVER	20.1	2.41	0.0	2.41
LOWER ST. JOHNS RIVER	240.0	28.80	0.0	28.80
MIDDLE ST. JOHNS RIVER	40.3	4.83	0.0	4.83
UPPER ST. JOHNS RIVER	67.6	8.11	0.0	8.11
OKLAWAHA RIVER	116.9	14.03	0.0	14.03
UPPER COASTAL	77.3	9.27	0.0	9.27
MIDDLE COASTAL	5.9	0.70	0.0	0.70
LOWER COASTAL	43.3	5.19	0.0	5.19
DISTRICT TOTAL	627.7	75.29	0.0	75.29

1. THESE FIGURES WERE ESTIMATED BY MULTIPLYING THE SELF-SUPPLIED POPULATION FIGURE BY 120 GALLONS PER CAPITA PER DAY.

INDUSTRIAL SELF-SUPPLIED WATER USE

Introduction

Industrial self-supplied water use data was collected by District personnel by personal visits to 99 industries in the District. Only industries that utilize their own source of water were surveyed; industrial water demand satisfied by public suppliers is reflected in public supply data. Some self-supplied industries were not surveyed either because they used less than 0.001 mgd (lower limit of survey) or they chose not to participate. Additionally, it is probable that the District has yet to locate all self-supplied industries within its boundaries. Thermoelectric power plant water use is considered in a separate category.

As many industries do not meter their water use, estimations had to be made. District personnel worked with industry representatives to arrive at the best possible estimate for each industry. The industries surveyed were grouped into 18 categories; seventeen of which are identified in the Standard Industrial Classification Manual, 1972 (Executive Office of the President, 1972), the other category being institutions. The institutional category includes armed forces bases, hospitals, prisons and universities.

Figures 5 and 6 graphically present industrial self-supplied water use. Tables 3 through 12 demonstrate the water used by each type of industry in the District and its nine basins. In these tables, water use is displayed by type of water used, either fresh ground, fresh surface, or saline surface water. The data displayed by counties can be found in Appendices A-4 through A-8.

The total water use of any industry is the sum of a variety of industrial uses such as processing, cooling, material conveyance, wash-

ing, and incorporation into a finished product. Also included are small withdrawals for domestic uses, fire protection, irrigation, and miscellaneous needs.

Findings

In 1978, 158.70 mgd of fresh ground water was withdrawn for industrial self-supplied use. Additionally, 40.10 mgd of fresh surface water and 45.00 mgd of saline surface water were withdrawn. The paper and allied products industries withdrew the most water for industrial use in the District. This industry group accounted for 61% of the fresh ground, 99% of the fresh surface and 100% of the saline water used by this category. Other major industrial water users included the food and kindred products industries, wholesalers of fruits and vegetables, and institutions.

Industrial self-supplied water use was greatest in the Lower St. Johns River Basin; 60% of the total water use for self-supplied industries was found in this basin. This can be attributed mainly to the appearance of several paper and allied products industries in the Lower St. Johns River Basin. Other areas where large withdrawals for industrial self-supplied water use were found included the St. Marys River Basin and the Oklawaha River Basin. The St. Marys River Basin also experienced large withdrawals for paper and allied products industries. While in the Oklawaha River Basin, the food and kindred products industries and the wholesaling of fruits and vegetables industries were the major industrial users.

When comparing industrial self-supplied totals for 1978 with those of previous reports, it must be considered that both the number and type

of industries in existence change through time. Some industries go out of business, others may change processes or output levels, and still others may switch over to publicly supplied water to meet all or part of their water needs. All of these factors may affect industrial self-supplied water use totals over time.

Total water withdrawn for industrial self-supplied use increased 24% between 1975 and 1978 (SJRWMD, 1977: I-9). As the increase in fresh ground water withdrawal was less than 1%, the bulk of the increase in use came from fresh and saline surface water sources. During the three year period between surveys, both fresh surface and saline surface water use increased by 36% and 96%, respectively.

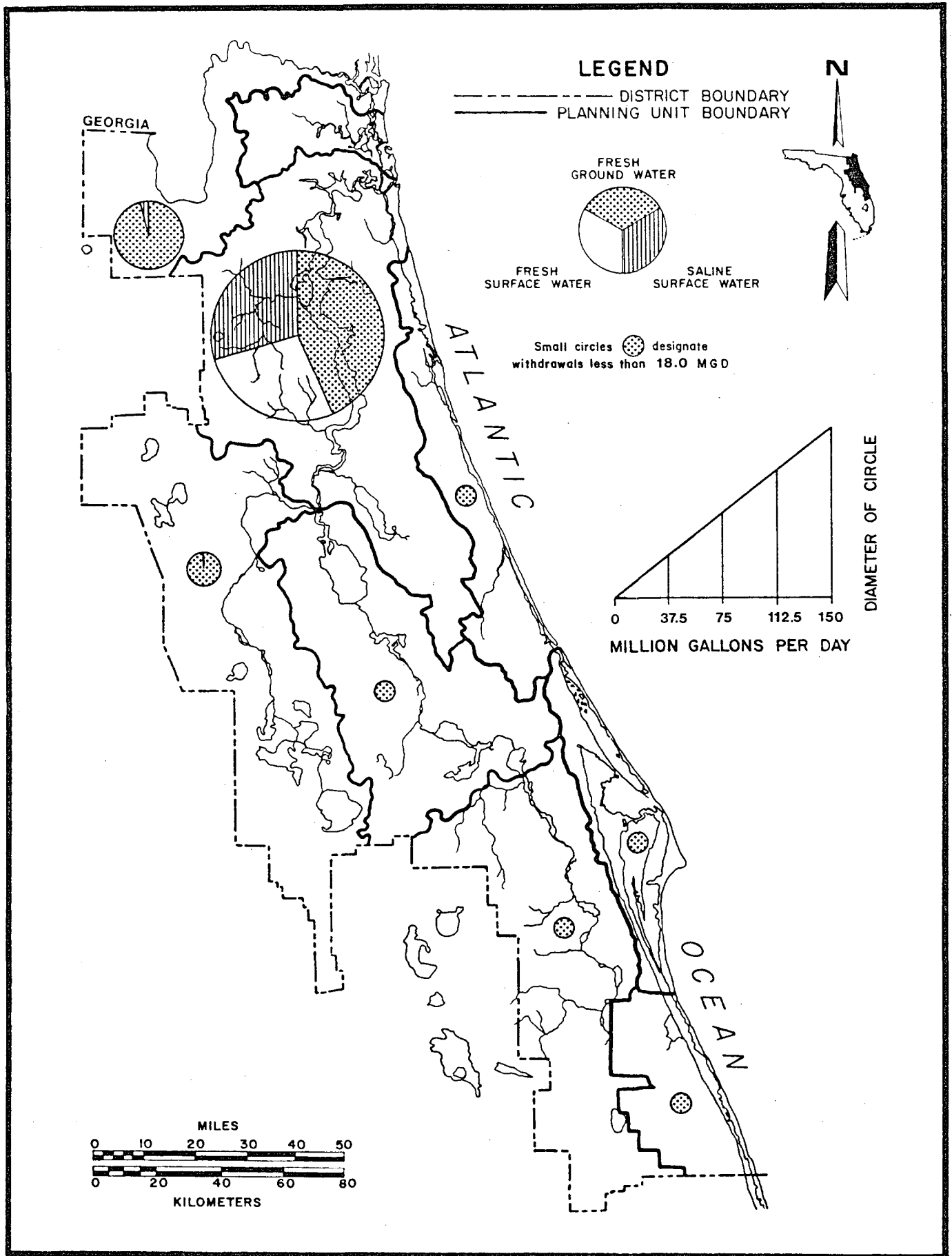


Figure 5 Industrial Self Supplied Water Use by Basins, 1978

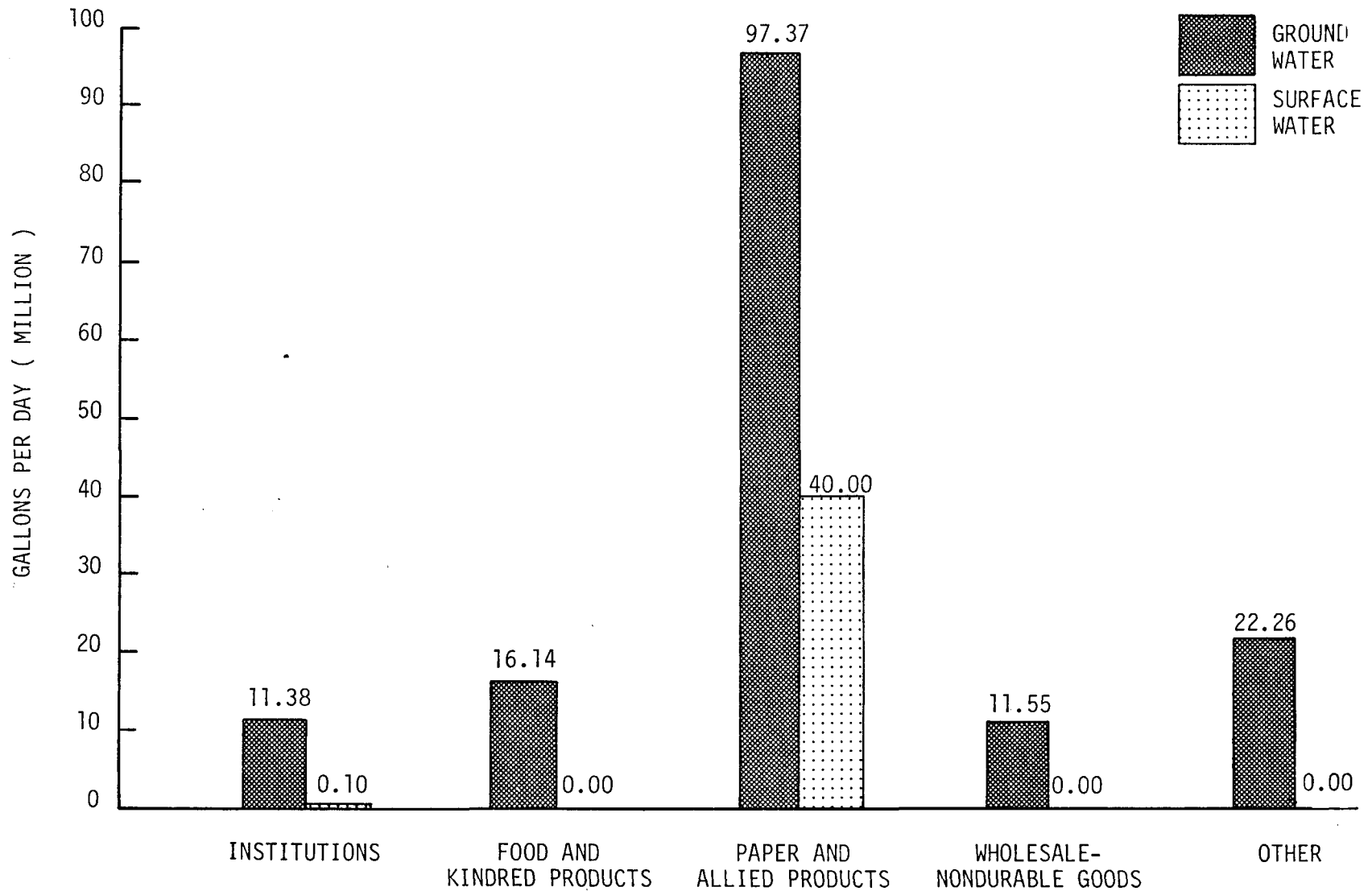


Figure 6.

Industrial Self-Supply Fresh Water Use
St. Johns River Water Management District, 1978.

TABLE 3 INDUSTRIAL SELF-SUPPLIED WATER USE

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

1978

INDUSTRIAL CLASSIFICATION	SIC ¹	WATER WITHDRAWN (MGD)		
		GROUND	FRESH SURFACE	SALINE SURFACE
INSTITUTIONS	--	11.38	0.10	0.0
METAL MINING	10	7.32	0.0	0.0
MINING NON-METALLIC MINERALS	14	5.75	0.0	0.0
FOOD & KINDRED PRODUCTS	20	16.14	0.0	0.0
TOBACCO MANUFACTURES	21	0.14	0.0	0.0
LUMBER & WOOD PRODUCTS	24	0.07	0.0	0.0
PAPER & ALLIED PRODUCTS	26	97.37	40.00	45.00
CHEMICAL & ALLIED PRODUCTS	28	5.55	0.0	0.0
LEATHER & LEATHER PRODUCTS	31	0.01	0.0	0.0
STONE, CLAY & GLASS PRODUCTS	32	1.23	0.0	0.0
FABRICATED METAL PRODUCTS	34	0.05	0.0	0.0
MACHINERY, EXCEPT ELECTRICAL	35	0.01	0.0	0.0
ELECTRIC & ELECTRONIC EQUIPMENT	36	0.06	0.0	0.0
TRANSPORTATION EQUIPMENT	37	0.03	0.0	0.0
INSTRUMENTS & RELATED PRODUCTS	38	0.20	0.0	0.0
MISC. MANUFACTURING	39	1.84	0.0	0.0
WHOLESALE-NONDURABLE GOODS ²	51	11.55	0.0	0.0
TOTAL		158.70	40.10	45.00

1. SIC- STANDARD INDUSTRIAL CLASSIFICATION NUMBER. STANDARD INDUSTRIAL CLASSIFICATION MANUAL, 1972. EXECUTIVE OFFICE OF THE PRESIDENT. OFFICE OF MANAGEMENT AND BUDGET.

2. THIS IS A BROAD CATEGORY, BUT IN THE SURFAC IT ONLY INCLUDES FRUIT AND VEGETABLE WHOLESALING INDUSTRIES.

TABLE 4 INDUSTRIAL SELF-SUPPLIED WATER USE
 NASSAU RIVER BASIN
 1978

INDUSTRIAL CLASSIFICATION	SIC	WATER WITHDRAWN (MGD)		
		GROUND	FRESH SURFACE	SALINE SURFACE
INSTITUTIONS	--	0.0	0.0	0.0
METAL MINING	10	0.0	0.0	0.0
MINING NON-METALLIC MINERALS	14	0.0	0.0	0.0
FOOD & KINDRED PRODUCTS	20	0.0	0.0	0.0
TOBACCO MANUFACTURES	21	0.0	0.0	0.0
LUMBER & WOOD PRODUCTS	24	0.0	0.0	0.0
PAPER & ALLIED PRODUCTS	26	0.0	0.0	0.0
CHEMICAL & ALLIED PRODUCTS	28	0.0	0.0	0.0
LEATHER & LEATHER PRODUCTS	31	0.0	0.0	0.0
STONE, CLAY & GLASS PRODUCTS	32	0.0	0.0	0.0
FABRICATED METAL PRODUCTS	34	0.0	0.0	0.0
MACHINERY, EXCEPT ELECTRICAL	35	0.0	0.0	0.0
ELECTRIC & ELECTRONIC EQUIPMENT	36	0.0	0.0	0.0
TRANSPORTATION EQUIPMENT	37	0.0	0.0	0.0
INSTRUMENTS & RELATED PRODUCTS	38	0.0	0.0	0.0
MISC. MANUFACTURING	39	0.0	0.0	0.0
WHOLESALE-NONDURABLE GOODS	51	0.0	0.0	0.0
TOTAL		0.0	0.0	0.0

1. SIC- STANDARD INDUSTRIAL CLASSIFICATION NUMBER. STANDARD INDUSTRIAL CLASSIFICATION MANUAL, 1972. EXECUTIVE OFFICE OF THE PRESIDENT. OFFICE OF MANAGEMENT AND BUDGET.
2. THIS IS A BROAD CATEGORY, BUT IN THE SJRWMD IT ONLY INCLUDES FRUIT AND VEGETABLE WHOLESALING INDUSTRIES.

TABLE 5 INDUSTRIAL SELF-SUPPLIED WATER USE
ST. MARYS RIVER BASIN
1978

INDUSTRIAL CLASSIFICATION	SIC	WATER WITHDRAWN (MGD)		SALINE SURFACE
		GROUND	FRESH SURFACE	
INSTITUTIONS	--	0.30	0.0	0.0
METAL MINING	10	2.16	0.0	0.0
MINING NON-METALLIC MINERALS	14	0.0	0.0	0.0
FOOD & KINDRED PRODUCTS	20	0.0	0.0	0.0
TOBACCO MANUFACTURES	21	0.0	0.0	0.0
LUMBER & WOOD PRODUCTS	24	0.0	0.0	0.0
PAPER & ALLIED PRODUCTS	26	56.73	0.0	2.0
CHEMICAL & ALLIED PRODUCTS	28	0.0	0.0	0.0
LEATHER & LEATHER PRODUCTS	31	0.0	0.0	0.0
STONE, CLAY & GLASS PRODUCTS	32	0.0	0.0	0.0
FABRICATED METAL PRODUCTS	34	0.0	0.0	0.0
MACHINERY, EXCEPT ELECTRICAL	35	0.0	0.0	0.0
ELECTRIC & ELECTRONIC EQUIPMENT	36	0.0	0.0	0.0
TRANSPORTATION EQUIPMENT	37	0.0	0.0	0.0
INSTRUMENTS & RELATED PRODUCTS	38	0.0	0.0	0.0
MISC. MANUFACTURING	39	0.0	0.0	0.0
WHOLESALE-NONDURABLE GOODS	51	0.0	0.0	0.0
TOTAL		59.19	0.0	2.0

1. SIC- STANDARD INDUSTRIAL CLASSIFICATION NUMBER. STANDARD INDUSTRIAL CLASSIFICATION MANUAL, 1972. EXECUTIVE OFFICE OF THE PRESIDENT. OFFICE OF MANAGEMENT AND BUDGET.
2. THIS IS A BROAD CATEGORY, BUT IN THE SJRWMD IT ONLY INCLUDES FRUIT AND VEGETABLE WHOLESALING INDUSTRIES.

TABLE 6 INDUSTRIAL SELF-SUPPLIED WATER USE

LOWER ST. JOHNS RIVER BASIN

1978

INDUSTRIAL CLASSIFICATION	SIC ¹	WATER WITHDRAWN (MGD)		SALINE SURFACE
		GROUND	FRESH SURFACE	
INSTITUTIONS	--	8.89	0.0	0.0
METAL MINING	10	5.16	0.0	0.0
MINING NON-METALLIC MINERALS	14	0.0	0.0	0.0
FOOD & KINDRED PRODUCTS	20	0.66	0.0	0.0
TOBACCO MANUFACTURES	21	0.14	0.0	0.0
LUMBER & WOOD PRODUCTS	24	0.0	0.0	0.0
PAPER & ALLIED PRODUCTS	26	40.64	40.00	43.00
CHEMICAL & ALLIED PRODUCTS	28	5.30	0.0	0.0
LEATHER & LEATHER PRODUCTS	31	0.01	0.0	0.0
STONE, CLAY & GLASS PRODUCTS	32	1.22	0.0	0.0
FABRICATED METAL PRODUCTS	34	0.0	0.0	0.0
MACHINERY, EXCEPT ELECTRICAL	35	0.01	0.0	0.0
ELECTRIC & ELECTRONIC EQUIPMENT	36	0.0	0.0	0.0
TRANSPORTATION EQUIPMENT	37	0.0	0.0	0.0
INSTRUMENTS & RELATED PRODUCTS	38	0.0	0.0	0.0
MISC. MANUFACTURING	39	1.84	0.0	0.0
WHOLESALE-NONDURABLE GOODS ²	51	0.0	0.0	0.0
TOTAL		63.87	40.00	43.00

1. SIC- STANDARD INDUSTRIAL CLASSIFICATION NUMBER. STANDARD INDUSTRIAL CLASSIFICATION MANUAL, 1972. EXECUTIVE OFFICE OF THE PRESIDENT. OFFICE OF MANAGEMENT AND BUDGET.

2. THIS IS A BROAD CATEGORY, BUT IN THE SURROUND IT ONLY INCLUDES FRUIT AND VEGETABLE WHOLESALING INDUSTRIES.

TABLE 7 INDUSTRIAL SELF-SUPPLIED WATER USE
MIDDLE ST. JOHNS RIVER BASIN
1978

INDUSTRIAL CLASSIFICATION	SIC ¹	WATER WITHDRAWN (MGD)		
		GROUND	FRESH SURFACE	SALINE SURFACE
INSTITUTIONS	--	0.0	0.0	0.0
METAL MINING	10	0.0	0.0	0.0
MINING NON-METALLIC MINERALS	14	0.0	0.0	0.0
FOOD & KINDRED PRODUCTS	20	4.73	0.0	0.0
TOBACCO MANUFACTURES	21	0.0	0.0	0.0
LUMBER & WOOD PRODUCTS	24	0.0	0.0	0.0
PAPER & ALLIED PRODUCTS	26	0.0	0.0	0.0
CHEMICAL & ALLIED PRODUCTS	28	0.0	0.0	0.0
LEATHER & LEATHER PRODUCTS	31	0.0	0.0	0.0
STONE, CLAY & GLASS PRODUCTS	32	0.0	0.0	0.0
FABRICATED METAL PRODUCTS	34	0.02	0.0	0.0
MACHINERY, EXCEPT ELECTRICAL	35	0.0	0.0	0.0
ELECTRIC & ELECTRONIC EQUIPMENT	36	0.06	0.0	0.0
TRANSPORTATION EQUIPMENT	37	0.0	0.0	0.0
INSTRUMENTS & RELATED PRODUCTS	38	0.20	0.0	0.0
MISC. MANUFACTURING	39	0.0	0.0	0.0
WHOLESALE-NONDURABLE GOODS ²	51	0.01	0.0	0.0
TOTAL		5.02	0.0	0.0

1. SIC- STANDARD INDUSTRIAL CLASSIFICATION NUMBER. STANDARD INDUSTRIAL CLASSIFICATION MANUAL, 1922. EXECUTIVE OFFICE OF THE PRESIDENT. OFFICE OF MANAGEMENT AND BUDGET.

2. THIS IS A BROAD CATEGORY, BUT IN THE SJRWMD IT ONLY INCLUDES FRUIT AND VEGETABLE WHOLESALING INDUSTRIES.

TABLE 8 INDUSTRIAL SELF-SUPPLIED WATER USE

UPPER ST. JOHNS RIVER BASIN

1978

INDUSTRIAL CLASSIFICATION	SIC ¹	WATER WITHDRAWN (MGD)		
		GROUND	FRESH SURFACE	SALINE SURFACE
INSTITUTIONS	--	0.68	0.0	0.0
METAL MINING	10	0.0	0.0	0.0
MINING NON-METALLIC MINERALS	14	0.0	0.0	0.0
FOOD & KINDRED PRODUCTS	20	0.0	0.0	0.0
TOBACCO MANUFACTURES	21	0.0	0.0	0.0
LUMBER & WOOD PRODUCTS	24	0.0	0.0	0.0
PAPER & ALLIED PRODUCTS	26	0.0	0.0	0.0
CHEMICAL & ALLIED PRODUCTS	28	0.0	0.0	0.0
LEATHER & LEATHER PRODUCTS	31	0.0	0.0	0.0
STONE, CLAY & GLASS PRODUCTS	32	0.0	0.0	0.0
FABRICATED METAL PRODUCTS	34	0.0	0.0	0.0
MACHINERY, EXCEPT ELECTRICAL	35	0.0	0.0	0.0
ELECTRIC & ELECTRONIC EQUIPMENT	36	0.0	0.0	0.0
TRANSPORTATION EQUIPMENT	37	0.0	0.0	0.0
INSTRUMENTS & RELATED PRODUCTS	38	0.0	0.0	0.0
MISC. MANUFACTURING	39	0.0	0.0	0.0
WHOLESALE-NONDURABLE GOODS ²	51	0.0	0.0	0.0
TOTAL		0.68	0.0	0.0

1. SIC- STANDARD INDUSTRIAL CLASSIFICATION NUMBER. STANDARD INDUSTRIAL CLASSIFICATION MANUAL, 1972. EXECUTIVE OFFICE OF THE PRESIDENT, OFFICE OF MANAGEMENT AND BUDGET.
2. THIS IS A BROAD CATEGORY, BUT IN THE SJRWMD IT ONLY INCLUDES FRUIT AND VEGETABLE WHOLESALING INDUSTRIES.

