WATER-USE COMPUTER PROGRAMS FOR FLORIDA

By Linda H. Geiger

U.S. GEOLOGICAL SURVEY

Open-File Report 84-442

Tallahassee, Florida

1984

UNITED STATES DEPARTMENT OF THE INTERIOR

WILLIAM P. CLARK, Secretary

GEOLOGICAL SURVEY

Dallas L. Peck, Director

For additional information
write to:

District Chief
U.S. Geological Survey
Suite 3015
227 North Bronough Street
Tallahassee, Florida 32301

Copies of this report can be
purchased from:

Open-File Services Section
Western Distribution Branch
U.S. Geological Survey
Box 25425, Federal Center
Denver, Colorado 80225
(Telephone: (303) 234-5888)

CONTENTS

CONTENTS--Continued

ILLUSTRATIONS

TABLES

TABLES--Continued

TABLES--Continued

CONVERSION FACTORS

For those readers who may prefer to use metric units (SI) rather than the customary inch-pound units, the conversion factors for units used in this report are listed below:

Multiply inch-pound unit	By	To obtain SI unit
acre	4,047	square meter (m^2)
acre-foot (acre-ft)	1,233	cubic meter (m^3)
million gallons per day (Mgal/d in text and figures; MGD in tables)	0.04381	cubic meter per second (m^3/s)

WATER-USE COMPUTER PROGRAMS FOR FLORIDA

By Linda H. Geiger

ABSTRACT

This report shows how, using U.S. Geological Survey computer programs L149-L153, to process water-use data for the functional water-use categories: public supply, rural supply, industrial self-supplied, irrigation, and thermoelectric power generation.

The programs are used to selectively retrieve entries and list them in a format suitable for publication. Instructions are given for coding cards to produce tables of water-use data for each of the functional use categories. These cards contain entries that identify a particular water-use data-collection site in Florida. Entries on the cards include location information such as county code, water management district code, hydrologic unit code, and, where applicable, a site name and number. Annual and monthly pumpage is included. These entries are shown with several different headings; for example, surface water or ground water, freshwater or saline pumpages, or consumptive use.

All of the programs use a similar approach; however, the actual programs differ with each functional water-use category and, therefore, are discussed separately. Data prepared for these programs can also be processed by the National Water-Use Data System.

INTRODUCTION TO WATER-USE COMPUTER PROGRAMS FOR FLORIDA

The purpose of this report is to show how to process water-use data using computer programs L149-L153.

These programs were written in PL1 for the Amdahl[1/] computer at the National Center, Reston, Va., by Linda H. Geiger, U.S. Geological Survey, Tallahassee, Fla. Copies of the programs can be obtained by contacting the Florida District Water-Use Project Chief at the District Office in Tallahassee.

[1/] The use of the brand name in this report is for identification purposes only and does not imply endorsement by the U.S. Geological Survey.

The programs perform the following major functions: (1) edit the input data to conform with coding instructions and print diagnostic messages; (2) compute statewide totals by county, water management district, and hydrologic unit; (3) compute monthly totals by county, water management district, and hydrologic unit; (4) list input data--annual and monthly values, and (5) enhance the publishable water-use reports.

All of the programs use a similar approach; however, the actual programs differ with each functional water-use category and, therefore, are discussed separately. Within each program some tables are set up to list water use by company name. In practice, the company names will be printed on the tables. For the purposes of this report the company names have been deleted.

Data collected for a year are keypunched and tested using the appropriate computer programs by the individual subdistrict offices of the U.S. Geological Survey in Florida. After testing is complete, the data deck is sent to the Florida District Office in Tallahassee. It is held until all data from all the subdistrict offices have been received. The data are then combined for inclusion in a published report. Upon publication, the data are considered to be historical water-use data and are stored by the District Office. Florida data, in the described format, is then entered into the National Water-Use Data System through the interface program WUCONV documented in WATSTORE, volume 7.

HISTORICAL BACKGROUND

Water-use data in 1975 and 1977 were processed by a computer program written by Michael Merritt of the U.S. Geological Survey. The program produced publishable tables of annual data values presented by source (ground water or surface water) for each of the 67 counties, by the 5 water management districts, and by 8 hydrologic unit subregions (4 digits) which encompass the major drainage basins in Florida. The tables presented data on the purpose for which the water was used, the source of water, and the quantities used for each purpose.

However, the program became obsolete due to additional and more intensive water-use data collection. Monthly values, in addition to annual values, were collected as early as 1977, and smaller areas of the state were identified by more widespread data collection. Therefore, the program was rewritten to incorporate tables of monthly values and to further describe data-collection sites. The new procedures use all 8 digits of the hydrologic unit code to identify a specific collection site; 56 hydrologic cataloging units define the State of Florida.

STORAGE OF DATA

Current water-use data are stored on an online disk at the U.S. Geological Survey National Center in Reston, Va., in county code order. Data for previous years will be stored on disk, magnetic tape, and (or) cards.

Each individual data-collection site is identified by county code, hydrologic unit code, water management district code, and, if applicable, a site number.

Aggregates and selected data are stored in the National Water-Use Data System also located at the U.S. Geological Survey National Center.

FILE MAINTENANCE

Each individual subdistrict office is responsible for creating and editing current year data. Data are stored online but will be copied to a magnetic tape or disk as each year's data is published.

REFORMATTING DATA FOR USING THE NATIONAL WATER-USE DATA SYSTEM INTERFACE SYSTEM

To use the National Water-Use Data System (NWUDS) Interface System the data record documented in this report must be reformatted. The input record for the NWUDS Interface System is the same as for the State Water-Use Data System. The input record must be 545 bytes; therefore, a subset of the record documented in this report is used. For entering annual values the subset consists only of card type 1 which has a record length of 80 bytes. The record is padded to achieve 545 bytes and the annual values are extracted using the NWUDS Interface System as documented in WATSTORE, volume 7. For entering monthly values the procedure would be similar. That is, a subset containing only monthly values would be created and padded to 545 bytes. The monthly values then could be extracted using the NWUDS Interface System.

PUBLIC SUPPLY WATER USE, PROGRAM L153

Introduction

The PL1 source language for program L153 has been compiled and loaded into a system library called SYS1.LOADLIB on the Amdahl. The procedure name is SUPPLY.

The program consists of a MAIN module (SUPPLY) and several subroutines which are as follows:

HEDCOM--subroutine that prints page heading for the card listings of annual values;
HEDMOLT--subroutine that prints page heading for the card listings of monthly values;
HEADCO--subroutine that prints page heading for the table of annual values by counties;
HEDMOCO--subroutine that prints page heading for the table of monthly values by counties;
HEDSTAT--subroutine that prints page heading for the table of monthly values, statewide;
HEADWMD--subroutine that prints page heading for the table of annual values by water management districts;
HEDWMMO--subroutine that prints page heading for the table of monthly values by water management districts;
WRAPUP--subroutine that prints the table of annual values by hydrologic units;
HEDHUN--subroutine that prints page heading for the table of annual values by hydrologic units;
HEDBSMO--subroutine that prints page heading for the table of monthly values by hydrologic unit.

Coding the Data

Water-use data will be processed by L153 only in the card format as described in this report. Coding forms (U.S. Geological Survey forms 1 and 1A Florida District) are available for coding data for each site. This allows an orderly and consistent format for keypunching and entering data into the system. To adequately describe a specific public water supplier, five cards must be coded and keypunched.

The option card identifies the tables requested for printing and the year of data collection. Each table available for printing is represented on this card; however, certain tables are available by sets only. That is, a table of monthly values by county will be printed only if the table of annual values by county is requested. The annual and monthly values card listings are printed with one request on the option card. Optionally, table numbers for publication can be coded on this card.

The Option Card

The option card is coded as follows:

Column(s)

1 Card type. Enter the letter "O." Mandatory field;

2 Code "1" if annual and monthly values card listings are desired;

3 Code "1" if table of annual values sorted by counties is desired. If this column is not coded, monthly values sorted by counties cannot be requested;

4 Code "1" if monthly values sorted by counties is desired;

5 Code "1" if table of annual values sorted by water management districts is desired. If this column is not coded, monthly values by water management districts cannot be requested.

6 Code "1" if table of monthly values sorted by water management districts is desired;

7 Code "1" if a card listing sorted by hydrologic unit is desired. If this column is not coded, the data will not be sorted by hydrologic unit, and tables for hydrologic unit values cannot be requested;

8 Code "1" if table of annual values sorted by hydrologic units is desired. If this column is not coded, monthly values sorted by hydrologic units cannot be requested;

9 Code "1" if table of monthly values sorted by hydrologic units is desired;

40-43 Year the data were collected, e.g. 1978; mandatory field;

44 Blank;

45-65 These seven fields of three digits are for use in publication. An assigned table number can be coded or the field left blank;

- 45-47 Table number for "by counties" table;
- 48-50 Table number for "monthly, by counties" table;
- 51-53 Table number for "monthly, statewide" table;
- 54-56 Table number for "by water management districts" table;
- 57-59 Table number for "monthly, by water management districts" table;
- 60-62 Table number for "by hydrologic units" table;
- 63-65 Table number for "monthly, by hydrologic units" table.

The Data Cards

Each specific site where water-use data have been collected must be coded on five cards as follows (figs. 1 and 2):

Column(s)

1	Card type. Enter "1;"
2-4	County code. Leading zeroes must be coded: county "009," not "9;"
5-12	Drainage basin/hydrologic unit code. Columns 5-6 are precoded "03" to denote the State of Florida;
13-14	Water management district code: NW - Northwest Florida SW - Southwest Florida SJ - St. Johns River SR - Suwannee River SF - South Florida;
15-16	Public water supply sequence system numbered consecutively from 01 for each county. Each office must assign a unique system number for each public-supply site to be processed by program L153. Each system within a county is numbered consecutively from 01;
17-37	Public water supply system name;
2/ 38-42	Total population in city or development, on public water supply system, in thousands;
2/ 43-47	Population served, ground water, in thousands;
2/ 48-52	Population served, surface water, in thousands;
3/ 53-57	Average annual pumpage of ground water, in Mgal/d;
3/ 58-62	Average annual pumpage of surface water, in Mgal/d;
3/ 63-67	Average consumed, in Mgal/d;
68-78	These fields contain average pumpage in percent for: 68-70 public supply 71-72 agriculture 73-74 industry 75-76 commercial 77-78 air conditioning;
79-80	Year. Code the last 2 digits of the year the data were collected.

2/ These fields contain an implied decimal 1 digit from the right; for example, the value 1268 would be read as 126.8.

3/ These fields contain an implied decimal 2 digits from the right; for example, the value 1268 Mgal/d would be read as 12.68 Mgal/d.

U.S. Geological Survey Form 1
Florida District
Revised 6/7/79

PUBLIC WATER SUPPLY SYSTEM 19____

CARD [1] (1) COUNTY NO. [ ] (2–4) DRAINAGE BASIN [0 3] (5–12) WMD [ ] (13–14)

SYSTEM NO. [ ] (15–16) NAME OF SYSTEM [ ] (17–37)

Information Collected by _____ Date_____ 19_____ From _____

Total Population [ ] (38–42) (Thousands) Population served GW [ ] (43–47) SW [ ] (48–52)

Other areas served _____ Lat _____ Long _____

Average annual pumpage GW [ ] (53–57) SW [ ] (58–62) Average Consumed [ ] (63–67)

PERCENT OF AVERAGE PUMPAGE FOR

Public Supply [ ] (68–70) %

Agriculture [ ] (71–72) %

Industry [ ] (73–74) %

Commercial [ ] (75–76) %

Air condition [ ] (77–78) %

Year 19 [ ] (79–80)

Storage Capacity of finished water: _____ MG

Sample taken for analysis ____ by _____ Agency _____ Date _____

Type, frequency and source of analysis:

TYPE	TREATED FREQUENCY	UNTREATED FREQUENCY
Bacteriological	_____/year	_____/year
Chemical	_____/year	_____/year
Spectrographic	_____/year	_____/year
Color and Turbidity	_____/year	_____/year
_____ (Other)	_____/year	_____/year

Water treatment _____

SEWAGE OR WASTE WATER

Average amount of water discharged _____ MGD

Type of waste treatment _____

Waste discharge to _____

Remarks _____

_____ Checked by _____, 19 _____

Figure 1.--U.S. Geological Survey form 1--Florida District public water supply water-use data.

U.S. Geological Survey Form 1A
Florida District
Revised 6/11/79

PUBLIC WATER USE 19____ (Monthly)

CARD [2] (1) COUNTY NO. [ ][ ][ ] (2 4) DRAINAGE BASIN [0][3][ ][ ][ ][ ][ ][ ] (5 12) WMD [ ][ ] (13 14) SYM. NO. [ ][ ] (15 16)

	GW	SW	P.S.	AG	IN	CO	AC
JANUARY	[ ][ ][ ][ ][ ] (17 21) MGD	[ ][ ][ ][ ][ ] (22 26) MGD	[ ][ ][ ] (27 29) %	[ ][ ] (30 31) %	[ ][ ] (32 33) %	[ ][ ] (34 35) %	[ ][ ] (36 37) %
FEBRUARY	[ ][ ][ ][ ][ ] (38 42) MGD	[ ][ ][ ][ ][ ] (43 47) MGD	[ ][ ][ ] (48 50) %	[ ][ ] (51 52) %	[ ][ ] (53 54) %	[ ][ ] (55 56) %	[ ][ ] (57 58) %
MARCH	[ ][ ][ ][ ][ ] (59 63) MGD	[ ][ ][ ][ ][ ] (64 68) MGD	[ ][ ][ ] (69 71) %	[ ][ ] (72 73) %	[ ][ ] (74 75) %	[ ][ ] (76 77) %	[ ][ ] (78 79) %

CARD [3] (1) COUNTY NO. [ ][ ][ ] (2 4) DRAINAGE BASIN [0][3][ ][ ][ ][ ][ ][ ] (5 12) WMD [ ][ ] (13 14) SYM. NO. [ ][ ] (15 16)

	GW	SW	P.S.	AG	IN	CO	AC
APRIL	[ ][ ][ ][ ][ ] (17 21) MGD	[ ][ ][ ][ ][ ] (22 26) MGD	[ ][ ][ ] (27 29) %	[ ][ ] (30 31) %	[ ][ ] (32 33) %	[ ][ ] (34 35) %	[ ][ ] (36 37) %
MAY	[ ][ ][ ][ ][ ] (38 42) MGD	[ ][ ][ ][ ][ ] (43 47) MGD	[ ][ ][ ] (48 50) %	[ ][ ] (51 52) %	[ ][ ] (53 54) %	[ ][ ] (55 56) %	[ ][ ] (57 58) %
JUNE	[ ][ ][ ][ ][ ] (59 63) MGD	[ ][ ][ ][ ][ ] (64 68) MGD	[ ][ ][ ] (69 71) %	[ ][ ] (72 73) %	[ ][ ] (74 75) %	[ ][ ] (76 77) %	[ ][ ] (78 79) %

CARD [4] (1) COUNTY NO. [ ][ ][ ] (2 4) DRAINAGE BASIN [0][3][ ][ ][ ][ ][ ][ ] (5 12) WMD [ ][ ] (13 14) SYM. NO. [ ][ ] (15 16)

	GW	SW	P.S.	AG	IN	CO	AC
JULY	[ ][ ][ ][ ][ ] (17 21) MGD	[ ][ ][ ][ ][ ] (22 26) MGD	[ ][ ][ ] (27 29) %	[ ][ ] (30 31) %	[ ][ ] (32 33) %	[ ][ ] (34 35) %	[ ][ ] (36 37) %
AUGUST	[ ][ ][ ][ ][ ] (38 42) MGD	[ ][ ][ ][ ][ ] (43 47) MGD	[ ][ ][ ] (48 50) %	[ ][ ] (51 52) %	[ ][ ] (53 54) %	[ ][ ] (55 56) %	[ ][ ] (57 58) %
SEPTEMBER	[ ][ ][ ][ ][ ] (59 63) MGD	[ ][ ][ ][ ][ ] (64 68) MGD	[ ][ ][ ] (69 71) %	[ ][ ] (72 73) %	[ ][ ] (74 75) %	[ ][ ] (76 77) %	[ ][ ] (78 79) %

CARD [5] (1) COUNTY NO. [ ][ ][ ] (2 4) DRAINAGE BASIN [0][3][ ][ ][ ][ ][ ][ ] (5 12) WMD [ ][ ] (13 14) SYM. NO. [ ][ ] (15 16)

	GW	SW	P.S.	AG	IN	CO	AC
OCTOBER	[ ][ ][ ][ ][ ] (17 21) MGD	[ ][ ][ ][ ][ ] (22 26) MGD	[ ][ ][ ] (27 29) %	[ ][ ] (30 31) %	[ ][ ] (32 33) %	[ ][ ] (34 35) %	[ ][ ] (36 37) %
NOVEMBER	[ ][ ][ ][ ][ ] (38 42) MGD	[ ][ ][ ][ ][ ] (43 47) MGD	[ ][ ][ ] (48 50) %	[ ][ ] (51 52) %	[ ][ ] (53 54) %	[ ][ ] (55 56) %	[ ][ ] (57 58) %
DECEMBER	[ ][ ][ ][ ][ ] (59 63) MGD	[ ][ ][ ][ ][ ] (64 68) MGD	[ ][ ][ ] (69 71) %	[ ][ ] (72 73) %	[ ][ ] (74 75) %	[ ][ ] (76 77) %	[ ][ ] (78 79) %

Figure 2.--U.S. Geological Survey form 1A--Florida District public water supply water-use monthly data.

Column(s)

1	Card type. Code "2" for entering monthly values for January, February, and March; code "3" for entering monthly values for April, May, and June; code "4" for entering monthly values for July, August, and September; code "5" for entering monthly values for October, November, and December;
2-4	County code. Leading zeroes must be coded: county "009;" not "9;"
5-12	Drainage basin/hydrologic unit code. Columns 5-6 are precoded "03" to denote the State of Florida;
13-14	Water management district code. See columns 13-14, page 6 for a listing of valid codes;
15-16	Public supply system sequence number. Sequence number should be the same as used on card 1;
17-79	These fields contain average monthly pumpages, in Mgal/d, and percentages for the months January through March, April through June, July through September, and October through December;
17-37	Monthly values for:
17-21[2/]	ground water
22-26[2/]	surface water
27-29	percent pumped for public supply
30-31	percent pumped for agriculture
32-33	percent pumped for industry
34-35	percent pumped for commercial uses
36-37	Percent pumped for air conditioning;
38-58	Monthly values for:
38-42[2/]	ground water
43-47[2/]	surface water
48-50	percent pumped for public supply
51-52	percent pumped for agriculture
53-54	percent pumped for industry
55-56	percent pumped for commercial uses
57-58	Percent pumped for air conditioning;
59-79	Monthly values for:
59-63[2/]	ground water
64-68[2/]	surface water
69-71	percent pumped for public supply
72-73	percent pumped for agriculture
74-75	percent pumped for industry
76-77	percent pumped for commercial uses
78-79	Percent pumped for air conditioning;

[2/] These fields contain an implied decimal 2 digits from the right; for example, the value 1268 Mgal/d would be read as 12.68 Mgal/d.

Special Coding Considerations

Columns 1-16 must be coded on all cards for a specific public supply site to uniquely identify that data. These columns are mandatory.

In the data fields, either for annual or monthly data values, zeroes do not need to be coded or keypunched. If the field is left blank, zeroes are assumed. Therefore, planned collection sites can be entered with all data fields left blank provided the identifier (columns 1-16) is keypunched.

In many cases, the data fields contain implied decimals. See public water-use coding forms 1 and 1A, pages 7 and 8. The decimals must not be keypunched. For instance, annual ground-water pumpage is a 5-digit field with the decimal 2 digits from the right.

Processing Procedures

After forms 1 and 1A are coded, the data must be keypunched and submitted for processing by program L153.

Program L153 edits the data for the following:

1. Option card: An "0" card must be the first input card or processing will be terminated. A diagnostic message will be printed if an "0" card is not the first input card. See Diagnostic Messages, page 18. See page 5 for the description and coding of the option card.

2. Card sequence: Card input must be in numerical sequence 1 to 5 for each site. If the cards are not in proper numerical sequence by card type, a diagnostic message will be printed and all further processing discontinued. See Diagnostic Messages, page 18. For ease in reading, public-supply sites should also be in ascending order by county code.

3. Conversion errors: A conversion error appears when the PL1 compiler cannot convert arithmetic or character values to other formats. This is an error generated by the compiler; however, program L153 will print a diagnostic message showing where the error occurred. This is helpful in locating errors in input. It is usually a keypunch error.

The program will not diagnose incorrect data. The input to program L153 should be checked carefully before it is submitted for processing. Selecting the card listing option will aid in locating invalid codes for county, hydrologic unit, and water management district. Finding errors in data from the tables is time consuming.

Since SUPPLY computes totals for annual and monthly data statewide by county, water management district, and hydrologic unit, data errors exist if all three categories do not have identical totals. That is, state totals for annual values by county must balance with state totals for annual values by water management district and hydrologic unit. Likewise, monthly values statewide, by county, must balance with monthly values by hydrologic unit and water management district. In addition, monthly totals must equal annual totals for all three categories. For example, the statewide monthly total computed for ground water pumped must equal the state annual total for ground water pumped.

Output from Program L153

The output is requested on the option card and consists of two types of printout--card listings and tables of data. See page 5 for coding the option card. Each card listing or table produced by program L153 is discussed separately in the following paragraphs. Only partial listings of the tables or the card listings are provided in an effort to save space.

A listing of the annual data values punched on card 1 can be requested (table 1). The column headings produced (reading left to right) are company name, county code, hydrologic unit code, water management district code, system number, total population, population served ground water, population served surface water, pumpages for ground water and surface water, average water consumed, percentages of pumpage for public supply, and water furnished by public supplies for agriculture, industry, commercial use, and air conditioning, and the year of data collection. The percentages are also totaled for each company or system to insure 100 percent.

A listing of the monthly data values punched on cards 2-5 is printed if card listings are requested on the option card. This is called the monthly values card listing (table 2). The column headings produced (reading left to right) are company name, county name, and monthly pumpages for ground water and surface water, and the percentages pumped for use in public supply and for water furnished by public supply for agriculture, industry, commercial, and air conditioning. The monthly values are totaled by column and then divided by 12 to show average monthly pumpage. The percentages are also totaled to insure 100 percent. The two card listings are essential for editing water-use data. They are not in publishable form and, therefore, are to be used only as worksheets.

A table showing annual data compiled by county may be requested entitled "Public Supply Water Use in Florida, by Counties" (table 3). This table consists of column headings (reading left to right) for county name, population served with ground water, surface water, and their sum; ground water withdrawn, surface water withdrawn, and their sum; per capita usage; water delivered by usage for public supply, agriculture, industry, commercial, and air conditioning, and water consumed. This table ends with a line of state totals for each column.

A table showing monthly data compiled by county may be requested entitled "Public Supply Water Use in Florida, Monthly, by Counties" (table 4). This table consists of the same column headings as "Public Supply Water Use in Florida, by Counties," except population, per capita, and consumed figures are missing. Twelve lines of monthly data are shown for the 67 counties in the State of Florida. This table is followed by a table entitled "Public Supply Water Use in Florida, Monthly, Statewide" (table 5). It contains the same table format and consists of totals by month for the entire state. Thus, there are 12 lines of data for January through December. This table ends with a line for statewide averages of monthly data by column.

Table 1.--Output for public supply water use, annual pumpages card listing (card 1)

PUBLIC WATER SUPPLY

COMPANY NAME	CNTY	BASIN	WMD	NO	TOTPUP	POPGW	POPSW	ANNGW	ANNSW	AVGCON	PUBSUP	AGRI	IND	COM	AC	YR
	131	140102	NW	9	0.0	0.1	0.0	0.01	0.00	0.01	100	0	0	0	0	80
	131	140103	NW	10	0.0	0.5	0.0	0.02	0.00	0.01	100	0	0	0	0	80
	131	140103	NW	11	0.7	1.4	0.0	0.14	0.00	0.00	100	0	0	0	0	80
	131	140101	NW	12	0.0	0.1	0.0	0.02	0.00	0.01	100	0	0	0	0	80
	131	140101	NW	13	0.0	0.5	0.0	0.03	0.00	0.01	100	0	0	0	0	80
	131	140102	NW	14	0.0	2.9	0.0	0.29	0.00	0.08	90	0	0	10	0	80
	131	140102	NW	15	0.0	0.3	0.0	0.02	0.00	0.01	100	0	0	0	0	80
	133	140203	NW	1	3.3	3.5	0.0	0.61	0.00	0.05	99	0	0	1	0	80
	133	140203	NW	2	0.0	0.8	0.0	0.10	0.00	0.03	95	0	0	5	0	80
	133	140203	NW	3	0.6	0.4	0.0	0.08	0.00	0.01	95	0	0	5	0	80
	133	140203	NW	4	0.9	0.8	0.0	0.10	0.00	0.03	90	0	0	10	0	80
	133	140203	NW	5	0.3	0.4	0.0	0.03	0.00	0.01	95	0	0	5	0	80

Table 2.--Output for public supply water use, monthly pumpages card listing (cards 2-5)

PUBLIC WATER SUPPLY

COMPANY NAME	CNTY	GROUND WATER	SURFACE WATER	PUBLIC SUPPLY	AGRICULTURE	INDUSTRY	COMMERCIAL	AIR CONDITIONING
	ALACHUA							
	JAN	0.56	0.00	50	0	0	50	0 =100%
	FEB	0.56	0.00	50	0	0	50	0 =100%
	MAR	0.54	0.00	50	0	0	50	0 =100%
	APR	0.61	0.00	50	0	0	50	0 =100%
	MAY	0.61	0.00	50	0	0	50	0 =100%
	JUN	0.63	0.00	50	0	0	50	0 =100%
	JUL	0.62	0.00	50	0	0	50	0 =100%
	AUG	0.56	0.00	50	0	0	50	0 =100%
	SEP	0.65	0.00	50	0	0	50	0 =100%
	OCT	0.64	0.00	50	0	0	50	0 =100%
	NOV	0.57	0.00	50	0	0	50	0 =100%
	DEC	0.53	0.00	50	0	0	50	0 =100%
	TOTAL	7.08	0.00					
	PER DAY	0.59	0.00					
	ALACHUA							
	JAN	13.89	0.00	54	0	4	42	0 =100%
	FEB	13.16	0.00	54	0	4	42	0 =100%
	MAR	15.49	0.00	54	0	4	42	0 =100%
	APR	19.54	0.00	54	0	4	42	0 =100%
	MAY	17.73	0.00	54	0	4	42	0 =100%
	JUN	15.60	0.00	54	0	4	42	0 =100%
	JUL	15.61	0.00	54	0	4	42	0 =100%
	AUG	15.49	0.00	54	0	4	42	0 =100%
	SEP	18.37	0.00	54	0	4	42	0 =100%
	OCT	18.54	0.00	54	0	4	42	0 =100%
	NOV	17.30	0.00	54	0	4	42	0 =100%
	DEC	13.68	0.00	54	0	4	42	0 =100%
	TOTAL	194.40	0.00					
	PER DAY	16.20	0.00					
	ALACHUA							
	JAN	0.12	0.00	100	0	0	0	0 =100%
	FEB	0.12	0.00	100	0	0	0	0 =100%
	MAR	0.12	0.00	100	0	0	0	0 =100%
	APR	0.16	0.00	100	0	0	0	0 =100%
	MAY	0.15	0.00	100	0	0	0	0 =100%
	JUN	0.14	0.00	100	0	0	0	0 =100%
	JUL	0.12	0.00	100	0	0	0	0 =100%
	AUG	0.12	0.00	100	0	0	0	0 =100%
	SEP	0.13	0.00	100	0	0	0	0 =100%
	OCT	0.13	0.00	100	0	0	0	0 =100%
	NOV	0.14	0.00	100	0	0	0	0 =100%
	DEC	0.11	0.00	100	0	0	0	0 =100%
	TOTAL	1.56	0.00					
	PER DAY	0.13	0.00					

Table 3.--Output for public supply water use in Florida, by counties

TABLE .--PUBLIC SUPPLY WATER USE IN FLORIDA BY COUNTIES, 1980--CONTINUED

COUNTY	POPULATION SERVED (THSNDS) GW	Sw	ALL WTR	WATER WITHDRAWN (MGD) GW	Sw	TOTAL	PER CAP	WATER DELIVERED (MGD) BY USES PUBLIC SUPPLY	AGRIC-ULTURE	INDU STRY	COMM ERCIAL	AIR CNDTNG	WATER CONSUMED (MGD)
OSCEOLA	24.6	0.0	24.6	4.19	0.00	4.19	170	3.79	0.00	0.40	0.00	0.00	0.84
PALM BEACH	419.1	86.0	505.1	94.41	29.40	123.81	245	108.70	0.64	6.75	7.07	0.65	24.51
PASCO	136.7	0.0	136.7	11.92	0.00	11.92	87	11.08	0.05	0.09	0.70	0.00	4.77
PINELLAS	701.2	0.0	701.2	102.85	0.00	102.85	147	68.55	9.59	4.45	20.26	0.00	22.41
POLK	183.5	0.0	183.5	35.54	0.00	35.54	194	26.22	0.14	4.68	4.41	0.10	17.87
PUTNAM	15.8	0.0	15.8	2.86	0.00	2.86	181	2.84	0.00	0.00	0.02	0.00	0.57
ST. JOHNS	25.8	0.0	25.8	2.98	0.00	2.98	116	2.98	0.00	0.00	0.00	0.00	2.73
ST. LUCIE	55.6	0.0	55.6	9.69	0.00	9.69	174	8.56	0.00	0.76	0.38	0.00	1.93
SANTA ROSA	50.5	0.0	50.5	5.83	0.00	5.83	115	5.13	0.06	0.05	0.59	0.00	1.75
SARASOTA	93.5	98.0	191.5	11.07	8.47	19.54	102	16.83	0.00	0.52	2.20	0.00	7.92
SEMINOLE	94.4	0.0	94.4	13.98	0.00	13.98	148	12.20	0.00	0.48	1.30	0.00	2.79
SUMTER	5.4	0.0	5.4	1.02	0.00	1.02	189	0.90	0.00	0.00	0.12	0.00	0.66
SUWANNEE	6.9	0.0	6.9	1.06	0.00	1.06	154	0.83	0.00	0.01	0.21	0.00	0.45
TAYLOR	8.5	0.0	8.5	1.49	0.00	1.49	175	1.18	0.00	0.00	0.28	0.04	0.82
UNION	5.3	0.0	5.3	0.57	0.00	0.57	108	0.21	0.00	0.31	0.06	0.00	0.16
VOLUSIA	222.2	0.0	222.2	26.57	0.00	26.57	120	22.52	0.00	1.53	2.24	0.28	5.31
WAKULLA	4.7	0.0	4.7	0.56	0.00	0.56	119	0.49	0.00	0.00	0.07	0.00	0.10
WALTON	12.9	0.0	12.9	1.62	0.00	1.62	126	1.37	0.00	0.04	0.21	0.00	0.21
WASHINGTON	5.9	0.0	5.9	0.92	0.00	0.92	156	0.89	0.00	0.00	0.03	0.00	0.13
STATE TOTALS	6795.6	990.7	7786.3	1184.35	176.93	1361.28	174	1124.42	13.02	84.26	123.14	16.44	329.12

Table 4.--Output for public supply water use in Florida, monthly, by counties

TABLE .--PUBLIC SUPPLY WATER USE IN FLORIDA MONTHLY, BY COUNTIES, 1980--CONTINUED

COUNTY		WATER WITHDRAWN (MGD) GW	SW	TOTAL	WATER DELIVERED (MGD) BY USES PUBLIC SUPPLY	AGRIC-ULTURE	INDU STRY	COMM ERCIAL	AIR CNDTNG
ALACHUA									
	JAN	15.72	0.00	15.72	8.99	0.00	0.62	6.11	0.00
	FEB	14.90	0.00	14.90	8.51	0.00	0.58	5.81	0.00
	MAR	17.32	0.00	17.32	9.86	0.00	0.69	6.78	0.00
	APR	21.71	0.00	21.71	12.33	0.00	0.87	8.51	0.00
	MAY	19.81	0.00	19.81	11.27	0.00	0.79	7.75	0.00
	JUN	17.64	0.00	17.64	10.07	0.00	0.70	6.87	0.00
	JUL	17.78	0.00	17.78	10.19	0.00	0.73	6.87	0.00
	AUG	17.70	0.00	17.70	10.18	0.00	0.74	6.79	0.00
	SEP	20.46	0.00	20.46	11.61	0.00	0.81	8.04	0.00
	OCT	20.62	0.00	20.62	11.69	0.00	0.82	8.11	0.00
	NOV	19.19	0.00	19.19	10.88	0.00	0.76	7.55	0.00
	DEC	15.31	0.00	15.31	8.70	0.00	0.60	6.01	0.00
BAKER									
	JAN	0.57	0.00	0.57	0.57	0.00	0.00	0.00	0.00
	FEB	0.49	0.00	0.49	0.49	0.00	0.00	0.00	0.00
	MAR	0.52	0.00	0.52	0.52	0.00	0.00	0.00	0.00
	APR	0.64	0.00	0.64	0.64	0.00	0.00	0.00	0.00
	MAY	0.61	0.00	0.61	0.61	0.00	0.00	0.00	0.00
	JUN	0.66	0.00	0.66	0.66	0.00	0.00	0.00	0.00
	JUL	0.66	0.00	0.66	0.66	0.00	0.00	0.00	0.00
	AUG	0.60	0.00	0.60	0.60	0.00	0.00	0.00	0.00
	SEP	0.69	0.00	0.69	0.69	0.00	0.00	0.00	0.00
	OCT	0.64	0.00	0.64	0.64	0.00	0.00	0.00	0.00
	NOV	0.57	0.00	0.57	0.57	0.00	0.00	0.00	0.00
	DEC	0.53	0.00	0.53	0.53	0.00	0.00	0.00	0.00
BAY									
	JAN	1.99	33.86	35.85	7.90	0.00	25.11	2.84	0.00
	FEB	2.33	36.52	38.85	8.70	0.00	27.08	3.06	0.00
	MAR	2.55	32.82	35.37	8.03	0.00	24.27	3.07	0.00
	APR	2.86	36.44	39.30	8.97	0.00	26.86	3.47	0.00
	MAY	3.05	32.18	35.23	8.27	0.00	23.71	3.26	0.00
	JUN	4.91	46.02	50.93	12.06	0.00	33.92	4.95	0.00
	JUL	5.05	38.30	43.35	10.61	0.00	28.14	4.60	0.00
	AUG	4.79	39.29	44.08	10.58	0.00	29.08	4.42	0.00
	SEP	3.42	39.49	42.91	9.84	0.00	29.45	3.62	0.00
	OCT	2.58	39.13	41.71	9.30	0.00	29.08	3.34	0.00
	NOV	2.27	33.13	35.40	7.95	0.00	24.65	2.80	0.00
	DEC	2.12	28.90	31.02	7.04	0.00	21.47	2.51	0.00

