Technical Memorandum
WRE #375

The Ground Water Network (GWNET)

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by
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EXECUTIVE SUMMARY

The United States Geological Survey (USGS) and the South Florida Water Management District (District) jointly manage an extensive ground water and surface water level monitoring network in south Florida. This cooperative arrangement dates to 1955. The USGS collects ground water level data from the Lower West Coast (Collier, Hendry, and Lee Counties) as well as the Lower East Coast (Miami-Dade and Broward Counties). The District also collects ground water level data from monitor wells located in the Lower East Coast, areas within Hendry County, and the Upper East Coast (Palm Beach, Martin, and St. Lucie Counties). These data are used to assist local governments and the District in developing ground water management practices. The data also provides "baseline" water level information used for public and private scientific research projects throughout south Florida. In addition, the network includes information needed by the District to make decisions on imposing water shortage restrictions during dry periods. The information in this document was assembled to provide the reader with a description of the monitoring well network and to facilitate use of ground water information.

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ABSTRACT

The United States Geological Survey (USGS) and the South Florida Water Management District (District) have jointly managed and funded an extensive ground water level network in south Florida since 1955. The USGS currently collects ground water level data from 285 monitor wells within the District's boundaries. The USGS wells monitor the ground water levels within the Surficial, Sandstone, and mid-Hawthorn aquifers. The District collects ground water level data from 240 wells that monitor the Surficial and Sandstone Aquifer Systems. The District also provides cooperative funding with the USGS and St. John's River Water Management District, comprising a network of 109 wells that monitor the Floridan Aquifer System. In all, there are 634 monitoring wells referred to as the "Ground Water Network" (GWNET). This entire network was developed to manage south Florida's ground water resources within the Surficial, Intermediate, and Floridan Aquifer Systems. The Ground Water Network also assists local governments and the District in development of regional ground water management practices. This publication describes the GWNET and provides monitoring well locations for each county.

The majority of USGS wells are automated and equipped with Automated Data Recorders (ADR). The District manually measures ground water levels by using either a pressure transducer or a well sounder. The ground water level data from each well site in the GWNET are collected, stored as daily values, and statistically analyzed as monthly averages and historical averages. The USGS ground water data resides in the Automated Data Processing System (ADAPS) database on Data General (DG) hardware. The District's ground water data are stored in the Hydrogeologic On-Line Well Data Inventory database (HOWDI) and the District's corporate water resources database (DBHYDRO). Several examples of data retrieval and data formats from both the USGS and the District systems are provided within this technical memorandum.

INTRODUCTION

Purpose and Scope

The purpose of this report is to provide information on the Ground Water Network (GWNET) managed by the South Florida Water Management District (District) and the United States Geological Survey (USGS). This document includes monitoring well locations, well construction information, monitoring frequency, water level data, and procedures of data storage and retrieval. This information will be useful to researchers, consultants, and other persons interested in obtaining ground water level data.

NETWORK OVERVIEW

Well Locations

The locations for each well site are summarized in **Appendix A-1: Figures A1 through A9**. **Appendix A-1** will aid those requesting data to find the appropriate well names for an area of interest, essential in expediting data requests. The locations of the 525 ground water monitoring wells maintained by the USGS, sub-District Miami Office, and District under this program are shown in **Figures 1** and **2**, respectively.

Three Programs

The Ground Water Network (GWNET) described in this report is broken down into three sub-networks:

- The USGS Ground Water Level Monitoring Program
- The District Ground Water Level Monitoring Program
- The Ground Water Level Automated Benchmark Program

The USGS Ground Water Level Monitoring Program is jointly funded by the USGS and the District. **Figure 1** shows 285 USGS monitor wells located in St. Lucie, Martin, Palm Beach, Broward, Miami-Dade, Collier, Lee, and Hendry Counties. The table in **Appendix A-2** lists the water level sampling frequency for each well. These monitoring wells are used to acquire ground water level data on a monthly, daily, or near real-time basis.

The District's Ground Water Level Monitoring Program is a network of 240 monitor wells used to collect monthly ground water levels throughout St. Lucie, Martin, Palm Beach, Broward, Miami-Dade, and Hendry Counties (**Figure 2**). These data are used to produce a monthly Ground Water Conditions Report (**Appendix B**). This report describes current ground water conditions by comparing the current monthly mean with the previous month's mean, historical mean (1974 to present), and previous year's mean for the same month. Prior to October 1995, this network was part of the USGS's monitoring program; however, in an effort to reduce the overall costs of USGS services, the District elected to manage the above-described portion of the network.