TABLE 9 INDUSTRIAL SELF-SUPPLIED WATER USE
OKLAHOMA RIVER BASIN
1978

INDUSTRIAL CLASSIFICATION	SIC ¹	WATER WITHDRAWN (MGD)		
		FRESH		SALINE
		GROUND	SURFACE	SURFACE
INSTITUTIONS	--	1.47	0.10	0.0
METAL MINING	10	0.0	0.0	0.0
MINING NON-METALLIC MINERALS	14	5.75	0.0	0.0
FOOD & KINDRED PRODUCTS	20	10.74	0.0	0.0
TOBACCO MANUFACTURES	21	0.0	0.0	0.0
LUMBER & WOOD PRODUCTS	24	0.07	0.0	0.0
PAPER & ALLIED PRODUCTS	26	0.0	0.0	0.0
CHEMICAL & ALLIED PRODUCTS	28	0.01	0.0	0.0
LEATHER & LEATHER PRODUCTS	31	0.0	0.0	0.0
STONE, CLAY & GLASS PRODUCTS	32	0.0	0.0	0.0
FABRICATED METAL PRODUCTS	34	0.01	0.0	0.0
MACHINERY, EXCEPT ELECTRICAL	35	0.0	0.0	0.0
ELECTRIC & ELECTRONIC EQUIPMENT	36	0.0	0.0	0.0
TRANSPORTATION EQUIPMENT	37	0.0	0.0	0.0
INSTRUMENTS & RELATED PRODUCTS	38	0.0	0.0	0.0
MISC. MANUFACTURING	39	0.0	0.0	0.0
WHOLESALE-NONDURABLE GOODS ²	51	10.51	0.0	0.0
TOTAL		28.56	0.10	0.0

1. SIC- STANDARD INDUSTRIAL CLASSIFICATION NUMBER. STANDARD INDUSTRIAL CLASSIFICATION MANUAL, 1972. EXECUTIVE OFFICE OF THE PRESIDENT. OFFICE OF MANAGEMENT AND BUDGET.

2. THIS IS A BROAD CATEGORY, BUT IN THE SJRWMD IT ONLY INCLUDES FRUIT AND VEGETABLE WHOLESALING INDUSTRIES.

TABLE 10 INDUSTRIAL SELF-SUPPLIED WATER USE
 UPPER COASTAL BASIN
 1978

INDUSTRIAL CLASSIFICATION	SIC ¹	WATER WITHDRAWN (MGD)		
		GROUND	FRESH SURFACE	SALINE SURFACE
INSTITUTIONS	11	0.0	0.0	0.0
METAL MINING	10	0.0	0.0	0.0
MINING NON-METALLIC MINERALS	14	0.0	0.0	0.0
FOOD & KINDRED PRODUCTS	20	0.0	0.0	0.0
TOBACCO MANUFACTURES	21	0.0	0.0	0.0
LUMBER & WOOD PRODUCTS	24	0.0	0.0	0.0
PAPER & ALLIED PRODUCTS	26	0.0	0.0	0.0
CHEMICAL & ALLIED PRODUCTS	28	0.03	0.0	0.0
LEATHER & LEATHER PRODUCTS	31	0.0	0.0	0.0
STONE, CLAY & GLASS PRODUCTS	32	0.0	0.0	0.0
FABRICATED METAL PRODUCTS	34	0.02	0.0	0.0
MACHINERY, EXCEPT ELECTRICAL	35	0.0	0.0	0.0
ELECTRIC & ELECTRONIC EQUIPMENT	36	0.0	0.0	0.0
TRANSPORTATION EQUIPMENT	37	0.0	0.0	0.0
INSTRUMENTS & RELATED PRODUCTS	38	0.0	0.0	0.0
MISC. MANUFACTURING	39	0.0	0.0	0.0
WHOLESALE-NONDURABLE GOODS ²	51	0.0	0.0	0.0
TOTAL		0.05	0.0	0.0

1. SIC- STANDARD INDUSTRIAL CLASSIFICATION NUMBER. STANDARD INDUSTRIAL CLASSIFICATION MANUAL, 1972. EXECUTIVE OFFICE OF THE PRESIDENT, OFFICE OF MANAGEMENT AND BUDGET.
2. THIS IS A BROAD CATEGORY, BUT IN THE SJRWMD IT ONLY INCLUDES FRUIT AND VEGETABLE WHOLESALING INDUSTRIES.

TABLE 11 INDUSTRIAL SELF-SUPPLIED WATER USE
MIDDLE COASTAL BASIN
1978

INDUSTRIAL CLASSIFICATION	SIC ¹	WATER WITHDRAWN (MGD)		SALINE SURFACE
		GROUND	FRESH SURFACE	
INSTITUTIONS	11	0.0	0.0	0.0
METAL MINING	10	0.0	0.0	0.0
MINING NON-METALLIC MINERALS	14	0.0	0.0	0.0
FOOD & KINDRED PRODUCTS	20	0.0	0.0	0.0
TOBACCO MANUFACTURES	21	0.0	0.0	0.0
LUMBER & WOOD PRODUCTS	24	0.0	0.0	0.0
PAPER & ALLIED PRODUCTS	26	0.0	0.0	0.0
CHEMICAL & ALLIED PRODUCTS	28	0.22	0.0	0.0
LEATHER & LEATHER PRODUCTS	31	0.0	0.0	0.0
STONE, CLAY & GLASS PRODUCTS	32	0.01	0.0	0.0
FABRICATED METAL PRODUCTS	34	0.0	0.0	0.0
MACHINERY, EXCEPT ELECTRICAL	35	0.0	0.0	0.0
ELECTRIC & ELECTRONIC EQUIPMENT	36	0.0	0.0	0.0
TRANSPORTATION EQUIPMENT	37	0.03	0.0	0.0
INSTRUMENTS & RELATED PRODUCTS	38	0.0	0.0	0.0
MISC. MANUFACTURING	39	0.0	0.0	0.0
WHOLESALE-NONDURABLE GOODS ²	51	0.03	0.0	0.0
TOTAL		0.29	0.0	0.0

1. SIC- STANDARD INDUSTRIAL CLASSIFICATION NUMBER. STANDARD INDUSTRIAL CLASSIFICATION MANUAL, 1972. EXECUTIVE OFFICE OF THE PRESIDENT. OFFICE OF MANAGEMENT AND BUDGET.
2. THIS IS A BROAD CATEGORY, BUT IN THE SJRWMD IT ONLY INCLUDES FRUIT AND VEGETABLE WHOLESALING INDUSTRIES.

TABLE 12 INDUSTRIAL SELF-SUPPLIED WATER USE
 LOWER COASTAL BASIN
 1978

INDUSTRIAL CLASSIFICATION	SIC ¹	WATER WITHDRAWN (MGD)		
		GROUND	FRESH SURFACE	SALINE SURFACE
INSTITUTIONS	--	0.05	0.0	0.0
METAL MINING	10	0.0	0.0	0.0
MINING NON-METALLIC MINERALS	14	0.0	0.0	0.0
FOOD & KINDRED PRODUCTS	20	0.0	0.0	0.0
TOBACCO MANUFACTURES	21	0.0	0.0	0.0
LUMBER & WOOD PRODUCTS	24	0.0	0.0	0.0
PAPER & ALLIED PRODUCTS	26	0.0	0.0	0.0
CHEMICAL & ALLIED PRODUCTS	28	0.0	0.0	0.0
LEATHER & LEATHER PRODUCTS	31	0.0	0.0	0.0
STONE, CLAY & GLASS PRODUCTS	32	0.0	0.0	0.0
FABRICATED METAL PRODUCTS	34	0.0	0.0	0.0
MACHINERY, EXCEPT ELECTRICAL	35	0.0	0.0	0.0
ELECTRIC & ELECTRONIC EQUIPMENT	36	0.0	0.0	0.0
TRANSPORTATION EQUIPMENT	37	0.0	0.0	0.0
INSTRUMENTS & RELATED PRODUCTS	38	0.0	0.0	0.0
MISC. MANUFACTURING	39	0.0	0.0	0.0
WHOLESALE-NONDURABLE GOODS ²	51	1.00	0.0	0.0
TOTAL		1.05	0.0	0.0

1. SIC- STANDARD INDUSTRIAL CLASSIFICATION NUMBER. STANDARD INDUSTRIAL CLASSIFICATION MANUAL, 1972. EXECUTIVE OFFICE OF THE PRESIDENT, OFFICE OF MANAGEMENT AND BUDGET.
2. THIS IS A BROAD CATEGORY, BUT IN THE SURWMD IT ONLY INCLUDES FRUIT AND VEGETABLE WHOLESALING INDUSTRIES.

AGRICULTURAL WATER USE

Agricultural water use consists of irrigation and livestock water use. Both were calculated using data collected from county representatives of the Florida Cooperative Extension Service, the United States Department of Agriculture (USDA) Soil Conservation Service, and the USDA Agricultural Stabilization and Conservation Service.

IRRIGATION WATER USE

Introduction

In order to determine irrigation water use, data collected from the county representatives included total number of acres farmed and irrigated and the types of irrigation systems employed by crop, portion of basin, and county. The modified Blaney-Criddle model for evapotranspiration was then used to determine the amount of supplemental water needed for a crop based on the irrigation method employed, the season the crop was grown, general crop location, and associated atmospheric conditions (USDA, 1967). Where no evapotranspiration data was available to make these calculations, an average annual industry water use figure was used. For example, one hundred inches per year was obtained from the Institute of Food and Agricultural Sciences, University of Florida, as the average annual application rate for ornamentals. Similarly, sixty-five inches per year was obtained from the Volusia County representatives as the average annual application rate for ferns. Improved pasture water use was calculated at 50% of the optimum application rate since improved pasture is rarely irrigated optimally.

Figures 7, 8, and 9 graphically illustrate acres irrigated and irrigation water use. Tables 13 through 32 show the acres farmed and irrigated and the irrigation water use for the entire District and each of the basins. A total of 1,086,060 acres were farmed in the District in 1978; 14% of the total land use. Of this total, approximately 362,870 acres, 33% of all farmed acres, were irrigated in 1978. The major crops in terms of irrigated acreage and total water used were citrus and improved pasture, respectively. Irrigation methods used included variations of sprinklers, tile seepage, flood and seepage, and low pressure-low volume. Twenty-six types of crops were irrigated by one or more of these methods in the District during 1978.

Irrigation water use data is given in both acre-feet per year and million gallons per day (mgd). The mgd figure reflects the amount of water that would be used each day if irrigation occurred every day of the year, although this does not occur in practice. Application rates are shown in inches per year. Individual county irrigation water use data can be found in Appendices A-9 through A-46.

Findings

Irrigation required more fresh water in the District than any other category: 44% of the total fresh water used in 1978. Approximately 650.64 million gallons of fresh water per day was withdrawn for the irrigation of 362,870 acres. Of this total, 67% was ground water and 33% was surface water.

Irrigation water use increased by 18% between 1975 and 1978. Acres irrigated also increased between those three years by 19%. The use of ground water for irrigation purposes increased by 50% during this interval, while surface water use decreased by 31% (SJRWMD, 1977: I-14).

These figures show a shift from the use of surface water to ground water for irrigation purposes between 1975 and 1978.

Irrigation water use is found primarily in the three basins of the St. Johns River, the Lower Coastal Basin, and the Oklawaha River Basin. Irrigation use in the three St. Johns River Basins accounted for 37% of the total irrigation withdrawal for the entire District, using approximately 240.08 mgd. While there was a variety of crops irrigated in these basins, the majority of the water used was for improved pasture, 57% of the total irrigation withdrawal for these basins.

In the Lower Coastal Basin, 217.79 million gallons of fresh water per day were withdrawn, 33% of the total water used for irrigation in the District. Approximately 53% of the total water used for irrigation in this basin was for citrus, and 46% for improved pasture. The Lower Coastal Basin was the only basin in which more surface water was used for irrigation than ground water, approximately 43% more.

Irrigation in the Oklawaha River Basin required 166.28 mgd of fresh water, 25% of the District total irrigation water use. Like the Lower Coastal Basin, the major irrigation water user was accounted for by the citrus industry, approximately 57%. The remaining 71 mgd of water used in this basin served the irrigation needs of twenty other crops. Eighty-three percent of the total irrigation water used in this basin was ground water.

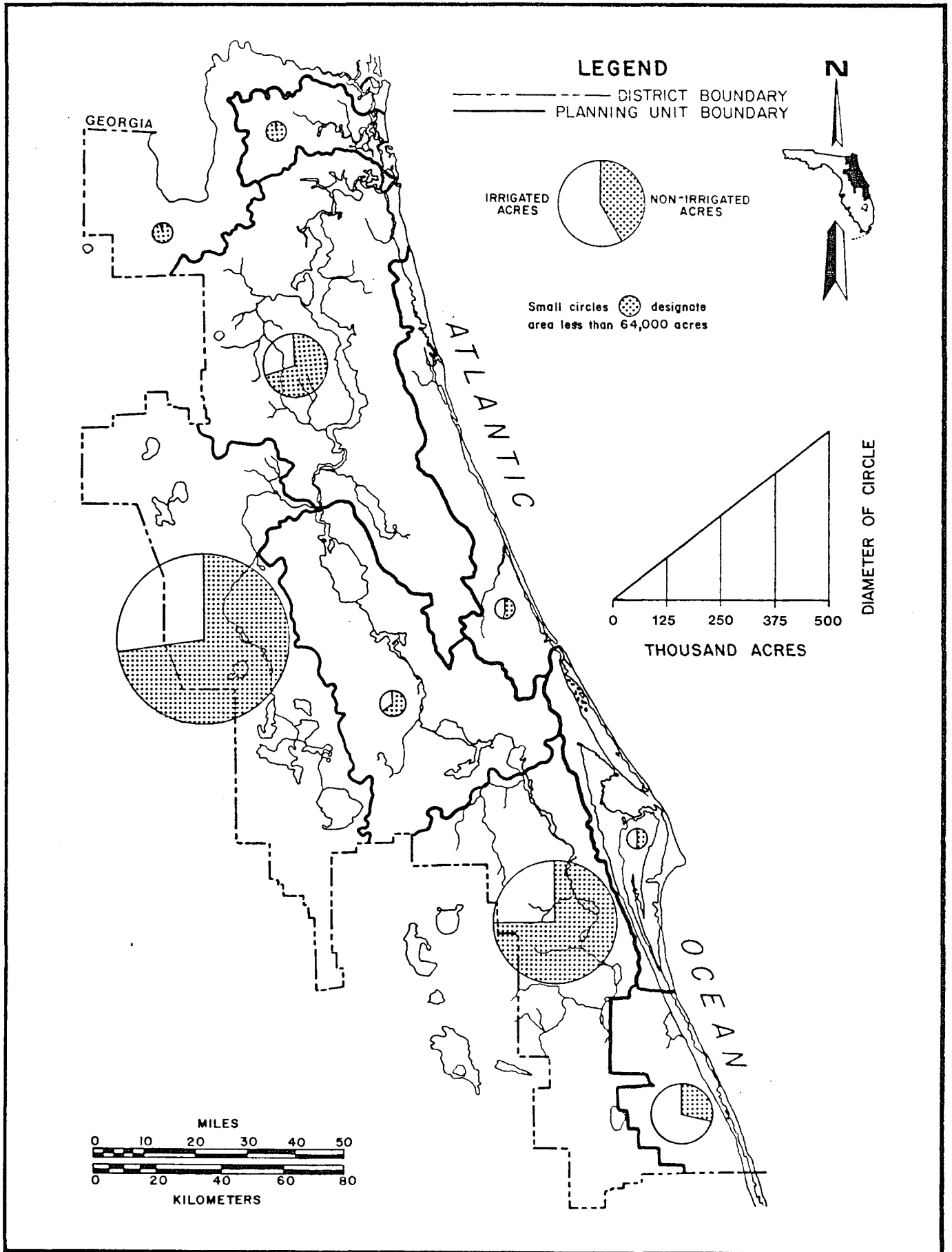


Figure 7 Acres Farmed and Irrigated by Basins, 1978

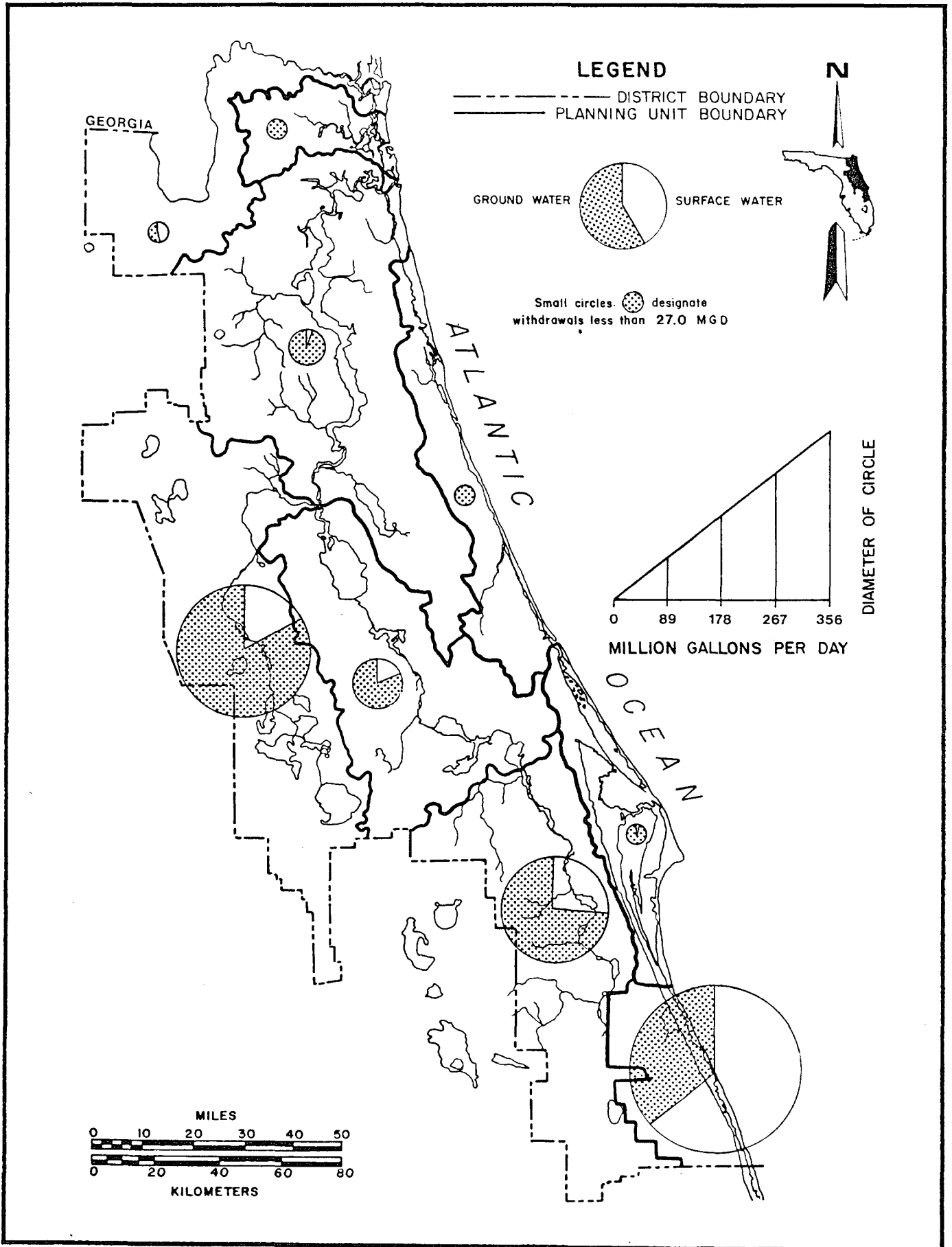


Figure 8

Irrigation Water Use by Basins, 1978

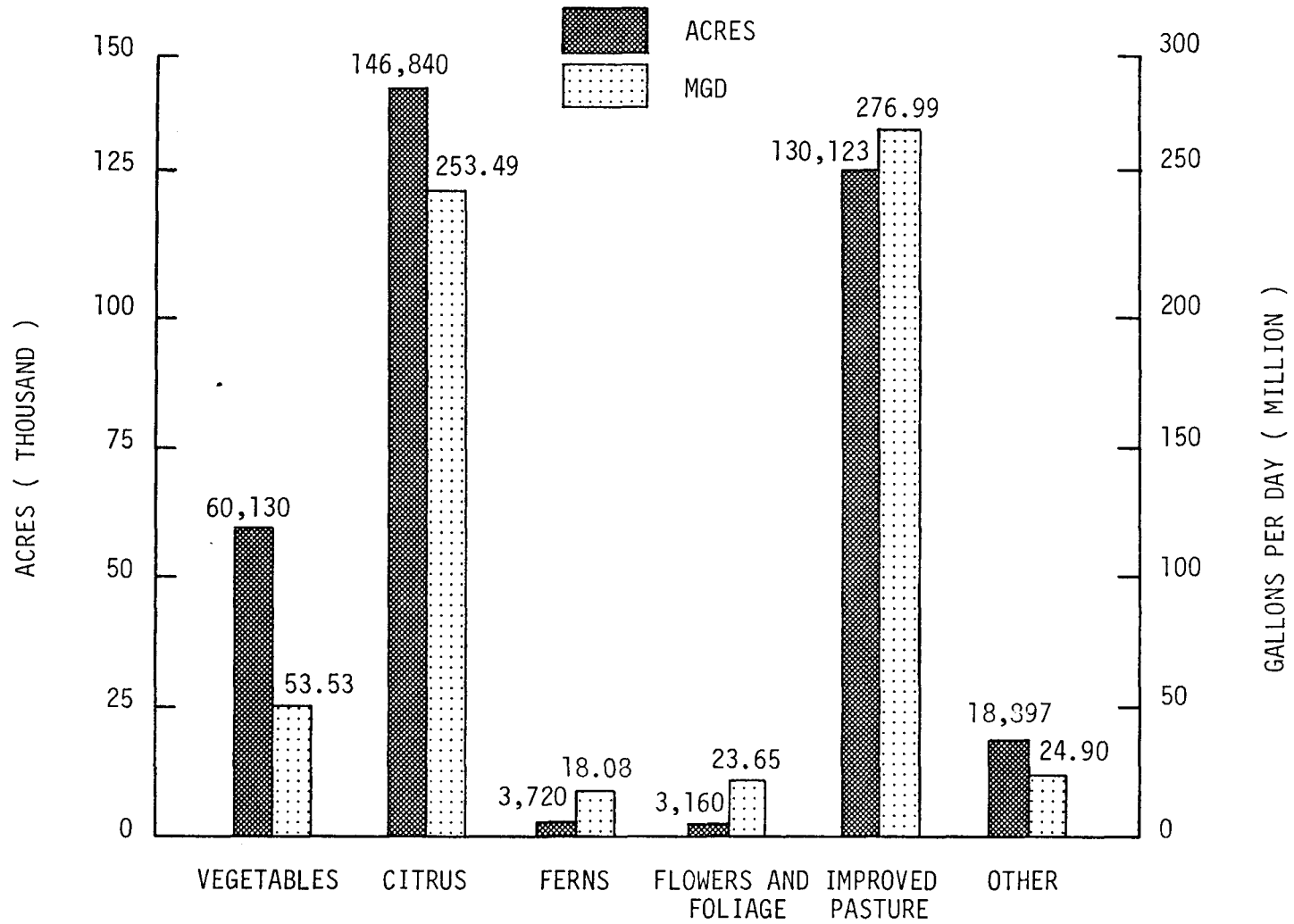


Figure 9.