Table 5.--Output for public supply water use in Florida, monthly, statewide

TABLE .--PUBLIC SUPPLY WATER USE IN FLORIDA
MONTHLY, STATEWIDE, 1980

	WATER WITHDRAWN (MGD)			WATER DELIVERED (MGD) BY USES				
	GW	SW	TOTAL	PUBLIC SUPPLY	AGRIC-ULTURE	INDU STRY	COMM ERCIAL	AIR CNDTNG
TOTALS BY MONTHS								
JAN	1092.21	162.88	1255.42	1038.47	12.09	78.22	110.16	16.06
FEB	1081.10	165.34	1246.77	1027.82	12.46	79.64	110.71	15.81
MAR	1210.36	174.60	1385.29	1148.90	13.76	83.40	121.66	17.24
APR	1214.54	179.91	1394.78	1155.19	13.48	85.10	124.53	16.15
MAY	1273.12	180.06	1453.51	1204.86	14.56	85.40	131.47	16.89
JUN	1258.96	201.24	1460.53	1196.47	14.91	94.51	137.74	16.57
JUL	1199.05	176.77	1376.15	1132.76	12.90	85.13	128.72	16.32
AUG	1207.87	179.11	1387.31	1143.83	12.74	87.12	126.50	16.79
SEP	1182.71	170.47	1353.51	1115.51	11.78	85.50	123.96	16.43
OCT	1202.14	191.55	1394.02	1146.71	13.10	88.97	128.55	16.37
NOV	1145.94	179.94	1326.21	1096.70	12.41	81.31	119.39	16.06
DEC	1144.18	161.29	1305.80	1085.74	12.13	76.81	114.17	16.63
STATE TOTALS	1184.35	176.93	1361.61	1124.41	13.02	84.26	123.13	16.44

Table 6.--Output for public supply water use in Florida, by water management districts

TABLE .--PUBLIC SUPPLY WATER USE IN FLORIDA
BY WATER MANAGEMENT DISTRICTS, 1980--CONTINUED

	POPULATION SERVED (THSNDS)			WATER WITHDRAWN (MGD)				WATER DELIVERED (MGD) BY USES					
COUNTY	GW	SW	ALL WTR	GW	SW	TOTAL	PER CAP	PUBLIC SUPPLY	AGRIC-ULTURE	INDU STRY	COMM ERCIAL	AIR CNDTNG	WATER CONSUMED (MGD)
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT													
CHARLOTTE	0.0	51.4	51.4	0.00	4.93	4.93	96	4.15	0.00	0.00	0.78	0.00	2.97
CITRUS	7.4	0.0	7.4	0.91	0.00	0.91	123	0.78	0.00	0.00	0.13	0.00	0.27
DESOTO	7.0	0.0	7.0	0.71	0.00	0.71	101	0.64	0.00	0.00	0.07	0.00	0.14
HARDEE	7.5	0.0	7.5	1.27	0.00	1.27	169	1.21	0.00	0.00	0.06	0.00	0.49
HERNANDO	6.6	0.0	6.6	1.14	0.00	1.14	173	0.68	0.00	0.00	0.46	0.00	0.34
HIGHLANDS	25.0	0.0	25.0	4.80	0.00	4.80	192	3.05	0.14	0.17	1.46	0.00	3.42
HILLSBORDUGH	223.8	364.0	587.8	34.83	49.87	84.70	144	63.75	0.00	7.02	13.93	0.00	14.27
LAKE	0.0	0.0	0.0	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00
LEVY	4.0	0.0	4.0	0.52	0.00	0.52	130	0.51	0.00	0.00	0.01	0.00	0.13
MANATEE	0.0	124.3	124.3	0.00	20.86	20.86	168	17.73	0.00	1.04	2.09	0.00	12.52
MARION	1.4	0.0	1.4	0.24	0.00	0.24	171	0.22	0.00	0.00	0.02	0.00	0.00
PASCO	136.7	0.0	136.7	11.92	0.00	11.92	87	11.08	0.05	0.09	0.70	0.00	4.77
PINELLAS	701.2	0.0	701.2	102.85	0.00	102.85	147	68.55	9.59	4.45	20.26	0.00	22.41
POLK	177.3	0.0	177.3	34.57	0.00	34.57	195	25.64	0.09	4.53	4.26	0.05	17.24
SARASOTA	93.5	98.0	191.5	11.07	8.47	19.54	102	16.83	0.00	0.52	2.20	0.00	7.92
SUMTER	5.4	0.0	5.4	1.02	0.00	1.02	189	0.90	0.00	0.00	0.12	0.00	0.66
WMD TOTAL	1396.8	637.7	2034.5	205.85	84.13	289.98	143	215.71	9.87	17.81	46.54	0.05	87.55
STATE TOTALS	6795.6	990.7	7786.3	1184.35	176.93	1361.28	175	1124.42	13.02	84.26	123.14	16.44	329.12

NOTE
SEVERAL OF THE ABOVE COUNTIES ARE IN MORE THAN ONE WATER MANAGEMENT DISTRICT.
FOR COUNTY TOTALS SEE "PUBLIC SUPPLY WATER USE IN FLORIDA, BY COUNTIES."

A table showing annual data compiled by water management district may be requested entitled "Public Supply Water Use in Florida, by Water Management Districts" (table 6). This table has the same format (column headings) as the annual values by county tables; however, the data are printed by county within a particular water management district. The water management districts in Florida are Northwest Florida, South Florida, St. Johns River, Suwannee River, and Southwest Florida. Two districts are printed per page and each district table ends with totals for each column. A line for state totals follows the district tables.

The table showing monthly data compiled by water management district entitled "Public Supply Water Use in Florida, Monthly, by Water Management Districts" (table 7) is printed if the water management district table is requested. The table format is identical to the "Monthly, by Counties" table. Each water management district's data are presented by month, January through December, ending with a line of totals for the district. A line of statewide totals by column completes the table.

If requested, data keypunched on card 1 are listed and sorted by hydrologic unit (table 8). This is helpful as a worksheet to locate keypunch errors in the hydrologic unit printouts. The column headings are the same as for the previous card type 1 listing.

Following this card listing is the printout showing annual data compiled by hydrologic unit entitled "Public Supply Water Use in Florida, by Hydrologic Units" (table 9). The table format is the same as previous annual values tables; however, data are compiled by counties located within particular hydrologic units (drainage basins) in Florida. A line for unit totals by column appears at the end of each hydrologic unit section. This printout ends with a line of state totals by column.

A table showing monthly data compiled by hydrologic unit will be printed if the table "Public Supply Water Use in Florida, Monthly, by Hydrologic Units" (table 10) is requested. This uses the same monthly table format previously discussed. Therefore, there are 12 lines of data per hydrologic unit code for the months January through December ending with a unit average for each column and a state total for each column to complete the table.

Table 7.--Output for public supply water use in Florida, monthly, by water management districts

TABLE .--PUBLIC SUPPLY WATER USE IN FLORIDA
MONTHLY, BY WATER MANAGEMENT DISTRICTS, 1980--CONTINUED

COUNTY	WATER WITHDRAWN (MGD) GW	SW	TOTAL	WATER DELIVERED (MGD) BY USES PUBLIC SUPPLY	AGRIC-ULTURE	INDU STRY	COMM ERCIAL	AIR CNDTNG
SUWANNEE RIVER WATER MANAGEMENT DISTRICT								
JAN	9.23	0.00	9.23	6.65	0.04	0.82	1.61	0.10
FEB	9.85	0.00	9.85	7.10	0.04	0.84	1.75	0.12
MAR	10.21	0.00	10.21	7.38	0.05	0.85	1.80	0.13
APR	10.84	0.00	10.84	7.89	0.06	0.85	1.91	0.13
MAY	11.66	0.00	11.66	8.43	0.06	0.96	2.08	0.14
JUN	12.74	0.00	12.74	9.13	0.07	1.07	2.31	0.17
JUL	12.25	0.00	12.25	8.80	0.05	1.08	2.16	0.15
AUG	12.11	0.00	12.11	8.72	0.06	1.08	2.10	0.15
SEP	11.77	0.00	11.77	8.44	0.06	1.04	2.09	0.14
OCT	11.55	0.00	11.55	8.24	0.06	1.07	2.04	0.14
NOV	10.30	0.00	10.30	7.47	0.05	0.84	1.82	0.12
DEC	10.09	0.00	10.09	7.25	0.05	0.88	1.79	0.12
WMD TOTAL	11.05	0.00	11.05	7.96	0.05	0.95	1.96	0.13
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT								
JAN	185.02	73.06	258.08	191.92	8.85	15.50	41.77	0.04
FEB	185.41	76.55	261.96	194.80	9.21	15.73	42.18	0.04
MAR	207.57	84.25	291.82	217.04	10.35	17.75	46.63	0.05
APR	211.10	86.25	297.35	221.32	10.29	18.22	47.48	0.05
MAY	230.68	88.55	319.23	237.34	11.30	19.79	50.74	0.05
JUN	234.82	97.20	332.02	247.65	11.68	20.15	52.49	0.05
JUL	205.07	83.04	288.11	214.23	9.83	17.79	46.21	0.05
AUG	202.77	82.42	285.19	211.93	9.64	17.63	45.94	0.05
SEP	196.84	76.44	273.28	203.04	8.83	17.00	44.35	0.05
OCT	218.39	94.10	312.49	232.39	10.11	19.69	50.25	0.06
NOV	199.85	91.07	290.92	216.47	9.39	18.16	46.84	0.05
DEC	192.68	76.63	269.31	200.34	8.98	16.37	43.58	0.04
WMD TOTAL	205.85	84.13	289.98	215.71	9.87	17.81	46.54	0.05
STATE TOTAL	1184.35	176.93	1361.31	1124.41	13.02	84.26	123.13	16.44

Table 8.--Output for public supply water use in Florida, annual pumpages card listing sorted by hydrologic units

COMPANY NAME	CNTY	BASIN	WMD	NO	TOTPOP	POPGW	POPSW	ANNGW	ANNSW	AVGCON	PUBSUP	AGRI	IND	COM	AC	YR
PUBLIC WATER SUPPLY																
	133	140203	NW	1	3.5	3.5	0.0	0.61	0.00	0.05	99	0	0	1	0	80
	133	140203	NW	2	0.0	0.8	0.0	0.10	0.00	0.03	95	0	0	5	0	80
	133	140203	NW	3	0.6	0.4	0.0	0.08	0.00	0.01	95	0	0	5	0	80
	133	140203	NW	4	0.9	0.8	0.0	0.10	0.00	0.03	90	0	0	10	0	80
	133	140203	NW	5	0.3	0.4	0.0	0.03	0.00	0.01	95	0	0	5	0	80
	113	140304	NW	12	0.0	2.1	0.0	0.20	0.00	0.05	80	0	0	20	0	80
	33	140305	NW	2	0.0	2.1	0.0	0.25	0.00	0.05	100	0	0	0	0	80
	33	140305	NW	3	0.0	1.8	0.0	0.20	0.00	0.04	95	0	0	5	0	80
	33	140305	NW	6	0.0	2.0	0.0	0.25	0.00	0.04	98	0	0	2	0	80
	33	140305	NW	7	0.0	2.8	0.0	0.23	0.00	0.04	95	0	0	5	0	80
	33	140305	NW	9	0.0	2.5	0.0	0.20	0.00	0.04	90	0	5	5	0	80
	113	140305	NW	3	0.0	1.2	0.0	0.11	0.00	0.02	96	2	0	2	0	80

Table 9.--Output for public supply water use in Florida by hydrologic units

TABLE .--PUBLIC SUPPLY WATER USE IN FLORIDA
BY HYDROLOGIC UNITS, 1980--CONTINUED

COUNTY	POPULATION SERVED (THSNDS) GW	SW	ALL WTR	WATER WITHDRAWN (MGD) GW	SW	TOTAL	PER CAP	WATER DELIVERED (MGD) BY USES PUBLIC SUPPLY	AGRIC-ULTURE	INDU STRY	COMM ERCIAL	AIR CNDTNG	WATER CONSUMED (MGD)
HYDROLOGIC UNIT 03140107													
ESCAMBIA	10.4	0.0	10.4	1.09	0.00	1.09	105	0.98	0.00	0.00	0.11	0.00	0.27
UNIT TOTAL	10.4	0.0	10.4	1.09	0.00	1.09	105	0.98	0.00	0.00	0.11	0.00	0.27
HYDROLOGIC UNIT 03140203													
BAY	0.0	0.0	0.0	0.00	0.00	0.00	0	0.00	0.00	0.00	0.00	0.00	0.00
HOLMES	3.9	0.0	3.9	0.64	0.00	0.64	164	0.41	0.00	0.12	0.10	0.01	0.33
JACKSON	2.9	0.0	2.9	0.53	0.00	0.53	183	0.46	0.00	0.05	0.03	0.00	0.10
WALTON	5.2	0.0	5.2	0.91	0.00	0.91	175	0.70	0.00	0.04	0.17	0.00	0.04
WASHINGTON	5.9	0.0	5.9	0.92	0.00	0.92	156	0.89	0.00	0.00	0.03	0.00	0.13
UNIT TOTAL	17.9	0.0	17.9	3.00	0.00	3.00	168	2.46	0.00	0.21	0.32	0.01	0.60
HYDROLOGIC UNIT 03140304													
SANTA ROSA	2.1	0.0	2.1	0.20	0.00	0.20	95	0.16	0.00	0.00	0.04	0.00	0.05
UNIT TOTAL	2.1	0.0	2.1	0.20	0.00	0.20	95	0.16	0.00	0.00	0.04	0.00	0.05
HYDROLOGIC UNIT 03140305													
ESCAMBIA	11.2	0.0	11.2	1.13	0.00	1.13	101	1.08	0.00	0.01	0.04	0.00	0.21
SANTA ROSA	1.2	0.0	1.2	0.11	0.00	0.11	92	0.11	0.00	0.00	0.00	0.00	0.02
UNIT TOTAL	12.4	0.0	12.4	1.24	0.00	1.24	100	1.19	0.00	0.01	0.04	0.00	0.23
STATE TOTAL	6795.6	990.7	7786.3	1184.35	176.93	1361.28	175	1124.42	13.02	84.26	123.14	16.44	329.12

NOTE
SEVERAL OF THE ABOVE COUNTIES ARE IN MORE THAN ONE HYDROLOGIC UNIT.
FOR COUNTY TOTALS SEE "PUBLIC SUPPLY WATER USE IN FLORIDA, BY COUNTIES."

Table 10.--Output for public supply water use in Florida, monthly, by hydrologic units

TABLE .--PUBLIC SUPPLY WATER USE IN FLORIDA
MONTHLY, BY HYDROLOGIC UNITS, 1980--CONTINUED

COUNTY	WATER WITHDRAWN (MGD) GW	SW	TOTAL	WATER DELIVERED (MGD) BY USES PUBLIC SUPPLY	AGRIC-ULTURE	INDU STRY	COMM ERCIAL	AIR CNDTNG
HYDROLOGIC UNIT 03140304								
JAN	0.19	0.00	0.19	0.15	0.00	0.00	0.04	0.00
FEB	0.17	0.00	0.17	0.14	0.00	0.00	0.03	0.00
MAR	0.19	0.00	0.19	0.15	0.00	0.00	0.04	0.00
APR	0.17	0.00	0.17	0.14	0.00	0.00	0.03	0.00
MAY	0.18	0.00	0.18	0.14	0.00	0.00	0.04	0.00
JUN	0.24	0.00	0.24	0.19	0.00	0.00	0.05	0.00
JUL	0.28	0.00	0.28	0.22	0.00	0.00	0.06	0.00
AUG	0.23	0.00	0.23	0.18	0.00	0.00	0.05	0.00
SEP	0.24	0.00	0.24	0.19	0.00	0.00	0.05	0.00
OCT	0.21	0.00	0.21	0.17	0.00	0.00	0.04	0.00
NOV	0.18	0.00	0.18	0.14	0.00	0.00	0.04	0.00
DEC	0.12	0.00	0.12	0.10	0.00	0.00	0.02	0.00
BAS TOTAL	0.20	0.00	0.20	0.16	0.00	0.00	0.04	0.00
HYDROLOGIC UNIT 03140305								
JAN	0.97	0.00	0.97	0.93	0.00	0.01	0.03	0.00
FEB	1.07	0.00	1.07	1.02	0.00	0.01	0.04	0.00
MAR	1.03	0.00	1.03	0.98	0.00	0.01	0.04	0.00
APR	1.02	0.00	1.02	0.97	0.00	0.01	0.03	0.00
MAY	1.32	0.00	1.32	1.27	0.00	0.01	0.04	0.00
JUN	1.46	0.00	1.46	1.40	0.00	0.01	0.04	0.00
JUL	1.84	0.00	1.84	1.78	0.00	0.01	0.05	0.00
AUG	1.32	0.00	1.32	1.26	0.00	0.01	0.04	0.00
SEP	1.64	0.00	1.64	1.58	0.00	0.01	0.04	0.00
OCT	1.17	0.00	1.17	1.12	0.00	0.01	0.04	0.00
NOV	1.09	0.00	1.09	1.04	0.00	0.01	0.04	0.00
DEC	0.95	0.00	0.95	0.91	0.00	0.01	0.03	0.00
BAS TOTAL	1.24	0.00	1.24	1.19	0.00	0.01	0.04	0.00
STATE TOTAL	1184.35	176.93	1361.53	1124.41	13.02	84.26	123.13	16.44

Diagnostic Messages

The following are the diagnostic messages produced by L153:

1. ERROR ON OPTION CARD

   NO FURTHER PROCESSING OF THIS REQUEST

This message will occur if the option card is missing. The "0" card is mandatory.

2. NO OPTIONS REQUESTED

   PROCESSING TERMINATED

This message occurs when columns 2-9 on the option card are blank. You must request output from program L153 using the option card.

3. CARDS OUT OF SEQUENCE
   NO FURTHER PROCESSING

Card input must be in proper numerical sequence, ascending, by card type (column 1 of cards 1-5).

Certain system or compiler messages will be printed. An example is:

(1) CARD NOT PRINTED
    CARD NOT VALID

This error occurs when a conversion is called for but cannot be completed. A character or an embedded blank in a numeric field is often the cause of this error, and is usually the result of an error in keypunching. The error appears when L153 sorts the data incorrectly as a result of the keypunching error. The program will print all fields on the particular card where it encountered the problem. This may not be the exact card where the error occurs, but it is helpful in locating the problem area.

Job Control Language

Program L153 has been stored online in a system library.

For retrieval of data from the current disk files:

```
COLUMN 1          COLUMN 12

//xxxxxxxx        JOB (----)
//  EXEC          PGM=SUPPLY,REGION=500K,TIME=2
//STEPLIB         DD DSN=AG4B17G.SUPPLY80.LOAD,DISP=OLD
//                DD DSN=SYS1.PLIX.TRANSLIB,DISP=SHR
//                DD DSN=SYS1.SYNC.LINKLIB,DISP=SHR
//SYSPRINT        DD SYSOUT=A
//SORTLIB         DD DISP=SHR,DSN=SYS1.SYNC.SORTLIB
//SORTMSG         DD SYSOUT=A
//SORTWK01        DD UNIT=SYSDK,SPACE=(CYL,5,,CONTIG)
//SORTWK02        DD UNIT=(SYSDK,SEP=SORTWK01),
//  SPACE=(CYL,5,,CONTIG)
//SORTWK03        DD UNIT=(SYSDK,SEP=(SORTWK01,SORTWK02)),
//  SPACE=(CYL,5,,CONTIG)
//DISK            DD DSN=&&GEIGER,UNIT=SYSDK,SPACE=(CYL,(5,1),RLSE),
//  DCB=(RECFM=FB,LRECL=80,BLKSIZE=6400),DISP=(NEW,PASS)
//SORTIN          DD DSN=*.DISK,VOL=REF=*.DISK,DISP=(OLD,DELETE)
//SORTOUT         DD DSN=*.DISK,VOL=REF=*.DISK,DISP=(OLD,DELETE)
//CARDIN          DD DSN=AG4B17G.SUPPLY80.DATA,DISP=OLD,UNIT=ONLINE
/*
//
```

For retrieval of data from the historical files:

```
  //xxxxxxxx        JOB (----)
  /*SETUP           MNT204/DISK
  //  EXEC          PGM=SUPPLY,REGION=500K,TIME=2
§§//STEPLIB         DD DSN=AG4B17G.SUPPLYXX.LOAD,DISP=OLD
  //                DD DSN=SYS1.PLIX.TRANSLIB,DISP=SHR
  //                DD DSN=SYS1.SYNC.LINKLIB,DISP=SHR
  //SYSPRINT        DD SYSOUT=A
  //SORTLIB         DD DISP=SHR,DSN=SYS1.SYNC.SORTLIB
  //SORTMSG         DD SYSOUT=A
  //SORTWK01        DD UNIT=SYSDK,SPACE=(CYL,5,,CONTIG)
  //SORTWK02        DD UNIT=(SYSDK,SEP=SORTWK01),SPACE=(CYL,5,,CONTIG)
  //SORTWK03        DD UNIT=(SYSDK,SEP=(SORTWK01,SORTWK02)),
  //  SPACE=(CYL,5,,CONTIG)
  //DISK            DD DSN=&&GEIGER,UNIT=SYSDK,SPACE=(CYL,(5,1),RLSE),
  //  DCB=(RECFM=FB,LRECL=80,BLKSIZE=6400),DISP=(NEW,PASS)
  //SORTIN          DD DSN=*.DISK,VOL=REF=*.DISK,DISP=(OLD,DELETE)
  //SORTOUT         DD DSN=*.DISK,VOL=REF=*.DISK,DISP=(OLD,DELETE)
§§//CARDIN          DD DSN=SUPPLYXX,DISP=OLD,UNIT=3330,VOL=SER=MNT204,
  //  DCB=(RECFM=FB,LRECL=80,BLKSIZE=6400)
  /*
  //
```

§§Note - User must supply a 2-digit year; for example, SUPPLY79.

RURAL SELF-SUPPLIED WATER USE, PROGRAM L152

Introduction

The PL1 source language for program L152 has been compiled and loaded into a system library called SYS1.LOADLIB on the Amdahl. The procedure name is RURAL.

The program consists of a MAIN module (RURAL) and several subroutines which are as follows:

HEDCOM--subroutine that prints page heading for the card listings of annual values;
HEDMOLT--subroutine that prints page heading for the card listings of monthly values;
HEADCO--subroutine that prints page heading for the table of annual values by counties;
HEDMOCO--subroutine that prints page heading for the table of monthly values by counties;
HEDSTAT--subroutine that prints page heading for the table of monthly values, statewide;
HEADWMD--subroutine that prints page heading for the table of annual values by water management districts;
HEDWMMO--subroutine that prints page heading for the table of monthly values by water management districts;
WRAPUP--subroutine that prints the table of annual values by hydrologic units;
HEDHUN--subroutine that prints page heading for the table of annual values by hydrologic units;
HEDBSMO--subroutine that prints page heading for the table of monthly values by hydrologic unit.

Coding the Data

Water-use data will be processed by L152 only in the card format as described in this report. Coding forms (U.S. Geological Survey forms 2 and 2A Florida District) are available for coding data for each site. This allows an orderly and consistent format for keypunching and entering data into the system. To adequately describe a rural water-use area, five cards must be coded and keypunched.

The option card identifies the tables requested for printing and the year of data collection. Each table available for printing is represented on this card; however, certain tables are available by sets only. That is, a table of monthly values by county will be printed only if the table of annual values by county is requested. The annual and monthly values card listings are printed with one request on the option card. Optionally, table numbers for publication can be coded on this card.

The Option Card

The option card is coded as follows:

Column(s)

1 Card type. Enter the letter "O." Mandatory field;

2 Code "1" if annual and monthly values card listings are desired;

3 Code "1" if table of annual values sorted by counties is desired. If this column is not coded, monthly values sorted by counties cannot be requested;

4 Code "1" if monthly values sorted by counties is desired;

5 Code "1" if table of annual values sorted by water management districts is desired. If this column is not coded, monthly values by water management districts cannot be requested.

6 Code "1" if table of monthly values sorted by water management districts is desired;

7 Code "1" if a card listing sorted by hydrologic unit is desired. If this column is not coded, the data will not be sorted by hydrologic unit, and tables for hydrologic unit values cannot be requested;

8 Code "1" if table of annual values sorted by hydrologic units is desired. If this column is not coded, monthly values sorted by hydrologic units cannot be requested;

9 Code "1" if table of monthly values sorted by hydrologic units is desired;

40-43 Year the data were collected, e.g. 1978; mandatory field;

44 Blank;

45-65 These seven fields of three digits are for use in publication. An assigned table number can be coded or the field left blank;

- 45-47 Table number for "by counties" table;
- 48-50 Table number for "monthly, by counties" table;
- 51-53 Table number for "monthly, statewide" table;
- 54-56 Table number for "by water management districts" table;
- 57-59 Table number for "monthly, by water management districts" table;
- 60-62 Table number for "by hydrologic units" table;
- 63-65 Table number for "monthly, by hydrologic units" table.

The Data Cards

Each specific site where water-use data have been collected must be coded on five cards as follows (figs. 3 and 4):

Column(s)

1	Card type. Enter "1;"
2-4	County code. Leading zeroes must be coded: county "009," not "9;"
5-12	Drainage basin/hydrologic unit code. Columns 5-6 are precoded "03" to denote the State of Florida;
13-14	Water management district code. See columns 13-14, page 6, for a listing of valid codes;
[2]/ 15-19	Rural self-supplied population in area, in thousands;
20-22	Per capita usage, in gallons per day;
[3]/ 23-34	Domestic usage
23-26	total pumpage, surface water, in Mgal/d
27-30	total pumpage, ground water, in Mgal/d
31-34	water consumed, in Mgal/d;
[3]/ 35-46	Livestock usage
35-38	total pumpage, surface water, in Mgal/d
39-42	total pumpage, ground water, in Mgal/d
43-46	water consumed, in Mgal/d;
47-48	Year. Code the last 2 digits of the year the data were collected.

[2]/ This field contains an implied decimal 1 digit from the right; for example, the value 1268 would be read as 126.8.

[3]/ These fields contain an implied decimal 2 digits from the right; for example, the value 1268 Mgal/d would be read as 12.68 Mgal/d.

U.S. Geological Survey Form 2
Florida District
Revised 7/30/79

RURAL WATER USE
(Self Supplied)

NOTE: This is a summary form for each area within each county.

Data Supplied by _____ Card No. [1] (1)

Address _____ Telephone Number _____

County _____ [ ] (2–4) Drainage Basin [ ] (5–12)

Management District _____ [ ] (13–14) Water Resources Council Region _____

Information Collected by _____ Date _____, 19 ____

Total County Population _____ Population of Area served by public supply _____

Total Population in Area [ ] (15–19) thousands Per Cap. Use [ ] (20–22) Gal/day

DOMESTIC USE

Total Pumpage, Surface Water [ ] (23–26) MGD

Total Pumpage, Ground Water [ ] (27–30) MGD Consumed e20% [ ] (31–34) MGD

LIVESTOCK USE

Total Pumpage, Surface Water [ ] (35–38) MGD

Total Pumpage, Ground Water [ ] (39–42) MGD Consumed e100% [ ] (43–46) MGD

TOTALS

Pumpage Surface Water _____ MGD

Pumpage Ground Water _____ MGD Consumed _____ MGD

SUB-TOTALS

TYPE ANIMAL	GPD per Head	Number of Heads	MGD Used	% GW	% SW	MGD GW	MGD SW
Beef Cow	12						
Dairy Cow	[1]20						
Hog	2						
Horse	12						
Sheep	2						
Goat	2						
Chicken	.1						
Turkey	1						
[2]Rabbit	.05						
[2]Dog	.1						

Source: Agriculture Extension IFAS, University of Florida
[1]Drinking Water Only—WASH UP water at Dairy should be calculated at 130 GPD per cow

NOTE: All livestock drinking water is considered to be 100% consumed.
[2]Commercially raised animals only.

Remarks/Brief History if applicable _____

_____ Year [ ] (47–48)

_____ Checked by _____ Date _____, 19 ____

Figure 3.--U.S. Geological Survey form 2--Florida District rural water-use data.

U.S. Geological Survey Form 2A
Florida District
Revised 6/11/79

RURAL MONTHLY WATER USE, 19____

CARD [2] (1) COUNTY NO. [ ][ ][ ] (2–4) DRAINAGE BASIN [0][3][ ][ ][ ][ ][ ][ ] (5–12) WMD [ ][ ] (13–14)

Month	Domestic Use (MGD)			Livestock Use (MGD)		
	SW	GW	Consumed	SW	GW	Consumed
January	[ ][ ][ ][ ] (15)	[ ][ ][ ][ ] (19)	[ ][ ][ ][ ] (23)	[ ][ ][ ] (27)	[ ][ ][ ] (30)	[ ][ ][ ] (33)
February	[ ][ ][ ][ ] (36)	[ ][ ][ ][ ] (40)	[ ][ ][ ][ ] (44)	[ ][ ][ ] (48)	[ ][ ][ ] (51)	[ ][ ][ ] (54)
March	[ ][ ][ ][ ] (57)	[ ][ ][ ][ ] (61)	[ ][ ][ ][ ] (65)	[ ][ ][ ] (69)	[ ][ ][ ] (72)	[ ][ ][ ] (75)

CARD [3] (1) COUNTY NO. [ ][ ][ ] (2–4) DRAINAGE BASIN [0][3][ ][ ][ ][ ][ ][ ] (5–12) WMD [ ][ ] (13–14)

Month	Domestic Use (MGD)			Livestock Use (MGD)		
	SW	GW	Consumed	SW	GW	Consumed
April	[ ][ ][ ][ ] (15)	[ ][ ][ ][ ] (19)	[ ][ ][ ][ ] (23)	[ ][ ][ ] (27)	[ ][ ][ ] (30)	[ ][ ][ ] (33)
May	[ ][ ][ ][ ] (36)	[ ][ ][ ][ ] (40)	[ ][ ][ ][ ] (44)	[ ][ ][ ] (48)	[ ][ ][ ] (51)	[ ][ ][ ] (54)
June	[ ][ ][ ][ ] (57)	[ ][ ][ ][ ] (61)	[ ][ ][ ][ ] (65)	[ ][ ][ ] (69)	[ ][ ][ ] (72)	[ ][ ][ ] (75)

CARD [4] (1) COUNTY NO. [ ][ ][ ] (2–4) DRAINAGE BASIN [0][3][ ][ ][ ][ ][ ][ ] (5–12) WMD [ ][ ] (13–14)

Month	Domestic Use (MGD)			Livestock Use (MGD)		
	SW	GW	Consumed	SW	GW	Consumed
July	[ ][ ][ ][ ] (15)	[ ][ ][ ][ ] (19)	[ ][ ][ ][ ] (23)	[ ][ ][ ] (27)	[ ][ ][ ] (30)	[ ][ ][ ] (33)
August	[ ][ ][ ][ ] (36)	[ ][ ][ ][ ] (40)	[ ][ ][ ][ ] (44)	[ ][ ][ ] (48)	[ ][ ][ ] (51)	[ ][ ][ ] (54)
September	[ ][ ][ ][ ] (57)	[ ][ ][ ][ ] (61)	[ ][ ][ ][ ] (65)	[ ][ ][ ] (69)	[ ][ ][ ] (72)	[ ][ ][ ] (75)

CARD [5] (1) COUNTY NO. [ ][ ][ ] (2–4) DRAINAGE BASIN [0][3][ ][ ][ ][ ][ ][ ] (5–12) WMD [ ][ ] (13–14)

Month	Domestic Use (MGD)			Livestock Use (MGD)		
	SW	GW	Consumed	SW	GW	Consumed
October	[ ][ ][ ][ ] (15)	[ ][ ][ ][ ] (19)	[ ][ ][ ][ ] (23)	[ ][ ][ ] (27)	[ ][ ][ ] (30)	[ ][ ][ ] (33)
November	[ ][ ][ ][ ] (36)	[ ][ ][ ][ ] (40)	[ ][ ][ ][ ] (44)	[ ][ ][ ] (48)	[ ][ ][ ] (51)	[ ][ ][ ] (54)
December	[ ][ ][ ][ ] (57)	[ ][ ][ ][ ] (61)	[ ][ ][ ][ ] (65)	[ ][ ][ ] (69)	[ ][ ][ ] (72)	[ ][ ][ ] (75)

Figure 4.--U.S. Geological Survey form 2A--Florida District rural water-use monthly data.