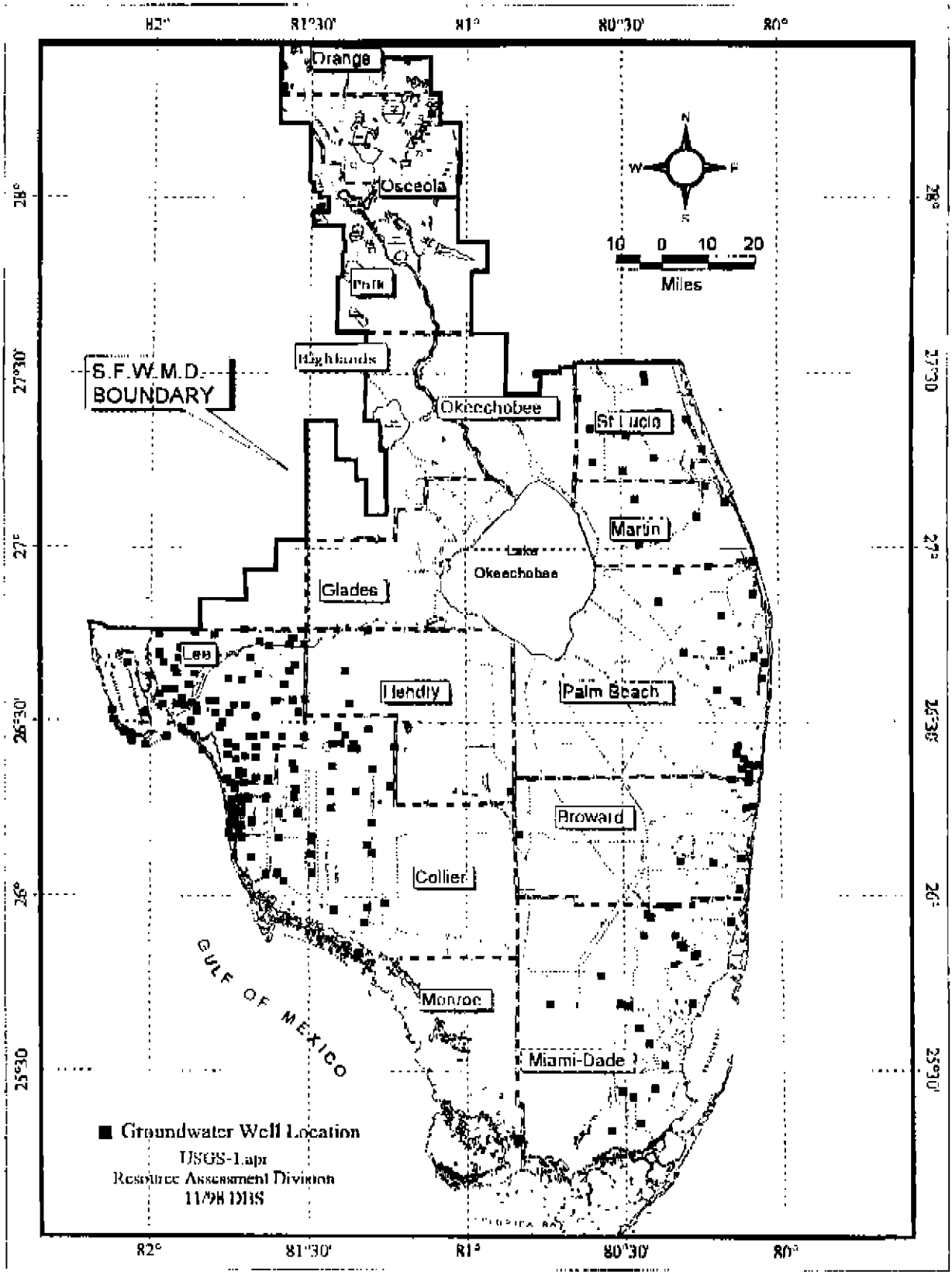

Figure 1. Location of 1998 United States Geological Survey Groundwater Level Monitoring Network Wells.