Irrigated Acres and Irrigation Water Use For Selected Crops
St. Johns River Water Management District 1978.

TABLE 13 ACRES FARMED AND IRRIGATED
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
1978

TOTAL AREA IN THE DISTRICT 7,915,586 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SERINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	12,430	12,430	24	71	5	0
CARROTS	2,000	2,000	16	0	84	0
CUCUMBERS	1,825	1,825	2	88	10	0
POTATOES	21,200	21,200	6	83	4	7
SWEET CORN	2,040	2,040	16	2	82	0
WATERCRESS	100	100	0	0	100	0
MISC. VEGETABLES	21,244	20,535	25	6	68	1
BLUEBERRIES	170	86	70	3	2	25
CITRUS	268,980	146,840	63	1	33	3
GRAPES	90	85	88	0	0	12
PEACHES	1,250	1,150	100	0	0	0
PEANUTS	3,451	588	100	0	0	0
PECANS	3,040	40	0	0	0	100
WATERMELONS	3,557	2,193	100	0	0	0
MISC. FRUITS	15	15	100	0	0	0
FIELD CORN	23,395	6,130	36	34	30	0
SORGHUM	4,500	3,000	0	100	0	0
SOYBEANS	17,475	3,075	90	10	0	0
TOBACCO	323	95	100	0	0	0
MISC. GRAINS	13,300	1,050	100	0	0	0
FERNS	4,920	3,720	100	0	0	0
FLOWERS & FOLIAGE	4,260	3,160	58	3	8	31
IMPROVED PASTURE	674,605	130,123	3	5	92	0
SHRUBS	190	190	100	0	0	0
SOD	1,700	1,200	67	0	33	0
TOTAL	1,086,060	362,870				

TABLE 14 IRRIGATION WATER USE
ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN (ACFT/YR)			WATER WITHDRAWN (MGD)		
		GROUND	SURFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	6.18-15.79	4,851	182	5,033	4.35	0.16	4.51
CARROTS	9.87-15.79	4,947	0	4,947	4.43	0.0	4.43
CUCUMBERS	9.87-15.79	279	0	279	0.25	0.0	0.25
POTATOES	7.86-12.41	17,269	310	17,579	15.47	0.28	15.75
SWEET CORN	9.87-15.79	4,947	0	4,947	4.43	0.0	4.43
WATERCRESS	13.20	110	0	110	0.10	0.0	0.10
MISC. VEGETABLES	1.04-32.00	23,636	3,197	26,833	21.19	2.87	24.06
BLUEBERRIES	8.00	52	9	61	0.04	0.01	0.05
CITRUS	12.24-32.10	137,086	128,469	265,555	137.43	116.06	253.49
GRAPES	8.00	47	7	54	0.04	0.0 ¹	0.04
PEACHES	32.35	3,044	224	3,268	2.73	0.20	2.93
PEANUTS	7.50	340	28	368	0.31	0.02	0.33
PECANS	33.33	83	28	111	0.08	0.03	0.11
WATERMELONS	6.52 - 7.61	1,176	140	1,316	1.06	0.12	1.18
MISC. FRUIT	7.02	7	2	9	0.01	0.0 ¹	0.01
FIELD CORN	11.51-22.69	9,290	514	9,804	8.31	0.47	8.78
SORGHUM	13.80	3,450	0	3,450	3.09	0.0	3.09
SOYBEANS	7.77-16.87	2,805	509	3,314	2.52	0.45	2.97
TOBACCO	2.00 - 8.00	43	12	55	0.04	0.01	0.05
MISC. GRAINS	14.08	986	246	1,232	0.88	0.22	1.10
FERNS	65.00	14,734	5,417	20,151	13.22	4.86	18.08
FLOWERS & FOLIAGE	100.00	24,999	1,335	26,334	22.42	1.23	23.65
IMPROVED PASTURE	11.13-49.44	202,951	99,765	302,716	186.77	90.22	276.99
SHRUBS	100.00	1,266	317	1,583	1.13	0.28	1.41
SOD	26.27-54.90	3,109	66	3,175	2.79	0.06	2.85
TOTAL		461,507	240,777	702,284	433.09	217.55	650.64

1. A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE 15 ACRES FARMED AND IRRIGATED

NASSAU RIVER BASIN

1978

TOTAL AREA IN THE BASIN 350,000 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SPRINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	0	0	0	0	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	0	0	0	0	0	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	30	0	0	0	0	0
BLUERERRIES	0	0	0	0	0	0
CITRUS	0	0	0	0	0	0
GRAPES	0	0	0	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	0	0	0	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	705	0	0	0	0	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	0	0	0	0	0	0
TOBACCO	0	0	0	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	0	0	0	0	0	0
FLOWERS & FOLIAGE	15	15	100	0	0	0
IMPROVED PASTURE	3,316	4	50	0	50	0
SHRUBS	0	0	0	0	0	0
SOD	0	0	0	0	0	0
TOTAL	4,066	19				

TABLE 16 IRRIGATION WATER USE

NASSAU RIVER BASIN

1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN (ACFT/YR)			WATER WITHDRAWN (MGD)		
		GROUND	SURFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	0.0	0	0	0	0.0	0.0	0.0
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	0.0	0	0	0	0.0	0.0	0.0
BLUEBERRIES	0.0	0	0	0	0.0	0.0	0.0
CITRUS	0.0	0	0	0	0.0	0.0	0.0
GRAPES	0.0	0	0	0	0.0	0.0	0.0
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	0.0	0	0	0	0.0	0.0	0.0
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	0.0	0	0	0	0.0	0.0	0.0
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	0.0	0	0	0	0.0	0.0	0.0
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	0.0	0	0	0	0.0	0.0	0.0
FLOWERS & FOLIAGE	100.00	125	0	125	0.11	0.0	0.11
IMPROVED PASTURE	26.39	6	2	8	0.01	0.0 ¹	0.01
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOB	0.0	0	0	0	0.0	0.0	0.0
TOTAL		131	2	133	0.12	0.0 ¹	0.12

1. A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE 17 ACRES FARMED AND IRRIGATED

ST. MARYS RIVER BASIN

1978

TOTAL AREA IN THE BASIN 539,000 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SPRINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	0	0	0	0	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	0	0	0	0	0	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	282	129	100	0	0	0
BLUEBERRIES	4	1	100	0	0	0
CITRUS	0	0	0	0	0	0
GRAPES	2	1	100	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	0	0	0	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	4,895	0	0	0	0	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	0	0	0	0	0	0
TOBACCO	223	15	100	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	0	0	0	0	0	0
FLOWERS & FOLIAGE	1,205	105	100	0	0	0
IMPROVED PASTURE	7,494	4	50	0	50	0
SHRUBS	0	0	0	0	0	0
SOU	0	0	0	0	0	0
TOTAL	14,105	255				

TABLE 18 IRRIGATION WATER USE

ST. MARYS RIVER BASIN

1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN (ACFT/YR)			WATER WITHDRAWN (MGD)		
		GROUND	SURFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	0.0	0	0	0	0.0	0.0	0.0
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	3.01-11.31	77	73	150	0.06	0.07	0.13
BLUEBERRIES	8.00	1	0	1	0.0	0.0	0.0 ¹
CITRUS	0.0	0	0	0	0.0	0.0	0.0
GRAPES	8.00	1	0	1	0.0	0.0	0.0 ¹
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	0.0	0	0	0	0.0	0.0	0.0
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	0.0	0	0	0	0.0	0.0	0.0
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	0.0	0	0	0	0.0	0.0	0.0
TOBACCO	2.00	2	0	2	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	0.0	0	0	0	0.0	0.0	0.0
FLOWERS & FOLIAGE	100.0-109.5	461	417	878	0.42	0.37	0.79
IMPROVED PASTURE	26.89	8	0	8	0.01	0.0	0.01
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOB	0.0	0	0	0	0.0	0.0	0.0
TOTAL		550	490	1,040	0.49	0.44	0.93

1. A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE 19 ACRES FARMED AND IRRIGATED

LOWER ST. JOHNS RIVER BASIN

1978

TOTAL AREA IN THE BASIN 1,844,000 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SPRINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	10,250	10,250	28	72	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	18,840	18,840	7	85	8	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	670	462	24	76	0	0
BLUEBERRIES	53	8	63	37	0	0
CITRUS	1,100	300	33	67	0	0
GRAPES	18	14	100	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	0	0	0	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	3,450	2,300	0	78	22	0
SORGHUM	4,200	2,700	0	100	0	0
SOYBEANS	2000	200	0	100	0	0
TOBACCO	0	0	0	0	0	0
MISC. GRAINS	2,800	0	0	0	0	0
FERNS	150	150	100	0	0	0
FLOWERS & FOLIAGE	357	357	3	24	71	2
IMPROVED PASTURE	102,155	7,437	1	86	13	0
SHRUBS	0	0	0	0	0	0
SOB	0	0	0	0	0	0
TOTAL	146,043	43,018				

TABLE 20 IRRIGATION WATER USE

LOWER ST. JOHNS RIVER BASIN

1978

CROPE	APPLICATION RATE (IN/YR)	WATER WITHDRAWN (ACFT/YR)			WATER WITHDRAWN (MGD)		
		GROUND	SURFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	6.18-7.85	3,886	182	4,068	3.49	0.16	3.65
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	9.68-12.41	15,374	310	15,684	13.77	0.28	14.05
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	6.18-9.68	3,605	1	3,606	3.23	0.0 ¹	3.23
BLUEBERRIES	8.00	3	3	6	0.0	0.0 ¹	0.0
CITRUS	16.81-26.89	485	34	519	0.43	0.03	0.46
GRAPES	8.00	6	3	9	0.01	0.0 ¹	0.01
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	0.0	0	0	0	0.0	0.0	0.0
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	21.69-22.69	4,104	95	4,199	3.67	0.08	3.75
SORGHUM	13.80	3,105	0	3,105	2.78	0.0 ¹	2.78
SOYBEANS	16.87	281	0	281	0.25	0.0	0.25
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	65.00	732	81	813	0.66	0.07	0.73
FLOWERS & FOLIAGE	100.00	2,730	244	2,974	2.44	0.21	2.65
IMPROVED PASTURE	11.91-24.08	13,237	1,417	14,654	11.86	1.26	13.12
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOD	0.0	0	0	0	0.0	0.0	0.0
TOTAL		47,548	2,370	49,918	42.59	2.09	44.68

1. A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE 21 ACRES FARMED AND IRRIGATED

MIDDLE ST. JOHNS RIVER BASIN

1978

TOTAL AREA IN THE BASIN 1,044,000 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SPRINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	1,400	1,400	0	100	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	1,600	1,600	0	100	0	0
POTATOES	0	0	0	0	0	0
SWEET CORN	40	40	0	100	0	0
WATERCRESS	100	100	0	0	100	0
MISC. VEGETABLES	2,280	2,193	0	40	60	0
BLUEBERRIES	0	0	0	0	0	0
CITRUS	14,545	4,275	87	3	0	10
GRAPES	0	0	0	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	0	0	0	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	560	360	50	20	30	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	100	100	0	100	0	0
TOBACCO	0	0	0	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	4,490	3,314	100	0	0	0
FLOWERS & FOLIAGE	1,537	1,537	60	0	0	40
IMPROVED PASTURE	34,524	6,188	39	0	61	0
SHRUBS	0	0	0	0	0	0
SOD	300	300	0	0	100	0
TOTAL	61,476	21,407				

TABLE 22 IRRIGATION WATER USE

MIDDLE ST. JOHNS RIVER BASIN

1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN (ACFT/YR)			WATER WITHDRAWN (MGD)		
		GROUND	SURFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	0.0	0	0	0	0.0	0.0	0.0
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	13.20	110	0	110	0.10	0.0	0.10
MISC. VEGETABLES	9.87-10.16	4,360	0	4,360	3.90	0.0	3.90
BLUEBERRIES	0.0	0	0	0	0.0	0.0	0.0
CITRUS	13.46-26.89	5,132	1,393	6,525	4.61	1.24	5.85
GRAPES	0.0	0	0	0	0.0	0.0	0.0
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	0.0	0	0	0	0.0	0.0	0.0
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	11.51-22.69	466	19	485	0.41	0.02	0.43
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	14.67	122	0	122	0.11	0.0	0.11
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	65.00	12,978	4,973	17,951	11.64	4.46	16.10
FLOWERS & FOLIAGE	100.00	12,725	83	12,809	11.41	0.09	11.50
IMPROVED PASTURE	17.16-27.45	20,031	6,241	26,272	17.96	5.59	23.55
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOD	26.27	591	66	657	0.53	0.06	0.59
TOTAL		56,515	12,775	69,290	50.67	11.46	62.13

TABLE 23 ACRES FARMED AND IRRIGATED

UPPER ST. JOHNS RIVER BASIN

1978

TOTAL AREA IN THE BASIN 1,186,712 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SERINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	0	0	0	0	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	800	800	0	0	100	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	217	213	2	0	0	98
BLUEBERRIES	0	0	0	0	0	0
CITRUS	25,694	18,304	93	2	4	1
GRAPES	0	0	0	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	2	2	100	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	710	650	0	0	100	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	0	0	0	0	0	0
TOBACCO	0	0	0	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	0	0	0	0	0	0
FLOWERS & FOLIAGE	1	1	100	0	0	0
IMPROVED PASTURE	256,004	51,078	1	0	99	0
SHRUBS	19	19	100	0	0	0
SOD	800	800	100	0	0	0
TOTAL	284,247	71,867				

TABLE 24 IRRIGATION WATER USE

UPPER ST. JOHNS RIVER BASIN

1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN (ACFT/YR)			WATER WITHDRAWN (MGD)		
		GROUND	SURFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	9.55	637	0	637	0.57	0.0	0.57
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	9.87-15.79	267	34	301	0.23	0.03	0.26
BLUEBERRIES	0.0	0	0	0	0.0	0.0	0.0
CITRUS	12.24-32.10	21,097	12,724	33,821	18.84	11.41	30.25
GRAPES	0.0	0	0	0	0.0	0.0	0.0
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	0.0	0	0	0	0.0	0.0	0.0
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	11.33	603	0	603	0.54	0.0	0.54
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	0.0	0	0	0	0.0	0.0	0.0
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	0.0	0	0	0	0.0	0.0	0.0
FLOWERS & FOLIAGE	100.00	8	1	9	0.01	0.01	0.01
IMPROVED PASTURE	17.16-49.44	84,698	26,494	111,192	75.88	23.76	99.64
SHRUBS	100.00	126	32	158	0.11	0.04	0.15
SOD	30.90	2,060	0	2,060	1.85	0.0	1.85
TOTAL		109,496	39,285	148,781	98.03	35.24	133.27

1. A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE 25 ACRES FARMED AND IRRIGATED

OKLAHAWA RIVER BASIN

1978

TOTAL AREA IN THE BASIN 1,729,000 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SERINKLER	TILE SEEEAGE	FLOOD AND SEEEAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	780	780	16	0	84	0
CARROTS	2,000	2,000	16	0	84	0
CUCUMBERS	225	225	16	0	84	0
POTATOES	0	0	0	0	0	0
SWEET CORN	2,000	2,000	16	0	84	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	16,461	16,281	30	0	70	0
BLUEBERRIES	113	77	69	0	2	29
CITRUS	160,711	67,675	94	0	1	5
GRAPES	70	70	71	0	0	29
PEACHES	1,250	1,150	100	0	0	0
PEANUTS	3,451	588	100	0	0	0
PECANS	3,040	40	0	0	0	100
WATERMELONS	3,500	2,163	100	0	0	0
MISC. FRUITS	15	15	100	0	0	0
FIELD CORN	12,875	2,620	77	0	23	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	15,375	2,775	100	0	0	0
TOBACCO	100	80	100	0	0	0
MISC. GRAINS	10,500	1,050	100	0	0	0
FERNS	196	196	100	0	0	0
FLOWERS & FOLIAGE	1,065	1,065	70	0	0	30
IMPROVED PASTURE	165,025	7,725	15	0	85	0
SHRUBS	0	0	0	0	0	0
SOD	600	100	0	0	100	0
TOTAL	399,352	108,675				

TABLE 26 IRRIGATION WATER USE

OKLAHOMA RIVER BASIN

1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN (ACFT/YR)			WATER WITHDRAWN (MGD)		
		GROUND	SURFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	9.87-15.79	965	0	965	0.86	0.0	0.86
CARROTS	9.87-15.79	4,947	0	4,947	4.43	0.0	4.43
CUCUMBERS	9.87-15.79	279	0	279	0.25	0.0	0.25
POTATOES	0.0	0	0	0	0.0	0.0	0.0
SWEET CORN	9.87-15.79	4,947	0	4,947	4.43	0.0	4.43
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	7.02-15.79	14,390	3,063	17,453	12.91	2.75	15.66
BLUEBERRIES	8.00	48	6	54	0.04	0.01	0.05
CITRUS	16.59-26.89	85,628	20,731	106,359	76.70	18.58	95.28
GRAPES	8.00	40	4	44	0.04	0.0 ¹	0.04
PEACHES	32.35	3,044	224	3,268	2.73	0.20	2.93
PEANUTS	7.50	340	28	368	0.31	0.02	0.33
PECANS	33.33	83	28	111	0.08	0.03	0.11
WATERMELONS	6.52	1,167	132	1,299	1.06	0.12	1.18
MISC. FRUIT	7.02	7	2	9	0.01	0.0 ¹	0.01
FIELD CORN	13.78-22.96	3,755	400	4,155	3.37	0.37	3.74
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	7.77-14.37	2,402	509	2,911	2.16	0.45	2.61
TOBACCO	8.00	41	12	53	0.04	0.01	0.05
MISC. GRAINS	14.08	986	246	1,232	0.88	0.22	1.10
FERNS	65.00	797	265	1,062	0.71	0.24	0.95
FLOWERS & FOLIAGE	100.00	8,299	575	8,874	7.44	0.53	7.97
IMPROVED PASTURE	17.28-20.78	20,804	5,844	26,648	18.65	5.25	23.90
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOD	54.90	458	0	458	0.41	0.0	0.41
TOTAL		153,427	32,069	185,496	137.51	28.77	166.28

1. A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE 27 ACRES FARMED AND IRRIGATED

UPPER COASTAL BASIN

1978

TOTAL AREA IN THE BASIN 377,000 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SERINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE-- LOW VOLUME
CABBAGE	0	0	0	0	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	1,560	1,560	0	100	0	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	1,120	1,120	0	3	97	0
BLUEBERRIES	0	0	0	0	0	0
CITRUS	0	0	0	0	0	0
GRAPES	0	0	0	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	0	0	0	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	200	200	0	100	0	0
SORGHUM	300	300	0	100	0	0
SOYBEANS	0	0	0	0	0	0
TOBACCO	0	0	0	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	84	60	100	0	0	0
FLOWERS & FOLIAGE	58	58	33	34	0	33
IMPROVED PASTURE	4,125	125	0	100	0	0
SHRUBS	0	0	0	0	0	0
SOD	0	0	0	0	0	0
TOTAL	7,447	3,423				

TABLE 28 IRRIGATION WATER USE

UPPER COASTAL BASIN

1978

CROP	APPLICATION	WATER WITHDRAWN			WATER WITHDRAWN		
	RATE (IN/YR)	GROUND	SUBFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	9.68	1,258	0	1,258	1.13	0.0	1.13
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	8.07 - 9.87	27	0	27	0.03	0.0	0.03
BLUEBERRIES	0.0	0	0	0	0.0	0.0	0.0
CITRUS	0.0	0	0	0	0.0	0.0	0.0
GRAPES	0.0	0	0	0	0.0	0.0	0.0
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	0.0	0	0	0	0.0	0.0	0.0
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	21.69	362	0	362	0.32	0.0	0.32
SORGHUM	13.80	345	0	345	0.31	0.0	0.31
SOYBEANS	0.0	0	0	0	0.0	0.0	0.0
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	0.0	0	0	0	0.0	0.0	0.0
FLOWERS & FOLIAGE	100.00	167	0	167	0.15	0.0	0.15
IMPROVED PASTURE	20.86-20.98	217	0	217	0.20	0.0	0.20
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOO	0.0	0	0	0	0.0	0.0	0.0
TOTAL		2,376	0	2,376	2.14	0.0	2.14

TABLE 29 ACRES FARMED AND IRRIGATED

MIDDLE COASTAL BASIN

1978

TOTAL AREA IN THE BASIN 487,000 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SPRINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	0	0	0	0	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	0	0	0	0	0	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	154	116	33	0	67	0
BLUEBERRIES	0	0	0	0	0	0
CITRUS	10,350	4,665	49	0	45	6
GRAPES	0	0	0	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	46	23	100	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	0	0	0	0	0	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	0	0	0	0	0	0
TOBACCO	0	0	0	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	0	0	0	0	0	0
FLOWERS & FOLIAGE	16	16	50	0	0	50
IMPROVED PASTURE	18,255	9,000	0	0	100	0
SHRUBS	57	57	100	0	0	0
SOD	0	0	0	0	0	0
TOTAL	28,878	13,877				

TABLE 30 IRRIGATION WATER USE

MIDDLE COASTAL BASIN

1978

CROP	APPLICATION	WATER WITHDRAWN			WATER WITHDRAWN		
	RATE (IN/YR)	GROUND	(ACFT/YR) SURFACE	TOTAL	GROUND	(MGD) SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	0.0	0	0	0	0.0	0.0	0.0
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	15.26	21	22	43	0.02	0.02	0.04
BLUEBERRIES	0.0	0	0	0	0.0	0.0	0.0
CITRUS	12.24-22.04	6,047	754	6,801	5.42	0.67	6.09
GRAPES	0.0	0	0	0	0.0	0.0	0.0
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	7.48	7	7	14	0.01	0.01	0.02
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	0.0	0	0	0	0.0	0.0	0.0
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	0.0	0	0	0	0.0	0.0	0.0
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	0.0	0	0	0	0.0	0.0	0.0
FLOWERS & FOLIAGE	100.00	109	24	133	0.11	0.02	0.13
IMPROVED PASTURE	49.44	18,540	0	18,540	16.62	0.0	16.62
SHRUBS	100.00	399	76	475	0.35	0.07	0.42
SOD	0.0	0	0	0	0.0	0.0	0.0
TOTAL		25,123	893	26,006	22.53	0.79	23.32

TABLE 31 ACRES FARMED AND IRRIGATED

LOWER COASTAL BASIN

1978

TOTAL AREA IN THE BASIN 358,000 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SPRINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	0	0	0	0	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	0	0	0	0	0	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	30	22	33	0	67	0
BLUEBERRIES	0	0	0	0	0	0
CITRUS	56,580	51,621	12	0	87	1
GRAPES	0	0	0	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	9	5	100	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	0	0	0	0	0	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	0	0	0	0	0	0
TURACCO	0	0	0	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	0	0	0	0	0	0
FLOWERS & FOLIAGE	6	6	100	0	0	0
IMPROVED PASTURE	83,707	48,562	0	0	100	0
SHRUBS	114	114	100	0	0	0
SOD	0	0	0	0	0	0
TOTAL	140,446	100,330				

TABLE 32 IRRIGATION WATER USE

LOWER COASTAL BASIN

1978

CROP	APPLICATION	WATER WITHDRAWN			WATER WITHDRAWN		
	RATE (IN/YR)	GROUND	(ACFT/YR) SURFACE	TOTAL	GROUND	(MGD) SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	0.0	0	0	0	0.0	0.0	0.0
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	9.54-15.26	892	4	896	0.81	0.0	0.81
BLUEBERRIES	0.0	0	0	0	0.0	0.0	0.0
CITRUS	12.24-32.10	35,074	93,872	128,946	31.43	84.13	115.56
GRAPES	0.0	0	0	0	0.0	0.0	0.0
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	7.48	2	1	3	0.0	0.0	0.0 ¹
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	0.0	0	0	0	0.0	0.0	0.0
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	0.0	0	0	0	0.0	0.0	0.0
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	65.00	227	98	325	0.21	0.09	0.30
FLOWERS & FOLIAGE	100.00	309	57	366	0.28	0.05	0.33
IMPROVED PASTURE	11.13-49.44	50,850	60,644	111,494	45.58	54.36	99.94
SHRUBS	100.00	807	143	950	0.72	0.13	0.85
SOD	0.0	0	0	0	0.0	0.0	0.0
TOTAL		88,161	154,819	242,980	79.03	138.76	217.79

1. A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE OF A WITHDRAWAL OF LESS THAN 0.01 MGD.

LIVESTOCK WATER USE

Introduction

In order to determine livestock water use, data collected from the county representatives included the number of individual animals in each of the livestock categories for each portion of a basin within the 19 counties. To derive water use estimates for each category of livestock, the total number of animals was multiplied by gallons per day per animal use factors estimated by the Florida Cooperative Extension Service. The livestock water use factors include both animal drinking water needs and dairy cattle washdown uses.