Column(s)

1 Card type. Code "2" for entering monthly values for January, February, and March; code "3" for entering monthly values for April, May, and June; code "4" for entering monthly values for July, August, and September; code "5" for entering monthly values for October, November, and December;

2-4 County code. Leading zeroes must be coded: county "009;" not "9;"

5-12 Drainage basin/hydrologic unit code. Columns 5-6 are precoded "03" to denote the State of Florida;

13-14 Water management district code. See columns 13-14, page 6, for a listing of valid codes;

[3/] 15-77 These fields contain average monthly pumpages, in Mgal/d, for the months January through March, April through June, July through September, and October through December;

15-35 Monthly values for:

- 15-18 surface water (domestic use)
- 19-22 ground water (domestic use)
- 23-26 consumed (domestic use)
- 27-29 surface water (livestock use)
- 30-32 ground water (livestock use)
- 33-35 consumed (livestock use);

36-56 Monthly values for:

- 36-39 surface water (domestic use)
- 40-43 ground water (domestic use)
- 44-47 consumed (domestic use)
- 48-50 surface water (livestock use)
- 51-53 ground water (livestock use)
- 54-56 consumed (livestock use);

57-77 Monthly values for:

- 57-60 surface water (domestic use)
- 61-64 ground water (domestic use)
- 65-68 consumed (domestic use)
- 69-71 surface water (livestock use)
- 72-74 ground water (livestock use)
- 75-77 consumed (livestock use).

[3/] These fields contain an implied decimal 2 digits from the right; for example, the value 1268 Mgal/d would be read as 12.68 Mgal/d.

Special Coding Considerations

Columns 1-14 must be coded on all cards for a specific rural water-use area to uniquely identify that data. These columns are mandatory.

In the data fields, either for annual or monthly data values, zeroes do not need to be coded or keypunched. If the field is left blank, zeroes are assumed. Therefore, planned collection sites can be entered with all data fields left blank provided the identifier (columns 1-14) is keypunched.

In many cases, the data fields contain implied decimals. See rural water-use coding forms 2 and 2A, pages 23 and 24. The decimals must not be keypunched. For instance, total pumpage for surface water is a 4-digit field with the decimal 2 digits from the right.

Processing Procedures

After forms 2 and 2A are coded, the data must be keypunched and submitted for processing by program L152.

Program L152 edits the data for the following:

1. Option card: An "0" card must be the first input card or processing will be terminated. A diagnostic message will be printed if an "0" card is not the first input card. See Diagnostic Messages, page 32. See page 21 for the description and coding of the option card.

2. Card sequence: Card input must be in numerical sequence 1 to 5 for each area. If the cards are not in proper numerical sequence by card type, a diagnostic message will be printed and all further processing discontinued. See Diagnostic Messages, page 36. For ease in reading, rural areas should also be in ascending order by county code.

3. Conversion errors: A conversion error appears when the PL1 compiler cannot convert arithmetic or character values to other formats. This is an error generated by the compiler; however, program L152 will print a diagnostic message showing where the error occurred. This is helpful in locating errors in input. It is usually a keypunch error.

The program will not diagnose incorrect data. The input to program L152 should be checked carefully before it is submitted for processing. Selecting the card listing option will aid in locating invalid codes for county, hydrologic unit, and water management district. Finding errors in data from the tables is time consuming.

Since RURAL computes totals for monthly and annual data statewide by county, water management district, and hydrologic unit, data errors exist if all three categories do not have identical totals. That is, state totals for annual values by county must balance with state totals for annual values by water management district and hydrologic unit. Likewise, monthly values statewide, by county, must balance with monthly values by hydrologic unit and water management district. In addition, monthly totals must equal annual totals for all three categories. For example, the statewide monthly total

computed for domestic surface water pumped must equal the state annual total for domestic surface water pumped.

Output from Program L152

The output is requested on the option card and consists of two types of printout--card listings and tables of data. See page 21 for coding the option card. Each card listing or table produced by program L152 is discussed separately in the following paragraphs. Only partial listings of the tables or the card listings are provided in an effort to save space.

A listing of the annual data values punched on card 1 can be requested (table 11). The column headings produced (reading from left to right) are county code, hydrologic unit (drainage basin) code, water management district code, population of the rural area, surface water (domestic uses), ground water (domestic uses), water consumed (domestic uses), surface water (livestock uses), ground water (livestock uses), water consumed (livestock uses), and the year of data collection.

A listing of the monthly data values punched on cards 2-5 is printed if card listings are requested on the option card. This is called the monthly values card listing (table 12). The column headings produced (reading left to right) are county name, drainage basin, water management district code, surface water (domestic use), ground water (domestic use), water consumed in domestic use, surface water (livestock use), ground water (livestock use), and water consumed in livestock use. The monthly values are totaled by column and then divided by 12 to show average monthly pumpage. The two card listings are essential for editing water-use data. They are not in publishable form and, therefore, are to be used only as worksheets.

A table showing annual data compiled by county entitled "Rural Water Use in Florida, By Counties" (table 13) may be requested. This table consists of column headings (reading left to right) for county name, area population, surface water withdrawn for domestic use, ground water withdrawn for domestic use, the sum of water withdrawn for domestic use, water consumed in domestic uses, surface water withdrawn for livestock use, ground water withdrawn for livestock use, the sum of water withdrawn for livestock use, and water consumed in livestock use. Included in this table are headings for withdrawals for both domestic and livestock use for surface water and ground water, their sum, and water consumed for all uses. This table ends with a line of state totals for each column.

A table showing monthly data compiled by county may be requested entitled "Rural Water Use in Florida, Monthly, by Counties" (table 14). This table consists of the same column headings as "Rural Water Use in Florida, by Counties;" however, data values for each month by county are printed and no population is given. Twelve lines of data are shown for the 67 counties in the State of Florida. This table is followed by a table entitled "Rural Water Use in Florida, Monthly, Statewide" (table 15). It contains the same table format and consists of totals by month for the entire state. Thus, there are 12 lines of data for January through December. This table ends with a line for statewide averages of monthly data by column. This monthly table is optional; however, the county table must be requested in order to print the "Monthly, by County" table.

Table 11.--Output for rural water use, annual pumpages card listing (card 1)

RURAL WATER USE IN FLORIDA

CNTY	BASIN	WMD	TOT. POP	DOM. SW	DOM. GW	DOM. CONS	LIV. SW	LIV. GW	LIV. CONS	YR
1	080102	SJ	43.4	0.00	6.50	0.68	0.37	0.37	0.74	88
1	080102	SR	0.8	0.00	0.12	0.02	0.02	0.02	0.04	88
1	110206	SR	5.6	0.00	0.84	0.20	0.14	0.14	0.28	88
3	110206	SR	0.4	0.00	0.07	0.01	0.01	0.01	0.02	88
3	070204	SR	0.0	0.00	0.00	0.00	0.01	0.01	0.02	88
3	070204	SJ	9.9	0.00	1.48	0.29	0.58	0.39	0.97	88
5	140203	NW	0.7	0.00	0.08	0.02	0.00	0.00	0.00	80
5	130012	NW	0.2	0.00	0.02	0.00	0.00	0.00	0.00	80
5	140101	NW	9.2	0.00	1.47	0.29	0.01	0.01	0.02	80
7	080103	SJ	0.3	0.00	0.04	0.01	0.00	0.00	0.00	80
7	080103	SR	0.2	0.00	0.02	0.00	0.00	0.00	0.00	80
7	110206	SR	13.6	0.00	2.02	0.40	0.04	0.79	0.83	80
9	080101	SJ	4.2	0.00	0.63	0.12	0.24	0.34	0.58	88
9	080202	SJ	25.2	0.00	3.47	0.50	0.01	0.01	0.02	88
11	090204	SF	0.0	0.00	0.00	0.00	0.00	0.00	0.00	80
11	090202	SF	37.3	0.00	5.89	0.91	0.22	0.22	0.44	80
13	130012	NW	4.2	0.02	0.45	0.09	0.00	0.03	0.03	80
13	140101	NW	0.3	0.00	0.03	0.00	0.00	0.00	0.00	80
13	130011	NW	1.9	0.00	0.21	0.04	0.00	0.01	0.01	80
15	100101	SW	1.2	0.00	0.14	0.03	0.00	0.07	0.07	80
15	100103	SW	0.0	0.00	0.00	0.00	0.00	0.03	0.03	80
15	100102	SW	2.5	0.00	0.29	0.05	0.00	0.06	0.06	80
15	100201	SW	2.5	0.00	0.29	0.05	0.00	0.06	0.06	80
15	090205	SW	0.2	0.00	0.02	0.00	0.00	0.03	0.03	80
15	090205	SF	1.0	0.00	0.11	0.02	0.00	0.07	0.07	80
15	100101	SF	0.3	0.00	0.04	0.00	0.00	0.03	0.03	80
17	100207	SW	23.6	0.00	2.60	0.50	0.00	0.32	0.32	80
17	100208	SW	23.7	0.00	2.60	0.50	0.00	0.32	0.32	80
19	080103	SJ	49.6	0.00	7.44	1.50	1.25	1.25	2.50	88
21	090204	SF	14.4	0.00	2.28	0.41	0.14	0.14	0.28	80
21	090202	SF	0.0	0.00	0.00	0.00	0.00	0.00	0.00	80
21	090205	SF	0.0	0.00	0.00	0.00	0.00	0.00	0.00	80
23	110201	SR	4.6	0.00	0.71	0.14	0.03	0.16	0.19	80
23	110205	SR	2.5	0.00	0.35	0.07	0.02	0.04	0.06	80
23	110206	SR	19.0	0.00	2.70	0.44	0.59	0.21	0.80	80
25	090202	SF	116.3	0.00	18.38	2.20	0.08	0.09	0.17	80
25	090204	SF	0.0	0.00	0.00	0.00	0.00	0.00	0.00	80
27	100101	SW	12.0	0.00	1.20	0.24	0.00	0.95	0.95	80
29	110205	SR	1.9	0.00	0.29	0.10	0.02	0.02	0.04	80
29	110102	SR	0.8	0.00	0.11	0.02	0.03	0.04	0.07	80
31	080201	SJ	9.7	0.00	1.16	0.23	0.00	0.00	0.00	88
31	070204	SJ	3.5	0.00	0.42	0.08	0.17	0.04	0.21	88
31	070205	SJ	2.9	0.00	0.35	0.07	0.17	0.04	0.21	88
31	080103	SJ	145.3	0.00	17.80	3.56	1.20	0.30	1.50	88
33	140105	NW	5.4	0.00	0.48	0.10	0.00	0.02	0.02	80
33	140107	NW	7.2	0.00	0.63	0.13	0.00	0.04	0.04	80
33	140106	NW	15.2	0.00	1.46	0.29	0.01	0.06	0.07	80
33	140305	NW	14.3	0.00	1.38	0.28	0.01	0.06	0.07	80
35	080103	SJ	1.3	0.00	0.20	0.02	0.05	0.07	0.12	88
35	080201	SJ	1.6	0.00	0.24	0.03	0.00	0.00	0.00	88
37	130014	NW	0.2	0.00	0.02	0.00	0.00	0.00	0.00	80
37	130011	NW	0.5	0.00	0.06	0.01	0.00	0.00	0.00	80

Table 12.--Output for rural water use, monthly pumpages card listing (cards 2-5)

RURAL WATER USE IN FLORIDA

				DOMESTIC USE			LIVESTOCK USE		
				SW	GW	CONS	SW	GW	CONS
ALACHUA	03080102	SJ							
			JAN	0.00	6.50	0.68	0.37	0.37	0.74
			FEB	0.00	6.50	0.68	0.37	0.37	0.74
			MAR	0.00	6.50	0.68	0.37	0.37	0.74
			APR	0.00	6.50	0.68	0.37	0.37	0.74
			MAY	0.00	6.50	0.68	0.37	0.37	0.74
			JUN	0.00	6.50	0.68	0.37	0.37	0.74
			JUL	0.00	6.50	0.68	0.37	0.37	0.74
			AUG	0.00	6.50	0.68	0.37	0.37	0.74
			SEP	0.00	6.50	0.68	0.37	0.37	0.74
			OCT	0.00	6.50	0.68	0.37	0.37	0.74
			NOV	0.00	6.50	0.68	0.37	0.37	0.74
			DEC	0.00	6.50	0.68	0.37	0.37	0.74
	TOTAL			0.00	78.00	8.16	4.44	4.44	8.88
	PER DAY			0.00	6.50	0.68	0.37	0.37	0.74
ALACHUA	03080102	SR							
			JAN	0.00	0.12	0.02	0.02	0.02	0.04
			FEB	0.00	0.12	0.02	0.02	0.02	0.04
			MAR	0.00	0.12	0.02	0.02	0.02	0.04
			APR	0.00	0.12	0.02	0.02	0.02	0.04
			MAY	0.00	0.12	0.02	0.02	0.02	0.04
			JUN	0.00	0.12	0.02	0.02	0.02	0.04
			JUL	0.00	0.12	0.02	0.02	0.02	0.04
			AUG	0.00	0.12	0.02	0.02	0.02	0.04
			SEP	0.00	0.12	0.02	0.02	0.02	0.04
			OCT	0.00	0.12	0.02	0.02	0.02	0.04
			NOV	0.00	0.12	0.02	0.02	0.02	0.04
			DEC	0.00	0.12	0.02	0.02	0.02	0.04
	TOTAL			0.00	1.44	0.24	0.24	0.24	0.48
	PER DAY			0.00	0.12	0.02	0.02	0.02	0.04
ALACHUA	03110206	SR							
			JAN	0.00	0.84	0.20	0.14	0.14	0.28
			FEB	0.00	0.84	0.20	0.14	0.14	0.28
			MAR	0.00	0.84	0.20	0.14	0.14	0.28
			APR	0.00	0.84	0.20	0.14	0.14	0.28
			MAY	0.00	0.84	0.20	0.14	0.14	0.28
			JUN	0.00	0.84	0.20	0.14	0.14	0.28
			JUL	0.00	0.84	0.20	0.14	0.14	0.28
			AUG	0.00	0.84	0.20	0.14	0.14	0.28
			SEP	0.00	0.84	0.20	0.14	0.14	0.28
			OCT	0.00	0.84	0.20	0.14	0.14	0.28
			NOV	0.00	0.84	0.20	0.14	0.14	0.28
			DEC	0.00	0.84	0.20	0.14	0.14	0.28
	TOTAL			0.00	10.08	2.40	1.68	1.68	3.36
	PER DAY			0.00	0.84	0.20	0.14	0.14	0.28

Table 13.--Output for rural water use in Florida, by counties

TABLE .--RURAL WATER USE IN FLORIDA BY COUNTIES, 1980--CONTINUED

COUNTY	SELF-SUPPLIED COUNTY POPULATION (THSNDS)	DOMESTIC USE(MGD) WITHDRAWN SW	DOMESTIC USE(MGD) WITHDRAWN GW	DOMESTIC USE(MGD) WITHDRAWN ALL WATER	DOMESTIC USE(MGD) CONSUMED	LIVESTOCK USE(MGD) WITHDRAWN SW	LIVESTOCK USE(MGD) WITHDRAWN GW	LIVESTOCK USE(MGD) WITHDRAWN ALL WATER	LIVESTOCK USE(MGD) CONSUMED	ALL USES(MGD) WITHDRAWN SW	ALL USES(MGD) WITHDRAWN GW	ALL USES(MGD) WITHDRAWN ALL WATER	ALL USES(MGD) CONSUMED
OSCEOLA	24.7	0.00	3.71	3.71	0.38	1.79	0.02	1.81	1.81	1.79	3.73	5.52	2.19
PALM BEACH	68.0	0.00	10.74	10.74	1.53	0.54	0.54	1.08	1.08	0.54	11.28	11.82	2.61
PASCO	57.4	0.00	5.74	5.74	1.08	0.00	1.97	1.97	1.97	0.00	7.71	7.71	3.05
PINELLAS	27.2	0.00	2.72	2.72	0.40	0.00	0.67	0.67	0.67	0.00	3.39	3.39	1.07
POLK	138.1	0.00	13.84	13.84	2.76	0.00	2.16	2.16	2.16	0.00	16.00	16.00	4.92
PUTNAM	34.7	0.00	4.76	4.76	0.62	0.27	0.27	0.54	0.54	0.27	5.03	5.30	1.16
ST. JOHNS	25.5	0.00	4.65	4.65	0.93	0.10	0.16	0.26	0.26	0.10	4.81	4.91	1.19
ST. LUCIE	31.6	0.00	3.18	3.18	1.00	0.42	0.32	0.74	0.74	0.42	3.50	3.92	1.74
SANTA ROSA	5.5	0.00	0.68	0.68	0.11	0.11	0.09	0.20	0.20	0.11	0.77	0.88	0.31
SARASOTA	10.7	0.00	1.08	1.08	0.19	0.05	0.51	0.56	0.56	0.05	1.59	1.64	0.75
SEMINOLE	85.4	0.00	12.81	12.81	1.42	0.12	0.20	0.32	0.32	0.12	13.01	13.13	1.74
SUMTER	18.9	0.00	1.89	1.89	0.37	0.00	0.68	0.68	0.68	0.00	2.57	2.57	1.05
SUWANNEE	15.4	0.00	1.54	1.54	0.29	0.00	1.20	1.20	1.20	0.00	2.74	2.74	1.49
TAYLOR	8.0	0.00	0.84	0.84	0.17	0.12	0.13	0.25	0.25	0.12	0.97	1.09	0.42
UNION	4.9	0.00	0.47	0.47	0.09	0.04	0.10	0.14	0.14	0.04	0.57	0.61	0.23
VOLUSIA	36.6	0.00	5.49	5.49	1.12	0.68	0.08	0.76	0.76	0.68	5.57	6.25	1.88
WAKULLA	6.2	0.00	0.69	0.69	0.14	0.03	0.02	0.05	0.05	0.03	0.71	0.74	0.19
WALTON	8.4	0.00	0.86	0.86	0.13	0.08	0.07	0.15	0.15	0.08	0.93	1.01	0.28
WASHINGTON	8.4	0.00	0.94	0.94	0.18	0.07	0.02	0.09	0.09	0.07	0.96	1.03	0.27
STATE TOTALS	1953.6	0.10	250.78	250.88	42.49	20.14	39.33	59.47	59.47	20.24	290.11	310.35	101.96

Table 14.--Output for rural water use in Florida, monthly, by counties

TABLE .--RURAL WATER USE IN FLORIDA
MONTHLY, BY COUNTIES, 1980--CONTINUED

COUNTY	DOMESTIC USE(MGD) WITHDRAWN SW	DOMESTIC USE(MGD) WITHDRAWN GW	DOMESTIC USE(MGD) WITHDRAWN ALL WATER	DOMESTIC USE(MGD) CONSUMED	LIVESTOCK USE(MGD) WITHDRAWN SW	LIVESTOCK USE(MGD) WITHDRAWN GW	LIVESTOCK USE(MGD) WITHDRAWN ALL WATER	LIVESTOCK USE(MGD) CONSUMED	ALL USES(MGD) WITHDRAWN SW	ALL USES(MGD) WITHDRAWN GW	ALL USES(MGD) WITHDRAWN ALL WATER	ALL USES(MGD) CONSUMED
WASHINGTON												
JAN	0.00	0.89	0.89	0.17	0.07	0.02	0.09	0.09	0.07	0.91	0.98	0.26
FEB	0.00	0.89	0.89	0.17	0.07	0.02	0.09	0.09	0.07	0.91	0.98	0.26
MAR	0.00	0.89	0.89	0.17	0.07	0.02	0.09	0.09	0.07	0.91	0.98	0.26
APR	0.00	0.99	0.99	0.19	0.07	0.02	0.09	0.09	0.07	1.01	1.08	0.28
MAY	0.00	0.99	0.99	0.19	0.07	0.02	0.09	0.09	0.07	1.01	1.08	0.28
JUN	0.00	0.99	0.99	0.19	0.07	0.02	0.09	0.09	0.07	1.01	1.08	0.28
JUL	0.00	0.99	0.99	0.19	0.07	0.02	0.09	0.09	0.07	1.01	1.08	0.28
AUG	0.00	0.99	0.99	0.19	0.07	0.02	0.09	0.09	0.07	1.01	1.08	0.28
SEP	0.00	0.99	0.99	0.19	0.07	0.02	0.09	0.09	0.07	1.01	1.08	0.28
OCT	0.00	0.89	0.89	0.17	0.07	0.02	0.09	0.09	0.07	0.91	0.98	0.26
NOV	0.00	0.89	0.89	0.17	0.07	0.02	0.09	0.09	0.07	0.91	0.98	0.26
DEC	0.00	0.89	0.89	0.17	0.07	0.02	0.09	0.09	0.07	0.91	0.98	0.26

Table 15.--Output for rural water use in Florida, monthly, statewide

TABLE .--RURAL WATER USE IN FLORIDA
MONTHLY, STATEWIDE, 1980

COUNTY	DOMESTIC USE(MGD) WITHDRAWN SW	DOMESTIC USE(MGD) WITHDRAWN GW	DOMESTIC USE(MGD) WITHDRAWN ALL WATER	DOMESTIC USE(MGD) CONSUMED	LIVESTOCK USE(MGD) WITHDRAWN SW	LIVESTOCK USE(MGD) WITHDRAWN GW	LIVESTOCK USE(MGD) WITHDRAWN ALL WATER	LIVESTOCK USE(MGD) CONSUMED	ALL USES(MGD) WITHDRAWN SW	ALL USES(MGD) WITHDRAWN GW	ALL USES(MGD) WITHDRAWN ALL WATER	ALL USES(MGD) CONSUMED
TOTALS BY MONTHS												
JAN	0.09	248.97	249.06	42.20	20.11	39.17	59.28	59.28	20.20	288.14	308.34	101.48
FEB	0.09	248.97	249.06	42.20	20.11	39.17	59.28	59.28	20.20	288.14	308.34	101.48
MAR	0.09	249.47	249.56	42.27	20.11	39.17	59.28	59.28	20.20	288.64	308.84	101.55
APR	0.11	251.54	251.65	42.64	20.17	39.48	59.65	59.66	20.28	291.02	311.30	102.30
MAY	0.11	252.03	252.14	42.72	20.17	39.48	59.65	59.66	20.28	291.51	311.79	102.38
JUN	0.11	252.58	252.69	42.82	20.17	39.48	59.65	59.66	20.28	292.06	312.34	102.48
JUL	0.11	252.59	252.70	42.82	20.17	39.48	59.65	59.66	20.28	292.07	312.35	102.48
AUG	0.11	252.59	252.70	42.82	20.17	39.48	59.65	59.66	20.28	292.07	312.35	102.48
SEP	0.11	252.07	252.18	42.74	20.17	39.48	59.65	59.66	20.28	291.55	311.83	102.40
OCT	0.09	250.03	250.12	42.31	20.11	39.19	59.30	59.30	20.20	289.22	309.42	101.61
NOV	0.09	249.56	249.65	42.25	20.11	39.19	59.30	59.30	20.20	288.75	308.95	101.55
DEC	0.09	248.96	249.05	42.09	20.11	39.19	59.30	59.24	20.20	288.15	308.35	101.33
STATE TOTALS	0.10	250.78	250.88	42.49	20.14	39.33	59.47	59.47	20.24	290.11	310.35	101.96

A table showing annual data compiled by water management district may be requested entitled "Rural Water Use in Florida, by Water Management Districts" (table 16). This table has the same format (column headings) as the annual values by county table; however, the data are printed by county within a particular water management district. The water management districts in Florida are Northwest Florida, South Florida, St. Johns River, Suwannee River, and Southwest Florida. Two districts are printed per page and each district table ends with totals for each column. A line for state totals follows the district tables.

The table showing monthly data compiled by water management district will be printed if the table "Rural Water Use in Florida, Monthly, by Water Management Districts" (table 17) is requested. The table format is identical to the "Monthly, by Counties" table. Each water management district's data are presented by month, January through December, ending with a line of statewide averages for the district. A line of statewide totals by column completes the table.

If requested, data keypunched on card 1 are listed and sorted by hydrologic unit (table 18). This is helpful as a worksheet to locate keypunch errors in the hydrologic unit printouts. The column headings are the same as for the previous card type 1 listing.

Following this card listing is the printout entitled "Rural Water Use in Florida, by Hydrologic Units" (table 19) showing annual data compiled by hydrologic unit. The table format is the same as previous annual values tables; however, data are compiled by counties located within particular hydrologic units (drainage basins) in Florida. A line for unit totals by column appears at the end of each hydrologic unit section. This printout ends with a line of state totals by column.

A table showing monthly data compiled by hydrologic unit will be printed if the table "Rural Water Use in Florida, Monthly, by Hydrologic Units" (table 20) is requested. This uses the same monthly table format previously discussed. Therefore, there are 12 lines of data per hydrologic unit code for the months January through December ending with a unit average for each column and a state total for each column.

Table 16.--Output for rural water use in Florida, by water management districts

TABLE .--RURAL WATER USE IN FLORIDA
BY WATER MANAGEMENT DISTRICTS, 1980--CONTINUED

COUNTY	SELF-SUPPLIED COUNTY POPULATION (THSNDS)	DOMESTIC USE(MGD) WITHDRAWN SW	DOMESTIC USE(MGD) WITHDRAWN GW	DOMESTIC USE(MGD) WITHDRAWN ALL WATER	DOMESTIC USE(MGD) CONSUMED	LIVESTOCK USE(MGD) WITHDRAWN SW	LIVESTOCK USE(MGD) WITHDRAWN GW	LIVESTOCK USE(MGD) WITHDRAWN ALL WATER	LIVESTOCK USE(MGD) CONSUMED	ALL USES(MGD) WITHDRAWN SW	ALL USES(MGD) WITHDRAWN GW	ALL USES(MGD) WITHDRAWN ALL WATER	ALL USES(MGD) CONSUMED
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT													
CHARLOTTE	6.4	0.00	0.74	0.74	0.13	0.00	0.25	0.25	0.25	0.00	0.99	0.99	0.38
CITRUS	47.3	0.00	5.20	5.20	1.00	0.00	0.64	0.64	0.64	0.00	5.84	5.84	1.64
DESOTO	12.0	0.00	1.20	1.20	0.24	0.00	0.95	0.95	0.95	0.00	2.15	2.15	1.19
HARDEE	11.9	0.00	1.19	1.19	0.19	0.00	1.39	1.39	1.39	0.00	2.58	2.58	1.58
HERNANDO	37.9	0.00	3.89	3.89	0.75	0.10	0.93	1.03	1.03	0.10	4.82	4.92	1.78
HIGHLANDS	1.4	0.00	0.22	0.22	0.04	0.15	0.16	0.31	0.31	0.15	0.38	0.53	0.35
HILLSBOROUGH	59.2	0.00	5.92	5.92	1.05	0.00	4.30	4.30	4.30	0.00	10.22	10.22	5.35
LAKE	0.7	0.00	0.09	0.09	0.02	0.01	0.01	0.02	0.02	0.01	0.10	0.11	0.04
LEVY	6.1	0.00	0.65	0.65	0.13	0.38	0.12	0.50	0.50	0.38	0.77	1.15	0.63
MANATEE	24.1	0.00	2.41	2.41	0.44	0.30	2.67	2.97	2.97	0.30	5.08	5.38	3.41
MARION	4.6	0.00	0.46	0.46	0.09	0.03	0.59	0.62	0.62	0.03	1.05	1.08	0.71
PASCO	57.4	0.00	5.74	5.74	1.08	0.00	1.97	1.97	1.97	0.00	7.71	7.71	3.05
PINELLAS	27.2	0.00	2.72	2.72	0.40	0.00	0.67	0.67	0.67	0.00	3.39	3.39	1.07
POLK	109.7	0.00	10.98	10.98	2.19	0.00	1.73	1.73	1.73	0.00	12.71	12.71	3.92
SARASOTA	10.7	0.00	1.08	1.08	0.19	0.05	0.51	0.56	0.56	0.05	1.59	1.64	0.75
SUMTER	18.9	0.00	1.89	1.89	0.37	0.00	0.68	0.68	0.68	0.00	2.57	2.57	1.05
WMD TOTAL	435.5	0.00	44.38	44.38	8.31	1.02	17.57	18.59	18.59	1.02	61.95	62.97	26.90
STATE TOTALS	1953.6	0.10	250.78	250.88	42.49	20.14	39.33	59.47	59.47	20.24	290.11	310.35	101.96

NOTE
SEVERAL OF THE ABOVE COUNTIES ARE IN MORE THAN ONE WATER MANAGEMENT DISTRICT.
FOR COUNTY TOTALS SEE " RURAL SUPPLY WATER USE IN FLORIDA, BY COUNTIES."