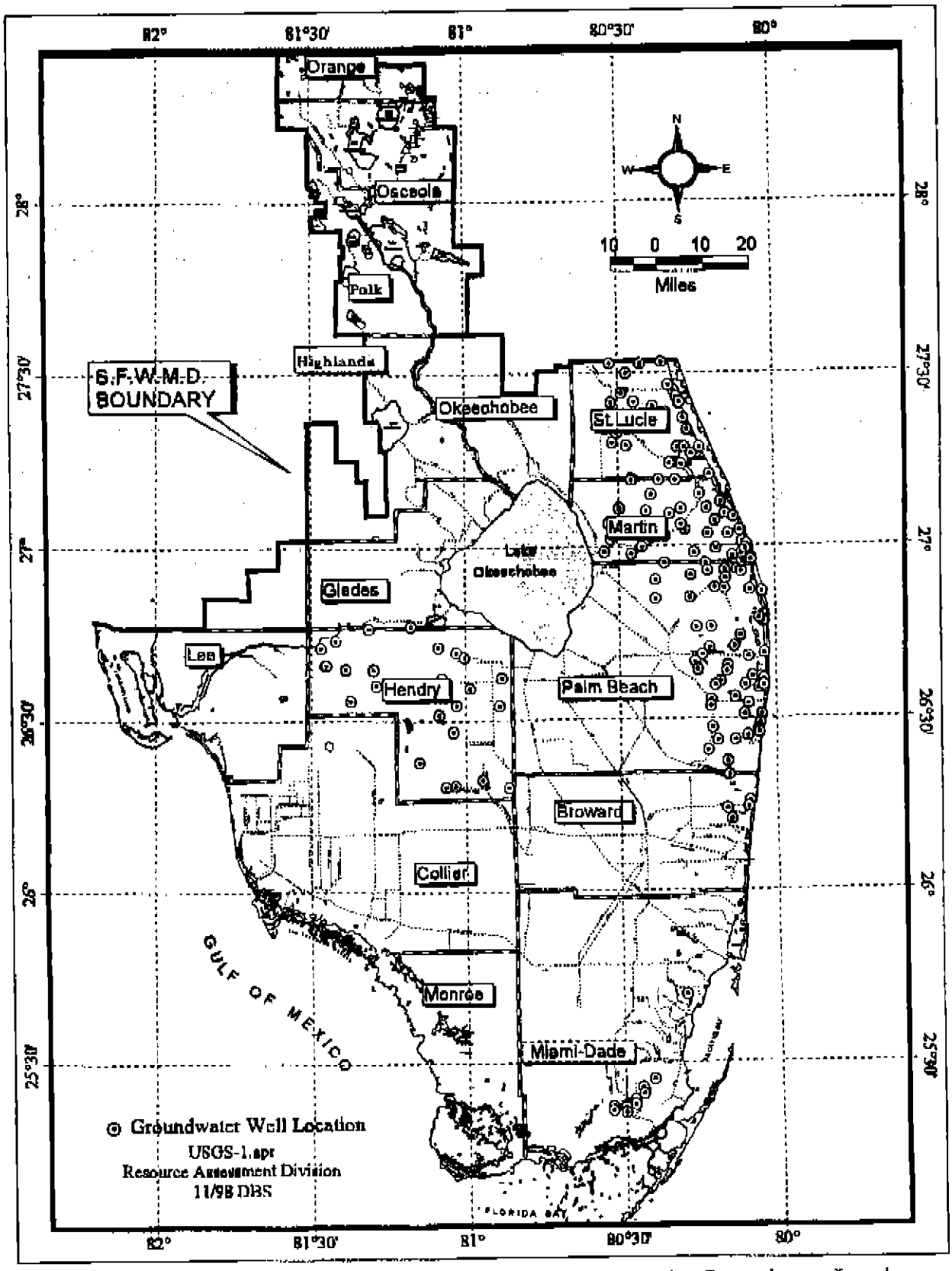

Figure 2. Location of 1998 South Florida Water Management District Groundwater Level Monitoring Network Wells.

The locations of wells in the Ground Water Level Automated Benchmark Network are shown in **Figure** 3. In February 1997, northwest Collier and southwest Lee Counties experienced unusually low ground water levels. In response to these low water levels, Phase I water restrictions (reduction of water usage by 15%) were imposed for this area by the District. Table I, lists the four phases of water restrictions, the type of restriction, and the associated water shortage rule.