Figure 10 graphically presents livestock water use for 1978. Tables 33 through 42 demonstrate livestock water use for the District and each basin. Included in the tables are the use per animal in gallons per day (gpd), the number of animals in each category, and the total water withdrawn for each livestock category in million gallons per day. County livestock water use data can be found in Appendices A-47 through A-65.

Findings

In 1978, 7.77 mgd of fresh ground water and 8.87 mgd of fresh surface water was withdrawn for livestock water use. Dairy cattle required the most water, 4.32 mgd of ground water and 4.77 mgd of surface water.

In 1975, 4.70 mgd of ground water and 1.60 mgd of surface water was withdrawn for livestock drinking water use in the District. (SJRWMD 1977: I-24). Figures for 1975 do not include water withdrawn for dairy cattle washdown water use (SJRWMD, 1977: I-23).

The Lower St. Johns River Basin had the most water withdrawn for livestock purposes, 4.73 mgd, approximately 28% of the total water used for livestock in the District in 1978. Otherwise, livestock water use is fairly evenly divided between all but the coastal basins.

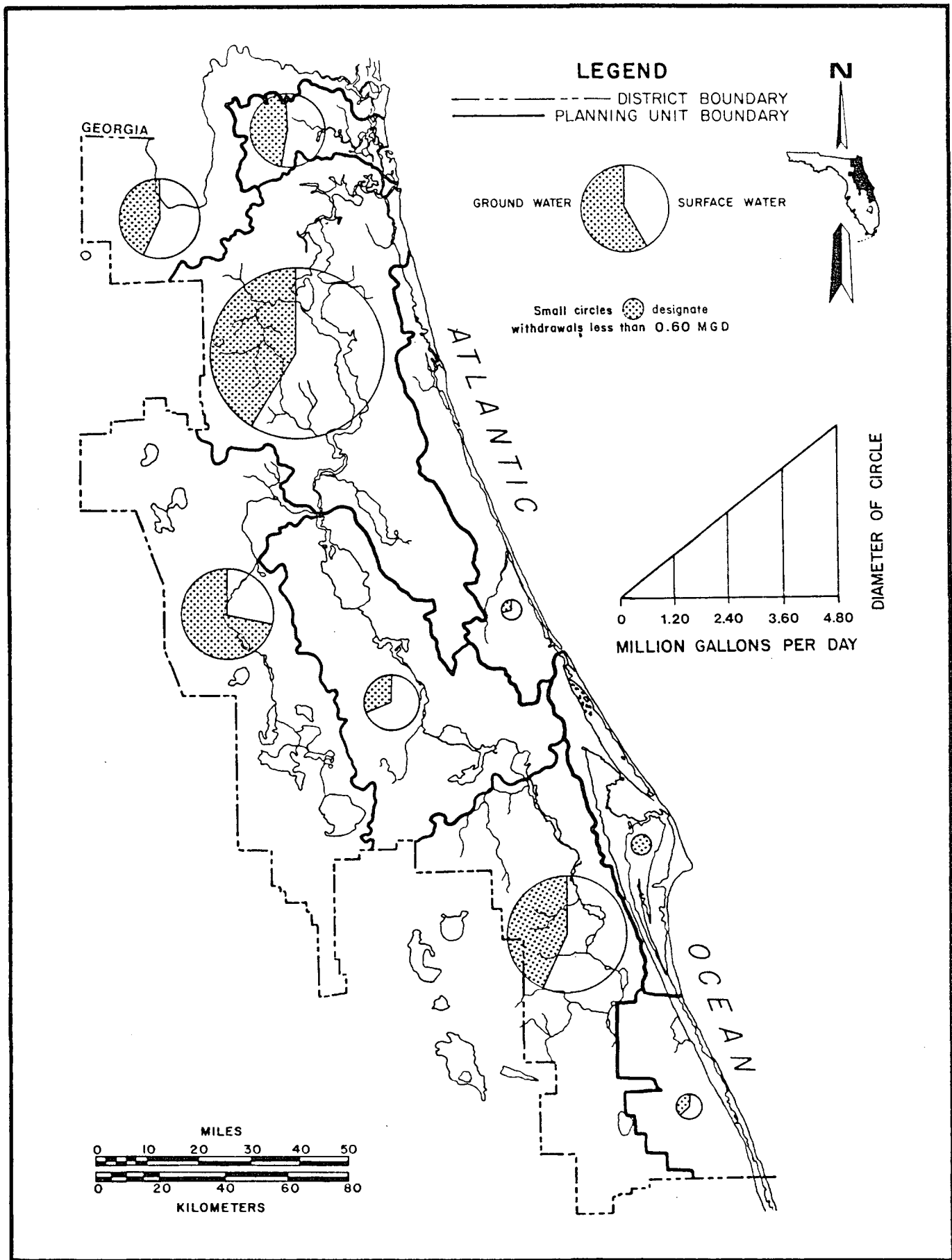


Figure 10

Livestock Water Use by Basins, 1978

TABLE 33 LIVESTOCK WATER USE
 ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
 1978

LIVESTOCK	USE PER ANIMAL (GPD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		
			GROUND	SURFACE	TOTAL
BEEF CATTLE	12	447,149	2.60	3.10	5.70
CHICKENS	0.10	12,509,700	0.51	0.76	1.27
DAIRY CATTLE	150	60,465	4.32	4.77	9.09
DOGS	0.10	2,850	0.0	0.0	0.0
GOATS	2	5,578	0.01	0.0	0.01
HOGS	2	58,941	0.06	0.02	0.08
HORSES	12	42,800	0.27	0.22	0.49
RABBITS	0.05	815	0.0	0.0	0.0
SHEEP	2	2,266	0.0	0.0	0.0
TURKEYS	1	83	0.0	0.0	0.0
TOTAL			7.77	8.87	16.64

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE 34 LIVESTOCK WATER USE

NASSAU RIVER BASIN

1978

LIVESTOCK	USE PER ANIMAL (MGD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		
			GROUND	SURFACE	TOTAL
BEEF CATTLE	12	58,500	0.34	0.35	0.69
CHICKENS	0.10	356,619	0.02	0.02	0.04
DAIRY CATTLE	150	8,200	0.57	0.66	1.23
DOGS	0.10	100	0.0	0.0	0.0
GOATS	2	316	0.0	0.0	0.0
HOGS	2	2,500	0.0	0.0	0.0
HORSES	12	5,500	0.03	0.04	0.07
RABBITS	0.05	300	0.0	0.0	0.0
SHEEP	2	0	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			0.96	1.07	2.03

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE 35 LIVESTOCK WATER USE

ST. MARYS RIVER BASIN

1978

LIVESTOCK	USE PER ANIMAL (GPD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		TOTAL
			GROUND	SURFACE	
BEEF CATTLE	12	78,400	0.46	0.48	0.94
CHICKENS	0.10	7,443,542	0.30	0.44	0.74
DAIRY CATTLE	150	3,000	0.17	0.32	0.49
DOGS	0.10	0	0.0	0.0	0.0
GOATS	2	411	0.0	0.0	0.0
HOGS	2	6,850	0.0	0.0	0.0
HORSES	12	5,975	0.02	0.03	0.05
RABBITS	0.05	0	0.0	0.0	0.0
SHEEP	2	0	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			0.95	1.27	2.22

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE 36 LIVESTOCK WATER USE

LOWER ST. JOHNS RIVER BASIN

1978

LIVESTOCK	USE PER ANIMAL (GPD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		TOTAL
			GROUND	SURFACE	
BEEF CATTLE	12	47,000	0.27	0.29	0.56
CHICKENS	0.10	510,539	0.02	0.03	0.05
DAIRY CATTLE	150	26,750	1.57	2.43	4.00
DOGS	0.10	555	0.0	0.0	0.0
GOATS	2	585	0.0	0.0	0.0
HOGS	2	16,767	0.02	0.01	0.03
HORSES	12	7,762	0.04	0.05	0.09
RABBITS	0.05	300	0.0	0.0	0.0
SHEEP	2	74	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			1.92	2.81	4.73

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE 37 LIVESTOCK WATER USE
MIDDLE ST. JOHNS RIVER BASIN
1978

LIVESTOCK	USE PER ANIMAL (GPD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		TOTAL
			GROUND	SURFACE	
BEEF CATTLE	12	22,933	0.12	0.16	0.28
CHICKENS	0.1	2,137,500	0.08	0.16	0.24
DAIRY CATTLE	150	2,825	0.09	0.33	0.42
DOGS	0.10	1,168	0.0	0.0	0.0
GOATS	2	196	0.0	0.0	0.0
HOGS	2	4,550	0.0	0.0	0.0
HORSES	12	5,355	0.02	0.04	0.06
RABBITS	0.05	400	0.0	0.0	0.0
SHEEP	2	57	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			0.31	0.69	1.00

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE 38 LIVESTOCK WATER USE

UPPER ST. JOHNS RIVER BASIN

1978

LIVESTOCK	USE PER ANIMAL (GPD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		
			GROUND	SURFACE	TOTAL
BEEF CATTLE	12	136,702	0.50	1.12	1.62
CHICKENS	0.10	0	0.0	0.0	0.0
DAIRY CATTLE	150	9,525	0.88	0.55	1.43
DOGS	0.10	130	0.0	0.0	0.0
GOATS	2	271	0.0	0.0	0.0
HOGS	2	5,993	0.01	0.0	0.01
HORSES	12	6,982	0.05	0.03	0.08
RABBITS	0.05	98	0.0	0.0	0.0
SHEEP	2	272	0.0	0.0	0.0
TURKEYS	1	33	0.0	0.0	0.0
TOTAL			1.44	1.70	3.14

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE 39 LIVESTOCK WATER USE

OKLAHOMA RIVER BASIN

1978

LIVESTOCK	USE PER ANIMAL (GPD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		
			GROUND	SURFACE	TOTAL
BEEF CATTLE	12	81,614	0.67	0.31	0.98
CHICKENS	0.10	1,255,500	0.07	0.05	0.12
DAIRY CATTLE	150	8,500	0.97	0.30	1.27
DOGS	0.10	712	0.0	0.0	0.0
GOATS	2	3,560	0.0	0.0	0.0
HOGS	2	18,072	0.03	0.01	0.04
HORSES	12	8,712	0.08	0.03	0.11
RABBITS	0.05	0	0.0	0.0	0.0
SHEEP	2	1,855	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			1.82	0.70	2.52

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE 40 LIVESTOCK WATER USE
UPPER COASTAL BASIN
1978

LIVESTOCK	USE PER ANIMAL (GPD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		
			GROUND	SURFACE	TOTAL
BEEF CATTLE	12	2,550	0.02	0.01	0.03
CHICKENS	0.10	760,000	0.02	0.06	0.08
DAIRY CATTLE	150	850	0.03	0.10	0.13
DOGS	0.10	150	0.0	0.0	0.0
GOATS	2	125	0.0	0.0	0.0
HOGS	2	925	0.0	0.0	0.0
HORSES	12	425	0.0	0.0	0.0
RABBITS	0.05	0	0.0	0.0	0.0
SHEEP	2	6	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			0.07	0.17	0.24

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE 41 LIVESTOCK WATER USE

MIDDLE COASTAL BASIN

1978

LIVESTOCK	USE PER ANIMAL (GPD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		
			GROUND	SURFACE	TOTAL
BEEF CATTLE	12	0	0.0	0.0	0.0
CHICKENS	0.10	22,500	0.0	0.0	0.0
DAIRY CATTLE	150	0	0.0	0.0	0.0
DOGS	0.10	35	0.0	0.0	0.0
GOATS	2	80	0.0	0.0	0.0
HOGS	2	84	0.0	0.0	0.0
HORSES	12	1,303	0.02	0.0	0.02
RABBITS	0.05	33	0.0	0.0	0.0
SHEEP	2	2	0.0	0.0	0.0
TURKEYS	1	33	0.0	0.0	0.0
TOTAL			0.02	0.0	0.02

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE 42 LIVESTOCK WATER USE
 LOWER COASTAL BASIN
 1978

LIVESTOCK	USE PER ANIMAL (GPD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		TOTAL
			GROUND	SURFACE	
BEEF CATTLE	12	49,450	0.22	0.38	0.60
CHICKENS	0.10	23,500	0.0	0.0	0.0
DAIRY CATTLE	150	815	0.04	0.08	0.12
DOGS	0.10	0	0.0	0.0	0.0
GOATS	2	34	0.0	0.0	0.0
HOGS	2	3,200	0.0	0.0	0.0
HORSES	12	786	0.01	0.0	0.01
RABBITS	0.05	17	0.0	0.0	0.0
SHEEP	2	0	0.0	0.0	0.0
TURKEYS	1	17	0.0	0.0	0.0
TOTAL			0.27	0.46	0.73

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

THERMOELECTRIC POWER GENERATION WATER USE

Introduction

Data for thermoelectric power generation water use was collected by the USGS from the 11 power plants in operation within the District in 1978. There are four power plants in the Lower St. Johns Basin, three in the Middle St. Johns Basin, two in the Middle Coastal, and one each in the Oklawaha, and Lower Coastal Basins. Of the 11 plants in operation, four use fresh water, six are predominately dependent upon saline water, and one uses publicly supplied water.

Although thermoelectric power generation water use is a type of industrial self-supplied use, it has traditionally been set off as a separate category because of the vast amount of water used. Most of the water used by thermoelectric power plants is for cooling purposes, the rest is for boiler-feed and domestic uses. Some plants use public supplied water for boiler-feed and domestic uses and these figures are reflected in the public supply table. The only plant exclusively dependent upon public supply water for all uses is the Gainesville John Kelly Plant. Its water use is similarly reflected in the public supply table. In general, surface water is used by thermoelectric power plants for cooling purposes while groundwater is withdrawn to meet other needs.

Two general methods of cooling are used in the District, once-through and closed-system. In all thermoelectric power plants, large amounts of cooling water are passed through condenser tubes to remove waste heat produced during the steam-generation cycle. In a once-through cooling system, water is withdrawn from and subsequently returned to the source following its passage through the condenser tubes.

In a closed-system, water is recycled through utilization of cooling towers or ponds. Additional water is withdrawn for makeup purposes. Within the District, three power plants utilize closed-systems for cooling purposes. All three use fresh water for their cooling needs. Eight power plants utilize the once-through cooling method, two using fresh water and six using saline water.

Figure 11 graphically depicts thermoelectric power generation cooling water use by basins for 1978. Table 43 presents total water use data for thermoelectric power generation for the District as a whole and for each of the nine basins. Data on power plants for individual counties can be found in Appendix A-62.

Findings

In 1978, 306.70 mgd of fresh surface water and 2,748.00 mgd of saline surface water was withdrawn for cooling purposes by thermoelectric power plants. The use of fresh surface water decreased by 44% from 1975 (SJRWMD, 1977: I-19). This decrease was predominately due to the replacement of a once-through cooling plant operated in Putnam County by Florida Power and Light with a new closed system plant. By comparison, the use of saline surface water for cooling purposes increased by 14% between 1975 and 1978. There was also an increase in annual kilowatt-hours (KWH) of electricity generated between 1975 and 1978. Approximately 19,235.47 million KWH was generated in 1978, as compared to 16,727.0 million KWH in 1975.

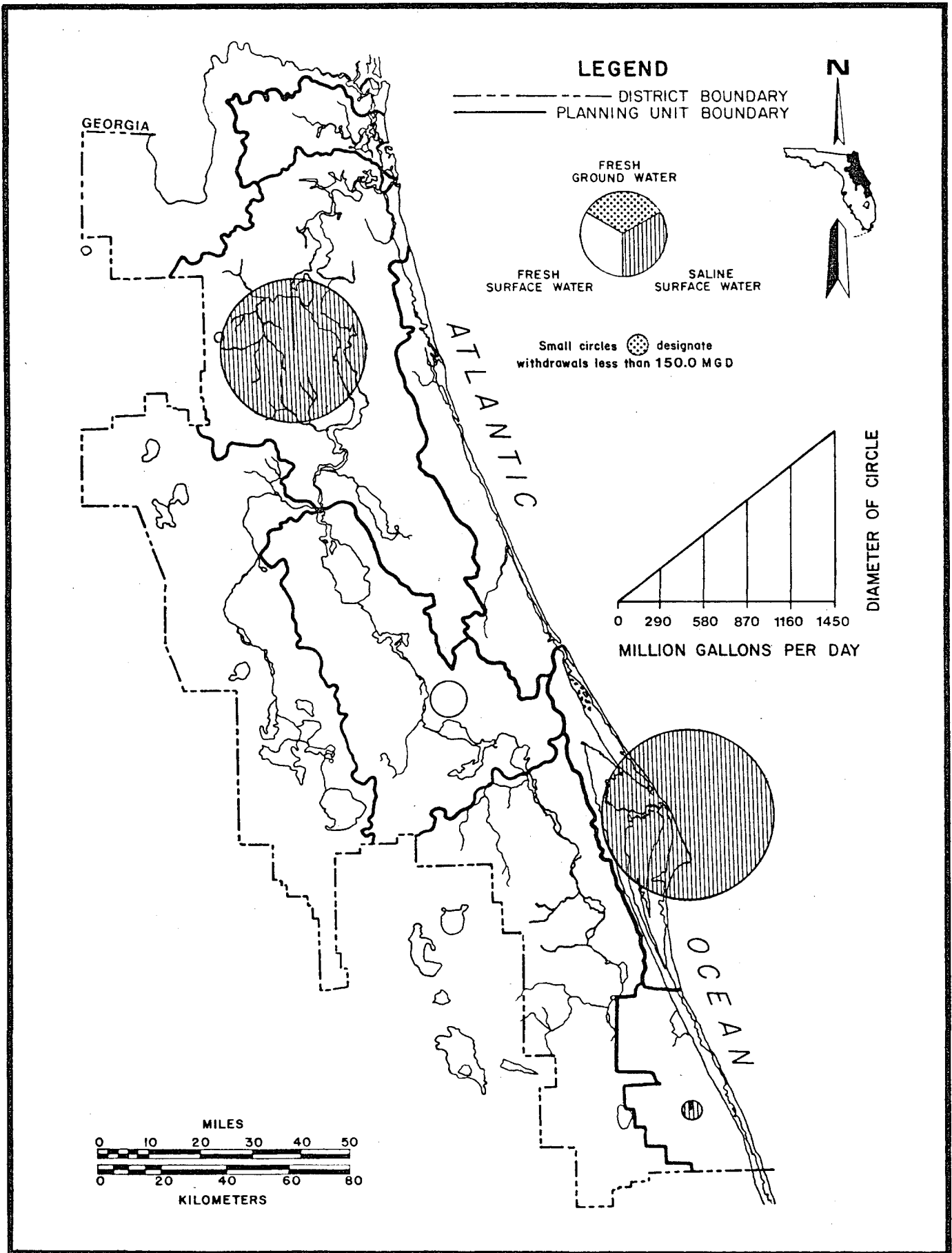


Figure 11 Thermoelectric Power Generation Cooling Water Use by Basins, 1978

TABLE 43 THERMOELECTRIC POWER GENERATION WATER USE

BASINS

1978

BASINS	COOLING			DIWER		TOTAL			ANNUAL GENERATION (MILLION KWH)
	FRESH		SALINE	FRESH		FRESH		SALINE	
	GROUND	SURFACE	SURFACE	GROUND	GROUND	SURFACE	SURFACE		
NASSAU RIVER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ST. MARYS RIVER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LOWER ST. JOHNS RIVER	0.0	0.33	1,225.00	0.17	0.17	0.33	1,225.00	6,799.94	
MIDDLE ST. JOHNS RIVER	0.0	306.37	0.0	0.32	0.32	306.37	0.0	4,780.57	
UPPER ST. JOHNS RIVER	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
OKLAWAHA RIVER ¹	0.0	0.0	0.0	0.0	0.0	0.0	0.0	238.00	
UPPER COASTAL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
MIDDLE COASTAL	0.0	0.0	1,457.00	0.10	0.10	0.0	1,457.00	7,416.96	
LOWER COASTAL	1.50	0.0	66.00	0.0	1.50	0.0	66.00	321.50	
DISTRICT TOTAL	1.50	306.70	2,748.00	0.59	2.09	306.70	2,748.00	19,556.97	

1. PUBLIC SUPPLIED WATER IN THE AMOUNT OF 0.51 MGD IS USED FOR COOLING IN THE OKLAWAHA RIVER BASIN. THIS USE IS REFLECTED IN THE PUBLIC SUPPLY TABLE.

TOTAL WATER USE

Figure 12 graphically illustrates total water use by basins during 1978. Tables 44 through 54 summarize total water use within the District and each of its nine basins. Population and per capita use figures are also included in these tables. Total per capita use is derived by dividing total water used by total population. Similar data for counties can be found in Appendices A-63 through A-81.

Total water use in the District in 1978 was approximately 4,276.99 mgd, serving the needs of 2,088,600 people. Of this total, 1,483.99 mgd of fresh water and 2,793.00 mgd of saline water were withdrawn.

Total water use increased by 6% between 1975 and 1978 (SJRWMD, 1977:48). Fresh water use decreased by 6%, and saline water use increased by 15% during this interval. The decrease in total fresh water use was due solely to the decrease in fresh water use for thermoelectric power generation, as fresh water use in all other categories increased between 1975 and 1978. The saline water use increase during this period was due to an increase in saline use by both of the major saline-dependent categories, thermoelectric power generation and self-supplied industries.

Of the 1,483.99 mgd of fresh water used in the District during 1978, approximately 901.32 mgd came from ground water sources and 582.67 mgd from surface water sources. While the use of fresh ground water increased by 26% between 1975 and 1978, the use of fresh surface water decreased by 35%. The reduction in fresh surface water use can be attributed to decreases in fresh surface water withdrawals for irrigation and thermoelectric power generation purposes. The increase in withdrawal of fresh ground water was greatest for irrigation purposes (50%),

although there were increased ground water withdrawals for public supply, domestic self-supplied, industrial self-supplied, and livestock categories between 1975 and 1978 as well.

The total per capita use for the District in 1978 was 2,015.6 gpcd. In 1975, the total per capita use for the District was 1,961.2 gpcd (SJRWMD, 1977). Both of these figures are lower than the 1975 statewide figure of 2,200 gpcd (Leach, 1978:36). By comparison, a national average of 1,900 gpcd was withdrawn during 1975 (Murray and Reeves, 1977: 8).

The per capita use of fresh water in the District during 1978 was 710 gpcd. Again by comparison, in 1975 the District's fresh water per capita use was 783.7 gpcd (SJRWMD, 1977), while that for Florida was slightly more than 800 gpcd (Leach, 1978:36), and for the United States, 1,600 gpcd (Murray and Reeves, 1977:8).