Table 17.--Output for rural water use in Florida, monthly, by water management districts

TABLE .--RURAL WATER USE IN FLORIDA
MONTHLY, BY WATER MANAGEMENT DISTRICTS, 1980--CONTINUED

COUNTY	DOMESTIC USE(MGD) WITHDRAWN SW	DOMESTIC USE(MGD) WITHDRAWN GW	DOMESTIC USE(MGD) WITHDRAWN ALL WATER	DOMESTIC USE(MGD) CONSUMED	LIVESTOCK USE(MGD) WITHDRAWN SW	LIVESTOCK USE(MGD) WITHDRAWN GW	LIVESTOCK USE(MGD) WITHDRAWN ALL WATER	LIVESTOCK USE(MGD) CONSUMED	ALL USES(MGD) WITHDRAWN SW	ALL USES(MGD) WITHDRAWN GW	ALL USES(MGD) WITHDRAWN ALL WATER	ALL USES(MGD) CONSUMED
SUWANNEE RIVER WATER MANAGEMENT DISTRICT												
JAN	0.00	12.83	12.83	2.50	1.75	4.98	6.73	6.73	1.75	17.81	19.56	9.23
FEB	0.00	12.83	12.83	2.50	1.75	4.98	6.73	6.73	1.75	17.81	19.56	9.23
MAR	0.00	12.83	12.83	2.50	1.75	4.98	6.73	6.73	1.75	17.81	19.56	9.23
APR	0.00	13.87	13.87	2.69	1.81	5.29	7.10	7.11	1.81	19.16	20.97	9.80
MAY	0.00	13.87	13.87	2.69	1.81	5.29	7.10	7.11	1.81	19.16	20.97	9.80
JUN	0.00	13.87	13.87	2.69	1.81	5.29	7.10	7.11	1.81	19.16	20.97	9.80
JUL	0.00	13.87	13.87	2.69	1.81	5.29	7.10	7.11	1.81	19.16	20.97	9.80
AUG	0.00	13.87	13.87	2.69	1.81	5.29	7.10	7.11	1.81	19.16	20.97	9.80
SEP	0.00	13.87	13.87	2.69	1.81	5.29	7.10	7.11	1.81	19.16	20.97	9.80
OCT	0.00	12.83	12.83	2.50	1.75	5.00	6.75	6.75	1.75	17.83	19.58	9.25
NOV	0.00	12.83	12.83	2.50	1.75	5.00	6.75	6.75	1.75	17.83	19.58	9.25
DEC	0.00	12.83	12.83	2.44	1.75	5.00	6.75	6.69	1.75	17.83	19.58	9.13
WMD TOTAL	0.00	13.35	13.35	2.59	1.78	5.14	6.92	6.92	1.78	18.49	20.27	9.51
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT												
JAN	0.00	44.38	44.38	8.31	1.02	17.57	18.59	18.59	1.02	61.95	62.97	26.90
FEB	0.00	44.38	44.38	8.31	1.02	17.57	18.59	18.59	1.02	61.95	62.97	26.90
MAR	0.00	44.38	44.38	8.31	1.02	17.57	18.59	18.59	1.02	61.95	62.97	26.90
APR	0.00	44.38	44.38	8.31	1.02	17.57	18.59	18.59	1.02	61.95	62.97	26.90
MAY	0.00	44.38	44.38	8.31	1.02	17.57	18.59	18.59	1.02	61.95	62.97	26.90
JUN	0.00	44.38	44.38	8.31	1.02	17.57	18.59	18.59	1.02	61.95	62.97	26.90
JUL	0.00	44.38	44.38	8.31	1.02	17.57	18.59	18.59	1.02	61.95	62.97	26.90
AUG	0.00	44.38	44.38	8.31	1.02	17.57	18.59	18.59	1.02	61.95	62.97	26.90
SEP	0.00	44.38	44.38	8.31	1.02	17.57	18.59	18.59	1.02	61.95	62.97	26.90
OCT	0.00	44.38	44.38	8.31	1.02	17.57	18.59	18.59	1.02	61.95	62.97	26.90
NOV	0.00	44.38	44.38	8.31	1.02	17.57	18.59	18.59	1.02	61.95	62.97	26.90
DEC	0.00	44.38	44.38	8.31	1.02	17.57	18.59	18.59	1.02	61.95	62.97	26.90
WMD TOTAL	0.00	44.38	44.38	8.31	1.02	17.57	18.59	18.59	1.02	61.95	62.97	26.90
STATE TOTAL	0.10	250.78	250.88	42.49	20.14	39.33	59.47	59.47	20.24	290.11	310.35	101.96

Table 18.--Output for rural water use in Florida, annual pumpages card listing sorted by hydrologic units

RURAL WATER USE IN FLORIDA

CNTY	BASIN	WMD	TOT. POP	DOM. SW	DOM. GW	DOM. CONS	LIV. SW	LIV. GW	LIV. CONS	YR
3	70204	SJ	9.9	0.00	1.48	0.29	0.58	0.39	0.97	88
3	70204	SR	0.0	0.00	0.00	0.00	0.01	0.01	0.02	88
31	70204	SJ	3.5	0.00	0.42	0.08	0.17	0.04	0.21	88
89	70204	SJ	14.6	0.00	2.19	0.44	0.52	0.52	1.04	88
31	70205	SJ	2.9	0.00	0.35	0.07	0.17	0.04	0.21	88
89	70205	SJ	13.8	0.00	2.07	0.42	0.91	0.91	1.82	88
9	80101	SJ	4.2	0.00	0.63	0.12	0.24	0.34	0.58	88
69	80101	SJ	0.8	0.00	0.10	0.02	0.17	0.17	0.34	80
83	80101	SJ	0.6	0.00	0.06	0.01	0.00	0.00	0.00	80
93	80101	SJ	1.5	0.00	0.23	0.05	0.19	0.44	0.63	88
95	80101	SJ	65.8	0.00	9.87	1.08	0.39	0.39	0.78	88
97	80101	SF	0.4	0.00	0.06	0.01	0.00	0.00	0.00	88
97	80101	SJ	1.7	0.00	0.26	0.05	0.69	0.01	0.70	88
107	80101	SJ	1.6	0.00	0.24	0.04	0.03	0.03	0.06	88
117	80101	SJ	85.4	0.00	12.81	1.42	0.12	0.20	0.32	88
127	80101	SJ	10.8	0.00	1.62	0.40	0.48	0.05	0.53	88
I	80102	SJ	43.4	0.00	6.50	0.68	0.37	0.37	0.74	88
I	80102	SR	0.8	0.00	0.12	0.02	0.02	0.02	0.04	88
69	80102	SJ	41.6	0.00	5.20	1.04	0.18	0.18	0.36	80
75	80102	SW	2.6	0.00	0.30	0.06	0.14	0.04	0.18	80
83	80102	SJ	63.4	0.00	6.34	1.27	0.05	0.93	0.98	80
83	80102	SW	3.0	0.00	0.30	0.06	0.02	0.53	0.55	80
95	80102	SJ	3.8	0.00	0.57	0.08	0.02	0.02	0.04	88
105	80102	SJ	4.1	0.00	0.41	0.08	0.00	0.06	0.06	80
107	80102	SJ	0.9	0.00	0.14	0.02	0.05	0.05	0.10	88
7	80103	SJ	0.3	0.00	0.04	0.01	0.00	0.00	0.00	80
7	80103	SR	0.2	0.00	0.02	0.00	0.00	0.00	0.00	80
19	80103	SJ	49.6	0.00	7.44	1.50	1.25	1.25	2.50	88
31	80103	SJ	145.3	0.00	17.80	3.56	1.20	0.30	1.50	88
35	80103	SJ	1.3	0.00	0.20	0.02	0.05	0.07	0.12	88
107	80103	SJ	32.2	0.00	4.38	0.56	0.19	0.19	0.38	88
109	80103	SJ	8.3	0.00	1.50	0.30	0.08	0.12	0.20	88
127	80103	SJ	1.4	0.00	0.21	0.06	0.04	0.01	0.05	88
31	80201	SJ	9.7	0.00	1.16	0.23	0.00	0.00	0.00	88
35	80201	SJ	1.6	0.00	0.24	0.03	0.00	0.00	0.00	88
109	80201	SJ	17.2	0.00	3.15	0.63	0.02	0.04	0.06	88
127	80201	SJ	4.4	0.00	0.66	0.09	0.16	0.02	0.18	88
9	80202	SJ	25.2	0.00	3.47	0.50	0.01	0.01	0.02	88
127	80202	SJ	20.0	0.00	3.00	0.57	0.00	0.00	0.00	88
61	80203	SJ	27.4	0.00	4.04	0.47	0.34	0.09	0.43	88
85	80203	SF	0.0	0.00	0.00	0.00	0.00	0.00	0.00	80
111	80203	SF	12.5	0.00	1.25	0.25	0.15	0.05	0.20	80
43	90101	SF	0.4	0.00	0.06	0.01	0.06	0.00	0.06	88
55	90101	SF	18.2	0.00	2.84	0.57	0.87	0.87	1.74	80
55	90101	SW	1.4	0.00	0.22	0.04	0.00	0.00	0.00	80
69	90101	SJ	0.2	0.00	0.02	0.01	0.00	0.00	0.00	80
93	90101	SF	1.5	0.00	0.23	0.05	0.38	0.89	1.27	88
95	90101	SF	4.5	0.00	0.68	0.11	0.01	0.01	0.02	88
95	90101	SJ	22.5	0.00	3.38	0.27	0.00	0.00	0.00	88
97	90101	SF	22.6	0.00	3.39	0.32	1.10	0.01	1.11	88
105	90101	SF	21.3	0.00	2.15	0.43	0.00	0.32	0.32	80
105	90101	SJ	3.0	0.00	0.30	0.06	0.00	0.05	0.05	80

Table 19.--Output for rural water use in Florida, by hydrologic units

TABLE .--RURAL WATER USE IN FLORIDA
BY HYDROLOGIC UNITS, 1980--CONTINUED

COUNTY	SELF-SUPPLIED COUNTY POPULATION (THSNDS)	DOMESTIC USE(MGD) WITHDRAWN SW	DOMESTIC USE(MGD) WITHDRAWN GW	DOMESTIC USE(MGD) WITHDRAWN ALL WATER	DOMESTIC USE(MGD) CONSUMED	LIVESTOCK USE(MGD) WITHDRAWN SW	LIVESTOCK USE(MGD) WITHDRAWN GW	LIVESTOCK USE(MGD) WITHDRAWN ALL WATER	LIVESTOCK USE(MGD) CONSUMED	ALL USES(MGD) WITHDRAWN SW	ALL USES(MGD) WITHDRAWN GW	ALL USES(MGD) WITHDRAWN ALL WATER	ALL USES(MGD) CONSUMED
HYDROLOGIC UNIT	03140203												
BAY	0.7	0.00	0.08	0.08	0.02	0.00	0.00	0.00	0.00	0.00	0.08	0.08	0.02
HOLMES	10.3	0.00	1.21	1.21	0.24	0.22	0.33	0.55	0.55	0.22	1.54	1.76	0.79
JACKSON	2.5	0.00	0.26	0.26	0.05	0.02	0.02	0.04	0.04	0.02	0.28	0.30	0.09
WALTON	2.2	0.00	0.22	0.22	0.04	0.03	0.02	0.05	0.05	0.03	0.24	0.27	0.09
WASHINGTON	6.7	0.00	0.75	0.75	0.15	0.06	0.02	0.08	0.08	0.06	0.77	0.83	0.23
UNIT TOTAL	22.4	0.00	2.52	2.52	0.50	0.33	0.39	0.72	0.72	0.33	2.91	3.24	1.22
HYDROLOGIC UNIT	03140305												
ESCAMBIA	14.3	0.00	1.38	1.38	0.28	0.01	0.06	0.07	0.07	0.01	1.44	1.45	0.35
SANTA ROSA	0.8	0.00	0.09	0.09	0.02	0.01	0.01	0.02	0.02	0.01	0.10	0.11	0.04
UNIT TOTAL	15.1	0.00	1.47	1.47	0.30	0.02	0.07	0.09	0.09	0.02	1.54	1.56	0.39
STATE TOTAL	1953.6	0.10	250.78	250.88	42.49	20.14	39.33	59.47	59.47	20.24	290.11	310.35	101.96

NOTE
SEVERAL OF THE ABOVE COUNTIES ARE IN MORE THAN ONE HYDROLOGIC UNIT.
FOR COUNTY TOTALS SEE " RURAL SUPPLY WATER USE IN FLORIDA, BY COUNTIES."

Table 20.--Output for rural water use in Florida, monthly, by hydrologic units

TABLE .--RURAL WATER USE IN FLORIDA
MONTHLY, BY HYDROLOGIC UNITS, 1980--CONTINUED

COUNTY	DOMESTIC USE(MGD) WITHDRAWN SW	DOMESTIC USE(MGD) WITHDRAWN GW	DOMESTIC USE(MGD) WITHDRAWN ALL WATER	DOMESTIC USE(MGD) CONSUMED	LIVESTOCK USE(MGD) WITHDRAWN SW	LIVESTOCK USE(MGD) WITHDRAWN GW	LIVESTOCK USE(MGD) WITHDRAWN ALL WATER	LIVESTOCK USE(MGD) CONSUMED	ALL USES(MGD) WITHDRAWN SW	ALL USES(MGD) WITHDRAWN GW	ALL USES(MGD) WITHDRAWN ALL WATER	ALL USES(MGD) CONSUMED
HYDROLOGIC UNIT 03140305												
JAN	0.00	1.39	1.39	0.28	0.02	0.07	0.09	0.09	0.02	1.46	1.48	0.37
FEB	0.00	1.39	1.39	0.28	0.02	0.07	0.09	0.09	0.02	1.46	1.48	0.37
MAR	0.00	1.42	1.42	0.29	0.02	0.07	0.09	0.09	0.02	1.49	1.51	0.38
APR	0.00	1.48	1.48	0.30	0.02	0.07	0.09	0.09	0.02	1.55	1.57	0.39
MAY	0.00	1.52	1.52	0.31	0.02	0.07	0.09	0.09	0.02	1.59	1.61	0.40
JUN	0.00	1.55	1.55	0.32	0.02	0.07	0.09	0.09	0.02	1.62	1.64	0.41
JUL	0.00	1.55	1.55	0.32	0.02	0.07	0.09	0.09	0.02	1.62	1.64	0.41
AUG	0.00	1.55	1.55	0.32	0.02	0.07	0.09	0.09	0.02	1.62	1.64	0.41
SEP	0.00	1.52	1.52	0.31	0.02	0.07	0.09	0.09	0.02	1.59	1.61	0.40
OCT	0.00	1.46	1.46	0.30	0.02	0.07	0.09	0.09	0.02	1.53	1.55	0.39
NOV	0.00	1.43	1.43	0.29	0.02	0.07	0.09	0.09	0.02	1.50	1.52	0.38
DEC	0.00	1.38	1.38	0.28	0.02	0.07	0.09	0.09	0.02	1.45	1.47	0.37
BAS TOTAL	0.00	1.47	1.47	0.30	0.02	0.07	0.09	0.09	0.02	1.54	1.56	0.39
STATE TOTAL	0.10	250.78	250.88	42.49	20.14	39.33	59.47	59.47	20.24	290.11	310.35	101.96

Diagnostic Messages

The following are the diagnostic messages produced by L152:

1. ERROR ON OPTION CARD

   NO FURTHER PROCESSING OF THIS REQUEST

This message will occur if the option card is missing. The "0" card is mandatory.

2. NO OPTIONS REQUESTED

   PROCESSING TERMINATED

This message occurs when columns 2-8 on the option card are blank. You must request output from program L152 using the option card.

3. CARDS OUT OF SEQUENCE

   NO FURTHER PROCESSING

Card input must be in proper numerical sequence, ascending, by card type (column 1 of cards 1-5).

Certain system or compiler messages will be printed. An example is:

(1) CARD NOT PRINTED

   CARD NOT VALID

This error occurs when a conversion is called for but cannot be completed. A character or an embedded blank in a numeric field is often the cause of this error, and is usually the result of an error in keypunching. The error appears when L152 sorts the data incorrectly as a result of the keypunching error. The program will print all fields on the particular card where it encountered the problem. This may not be the exact card where the error occurs, but it is helpful in locating the problem area.

Job Control Language

Program L152 has been stored online in a system library.

For retrieval of data from the current disk files:

```
COLUMN 1            COLUMN 12
//xxxxxxxx          JOB (----)
//  EXEC            PGM=RURAL,REGION=500K,TIME=2
//STEPLIB           DD DSN=AG4B17G.RURAL80.LOAD,DISP=OLD
//                  DD DSN=SYS1.PLIX.TRANSLIB,DISP=SHR
//                  DD DSN=SYS1.SYNC.LINKLIB,DISP=SHR
//SYSPRINT          DD SYSOUT=A
//SORTLIB           DD DISP=SHR,DSN=SYS1.SYNC.SORTLIB
//SORTMSG           DD SYSOUT=A
//SORTWK01          DD UNIT=SYSDK,SPACE=(CYL,5,,CONTIG)
//SORTWK02          DD UNIT=(SYSDK,SEP=SORTWK01),
//  SPACE=(CYL,5,,CONTIG)
//SORTWK03          DD UNIT=(SYSDK,SEP=(SORTWK01,SORTWK02)),
//  SPACE=(CYL,5,,CONTIG)
//DISK              DD DSN=&&GEIGER,UNIT=SYSDK,SPACE=(CYL,(5,1),RLSE),
//  DCB=(RECFM=FB,LRECL=80,BLKSIZE=6400),DISP=(NEW,PASS)
//SORTIN            DD DSN=*.DISK,VOL=REF=*.DISK,DISP=(OLD,DELETE)
//SORTOUT           DD DSN=*.DISK,VOL=REF=*.DISK,DISP=(OLD,DELETE)
//CARDIN            DD DSN=AG4B17G.RURAL80.DATA,DISP=OLD,UNIT=ONLINE
/*
//
```

For retrieval of data from the historical files:

```
  //xxxxxxxx          JOB (----)
  /*SETUP             MNT204/DISK
  //  EXEC            PGM=RURAL,REGION=500K,TIME=2
§§//STEPLIB       DD  DSN=AG4B17G.RURALXX.LOAD,DISP=OLD
  //                  DD DSN=SYS1.PLIX.TRANSLIB,DISP=SHR
  //                  DD DSN=SYS1.SYNC.LINKLIB,DISPSHR
  //SYSPRINT          DD SYSOUT=A
  //SORTLIB           DD DISP=SHR,DSN=SYS1.SYNC.SORTLIB
  //SORTMSG           DD SYSOUT=A
  //SORTWK01          DD UNIT=SYSDK,SPACE=(CYL,5,,CONTIG)
  //SORTWK02          DD UNIT=(SYSDK,SEP=SORTWK01),SPACE=(CYL,5,,CONTIG)
  //SORTWK03          DD UNIT=(SYSDK,SEP=(SORTWK01,SORTWK02)),
  //  SPACE=(CYL,5,,CONTIG)
  //DISK              DD DSN=&&GEIGER,UNIT=SYSDK,SPACE=(CYL,(5,1),RLSE),
  //  DCB=(RECFM=FB,LRECL=80,BLKSIZE=6400),DISP=(NEW,PASS)
  //SORTIN            DD DSN=*.DISK,VOL=REF=*.DISK,DISP=(OLD,DELETE)
  //SORTOUT           DD DSN=*.DISK,VOL=REF=*.DISK,DISP=(OLD,DELETE)
§§//CARDIN            DD DSN=RURALXX,DISP=OLD,UNIT=3330,VOL=SER=MNT204,
  //  DCB=(RECFM=FB,LRECL=80,BLKSIZE=6400)
  /*
  //
```

§§Note - User must supply a 2-digit year; for example, RURAL79.

INDUSTRIAL SELF-SUPPLIED WATER USE, PROGRAM L149

Introduction

The PL1 source language for program L149 has been compiled and loaded into a system library called SYS1.LOADLIB on the Amdahl. The procedure name is INDUST.

The program consists of a MAIN module (INDUST) and several subroutines which are as follows:

HEDCOM--subroutine that prints page heading for the card listings of annual values;
HEDMOLT--subroutine that prints page heading for the card listings of monthly values;
HEADCO--subroutine that prints page heading for the table of annual values by counties;
HEDMOCO--subroutine that prints page heading for the table of monthly values by counties;
HEDSTAT--subroutine that prints page heading for the table of monthly values, statewide;
HEADWMD--subroutine that prints page heading for the table of annual values by water management districts;
HEDWMMO--subroutine that prints page heading for the table of monthly values by water management districts;
WRAPUP--subroutine that prints the table of annual values by hydrologic units;
HEDHUN--subroutine that prints page heading for the table of annual values by hydrologic units;
HEDBSMO--subroutine that prints page heading for the table of monthly values by hydrologic unit.

Coding the Data

Water-use data will be processed by L149 only in the card format described in this report. Coding forms (U.S. Geological Survey forms 3 and 3A Florida District) are available for coding data for each site. This allows an orderly and consistent format for keypunching and entering data into the system. To adequately describe a specific industrial water-use site, six cards must be coded and keypunched.

The option card identifies the tables requested for printing and the year of data collection. Each table available for printing is represented on this card; however, certain tables are available by sets only. That is, a table of monthly values by county will be printed only if the table of annual values by county is requested. Annual and monthly values card listings are printed with one request on the option card. Optionally, table numbers for publication can be coded on this card.

The Option Card

The option card is coded as follows:

Column(s)

1	Card type. Enter the letter "O." Mandatory field;
2	Code "1" if annual and monthly values card listings are desired;
3	Code "1" if table of annual values sorted by counties is desired. If this column is not coded, monthly values sorted by counties cannot be requested;
4	Code "1" if monthly values sorted by counties is desired;
5	Code "1" if table of annual values sorted by water management districts is desired. If this column is not coded, monthly values by water management districts cannot be requested.
6	Code "1" if table of monthly values sorted by water management districts is desired;
7	Code "1" if a card listing sorted by hydrologic unit is desired. If this column is not coded, the data will not be sorted by hydrologic unit, and tables for hydrologic unit values cannot be requested;
8	Code "1" if table of annual values sorted by hydrologic units is desired. If this column is not coded, monthly values sorted by hydrologic units cannot be requested;
9	Code "1" if table of monthly values sorted by hydrologic units is desired;
40-43	Year the data were collected, e.g. 1978; mandatory field;
44	Blank;
45-65	These seven fields of three digits are for use in publication. An assigned table number can be coded or the field left blank;
45-47	Table number for "by counties" table;
48-50	Table number for "monthly, by counties" table;
51-53	Table number for "monthly, statewide" table;
54-56	Table number for "by water management districts" table;
57-59	Table number for "monthly, by water management districts" table;
60-62	Table number for "by hydrologic units" table;
63-65	Table number for "monthly, by hydrologic units" table.

The Data Cards

Each specific site where water-use data have been collected must be coded on six cards as follows (figs. 5 and 6):

Column(s)	
1	Card type. Enter "1;"
2-4	County code. Leading zeroes must be coded: county "009," not "9;"
5-12	Drainage basin/hydrologic unit code. Columns 5-6 are precoded "03" to denote the State of Florida;
13-14	Water management district code. See columns 13-14, page 6, for a listing of valid codes;
15-17	Company sequence number. Each office must assign a unique company number for each industrial water-use site to be processed by program L149. Each company within a county is numbered consecutively from 01;
18-37	Company name;
38-42 [3]	Average annual pumpage, in Mgal/d, for fresh ground water;
43-46 [3]	Average annual pumpage, in Mgal/d, for saline ground water;
47-51 [3]	Average annual pumpage, in Mgal/d, for fresh surface water;
52-55 [3]	Average annual pumpage, in Mgal/d, for saline surface water;
56-59 [3]	Average annual freshwater consumed, in Mgal/d;
60-63 [3]	Average annual saline water consumed, in Mgal/d;
64-65	Year. Code the last 2 digits of the year the data were collected.

[3] These fields contain an implied decimal 2 digits from the right; for example, the value 1268 Mgal/d would be read as 12.68 Mgal/d.

U.S. Geological Survey Form 3
(Florida District)
Revised 6/6/79

INDUSTRIAL SELF-SUPPLIED WATER USE, DATA

Information collected by _____ Date _____ 19____

Information collected from _____ Telephone Area _____, _____

COUNTY _____.

CARD NO. [1] (1) COUNTY NO. [ ][ ][ ] (2–4) DRAINAGE BASIN [0][3][ ][ ][ ][ ][ ][ ] (5–12)

WATER MANAGEMENT DISTRICT [ ][ ] (13–14) COMPANY NO. [ ][ ][ ] (15–17)

COMPANY NAME [ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ][ ] (18)

TOTALS

PUMPED

Fresh Ground Water [ ][ ][ ][ ][ ] (38–42) MGD

Saline Ground Water [ ][ ][ ][ ] (43–46) MGD

Fresh Surface Water [ ][ ][ ][ ] (47–51) MGD

Saline Surface Water [ ][ ][ ][ ] (52–55) MGD

TOTAL CONSUMED

Fresh [ ][ ][ ][ ] (56–59) MGD

Saline [ ][ ][ ][ ] (60–63) MGD

Year [ ][ ] (64–65)

CARD NO. [2] (1) COUNTY NO. [ ][ ][ ] (2–4) DRAINAGE BASIN [0][3][ ][ ][ ][ ][ ][ ] (5–12)

WATER MANAGEMENT DISTRICT [ ][ ] (13–14) COMPANY NO. [ ][ ][ ] (15–17)

SUBTOTALS

Lime Rock Mining [ ][ ][ ][ ] (18–21) MGD, Output _____ tons, Waste Water to _____

Pulp and Paper Processing [ ][ ][ ][ ] (22–25) MGD, Output _____ tons, Waste Water to _____

Chemical Products Processing [ ][ ][ ][ ] (26–29) MGD, Output _____ units, Waste Water to _____

Phosphate Mining [ ][ ][ ][ ][ ] (30–34) MGD, Output _____ tons, Waste Water to _____

Citrus Processing [ ][ ][ ][ ] (35–38) MGD, Output _____ units, Waste Water to _____

Food Processing [ ][ ][ ][ ] (39–42) MGD, Output _____ units, Waste Water to _____

Air Conditioning [ ][ ][ ][ ] (43–46) MGD, Waste Water to _____

Other [ ][ ][ ][ ] (47–50) MGD, Waste Water to _____

Figure 5.--U.S. Geological Survey form 3--Florida District industrial self-supplied water-use data.

U.S. Geological Survey Form 3A
Florida District
Revised 6/11/79

INDUSTRIAL SELF-SUPPLIED WATER USE (Monthly) 19____

CARD [3] (1) COUNTY [ ] (2–4) DRAINAGE BASIN [0 3] (5–12) WMD [ ] (13–14) COMPANY NO. [ ] (15–17)

Million Gallons Per Day (MGD)

MONTH	Fresh GW (18)	Saline GW (22)	Fresh SW (26)	Saline SW (30)	Consumed (34)
January					
February	(38)	(42)	(46)	(50)	(54)
March	(58)	(62)	(66)	(70)	(74–77)

CARD [4] (1) COUNTY [ ] (2–4) DRAINAGE BASIN [0 3] (5–12) WMD [ ] (13–14) COMPANY NO. [ ] (15–17)

Million Gallons Per Day (MGD)

MONTH	Fresh GW (18)	Saline GW (22)	Fresh SW (26)	Saline SW (30)	Consumed (34)
April					
May	(38)	(42)	(46)	(50)	(54)
June	(58)	(62)	(66)	(70)	(74–77)

CARD [5] (1) COUNTY [ ] (2–4) DRAINAGE BASIN [0 3] (5–12) WMD [ ] (13–14) COMPANY NO. [ ] (15–17)

Million Gallons Per Day (MGD)

MONTH	Fresh GW (18)	Saline GW (22)	Fresh SW (26)	Saline SW (30)	Consumed (34)
July					
August	(38)	(42)	(46)	(50)	(54)
September	(58)	(62)	(66)	(70)	(74–77)

CARD [6] (1) COUNTY [ ] (2–4) DRAINAGE BASIN [0 3] (5–12) WMD [ ] (13–14) COMPANY NO. [ ] (15–17)

Million Gallons Per Day (MGD)

MONTH	Fresh GW (18)	Saline GW (22)	Fresh SW (26)	Saline SW (30)	Consumed (34)
October					
November	(38)	(42)	(46)	(50)	(54)
December	(58)	(62)	(66)	(70)	(74–77)

Figure 6.--U.S. Geological Survey form 3A--Florida District industrial self-supplied water-use monthly data.

Column(s)	
1	Card type. Code "2;"
2-4	County code. Leading zeroes must be coded: county "009," not "9;"
5-12	Drainage basin/hydrologic unit code. Columns 5-6 are precoded "03" to denote the State of Florida;
13-14	Water management district code. See columns 13-14, page 6, for a listing of valid codes;
15-17	Company sequence number. Should be the same as assigned on the type 1 card;
3/ 18-21	Water used, in Mgal/d, in lime rock mining;
3/ 22-25	Water used, in Mgal/d, in pulp and paper processing;
3/ 26-29	Water used, in Mgal/d, in chemical products processing;
3/ 30-34	Water used, in Mgal/d, in phosphate mining;
3/ 35-38	Water used, in Mgal/d, in citrus processing;
3/ 39-42	Water used, in Mgal/d, in food processing;
3/ 43-46	Water used, in Mgal/d, in air conditioning;
3/ 47-50	Water used, in Mgal/d, for other processing.

Column(s)	
1	Card type. Code "3" for entering monthly values for January, February, and March; Code "4" for entering monthly values for April, May, and June; code "5" for entering monthly values for July, August, and September; code "6" for entering monthly values for October, November, and December;
2-4	County code. Leading zeroes must be coded: county "009," not "9;"
5-12	Drainage basin/hydrologic unit code. Columns 5-6 are precoded "03" to denote the State of Florida;
13-14	Water management district code. See columns 13-14, page 6, for a listing for valid codes;

3/ These fields contain an implied decimal 2 digits from the right; for example, the value 1268 Mgal/d would be read as 12.68 Mgal/d.

Column(s)

15-17 Company sequence number. Sequence number should be the same number as assigned on the type 1 card;

[3/] 18-77 These columns contain average monthly pumpage, in Mgal/d, for the months January through March, April through June, July through September, or October through December;

18-37 Monthly values for

- 18-21 fresh ground water
- 22-25 saline ground water
- 26-29 fresh surface water
- 30-33 saline surface water
- 34-37 consumed water;

38-57 Monthly values for

- 38-41 fresh ground water
- 42-45 saline ground water
- 46-49 fresh surface water
- 50-53 saline surface water
- 54-57 consumed water;

58-77 Monthly values for

- 58-61 fresh ground water
- 62-65 saline ground water
- 66-69 fresh surface water
- 70-73 saline surface water
- 74-77 consumed water;

78-80 Type of industry. Code one of the following:

- LRM - lime rock mining
- PPP - pulp and paper processing
- CPP - chemical products processing
- PHM - phosphate mining
- CTP - citrus processing
- FDP - food processing
- A/C - air conditioning
- OTH - other

[3/] This field contains an implied decimal 2 digits from the right; for example, the value 1268 Mgal/d would be read as 12.68 Mgal/d.

Special Coding Considerations

Columns 1-17 must be coded on all cards for a specific water-use data-collection site to uniquely identify that data. These columns are mandatory.

In the data fields, either for monthly or annual data values, zeroes do not need to be coded or keypunched. If the field is left blank, zeroes are assumed. Therefore, planned collection sites can be entered with all data fields left blank provided the identifier (columns 1-17) is keypunched.

In many cases, the data fields contain implied decimals. See industrial self-supplied coding forms 3 and 3A, pages 41 and 42. The decimals must not be keypunched. For instance, fresh ground-water pumpage is a 5-digit field with the decimal 2 digits from the right.

Processing Procedures

After forms 3 and 3A are coded, the data must be keypunched and submitted for processing by program L149.

Program L149 edits the data for the following:

1. Option card: An "0" card must be the first input card or processing will be terminated. A diagnostic message will be printed if an "0" card is not the first input card. See Diagnostic Messages, page 54. See page 39 for the description and coding of the option card.

2. Card sequence: Card input must be in numerical sequence 1 to 6 for each site. If the cards are not in proper numerical sequence by card type, a diagnostic message will be printed and all further processing discontinued. See Diagnostic Messages, page 54. For ease in reading, industrial sites should also be in ascending order by county code.

3. Conversion errors: A conversion error appears when the PL1 compiler cannot convert arithmetic or character values to other formats. This is an error generated by the compiler; however, program L149 will print a diagnostic message showing where the error occurred. This is helpful in locating errors in input. It is usually a keypunch error.

The program will not diagnose incorrect data. The input to program L149 should be checked carefully before it is submitted for processing. Selecting the card listing option will aid in locating invalid codes for county, hydrologic unit, and water management district. Finding errors in data from the tables is time consuming.

Since INDUST computes totals for monthly and annual data statewide by county, water management district, and hydrologic unit, data errors exist if all three categories do not have identical totals. That is, state totals for annual values by county must balance with state totals for annual values by water management district and hydrologic unit. Likewise, monthly values statewide, by county, must balance with monthly values by hydrologic unit and water management district. In addition, monthly totals must equal annual totals for all three categories. For example, the statewide monthly total computed for fresh ground water pumped must equal the state annual total for fresh ground water pumped.

Output from Program L149

The output is requested on the option card and consists of two types of printout--card listings and tables of data. See page 39 for coding the option card. All values for both listings and tables are given in million gallons per day (Mgal/d). Each card listing or table produced by program L149 is discussed separately in the following paragraphs. Only partial listings of the tables or the card listings are provided in an effort to save space.

A listing of the annual data values punched on cards 1 and 2 can be requested (table 21). The column headings produced (reading left to right) are company name, county code, hydrologic unit code, water management district code, average annual pumpages for fresh and saline ground water, fresh and saline surface water, and average annual values for fresh and saline water consumed at the industrial site. Included in this listing are column headings for the purpose-of-use subtotals found on card 2. Industrial uses for water in Florida are lime rock mining, pulp and paper processing, chemical products processing, phosphate mining, citrus processing, food processing, air conditioning (cooling), and other.

A listing of the monthly data values punched on cards 3-6 is printed if card listings are requested on the option card. This is called the monthly values card listing (table 22). The column headings produced (reading left to right) are company name, county name, and monthly pumpages for fresh and saline ground water, fresh and saline surface water, and water consumed. The monthly values are totaled by column and then divided by 12 to show average monthly pumpage. The two card listings are essential for editing water-use data. They are not in publishable form and, therefore, are to be used only as worksheets.

A table showing annual data compiled by county may be requested entitled "Industrial Self-Supplied Water Use in Florida, by Counties" (table 23). This table consists of column headings (reading left to right) for county name, water withdrawn for fresh and saline ground water, fresh and saline surface water, the sum of fresh ground water and surface water, the sum of saline ground water and surface water, consumed fresh and saline water, and water used in Florida by major classifications. These are lime rock mining, pulp and paper processing, chemical products processing, phosphate mining, citrus processing, food processing, air conditioning (cooling), and other. This table ends with a line of state totals for each column.

A table showing monthly data compiled by county may be requested entitled "Industrial Self-Supplied Water Use in Florida, Monthly, by Counties" (table 24). This table consists of the same column headings as "Industrial Self-Supplied Water Use in Florida, by Counties," except water consumed which has only one category; however, data values for each month by county are printed. Twelve lines of monthly data are shown for the 67 counties in the State of Florida. This table is followed by a table entitled "Industrial Self-Supplied Water Use in Florida, Monthly, Statewide" (table 25). It contains the same table format and consists of totals by month for the entire state. Thus, there are 12 lines of data for January through December. This table ends with a line for statewide averages of monthly data by column.