Table 1. Four Phases of Water Restrictions

Phase Restriction	Type of Restriction	Water Shortage Rule
Phase I	Moderate Water Shortage	40E-21.521
Phase II	Severe Water Shortage	40E-21.531
Phase III	Extreme Water Shortage	40E-21.541
Phase IV	Critical Water Shortage	40E-21.551

The Automated Benchmark Network was established specifically to track water levels and the relative position of the freshwater/saltwater interface within Lee and Collier Counties, since this region is most sensitive to water shortages. The Automated Benchmark Network includes twenty-four (24) ground water level monitoring wells. These wells are equipped with data loggers, which measure continuous near real-time ground water levels via satellite communications. It is anticipated, a minimum of four wells will be added to this network in the District's Upper East Coast (UEC) Planning Area. This will enable the District to monitor ground water levels in these areas on a real-time basis.

Network Downsizing

The District completed a rigorous statistical analysis of the monitoring well network in southwestern Florida in 1997. The number of wells within the ground water monitoring network has decreased in recent years. The majority of the decrease occurred in 1996 and 1997. In an effort to optimize the cost effectiveness of the network, the District completed a network optimization study in 1996 (Ahn and Salas, 1997). The objective of this statistical study was to determine the optimum number of monitoring wells in the network. The study concluded that forty-one (41) wells could be removed from the network without significantly decreasing spatial coverage. With these conclusions, staff from the District and USGS met to review non statistical considerations for these forty-one (41) wells to decide discontinuation of monitoring without significant loss of information. The criteria used for discontinuation included historic record, sensitive water shortage areas, and multi-agency studies involving these wells. Another factor in the network's reduction was a change in the District's permit criteria. The new criteria mandates that public water supply utilities provide ground water level data to the District on a monthly basis. This eliminated the need for wells near reporting utilities. As a result of these meetings, it was concluded that twenty-four (24) of the forty-one (41) wells would be removed from the network within the Lower West Coast Planning Area.