Within the District, total water use was greatest in the Lower St. Johns River Basin. Thirty-one percent of the total District population lies within this basin, and for all population-dependent water use categories - Public, Domestic, and Industrial Self-Supplied - the Lower St. Johns River Basin had the largest total withdrawals of water. Additionally, the Lower St. Johns River Basin had the largest total withdrawals for the Thermoelectric Power Generation and Livestock categories.

Fresh water use was greatest in the Middle St. Johns Basin due primarily to the large withdrawals for thermoelectric power generation. Other basins that experienced large withdrawals of fresh water were the Lower St. Johns River Basin, the Oklawaha River Basin, and the Lower Coastal Basin, respectively.

Looking to the future, total water use within the District can generally be expected to increase along with population. However, there are factors besides population that may influence this general trend. Changing attitudes towards conservation of our water resources, new water use methods in power plants, industries, and agriculture, and climatological conditions may all serve to affect this expected trend.

In subsequent water use surveys, estimations of future water use needs will be made. In addition, climatological data will be correlated with the water use data. Combination of this information with that of water availability studies will provide government, industry, agriculture, and the public with a valuable resource management and planning tool.

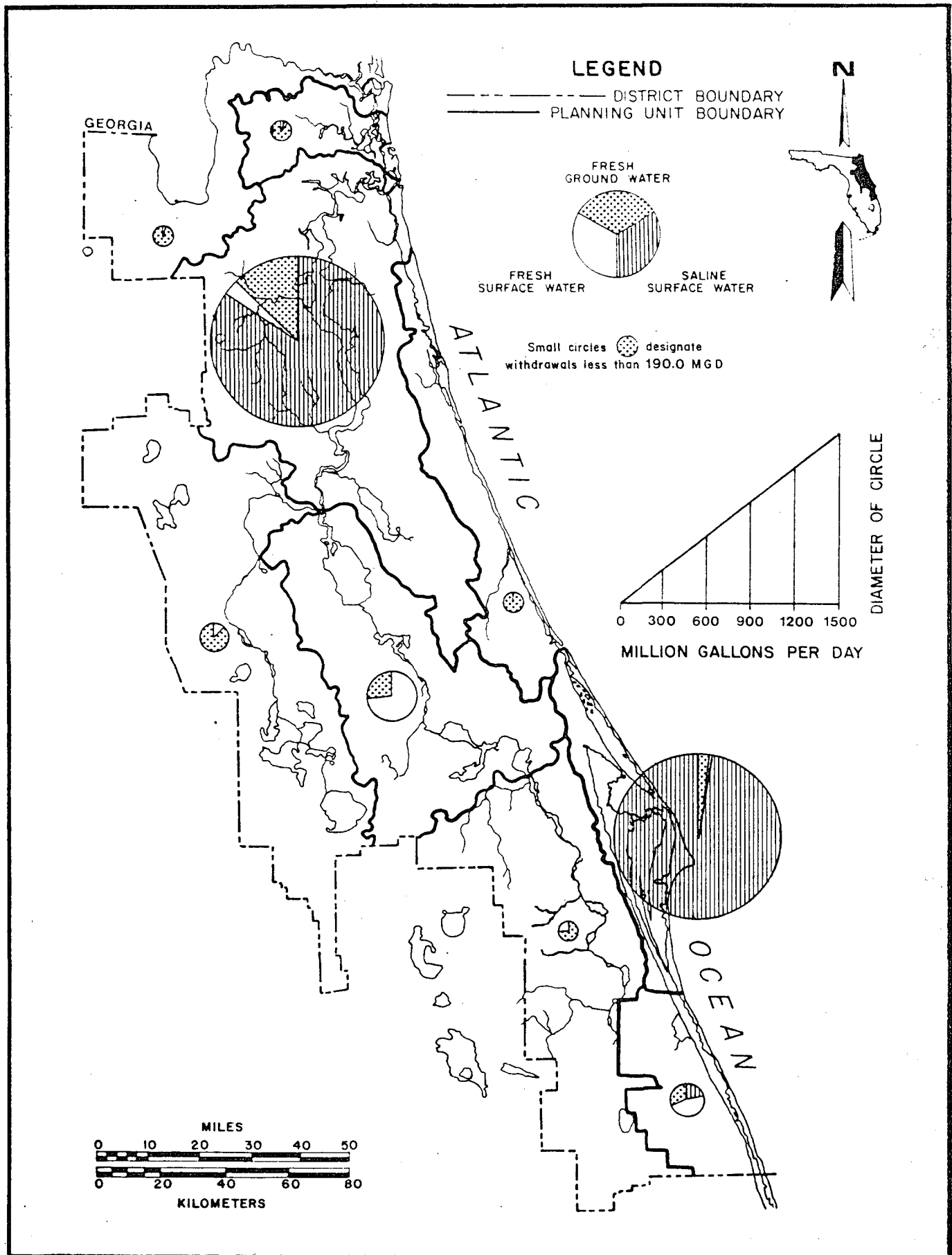


Figure 12

Total Water Use by Basins, 1978

TABLE 44 TOTAL WATER USE
 ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
 1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	GROUND	FRESH SURFACE	TOTAL	SALINE SURFACE	TOTAL
PUBLIC	224.38	9.46	233.84	0.0	233.84
DOMESTIC ¹	75.29	0.0	75.29	0.0	75.29
INDUSTRIAL ¹	158.70	40.10	198.80	45.00	243.80
IRRIGATION	433.09	217.54	650.63	0.0	650.63
LIVESTOCK	7.77	8.87	16.64	0.0	16.64
THERMOELECTRIC POWER ¹	2.09	306.70	308.79	2,748.00	3,056.79
TOTAL	901.32	582.67	1,483.99	2,793.00	4,276.99

TOTAL POPULATION (THOUSANDS) 2,088.6 TOTAL PER CAPITA USE (GPD) 2,048.0

1. SELF-SUPPLIED ONLY.

TABLE 45 TOTAL WATER USE

NASSAU RIVER BASIN

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	GROUND	FRESH SURFACE	TOTAL	SALINE SURFACE	TOTAL
PUBLIC	0.23	0.0	0.23	0.0	0.23
DOMESTIC	1.95	0.0	1.95	0.0	1.95
INDUSTRIAL	0.0	0.0	0.0	0.0	0.0
IRRIGATION	0.12	0.0	0.12	0.0	0.12
LIVESTOCK	0.96	1.07	2.03	0.0	2.03
THERMOELECTRIC POWER	0.0	0.0	0.0	0.0	0.0
TOTAL	3.26	1.07	4.33	0.0	4.33

TOTAL POPULATION (THOUSANDS) 17.4

TOTAL PER CAPITA USE (GPD) 248.9

1. SELF-SUPPLIED ONLY.

TABLE 46 TOTAL WATER USE

ST. MARYS RIVER BASIN

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				TOTAL
	GROUND	FRESH SURFACE	TOTAL	SALINE SURFACE	
PUBLIC	3.02	0.0	3.02	0.0	3.02
DOMESTIC	2.41	0.0	2.41	0.0	2.41
INDUSTRIAL	59.19	0.0	59.19	2.0	61.19
IRRIGATION	0.49	0.44	0.93	0.0	0.93
LIVESTOCK	0.95	1.27	2.22	0.0	2.22
THERMOELECTRIC POWER	0.0	0.0	0.0	0.0	0.0
TOTAL	66.06	1.71	67.77	2.0	69.77

TOTAL POPULATION (THOUSANDS) 35.2

TOTAL PER CAPITA USE (GPD) 1,982.1

1. SELF-SUPPLIED ONLY.

TABLE 47 TOTAL WATER USE
 LOWER ST. JOHNS RIVER BASIN
 1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	GROUND	FRESH SURFACE	TOTAL	SALINE SURFACE	TOTAL
PUBLIC	63.57	0.0	63.57	0.0	63.57
DOMESTIC ¹	28.80	0.0	28.80	0.0	28.80
INDUSTRIAL ¹	63.87	40.00	103.87	43.00	146.87
IRRIGATION	42.58	2.09	44.67	0.0	44.67
LIVESTOCK	1.92	2.81	4.73	0.0	4.73
THERMOELECTRIC POWER ¹	0.17	0.33	0.50	1,225.00	1,225.50
TOTAL	200.91	45.23	246.14	1,268.00	1,514.14
TOTAL POPULATION (THOUSANDS)		643.1	TOTAL PER CAPITA USE (GPD)		2,354.9

1. SELF-SUPPLIED ONLY.

TABLE 48 TOTAL WATER USE
MIDDLE ST. JOHNS RIVER BASIN
1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	GROUND	FRESH SURFACE	TOTAL	SALINE SURFACE	TOTAL
PUBLIC	53.49	0.0	53.49	0.0	53.49
DOMESTIC ¹	4.83	0.0	4.83	0.0	4.83
INDUSTRIAL ¹	5.02	0.0	5.02	0.0	5.02
IRRIGATION	50.67	11.46	62.13	0.0	62.13
LIVESTOCK	0.31	0.69	1.00	0.0	1.00
THERMOELECTRIC ¹	0.32	306.37	306.69	0.0	306.69
TOTAL	114.64	318.52	433.16	0.0	433.16

TOTAL POPULATION (THOUSANDS) 363.4 TOTAL PER CAPITA USE (GPD) 1,191.9

1. SELF-SUPPLIED ONLY.

TABLE 49 TOTAL WATER USE
UPPER ST. JOHNS RIVER BASIN
1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	GROUND	FRESH SURFACE	TOTAL	SALINE SURFACE	TOTAL
PUBLIC	34.05	9.46	43.51	0.0	43.51
DOMESTIC ¹	8.11	0.0	8.11	0.0	8.11
INDUSTRIAL ¹	0.68	0.0	0.68	0.0	0.68
IRRIGATION	98.03	35.24	133.27	0.0	133.27
LIVESTOCK	1.44	1.70	3.14	0.0	3.14
THERMOELECTRIC POWER ¹	0.0	0.0	0.0	0.0	0.0
TOTAL	142.41	46.40	188.71	0.0	188.71
TOTAL POPULATION (THOUSANDS)		218.3	TOTAL PER CAPITA USE (GPD)		864.4

1. SELF-SUPPLIED ONLY.

TABLE 50 TOTAL WATER USE

OKLAHOMA RIVER BASIN

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	FRESH			SALINE	
	GROUND	SURFACE	TOTAL	SURFACE	TOTAL
PUBLIC	33.77	0.0	33.77	0.0	33.77
DOMESTIC ¹	14.03	0.0	14.03	0.0	14.03
INDUSTRIAL ¹	28.56	0.10	28.66	0.0	28.66
IRRIGATION	137.51	28.77	166.28	0.0	166.28
LIVESTOCK	1.82	0.70	2.52	0.0	2.52
THERMOELECTRIC POWER ¹	0.0	0.0	0.0	0.0	0.0
TOTAL	215.69	29.57	245.26	0.0	245.26
TOTAL POPULATION (THOUSANDS)		305.2	TOTAL PER CAPITA USE (GPD)		803.6

1. SELF-SUPPLIED ONLY.

TABLE 51 TOTAL WATER USE

UPPER COASTAL BASIN

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	FRESH			SALINE	
	GROUND	SURFACE	TOTAL	SURFACE	TOTAL
PUBLIC	21.24	0.0	21.24	0.0	21.24
DOMESTIC ¹	9.27	0.0	9.27	0.0	9.27
INDUSTRIAL ¹	0.05	0.0	0.05	0.0	0.05
IRRIGATION	2.14	0.0	2.14	0.0	2.14
LIVESTOCK	0.07	0.17	0.24	0.0	0.24
THERMOELECTRIC POWER ¹	0.0	0.0	0.0	0.0	0.0
TOTAL	32.77	0.17	32.94	0.0	32.94
TOTAL POPULATION (THOUSANDS)		224.4	TOTAL PER CAPITA USE (GPD)		146.8

1. SELF-SUPPLIED ONLY.

TABLE 52 TOTAL WATER USE
MIDDLE COASTAL BASIN
1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	FRESH			SALINE	
	GROUND	SURFACE	TOTAL	SURFACE	TOTAL
PUBLIC	6.28	0.0	6.28	0.0	6.28
DOMESTIC ¹	0.70	0.0	0.70	0.0	0.70
INDUSTRIAL ¹	0.29	0.0	0.29	0.0	0.29
IRRIGATION	22.52	0.78	23.30	0.0	23.30
LIVESTOCK	0.02	0.0	0.02	0.0	0.02
THERMOELECTRIC POWER ¹	0.10	0.0	0.10	1,457.00	1,457.10
TOTAL	29.91	0.78	30.69	1,457.00	1,487.69

TOTAL POPULATION (THOUSANDS) 184.5 TOTAL PER CAPITA USE (GPD) 4,458.4

1. SELF-SUPPLIED ONLY.

TABLE 53 TOTAL WATER USE
 LOWER COASTAL BASIN
 1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	GROUND	FRESH SURFACE	TOTAL	SALINE SURFACE	TOTAL
PUBLIC	8.73	0.0	8.73	0.0	8.73
DOMESTIC ¹	5.19	0.0	5.19	0.0	5.19
INDUSTRIAL ¹	1.05	0.0	1.05	0.0	1.05
IRRIGATION	79.03	138.76	217.79	0.0	217.79
LIVESTOCK	0.27	0.46	0.73	0.0	0.73
THERMOELECTRIC POWER ¹	1.50	0.0	1.50	66.00	67.50
TOTAL	95.77	139.22	234.99	66.00	300.99

TOTAL POPULATION (THOUSANDS) 97.1 TOTAL PER CAPITA USE (GPD) 3,099.8

1. SELF-SUPPLIED ONLY.

APPENDICES

APPENDIX A-1
UNIT CONVERSIONS

Units	cm ²	m ²	in. ²	ft. ²	acre	mile ²
1 cm ²	= 1	10 ⁻⁴	0.1550003	1.076391 x 10 ⁻³	2.5 x 10 ⁻⁸	3.861022 x 10 ⁻¹¹
1 m ²	= 10 ⁴	1	1550.003	1076391	2.5 x 10 ⁻⁴	3.861022 x 10 ⁻⁷
1 in. ²	= 6.4516	6.4516 x 10 ⁻⁴	1	6.944444 x 10 ⁻³	1.59 x 10 ⁻⁷	2.490977 x 10 ⁻¹⁰
1 ft. ²	= 929.0304	0.09290304	144.	1	2.3 x 10 ⁻⁵	3.587007 x 10 ⁻⁸
1 acre	= 40.47 x 10 ⁶	4047	6.27 x 10 ⁶	43560	1	1.56 x 10 ⁻³
1 mile ²	= 2.589988 x 10 ¹⁰	2.589988 x 10 ⁶	4.014490 x 10 ⁹	2.78784 x 10	640	1

Units	cm ³	liter	in. ³	ft. ³	gal	acre-ft
1 cm ³	= 1	10 ⁻³	0.06102374	3.531467 x 10 ⁻⁵	2.641721 x 10 ⁻⁴	8.1 x 10 ⁻¹⁰
1 liter	= 1000.	1	61.02374	0.03531467	0.2641721	8.1 x 10 ⁻⁷
1 in. ³	= 16.38706	0.01638706	1	5.787037 x 10 ⁻⁴	4.329004 x 10 ⁻³	1.33 x 10 ⁻⁸
1 ft. ³	= 28316.85	28.31685	1728.	1	7.480520	2.3 x 10 ⁻⁵
1 gal (U.S.)	= 3875.412	3.785412	231.	0.1336806	1	3.07 x 10 ⁻⁶
1 acre-ft.	= 1.23 x 10 ⁹	1.23 x 10 ⁶	75.3 x 10 ⁶	43560	325851	1

TABLE A-2 PUBLIC SUPPLY WATER USE

COUNTIES

1978

COUNTIES	TOTAL ¹ POPULATION (THOUSANDS)	POPULATION SERVED (THOUSANDS)	FRESH WATER WITHDRAWN (MGD)			PER CAPITA USE (MGD)
			GROUND	SURFACE	TOTAL	
ALACHUA ²	115.6	81.4	16.33	0.0	16.33	200.6
BAKER ²	12.4	4.0	0.55	0.0	0.55	137.5
BRADFORD ²	0.2	0.0	0.0	0.0	0.0	-
BREVARD	264.3	227.5	5.38	9.46	14.84	131.0 ³
CLAY	54.3	12.0	1.68	0.0	1.68	140.0
DUVAL	574.0	382.0	59.56	0.0	59.56	155.9
FLAGLER	8.4	3.7	0.52	0.0	0.52	140.5
INDIAN RIVER LAKE ²	52.3	25.2	6.98	0.0	6.98	277.0
LAKE ²	90.5	57.9	10.91	0.0	10.91	188.4
MARTIN ²	77.0	38.5	5.07	0.0	5.07	132.0
NASSAU	31.7	10.2	2.54	0.0	2.54	249.0
OREECHOBEE ²	0.2	0.0	0.0	0.0	0.0	-
ORANGE ²	335.9	309.7	69.16	0.0	69.16	171.7 ³
OSCEOLA ²	0.8	0.0	0.0	0.0	0.0	-
POLK ²	2.8	2.5	0.0	0.0	0.0	130.0 ³
PUTNAM ²	44.6	11.6	2.50	0.0	2.50	215.5
ST. JOHNS	44.5	20.0	2.73	0.0	2.73	136.5
SEMINOLE	149.8	78.6	13.98	0.0	13.98	160.0
VOLUSIA	229.3	196.1	26.49	0.0	26.49	135.1
DISTRICT TOTAL	2,088.6	1,460.9	224.38	9.46	233.84	160.0

1. TOTAL POPULATION FIGURES ARE ESTIMATES FOR JULY 1, 1978 OBTAINED FROM PROJECTIONS OF FLORIDA POPULATION BY COUNTY, BUREAU OF ECONOMIC AND BUSINESS RESEARCH, UNIVERSITY OF FLORIDA.

2. THESE COUNTIES ARE PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

3. PER CAPITA USE CANNOT BE DETERMINED DIRECTLY FROM THE DATA IN THE TABLE DUE TO INTER-BASIN DIVERSIONS.

TABLE A-3 DOMESTIC SELF-SUPPLIED WATER USE

COUNTIES

1978

COUNTIES	SELF-SUPPLIED POPULATION (THOUSANDS)	WATER WITHDRAWN (MGD) ¹		TOTAL
		GROUND	SURFACE	
ALACHUA ²	34.2	4.10	0.0	4.10
BAKER ²	8.4	1.01	0.0	1.01
BRADFORD ²	0.2	0.02	0.0	0.02
BREVARD	36.8	4.42	0.0	4.42
CLAY	42.3	5.08	0.0	5.08
DUVAL	192.0	23.04	0.0	23.04
FLAGLER	4.7	0.57	0.0	0.57
INDIAN RIVER	27.1	3.25	0.0	3.25
LAKE ²	32.6	3.91	0.0	3.91
MARION ²	38.5	4.62	0.0	4.62
NASSAU	21.5	2.58	0.0	2.58
OKEECHOBEE ²	0.2	0.02	0.0	0.02
ORANGE ²	26.2	3.14	0.0	3.14
USCEOLA ²	0.8	0.10	0.0	0.10
POLK ²	0.3	0.04	0.0	0.04
PUTNAM ²	33.0	3.96	0.0	3.96
ST. JOHNS	24.5	2.94	0.0	2.94
SEMINOLE	71.2	8.54	0.0	8.54
VOLUSIA	33.2	3.94	0.0	3.94
TOTAL	627.7	75.29	0.0	75.29

1. THESE FIGURES WERE ESTIMATED BY MULTIPLYING THE SELF-SUPPLIED POPULATION FIGURE BY 120 GALLONS PER CAPITA PER DAY.

2. THESE COUNTIES ARE ONLY PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-4 INDUSTRIAL SELF-SUPPLIED WATER USE

COUNTIES

1978

INDUSTRIAL CLASSIFICATION	SIC ¹	WATER WITHDRAWN (MGD)		
		GROUND	FRESH SURFACE	SALINE SURFACE
ALACHUA ²				
INSTITUTIONS	--	0.61	0.10	0.0
LUMBER & WOOD PRODUCTS	24	0.07	0.0	0.0
TOTAL		0.68	0.10	0.0
BAKER ²				
INSTITUTIONS	--	0.30	0.0	0.0
TOTAL		0.30	0.0	0.0
BRADEED ²				
METAL MINING	10	2.16	0.0	0.0
TOTAL		2.16	0.0	0.0
BREVARD				
CHEMICAL & ALLIED PRODUCTS	28	0.22	0.0	0.0
WHOLESALE - NONDURABLE GOODS ³	51	0.02	0.0	0.0
TOTAL		0.24	0.0	0.0

TABLE A-5 INDUSTRIAL SELF-SUPPLIED WATER USE

COUNTIES

1978

INDUSTRIAL CLASSIFICATION	SIC ¹	WATER WITHDRAWN (MGD)		
		GROUND	FRESH SURFACE	SALINE SURFACE
CLAY				
METAL MINING	10	3.00	0.0	0.0
STONE, CLAY, & GLASS PRODUCTS	32	0.20	0.0	0.0
TOTAL		3.20	0.0	0.0
DUVAL				
INSTITUTIONS	--	8.89	0.0	0.0
FOOD & KINDRED PRODUCTS	20	0.66	0.0	0.0
TABACCO MANUFACTURES	21	0.14	0.0	0.0
PAPER & ALLIED PRODUCTS	26	26.64	19.00	43.00
CHEMICAL & ALLIED PRODUCTS	28	5.30	0.0	0.0
LEATHER & LEATHER PRODUCTS	31	0.01	0.0	0.0
STONE, CLAY, & GLASS PRODUCTS	32	1.02	0.0	0.0
MACHINERY, EXCEPT ELECTRICAL	35	0.01	0.0	0.0
MISC. MANUFACTURING	39	0.31	0.0	0.0
TOTAL		42.98	19.00	43.00
FLAGLER				
TOTAL		0.0	0.0	0.0

TABLE A-6 INDUSTRIAL SELF-SUPPLIED WATER USE

COUNTIES

1978

INDUSTRIAL CLASSIFICATION	SIC ¹	WATER WITHDRAWN (MGD)		
		GROUND	FRESH SURFACE	SALINE SURFACE
INDIAN RIVER				
INSTITUTIONS	--	0.05	0.0	0.0
WHOLESALE - NONDURABLE GOODS ³	51	1.00	0.0	0.0
TOTAL		1.05	0.0	0.0
LAKE ²				
MINING NON-METALLIC MINERALS	14	2.05	0.0	0.0
FOOD & KINDRED PRODUCTS	20	5.17	0.0	0.0
WHOLESALE - NONDURABLE GOODS ³	51	10.25	0.0	0.0
TOTAL		17.47	0.0	0.0
MARION ²				
INSTITUTIONS	--	0.84	0.0	0.0
FOOD & KINDRED PRODUCTS	20	0.04	0.0	0.0
CHEMICAL & ALLIED PRODUCTS	28	0.01	0.0	0.0
TOTAL		0.91	0.0	0.0
NASSAU				
METAL MINING	10	2.16	0.0	0.0
PAPER & ALLIED PRODUCTS	26	56.73	0.0	2.00
TOTAL		58.89	0.0	2.00

TABLE A-7 INDUSTRIAL SELF-SUPPLIED WATER USE

COUNTIES

1978

INDUSTRIAL CLASSIFICATION	SIC	WATER WITHDRAWN (MGD)		SALINE SURFACE
		GROUND	FRESH SURFACE	
ONEECHOREE²				
TOTAL		0.0	0.0	0.0
ORANGE²				
INSTITUTIONS	--	0.68	0.0	0.0
FOOD & KINDRED PRODUCTS	20	6.54	0.0	0.0
FABRICATED METAL PRODUCTS	34	0.01	0.0	0.0
WHOLESALE - NONDURABLE GOODS ³	51	0.27	0.0	0.0
TOTAL		7.52	0.0	0.0
OSCEOLA²				
TOTAL		0.0	0.0	0.0
POLK²				
TOTAL		0.0	0.0	0.0
SEMINOLE²				
MINING NONMETALLIC MINERALS	14	3.70	0.0	0.0
PAPER & ALLIED PRODUCTS	26	14.00	21.00	0.0
MISC. MANUFACTURING	39	1.53	0.0	0.0
TOTAL		19.23	21.00	0.0

TABLE A-8 INDUSTRIAL SELF-SUPPLIED WATER USE

COUNTIES

1978

INDUSTRIAL CLASSIFICATION	SIC ¹	WATER WITHDRAWN (MGD)		
		GROUND	FRESH SURFACE	SALINE SURFACE
ST. JOHNS				
TOTAL		0.0	0.0	0.0
SEMINOLE				
FOOD & KINDRED PRODUCTS	20	3.70	0.0	0.0
FABRICATED METAL PRODUCTS	34	0.02	0.0	0.0
ELECTRIC & ELECTRONIC EQUIPMENT	36	0.05	0.0	0.0
TOTAL		3.77	0.0	0.0
VOLUSIA				
FOOD & KINDRED PRODUCTS	20	0.01	0.0	0.0
CHEMICAL & ALLIED PRODUCTS	28	0.03	0.0	0.0
STONE, CLAY, & GLASS PRODUCTS	32	0.01	0.0	0.0
FABRICATED METAL PRODUCTS	34	0.02	0.0	0.0
ELECTRIC & ELECTRONIC EQUIPMENT	36	0.01	0.0	0.0
TRANSPORTATION EQUIPMENT	37	0.03	0.0	0.0
INSTRUMENTS & RELATED PRODUCTS	38	0.20	0.0	0.0
TOTAL		0.31	0.0	0.0

1. SIC- STANDARD INDUSTRIAL CLASSIFICATION NUMBER. STANDARD INDUSTRIAL CLASSIFICATION MANUAL, 1922. EXECUTIVE OFFICE OF THE PRESIDENT. OFFICE OF MANAGEMENT AND BUDGET.
2. THESE COUNTIES ARE PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.
3. THIS IS A BROAD CATEGORY, BUT IN THE SJRWMD IT ONLY INCLUDES FRUIT AND VEGETABLE WHOLESALING INDUSTRIES.