Table 21.--Output for industrial self-supplied water use, annual pumpages and subtotals card listing (cards 1 and 2)

INDUSTRIAL

COMPANY NAME	CNTY	BAS	WMD	GW PUMP(MGD) FRESH	GW PUMP(MGD) SALINE	SW PUMP(MGD) FRESH	SW PUMP(MGD) SALINE	CONSUMED FRESH	CONSUMED SAL	PURPOSE-OF-USE SUBTOTALS(MGD) LM RCK MINING	PULP& PAPER	CHEML PRODS	PHSPHT MINING	CITRUS PROC	FOOD PROC	A/C	OTHER
	129	120001	NW	0.70	0.00	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.7080
	129	120001	NW	0.06	0.00	0.00	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0680
	129	120001	NW	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0180
	129	120001	NW	0.04	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0480
	131	140203	NW	0.47	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.4780
	131	140102	NW	0.26	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.2680
	131	140102	NW	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0180
	133	140203	NW	0.02	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0280
	133	140203	NW	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0180
	133	140203	NW	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0180

Table 22.--Output for industrial self-supplied water use, monthly pumpages card listing (cards 3-6)

INDUSTRIAL

COMPANY NAME	CNTY	GROUND WATER FRESH	GROUND WATER SALINE	SURFACE WATER FRESH	SURFACE WATER SALINE	CONSUMED
	ALACHUA	PPP				
JAN		0.07	0.00	0.00	0.00	0.07
FEB		0.07	0.00	0.00	0.00	0.07
MAR		0.07	0.00	0.00	0.00	0.07
APR		0.07	0.00	0.00	0.00	0.07
MAY		0.07	0.00	0.00	0.00	0.07
JUN		0.07	0.00	0.00	0.00	0.07
JUL		0.07	0.00	0.00	0.00	0.07
AUG		0.07	0.00	0.00	0.00	0.07
SEP		0.07	0.00	0.00	0.00	0.07
OCT		0.07	0.00	0.00	0.00	0.07
NOV		0.07	0.00	0.00	0.00	0.07
DEC		0.07	0.00	0.00	0.00	0.07
TOTAL		0.84	0.00	0.00	0.00	0.84
PER DAY		0.07	0.00	0.00	0.00	0.07
	ALACHUA	OTH				
JAN		0.61	0.00	0.10	0.00	0.71
FEB		0.61	0.00	0.10	0.00	0.71
MAR		0.61	0.00	0.10	0.00	0.71
APR		0.61	0.00	0.10	0.00	0.71
MAY		0.61	0.00	0.10	0.00	0.71
JUN		0.61	0.00	0.10	0.00	0.71
JUL		0.61	0.00	0.10	0.00	0.71
AUG		0.61	0.00	0.10	0.00	0.71
SEP		0.61	0.00	0.10	0.00	0.71
OCT		0.61	0.00	0.10	0.00	0.71
NOV		0.61	0.00	0.10	0.00	0.71
DEC		0.61	0.00	0.10	0.00	0.71
TOTAL		7.32	0.00	1.20	0.00	8.52
PER DAY		0.61	0.00	0.10	0.00	0.71
	ALACHUA	OTH				
JAN		0.00	0.00	0.00	0.00	0.00
FEB		0.00	0.00	0.00	0.00	0.00
MAR		0.00	0.00	0.00	0.00	0.00
APR		0.00	0.00	0.00	0.00	0.00
MAY		0.00	0.00	0.00	0.00	0.00
JUN		0.00	0.00	0.00	0.00	0.00
JUL		0.00	0.00	0.00	0.00	0.00
AUG		0.00	0.00	0.00	0.00	0.00
SEP		0.00	0.00	0.00	0.00	0.00
OCT		0.00	0.00	0.00	0.00	0.00
NOV		0.00	0.00	0.00	0.00	0.00
DEC		0.00	0.00	0.00	0.00	0.00
TOTAL		0.00	0.00	0.00	0.00	0.00
PER DAY		0.00	0.00	0.00	0.00	0.00

Table 23.--Output for industrial self-supplied water use in Florida, by counties

TABLE .--INDUSTRIAL SELF-SUPPLIED WATER USE IN FLORIDA BY COUNTIES, 1980--CONTINUED

COUNTY	WATER WITHDRAWN (MGD) GROUND WATER FRESH	GROUND WATER SALINE	SURFACE WATER FRESH	SURFACE WATER SALINE	ALL WATER FRESH	ALL WATER SALINE	CONSUMED FRESH	CONSUMED SALINE	WATER USE BY MAJOR CLASSIFICATIONS (MGD) LM RCK MINING	PULP& PAPER	CHEML PRODS	PHSPHT MINING	CITRUS PROC	FOOD PROC	A/C	OTHER
OSCEOLA	0.70	0.00	0.00	0.00	0.70	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70
PALM BEACH	1.75	3.02	0.92	0.00	2.67	3.02	0.60	0.02	0.00	0.00	0.00	0.00	0.00	0.92	3.02	1.75
PASCO	15.83	0.00	0.00	0.00	15.83	0.00	15.83	0.00	0.00	0.00	0.00	0.00	15.45	0.00	0.00	0.38
PINELLAS	0.89	0.00	0.00	0.00	0.89	0.00	0.89	0.00	0.00	0.00	0.23	0.00	0.20	0.00	0.00	0.46
POLK	208.71	0.00	0.00	0.00	208.71	0.00	169.75	0.00	0.30	0.00	62.79	129.28	12.22	2.28	0.00	1.84
PUTNAM	19.23	0.00	21.00	0.00	40.23	0.00	40.23	0.00	0.00	34.50	3.70	0.00	0.00	0.00	0.00	2.03
ST. JOHNS	0.01	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
ST. LUCIE	2.05	0.00	0.00	0.00	2.05	0.00	0.27	0.00	1.65	0.00	0.00	0.00	0.38	0.00	0.00	0.02
SANTA ROSA	18.52	0.00	0.00	0.00	18.52	0.00	14.68	0.00	0.00	0.00	7.63	0.00	0.00	0.00	0.00	10.89
SARASOTA	0.10	0.00	0.00	0.00	0.10	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
SEMINOLE	3.80	0.00	0.00	0.00	3.80	0.00	2.34	0.00	0.00	0.00	0.00	0.00	2.88	0.50	0.00	0.42
SUMTER	1.14	0.00	0.00	0.00	1.14	0.00	1.14	0.00	1.10	0.00	0.00	0.00	0.01	0.00	0.00	0.03
SUWANNEE	0.70	0.00	0.00	0.00	0.70	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.56	0.00	0.14
TAYLOR	51.05	0.00	0.00	0.00	51.05	0.00	0.14	0.00	0.00	51.02	0.00	0.00	0.00	0.00	0.00	0.03
UNION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
VOLUSIA	0.33	0.00	0.00	0.00	0.33	0.00	0.31	0.00	0.01	0.00	0.23	0.00	0.00	0.04	0.00	0.05
WAKULLA	0.81	0.00	0.00	0.00	0.81	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81
WALTON	0.74	0.00	0.00	0.00	0.74	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.74
WASHINGTON	0.04	0.00	0.00	0.00	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
STATE TOTALS	643.13	42.24	138.20	15.24	781.33	57.48	467.13	3.36	52.71	210.55	194.98	194.35	43.40	10.31	18.92	113.49

Table 24.--Output for industrial self-supplied water use in Florida, monthly, by counties

TABLE .--INDUSTRIAL SELF-SUPPLIED WATER USE IN FLORIDA MONTHLY, BY COUNTIES, 1980--CONTINUED

COUNTY	WATER WITHDRAWN(MGD) GROUND WATER FRESH	GROUND WATER SALINE	SURFACE WATER FRESH	SURFACE WATER SALINE	ALL WATER FRESH	ALL WATER SALINE	CONSUMED	LM RCK MINING	PULP& PAPER	CHEML PRODS	PHSPHT MINING	CITRUS PROC	FOOD PROC	A/C	OTHER
WASHINGTON															
JAN	0.04	0.00	0.00	0.00	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
FEB	0.04	0.00	0.00	0.00	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
MAR	0.04	0.00	0.00	0.00	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
APR	0.04	0.00	0.00	0.00	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
MAY	0.04	0.00	0.00	0.00	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
JUN	0.04	0.00	0.00	0.00	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
JUL	0.04	0.00	0.00	0.00	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
AUG	0.04	0.00	0.00	0.00	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
SEP	0.04	0.00	0.00	0.00	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
OCT	0.04	0.00	0.00	0.00	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
NOV	0.04	0.00	0.00	0.00	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
DEC	0.04	0.00	0.00	0.00	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04

Table 25.--Output for industrial self-supplied water use in Florida, statewide by counties

TABLE .--INDUSTRIAL SELF-SUPPLIED WATER USE IN FLORIDA
MONTHLY, STATEWIDE, 1980

WATER WITHDRAWN(MGD)

COUNTY	GROUND WATER FRESH	GROUND WATER SALINE	SURFACE WATER FRESH	SURFACE WATER SALINE	ALL WATER FRESH	ALL WATER SALINE	CONSUMED	LM RCK MINING	PULP& PAPER	CHEML PRODS	PHSPHT MINING	CITRUS PROC	FOOD PROC	A/C	OTHER
TOTALS BY MONTHS															
JAN	642.36	40.34	128.55	15.24	770.91	55.58	471.66	53.30	212.52	175.52	189.06	58.00	14.21	17.48	06.40
FEB	650.01	34.84	127.82	15.24	777.83	50.08	473.62	52.09	211.92	177.78	191.38	57.86	13.68	17.48	05.72
MAR	637.69	34.64	130.71	15.24	768.40	49.88	464.85	52.60	211.56	181.53	186.31	49.30	12.11	17.48	07.39
APR	657.02	45.50	134.61	15.24	791.63	60.74	472.46	53.86	212.18	198.12	196.04	49.91	10.83	19.95	11.48
MAY	657.67	45.56	139.47	15.24	797.14	60.80	473.06	51.89	213.24	199.59	191.60	58.55	10.22	19.95	12.90
JUN	659.84	41.75	141.38	15.24	801.22	56.99	481.64	52.70	212.16	202.22	197.10	48.77	9.15	19.95	16.16
JUL	638.83	40.62	152.37	15.24	791.20	55.86	464.58	54.05	213.92	209.47	197.77	25.15	9.38	19.95	17.37
AUG	633.71	42.96	152.19	15.24	785.90	58.20	460.53	54.72	210.96	212.34	191.70	26.13	6.51	19.95	21.79
SEP	627.21	42.68	156.11	15.24	783.32	57.92	477.20	51.25	198.26	209.09	198.55	35.42	7.05	19.95	21.67
OCT	651.90	47.95	132.11	15.24	784.01	63.19	480.55	54.18	210.95	195.64	207.96	34.89	7.58	19.95	16.05
NOV	632.02	47.58	133.95	15.24	765.97	62.82	468.35	49.19	209.33	196.33	196.28	36.47	9.88	17.48	13.83
DEC	629.30	42.46	129.18	15.24	758.48	57.70	457.38	52.69	209.60	182.13	188.45	40.35	13.17	17.47	12.32
STATE TOTALS															
	643.13	42.24	138.20	15.24	781.33	57.48	470.49	52.71	210.55	194.98	194.35	43.40	10.31	18.92	113.59

Table 26.--Output for industrial self-supplied water use in Florida, by water management districts

TABLE .--INDUSTRIAL SELF-SUPPLIED WATER USE IN FLORIDA

BY WATER MANAGEMENT DISTRICTS, 1980--CONTINUED

COUNTY	WATER WITHDRAWN (MGD) GROUND WATER FRESH	GROUND WATER SALINE	SURFACE WATER FRESH	SURFACE WATER SALINE	ALL WATER FRESH	ALL WATER SALINE	CONSUMED FRESH	CONSUMED SALINE	WATER USE BY MAJOR CLASSIFICATIONS (MGD) LM RCK MINING	PULP& PAPER	CHEML PRODS	PHSPHT MINING	CITRUS PROC	FOOD PROC	A/C	OTHER
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT																
CHARLOTTE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
CITRUS	0.34	0.00	0.21	0.00	0.55	0.00	0.55	0.00	0.54	0.00	0.00	0.00	0.00	0.00	0.00	0.01
DESOTO	0.53	0.00	0.00	0.00	0.53	0.00	0.52	0.00	0.00	0.00	0.00	0.00	0.28	0.00	0.00	0.25
HARDEE	0.79	0.00	0.00	0.00	0.79	0.00	0.22	0.00	0.00	0.00	0.00	0.66	0.12	0.00	0.00	0.01
HERNANDO	31.60	0.00	0.00	0.00	31.60	0.00	13.60	0.00	31.58	0.00	0.00	0.00	0.02	0.00	0.00	0.00
HIGHLANDS	0.78	0.00	0.00	0.00	0.78	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.71	0.00	0.00	0.07
HILLSBOROUGH	20.54	38.39	6.23	0.00	26.77	38.39	21.33	1.34	0.01	0.00	44.62	17.42	0.27	1.75	0.26	0.83
LAKE	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
LEVY	0.04	0.00	0.00	0.00	0.04	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
MANATEE	0.19	0.00	0.00	0.00	0.19	0.00	0.19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.04
MARION	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
PASCO	15.83	0.00	0.00	0.00	15.83	0.00	15.83	0.00	0.00	0.00	0.00	0.00	15.45	0.00	0.00	0.38
PINELLAS	0.89	0.00	0.00	0.00	0.89	0.00	0.89	0.00	0.00	0.00	0.23	0.00	0.20	0.00	0.00	0.46
POLK	208.70	0.00	0.00	0.00	208.70	0.00	69.74	0.00	0.30	0.00	62.79	129.28	12.21	2.28	0.00	1.84
SARASOTA	0.10	0.00	0.00	0.00	0.10	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10
SUMTER	1.14	0.00	0.00	0.00	1.14	0.00	1.14	0.00	1.10	0.00	0.00	0.00	0.01	0.00	0.00	0.03
WMD TOTAL	281.47	38.39	6.44	0.00	287.91	38.39	224.21	1.34	33.53	0.00	107.64	147.36	29.27	4.03	0.41	4.06
STATE TOTALS	643.13	42.24	138.20	15.24	781.33	57.48	467.13	3.36	52.71	210.55	194.98	194.35	43.40	10.31	18.92	113.49

NOTE
SEVERAL OF THE ABOVE COUNTIES ARE IN MORE THAN ONE WATER MANAGEMENT DISTRICT. FOR COUNTY TOTALS SEE "INDUSTRIAL SELF-SUPPLIED WATER USE IN FLORIDA, BY COUNTIES."

A table showing annual data compiled by water management district may be requested entitled "Industrial Self-Supplied Water Use in Florida, by Water Management Districts" (table 26). This table has the same format (column headings) as the county table; however, the data is printed by county within a particular water management district. The water management districts in Florida are Northwest Florida, South Florida, St. Johns River, Suwannee River, and Southwest Florida. Each district table ends with totals for each column.

The table showing monthly data compiled by water management district entitled "Industrial Self-Supplied Water Use in Florida, Monthly, by Water Management Districts" (table 27) is optional and must be requested on the 'O' card. The table format is identical to the "Monthly, by Counties" table. Each water management districts' data are presented by month, January through December, ending with a line of averages for the district. A line of statewide totals by column completes the table.

If requested, data keypunched on cards 1 and 2 are listed and sorted by hydrologic unit (table 28). This is helpful as a worksheet to locate keypunch errors in the hydrologic unit printouts. The column headings are the same as for the previous card type 1 listing.

Following this card listing is the printout entitled "Industrial Self-Supplied Water Use in Florida, by Hydrologic Units" (table 29) showing annual data compiled by hydrologic unit. The table format is the same as for the county table; however, data are compiled by counties located within particular hydrologic units (drainage basins) in Florida. A line for unit totals by column appears at the end of each hydrologic unit section. This printout ends with a line of state totals by column.

A table showing monthly data compiled by hydrologic unit will be printed if the table "Industrial Self-Supplied Water Use in Florida, Monthly, by Hydrologic Units" (table 30) is requested. This uses the same monthly table format as previously discussed. Therefore, there are 12 lines of data per hydrologic unit code for the months January through December ending with a unit average for each column and a state total for each column.

Table 27.--Output for industrial self-supplied water use in Florida, monthly, by water management districts

TABLE .--INDUSTRIAL SELF-SUPPLIED WATER USE IN FLORIDA

MONTHLY, BY WATER MANAGEMENT DISTRICTS, 1980--CONTINUED

	WATER WITHDRAWN(MGD)							WATER USE BY MAJOR CLASSIFICATIONS (MGD)							
	GROUND WATER FRESH	GROUND WATER SALINE	SURFACE WATER FRESH	SURFACE WATER SALINE	ALL FRESH	WATER SALINE	CONSUMED	LM RCK MINING	PULP& PAPER	CHEML PRODS	PHSPHT MINING	CITRUS PROC	FOOD PRDC	A/C	OTHER
SUWANNEE RIVER WATER MANAGEMENT DISTRICT															
JAN	95.94	0.00	34.12	0.00	130.06	0.00	12.90	0.00	52.83	24.04	46.99	0.00	0.56	0.01	5.63
FEB	94.88	0.00	34.12	0.00	129.00	0.00	12.67	0.00	51.97	24.04	46.99	0.00	0.57	0.01	5.42
MAR	94.13	0.00	34.12	0.00	128.25	0.00	12.64	0.00	51.28	24.04	46.99	0.00	0.56	0.01	5.37
APR	95.56	0.00	34.12	0.00	129.68	0.00	12.79	0.00	52.64	24.04	46.99	0.00	0.56	0.01	5.44
MAY	96.03	0.00	34.12	0.00	130.15	0.00	12.98	0.00	53.04	24.04	46.99	0.00	0.53	0.01	5.54
JUN	95.97	0.00	34.12	0.00	130.09	0.00	12.95	0.00	52.83	24.04	46.99	0.00	0.57	0.01	5.65
JUL	96.88	0.00	34.12	0.00	131.00	0.00	12.99	0.00	53.60	24.04	46.99	0.00	0.58	0.01	5.78
AUG	95.25	0.00	34.12	0.00	129.37	0.00	13.25	0.00	51.78	24.04	46.99	0.00	0.64	0.01	5.91
SEP	81.62	0.00	34.12	0.00	115.74	0.00	13.45	0.00	38.07	24.04	46.99	0.00	0.64	0.01	5.99
OCT	93.70	0.00	34.12	0.00	127.82	0.00	13.22	0.00	50.44	24.04	46.99	0.00	0.58	0.01	5.76
NOV	93.48	0.00	34.12	0.00	127.60	0.00	13.06	0.00	50.34	24.04	46.99	0.00	0.56	0.01	5.66
DEC	96.72	0.00	34.12	0.00	130.84	0.00	13.10	0.00	53.42	24.04	46.99	0.00	0.61	0.01	5.77
WMD TOTAL	94.18	0.00	34.12	0.00	128.30	0.00	13.00	0.00	51.02	24.04	46.99	0.00	0.58	0.01	5.66
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT															
JAN	274.21	36.49	5.73	0.00	279.94	36.49	223.36	32.32	0.00	97.22	142.07	37.39	4.68	0.41	2.34
FEB	283.50	30.99	6.12	0.00	289.62	30.99	228.10	31.15	0.00	00.18	144.39	37.43	4.86	0.41	2.19
MAR	274.71	30.79	6.60	0.00	281.31	30.79	219.37	34.24	0.00	99.92	139.32	30.87	4.98	0.41	2.36
APR	286.08	41.65	6.08	0.00	292.16	41.65	227.71	33.26	0.00	13.05	149.05	31.02	4.70	0.41	2.32
MAY	283.54	41.71	6.24	0.00	289.78	41.71	222.35	33.54	0.00	10.03	144.61	37.37	3.14	0.41	2.39
JUN	288.47	37.90	6.28	0.00	294.75	37.90	228.97	34.67	0.00	09.91	150.11	31.49	3.12	0.41	2.94
JUL	273.76	36.77	6.13	0.00	279.89	36.77	216.95	34.30	0.00	07.61	150.78	17.32	3.25	0.41	2.99
AUG	273.49	39.11	6.18	0.00	279.67	39.11	217.93	34.64	0.00	11.07	144.71	18.50	3.23	0.41	6.22
SEP	281.21	38.83	7.42	0.00	288.63	38.83	235.59	30.54	0.00	05.97	151.56	28.79	3.43	0.41	6.76
OCT	298.40	44.10	6.64	0.00	305.04	44.10	242.20	35.62	0.00	14.19	160.97	27.20	4.18	0.41	6.57
NOV	286.76	43.73	6.56	0.00	293.32	43.73	230.64	32.84	0.00	15.18	149.29	28.95	4.23	0.41	6.15
DEC	273.51	38.61	7.30	0.00	280.81	38.61	213.43	35.24	0.00	07.35	141.46	24.91	4.56	0.41	5.49
WMD TOTAL	281.47	38.39	6.44	0.00	287.91	38.39	225.55	33.53	0.00	107.64	147.36	29.27	4.03	0.41	4.06
STATE TOTAL	643.13	42.24	138.20	15.24	781.33	57.48	470.49	52.71	210.55	194.98	194.35	43.40	10.31	18.92	113.59

Table 28.--Output for industrial self-supplied water use, annual and subtotals card listing sorted by hydrologic units

INDUSTRIAL

COMPANY NAME	CNTY	BAS	WMD	GW PUMP(MGD) FRESH	GW PUMP(MGD) SALINE	SW PUMP(MGD) FRESH	SW PUMP(MGD) SALINE	CONSUMED FRESH	CONSUMED SAL	PURPOSE-OF-USE SUBTOTALS(MGD) LM RCK MINING	PULP& PAPER	CHEML PRODS	PHSPHT MINING	CITRUS PROC	FOOD PROC	A/C	OTHER
	59	140203	NW	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0178
	59	140203	NW	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0178
	59	140203	NW	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0178
	131	140203	NW	0.47	0.00	0.00	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.4778
	133	140203	NW	0.02	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0278
	133	140203	NW	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0178
	133	140203	NW	0.01	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0178
	33	140305	NW	0.02	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0278
	33	140305	NW	8.09	0.00	20.51	0.00	8.09	0.00	0.00	0.00	28.60	0.00	0.00	0.00	0.00	0.0078
	113	140305	NW	10.30	0.00	0.00	0.00	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.3078

Table 29.--Output for industrial self-supplied water use in Florida, by hydrologic units

TABLE .--INDUSTRIAL SELF-SUPPLIED WATER USE IN FLORIDA

BY HYDROLOGIC UNITS, 1980--CONTINUED

COUNTY	WATER WITHDRAWN (MGD) GROUND WATER FRESH	GROUND WATER SALINE	SURFACE WATER FRESH	SURFACE WATER SALINE	ALL WATER FRESH	ALL WATER SALINE	CONSUMED FRESH	CONSUMED SALINE	WATER USE BY MAJOR CLASSIFICATIONS (MGD) LM RCK MINING	PULP& PAPER	CHEML PRODS	PHSPHT MINING	CITRUS PROC	FOOD PROC	A/C	OTHER
HYDROLOGIC UNIT 03140106																
ESCAMBIA	18.82	0.00	0.00	0.00	18.82	0.00	1.88	0.00	0.00	18.82	0.00	0.00	0.00	0.00	0.00	0.00
UNIT TOTAL	18.82	0.00	0.00	0.00	18.82	0.00	1.88	0.00	0.00	18.82	0.00	0.00	0.00	0.00	0.00	0.00
HYDROLOGIC UNIT 03140107																
ESCAMBIA	0.17	0.00	0.00	0.00	0.17	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
UNIT TOTAL	0.17	0.00	0.00	0.00	0.17	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
HYDROLOGIC UNIT 03140203																
BAY	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
HOLMES	0.06	0.00	0.00	0.00	0.06	0.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
JACKSON	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
WALTON	0.47	0.00	0.00	0.00	0.47	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47
WASHINGTON	0.04	0.00	0.00	0.00	0.04	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.04
UNIT TOTAL	0.57	0.00	0.00	0.00	0.57	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.57
HYDROLOGIC UNIT 03140305																
ESCAMBIA	8.11	0.00	20.51	0.00	28.62	0.00	8.10	0.00	0.00	0.00	28.60	0.00	0.00	0.00	0.00	0.02
SANTA ROSA	10.30	0.00	0.00	0.00	10.30	0.00	10.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.30
UNIT TOTAL	18.41	0.00	20.51	0.00	38.92	0.00	18.40	0.00	0.00	0.00	28.60	0.00	0.00	0.00	0.00	10.32
STATE TOTAL	643.13	42.24	138.20	15.24	781.33	57.48	467.13	3.36	52.71	210.55	194.98	194.35	43.40	10.31	18.92	113.49

NOTE
SEVERAL OF THE ABOVE COUNTIES ARE IN MORE THAN ONE HYDROLOGIC UNIT. FOR COUNTY TOTALS SEE "INDUSTRIAL SELF-SUPPLIED WATER USE IN FLORIDA, BY COUNTIES."

Table 30.--Output for induatrial self-supplied water use in Florida, monthly, by hydrologic units

TABLE .--INDUSTRIAL SELF-SUPPLIED WATER USE IN FLORIDA

MONTHLY, BY HYDROLOGIC UNITS, 1980--CONTINUED

	WATER WITHDRAWN(MGD)						WATER USE BY MAJOR CLASSIFICATIONS (MGD)								
	GROUND WATER FRESH	GROUND WATER SALINE	SURFACE WATER FRESH	SURFACE WATER SALINE	ALL WATER FRESH	ALL WATER SALINE	CONSUMED	LM RCK MINING	PULP& PAPER	CHEML PRODS	PHSPHT MINING	CITRUS PROC	FOOD PROC	A/C	OTHER
HYDROLOGIC UNIT 03140305															
JAN	19.13	0.00	10.70	0.00	29.83	0.00	19.12	0.00	0.00	19.51	0.00	0.00	0.00	0.00	10.32
FEB	19.32	0.00	9.60	0.00	28.92	0.00	19.31	0.00	0.00	18.60	0.00	0.00	0.00	0.00	10.32
MAR	19.54	0.00	13.30	0.00	32.84	0.00	19.53	0.00	0.00	22.52	0.00	0.00	0.00	0.00	10.32
APR	19.28	0.00	16.90	0.00	36.18	0.00	19.27	0.00	0.00	25.86	0.00	0.00	0.00	0.00	10.32
MAY	18.48	0.00	22.40	0.00	40.88	0.00	18.47	0.00	0.00	30.56	0.00	0.00	0.00	0.00	10.32
JUN	18.52	0.00	25.20	0.00	43.72	0.00	18.51	0.00	0.00	33.40	0.00	0.00	0.00	0.00	10.32
JUL	17.74	0.00	36.20	0.00	53.94	0.00	17.73	0.00	0.00	43.62	0.00	0.00	0.00	0.00	10.32
AUG	18.13	0.00	35.30	0.00	53.43	0.00	18.12	0.00	0.00	43.11	0.00	0.00	0.00	0.00	10.32
SEP	17.98	0.00	36.60	0.00	54.58	0.00	17.97	0.00	0.00	44.26	0.00	0.00	0.00	0.00	10.32
OCT	18.02	0.00	15.20	0.00	33.22	0.00	18.01	0.00	0.00	22.90	0.00	0.00	0.00	0.00	10.32
NOV	17.78	0.00	15.20	0.00	32.98	0.00	17.77	0.00	0.00	22.66	0.00	0.00	0.00	0.00	10.32
DEC	17.00	0.00	9.52	0.00	26.52	0.00	16.99	0.00	0.00	16.20	0.00	0.00	0.00	0.00	10.32
BAS TOTAL	18.41	0.00	20.51	0.00	38.92	0.00	18.40	0.00	0.00	28.60	0.00	0.00	0.00	0.00	10.32
STATE TOTAL	643.13	42.24	138.20	15.24	781.33	57.48	470.49	52.71	210.55	194.98	194.35	43.40	10.31	18.92	113.59

Diagnostic Messages

The following are the diagnostic messages produced by L149:

1. ERROR ON OPTION CARD

   NO FURTHER PROCESSING OF THIS REQUEST

This message will occur if the option card is missing. The "0" card is mandatory.

2. NO OPTIONS REQUESTED

   PROCESSING TERMINATED

This message occurs when columns 2-9 on the option card are blank. You must request output from program L149 using the option card.

3. CARDS OUT OF SEQUENCE

   NO FURTHER PROCESSING

Card input must be in proper numerical sequence, ascending, by card type (column 1 of cards 1-6).

Certain system or compiler messages will be printed. An example is:

(1) CARD NOT PRINTED

   CARD NOT VALID

This error occurs when a conversion is called for but cannot be completed. A character or an embedded blank in a numeric field is often the cause of this error, and is usually the result of an error in keypunching. The error appears when L149 sorts the data incorrectly as a result of the keypunching error. The program will print all fields on the particular card where it encountered the problem. This may not be the exact card where the error occurs, but it is helpful in locating the problem area.

Job Control Language

Program L149 has been stored online in a system library.

For retrieval of data from the current disk files:

```
  COLUMN 1          COLUMN 12
  //xxxxxxxx        JOB (----)
  //  EXEC          PGM=INDUST,REGION=500K,TIME=2
  //STEPLIB         DD DSN=AG4B17G.INDUST80.LOAD,DISP=OLD
  //                DD DSN=SYS1.PLIX.TRANSLIB,DISP=SHR
  //                DD DSN=SYS1.SYNC.LINKLIB,DISP=SHR
  //SYSPRINT        DD SYSOUT=A
  //SORTLIB         DD DISP=SHR,DSN=SYS1.SYNC.SORTLIB
  //SORTMSG         DD SYSOUT=A
  //SORTWK01        DD UNIT=SYSDK,SPACE=(CYL,5,,CONTIG)
  //SORTWK02        DD UNIT=(SYSDK,SEP=SORTWK01),
  //  SPACE=(CYL,5,,CONTIG)
  //SORTWK03        DD UNIT=(SYSDK,SEP=(SORTWK01,SORTWK02)),
  //  SPACE=(CYL,5,,CONTIG)
  //DISK            DD DSN=&&GEIGER,UNIT=SYSDK,SPACE=(CYL,(5,1),RLSE),
  //  DCB=(RECFM=FB,LRECL=80,BLKSIZE=6400),DISP=(NEW,PASS)
  //SORTIN          DD DSN=*.DISK,VOL=REF=*.DISK,DISP=(OLD,DELETE)
  //SORTOUT         DD DSN=*.DISK,VOL=REF=*.DISK,DISP=(OLD,DELETE)
  //CARDIN          DD DSN=AG4B17G.INDUST80.DATA,DISP=OLD,UNIT=ONLINE
  /*
  //
```

For retrieval of data from the historical files:

```
  //xxxxxxxx        JOB (----)
  /*SETUP           MNT204/DISK
  //  EXEC          PGM=INDUST,REGION=500K,TIME=2
§§//STEPLIB         DD DSN=AG4B17G.INDUSTXX.LOAD,DISP=OLD
  //                DD DSN=SYS1.PLIX.TRANSLIB,DISP=SHR
  //                DD DSN=SYS1.SYNC.LINKLIB,DISP=SHR
  //SYSPRINT        DD SYSOUT=A
  //SORTLIB         DD DISP=SHR,DSN=SYS1.SYNC.SORTLIB
  //SORTMSG         DD SYSOUT=A
  //SORTWK01        DD UNIT=SYSDK,SPACE=(CYL,5,,CONTIG)
  //SORTWK02        DD UNIT=(SYSDK,SEP=SORTWK01),SPACE=(CYL,5,,CONTIG)
  //SORTWK03        DD UNIT=(SYSDK,SEP=(SORTWK01,SORTWK02)),
  //  SPACE=(CYL,5,,CONTIG)
  //DISK            DD DSN=&&GEIGER,UNIT=SYSDK,SPACE=(CYL,(5,1),RLSE),
  //  DCB=(RECFM=FB,LRECL=80,BLKSIZE=6400),DISP=(NEW,PASS)
  //SORTIN          DD DSN=*.DISK,VOL=REF=*.DISK,DISP=(OLD,DELETE)
  //SORTOUT         DD DSN=*.DISK,VOL=REF=*.DISK,DISP=(OLD,DELETE)
§§//CARDIN          DD DSN=INDUSTXX,DISP=OLD,UNIT=3330-1,VOL=SER=MNT204,
  //  DCB=(RECFM=FB,LRECL=80,BLKSIZE=6400)
  /*
  //
```

§§Note - User must supply a 2-digit year; for example, INDUST79.

IRRIGATION WATER USE, PROGRAM L151

Introduction

The PL1 source language for program L151 has been compiled and loaded into a system library called SYS1.LOADLIB on the Amdahl. The procedure name is IRRIGA.

The program consists of a MAIN module (IRRIGA) and several subroutines which are as follows:

HEDCOM--subroutine that prints page heading for the card listings of annual values;
HEDMOLT--subroutine that prints page heading for the card listings of monthly values;
HDTPCT--subroutine that prints page heading for the table of annual values, acres irrigated, by counties;
HEADCO--subroutine that prints page heading for the table of annual values by counties;
HEDMOCO--subroutine that prints page heading for the table of monthly values by counties;
HEDSTAT--subroutine that prints page heading for the table of monthly values, statewide;
HDTPWM--subroutine that prints page heading for the table annual values, acres irrigated, by water management districts;
HEADWMD--subroutine that prints page heading for the table of annual values by water management districts;
HEDWMMO--subroutine that prints page heading for the table of monthly values by water management districts;
HEDHUN--subroutine that prints page heading for the table of annual values by hydrologic units;
HDTPUN--subroutine that prints page heading for the table of annual values, acres irrigated, by hydrologic units;
WRAPUP--subroutine that prints the table of annual values, acres irrigated, by hydrologic units;
WRAPUP1--subroutine that prints the table of annual values by hydrologic units;
HEDBSMO--subroutine that prints page heading for the table of monthly values by hydrologic units.

Coding the Data

Water-use data will be processed by L151 only in the card format as described in this report. Coding forms (U.S. Geological Survey forms 4 and 4A Florida District) are available for coding data for each site. This allows an orderly and consistent format for keypunching and entering data into the system. To adequately describe a specific irrigation water-use site, four cards must be coded and keypunched.

The option card identifies the tables requested for printing and the year of data collection. Each table available for printing is represented on this card; however, certain tables are available by sets only. That is, a table of monthly values by county will be printed only

if the table of annual values by county is requested. The annual and monthly values card listings are printed with one request on the option card. Optionally, table numbers for publication can be coded on this card.

The Option Card

The option card is coded as follows:

Column(s)	
1	Card type. Enter the letter "O." Mandatory field;
2	Code "1" if annual and monthly values card listings are desired;
3	Code "1" if table of annual values, acres irrigated, sorted by counties is desired. If this column is not coded, monthly values sorted by counties cannot be requested;
4	Code "1" if table of monthly values sorted by counties is desired;
5	Code "1" if table of annual values, acres irrigated, sorted by water management districts is desired. If this column is not coded, monthly values by water management districts cannot be requested;
6	Code "1" if table of monthly values sorted by water management districts is desired;
7	Code "1" if a card listing sorted by hydrologic unit is desired. If this column is not coded, the data will not be sorted by hydrologic unit, and tables for hydrologic unit values cannot be requested;
8	Code "1" if table of annual values, acres irrigated, sorted by hydrologic units is desired. If this column is not coded, monthly values sorted by hydrologic units cannot be requested;
9	Code "1" if table of monthly values sorted by hydrologic units is desired;
10	Code "1" if table of annual values sorted by county is desired;
11	Code "1" if table of annual values sorted by water management districts is desired;
13	Code "1" if annual values sorted by hydrologic units is desired;
40-43	Year the data were collected, e.g. 1978; mandatory field;
44	Blank;

Column(s)

45-65 These seven fields of three digits are for use in publication. An assigned table number can be coded or the field left blank;

- 45-47 Table number for "by counties" table;
- 48-50 Table number for "monthly, by counties" table;
- 51-53 Table number for "monthly, statewide" table;
- 54-56 Table number for "by water management districts" table;
- 57-59 Table number for "monthly, by water management districts" table;
- 60-62 Table number for "by hydrologic units" table;
- 63-65 Table number for "monthly, by hydrologic units" table.

