FRESHWATER USE IN FLORIDA, 1975

By Stanley D. Leach
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NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
SOUTHEAST FLORIDA WATER MANAGEMENT DISTRICT

Tallahassee, Florida
1975

INTRODUCTION

The amount of freshwater in Florida remains relatively constant while population growth, urban development, and agriculture continue to put increasing demands on the existing supply. For this reason it is important to gather data on the water requirements of the State for reasonably accurate forecasts and predictions of future requirements. Several important points can influence the amount of freshwater required for future use: the amount of freshwater used in the State, the time of year freshwater is needed, and the forecast for future water demands.

Water-use data for 1970, collected as part of a nation-wide inventory, are published in reports by Flurry (1977). These reports include summaries for each of the major categories: public supply; rural, irrigation, and industrial uses; thermoelectric power generation; and thermoelectric power generation. Data on town water use for thermoelectric power generation were collected as part of the inventory but are not included in this report because this water is produced from ground water and is not considered part of the freshwater cycle. However, the quantity of freshwater used for thermoelectric power generation was relatively small and the data are in sufficient detail to determine the impact of this use on the State's water supply.

The total statewide freshwater use in 1975 was 1,365 million gallons per day. This is an increase of 90.5% over water use in 1970, when it was 715 million gallons per day. The increase in water use is the result of a number of factors, the most significant of which is an increase in population and its associated demand for water.

The water use for thermoelectric power generation was 0.90 million gallons per day in 1975, which is an increase of 35.4% over 1970. This increase is due to an increase in the number of generating units and an increase in the total annual energy output from the generating units.

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Industrial Use

The total annual energy output from the generating units increased from 86.8 billion kilowatt-hours in 1970 to 116.9 billion kilowatt-hours in 1975, an increase of 34.8%. This increase is due to an increase in the number of generating units and an increase in the total annual energy output from the generating units.

Thermoelectric Power Generation

Most thermoelectric power-generating plants in Florida are near the coast where large quantities of saline or brackish water are available for cooling. These plants are located in the following counties: Brevard, Lee, Martin, St. Lucie, Indian River, Palm Beach, and Pinellas. In addition, thermoelectric power-generating plants are located in the following counties: Alachua, Clay, Escambia, Flagler, Hillsborough, Indian River, Manatee, Martin, Polk, Pinellas, and Volusia. The total annual energy output from these plants increased from 86.8 billion kilowatt-hours in 1970 to 116.9 billion kilowatt-hours in 1975, an increase of 34.8%. This increase is due to an increase in the number of generating units and an increase in the total annual energy output from the generating units.

Although thermoelectric power generation is the second largest use of freshwater in the State, it consumes only 30 million gallons per day, or less than 3% of the total freshwater withdrawn. Therefore, the water is recycled.

REFERENCES


FLORIDA DEPARTMENT OF NATURAL RESOURCES

EXPLANATION

Freshwater withdrawn in millions of gallons per day

- Zero
- Less than 1 Megaliters
- 1 to 10
- 10 to 50
- 50 to 100
- 100 to 200
- Greater than 200 Megaliters

IRRIGATION

Total freshwater used for irrigation in 1975 amounted to 2,884 Megaliters. Of this, 346 Megaliters was used for irrigation in rural areas, 2,538 Megaliters was used for irrigation in urban areas, and 16 Megaliters was used for irrigation in the industrial sector. The remaining 200 Megaliters was used for irrigation in the thermoelectric power generation sector. The remaining 200 Megaliters was used for irrigation in the thermoelectric power generation sector. The remaining 200 Megaliters was used for irrigation in the thermoelectric power generation sector.

TRENDS IN POPULATION AND FRESHWATER USE

In 1970, the State's population was 5,106,000 and the freshwater withdrawn was 900 Megaliters. In 1975, the State's population was 6,892,000 and the freshwater withdrawn was 1,365 Megaliters. The population and freshwater withdrawn increased by 36% and 52%, respectively, between 1970 and 1975.

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