TABLE A-9 ACRES FARMED AND IRRIGATED

ALACHUA¹

1978

TOTAL AREA IN THE COUNTY 308,380 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SPRINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	0	0	0	0	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	0	0	0	0	0	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	2,626	2,626	100	0	0	0
BLUEBERRIES	25	25	50	0	0	50
CITRUS	200	100	100	0	0	0
GRAPES	20	20	0	0	0	100
PEACHES	250	150	67	0	0	33
PEANUTS	200	100	100	0	0	0
PECANS	3,000	0	0	0	0	0
WATERMELONS	1,250	813	100	0	0	0
MISC. FRUITS	15	15	100	0	0	0
FIELD CORN	7,000	900	100	0	0	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	4,000	2,025	100	0	0	0
TOBACCO	100	80	100	0	0	0
MISC. GRAINS	10,500	1,050	100	0	0	0
FERNS	0	0	0	0	0	0
FLOWERS & FOLIAGE	225	225	90	0	0	10
IMPROVED PASTURE	57,000	1,200	100	0	0	0
SHRUBS	0	0	0	0	0	0
SOD	500	0	0	0	0	0
TOTAL	86,911	9,329				

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-10 IRRIGATION WATER USE

ALACHUA¹

1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN (ACFT/YR)			WATER WITHDRAWN (MGD)		
		GROUND	SURFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	0.0	0	0	0	0.0	0.0	0.0
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	7.02	1,229	307	1,536	1.10	0.28	1.38
BLUEBERRIES	8.00	16	4	20	0.02	0.0 ²	0.02
CITRUS	20.97	140	35	175	0.13	0.03	0.16
GRAPES	8.00	8	2	10	0.01	0.0 ²	0.01
PEACHES	32.35	323	81	404	0.29	0.07	0.36
PEANUTS	7.50	50	13	63	0.05	0.01	0.06
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	6.52	354	88	442	0.32	0.08	0.40
MISC. FRUIT	7.02	7	2	9	0.01	0.0 ²	0.01
FIELD CORN	13.78	827	207	1,034	0.74	0.19	0.93
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	14.37	1,940	485	2,425	1.74	0.43	2.17
TOBACCO	8.0	42	11	53	0.04	0.01	0.05
MISC. GRAINS	14.08	986	246	1,232	0.88	0.22	1.10
FERNS	0.0	0	0	0	0.0	0.0	0.0
FLOWERS & FOLIAGE	100.00	1,500	375	1,875	1.34	0.34	1.68
IMPROVED PASTURE	17.28	1,382	346	1,728	1.24	0.31	1.55
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOB	0.0	0	0	0	0.0	0.0	0.0
TOTAL		8,804	2,202	11,006	7.91	1.97	9.88

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

2. A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE A-11 ACRES FARMED AND IRRIGATED

BAKER¹

1978

TOTAL AREA IN THE COUNTY 342,760 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SERINKLER	TILE SEEEAGE	FLOOD AND SEEEAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	0	0	0	0	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	0	0	0	0	0	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	122	122	100	0	0	0
BLUEBERRIES	0	0	0	0	0	0
CITRUS	0	0	0	0	0	0
GRAPES	0	0	0	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	0	0	0	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	4,050	0	0	0	0	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	0	0	0	0	0	0
TURACCO	166	15	100	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	0	0	0	0	0	0
FLOWERS & FOLIAGE	1,200	100	100	0	0	0
IMPROVED PASTURE	3,600	0	0	0	0	0
SHRUBS	0	0	0	0	0	0
SUD	0	0	0	0	0	0
TOTAL	9,138	237				

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-12 IRRIGATION WATER USE

BAKER¹

1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN (ACFT/YR)			WATER WITHDRAWN (MGD)		
		GROUND	SURFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	0.0	0	0	0	0.0	0.0	0.0
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	12.0 - 32.0	73	73	146	0.06	0.07	0.13
BLUEBERRIES	0.0	0	0	0	0.0	0.0	0.0
CITRUS	0.0	0	0	0	0.0	0.0	0.0
GRAPES	0.0	0	0	0	0.0	0.0	0.0
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	0.0	0	0	0	0.0	0.0	0.0
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	0.0	0	0	0	0.0	0.0	0.0
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	0.0	0	0	0	0.0	0.0	0.0
TOBACCO	2.00	1	1	2	0.0	0.0	0.02
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	0.0	0	0	0	0.0	0.0	0.0
FLOWERS & FOLIAGE	50.00-70.00	417	417	834	0.38	0.37	0.75
IMPROVED PASTURE	0.0	0	0	0	0.0	0.0	0.0
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOD	0.0	0	0	0	0.0	0.0	0.0
TOTAL		491	491	982	0.44	0.44	0.88

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THE PART OF THE COUNTY WITHIN THE SJRWMD.

2. A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE A-13 ACRES FARMED AND IRRIGATED

BREVARD

1978

TOTAL AREA IN THE COUNTY 841,630 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SERINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	0	0	0	0	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	0	0	0	0	0	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	200	150	33	0	67	0
BLUEBERRIES	0	0	0	0	0	0
CITRUS	17,500	10,500	48	0	47	5
GRAPES	0	0	0	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	60	30	100	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	60	0	0	0	0	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	0	0	0	0	0	0
TOBACCO	0	0	0	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	0	0	0	0	0	0
FLOWERS & FOLIAGE	10	10	100	0	0	0
IMPROVED PASTURE	121,700	60,000	0	0	100	0
SHRUBS	190	190	100	0	0	0
SOD	800	800	100	0	0	0
TOTAL	140,520	71,680				

TABLE A-14 IRRIGATION WATER USE

BREVARD

1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN (ACFT/YR)			WATER WITHDRAWN (MGD)		
		GROUND	SURFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	0.0	0	0	0	0.0	0.0	0.0
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	9.54-15.26	28	28	56	0.02	0.03	0.05
BLUEBERRIES	0.0	0	0	0	0.0	0.0	0.0
CITRUS	12.24-22.04	13,845	1,538	15,383	12.40	1.38	13.78
GRAPES	0.0	0	0	0	0.0	0.0	0.0
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	7.48	9	9	18	0.01	0.01	0.02
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	0.0	0	0	0	0.0	0.0	0.0
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	0.0	0	0	0	0.0	0.0	0.0
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	0.0	0	0	0	0.0	0.0	0.0
FLOWERS & FOLIAGE	100.0	68	16	84	0.06	0.02	0.08
IMPROVED PASTURE	49.44	119,521	4,079	123,600	107.14	3.66	110.80
SHRUBS	100.00	1,266	317	1,583	1.13	0.28	1.41
SOD	30.90	2,060	0	2,060	1.85	0.0	1.85
GOLF TURF	0.0	0	0	0	0.0	0.0	0.0
TOTAL		136,797	5,987	142,784	122.61	5.38	127.99

TABLE A-15 ACRES FARMED AND IRRIGATED

CLAY

1978

TOTAL AREA IN THE COUNTY 411,590 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SERINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	0	0	0	0	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	0	0	0	0	0	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	200	100	100	0	0	0
BLUEBERRIES	0	0	0	0	0	0
CITRUS	0	0	0	0	0	0
GRAPES	0	0	0	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	0	0	0	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	0	0	0	0	0	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	0	0	0	0	0	0
TOBACCO	0	0	0	0	0	0
MISC. GRAINS	2,800	0	0	0	0	0
FERNS	0	0	0	0	0	0
FLOWERS & FOLIAGE	50	50	20	0	80	0
IMPROVED PASTURE	40,000	350	14	0	86	0
SHRUBS	0	0	0	0	0	0
SOIL	0	0	0	0	0	0
TOTAL	43,050	500				

TABLE A-16 IRRIGATION WATER USE

CLAY

1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN (ACFT/YR)			WATER WITHDRAWN (MGD)		
		GROUND	SURFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	0.0	0	0	0	0.0	0.0	0.0
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	0.0	0	0	0	0.0	0.0	0.0
BLUEBERRIES	0.0	0	0	0	0.0	0.0	0.0
CITRUS	0.0	0	0	0	0.0	0.0	0.0
GRAPES	0.0	0	0	0	0.0	0.0	0.0
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	0.0	0	0	0	0.0	0.0	0.0
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	0.0	0	0	0	0.0	0.0	0.0
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	0.0	0	0	0	0.0	0.0	0.0
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	0.0	0	0	0	0.0	0.0	0.0
FLOWERS & FOLIAGE	100.00	396	21	417	0.35	0.02	0.37
IMPROVED PASTURE	11.91-19.06	501	26	527	0.45	0.02	0.47
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOD	0.0	0	0	0	0.0	0.0	0.0
TOTAL		897	47	944	0.80	0.04	0.84

TABLE A-17 ACRES FARMED AND IRRIGATED

DUVAL

1978

TOTAL AREA IN THE COUNTY 529,620 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SERINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	0	0	0	0	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	0	0	0	0	0	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	200	4	100	0	0	0
BLUEBERRIES	20	6	100	0	0	0
CITRUS	0	0	0	0	0	0
GRAPES	10	5	100	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	0	0	0	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	200	0	0	0	0	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	0	0	0	0	0	0
TOBACCO	0	0	0	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	0	0	0	0	0	0
FLOWERS & FOLIAGE	7	7	0	0	0	100
IMPROVED PASTURE	12,000	40	50	0	50	0
SHRUBS	0	0	0	0	0	0
SOD	0	0	0	0	0	0
TOTAL	12,437	62				

TABLE A-18 IRRIGATION WATER USE

DUVAL

1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN			WATER WITHDRAWN		
		GROUND	(ACFT/YR) SURFACE	TOTAL	GROUND	(MGD) SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	0.0	0	0	0	0.0	0.0	0.0
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	2.02	0	1	1	0.0	0.0	0.0
BLUEBERRIES	8.00	2	2	4	0.0	0.0	0.0
CITRUS	0.0	0	0	0	0.0	0.0	0.0
GRAPES	8.00	1	2	3	0.0	0.0	0.0
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	0.0	0	0	0	0.0	0.0	0.0
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	0.0	0	0	0	0.0	0.0	0.0
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	0.0	0	0	0	0.0	0.0	0.0
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	0.0	0	0	0	0.0	0.0	0.0
FLOWERS & FOLIAGE	100.00	18	40	58	0.02	0.03	0.05
IMPROVED PASTURE	26.39	27	61	88	0.02	0.06	0.08
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOD	0.0	0	0	0	0.0	0.0	0.0
TOTAL		48	106	154	0.04	0.09	0.13

1. A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE A-19 ACRES FARMED AND IRRIGATED

FLAGLER

1978

TOTAL AREA IN THE COUNTY 325,230 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SERINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	2,250	2,250	100	0	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	1,800	1,800	72	0	28	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	0	0	0	0	0	0
BLUEBERRIES	0	0	0	0	0	0
CITRUS	0	0	0	0	0	0
GRAPES	0	0	0	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	0	0	0	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	0	0	0	0	0	0
SORGHUM	1,500	0	0	0	0	0
SOYBEANS	0	0	0	0	0	0
TOBACCO	0	0	0	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	0	0	0	0	0	0
FLOWERS & FOLIAGE	0	0	0	0	0	0
IMPROVED PASTURE	16,500	0	0	0	0	0
SHRUBS	0	0	0	0	0	0
SOD	0	0	0	0	0	0
TOTAL	22,050	4,050				

TABLE A-20 IRRIGATION WATER USE

FLAGLER

1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN (ACFT/YR)			WATER WITHDRAWN (MGD)		
		GROUND	SURFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	6.18-6.56	2,252	0	2,252	2.02	0.0	2.02
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	7.86-9.68	1,255	0	1,255	1.12	0.0	1.12
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	0.0	0	0	0	0.0	0.0	0.0
BLUEBERRIES	0.0	0	0	0	0.0	0.0	0.0
CITRUS	0.0	0	0	0	0.0	0.0	0.0
GRAPES	0.0	0	0	0	0.0	0.0	0.0
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	0.0	0	0	0	0.0	0.0	0.0
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	0.0	0	0	0	0.0	0.0	0.0
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	0.0	0	0	0	0.0	0.0	0.0
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	0.0	0	0	0	0.0	0.0	0.0
FLOWERS & FOLIAGE	0.0	0	0	0	0.0	0.0	0.0
IMPROVED PASTURE	0.0	0	0	0	0.0	0.0	0.0
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOD	0.0	0	0	0	0.0	0.0	0.0
TOTAL		3,507	0	3,507	3.14	0.0	3.14

TABLE A-21 ACRES FARMED AND IRRIGATED

INDIAN RIVER

1978

TOTAL AREA IN THE COUNTY 359,600 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SPRINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	0	0	0	0	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	800	800	0	0	100	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	0	0	0	0	0	0
BLUEBERRIES	0	0	0	0	0	0
CITRUS	56,200	53,390	9	0	90	1
GRAPES	0	0	0	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	0	0	0	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	650	650	0	0	100	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	0	0	0	0	0	0
TOBACCO	0	0	0	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	0	0	0	0	0	0
FLOWERS & FOLIAGE	0	0	0	0	0	0
IMPROVED PASTURE	62,208	41,088	0	0	100	0
SHRUBS	0	0	0	0	0	0
SOIL	0	0	0	0	0	0
TOTAL	119,858	95,928				

TABLE A-22 IRRIGATION WATER USE

INDIAN RIVER

1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN (ACFT/YR)			WATER WITHDRAWN (MGD)		
		GROUND	SURFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	9.55	637	0	637	0.57	0.0	0.57
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	0.0	0	0	0	0.0	0.0	0.0
BLUEBERRIES	0.0	0	0	0	0.0	0.0	0.0
CITRUS	20.06-32.10	33,739	103,721	137,460	30.24	92.96	123.20
GRAPES	0.0	0	0	0	0.0	0.0	0.0
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	0.0	0	0	0	0.0	0.0	0.0
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	11.13	603	0	603	0.54	0.0	0.54
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	0.0	0	0	0	0.0	0.0	0.0
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	0.0	0	0	0	0.0	0.0	0.0
FLOWERS & FOLIAGE	0.0	0	0	0	0.0	0.0	0.0
IMPROVED PASTURE	29.5	20,202	80,806	101,008	18.11	72.43	90.54
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOIL	0.0	0	0	0	0.0	0.0	0.0
TOTAL		55,181	184,527	239,708	49.46	165.39	214.85

TABLE A-23 ACRES FARMED AND IRRIGATED

LAKE¹

1978

TOTAL AREA IN THE COUNTY 678,060 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SERINKLER	TILE SEEEAGE	FLOOD AND SEEEAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	0	0	0	0	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	0	0	0	0	0	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	9,310	9,310	0	0	100	0
BLUEBERRIES	0	0	0	0	0	0
CITRUS	123,000	43,050	95	0	1	4
GRAPES	0	0	0	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	40	40	0	0	0	100
WATERMELONS	0	0	0	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	0	0	0	0	0	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	5,000	0	0	0	0	0
TOBACCO	0	0	0	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	200	200	100	0	0	0
FLOWERS & FOLIAGE	100	100	100	0	0	0
IMPROVED PASTURE	41,625	9,250	0	0	100	0
SHRUBS	0	0	0	0	0	0
SOD	0	0	0	0	0	0
TOTAL	179,275	61,950				

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-24 IRRIGATION WATER USE

LAKE¹

1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN (ACFT/YR)			WATER WITHDRAWN (MGD)		
		GROUND	SURFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	0.0	0	0	0	0.0	0.0	0.0
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	13.90	8,088	2,696	10,784	7.25	2.41	9.66
BLUEBERRIES	0.0	0	0	0	0.0	0.0	0.0
CITRUS	17.18-30.93	52,090	17,363	69,453	46.68	15.56	62.24
GRAPES	0.0	0	0	0	0.0	0.0	0.0
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	33.33	83	28	111	0.08	0.03	0.11
WATERMELONS	0.0	0	0	0	0.0	0.0	0.0
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	0.0	0	0	0	0.0	0.0	0.0
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	0.0	0	0	0	0.0	0.0	0.0
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	65.00	812	271	1,083	0.73	0.24	0.97
FLOWERS & FOLIAGE	100.00	625	208	833	0.56	0.19	0.75
IMPROVED PASTURE	57.32	33,138	11,046	44,184	29.71	9.90	39.61
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOD	0.0	0	0	0	0.0	0.0	0.0
TOTAL		94,836	31,612	126,448	85.01	28.33	113.34

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-25 ACRES FARMED AND IRRIGATED

MARION¹

1978

TOTAL AREA IN THE COUNTY 764,020 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SPRINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	0	0	0	0	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	0	0	0	0	0	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	2,100	1,920	100	0	0	0
BLUEBERRIES	50	50	80	0	0	20
CITRUS	11,000	8,000	95	0	0	5
GRAPES	50	50	100	0	0	0
PEACHES	1,000	1,000	100	0	0	0
PEANUTS	3,251	488	100	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	2,250	1,350	100	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	4,675	1,320	84	0	16	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	6,375	750	100	0	0	0
TOBACCO	0	0	0	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	0	0	0	0	0	0
FLOWERS & FOLIAGE	180	180	100	0	0	0
IMPROVED PASTURE	77,000	275	0	0	100	0
SHRUBS	0	0	0	0	0	0
SUB	0	0	0	0	0	0
TOTAL	107,931	15,383				

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-26 IRRIGATION WATER USE

MARION¹

1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN (ACFT/YR)			WATER WITHDRAWN (MGD)		
		GROUND	SURFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	0.0	0	0	0	0.0	0.0	0.0
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	1.04-7.20	1,148	60	1,208	1.03	0.05	1.08
BLUEBERRIES	8.00	31	2	33	0.03	0.0 ²	0.03
CITRUS	14.96-16.83	10,600	558	11,158	9.50	0.50	10.00
GRAPES	8.00	32	2	34	0.03	0.0 ²	0.03
PEACHES	8.00	2,721	143	2,864	2.44	0.13	2.57
PEANUTS	7.50	290	15	305	0.26	0.01	0.27
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	7.61	813	43	856	0.73	0.04	0.77
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	14.35-22.96	2,246	119	2,365	2.01	0.11	2.12
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	7.77	462	24	486	0.42	0.02	0.44
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	0.0	0	0	0	0.0	0.0	0.0
FLOWERS & FOLIAGE	100.00	1,425	75	1,500	1.28	0.07	1.35
IMPROVED PASTURE	25.78	561	30	591	0.50	0.03	0.53
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOB	0.0	0	0	0	0.0	0.0	0.0
TOTAL		20,339	1,071	21,400	18.23	0.96	19.19

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

2. A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE A-27 ACRES FARMED AND IRRIGATED

NASSAU

1978

TOTAL AREA IN THE COUNTY 433,290 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SPRINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	0	0	0	0	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	0	0	0	0	0	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	100	5	100	0	0	0
BLUEBERRIES	0	0	0	0	0	0
CITRUS	0	0	0	0	0	0
GRAPES	0	0	0	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	0	0	0	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	1,500	0	0	0	0	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	0	0	0	0	0	0
TOBACCO	57	0	0	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	0	0	0	0	0	0
FLOWERS & FOLIAGE	20	20	100	0	0	0
IMPROVED PASTURE	4,810	0	0	0	0	0
SHRUBS	0	0	0	0	0	0
SOIL	0	0	0	0	0	0
TOTAL	6,487	25				

TABLE A-28 IRRIGATION WATER USE

NASSAU

1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN (ACFT/YR)			WATER WITHDRAWN (MGD)		
		GROUND	SURFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	0.0	0	0	0	0.0	0.0	0.0
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	2.02	1	0	1	0.0	0.0	0.0 ¹
BLUEBERRIES	0.0	0	0	0	0.0	0.0	0.0
CITRUS	0.0	0	0	0	0.0	0.0	0.0
GRAPES	0.0	0	0	0	0.0	0.0	0.0
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	0.0	0	0	0	0.0	0.0	0.0
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	0.0	0	0	0	0.0	0.0	0.0
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	0.0	0	0	0	0.0	0.0	0.0
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	0.0	0	0	0	0.0	0.0	0.0
FLOWERS & FOLIAGE	100.0	167	0	167	0.15	0.0	0.15
IMPROVED PASTURE	0.0	0	0	0	0.0	0.0	0.0
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOD	0.0	0	0	0	0.0	0.0	0.0
TOTAL		168	0	168	0.15	0.0	0.15

1. A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE OF A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE A-29 ACRES FARMED AND IRRIGATED

OKEECHOBEE¹

1978

TOTAL AREA IN THE COUNTY 66,072 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SERINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE-- LOW VOLUME
CABBAGE	0	0	0	0	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	0	0	0	0	0	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	0	0	0	0	0	0
BLUEBERRIES	0	0	0	0	0	0
CITRUS	1,400	1,200	0	0	100	0
GRAPES	0	0	0	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	0	0	0	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	0	0	0	0	0	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	0	0	0	0	0	0
TOBACCO	0	0	0	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	0	0	0	0	0	0
FLOWERS & FOLIAGE	0	0	0	0	0	0
IMPROVED PASTURE	20,000	2,782	0	0	100	0
SHRUBS	0	0	0	0	0	0
SOD	0	0	0	0	0	0
TOTAL	21,400	3,982				

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-30 IRRIGATION WATER USE

ONECHOFF¹

1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN (ACFT/YR)			WATER WITHDRAWN (MGD)		
		GROUND	SURFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	0.0	0	0	0	0.0	0.0	0.0
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	0.0	0	0	0	0.0	0.0	0.0
BLUEBERRIES	0.0	0	0	0	0.0	0.0	0.0
CITRUS	18.66	1,605	261	1,866	1.43	0.23	1.66
GRAPES	0.0	0	0	0	0.0	0.0	0.0
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	0.0	0	0	0	0.0	0.0	0.0
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	0.0	0	0	0	0.0	0.0	0.0
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	0.0	0	0	0	0.0	0.0	0.0
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	0.0	0	0	0	0.0	0.0	0.0
FLOWERS & FOLIAGE	0.0	0	0	0	0.0	0.0	0.0
IMPROVED PASTURE	26.93	5,369	874	6,243	4.79	0.78	5.57
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOD	0.0	0	0	0	0.0	0.0	0.0
TOTAL		6,974	1,135	8,109	6.22	1.01	7.23