The Data Cards

Each specific site where water-use data have been collected must be coded on four cards as follows (figs. 7 and 8):

Column(s)

1 Card type. Enter "1;"

2-4 County code. Leading zeroes must be coded: county "009," not "9;"

5-12 Drainage basin/hydrologic unit code. Columns 5-6 are precoded "03" to denote the State of Florida;

13-14 Water management district code. See columns 13-14, page 6, for a listing of valid codes;

15-26 Self-supplied average annual pumpages for irrigation (in acre-feet per year) using:

- 15-20 surface water
- 21-26 ground water;

27-31 Annual conveyance loss;

32-36 Annual consumptive use;

37-76 Acres irrigated by crop:

- 37-41 citrus
- 42-46 truck farming (vegetables)
- 47-51 pasture
- 52-57 sugar cane
- 58-61 tobacco
- 62-66 corn
- 67-71 watermelons
- 72-76 other;

77-78 Year. Code the last two digits of the year the data were collected.

U.S. Geological Survey Form 4
(Florida District)
Revised 6/6/79

IRRIGATION
WATER USE AND ACREAGE
1975

Source of information (Agency) _____ Card [1] (1)

County _____ (2–4) Drainage Basin [0][3] (5–12) Management District [ ][ ] (13–14)

Water Resources Council Region _____ Information Collected by _____ Date _____

Total Number of Acres in County _____ Acres, Total Acres Irrigated _____ Acres

Total Acres Farmed _____ Acres.

	SELF-SUPPLIED (Only)			SOURCE
Annual Surface Water Used	(15–20)	Ac-ft/yr. _____	MGD _____	_____
Annual Ground Water Used	(21–26)	Ac-ft/yr. _____	MGD _____	_____
Other Water Used (including reclaimed sewage)	_____	Ac-ft/yr. _____	MGD _____	_____
Annual Conveyance Loss	(27–31)	Ac-ft/yr. _____	MGD	
Annual Consumptive Use	(32–36)	Ac-ft/yr. _____	MGD	

IRRIGATION WATER IMPORTED

Surface Water used _____ Ac-ft _____ MGD, From _____ County

Ground Water used _____ Ac-ft _____ MGD, From _____ County

IRRIGATION, CROP ACREAGE

Citrus	(37–41) Acres	Tobacco	(57–61) Acres
Truck Farming (Vegetables)	(42–46) Acres	Corn	(62–66) Acres
Pasture	(47–51) Acres	Watermelons	(67–71) Acres
Sugar Cane	(52–56) Acres	Other _____	(72–76) Acres

Year 19 [ ][ ] (77–76)

Remarks _____

_____

_____ Checked by _____ Date _____, 19____

Figure 7.--U.S. Geological Survey form 4--Florida District irrigation water-use data.

U.S. Geological Survey Form 4A
Florida District
Revised 6/6/79

IRRIGATION BY MONTHS, 19_____

Ac-ft/MONTH

CARD NO. [2] (1) COUNTY NO. [ ] (2–4) DRAINAGE BASIN [0 3] (5–12) WMD [ ] (13–14)

MONTHS	ALL WATER	CONVEYANCE LOSS	CONSUMPTIVE USE
January	[ ] (15–20)	[ ] (21–25)	[ ] (26–30)
February	[ ] (31–36)	[ ] (37–41)	[ ] (42–46)
March	[ ] (47–52)	[ ] (53–57)	[ ] (58–62)
April	[ ] (63–68)	[ ] (69–73)	[ ] (74–78)

CARD NO. [3] (1) COUNTY NO. [ ] (2–4) DRAINAGE BASIN [0 3] (5–12) WMD [ ] (13–14)

MONTHS	ALL WATER	CONVEYANCE LOSS	CONSUMPTIVE USE
May	[ ] (15–20)	[ ] (21–25)	[ ] (26–30)
June	[ ] (31–36)	[ ] (37–41)	[ ] (42–46)
July	[ ] (47–52)	[ ] (53–57)	[ ] (58–62)
August	[ ] (63–68)	[ ] (69–73)	[ ] (74–78)

CARD NO. [4] (1) COUNTY NO. [ ] (2–4) DRAINAGE BASIN [0 3] (5–12) WMD [ ] (13–14)

MONTHS	ALL WATER	CONVEYANCE LOSS	CONSUMPTIVE USE
September	[ ] (15–20)	[ ] (21–25)	[ ] (26–30)
October	[ ] (31–36)	[ ] (37–41)	[ ] (42–46)
November	[ ] (47–52)	[ ] (53–57)	[ ] (58–62)
December	[ ] (63–68)	[ ] (69–73)	[ ] (74–78)

Figure 8.--U.S. Geological Survey form 4A--Florida District irrigation water-use monthly data.

Column(s)	
1	Card type. Code "2" for entering monthly values for January, February, March, and April; code "3" for entering monthly values for May, June, July, and August; and code "4" for entering monthly values for September, October, November, and December;
2-4	County code. Leading zeroes must be coded: county "009," not "9;"
5-12	Drainage basin/hydrologic unit code. Columns 5-6 are precoded "03" to denote the State of Florida;
13-14	Water management district code. See columns 13-14, page 6, for a listing of valid codes;
15-78	These columns contain average monthly pumpages, in Mgal/d, for irrigation for the months January through April, May through August, September through December;
15-30	Monthly values for:
15-20	all water pumped
21-25	conveyance loss
26-30	consumptive use;
31-46	Monthly values for:
31-36	all water pumped
37-41	conveyance loss
42-46	consumptive use;
47-62	Monthly values for:
47-52	all water pumped
53-57	conveyance loss
58-62	consumptive use;
63-78	Monthly values for:
63-68	all water pumped
69-73	conveyance loss
74-78	consumptive use.

Special Coding Considerations

Columns 1-14 must be coded on all cards for a specific water-use data-collection site to uniquely identify that data. These columns are mandatory.

In the data fields, either for annual or monthly data values, zeroes do not need to be coded or keypunched. If the field is left blank, zeroes are assumed. Therefore, planned collection sites can be entered with all data fields left blank provided the identifier (columns 1-14) is keypunched.

Processing Procedures

After forms 4 and 4A are coded, the data must be keypunched and submitted for processing by program L151.

Program L151 edits the data for the following:

1. Option card: An "0" card must be the first input card or processing will be terminated. A diagnostic message will be printed if an "0" card is not the first input card. See Diagnostic Messages, page 72. See page 57 for the description and coding of the option card.

2. Card sequence: Card input must be in numerical sequence 1 to 4 for each site. If the cards are not in proper numerical sequence by card type, a diagnostic message will be printed and all further processing discontinued. See Diagnostic Messages, page 72. For ease in reading, irrigation sites should also be in ascending order by county code.

3. Conversion errors: A conversion error appears when the PL1 compiler cannot convert arithmetic or character values to other formats. This is an error generated by the compiler; however, program L151 will print a diagnostic message showing where the error occurred. This is helpful in locating errors in input. It is usually a keypunch error.

The program will not diagnose incorrect data. The input to program L151 should be checked carefully before it is submitted for processing. Selecting the card listing option will aid in locating invalid codes for county, hydrologic unit, and water management district. Finding errors in data from the tables is time consuming.

Since IRRIGA computes totals for annual and monthly data statewide by county, water management district, and hydrologic unit, data errors exist if all three categories do not have identical totals. That is, state totals for annual values by county must balance with state totals for annual values by water management district and hydrologic unit. Likewise, monthly values statewide, by county, must balance with monthly values by hydrologic unit and water management district. In addition, monthly totals must equal annual totals for all three categories. For example, the statewide monthly total computed for fresh ground water pumped must equal the state annual total for fresh ground water pumped. In the same manner, totals must balance for acres irrigated.

Output from Program L151

The output is requested on the option card and consists of two types of printout--card listings and tables of data. See page 57 for coding the option card. All values for both listings and tables are given in million gallons per day (Mgal/d) or in acre-feet per year (ac-ft/yr). Each card listing or table produced by program L151 is discussed separately in the following paragraphs. Only partial listings of the tables or the card listings are provided in an effort to save space.

A listing of the annual data values punched on card 1 can be requested (table 31). The column headings produced (reading left to right) are county name, county code, drainage basin, water management district code, surface water pumped, ground water pumped, conveyance loss, consumptive use, and acres irrigated for the following: citrus, truck farming (vegetables), pasture, sugar cane, tobacco, corn, watermelons, other, and the year.

A listing of the monthly data values punched on cards 2-4 is printed if card listings are requested on the option card. This is called the monthly values card listing (table 32). The column headings produced (reading left to right) are county name, drainage basin, water management district code, and monthly pumpages for all (surface and ground) water, conveyance loss, and consumptive use. The monthly values are totaled by column and then divided by 12 to show average monthly pumpage. The two card listings are essential for editing water-use data. They are not in publishable form and, therefore, are to be used only as worksheets.

A table showing annual data compiled by county may be requested entitled "Irrigation Water Use in Florida, Acres Irrigated, by Counties" (table 33). The column headings for this table are (reading left to right) county name, citrus, truck farming, pasture, sugar cane, tobacco, corn, watermelons, other, and total acres. This table ends with a line of state totals by column.

The next table to print, if requested, would be entitled "Irrigation Water Use in Florida, by Counties" (table 34) and shows annual data compiled by county. The column headings for this table (reading left to right) are county name, acres irrigated, total water withdrawn in acre-feet per year for surface water, ground water, sum of surface and ground water, conveyance loss, and consumptive use. Also included are headings for total water withdrawn in Mgal/d for surface water, ground water, all water, conveyance loss, and consumptive use. This table ends with a line of state totals for each column.

A table showing monthly data compiled by county may be requested entitled "Irrigation Water Use in Florida, Monthly, by Counties" (table 35). This table consists of column headings (reading left to right) for county name, total water withdrawn in ac-ft/yr for all water, conveyance loss, and consumptive use, and total water withdrawn in Mgal/d for the same headings. Twelve lines of monthly data are shown for the 67 counties in the State of Florida. This table is followed by a table entitled "Irrigation Water Use in Florida, Monthly, Statewide" (table 36). It contains the same table format and consists of totals by month for the entire state. Thus, there are 12 lines of data for January through December. This table ends with a line for statewide totals of monthly data by column.

Table 31.--Output for irrigation water use, annual pumpages card listing (card 1)

IRRIGATION WATER USE IN FLORIDA

COUNTY	BAS	WMD	SW	GW	LOSS	CONS. USE	CITRUS	VEGET	PASTURE	SUGAR	TOBACCO	CORN	MELONS	OTHER	YR
SUWANNEE	121 110205	SR	1200	7000	0	8135	0	650	1400	0	1700	5500	1500	5878	80
SUWANNEE	121 110206	SR	130	810	0	831	0	0	300	0	40	1200	0	0	80
TAYLOR	123 110102	SR	9	25	0	31	0	0	0	0	88	0	0	0	80
UNION	125 110206	SR	52	80	0	126	0	350	0	0	185	0	0	20	80
VOLUSIA	127 080103	SJ	0	68	0	47	0	0	30	0	0	0	0	0	88
VOLUSIA	127 080202	SJ	121	261	0	281	150	0	0	0	0	0	0	13	88
VOLUSIA	127 080101	SJ	6494	17178	0	17722	350	1320	70	0	0	0	0	3017	88
VOLUSIA	127 080201	SJ	127	1862	0	1482	0	1080	0	0	0	0	0	98	88
WAKULLA	129 120001	NW	0	0	0	0	0	0	0	0	0	0	0	0	
WALTON	131 140103	NW	249	315	0	504	0	0	495	0	0	0	0	327	80
WALTON	131 140102	NW	942	8775	0	8733	0	0	0	0	0	0	0	11445	80
WASHINGTON	133 140203	NW	0	0	0	0	0	0	0	0	0	0	0	0	

Table 32.--Output for irrigation water use, monthly pumpages card listing (cards 2-4)

IRRIGATION WATER USE IN FLORIDA

		COUNTY	ALL WATER	CONVEYANCE LOSS	CONSUMPTIVE USE
ALACHUA	03080102	SJ			
		JAN	1192	0	897
		FEB	1192	0	897
		MAR	1192	0	897
		APR	1192	0	897
		MAY	1192	0	897
		JUN	1192	0	897
		JUL	1192	0	897
		AUG	1192	0	897
		SEP	1192	0	897
		OCT	1192	0	897
		NOV	1192	0	897
		DEC	1195	0	897
	TOTAL		14307	0	10764
	PER DAY		1192	0	897
ALACHUA	03080102	SR			
		JAN	0	0	0
		FEB	0	0	0
		MAR	15	0	14
		APR	60	0	58
		MAY	102	0	101
		JUN	100	0	99
		JUL	30	0	30
		AUG	28	0	27
		SEP	5	0	5
		OCT	0	0	0
		NOV	0	0	0
		DEC	0	0	0
	TOTAL		340	0	334
	PER DAY		28	0	28
ALACHUA	03110206	SR			
		JAN	0	0	0
		FEB	0	0	0
		MAR	342	0	335
		APR	1352	0	1345
		MAY	1365	0	1356
		JUN	1449	0	1445
		JUL	176	0	172
		AUG	248	0	246
		SEP	0	0	0
		OCT	7	0	7
		NOV	7	0	7
		DEC	7	0	7
	TOTAL		4953	0	4920
	PER DAY		413	0	410
ALACHUA	03110101	SR			
		JAN	5	0	4
		FEB	5	0	4
		MAR	62	0	60
		APR	365	0	360
		MAY	485	0	482
		JUN	587	0	581
		JUL	170	0	168

Table 33.--Output for irrigation water use in Florida, acres irrigated, by counties

TABLE .--IRRIGATION WATER USE IN FLORIDA
ACRES IRRIGATED BY COUNTIES, 1980
IRRIGATION BY CROP TYPE (ACRES IRRIGATED)--CONTINUED

COUNTY	CITRUS	TRUCK FARMING	PASTURE	SUGAR CANE	TOBACCO	CORN	WATER-MELONS	OTHER	TOTAL
OSCEOLA	7000	420	2500	0	150	0	250	216	10536
PALM BEACH	17000	49000	50000	414000	0	0	0	12500	542500
PASCO	20000	615	500	0	0	0	400	1240	22755
PINELLAS	500	0	0	0	0	0	0	3700	4200
POLK	87000	800	1400	0	0	50	500	4165	93915
PUTNAM	500	6000	9500	0	0	1000	0	736	17736
ST. JOHNS	100	21000	500	0	0	2000	0	3300	26900
ST. LUCIE	76000	800	20000	0	0	0	0	1100	97900
SANTA ROSA	0	0	0	0	0	510	0	829	1339
SARASOTA	1200	1680	2000	0	0	400	250	4192	9722
SEMINOLE	5000	3913	2000	0	0	260	0	1040	12213
SUMTER	1000	4655	300	0	0	250	2000	370	8575
SUWANNEE	0	650	1860	0	1870	6900	1590	5878	18748
TAYLOR	0	0	0	0	88	0	0	0	88
UNION	0	350	0	0	185	0	0	20	555
VOLUSIA	500	2400	100	0	0	0	0	3128	6128
WAKULLA	0	0	0	0	0	0	0	0	0
WALTON	0	0	495	0	0	0	0	11772	12267
WASHINGTON	0	0	0	0	0	0	0	0	0
STATE TOTALS	610580	237024	488276	473000	6782	49207	20659	155875	2041403

Table 34.--Output for irrigation water use in Florida, by counties

TABLE .--IRRIGATION WATER USE IN FLORIDA
BY COUNTIES, 1980--CONTINUED

COUNTY	ACRES IRRIGATED	TOTAL WATER WITHDRAWN (AC-FT/YR) SURF WATER	GROUND WATER	ALL WATER	CONVEY LOSS	CONSUMP USE	TOTAL WATER WITHDRAWN (MGD) SURF WATER	GROUND WATER	ALL WATER	CONVEY LOSS	CONSUMP USE
OSCEOLA	10536	2494	20150	22644	0	4524	2.227	17.994	20.221	0.000	4.040
PALM BEACH	542500	625923	61905	687828	0	70328	558.949	55.281	614.230	0.000	62.803
PASCO	22755	870	21605	22475	0	13935	0.777	19.293	20.070	0.000	12.444
PINELLAS	4200	520	9790	10310	0	3093	0.464	8.742	9.207	0.000	2.762
POLK	93915	4129	57126	61255	0	58804	3.687	51.014	54.701	0.000	52.512
PUTNAM	17736	4065	36583	40648	0	9407	3.630	32.669	36.299	0.000	8.400
ST. JOHNS	26900	0	33088	33088	0	33088	0.000	29.548	29.548	0.000	29.548
ST. LUCIE	97900	204606	54389	258995	0	73583	182.713	48.569	231.283	0.000	65.710
SANTA ROSA	1339	236	676	912	0	816	0.211	0.604	0.814	0.000	0.729
SARASOTA	9722	465	22830	23295	0	19335	0.415	20.387	20.802	0.000	17.266
SEMINOLE	12213	1174	26463	27637	336	18658	1.048	23.631	24.680	0.300	16.662
SUMTER	8575	375	18295	18670	0	14189	0.335	16.337	16.672	0.000	12.671
SUWANNEE	18748	1365	8045	9410	0	9230	1.219	7.184	8.403	0.000	8.242
TAYLOR	88	9	25	34	0	31	0.008	0.022	0.030	0.000	0.028
UNION	555	52	80	132	0	126	0.046	0.071	0.118	0.000	0.113
VOLUSIA	6128	6742	19369	26111	0	19532	6.021	17.297	23.317	0.000	17.442
WAKULLA	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000
WALTON	12267	1191	9090	10281	0	9237	1.064	8.117	9.181	0.000	8.249
WASHINGTON	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000
STATE TOTALS	2041403	1593511	1763075	3356586	39600	1292940	1423.005	1574.426	2997.431	35.363	1154.595

Table 35.--Output for irrigation water use in Florida, monthly, by counties

TABLE .--IRRIGATION WATER USE IN FLORIDA
MONTHLY, BY COUNTIES, 1980--CONTINUED

COUNTY		TOTAL WATER WITHDRAWN (AC-FT)			TOTAL WATER WITHDRAWN (MGD)		
		ALL WATER	CONVEY LOSS	CONSUMP USE	ALL WATER	CONVEY LOSS	CONSUMP USE
TAYLOR							
	JAN	0	0	0	0.000	0.000	0.000
	FEB	0	0	0	0.000	0.000	0.000
	MAR	0	0	0	0.000	0.000	0.000
	APR	10	0	9	0.107	0.000	0.096
	MAY	9	0	8	0.096	0.000	0.086
	JUN	15	0	14	0.161	0.000	0.150
	JUL	0	0	0	0.000	0.000	0.000
	AUG	0	0	0	0.000	0.000	0.000
	SEP	0	0	0	0.000	0.000	0.000
	OCT	0	0	0	0.000	0.000	0.000
	NOV	0	0	0	0.000	0.000	0.000
	DEC	0	0	0	0.000	0.000	0.000
UNION							
	JAN	0	0	0	0.000	0.000	0.000
	FEB	0	0	0	0.000	0.000	0.000
	MAR	11	0	10	0.118	0.000	0.107
	APR	30	0	29	0.321	0.000	0.311
	MAY	30	0	28	0.321	0.000	0.300
	JUN	50	0	48	0.536	0.000	0.514
	JUL	3	0	3	0.032	0.000	0.032
	AUG	2	0	2	0.021	0.000	0.021
	SEP	0	0	0	0.000	0.000	0.000
	OCT	2	0	2	0.021	0.000	0.021
	NOV	2	0	2	0.021	0.000	0.021
	DEC	2	0	2	0.021	0.000	0.021
VOLUSIA							
	JAN	2177	0	1628	23.329	0.000	17.446
	FEB	2177	0	1628	23.329	0.000	17.446
	MAR	2177	0	1628	23.329	0.000	17.446
	APR	2177	0	1628	23.329	0.000	17.446
	MAY	2177	0	1628	23.329	0.000	17.446
	JUN	2177	0	1628	23.329	0.000	17.446
	JUL	2177	0	1628	23.329	0.000	17.446
	AUG	2177	0	1628	23.329	0.000	17.446
	SEP	2177	0	1628	23.329	0.000	17.446
	OCT	2177	0	1628	23.329	0.000	17.446
	NOV	2177	0	1627	23.329	0.000	17.435
	DEC	2164	0	1625	23.189	0.000	17.414

Table 36.--Output for irrigation water use in Florida, monthly, statewide

TABLE .--IRRIGATION WATER USE IN FLORIDA
MONTHLY, STATEWIDE, 1980

COUNTY		TOTAL WATER WITHDRAWN (AC-FT)			TOTAL WATER WITHDRAWN (MGD)		
		ALL WATER	CONVEY LOSS	CONSUMP USE	ALL WATER	CONVEY LOSS	CONSUMP USE
TOTALS BY MONTHS							
	JAN	241988	3300	112494	2593.143	35.363	1205.486
	FEB	248025	3300	120506	2657.836	35.363	1291.342
	MAR	394070	3300	187971	4222.854	35.363	2014.297
	APR	416993	3300	214938	4468.497	35.363	2303.276
	MAY	454408	3300	236442	4869.436	35.363	2533.712
	JUN	254128	3300	124240	2723.236	35.363	1331.356
	JUL	209610	3300	107704	2246.181	35.363	1154.156
	AUG	193679	3300	101553	2075.464	35.363	1088.242
	SEP	150729	3300	71529	1615.212	35.363	766.505
	OCT	297331	3300	156706	3186.199	35.363	1679.261
	NOV	251712	3300	135329	2697.346	35.363	1450.186
	DEC	243913	3300	123528	2613.772	35.363	1323.726
STATE TOTALS		3356586	39600	1692940	2997.431	35.363	1511.795

A table showing annual data compiled by water management district entitled "Irrigation Water Use in Florida, Acres Irrigated, by Water Management Districts" (table 37) may be printed. This table has the same format as the county crop table, but data are listed by county within particular water management districts. Two districts are printed per page and each district table ends with totals for each column. A line for state totals follows the district table.

A table showing annual data compiled by water management district may be requested entitled "Irrigation Water Use in Florida, by Water Management Districts" (table 38). This table has the same format (column headings) as the previous table of annual values by county; however, the data are printed by county within a particular water management district. The water management districts in Florida are Northwest Florida, South Florida, St. Johns River, Suwannee River, and Southwest Florida. Two water management districts are printed per page and each district table ends with totals for each column.

The table showing monthly data compiled by water management district entitled "Irrigation Water Use, Monthly, by Water Management Districts" (table 39) follows if requested. The table format is identical to the "Monthly, by Counties" table. Each water management district's data are presented by month, January through December, ending with a line of totals for the district. Two districts are printed per page. A line of statewide totals by column completes the table.

If requested, data keypunched on card 1 are listed and sorted by hydrologic unit (table 40). This is helpful as a worksheet to locate keypunch errors in the hydrologic unit printouts. The column headings are the same as for the previous card type 1 listing.

Following the card listing by hydrologic unit is the printout entitled "Irrigation Water Use in Florida, Acres Irrigated, by Hydrologic Units" (table 41) showing annual data compiled by hydrologic unit. This table has the same format as the "Acres Irrigated, by Counties" table; however, data are compiled by counties within particular hydrologic units. A line for unit totals by column appears at the end of each hydrologic unit section. This printout ends with a line for state totals by column.

Following this table is the printout entitled "Irrigation Water Use in Florida, by Hydrologic Units" (table 42) showing annual data compiled by hydrologic unit. The table format is the same as the annual values by county table printout; however, data are compiled by counties located within particular hydrologic units (drainage basins) in Florida. A line for unit totals by column appears at the end of each hydrologic unit section. This printout ends with a line of state totals by column.

A table showing monthly data compiled by hydrologic unit will be printed if requested (table 43). This uses the same monthly table format previously discussed. Therefore, there are 12 lines of data per hydrologic unit code for the months January through December ending with a unit total or average for each column and a state total for each column.

Table 37.--Output for irrigation water use in Florida, acres irrigated, by water management districts

TABLE .--IRRIGATION WATER USE IN FLORIDA
ACRES IRRIGATED BY WATER MANAGEMENT DISTRICTS, 1980
IRRIGATION BY CROP TYPE (ACRES IRRIGATED)--CONTINUED

COUNTY	CITRUS	TRUCK FARMING	PASTURE	SUGAR CANE	TOBACCO	CORN	WATER-MELONS	OTHER	TOTAL
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT									
CHARLOTTE	4000	4050	1600	0	0	300	1500	2139	13589
CITRUS	100	80	200	0	0	250	300	1185	2115
DESOTO	31000	2640	1500	0	0	4000	2000	1945	43085
HARDEE	26000	2640	2000	0	0	30	1500	495	32665
HERNANDO	1800	0	200	0	0	50	200	1260	3510
HIGHLANDS	35500	0	2160	0	0	0	0	5600	43260
HILLSBOROUGH	26000	11550	1000	0	0	100	200	5102	43952
LAKE	0	50	150	0	0	0	0	0	200
LEVY	0	0	340	0	45	1200	120	750	2455
MANATEE	9000	10450	5500	0	0	3000	500	4864	33314
MARION	0	671	123	0	0	600	281	1119	2794
PASCO	20000	615	500	0	0	0	400	1240	22755
PINELLAS	500	0	0	0	0	0	0	3700	4200
POLK	82650	680	700	0	0	43	425	3960	88458
SARASOTA	1200	1680	2000	0	0	400	250	4192	9722
SUMTER	1000	4655	300	0	0	250	2000	370	8575
WMD TOTAL	238750	39761	18273	0	45	10223	9676	37921	354649
STATE TOTALS	610580	237024	488276	473000	6782	49207	20659	155875	2041403

NOTE
SEVERAL OF THE ABOVE COUNTIES ARE IN MORE THAN ONE WATER MANAGEMENT DISTRICT.
FOR COUNTY TOTALS SEE " IRRIGATION WATER USE IN FLORIDA, BY COUNTIES."

Table 38.--Output for irrigation water use in Florida, by water management districts

TABLE .--IRRIGATION WATER USE IN FLORIDA
BY WATER MANAGEMENT DISTRICTS, 1980--CONTINUED

COUNTY	ACRES IRRIGATED	TOTAL WATER WITHDRAWN (AC-FT/YR) SURF WATER	GROUND WATER	ALL WATER	CONVEY LOSS	CONSUMP USE	TOTAL WATER WITHDRAWN (MGD) SURF WATER	GROUND WATER	ALL WATER	CONVEY LOSS	CONSUMP USE
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT											
CHARLOTTE	13589	2800	25185	27985	0	10634	2.500	22.490	24.991	0.000	9.496
CITRUS	2115	260	4405	4665	0	3732	0.232	3.934	4.166	0.000	3.333
DESOTO	43085	1150	37305	38455	0	25765	1.027	33.313	34.340	0.000	23.008
HARDEE	32665	0	43570	43570	0	30063	0.000	38.908	38.908	0.000	26.846
HERNANDO	3510	0	4445	4445	0	3465	0.000	3.969	3.969	0.000	3.094
HIGHLANDS	43260	5522	49703	55225	0	32845	4.931	44.385	49.316	0.000	29.331
HILLSBOROUGH	43952	2445	79170	81615	0	57946	2.183	70.699	72.882	0.000	51.746
LAKE	200	15	136	151	0	37	0.013	0.121	0.135	0.000	0.033
LEVY	2455	201	675	876	0	869	0.179	0.603	0.782	0.000	0.776
MANATEE	33314	735	72720	73455	0	7346	0.656	64.939	65.595	0.000	6.560
MARION	2794	244	4642	4886	0	3663	0.218	4.145	4.363	0.000	3.271
PASCO	22755	870	21605	22475	0	13935	0.777	19.293	20.070	0.000	12.444
PINELLAS	4200	520	9790	10310	0	3093	0.464	8.742	9.207	0.000	2.762
POLK	88458	3872	53731	57603	0	55298	3.458	47.982	51.439	0.000	49.381
SARASOTA	9722	465	22830	23295	0	19335	0.415	20.387	20.802	0.000	17.266
SUMTER	8575	375	18295	18670	0	14189	0.335	16.337	16.672	0.000	12.671
WMD TOTAL	354649	19474	448207	467681	0	282215	17.390	400.249	417.639	0.000	252.018
STATE TOTALS	2041403	1593511	1763075	3356586	39600	1292940	1423.005	1574.426	2997.431	35.363	1154.595

NOTE
SEVERAL OF THE ABOVE COUNTIES ARE IN MORE THAN ONE WATER MANAGEMENT DISTRICT.
FOR COUNTY TOTALS SEE " IRRIGATION WATER USE IN FLORIDA, BY COUNTIES."

Table 39.--Output for irrigation water use in Florida, monthly, by water management districts

TABLE .--IRRIGATION WATER USE IN FLORIDA
MONTHLY, BY WATER MANAGEMENT DISTRICTS, 1980--CONTINUED

COUNTY		TOTAL WATER WITHDRAWN (AC-FT) ALL WATER	CONVEY LOSS	CONSUMP USE	TOTAL WATER WITHDRAWN (MGD) ALL WATER	CONVEY LOSS	CONSUMP USE
SUWANNEE RIVER WATER MANAGEMENT DISTRICT							
	JAN	45	0	44	0.482	0.000	0.472
	FEB	70	0	69	0.750	0.000	0.739
	MAR	774	0	752	8.294	0.000	8.058
	APR	5863	0	5807	62.828	0.000	62.228
	MAY	6657	0	6474	71.336	0.000	69.375
	JUN	8176	0	8103	87.614	0.000	86.832
	JUL	916	0	908	9.816	0.000	9.730
	AUG	964	0	957	10.330	0.000	10.255
	SEP	47	0	47	0.504	0.000	0.504
	OCT	450	0	441	4.822	0.000	4.726
	NOV	456	0	447	4.886	0.000	4.790
	DEC	454	0	445	4.865	0.000	4.769
WMD TOTAL		24872	0	24494	22.211	0.000	21.873
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT							
	JAN	21396	0	12149	229.280	0.000	130.189
	FEB	32146	0	18291	344.477	0.000	196.006
	MAR	48709	0	28496	521.966	0.000	305.363
	APR	53408	0	32595	572.320	0.000	349.288
	MAY	83996	0	51588	900.101	0.000	552.817
	JUN	37698	0	23770	403.972	0.000	254.719
	JUL	25157	0	16531	269.582	0.000	177.146
	AUG	23023	0	13581	246.714	0.000	145.534
	SEP	24729	0	14127	264.996	0.000	151.385
	OCT	44764	0	27166	479.691	0.000	291.111
	NOV	45916	0	28060	492.036	0.000	300.691
	DEC	26739	0	15861	286.535	0.000	169.966
WMD TOTAL		467681	0	282215	417.639	0.000	252.018
STATE TOTAL		3356586	39600	1692940	2997.431	35.363	1511.795

Table 40.--Output for irrigation water use, annual pumpages card listing sorted by hydrologic units

IRRIGATION WATER USE IN FLORIDA

COUNTY	BAS	WMD	SW	GW	LOSS	CONS. USE	CITRUS	VEGET	PASTURE	SUGAR	TOBACCO	CORN	MELONS	OTHER	YR
WALTON	131 140102	NW	942	8775	0	8733	0	0	0	0	0	0	0	11445	80
OKALOOSA	91 140103	NW	0	139	0	127	0	0	543	0	0	0	0	0	80
WALTON	131 140103	NW	249	315	0	504	0	0	495	0	0	0	0	327	80
SANTA ROSA	113 140104	NW	236	496	0	660	0	0	0	0	0	410	0	649	80
ESCAMBIA	33 140105	NW	633	332	0	869	0	25	0	0	0	390	0	190	80
ESCAMBIA	33 140107	NW	826	782	0	1452	0	0	0	0	0	0	0	260	80
HOLMES	59 140202	NW	111	0	0	99	0	100	0	0	0	0	0	40	80
BAY	5 140203	NW	0	411	0	375	0	0	0	0	0	0	0	524	80
HOLMES	59 140203	NW	95	81	0	164	0	0	0	0	0	125	50	175	80
JACKSON	63 140203	NW	0	96	0	84	0	0	0	0	0	200	0	0	80
WASHINGTON	133 140203	NW	0	0	0	0	0	0	0	0	0	0	0	0	
SANTA ROSA	113 140305	NW	0	180	0	156	0	0	0	0	0	100	0	180	80

Table 41.--Output for irrigation water use in Florida, acres irrigated, by hydrologic units

TABLE .--IRRIGATION WATER USE IN FLORIDA
ACRES IRRIGATED BY HYDROLOGIC UNITS, 1980
IRRIGATION BY CROP TYPE (ACRES IRRIGATED)--CONTINUED

COUNTY	CITRUS	TRUCK FARMING	PASTURE	SUGAR CANE	TOBACCO	CORN	WATER-MELONS	OTHER	TOTAL
HYDROLOGIC UNIT 03140107									
ESCAMBIA	0	0	0	0	0	0	0	260	260
UNIT TOTAL	0	0	0	0	0	0	0	260	260
HYDROLOGIC UNIT 03140202									
HOLMES	0	100	0	0	0	0	0	40	140
WALTON	0	0	0	0	0	0	0	0	0
UNIT TOTAL	0	100	0	0	0	0	0	40	140
HYDROLOGIC UNIT 03140203									
BAY	0	0	0	0	0	0	0	524	524
HOLMES	0	0	0	0	0	125	50	175	350
JACKSON	0	0	0	0	0	200	0	0	200
WALTON	0	0	0	0	0	0	0	0	0
WASHINGTON	0	0	0	0	0	0	0	0	0
UNIT TOTAL	0	0	0	0	0	325	50	699	1074
HYDROLOGIC UNIT 03140305									
ESCAMBIA	0	0	0	0	0	0	0	0	0
SANTA ROSA	0	0	0	0	0	100	0	180	280
UNIT TOTAL	0	0	0	0	0	100	0	180	280
STATE TOTAL	610580	237024	488276	473000	6782	49207	20659	155875	2041403

NOTE
SEVERAL OF THE ABOVE COUNTIES ARE IN MORE THAN ONE WATER MANAGEMENT DISTRICT.
FOR COUNTY TOTALS SEE " IRRIGATION WATER USE IN FLORIDA, BY COUNTIES."