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-31 ACRES FARMED AND IRRIGATED

ORANGE¹

1978

TOTAL AREA IN THE COUNTY 476,200 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SERINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	780	780	16	0	84	0
CARROTS	2,000	2,000	16	0	84	0
CUCUMBERS	225	225	16	0	84	0
POTATOES	0	0	0	0	0	0
SWEET CORN	2,000	2,000	16	0	84	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	2,425	2,425	16	0	84	0
BLUEBERRIES	0	0	0	0	0	0
CITRUS	25,580	14,500	90	0	0	10
GRAPES	0	0	0	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	0	0	0	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	0	0	0	0	0	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	0	0	0	0	0	0
TOBACCO	0	0	0	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	0	0	0	0	0	0
FLOWERS & FOLIAGE	1,500	1,500	50	0	0	50
IMPROVED PASTURE	18,562	1,688	21	0	79	0
SHRUBS	0	0	0	0	0	0
SUD	100	100	0	0	100	0
TOTAL	53,172	25,218				

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-32 IRRIGATION WATER USE

ORANGE¹

1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN			WATER WITHDRAWN		
		GROUND	(ACFT/YR) SURFACE	TOTAL	GROUND	(MGD) SURFACE	TOTAL
CABBAGE	9.87-15.79	965	0	965	0.86	0.0	0.86
CARROTS	9.87-15.79	4,947	0	4,947	4.43	0.0	4.43
CUCUMBERS	9.87-15.79	279	0	279	0.25	0.0	0.25
POTATOES	0.0	0	0	0	0.0	0.0	0.0
SWEET CORN	9.87-15.79	4,947	0	4,947	4.43	0.0	4.43
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	9.87-15.79	3,928	0	3,928	3.54	0.0	3.54
BLUEBERRIES	0.0	0	0	0	0.0	0.0	0.0
CITRUS	16.59-18.66	17,839	4,461	22,300	16.00	3.99	19.99
GRAPES	0.0	0	0	0	0.0	0.0	0.0
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	0.0	0	0	0	0.0	0.0	0.0
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	0.0	0	0	0	0.0	0.0	0.0
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	0.0	0	0	0	0.0	0.0	0.0
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	0.0	0	0	0	0.0	0.0	0.0
FLOWERS & FOLIAGE	100.0	12,500	0	12,500	11.21	0.0	11.21
IMPROVED PASTURE	17.16-27.45	2,840	710	3,550	2.54	0.64	3.18
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOU	54.90	458	0	458	0.41	0.0	0.41
TOTAL		48,703	5,171	53,874	43.67	4.63	48.30

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-33 ACRES FARMED AND IRRIGATED

OSCEOLA¹

1978

TOTAL AREA IN THE COUNTY 346,810 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SERINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	0	0	0	0	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	0	0	0	0	0	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	201	201	0	0	100	0
BLUEBERRIES	0	0	0	0	0	0
CITRUS	0	0	0	0	0	0
GRAPES	0	0	0	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	0	0	0	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	0	0	0	0	0	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	0	0	0	0	0	0
TOBACCO	0	0	0	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	0	0	0	0	0	0
FLOWERS & FOLIAGE	0	0	0	0	0	0
IMPROVED PASTURE	125,000	1,250	0	0	100	0
SHRUBS	0	0	0	0	0	0
SOD	0	0	0	0	0	0
TOTAL	125,201	1,451				

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-34 IRRIGATION WATER USE

OSCEOLA¹

1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN (ACFT/YR)			WATER WITHDRAWN (MGD)		
		GROUND	SURFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	0.0	0	0	0	0.0	0.0	0.0
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERDRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	10.93-17.49	261	32	293	0.23	0.03	0.26
BLUEBERRIES	0.0	0	0	0	0.0	0.0	0.0
CITRUS	0.0	0	0	0	0.0	0.0	0.0
GRAPES	0.0	0	0	0	0.0	0.0	0.0
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	0.0	0	0	0	0.0	0.0	0.0
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	0.0	0	0	0	0.0	0.0	0.0
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	0.0	0	0	0	0.0	0.0	0.0
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	0.0	0	0	0	0.0	0.0	0.0
FLOWERS & FOLIAGE	0.0	0	0	0	0.0	0.0	0.0
IMPROVED PASTURE	26.93	2,496	309	2,805	2.23	0.28	2.51
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOB	0.0	0	0	0	0.0	0.0	0.0
TOTAL		2,757	341	3,098	2.46	0.31	2.77

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-35 ACRES FARMED AND IRRIGATED

POLK¹

1978

TOTAL AREA IN THE COUNTY 40,500 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SPRINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	0	0	0	0	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	0	0	0	0	0	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	0	0	0	0	0	0
BLUEBERRIES	0	0	0	0	0	0
CITRUS	15,000	10,000	100	0	0	0
GRAPES	0	0	0	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	0	0	0	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	0	0	0	0	0	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	0	0	0	0	0	0
TOBACCO	0	0	0	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	0	0	0	0	0	0
FLOWERS & FOLIAGE	0	0	0	0	0	0
IMPROVED PASTURE	4500	100	0	0	100	0
SHRUBS	0	0	0	0	0	0
SOD	0	0	0	0	0	0
TOTAL	19,500	10,100				

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-36 IRRIGATION WATER USE

POLK¹

1978

CROP	APPLICATION	WATER WITHDRAWN			WATER WITHDRAWN		
	RATE (IN/YR)	GROUND	(ACFT/YR) SURFACE	TOTAL	GROUND	(MGD) SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	0.0	0	0	0	0.0	0.0	0.0
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	0.0	0	0	0	0.0	0.0	0.0
BLUEBERRIES	0.0	0	0	0	0.0	0.0	0.0
CITRUS	18.66	14,772	778	15,550	13.19	0.69	13.88
GRAPES	0.0	0	0	0	0.0	0.0	0.0
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	0.0	0	0	0	0.0	0.0	0.0
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	0.0	0	0	0	0.0	0.0	0.0
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	0.0	0	0	0	0.0	0.0	0.0
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	0.0	0	0	0	0.0	0.0	0.0
FLOWERS & FOLIAGE	0.0	0	0	0	0.0	0.0	0.0
IMPROVED PASTURE	26.93	213	11	224	0.19	0.01	0.20
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOD	0.0	0	0	0	0.0	0.0	0.0
TOTAL		14,985	789	15,774	13.38	0.70	14.08

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-37 ACRES FARMED AND IRRIGATED

PUTNAM¹

1978

TOTAL AREA IN THE COUNTY 560,590 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SERINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	3,000	3,000	20	0	80	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	3,000	3,000	0	0	100	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	0	0	0	0	0	0
BLUEBERRIES	75	5	0	0	100	0
CITRUS	2,500	500	66	0	34	0
GRAPES	10	10	100	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	0	0	0	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	3,000	1,000	0	0	100	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	0	0	0	0	0	0
TOBACCO	0	0	0	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	500	500	100	0	0	0
FLOWERS & FOLIAGE	220	220	0	0	100	0
IMPROVED PASTURE	37,000	9,500	0	0	100	0
SHRUBS	0	0	0	0	0	0
SOD	0	0	0	0	0	0
TOTAL	49,305	17,735				

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-38 IRRIGATION WATER USE

PUTNAM¹

1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN (ACFT/YR)			WATER WITHDRAWN (MGD)		
		GROUND	SURFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	4.91-7.85	1,634	182	1,816	1.47	0.16	1.63
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	12.41	2,793	310	3,103	2.50	0.28	2.78
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	0.0	0	0	0	0.0	0.0	0.0
BLUEBERRIES	8.00	4	0	4	0.0	0.0	0.0
CITRUS	16.81-21.89	759	84	843	0.67	0.08	0.75
GRAPES	8.00	6	1	7	0.01	0.0 ²	0.01
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	0.0	0	0	0	0.0	0.0	0.0
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	22.69	1,702	189	1,891	1.52	0.17	1.69
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	0.0	0	0	0	0.0	0.0	0.0
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	65.00	2,437	271	2,708	2.18	0.24	2.42
FLOWERS & FOLIAGE	100.00	1,650	183	1,833	1.48	0.16	1.64
IMPROVED PASTURE	24.08	17,157	1,906	19,063	15.38	1.71	17.09
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOD	0.0	0	0	0	0.0	0.0	0.0
TOTAL		28,142	3,126	31,268	25.21	2.80	28.01

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

2. A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE A-39 ACRES FARMED AND IRRIGATED

ST. JOHNS

1978

TOTAL AREA IN THE COUNTY 426,360 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SERINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	5,000	5,000	0	100	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	15,600	15,600	0	100	0	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	400	400	0	100	0	0
BLUEBERRIES	0	0	0	0	0	0
CITRUS	100	100	0	100	0	0
GRAPES	0	0	0	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	0	0	0	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	2,000	2,000	0	100	0	0
SORGHUM	3,000	3,000	0	100	0	0
SOYBEANS	2,000	200	0	100	0	0
TOBACCO	0	0	0	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	0	0	0	0	0	0
FLOWERS & FOLIAGE	100	100	0	100	0	0
IMPROVED PASTURE	10,500	500	0	100	0	0
SHRUBS	0	0	0	0	0	0
SOIL	0	0	0	0	0	0
TOTAL	38,700	26,900				

TABLE A-40 IRRIGATION WATER USE

ST. JOHNS

1978

CROP	APPLICATION	WATER WITHDRAWN			WATER WITHDRAWN		
	RATE (IN/YR)	GROUND	(ACFT/YR) SURFACE	TOTAL	GROUND	(MGD) SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	9.68	12,584	0	12,584	11.28	0.0	11.28
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	8.07	3,632	0	3,632	3.26	0.0	3.26
BLUEBERRIES	0.0	0	0	0	0.0	0.0	0.0
CITRUS	21.82	182	0	182	0.16	0.0	0.16
GRAPES	0.0	0	0	0	0.0	0.0	0.0
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	0.0	0	0	0	0.0	0.0	0.0
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	21.69	3,615	0	3,615	3.24	0.0	3.24
SORGHUM	13.80	3,450	0	3,450	3.09	0.0	3.09
SOYBEANS	16.87	281	0	281	0.25	0.0	0.25
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	0.0	0	0	0	0.0	0.0	0.0
FLOWERS & FOLIAGE	100.00	833	0	833	0.75	0.0	0.75
IMPROVED PASTURE	20.86	869	0	869	0.78	0.0	0.78
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOI	0.0	0	0	0	0.0	0.0	0.0
TOTAL		25,446	0	25,446	22.81	0.0	22.81

TABLE A-41 ACRES FARMED AND IRRIGATED

SEMINOLE

1978

TOTAL AREA IN THE COUNTY 225,130 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SERINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	1,400	1,400	0	100	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	1,600	1,600	0	100	0	0
POTATOES	0	0	0	0	0	0
SWEET CORN	40	40	0	100	0	0
WATERCRESS	100	100	0	0	100	0
MISC. VEGETABLES	960	873	0	100	0	0
BLUEBERRIES	0	0	0	0	0	0
CITRUS	7,000	5,000	93	6	0	1
GRAPES	0	0	0	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	0	0	0	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	260	260	69	31	0	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	100	100	0	100	0	0
TOBACCO	0	0	0	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	20	20	100	0	0	0
FLOWERS & FOLIAGE	520	520	77	0	0	23
IMPROVED PASTURE	10,000	2,000	0	0	100	0
SHRUBS	0	0	0	0	0	0
SOD	300	300	0	0	100	0
TOTAL	22,300	12,213				

TABLE A-42 IRRIGATION WATER USE

SEMINOLE

1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN (ACFT/YR)			WATER WITHDRAWN (MGD)		
		GROUND	SURFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	0.0	0	0	0	0.0	0.0	0.0
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	13.20	110	0	110	0.10	0.0	0.10
MISC. VEGETABLES	10.16	3,274	0	3,274	2.93	0.0	2.93
BLUEBERRIES	0.0	0	0	0	0.0	0.0	0.0
CITRUS	16.81-23.27	7,582	399	7,981	6.74	0.36	7.10
GRAPES	0.0	0	0	0	0.0	0.0	0.0
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	0.0	0	0	0	0.0	0.0	0.0
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	11.51-18.42	296	0	296	0.26	0.0	0.26
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	14.07	122	0	122	0.11	0.0	0.11
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	65.00	108	0	108	0.10	0.0	0.10
FLOWERS & FOLIAGE	100.00	4,333	0	4,333	3.88	0.0	3.88
IMPROVED PASTURE	26.27	3,940	438	4,378	3.53	0.39	3.92
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOD	26.27	591	66	657	0.53	0.06	0.59
TOTAL		20,356	903	21,259	18.18	0.81	18.99

TABLE A-43 ACRES FARMED AND IRRIGATED

VOLUSIA

1978

TOTAL AREA IN THE COUNTY 775,970 ACRES

CROP	TOTAL ACRES	IRRIGATED ACRES	IRRIGATION METHODS USED (PERCENT)			
			SERINKLER	TILE SEEPAGE	FLOOD AND SEEPAGE	LOW PRESSURE- LOW VOLUME
CABBAGE	0	0	0	0	0	0
CARROTS	0	0	0	0	0	0
CUCUMBERS	0	0	0	0	0	0
POTATOES	0	0	0	0	0	0
SWEET CORN	0	0	0	0	0	0
WATERCRESS	0	0	0	0	0	0
MISC. VEGETABLES	2,400	2,400	0	0	100	0
BLUEBERRIES	0	0	0	0	0	0
CITRUS	9,500	500	84	0	0	16
GRAPES	0	0	0	0	0	0
PEACHES	0	0	0	0	0	0
PEANUTS	0	0	0	0	0	0
PECANS	0	0	0	0	0	0
WATERMELONS	0	0	0	0	0	0
MISC. FRUITS	0	0	0	0	0	0
FIELD CORN	0	0	0	0	0	0
SORGHUM	0	0	0	0	0	0
SOYBEANS	0	0	0	0	0	0
TOBACCO	0	0	0	0	0	0
MISC. GRAINS	0	0	0	0	0	0
FERNS	4,200	3,000	100	0	0	0
FLOWERS & FOLIAGE	128	128	50	0	0	50
IMPROVED PASTURE	12,600	100	0	0	100	0
SHRUBS	0	0	0	0	0	0
SOD	0	0	0	0	0	0
TOTAL	28,828	6,128				

TABLE A-44 IRRIGATION WATER USE

VOLUSIA

1978

CROP	APPLICATION RATE (IN/YR)	WATER WITHDRAWN (ACFT/YR)			WATER WITHDRAWN (MGD)		
		GROUND	SURFACE	TOTAL	GROUND	SURFACE	TOTAL
CABBAGE	0.0	0	0	0	0.0	0.0	0.0
CARROTS	0.0	0	0	0	0.0	0.0	0.0
CUCUMBERS	0.0	0	0	0	0.0	0.0	0.0
POTATOES	0.0	0	0	0	0.0	0.0	0.0
SWEET CORN	0.0	0	0	0	0.0	0.0	0.0
WATERCRESS	0.0	0	0	0	0.0	0.0	0.0
MISC. VEGETABLES	9.87	1,974	0	1,974	1.77	0.0	1.77
BLUEBERRIES	0.0	0	0	0	0.0	0.0	0.0
CITRUS	13.46-15.15	310	310	620	0.29	0.28	0.57
GRAPES	0.0	0	0	0	0.0	0.0	0.0
PEACHES	0.0	0	0	0	0.0	0.0	0.0
PEANUTS	0.0	0	0	0	0.0	0.0	0.0
PECANS	0.0	0	0	0	0.0	0.0	0.0
WATERMELONS	0.0	0	0	0	0.0	0.0	0.0
MISC. FRUIT	0.0	0	0	0	0.0	0.0	0.0
FIELD CORN	0.0	0	0	0	0.0	0.0	0.0
SORGHUM	0.0	0	0	0	0.0	0.0	0.0
SOYBEANS	0.0	0	0	0	0.0	0.0	0.0
TOBACCO	0.0	0	0	0	0.0	0.0	0.0
MISC. GRAINS	0.0	0	0	0	0.0	0.0	0.0
FERNS	65.00	11,377	4,875	16,252	10.21	4.37	14.58
FLOWERS & FOLIAGE	100.00	1,067	0	1,067	0.96	0.0	0.96
IMPROVED PASTURE	20.98	175	0	175	0.16	0.0	0.16
SHRUBS	0.0	0	0	0	0.0	0.0	0.0
SOD	0.0	0	0	0	0.0	0.0	0.0
TOTAL		14,903	5,185	20,088	13.39	4.65	18.04

TABLE A-45 LIVESTOCK WATER USE

ALACHUA¹

1978

LIVESTOCK	USE PER ANIMAL (GED)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		
			GROUND	SURFACE	TOTAL
BEEF CATTLE	12	33,000	0.19	0.20	0.39
CHICKENS	0.10	608,000	0.03	0.03	0.06
DAIRY CATTLE	150	1,415	0.11	0.10	0.21
DOGS	0.10	50	0.0	0.0	0.0
GOATS	2	1,900	0.0	0.0	0.0
HOGS	2	11,250	0.01	0.01	0.02
HORSES	12	3,000	0.02	0.02	0.04
RABBITS	0.05	0	0.0	0.0	0.0
SHEEP	2	1,710	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			0.36	0.36	0.72

NOTE: A VALUE OF 0.0 GPD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-46 LIVESTOCK WATER USE

BAKER¹

1978

LIVESTOCK	USE PER ANIMAL (GPD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		
			GROUND	SURFACE	TOTAL
BEEF CATTLE	12	5,700	0.03	0.04	0.07
CHICKENS	0.1	6,650,000	0.27	0.40	0.67
DAIRY CATTLE	150	1,500	0.09	0.13	0.22
DOGS	0.10	0	0.0	0.0	0.0
GOATS	2	95	0.0	0.0	0.0
HOGS	2	2,850	0.0	0.0	0.0
HORSES	12	475	0.0	0.0	0.0
RABBITS	0.05	0	0.0	0.0	0.0
SHEEP	2	0	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			0.39	0.57	0.96

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-47 LIVESTOCK WATER USE

BREVARD

1978

LIVESTOCK	USE PER ANIMAL (MGD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		TOTAL
			GROUND	SURFACE	
BEEF CATTLE	12	65,000	0.45	0.33	0.78
CHICKENS	0.10	45,000	0.0	0.0	0.0
DAIRY CATTLE	150	430	0.04	0.02	0.06
DOGS	0.10	0	0.0	0.0	0.0
GOATS	2	200	0.0	0.0	0.0
HOGS	2	6,300	0.01	0.0	0.01
HORSES	12	3,300	0.02	0.02	0.04
RABBITS	0.05	100	0.0	0.0	0.0
SHEEP	2	0	0.0	0.0	0.0
TURKEYS	1	100	0.0	0.0	0.0
TOTAL			0.52	0.37	0.89

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE A-48 LIVESTOCK WATER USE

CLAY

1978

LIVESTOCK	USE PER ANIMAL (GPD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		TOTAL
			GROUND	SURFACE	
BELF CATTLE	12	12,000	0.07	0.07	0.14
CHICKENS	0.10	50,000	0.0	0.0	0.0
DAIRY CATTLE	150	15,500	1.16	1.16	2.32
DOGS	0.10	0	0.0	0.0	0.0
GOATS	2	0	0.0	0.0	0.0
HORS	2	3,000	0.0	0.0	0.0
HORSES	12	3,000	0.02	0.02	0.04
RABBITS	0.05	0	0.0	0.0	0.0
SHEEP	2	0	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			1.25	1.25	2.50

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE A-49 LIVESTOCK WATER USE

DUVAL

1978

LIVESTOCK	USE PER ANIMAL (MGD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		
			GROUND	SURFACE	TOTAL
BEEF CATTLE	12	5,000	0.01	0.05	0.06
CHICKENS	0.10	700	0.0	0.0	0.0
DAIRY CATTLE	150	12,000	0.36	1.44	1.80
DOGS	0.10	0	0.0	0.0	0.0
GOATS	2	50	0.0	0.0	0.0
HOGS	2	10,000	0.0	0.02	0.02
HORSES	12	5,000	0.01	0.05	0.06
RABBITS	0.05	200	0.0	0.0	0.0
SHEEP	2	0	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			0.38	1.56	1.94

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE A-50 LIVESTOCK WATER USE

FLAGLER

1978

LIVESTOCK	USE PER ANIMAL (MGD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		
			GROUND	SURFACE	TOTAL
BEEF CATTLE	12	10,000	0.07	0.05	0.12
CHICKENS	0.10	0	0.0	0.0	0.0
DAIRY CATTLE	150	0	0.0	0.0	0.0
DOGS	0.10	0	0.0	0.0	0.0
GOATS	2	100	0.0	0.0	0.0
HOGS	2	200	0.0	0.0	0.0
HORSES	12	500	0.0	0.0	0.0
RABBITS	0.05	100	0.0	0.0	0.0
SHEEP	2	0	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			0.07	0.05	0.12

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE A-51 LIVESTOCK WATER USE

INDIAN RIVER

1978

LIVESTOCK	USE PER ANIMAL (GPD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		TOTAL
			GROUND	SURFACE	
BEEF CATTLE	12	35,000	0.08	0.34	0.42
CHICKENS	0.10	1,000	0.0	0.0	0.0
DAIRY CATTLE	150	600	0.02	0.07	0.09
BOGS	0.10	0	0.0	0.0	0.0
GOATS	2	0	0.0	0.0	0.0
HOGS	2	100	0.0	0.0	0.0
HORSES	12	250	0.0	0.0	0.0
RABBITS	0.05	0	0.0	0.0	0.0
SHEEP	2	0	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			0.10	0.41	0.51

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE A-52 LIVESTOCK WATER USE

LAKE¹

1978

LIVESTOCK	USE PER ANIMAL (GPD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		
			GROUND	SURFACE	TOTAL
BEEF CATTLE	12	25,900	0.15	0.15	0.30
CHICKENS	0.10	475,000	0.02	0.02	0.04
DAIRY CATTLE	150	2,500	0.19	0.18	0.37
DOGS	0.10	100	0.0	0.0	0.0
GOATS	2	0	0.0	0.0	0.0
HOGS	2	1,850	0.0	0.0	0.0
HORSES	12	2,035	0.01	0.01	0.02
RABBITS	0.05	0	0.0	0.0	0.0
SHEEP	2	93	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			0.37	0.36	0.73

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-53 LIVESTOCK WATER USE

MARION¹

1978

LIVESTOCK	USE PER ANIMAL (GPD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		
			GROUND	SURFACE	TOTAL
BEEF CATTLE	12	33,000	0.38	0.02	0.40
CHICKENS	0.10	90,000	0.01	0.0	0.01
DAIRY CATTLE	150	5,000	0.71	0.04	0.75
DOGS	0.10	600	0.0	0.0	0.0
GOATS	2	1,600	0.0	0.0	0.0
HOGS	2	4,675	0.01	0.0	0.01
HORSES	12	4,050	0.05	0.0	0.05
RABBITS	0.05	0	0.0	0.0	0.0
SHEEP	2	67	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			1.16	0.06	1.22

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-54 LIVESTOCK WATER USE

NASSAU

1978

LIVESTOCK	USE PER ANIMAL (GPD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		
			GROUND	SURFACE	TOTAL
BEEF CATTLE	12	127,000	0.76	0.76	1.52
CHICKENS	0.10	1,150,000	0.06	0.06	0.12
DAIRY CATTLE	150	7,500	0.56	0.56	1.12
DOGS	0.10	100	0.0	0.0	0.0
GOATS	2	600	0.0	0.0	0.0
HOGS	2	4,000	0.0	0.0	0.0
HORSES	12	8,000	0.05	0.05	0.10
RABBITS	0.05	300	0.0	0.0	0.0
SHEEP	2	0	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			1.43	1.43	2.86

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE A-55 LIVESTOCK WATER USE

OKEECHOBEE¹

1978

LIVESTOCK	USE PER ANIMAL (GPD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		TOTAL
			GROUND	SURFACE	
BEEF CATTLE	12	8,450	0.07	0.03	0.10
CHICKENS	0.10	0	0.0	0.0	0.0
DAIRY CATTLE	150	4,810	0.51	0.22	0.73
DOGS	0.10	0	0.0	0.0	0.0
GOATS	2	6	0.0	0.0	0.0
HOGS	2	65	0.0	0.0	0.0
HORSES	12	65	0.0	0.0	0.0
RABBITS	0.05	65	0.0	0.0	0.0
SHEEP	2	0	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			0.58	0.25	0.83

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-56 LIVESTOCK WATER USE

ORANGE¹

1978

LIVESTOCK	USE PER ANIMAL (GPD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		TOTAL
			GROUND	SURFACE	
BEEF CATTLE	12	9,900	0.06	0.06	0.12
CHICKENS	0.10	800,000	0.04	0.04	0.08
DAIRY CATTLE	150	3,500	0.26	0.26	0.52
DOGS	0.10	0	0.0	0.0	0.0
GOATS	2	35	0.0	0.0	0.0
HOGS	2	5,000	0.0	0.01	0.01
HORSES	12	6,650	0.04	0.04	0.08
RABBITS	0.05	0	0.0	0.0	0.0
SHEEP	2	15	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			0.40	0.41	0.81

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-57 LIVESTOCK WATER USE

OSCEOLA¹

1978

LIVESTOCK	USE PER ANIMAL (GPD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		TOTAL
			GROUND	SURFACE	
BEEF CATTLE	12	57,500	0.01	0.68	0.69
CHICKENS	0.10	0	0.0	0.0	0.0
DAIRY CATTLE	150	0	0.0	0.0	0.0
DOGS	0.10	0	0.0	0.0	0.0
GOATS	2	125	0.0	0.0	0.0
HOGS	2	50	0.0	0.0	0.0
HORSES	12	625	0.01	0.0	0.01
RABBITS	0.05	0	0.0	0.0	0.0
SHEEP	2	250	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			0.02	0.68	0.70

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-58 LIVESTOCK WATER USE

PUTNAM¹

1978

LIVESTOCK	USE PER ANIMAL (GPD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		TOTAL
			GROUND	SURFACE	
BEEF CATTLE	12	18,500	0.11	0.11	0.22
CHICKENS	0.10	550,000	0.03	0.02	0.05
DAIRY CATTLE	150	1,500	0.11	0.11	0.22
DOGS	0.10	400	0.0	0.0	0.0
GOATS	2	300	0.0	0.0	0.0
HOGS	2	5,000	0.01	0.0	0.01
HORSES	12	2,000	0.01	0.01	0.02
RABBITS	0.05	0	0.0	0.0	0.0
SHEEP	2	100	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			0.27	0.25	0.52

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

TABLE A-59 LIVESTOCK WATER USE

ST. JOHNS

1978

LIVESTOCK	USE PER ANIMAL (MGD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		TOTAL
			GROUND	SURFACE	
BEEF CATTLE	12	9,000	0.06	0.04	0.10
CHICKENS	0.10	100,000	0.01	0.0	0.01
DAIRY CATTLE	150	800	0.07	0.05	0.12
DOGS	0.10	100	0.0	0.0	0.0
GOATS	2	300	0.0	0.0	0.0
HOGS	2	2,500	0.0	0.0	0.0
HORSES	12	1,000	0.01	0.0	0.01
RABBITS	0.05	0	0.0	0.0	0.0
SHEEP	2	0	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			0.15	0.09	0.24

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE A-60 LIVESTOCK WATER USE

SEMINOLE

1978

LIVESTOCK	USE PER ANIMAL (GPD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		
			GROUND	SURFACE	TOTAL
BEEF CATTLE	12	9,000	0.05	0.05	0.10
CHICKENS	0.10	250,000	0.03	0.0	0.03
DAIRY CATTLE	150	1,000	0.09	0.06	0.15
DOGS	0.10	1,000	0.0	0.0	0.0
GOATS	2	100	0.0	0.0	0.0
HOGS	2	400	0.0	0.0	0.0
HORSES	12	2,500	0.03	0.0	0.03
RABBITS	0.05	0	0.0	0.0	0.0
SHEEP	2	5	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			0.20	0.11	0.31

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE A-61 LIVESTOCK WATER USE

VOLUSIA

1978

LIVESTOCK	USE PER ANIMAL (GPD)	NUMBER OF ANIMALS	WATER WITHDRAWN (MGD)		
			GROUND	SURFACE	TOTAL
BEEF CATTLE	12	12,000	0.01	0.13	0.14
CHICKENS	0.10	2,100,000	0.02	0.19	0.21
DAIRY CATTLE	150	2,600	0.04	0.35	0.39
DOGS	0.10	500	0.0	0.0	0.0
GOATS	2	200	0.0	0.0	0.0
HOGS	2	1,200	0.0	0.0	0.0
HORSES	12	700	0.01	0.0	0.01
RABBITS	0.05	0	0.0	0.0	0.0
SHEEP	2	25	0.0	0.0	0.0
TURKEYS	1	0	0.0	0.0	0.0
TOTAL			0.08	0.67	0.75

NOTE: A VALUE OF 0.0 MGD IS SHOWN IN THE TABLE FOR LIVESTOCK CATEGORIES WITH A WITHDRAWAL OF LESS THAN 0.01 MGD.

TABLE A-62 THERMOELECTRIC POWER GENERATION WATER USE

COUNTIES

1978

COUNTIES	COOLING		OTHER		TOTAL		ANNUAL GENERATION (MILLION KWH)
	FRESH GROUND	SURFACE	SALINE SURFACE	FRESH GROUND	FRESH GROUND	SALINE SURFACE	
ALACHUA ¹	0.0	0.0	0.0	0.0	0.0	0.0	238.00 ²
BAKER ¹	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BRADFORD ¹	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BREVARD	0.0	0.0	1,457.00	0.10	0.10	0.0	7,416.96
CLAY	0.0	0.0	0.0	0.0	0.0	0.0	0.0
DUVAL	0.0	0.0	1,225.00	0.0	0.0	0.0	6,230.00
FLAGLER	0.0	0.0	0.0	0.0	0.0	0.0	0.0
INDIAN RIVER LAKE ¹	1.50	0.0	66.00	0.0	1.50	0.0	321.50
LAKE ¹	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MARION ¹	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NASSAU	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ORANGE ¹	0.0	22.60	0.0	0.0	0.0	22.60	68.50
OSCEOLA ¹	0.0	0.0	0.0	0.0	0.0	0.0	0.0
POLK ¹	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PUTNAM ¹	0.0	0.33	0.0	0.17	0.17	0.33	569.94
ST. JOHNS	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SEMINOLE	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VOLUSTA	0.0	283.77	0.0	0.32	0.32	283.77	4,712.07
DISTRICT TOTAL	1.50	306.70	2,748.00	0.59	2.09	306.70	19,556.92

1. THESE COUNTIES ARE PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.
2. PUBLIC SUPPLIED WATER IN THE AMOUNT OF 0.51 MGD IS USED FOR COOLING IN ALACHUA COUNTY. THIS USE IS REFLECTED IN THE PUBLIC SUPPLY TABLE.

TABLE A-63 TOTAL WATER USE

ALACHUA¹

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	GROUND	FRESH SURFACE	TOTAL	SALINE SURFACE	TOTAL
PUBLIC	16.33	0.0	16.33	0.0	16.33
DOMESTIC ²	4.10	0.0	4.10	0.0	4.10
INDUSTRIAL ²	0.68	0.10	0.78	0.0	0.78
IRRIGATION	7.91	1.97	9.88	0.0	9.88
LIVESTOCK	0.36	0.36	0.72	0.0	0.72
THERMOELECTRIC POWER ²	0.0	0.0	0.0	0.0	0.0
TOTAL	29.38	2.43	31.81	0.0	31.81

TOTAL POPULATION (THOUSANDS) 115.6

TOTAL PER CAPITA USE (GPD) 275.2

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

2. SELF-SUPPLIED ONLY.

TABLE A-64 TOTAL WATER USE

BAKER¹

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	GROUND	FRESH SURFACE	TOTAL	SALINE SURFACE	TOTAL
PUBLIC	0.55	0.0	0.55	0.0	0.55
DOMESTIC ²	1.01	0.0	1.01	0.0	1.01
INDUSTRIAL ²	0.30	0.0	0.30	0.0	0.30
IRRIGATION	0.44	0.44	0.88	0.0	0.88
LIVESTOCK	0.39	0.57	0.96	0.0	0.96
THERMOELECTRIC POWER ²	0.0	0.0	0.0	0.0	0.0
TOTAL	2.69	1.01	3.70	0.0	3.70

TOTAL POPULATION (THOUSANDS) 12.4

TOTAL PER CAPITA USE (GPD) 298.4

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

2. SELF-SUPPLIED ONLY.

TABLE A-65 TOTAL WATER USE

BRADFORD¹

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	FRESH			SALINE	
	GROUND	SURFACE	TOTAL	SURFACE	TOTAL
PUBLIC	0.0	0.0	0.0	0.0	0.0
DOMESTIC ²	0.02	0.0	0.02	0.0	0.02
INDUSTRIAL ²	2.16	0.0	2.16	0.0	2.16
IRRIGATION	0.0	0.0	0.0	0.0	0.0
LIVESTOCK	0.0	0.0	0.0	0.0	0.0
THERMOELECTRIC POWER ²	0.0	0.0	0.0	0.0	0.0
TOTAL	2.18	0.0	2.18	0.0	2.18

TOTAL POPULATION (THOUSANDS) 0.2

TOTAL PER CAPITA USE (GPD) 10,900

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

2. SELF-SUPPLIED ONLY.

TABLE A-66 TOTAL WATER USE

BREVARD

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	GROUND	FRESH SURFACE	TOTAL	SALINE SURFACE	TOTAL
PUBLIC	5.38	9.46	14.84	0.0	14.84
DOMESTIC ¹	4.42	0.0	4.42	0.0	4.42
INDUSTRIAL ¹	0.24	0.0	0.24	0.0	0.24
IRRIGATION	122.61	5.38	127.99	0.0	127.99
LIVESTOCK	0.52	0.37	0.89	0.0	0.89
THERMOELECTRIC POWER ¹	0.10	0.0	0.10	1,457.00	1,457.10
TOTAL	133.27	15.21	148.48	1,457.00	1,605.48

TOTAL POPULATION (THOUSANDS) 264.3

TOTAL PER CAPITA USE 6,074.5

1. SELF-SUPPLIED ONLY.

TABLE A-67 TOTAL WATER USE

CLAY

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	GROUND	FRESH SURFACE	TOTAL	SALINE SURFACE	TOTAL
PUBLIC	1.68	0.0	1.68	0.0	1.68
DOMESTIC ¹	5.08	0.0	5.08	0.0	5.08
INDUSTRIAL ¹	3.20	0.0	3.20	0.0	3.20
IRRIGATION	0.80	0.04	0.84	0.0	0.84
LIVESTOCK	1.25	1.25	2.50	0.0	2.50
THERMOELECTRIC POWER ¹	0.0	0.0	0.0	0.0	0.0
TOTAL	12.01	1.29	13.30	0.0	13.30

TOTAL POPULATION (THOUSANDS) 54.3

TOTAL PER CAPITA USE (GPD) 244.9

1. SELF-SUPPLIED ONLY.

TABLE A-68 TOTAL WATER USE

DUVAL

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	FRESH			SALINE	
	GROUND	SURFACE	TOTAL	SURFACE	TOTAL
PUBLIC	59.56	0.0	59.56	0.0	59.56
DOMESTIC ¹	23.04	0.0	23.04	0.0	23.04
INDUSTRIAL ¹	42.98	19.00	61.98	43.00	104.98
IRRIGATION	0.04	0.09	0.13	0.0	0.13
LIVESTOCK	0.38	1.56	1.94	0.0	1.94
THERMOELECTRIC POWER ¹	0.0	0.0	0.0	1,225.00	1,225.00
TOTAL	126.00	20.65	146.65	1,268.00	1,414.65

TOTAL POPULATION (THOUSANDS) 574.0

TOTAL PER CAPITA USE (GPD) 2,464.5

1. SELF-SUPPLIED ONLY.

TABLE A-69 TOTAL WATER USE

FLAGLER

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	FRESH			SALINE	
	GROUND	SURFACE	TOTAL	SURFACE	TOTAL
PUBLIC	0.52	0.0	0.52	0.0	0.52
DOMESTIC ¹	0.57	0.0	0.57	0.0	0.57
INDUSTRIAL ¹	0.0	0.0	0.0	0.0	0.0
IRRIGATION	3.14	0.0	3.14	0.0	3.14
LIVESTOCK	0.07	0.05	0.12	0.0	0.12
THERMOELECTRIC POWER ¹	0.0	0.0	0.0	0.0	0.0
TOTAL	4.30	0.05	4.35	0.0	4.35

TOTAL POPULATION (THOUSANDS) 8.4 TOTAL PER CAPITA USE (GPD) 517.8

1. SELF-SUPPLIED ONLY.

TABLE A-70 TOTAL WATER USE

INDIAN RIVER

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	GROUND	FRESH SURFACE	TOTAL	SALINE SURFACE	TOTAL
PUBLIC	6.98	0.0	6.98	0.0	6.98
DOMESTIC ¹	3.25	0.0	3.25	0.0	3.25
INDUSTRIAL ¹	1.05	0.0	1.05	0.0	1.05
IRRIGATION	49.46	165.39	214.85	0.0	214.85
LIVESTOCK	0.10	0.41	0.51	0.0	0.51
THERMOELECTRIC POWER ¹	1.50	0.0	1.50	66.00	67.50
TOTAL	62.34	165.80	228.14	66.00	294.14

TOTAL POPULATION (THOUSANDS) 52.3

TOTAL PER CAPITA USE (GPD) 5,624.1

¹. SELF-SUPPLIED ONLY.

TABLE A-71 TOTAL WATER USE

LAKE¹

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	FRESH			SALINE	
	GROUND	SURFACE	TOTAL	SURFACE	TOTAL
PUBLIC	10.91	0.0	10.91	0.0	10.91
DOMESTIC ²	3.91	0.0	3.91	0.0	3.91
INDUSTRIAL ²	17.47	0.0	17.47	0.0	17.47
IRRIGATION	85.01	28.33	113.34	0.0	113.34
LIVESTOCK	0.37	0.36	0.73	0.0	0.73
THERMOELECTRIC POWER ²	0.0	0.0	0.0	0.0	0.0
TOTAL	117.67	28.69	146.36	0.0	146.36
TOTAL POPULATION (THOUSANDS)		90.5	TOTAL PER CAPITA USE (GPD)		1,617.2

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

2. SELF-SUPPLIED ONLY.

TABLE A-72 TOTAL WATER USE

MARION¹

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	GROUND	FRESH SURFACE	TOTAL	SALINE SURFACE	TOTAL
PUBLIC	5.07	0.0	5.07	0.0	5.07
DOMESTIC ²	4.62	0.0	4.62	0.0	4.62
INDUSTRIAL ²	0.91	0.0	0.91	0.0	0.91
IRRIGATION	18.22	0.97	19.19	0.0	19.19
LIVESTOCK	1.16	0.06	1.22	0.0	1.22
THERMOELECTRIC POWER ²	0.0	0.0	0.0	0.0	0.0
TOTAL	29.98	1.03	31.01	0.0	31.01

TOTAL POPULATION (THOUSANDS) 77.0

TOTAL PER CAPITA USE (GPD) 402.7

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

2. SELF-SUPPLIED ONLY.

TABLE A-73 TOTAL WATER USE

NASSAU

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	GROUND	FRESH SURFACE	TOTAL	SALINE SUBFACE	TOTAL
PUBLIC	2.54	0.0	2.54	0.0	2.54
DOMESTIC ¹	2.58	0.0	2.58	0.0	2.58
INDUSTRIAL ¹	58.89	0.0	58.89	2.00	60.89
IRRIGATION	0.15	0.0	0.15	0.0	0.15
LIVESTOCK	1.43	1.43	2.86	0.0	2.86
THERMOELECTRIC POWER ¹	0.0	0.0	0.0	0.0	0.0
TOTAL	65.59	1.43	67.02	2.00	69.02

TOTAL POPULATION (THOUSANDS) 31.7

TOTAL PER CAPITA USE (GPD) 2,177.3

1. SELF-SUPPLIED ONLY.

TABLE A-74 TOTAL WATER USE

OKEECHOBEE¹

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	FRESH			SALINE	
	GROUND	SURFACE	TOTAL	SURFACE	TOTAL
PUBLIC	0.0	0.0	0.0	0.0	0.0
DOMESTIC ²	0.02	0.0	0.02	0.0	0.02
INDUSTRIAL ²	0.0	0.0	0.0	0.0	0.0
IRRIGATION	6.22	1.01	7.23	0.0	7.23
LIVESTOCK	0.58	0.25	0.83	0.0	0.83
THERMOELECTRIC POWER ²	0.0	0.0	0.0	0.0	0.0
TOTAL	6.82	1.26	8.08	0.0	8.08
TOTAL POPULATION (THOUSANDS)		0.2	TOTAL PER CAPITA USE (GPD)		40,400.0

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

2. SELF-SUPPLIED ONLY.

TABLE A-75 TOTAL WATER USE

ORANGE¹

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	FRESH			SALINE	
	GROUND	SURFACE	TOTAL	SURFACE	TOTAL
PUBLIC	69.16	0.0	69.16	0.0	69.16
DOMESTIC ²	3.14	0.0	3.14	0.0	3.14
INDUSTRIAL ²	7.52	0.0	7.52	0.0	7.52
IRRIGATION	43.67	4.63	48.30	0.0	48.30
LIVESTOCK	0.40	0.41	0.81	0.0	0.81
THERMOELECTRIC POWER ²	0.0	22.60	22.60	0.0	22.60
TOTAL	123.89	27.64	151.53	0.0	151.53

TOTAL POPULATION (THOUSANDS) 335.9 TOTAL PER CAPITA USE (GPD) 451.1

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

2. SELF-SUPPLIED ONLY.

TABLE A-76 TOTAL WATER USE

OSCEOLA¹

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	GROUND	FRESH SURFACE	TOTAL	SALINE SURFACE	TOTAL
PUBLIC	0.0	0.0	0.0	0.0	0.0
DOMESTIC ²	0.10	0.0	0.10	0.0	0.10
INDUSTRIAL ²	0.0	0.0	0.0	0.0	0.0
IRRIGATION	2.46	0.31	2.77	0.0	2.77
LIVESTOCK	0.02	0.68	0.70	0.0	0.70
THERMOELECTRIC POWER ²	0.0	0.0	0.0	0.0	0.0
TOTAL	2.58	0.99	3.57	0.0	3.57

TOTAL POPULATION (THOUSANDS) 0.8

TOTAL PER CAPITA USE (GPD) 5,337.5

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.
2. SELF-SUPPLIED ONLY.

TABLE A-77 TOTAL WATER USE

POLK¹

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	GROUND	FRESH SURFACE	TOTAL	SALINE SURFACE	TOTAL
PUBLIC	0.0	0.0	0.0	0.0	0.0
DOMESTIC ²	0.04	0.0	0.04	0.0	0.04
INDUSTRIAL ²	0.0	0.0	0.0	0.0	0.0
IRRIGATION	13.38	0.70	14.08	0.0	14.08
LIVESTOCK	0.0	0.0	0.0	0.0	0.0
THERMOELECTRIC POWER ²	0.0	0.0	0.0	0.0	0.0
TOTAL	13.42	0.70	14.12	0.0	14.12

TOTAL POPULATION (THOUSANDS) 2.8

TOTAL PER CAPITA USE (GPD) 5,042.8

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.

2. SELF-SUPPLIED ONLY.

TABLE A-78 TOTAL WATER USE

PUTNAM¹

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				TOTAL
	GROUND	FRESH SURFACE	DIAL	SALINE SURFACE	
PUBLIC	2.50	0.0	2.50	0.0	2.50
DOMESTIC ²	3.96	0.0	3.96	0.0	3.96
INDUSTRIAL ²	19.23	21.00	40.23	0.0	40.23
IRRIGATION	25.20	2.80	28.00	0.0	28.00
LIVESTOCK	0.27	0.25	0.52	0.0	0.52
THERMOELECTRIC POWER ²	0.17	0.33	0.50	0.0	0.50
TOTAL	51.33	24.38	75.71	0.0	75.71

TOTAL POPULATION (THOUSANDS) 44.6

TOTAL PER CAPITA USE (GPD) 1,704.9

1. THIS COUNTY IS PARTIALLY WITHIN THE SJRWMD. THE DATA GIVEN IS FOR THAT PART OF THE COUNTY WITHIN THE SJRWMD.
2. SELF-SUPPLIED ONLY.

TABLE A-79 TOTAL WATER USE

SEMINOLE

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	FRESH			SALINE	
	GROUND	SURFACE	TOTAL	SURFACE	TOTAL
PUBLIC	13.98	0.0	13.98	0.0	13.98
DOMESTIC ¹	8.54	0.0	8.54	0.0	8.54
INDUSTRIAL ¹	3.77	0.0	3.77	0.0	3.77
IRRIGATION	18.18	0.81	18.99	0.0	18.99
LIVESTOCK	0.20	0.11	0.31	0.0	0.31
THERMOELECTRIC POWER ¹	0.0	0.0	0.0	0.0	0.0
TOTAL	44.67	0.92	45.59	0.0	45.59

TOTAL POPULATION (THOUSANDS) 149.8

TOTAL PER CAPITA USE (GPD) 304.3

1. SELF-SUPPLIED ONLY.

TABLE A-80 TOTAL WATER USE

ST. JOHNS

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	GROUND	FRESH SURFACE	TOTAL	SALINE SURFACE	TOTAL
PUBLIC	2.73	0.0	2.73	0.0	2.73
DOMESTIC ¹	2.94	0.0	2.94	0.0	2.94
INDUSTRIAL ¹	0.0	0.0	0.0	0.0	0.0
IRRIGATION	22.81	0.0	22.81	0.0	22.81
LIVESTOCK	0.15	0.09	0.24	0.0	0.24
THERMOELECTRIC POWER ¹	0.0	0.0	0.0	0.0	0.0
TOTAL	28.63	0.09	28.72	0.0	28.72

TOTAL POPULATION (THOUSANDS) 44.6

TOTAL PER CAPITA USE (GPD) 638.8

1. SELF-SUPPLIED ONLY.

TABLE A-81 TOTAL WATER USE

VOLUSIA

1978

WATER USE CATEGORY	WATER WITHDRAWN (MGD)				
	GROUND	FRESH SURFACE	TOTAL	SALINE SURFACE	TOTAL
PUBLIC	26.49	0.0	26.49	0.0	26.49
DOMESTIC ¹	3.94	0.0	3.94	0.0	3.94
INDUSTRIAL ¹	0.31	0.0	0.31	0.0	0.31
IRRIGATION	13.39	4.65	18.04	0.0	18.04
LIVESTOCK	0.08	0.67	0.75	0.0	0.75
THERMOELECTRIC POWER ¹	0.32	283.77	239.09	0.0	239.09
TOTAL	44.53	288.09	333.62	0.0	333.62

TOTAL POPULATION (THOUSANDS) 229.3

TOTAL PER CAPITA USE (GPD) 1,454.9

1. SELF-SUPPLIED ONLY.

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