Table 42.--Output for irrigation water use in Florida, by hydrologic units

TABLE .--IRRIGATION WATER USE IN FLORIDA
BY HYDROLOGIC UNITS, 1980--CONTINUED

COUNTY	ACRES IRRIGATED	TOTAL WATER WITHDRAWN (AC-FT/YR) SURF WATER	GROUND WATER	ALL WATER	CONVEY LOSS	CONSUMP USE	TOTAL WATER WITHDRAWN (MGD) SURF WATER	GROUND WATER	ALL WATER	CONVEY LOSS	CONSUMP USE
HYDROLOGIC UNIT 03140107											
ESCAMBIA	260	826	782	1608	0	1452	0.738	0.698	1.436	0.000	1.297
UNIT TOTAL	260	826	782	1608	0	1452	0.738	0.698	1.436	0.000	1.297
HYDROLOGIC UNIT 03140202											
HOLMES	140	111	0	111	0	99	0.099	0.000	0.099	0.000	0.088
WALTON	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000
UNIT TOTAL	140	111	0	111	0	99	0.099	0.000	0.099	0.000	0.088
HYDROLOGIC UNIT 03140203											
BAY	524	0	411	411	0	375	0.000	0.367	0.367	0.000	0.335
HOLMES	350	95	81	176	0	164	0.085	0.072	0.157	0.000	0.146
JACKSON	200	0	96	96	0	84	0.000	0.086	0.086	0.000	0.075
WALTON	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000
WASHINGTON	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000
UNIT TOTAL	1074	95	588	683	0	623	0.085	0.525	0.610	0.000	0.556
HYDROLOGIC UNIT 03140305											
ESCAMBIA	0	0	0	0	0	0	0.000	0.000	0.000	0.000	0.000
SANTA ROSA	280	0	180	180	0	156	0.000	0.161	0.161	0.000	0.139
UNIT TOTAL	280	0	180	180	0	156	0.000	0.161	0.161	0.000	0.139
STATE TOTAL	2041403	1593511	1763075	3356586	39600	1292940	1423.005	1574.426	2997.431	35.363	1154.595

NOTE
SEVERAL OF THE ABOVE COUNTIES ARE IN MORE THAN ONE HYDROLOGIC UNIT.
FOR COUNTY TOTALS SEE " IRRIGATION WATER USE IN FLORIDA, BY COUNTIES."

Table 43.--Output for irrigation water use in Florida, monthly, by hydrologic units

TABLE .--IRRIGATION WATER USE IN FLORIDA
MONTHLY, BY HYDROLOGIC UNITS, 1980--CONTINUED

COUNTY		TOTAL WATER WITHDRAWN (AC-FT) ALL WATER	CONVEY LOSS	CONSUMP USE	TOTAL WATER WITHDRAWN (MGD) ALL WATER	CONVEY LOSS	CONSUMP USE
HYDROLOGIC UNIT	03140305						
	JAN	15	0	13	0.161	0.000	0.139
	FEB	15	0	13	0.161	0.000	0.139
	MAR	15	0	13	0.161	0.000	0.139
	APR	15	0	13	0.161	0.000	0.139
	MAY	15	0	13	0.161	0.000	0.139
	JUN	15	0	13	0.161	0.000	0.139
	JUL	15	0	13	0.161	0.000	0.139
	AUG	15	0	13	0.161	0.000	0.139
	SEP	15	0	13	0.161	0.000	0.139
	OCT	15	0	13	0.161	0.000	0.139
	NOV	15	0	13	0.161	0.000	0.139
	DEC	15	0	13	0.161	0.000	0.139
BAS TOTAL		180	0	156	0.161	0.000	0.139
STATE TOTAL		3356586	39600	1692940	2997.431	35.363	511.795

Diagnostic Messages

The following are the diagnostic messages produced by L151:

1. ERROR ON OPTION CARD

   NO FURTHER PROCESSING OF THIS REQUEST

This message will occur if the option card is missing. The "0" card is mandatory.

2. NO OPTIONS REQUESTED

   PROCESSING TERMINATED

This message occurs when columns 2-9 on the option card are blank. You must request output from program L151 using the option card.

3. CARDS OUT OF SEQUENCE

   NO FURTHER PROCESSING

Card input must be in proper numerical sequence, ascending, by card type (column 1 of cards 1-4).

Certain system or compiler messages will be printed. An example is:

(1) CARD NOT PRINTED

    CARD NOT VALID

This error occurs when a conversion is called for but cannot be completed. A character or an embedded blank in a numeric field is often the cause of this error, and is usually the result of an error in keypunching. The error appears when L151 sorts the data incorrectly as a result of the keypunching error. The program will print all fields on the particular card where it encountered the problem. This may not be the exact card where the error occurs, but it is helpful in locating the problem area.

Program L151 has been stored online in a system library.

For retrieval of data from the current disk files:

```
COLUMN 1          COLUMN 12
//xxxxxxxx        JOB (----)
//  EXEC              PGM=IRRIG,REGION=500K,TIME=2
//STEPLIB             DD DSN=AG4B17G.IRRIG80.LOAD,DISP=OLD
//                DD DSN=SYS1.PLIX.TRANSLIB,DISP=SHR
//                DD DSN=SYS1.SYNC.LINKLIB,DISP=SHR
//SYSPRINT        DD SYSOUT=A
//SORTLIB             DD DISP=SHR,DSN=SYS1.SYNC.SORTLIB
//SORTMSG             DD SYSOUT=A
//SORTWK01        DD UNIT=SYSDK,SPACE=(CYL,5,,CONTIG)
//SORTWK02        DD UNIT=(SYSDK,SEP=SORTWK01),
//  SPACE=(CYL,5,,CONTIG)
//SORTWK03        DD UNIT=(SYSDK,SEP=(SORTWK01,SORTWK02)),
//  SPACE=(CYL,5,,CONTIG)
//DISK            DD DSN=&&GEIGER,UNIT=SYSDK,SPACE=(CYL,(5,1),RLSE),
//  DCB=(RECFM=FB,LRECL=80,BLKSIZE=6400),DISP=(NEW,PASS)
//SORTIN              DD DSN=*.DISK,VOL=REF=*.DISK,DISP=(OLD,DELETE)
//SORTOUT             DD DSN=*.DISK,VOL=REF=*.DISK,DISP=(OLD,DELETE)
//CARDIN          DD DSN=AG4B17G.IRRIG80.DATA,DISP=OLD,UNIT=ONLINE
/*
//
```

For retrieval of data from the historical files:

```
//xxxxxxxx        JOB (----)
/*SETUP           MNT204/DISK
//  EXEC          PGM=IRRIG,REGION=500K,TIME=2
§§//STEPLIB       DD DSN=AG4B17G.IRRIGXX.LOAD,DISP=OLD
//                DD DSN=SYS1.PLIX.TRANSLIB,DISP=SHR
//                DD DSN=SYS1.SYNC.LINKLIB,DISP=SHR
//SYSPRINT        DD SYSOUT=A
//SORTLIB         DD DISP=SHR,DSN=SYS1.SYNC.SORTLIB
//SORTMSG         DD SYSOUT=A
//SORTWK01        DD UNIT=SYSDK,SPACE=(CYL,5,,CONTIG)
//SORTWK02        DD UNIT=(SYSDK,SEP=SORTWK01),SPACE=(CYL,5,,CONTIG)
//SORTWK03        DD UNIT=(SYSDK,SEP=(SORTWK01,SORTWK02)),
//  SPACE=(CYL,5,,CONTIG)
//DISK            DD DSN=&&GEIGER,UNIT=SYSDK,SPACE=(CYL,(5,1),RLSE),
//  DCB=(RECFM=FB,LRECL=80,BLKSIZE=6400),DISP=(NEW,PASS)
//SORTIN          DD DSN=*.DISK,VOL=REF=*.DISK,DISP=(OLD,DELETE)
//SORTOUT         DD DSN=*.DISK,VOL=REF=*.DISK,DISP=(OLD,DELETE)
§§//CARDIN        DD DSN=IRRIGXX,DISP=OLD,UNIT=3330,VOL=SER=MNT204,
//  DCB=(RECFM=FB,LRECL=80,BLKSIZE=6400)
/*
//
```

§§Note - User must supply a 2-digit year; for example, IRRIG79.

THERMOELECTRIC POWER GENERATION WATER USE, PROGRAM L150

Introduction

The PL1 source language for program L150 has been compiled and loaded into a system library called SYS1.LOADLIB on the Amdahl. The procedure name is THERMO.

The program consists of a MAIN module (THERMO) and several subroutines which are as follows:

HEDCOM--subroutine that prints page heading for the card listings of annual values;
HEDMOLT--subroutine that prints page heading for the card listings of monthly values;
HEADCO--subroutine that prints page heading for the table of annual values by counties;
HEDMOCO--subroutine that prints page heading for the table of monthly values by counties;
HEDSTAT--subroutine that prints page heading for the table of monthly values, statewide;
HEADWMD--subroutine that prints page heading for the table of annual values by water management districts;
HEDWMMO--subroutine that prints page heading for the table of monthly values by water management districts;
WRAPUP--subroutine that prints the table of annual values by hydrologic units;
HEDHUN--subroutine that prints page heading for the table of annual values by hydrologic units;
HEDBSMO--subroutine that prints page heading for the table of monthly values by hydrologic unit.

Coding the Data

Water-use data will be processed by L150 only in the card format described in this report. Coding forms (U.S. Geological Survey forms 5 and 5A Florida District) are available for coding data for each site. This allows an orderly and consistent format for keypunching and entering data into the system. To adequately describe a specific thermoelectric power generation water-use site, five cards must be coded and keypunched.

The option card identifies the tables requested for printing and the year of data collection. Each table available for printing is represented on this card; however, certain tables are available by sets only. That is, a table of monthly values by county will be printed only if the table of annual values by county is requested. Annual and monthly values card listings are printed with one request on the option card. Optionally, table numbers for publication can be coded on this card.

The Option Card

The option card is coded as follows:

Column(s)

1 Card type. Enter the letter "O." Mandatory field;

2 Code "1" if annual and monthly values card listings are desired;

3 Code "1" if table of annual values sorted by counties is desired. If this column is not coded, monthly values sorted by counties cannot be requested;

4 Code "1" if monthly values sorted by counties is desired;

5 Code "1" if table of annual values sorted by water management districts is desired. If this column is not coded, monthly values by water management districts cannot be requested.

6 Code "1" if table of monthly values sorted by water management districts is desired;

7 Code "1" if a card listing sorted by hydrologic unit is desired. If this column is not coded, the data will not be sorted by hydrologic unit, and tables for hydrologic unit values cannot be requested;

8 Code "1" if table of annual values sorted by hydrologic units is desired. If this column is not coded, monthly values sorted by hydrologic units cannot be requested;

9 Code "1" if table of monthly values sorted by hydrologic units is desired;

40-43 Year the data were collected, e.g. 1978; mandatory field;

44 Blank;

45-65 These seven fields of three digits are for use in publication. An assigned table number can be coded or the field left blank;

- 45-47 Table number for "by counties" table;
- 48-50 Table number for "monthly, by counties" table;
- 51-53 Table number for "monthly, statewide" table;
- 54-56 Table number for "by water management districts" table;
- 57-59 Table number for "monthly, by water management districts" table;
- 60-62 Table number for "by hydrologic units" table;
- 63-65 Table number for "monthly, by hydrologic units" table.

The Data Cards

Each specific site where water-use data have been collected must be coded on five cards as follows (figs. 9 and 10):

Column(s)	
1	Card type. Enter "1;"
2-4	County code. Leading zeroes must be coded: county "009," not "9;"
5-12	Drainage basin/hydrologic unit code. Columns 5-6 are precoded "03" to denote the State of Florida;
13-14	Water management district code. See columns 13-14, page 6, for a listing of valid codes;
15-16	Plant number. Each office must assign a unique plant number for each thermoelectric power generation water-use site to be processed by program L150;
17-36	Plant name;
37-56	Self-supplied water pumped for cooling; all values in Mgal/d;
[2]/ 37-40	fresh ground water
[2]/ 41-44	saline ground water
[2]/ 45-48	fresh surface water
[2]/ 49-52	saline surface water
[3]/ 53-56	public supply;
[3]/ 57-59	Fresh ground water pumped, in Mgal/d;
[3]/ 60-62	Fresh surface water pumped, in Mgal/d;
[3]/ 63-65	Other public supply, in Mgal/d;
[2]/ 66-68	Freshwater consumed, in Mgal/d;
[2]/ 69-71	Saline water consumed, in Mgal/d;
72-76	Kilowatt hours (x 10^6);
77-78	Year. Code the last two digits of the year the data were collected.

[2]/ These fields contain an implied decimal 1 digit from the right; for example, the value 123 Mgal/d would be read as 12.3 Mgal/d.

[3]/ These fields contain an implied decimal 2 digits from the right; for example, the value 1268 Mgal/d would be read as 12.68 Mgal/d.

U.S. Geological Survey Form 5
Florida District
Revised 6/7/79

THERMOELECTRIC POWER GENERATION
19

CARD [1] (1) COUNTY [ ] (2–4) DRAINAGE BASIN [0 3] (5–12) WMD [ ] (13–14) PLANT NO. [ ] (15–16)

PLANT NAME [ ] (17–36)

Information Collected by _____ Date _____, 19 ____ From _____

Plant Capacity _____ 1000 KW, Total annual generation _____ Million KWH

Lat. _____, Long. _____.

SELF-SUPPLIED (Only)

	PUMPED FOR COOLING		CONSUMED	SOURCE
Fresh Ground Water	[ ] (37–40)	MGD	_____ MGD	_____
Saline Ground Water	[ ] (41–44)	MGD	_____ MGD	_____
Fresh Surface Water	[ ] (45–48)	MGD	_____ MGD	_____
Saline Surface Water	[ ] (49–52)	MGD	_____ MGD	_____
Public Supply	[ ] (53–56)	MGD for cooling		

	PUMPED			CONSUMED
Fresh Ground Water	[ ] (57–59)	MGD	Other Public Supply [ ] (63–65)	[ ] (66–68) MGD Fresh
Fresh Surface Water	[ ] (60–62)	MGD		[ ] (69–71) MGD Saline

Source of Surface Water _____

Source of Municipal Supply (Plant name) _____

Waste Water Discharged to _____

Remarks _____

_____

Kilowatt Hours ($x10^6$) [ ] (72–76) Checked by _____ Date _____ 19 [ ] (77–78)

Figure 9.--U.S. Geological Survey form 5--Florida District thermoelectric power generation water-use data.

U.S. Geological Survey Form 5A
Florida District
Revised 6/11/79

THERMOELECTRIC POWER GENERATION 19____
MGD

CARD [2] (1) COUNTY [ ][ ][ ] (2–4) DRAINAGE BASIN [0][3][ ][ ][ ][ ][ ][ ] (5–12) WMD [ ][ ] (13–14) PLANT NO. [ ][ ] (15–16)

TOTALS

	GW Fresh	GW Saline	SW Fresn	SW Saline	Consumed Fresh	Consumed Saline
January	[ ][ ][ ][ ] (17)	[ ][ ][ ][ ] (21)	[ ][ ][ ][ ][ ] (24)	[ ][ ][ ][ ][ ] (29)	[ ][ ][ ][ ] (33)	[ ][ ][ ][ ] (35–38)
February	[ ][ ][ ][ ] (39)	[ ][ ][ ][ ] (43)	[ ][ ][ ][ ][ ] (46)	[ ][ ][ ][ ][ ] (51)	[ ][ ][ ][ ] (55)	[ ][ ][ ][ ] (57–59)
March	[ ][ ][ ][ ] (60)	[ ][ ][ ][ ] (64)	[ ][ ][ ][ ][ ] (67)	[ ][ ][ ][ ][ ] (72)	[ ][ ][ ][ ] (76)	[ ][ ][ ][ ] (78–60)

CARD [3] (1) COUNTY [ ][ ][ ] (2–4) DRAINAGE BASIN [0][3][ ][ ][ ][ ][ ][ ] (5–12) WMD [ ][ ] (13–14) PLANT NO. [ ][ ] (15–16)

TOTALS

	GW Fresh	GW Saline	SW Fresh	SW Saline	Consumed Fresh	Consumed Saline
April	[ ][ ][ ][ ] (17)	[ ][ ][ ][ ] (21)	[ ][ ][ ][ ][ ] (24)	[ ][ ][ ][ ][ ] (29)	[ ][ ][ ][ ] (33)	[ ][ ][ ][ ] (35–38)
May	[ ][ ][ ][ ] (39)	[ ][ ][ ][ ] (43)	[ ][ ][ ][ ][ ] (46)	[ ][ ][ ][ ][ ] (51)	[ ][ ][ ][ ] (55)	[ ][ ][ ][ ] (57–59)
June	[ ][ ][ ][ ] (60)	[ ][ ][ ][ ] (64)	[ ][ ][ ][ ][ ] (67)	[ ][ ][ ][ ][ ] (72)	[ ][ ][ ][ ] (76)	[ ][ ][ ][ ] (78–60)

CARD [4] (1) COUNTY [ ][ ][ ] (2–4) DRAINAGE BASIN [0][3][ ][ ][ ][ ][ ][ ] (5–12) WMD [ ][ ] (13–14) PLANT NO. [ ][ ] (15–16)

TOTALS

	GW Fresh	GW Saline	SW Fresh	SW Saline	Consumed Fresh	Consumed Saline
July	[ ][ ][ ][ ] (17)	[ ][ ][ ][ ] (21)	[ ][ ][ ][ ][ ] (24)	[ ][ ][ ][ ][ ] (29)	[ ][ ][ ][ ] (33)	[ ][ ][ ][ ] (35–38)
August	[ ][ ][ ][ ] (39)	[ ][ ][ ][ ] (43)	[ ][ ][ ][ ][ ] (46)	[ ][ ][ ][ ][ ] (51)	[ ][ ][ ][ ] (55)	[ ][ ][ ][ ] (57–59)
September	[ ][ ][ ][ ] (60)	[ ][ ][ ][ ] (64)	[ ][ ][ ][ ][ ] (67)	[ ][ ][ ][ ][ ] (72)	[ ][ ][ ][ ] (76)	[ ][ ][ ][ ] (76–60)

CARD [5] (1) COUNTY [ ][ ][ ] (2–4) DRAINAGE BASIN [0][3][ ][ ][ ][ ][ ][ ] (5–12) WMD [ ][ ] (13–14) PLANT NO. [ ][ ] (15–16)

TOTALS

	GW Fresh	GW Saline	SW Fresh	SW Saline	Consumed Fresh	Consumed Saline
October	[ ][ ][ ][ ] (17)	[ ][ ][ ][ ] (21)	[ ][ ][ ][ ][ ] (24)	[ ][ ][ ][ ][ ] (29)	[ ][ ][ ][ ] (33)	[ ][ ][ ][ ] (35–38)
November	[ ][ ][ ][ ] (39)	[ ][ ][ ][ ] (43)	[ ][ ][ ][ ][ ] (46)	[ ][ ][ ][ ][ ] (51)	[ ][ ][ ][ ] (55)	[ ][ ][ ][ ] (57–59)
December	[ ][ ][ ][ ] (60)	[ ][ ][ ][ ] (64)	[ ][ ][ ][ ][ ] (67)	[ ][ ][ ][ ][ ] (72)	[ ][ ][ ][ ] (76)	[ ][ ][ ][ ] (78–60)

Figure 10.--U.S. Geological Survey form 5A--Florida District thermoelectric power generation water-use monthly data.

Column(s)

1	Card type. Code "2" for entering monthly values for January, February, and March' code "3" for entering monthly values for April, May, and June; code "4" for entering monthly values for July, August, and September; and code "5" for entering monthly values for October, November, and December;
2-4	County code. Leading zeroes must be coded: county "009," not "9;"
5-12	Drainage basin/hydrologic unit code. Columns 5-6 are precoded "03" to denote the State of Florida;
13-14	Water management district code. See columns 13-14, page 6, for a listing of valid codes;
15-16	Plant number;
17-80	These columns contain average monthly pumpages, in Mgal/d, for the months January through March, April through June, July through September, or October through December;
17-38	Monthly values for:
[3/]17-20	fresh ground water
[2/]21-23	saline ground water
[3/]24-28	fresh surface water
[2/]29-32	saline surface water
[2/]33-34	freshwater consumed
[2/]35-37	saline water consumed
38	blank;
39-59	Monthly values for:
[3/]39-42	fresh ground water
[2/]43-45	saline ground water
[3/]46-50	fresh surface water
[2/]51-54	saline surface water
[2/]55-56	freshwater consumed
[2/]57-59	saline water consumed;
60-80	Monthly values for:
[3/]60-63	fresh ground water
[2/]64-66	saline ground water
[3/]67-71	fresh surface water
[2/]72-75	saline surface water
[2/]76-77	freshwater consumed
[2/]78-80	saline water consumed.

[2/] These fields contain an implied decimal 1 digit from the right; for example, the value 123 Mgal/d would be read as 12.3 Mgal/d.

[3/] These fields contain an implied decimal 2 digits from the right; for example, the value 1268 Mgal/d would be read as 12.68 Mgal/d.

Special Coding Considerations

Columns 1-16 must be coded on all cards for a specific water-use data-collection site to uniquely identify that data. These columns are mandatory.

In the data fields, either for annual or monthly data values, zeroes do not need to be coded or keypunched. If the field is left blank, zeroes are assumed. Therefore, planned collection sites can be entered with all data fields left blank provided the identifier (columns 1-16) is keypunched.

In many cases, the data fields contain implied decimals. See thermoelectric power generation coding forms 5 and 5A, pages 77 and 78. The decimals must not be keypunched. For instance, fresh ground water monthly pumpage is a 4-digit field with the decimal 2 digits from the right.

Processing Procedures

After forms 5 and 5A are coded, the data must be keypunched and submitted for processing by Program L150.

Program L150 edits the data for the following:

1. Option card: An "0" card must be the first input card or processing will be terminated. A diagnostic message will be printed if an "0" card is not the first input card. See Diagnostic Messages, page 90. See page 75 for the description and coding of the option card.

2. Card sequence: Card input must be in numerical sequence 1 to 5 for each site. If the cards are not in proper numerical sequence by card type, a diagnostic message will be printed and all further processing discontinued. See Diagnostic Messages, page 90. For ease in reading, thermoelectric plant sites should also be in ascending order by county code.

3. Conversion errors: A conversion error appears when the PL1 compiler cannot convert arithmetic or character values to other formats. This is an error generated by the compiler; however, program L150 will print a diagnostic message showing where the error occurred. This is helpful in locating errors in input. It is usually a keypunch error.

The program will not diagnose incorrect data. The input to program L150 should be checked carefully before it is submitted for processing. Selecting the card listing option will aid in locating invalid codes for county, hydrologic unit, and water management district. Finding errors in data from the tables is time consuming.

Since THERMO computes totals for monthly and annual data statewide by county, water management district, and hydrologic unit, data errors exist if all three categories do not have identical totals. That is, state totals for annual values by county must balance with state totals for annual values by water management district and hydrologic unit. Likewise, monthly values statewide, by county, must balance with monthly values by hydrologic unit and water management district. In addition, monthly totals must equal annual totals for all three categories. For example, the statewide monthly total

computed for fresh ground water pumped must equal the state annual total for fresh ground water pumped.

Output from Program L150

The output is requested on the option card and consists of two types of printout--card listings and tables of data. See page 75 for coding the option card. All values for both listings and tables are given in million gallons per day (Mgal/d). Each card listing or table produced by program L150 is discussed separately in the following paragraphs. Only partial listings of the tables or the card listings are provided in an effort to save space.

A listing of the annual data values punched on card type 1 can be requested (table 44). The column headings produced (reading left to right) are company name, county code, drainage basin, water management district code, plant number, average annual pumpages for cooling for fresh and saline ground water, fresh and saline surface water, and public supply. In addition, average annual pumpages for fresh ground water and surface water, other public supply, and fresh and saline water consumed are listed. Also given are the kilowatt hours used and the year of collection.

A listing of the monthly data values punched on card types 2-5 is printed if card listings are requested on the option card. This is called the monthly values card listing (table 45). The column headings produced (reading left to right) are company name, county name, average monthly pumpages for fresh and saline ground water, fresh and saline surface water, and fresh and saline water consumed. The monthly values are totaled by column and then divided by 12 to show average monthly pumpage. The two card listings are essential for editing water-use data. They are not in publishable form and, therefore, are to be used only as worksheets.

A table showing annual data compiled by county may be requested entitled "Thermoelectric Power Generation Water Use in Florida, By Counties" (table 46). This table consists of column headings (reading from left to right) for county name, self-supplied fresh and saline ground water, and fresh and saline surface water pumped for cooling, public supply for cooling, self-supplied fresh ground and surface water, public supply, fresh and saline water consumed, and average annual kilowatt generation. This table ends with a line of state totals for each column.

A table showing monthly data compiled by county entitled "Thermoelectric Power Generation Water Use in Florida, Monthly, by Counties" (table 47) may be requested. This table consists of column headings for fresh and saline ground water, fresh and saline surface water, the sum of all freshwater and all saline water pumpages, and fresh and saline water consumed. Twelve lines of monthly data are shown for the 67 counties in the State of Florida. This table is followed by a table entitled "Thermoelectric Power Generation Water Use in Florida, Monthly, Statewide" (table 48). It contains the same format as for the monthly table and consists of totals by month for the entire state. Thus, there are 12 lines of data for January through December. The table ends with a line for monthly averages by state by column. This monthly table is optional; however, the county table must be requested in order to print the monthly by county tables.

Table 44.--Output for thermoelectric power generation water use, annual pumpages (self-supplied) card listing (card 1)

THERMOELECTRIC

COMPANY NAME	CNTY	BASIN	WMD	NO	FGW	SGW	FSW	SSW	PUB	GPMP	SPMP	OTH	FCON	SCON	KWH	YR
	1	110206	SR	1	0.9	0.0	0.0	0.00	0.00	0.03	0.00	0.00	0.6	0.0	546	88
	1	080102	SJ	2	0.0	0.0	0.0	0.00	0.51	0.00	0.00	0.00	0.3	0.0	238	78
	5	140101	NW	1	0.0	0.0	0.0	403.50	0.00	0.00	0.00	0.00	0.0	0.0	2065	80
	7	110206	SR	1	0.0	0.0	0.0	0.00	0.02	0.00	0.00	0.00	0.0	0.0	14	80
	9	080202	SJ	1	0.0	0.0	0.0	744.50	0.00	0.15	0.00	0.00	1.5	7.4	4544	80
	9	080101	SJ	2	0.1	0.0	0.0	665.00	0.00	0.00	0.00	0.00	0.1	3.9	2873	88
	11	090202	SF	1	0.0	0.0	0.0	167.20	0.00	0.00	0.00	0.06	0.0	0.0	1880	80
	11	090202	SF	2	0.0	0.0	0.0	620.00	0.00	0.00	0.00	0.00	0.0	0.0	4071	80
	11	090202	SF	3	0.0	0.0	0.0	315.80	0.00	0.10	0.00	0.00	0.1	0.0	2029	80
	17	100207	SW	1	0.0	0.0	0.0	446.00	0.00	0.14	0.00	0.00	0.1	2.1	2456	80
	17	100207	SW	2	0.0	0.0	0.0	472.00	0.00	0.14	0.00	0.00	0.1	2.8	2348	80
	17	100207	SW	3	0.0	0.0	0.0	979.00	0.00	0.29	0.00	0.00	0.2	4.0	3532	80
	25	090202	SF	1	0.0	0.0	0.0	900.00	0.00	0.00	0.00	1.00	0.6	56.2	41800	99
	25	090202	SF	2	0.0	0.0	0.0	900.00	0.00	0.00	0.00	0.00	0.0	0.0	0	99
	25	090202	SF	3	0.0	0.0	0.0	400.00	0.00	0.00	0.00	0.00	0.0	0.0	0	99
	31	080103	SJ	1	0.0	0.0	0.0	222.00	0.00	1.53	0.00	0.00	1.0	1.2	1062	88
	31	080103	SJ	2	3.4	0.0	0.0	619.00	0.00	0.00	0.00	0.00	1.9	5.2	3815	88
	31	080103	SJ	3	0.0	0.0	0.0	384.00	0.00	0.00	0.00	0.00	0.0	1.9	1353	88
	33	140305	NW	1	0.0	0.0	335.6	0.00	0.00	0.00	0.00	0.00	7.0	0.0	3762	80
	55	090101	SF	1	0.0	0.0	13.5	0.00	0.00	0.01	0.00	0.00	0.3	0.0	41	88
	55	090101	SF	2	2.3	0.0	62.9	0.00	0.00	0.00	0.00	0.00	2.3	0.0	226	88
	57	100206	SW	1	0.0	0.0	0.0	942.30	0.00	0.85	0.00	0.00	0.8	0.0	6717	80
	57	100206	SW	2	0.0	0.0	0.0	522.70	0.00	1.80	0.00	0.00	1.8	0.0	5466	80
	57	100206	SW	3	0.0	0.0	0.0	522.60	0.00	0.00	0.00	0.00	0.0	0.0	0	80
	57	100206	SW	4	0.0	0.0	0.0	192.70	0.00	0.12	0.00	0.00	0.1	0.0	424	80
	61	080203	SJ	1	4.3	0.0	0.0	54.60	0.00	0.00	0.00	0.00	0.1	0.4	322	80
	63	130011	NW	1	0.0	0.0	118.0	0.00	0.00	0.00	0.00	0.00	0.0	0.0	317	80
	71	090205	SF	1	0.0	0.0	486.8	0.00	0.00	0.68	0.00	0.08	0.4	0.0	3430	80
	73	120003	NW	1	4.2	0.0	0.0	0.00	0.00	0.00	0.00	0.00	3.0	0.0	1281	80
	81	100203	SW	1	0.0	0.0	3.6	0.00	0.00	0.00	0.00	0.00	0.0	0.0	6119	80
	85	090202	SF	1	0.0	0.0	40.3	0.00	0.00	0.00	0.00	0.00	0.0	0.0	214	80
	87	090203	SF	1	0.0	51.0	0.0	0.00	0.00	0.00	0.00	0.10	0.1	0.3	211	80
	87	090203	SF	2	0.0	28.0	0.0	0.00	0.00	0.00	0.00	0.10	0.1	0.2	114	80
	89	070205	SJ	1	28.7	0.0	0.0	0.00	0.00	0.00	0.00	0.00	1.6	0.0	440	88
	89	070205	SJ	2	10.3	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.2	0.0	147	88
	95	080101	SJ	1	0.0	0.0	22.6	0.00	0.00	0.00	0.00	0.00	0.0	0.0	69	88
	97	090101	SF	1	1.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.1	0.0	106	88
	99	090202	SF	1	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.58	0.4	0.0	304	80
	99	090202	SF	2	0.0	0.0	0.0	547.10	0.00	0.19	0.00	0.00	0.1	0.0	3320	80
	101	100207	SW	1	0.0	0.0	0.0	669.50	0.00	0.26	0.00	0.00	0.2	12.1	5180	80
	101	100207	SW	2	0.0	0.0	0.0	669.50	0.00	0.00	0.00	0.00	0.0	0.0	0	80
	103	100207	SW	1	0.0	0.0	0.0	562.00	0.00	0.11	0.00	0.00	0.1	4.1	2210	80
	103	100207	SW	2	0.0	0.0	0.0	238.00	0.00	0.00	0.00	0.00	0.0	1.7	574	80
	105	100101	SW	1	0.0	0.0	207.0	0.00	0.00	0.20	0.00	0.00	3.1	0.0	555	80
	105	100101	SW	2	0.2	0.0	88.0	0.00	0.00	0.00	0.00	0.00	0.7	0.0	809	80
	107	080103	SJ	1	0.0	0.0	0.3	0.00	0.00	0.00	0.03	0.00	0.1	0.0	570	80
	111	080203	SF	1	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.75	0.5	0.0	378	80
	111	080203	SF	2	0.0	0.0	0.0	586.60	0.00	0.00	0.00	0.65	0.5	0.0	5520	80
	121	110205	SR	1	0.0	0.0	172.8	0.00	0.00	0.01	0.00	0.00	1.7	0.0	784	80
	127	080101	SJ	1	0.0	0.0	152.9	0.00	0.00	0.32	0.00	0.00	0.9	0.0	3817	80
	127	080101	SJ	2	0.2	0.0	1.2	0.00	0.00	0.00	0.00	0.00	0.0	0.0	895	80
	127	080202	SJ	3	0.0	0.0	0.0	15.20	0.00	0.03	0.00	0.00	0.1	0.1	40	80

Table 45.--Output for thermoelectric power generation water use, monthly pumpages card listing (cards 2-5)

COMPANY NAME	CNTY	THERMOELECTRIC GROUND WATER FRESH	GROUND WATER SALINE	SURFACE WATER FRESH	SURFACE WATER SALINE	CONSUMED FRESH	CONSUMED SALINE
	VOLUSIA						
JAN		0.03	0.0	0.00	15.8	0.1	0.1
FEB		0.03	0.0	0.00	15.3	0.1	0.1
MAR		0.03	0.0	0.00	15.8	0.1	0.1
APR		0.03	0.0	0.00	11.1	0.1	0.1
MAY		0.03	0.0	0.00	15.3	0.1	0.1
JUN		0.03	0.0	0.00	15.3	0.1	0.1
JUL		0.03	0.0	0.00	15.8	0.1	0.1
AUG		0.03	0.0	0.00	15.8	0.1	0.1
SEP		0.03	0.0	0.00	15.3	0.1	0.1
OCT		0.03	0.0	0.00	15.8	0.1	0.1
NOV		0.03	0.0	0.00	15.3	0.1	0.1
DEC		0.03	0.0	0.00	15.8	0.1	0.1
TOTAL		0.36	0.0	0.00	182.4	1.2	1.2
PER DAY		0.03	0.0	0.00	15.2	0.1	0.1
	WAKULLA						
JAN		0.06	0.0	86.70	0.0	0.0	0.0
FEB		0.06	0.0	86.70	0.0	0.0	0.0
MAR		0.06	0.0	86.70	0.0	0.0	0.0
APR		0.06	0.0	86.70	0.0	0.0	0.0
MAY		0.06	0.0	86.70	0.0	0.0	0.0
JUN		0.06	0.0	86.70	0.0	0.0	0.0
JUL		0.06	0.0	86.70	0.0	0.0	0.0
AUG		0.06	0.0	86.70	0.0	0.0	0.0
SEP		0.06	0.0	86.70	0.0	0.0	0.0
OCT		0.06	0.0	86.70	0.0	0.0	0.0
NOV		0.06	0.0	86.70	0.0	0.0	0.0
DEC		0.06	0.0	86.70	0.0	0.0	0.0
TOTAL		0.72	0.0	1040.40	0.0	0.0	0.0
PER DAY		0.06	0.0	86.70	0.0	0.0	0.0

Table 46.--Output for thermoelectric power generation water use in Florida, by counties

TABLE .--THERMOELECTRIC POWER GENERATION WATER USE IN FLORIDA BY COUNTIES, 1980--CONTINUED

COUNTY	COOLING WATER (MGD) SELF-SUPPLIED GROUND WATER FRESH	GROUND WATER SALINE	SURFACE WATER FRESH	SURFACE WATER SALINE	PUBLIC SUPPLY	OTHER WATER (MGD) SELF-SUPPLIED FRESH GW	FRESH SW	PUBLIC SUPPLY	WATER CONSUMED FRESH	CONSUMED SALINE	AVE ANNUAL GENERATION (KWHX10**6)
OSCEOLA	1.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.1	0.0	106
PALM BEACH	0.0	0.0	0.0	547.1	0.00	0.19	0.00	0.58	0.5	0.0	3624
PASCO	0.0	0.0	0.0	1339.0	0.00	0.26	0.00	0.00	0.2	12.1	5180
PINELLAS	0.0	0.0	0.0	800.0	0.00	0.11	0.00	0.00	0.1	5.8	2784
POLK	0.2	0.0	295.0	0.0	0.00	0.20	0.00	0.00	3.8	0.0	1364
PUTNAM	0.0	0.0	0.3	0.0	0.00	0.00	0.03	0.00	0.1	0.0	570
ST. JOHNS	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
ST. LUCIE	0.0	0.0	0.0	586.6	0.00	0.00	0.00	1.40	1.0	0.0	5898
SANTA ROSA	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
SARASOTA	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
SEMINOLE	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
SUMTER	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
SUWANNEE	0.0	0.0	172.8	0.0	0.00	0.01	0.00	0.00	1.7	0.0	784
TAYLOR	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
UNION	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
VOLUSIA	0.2	0.0	154.1	15.2	0.00	0.35	0.00	0.00	1.0	0.1	4752
WAKULLA	0.0	0.0	86.7	0.0	0.00	0.06	0.00	0.00	0.0	0.0	372
WALTON	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
WASHINGTON	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
STATE TOTALS	55.6	79.0	1792.2	13760.8	0.53	7.02	0.03	3.32	32.8	103.6	129364

Table 47.--Output for thermoelectric power generation water use in Florida, monthly, by counties

TABLE .--THERMOELECTRIC POWER GENERATION
WATER USE IN FLORIDA
MONTHLY, BY COUNTIES, 1980--CONTINUED

COUNTY	GROUND WATER FRESH	GROUND WATER SALINE	SURFACE WATER FRESH	SURFACE WATER SALINE	ALL WATER FRESH	ALL WATER SALINE	CONSUMED FRESH	CONSUMED SALINE
ALACHUA								
JAN	1.41	0.0	0.03	0.0	1.44	0.0	0.9	0.0
FEB	1.41	0.0	0.03	0.0	1.44	0.0	0.9	0.0
MAR	1.41	0.0	0.03	0.0	1.44	0.0	0.9	0.0
APR	1.41	0.0	0.03	0.0	1.44	0.0	0.9	0.0
MAY	1.41	0.0	0.03	0.0	1.44	0.0	0.9	0.0
JUN	1.41	0.0	0.03	0.0	1.44	0.0	0.9	0.0
JUL	1.41	0.0	0.03	0.0	1.44	0.0	0.9	0.0
AUG	1.41	0.0	0.03	0.0	1.44	0.0	0.9	0.0
SEP	1.41	0.0	0.03	0.0	1.44	0.0	0.9	0.0
OCT	1.41	0.0	0.03	0.0	1.44	0.0	0.9	0.0
NOV	1.41	0.0	0.03	0.0	1.44	0.0	0.9	0.0
DEC	1.41	0.0	0.03	0.0	1.44	0.0	0.9	0.0
BAY								
JAN	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
FEB	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
MAR	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
APR	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
MAY	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
JUN	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
JUL	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
AUG	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
SEP	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
OCT	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
NOV	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
DEC	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
BRADFORD								
JAN	0.02	0.0	0.00	0.0	0.02	0.0	0.0	0.0
FEB	0.02	0.0	0.00	0.0	0.02	0.0	0.0	0.0
MAR	0.02	0.0	0.00	0.0	0.02	0.0	0.0	0.0
APR	0.02	0.0	0.00	0.0	0.02	0.0	0.0	0.0
MAY	0.02	0.0	0.00	0.0	0.02	0.0	0.0	0.0
JUN	0.02	0.0	0.00	0.0	0.02	0.0	0.0	0.0
JUL	0.02	0.0	0.00	0.0	0.02	0.0	0.0	0.0
AUG	0.02	0.0	0.00	0.0	0.02	0.0	0.0	0.0
SEP	0.02	0.0	0.00	0.0	0.02	0.0	0.0	0.0
OCT	0.02	0.0	0.00	0.0	0.02	0.0	0.0	0.0
NOV	0.02	0.0	0.00	0.0	0.02	0.0	0.0	0.0
DEC	0.02	0.0	0.00	0.0	0.02	0.0	0.0	0.0

Table 48.--Output for thermoelectric power generation water use in Florida, statewide, by counties

TABLE .--THERMOELECTRIC POWER GENERATION
WATER USE IN FLORIDA
MONTHLY, STATEWIDE, 1980

COUNTY	GROUND WATER FRESH	GROUND WATER SALINE	SURFACE WATER FRESH	SURFACE WATER SALINE	ALL WATER FRESH	ALL WATER SALINE	CONSUMED FRESH	CONSUMED SALINE
TOTALS BY MONTHS								
JAN	65.47	70.5	1653.61	13517.9	1719.08	13588.4	31.3	103.6
FEB	65.14	77.7	1673.26	13771.3	1738.40	13849.0	30.2	103.6
MAR	65.77	78.2	1440.66	13344.0	1506.43	13422.2	32.3	103.6
APR	65.17	81.1	1770.26	12925.9	1835.43	13007.0	32.7	103.6
MAY	66.02	83.5	1864.17	13769.9	1930.19	13853.4	32.8	103.6
JUN	68.65	89.1	1897.44	14301.1	1966.09	14390.2	34.6	103.6
JUL	68.18	84.3	1848.28	14305.0	1916.46	14389.3	34.2	103.6
AUG	68.13	83.3	1806.03	14067.4	1874.16	14150.7	34.0	103.6
SEP	67.22	79.5	1874.74	13935.2	1941.96	14014.7	34.7	103.6
OCT	65.24	76.5	1806.01	13945.7	1871.25	14022.2	32.4	103.6
NOV	65.73	72.5	2034.86	13760.9	2100.59	13833.4	31.8	103.6
DEC	66.56	71.8	1837.80	13485.7	1904.36	13557.5	32.2	103.6
STATE TOTALS	66.44	79.0	1792.26	13760.9	1858.70	13839.8	32.8	103.6

Tables of data sorted by water management district are also available. The "Thermoelectric Power Generation Water Use in Florida, by Water Management Districts" table shows annual data (table 49) and has the same format (column headings) as the county table previously discussed; however, the data are printed by county within a particular water management district. A water management district name is printed followed by the counties comprising it. The water management districts in Florida are Northwest Florida, South Florida, St. Johns River, Suwannee River, and Southwest Florida. Each district table ends with totals for each column.

The table showing monthly data compiled by water management district entitled "Thermoelectric Power Generation Water Use in Florida, Monthly, by Water Management Districts" (table 50) is printed if requested on the option card. The table format is identical to the previous monthly table by county. Each water management districts' data are presented by month, January through December, ending with a line of totals for the district. A line of monthly statewide averages by column completes the table.

If requested, data keypunched on card 1 are listed and sorted by hydrologic unit (table 51). This is helpful as a worksheet to locate keypunch errors in the hydrologic unit printouts. The column headings are the same as for the previous card type 1 listing.

Following this card listing is the printout "Thermoelectric Power Generation Water Use in Florida, by Hydrologic Units" (table 52) showing annual data compiled by hydrologic unit. The table format is the same as the previous county table printout; however, data are compiled by counties located within particular hydrologic units (drainage basins) in Florida. A line for unit averages by column appears at the end of each hydrologic unit section. This printout ends with a line of state totals by column.

A table showing monthly data compiled by hydrologic unit will be printed if requested (table 53). This table uses the same format as the other monthly tables. Therefore, there are 12 lines of data for each hydrologic unit code for the months January through December ending with a unit average for each column and a state total for each column.

Table 49.--Output for thermoelectric power generation water use in Florida, by water management districts

TABLE .--THERMOELECTRIC POWER GENERATION
WATER USE IN FLORIDA
BY WATER MANAGEMENT DISTRICTS, 1980--CONTINUED

COUNTY	COOLING WATER (MGD)					OTHER WATER (MGD)			WATER CONSUMED		AVE ANNUAL GENERATION
	SELF-SUPPLIED				PUBLIC	SELF-SUPPLIED		PUBLIC			
	GROUND WATER FRESH	GROUND WATER SALINE	SURFACE WATER FRESH	SURFACE WATER SALINE	SUPPLY	FRESH GW	FRESH SW	SUPPLY	FRESH	SALINE	(KWHX10**6)
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT											
CHARLOTTE	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
CITRUS	0.0	0.0	0.0	1897.0	0.00	0.57	0.00	0.00	0.4	8.9	8336
DESOTO	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
HARDEE	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
HERNANDO	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
HIGHLANDS	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
HILLSBOROUGH	0.0	0.0	0.0	2180.3	0.00	2.77	0.00	0.00	2.7	0.0	12607
LAKE	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
LEVY	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
MANATEE	0.0	0.0	3.6	0.0	0.00	0.00	0.00	0.00	0.0	0.0	6119
MARION	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
PASCO	0.0	0.0	0.0	1339.0	0.00	0.26	0.00	0.00	0.2	12.1	5180
PINELLAS	0.0	0.0	0.0	800.0	0.00	0.11	0.00	0.00	0.1	5.8	2784
POLK	0.2	0.0	295.0	0.0	0.00	0.20	0.00	0.00	3.8	0.0	1364
SARASOTA	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
SUMTER	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
WMD TOTAL	0.2	0.0	298.6	6216.3	0.00	3.91	0.00	0.00	7.2	26.8	36390
STATE TOTALS	55.6	79.0	1792.2	13760.8	0.53	7.02	0.03	3.32	32.8	103.6	129364

NOTE
SEVERAL OF THE ABOVE COUNTIES ARE IN MORE THAN ONE WATER MANAGEMENT DISTRICT.
FOR COUNTY TOTALS SEE "THERMOELECTRIC POWER GENERATION WATER USE IN FLORIDA, BY COUNTIES."

Table 50.--Output for thermoelectric power generation water use in Florida, monthly, by water management district

TABLE .--THERMOELECTRIC POWER GENERATION
WATER USE IN FLORIDA
MONTHLY, BY WATER MANAGEMENT DISTRICTS, 1980--CONTINUED

COUNTY	GROUND WATER FRESH	GROUND WATER SALINE	SURFACE WATER FRESH	SURFACE WATER SALINE	ALL WATER FRESH	ALL WATER SALINE	CONSUMED FRESH	CONSUMED SALINE
SUWANNEE RIVER WATER MANAGEMENT DISTRICT								
JAN	0.93	0.0	172.83	0.0	173.76	0.0	2.3	0.0
FEB	0.93	0.0	172.83	0.0	173.76	0.0	2.3	0.0
MAR	0.93	0.0	172.83	0.0	173.76	0.0	2.3	0.0
APR	0.93	0.0	172.83	0.0	173.76	0.0	2.3	0.0
MAY	0.93	0.0	172.83	0.0	173.76	0.0	2.3	0.0
JUN	0.93	0.0	172.83	0.0	173.76	0.0	2.3	0.0
JUL	0.93	0.0	172.83	0.0	173.76	0.0	2.3	0.0
AUG	0.93	0.0	172.83	0.0	173.76	0.0	2.3	0.0
SEP	0.93	0.0	172.83	0.0	173.76	0.0	2.3	0.0
OCT	0.93	0.0	172.83	0.0	173.76	0.0	2.3	0.0
NOV	0.93	0.0	172.83	0.0	173.76	0.0	2.3	0.0
DEC	0.93	0.0	172.83	0.0	173.76	0.0	2.3	0.0
WMD TOTAL	0.93	0.0	172.83	0.0	173.76	0.0	2.3	0.0
SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT								
JAN	4.11	0.0	298.20	6218.1	302.31	6218.1	6.4	26.8
FEB	4.11	0.0	266.80	6269.6	270.91	6269.6	6.2	26.8
MAR	4.11	0.0	244.20	6148.0	248.31	6148.0	7.6	26.8
APR	4.11	0.0	254.60	5993.8	258.71	5993.8	7.6	26.8
MAY	4.11	0.0	360.30	6136.4	364.41	6136.4	8.2	26.8
JUN	4.11	0.0	321.70	6390.0	325.81	6390.0	7.3	26.8
JUL	4.11	0.0	332.70	6444.0	336.81	6444.0	7.4	26.8
AUG	4.11	0.0	319.20	6059.5	323.31	6059.5	7.3	26.8
SEP	4.11	0.0	336.10	6051.8	340.21	6051.8	8.4	26.8
OCT	4.11	0.0	309.60	6336.2	313.71	6336.2	7.4	26.8
NOV	4.11	0.0	282.90	6259.4	287.01	6259.4	6.4	26.8
DEC	4.11	0.0	256.90	6288.8	261.01	6288.8	6.2	26.8
WMD TOTAL	4.11	0.0	298.60	6216.3	302.71	6216.3	7.2	26.8
STATE TOTAL	66.44	79.0	1792.26	13760.8	1858.70	13839.8	32.8	103.6

Table 51.--Output for thermoelectric power generation water use showing, annual pumpages card listing sorted by hydrologic units

THERMOELECTRIC

COMPANY NAME	CNTY	BASIN	WMD	NO	FGW	SGW	FSW	SSW	PUB	GPMP	SPMP	OTH	FCON	SCON	KWH	YR
	89	070205	SJ	1	28.7	0.0	0.0	0.00	0.00	0.00	0.00	0.00	1.6	0.0	440	88
	89	070205	SJ	2	10.3	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.2	0.0	147	88
	9	080101	SJ	2	0.1	0.0	0.0	665.00	0.00	0.00	0.00	0.00	0.1	3.9	2873	88
	95	080101	SJ	1	0.0	0.0	22.6	0.00	0.00	0.00	0.00	0.00	0.0	0.0	69	88
	127	080101	SJ	1	0.0	0.0	152.9	0.00	0.00	0.32	0.00	0.00	0.9	0.0	3817	80
	127	080101	SJ	2	0.2	0.0	1.2	0.00	0.00	0.00	0.00	0.00	0.0	0.0	895	80
	1	080102	SJ	2	0.0	0.0	0.0	0.00	0.51	0.00	0.00	0.00	0.3	0.0	238	78
	31	080103	SJ	1	0.0	0.0	0.0	222.00	0.00	1.53	0.00	0.00	1.0	1.2	1062	88
	31	080103	SJ	2	3.4	0.0	0.0	619.00	0.00	0.00	0.00	0.00	1.9	5.2	3815	88
	31	080103	SJ	3	0.0	0.0	0.0	384.00	0.00	0.00	0.00	0.00	0.0	1.9	1353	88
	107	080103	SJ	1	0.0	0.0	0.3	0.00	0.00	0.00	0.03	0.00	0.1	0.0	570	80
	9	080202	SJ	1	0.0	0.0	0.0	744.50	0.00	0.15	0.00	0.00	1.5	7.4	4544	80
	127	080202	SJ	3	0.0	0.0	0.0	15.20	0.00	0.03	0.00	0.00	0.1	0.1	40	80
	61	080203	SJ	1	4.3	0.0	0.0	54.60	0.00	0.00	0.00	0.00	0.1	0.4	322	80
	111	080203	SF	1	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.75	0.5	0.0	378	80
	111	080203	SF	2	0.0	0.0	0.0	586.60	0.00	0.00	0.00	0.65	0.5	0.0	5520	80
	55	090101	SF	1	0.0	0.0	13.5	0.00	0.00	0.01	0.00	0.00	0.3	0.0	41	88
	55	090101	SF	2	2.3	0.0	62.9	0.00	0.00	0.00	0.00	0.00	2.3	0.0	226	88
	97	090101	SF	1	1.0	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.1	0.0	106	88
	11	090202	SF	1	0.0	0.0	0.0	167.20	0.00	0.00	0.00	0.06	0.0	0.0	1880	80
	11	090202	SF	2	0.0	0.0	0.0	620.00	0.00	0.00	0.00	0.00	0.0	0.0	4071	80
	11	090202	SF	3	0.0	0.0	0.0	315.80	0.00	0.10	0.00	0.00	0.1	0.0	2029	80
	25	090202	SF	1	0.0	0.0	0.0	900.00	0.00	0.00	0.00	1.00	0.6	56.2	41800	99
	25	090202	SF	2	0.0	0.0	0.0	900.00	0.00	0.00	0.00	0.00	0.0	0.0	0	99
	25	090202	SF	3	0.0	0.0	0.0	400.00	0.00	0.00	0.00	0.00	0.0	0.0	0	99
	85	090202	SF	1	0.0	0.0	40.3	0.00	0.00	0.00	0.00	0.00	0.0	0.0	214	80
	99	090202	SF	1	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.58	0.4	0.0	304	80
	99	090202	SF	2	0.0	0.0	0.0	547.10	0.00	0.19	0.00	0.00	0.1	0.0	3320	80
	87	090203	SF	1	0.0	51.0	0.0	0.00	0.00	0.00	0.00	0.10	0.1	0.3	211	80
	87	090203	SF	2	0.0	28.0	0.0	0.00	0.00	0.00	0.00	0.10	0.1	0.2	114	80
	71	090205	SF	1	0.0	0.0	486.8	0.00	0.00	0.68	0.00	0.08	0.4	0.0	3430	80
	105	100101	SW	1	0.0	0.0	207.0	0.00	0.00	0.20	0.00	0.00	3.1	0.0	555	80
	105	100101	SW	2	0.2	0.0	88.0	0.00	0.00	0.00	0.00	0.00	0.7	0.0	809	80
	81	100203	SW	1	0.0	0.0	3.6	0.00	0.00	0.00	0.00	0.00	0.0	0.0	6119	80
	57	100206	SW	1	0.0	0.0	0.0	942.30	0.00	0.85	0.00	0.00	0.8	0.0	6717	80
	57	100206	SW	2	0.0	0.0	0.0	522.70	0.00	1.80	0.00	0.00	1.8	0.0	5466	80
	57	100206	SW	3	0.0	0.0	0.0	522.60	0.00	0.00	0.00	0.00	0.0	0.0	0	80
	57	100206	SW	4	0.0	0.0	0.0	192.70	0.00	0.12	0.00	0.00	0.1	0.0	424	80
	17	100207	SW	1	0.0	0.0	0.0	446.00	0.00	0.14	0.00	0.00	0.1	2.1	2456	80
	17	100207	SW	2	0.0	0.0	0.0	472.00	0.00	0.14	0.00	0.00	0.1	2.8	2348	80
	17	100207	SW	3	0.0	0.0	0.0	979.00	0.00	0.29	0.00	0.00	0.2	4.0	3532	80
	101	100207	SW	1	0.0	0.0	0.0	669.50	0.00	0.26	0.00	0.00	0.2	12.1	5180	80
	101	100207	SW	2	0.0	0.0	0.0	669.50	0.00	0.00	0.00	0.00	0.0	0.0	0	80
	103	100207	SW	1	0.0	0.0	0.0	562.00	0.00	0.11	0.00	0.00	0.1	4.1	2210	80
	103	100207	SW	2	0.0	0.0	0.0	238.00	0.00	0.00	0.00	0.00	0.0	1.7	574	80
	121	110205	SR	1	0.0	0.0	172.8	0.00	0.00	0.01	0.00	0.00	1.7	0.0	784	80
	1	110206	SR	1	0.9	0.0	0.0	0.00	0.00	0.03	0.00	0.00	0.6	0.0	546	88
	7	110206	SR	1	0.0	0.0	0.0	0.00	0.02	0.00	0.00	0.00	0.0	0.0	18	80
	129	120001	NW	1	0.0	0.0	86.7	0.00	0.00	0.06	0.00	0.00	0.0	0.0	372	80
	73	120003	NW	1	4.2	0.0	0.0	0.00	0.00	0.00	0.00	0.00	3.0	0.0	1281	80
	63	130011	NW	1	0.0	0.0	118.0	0.00	0.00	0.00	0.00	0.00	0.0	0.0	317	80
	5	140101	NW	1	0.0	0.0	0.0	403.50	0.00	0.00	0.00	0.00	0.0	0.0	2065	80

Table 52.--Output for thermoelectric power generation water use in Florida, by hydrologic units

TABLE .--THERMOELECTRIC POWER GENERATION
WATER USE IN FLORIDA
BY HYDROLOGIC UNITS, 1980--CONTINUED

COUNTY	COOLING WATER (MGD)					OTHER WATER (MGD)			WATER CONSUMED		AVE ANNUAL GENERATION (KWHX10**6)
	SELF-SUPPLIED				PUBLIC SUPPLY	SELF-SUPPLIED		PUBLIC SUPPLY			
	GROUND WATER FRESH	GROUND WATER SALINE	SURFACE WATER FRESH	SURFACE WATER SALINE		FRESH GW	FRESH SW		FRESH	SALINE	
HYDROLOGIC UNIT 03120003											
FRANKLIN	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
GADSDEN	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
LEON	4.2	0.0	0.0	0.0	0.00	0.00	0.00	0.00	3.0	0.0	1281
LIBERTY	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
WAKULLA	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
UNIT TOTAL	4.2	0.0	0.0	0.0	0.00	0.00	0.00	0.00	3.0	0.0	1281
HYDROLOGIC UNIT 03130011											
CALHOUN	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
FRANKLIN	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
GADSDEN	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
GULF	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
JACKSON	0.0	0.0	118.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	317
LIBERTY	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
UNIT TOTAL	0.0	0.0	118.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	317
HYDROLOGIC UNIT 03140101											
BAY	0.0	0.0	0.0	403.5	0.00	0.00	0.00	0.00	0.0	0.0	2065
CALHOUN	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
GULF	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
JACKSON	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
WALTON	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
WASHINGTON	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
UNIT TOTAL	0.0	0.0	0.0	403.5	0.00	0.00	0.00	0.00	0.0	0.0	2065
HYDROLOGIC UNIT 03140305											
ESCAMBIA	0.0	0.0	335.6	0.0	0.00	0.00	0.00	0.00	7.0	0.0	3762
SANTA ROSA	0.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00	0.0	0.0	0
UNIT TOTAL	0.0	0.0	335.6	0.0	0.00	0.00	0.00	0.00	7.0	0.0	3762
STATE TOTAL	55.6	79.0	1792.2	13760.8	0.53	7.02	0.03	3.32	32.8	103.6	129364

NOTE

SEVERAL OF THE ABOVE COUNTIES ARE IN MORE THAN ONE HYDROLOGIC UNIT.
FOR COUNTY TOTALS SEE "THERMOELECTRIC POWER GENERATION WATER USE IN FLORIDA, BY COUNTIES."

Table 53.--Output for thermoelectric power generation water use in Florida, monthly, by hydrologic units

TABLE .--THERMOELECTRIC POWER GENERATION
WATER USE IN FLORIDA
MONTHLY, BY HYDROLOGIC UNITS, 1980--CONTINUED

COUNTY	GROUND WATER FRESH	GROUND WATER SALINE	SURFACE WATER FRESH	SURFACE WATER SALINE	ALL WATER FRESH	ALL WATER SALINE	CONSUMED FRESH	CONSUMED SALINE
HYDROLOGIC UNIT 03130011								
JAN	0.00	0.0	118.00	0.0	118.00	0.0	0.0	0.0
FEB	0.00	0.0	118.00	0.0	118.00	0.0	0.0	0.0
MAR	0.00	0.0	118.00	0.0	118.00	0.0	0.0	0.0
APR	0.00	0.0	118.00	0.0	118.00	0.0	0.0	0.0
MAY	0.00	0.0	118.00	0.0	118.00	0.0	0.0	0.0
JUN	0.00	0.0	118.00	0.0	118.00	0.0	0.0	0.0
JUL	0.00	0.0	118.00	0.0	118.00	0.0	0.0	0.0
AUG	0.00	0.0	118.00	0.0	118.00	0.0	0.0	0.0
SEP	0.00	0.0	118.00	0.0	118.00	0.0	0.0	0.0
OCT	0.00	0.0	118.00	0.0	118.00	0.0	0.0	0.0
NOV	0.00	0.0	118.00	0.0	118.00	0.0	0.0	0.0
DEC	0.00	0.0	118.00	0.0	118.00	0.0	0.0	0.0
BAS TOTAL	0.00	0.0	118.00	0.0	118.00	0.0	0.0	0.0
HYDROLOGIC UNIT 03140101								
JAN	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
FEB	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
MAR	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
APR	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
MAY	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
JUN	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
JUL	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
AUG	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
SEP	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
OCT	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
NOV	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
DEC	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
BAS TOTAL	0.00	0.0	0.00	403.5	0.00	403.5	0.0	0.0
HYDROLOGIC UNIT 03140305								
JAN	0.00	0.0	335.60	0.0	335.60	0.0	7.0	0.0
FEB	0.00	0.0	335.60	0.0	335.60	0.0	7.0	0.0
MAR	0.00	0.0	335.60	0.0	335.60	0.0	7.0	0.0
APR	0.00	0.0	335.60	0.0	335.60	0.0	7.0	0.0
MAY	0.00	0.0	335.60	0.0	335.60	0.0	7.0	0.0
JUN	0.00	0.0	335.60	0.0	335.60	0.0	7.0	0.0
JUL	0.00	0.0	335.60	0.0	335.60	0.0	7.0	0.0
AUG	0.00	0.0	335.60	0.0	335.60	0.0	7.0	0.0
SEP	0.00	0.0	335.60	0.0	335.60	0.0	7.0	0.0
OCT	0.00	0.0	335.60	0.0	335.60	0.0	7.0	0.0
NOV	0.00	0.0	335.60	0.0	335.60	0.0	7.0	0.0
DEC	0.00	0.0	335.60	0.0	335.60	0.0	7.0	0.0
BAS TOTAL	0.00	0.0	335.60	0.0	335.60	0.0	7.0	0.0
STATE TOTAL	66.44	79.0	1792.26	13760.8	1858.70	13839.8	32.8	103.6

Diagnostic Messages

The following are the diagnostic messages produced by L150:

1. ERROR ON OPTION CARD

   NO FURTHER PROCESSING OF THIS REQUEST

This message will occur if the option card is missing. The "0" card is mandatory.

2. NO OPTIONS REQUESTED

   PROCESSING TERMINATED

This message occurs when columns 2-9 on the option card are blank. You must request output from program L150 using the option card.

3. CARDS OUT OF SEQUENCE

   NO FURTHER PROCESSING

Card input must be in proper numerical sequence, ascending, by card type (column 1 of cards 1-5).

Certain system or compiler messages will be printed. An example is:

(1) CARD NOT PRINTED

   CARD NOT VALID

This error occurs when a conversion is called for but cannot be completed. A character or an embedded blank in a numeric field is often the cause of this error, and is usually the result of an error in keypunching. The error appears when L150 sorts the data incorrectly as a result of the keypunching error. The program will print all fields on the particular card where it encountered the problem. This may not be the exact card where the error occurs, but it is helpful in locating the problem area.

Job Control Language

Program L150 has been stored online in a system library.

For retrieval of data from the current disk files:

```
COLUMN 1          COLUMN 12
//xxxxxxxx        JOB (----)
//  EXEC          PGM=THERMO,REGION=500K,TIME=2
//STEPLIB         DD DSN=AG4B17G.THERM080.LOAD,DISP=OLD
//                DD DSN=SYS1.PLIX.TRANSLIB,DISP=SHR
//                DD DSN=SYS1.SYNC.LINKLIB,DISP=SHR
//SYSPRINT        DD SYSOUT=A
//SORTLIB         DD DISP=SHR,DSN=SYS1.SYNC.SORTLIB
//SORTMSG         DD SYSOUT=A
//SORTWK01        DD UNIT=SYSDK,SPACE=(CYL,5,,CONTIG)
//SORTWK02        DD UNIT=(SYSDK,SEP=SORTWK01),
//  SPACE=(CYL,5,,CONTIG)
//SORTWK03        DD UNIT=(SYSDK,SEP=(SORTWK01,SORTWK02)),
//  SPACE=(CYL,5,,CONTIG)
//DISK       DD DSN=&&GEIGER,UNIT=SYSDK,SPACE=(CYL,(5,1),RLSE),
//  DCB=(RECFM=FB,LRECL=80,BLKSIZE=6400),DISP=(NEW,PASS)
//SORTIN     DD DSN=*.DISK,VOL=REF=*.DISK,DISP=(OLD,DELETE)
//SORTOUT    DD DSN=*.DISK,VOL=REF=*.DISK,DISP=(OLD,DELETE)
//CARDIN     DD DSN=AG4B17G.THERM080.DATA,DISP=OLD,UNIT=ONLINE
/*
//
```

For retrieval of data from the historical files:

```
  //xxxxxxxx        JOB (----)
  /*SETUP           MNT204/DISK
  //  EXEC          PGM=THERMO,REGION=500K,TIME=2
§§//STEPLIB         DD DSN=AG4B17G.THERMOXX.LOAD,DISP=OLD
  //                DD DSN=SYS1.PLIX.TRANSLIB,DISP=SHR
  //                DD DSN=SYS1.SYNC.LINKLIB,DISP=SHR
  //SYSPRINT        DD SYSOUT=A
  //SORTLIB         DD DISP=SHR,DSN=SYS1.SYNC.SORTLIB
  //SORTMSG         DD SYSOUT=A
  //SORTWK01        DD UNIT=SYSDK,SPACE=(CYL,5,,CONTIG)
  //SORTWK02        DD UNIT=(SYSDK,SEP=SORTWK01),SPACE=(CYL,5,,CONTIG)
  //SORTWK03        DD UNIT=(SYSDK,SEP=(SORTWK01,SORTWK02)),
  //  SPACE=(CYL,5,,CONTIG)
  //DISK            DD DSN=&&GEIGER,UNIT=SYSDK,SPACE=(CYL,(5,1),RLSE),
  //  DCB=(RECFM=FB,LRECL=80,BLKSIZE=6400),DISP=(NEW,PASS)
  //SORTIN          DD DSN=*.DISK,VOL=REF=*.DISK,DISP=(OLD,DELETE)
  //SORTOUT         DD DSN=*.DISK,VOL=REF=*.DISK,DISP=(OLD,DELETE)
§§//CARDIN          DD DSN=THERMOXX,DISP=OLD,UNIT=3330,VOL=SER=MNT204,
  //  DCB=(RECFM=FB,LRECL=80,BLKSIZE=6400)
  /*
  //
```

§§Note - User must supply a 2-digit year; for example, THERMO79.