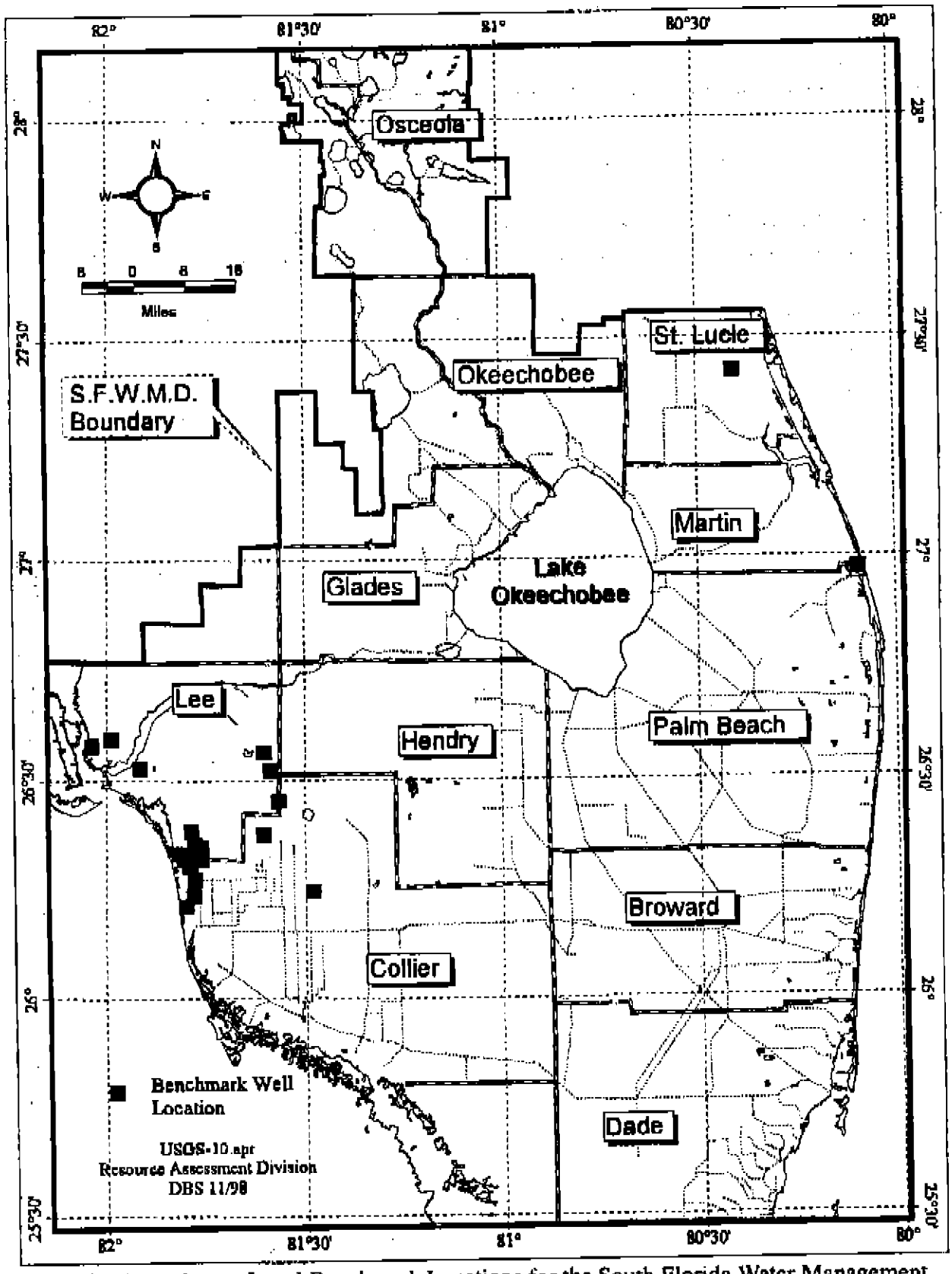

Figure 3. Groundwater Level Benchmark Locations for the South Florida Water Management District.

Methods Used To Collect Ground Water Levels

The USGS measures and records ground water levels during the last four days of each month, while the District measures and records them within the last ten days of each month. The majority of the USGS's ground water wells are equipped with continuous recorders such as the Sutron® 8400 Automated Data Recorders (ADR), Stevens® Automated Data Recorders (ADR), or Data Collection Platforms (DCP). With the exception of DCPs, these recorders measure daily ground water levels at one-hour frequencies. Data collected by DCPs use the Geostationary Operational Environmental Satellite (GOES), which permits water levels to be transmitted to the USGS on a near real-time basis. All DCP's are linked to the Internet (http://www.sflorida.er.usgs.gov) and allow users to query the data and produce hydrographs.

The District measures ground water levels by using either a pressure transducer or a well sounder. The description of a pressure transducer coupled to a Hermit® Data Logger is shown in **Figure 4.** The pressure transducer is a fully submersible instrument that measures very accurate head pressures (water levels) above the sonde. The transducer communicates with the Hermit® data logger through an electronic cable. The data logger converts measured pressure values directly to water levels and records this data for subsequent downloads via laptop computers.

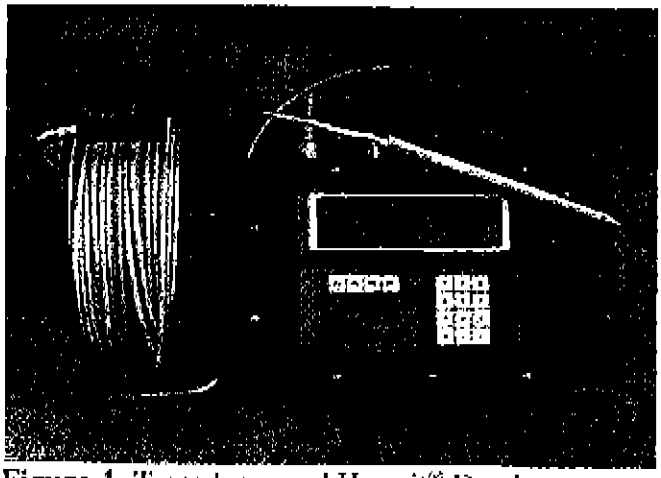

Figure 4. Transducer and Hermit® Datalogger.

The well sounder is an instrument that measures water levels by means of an electronic sensor, as shown in **Figure 5**. The sensor is lowered down the well; a light and buzzer indicate when contact with water is made. Permanently stamped depth markings on the cable indicate the depth to water from the top of casing (TOC). These measurements are then subtracted from the surveyed, TOC elevated to obtain a water level related to National Geodetic Vertical Datum (NGVD). All wells have been accurately surveyed for vertical datums with reference to NGVD of 1927. At the end of each month, the ground water

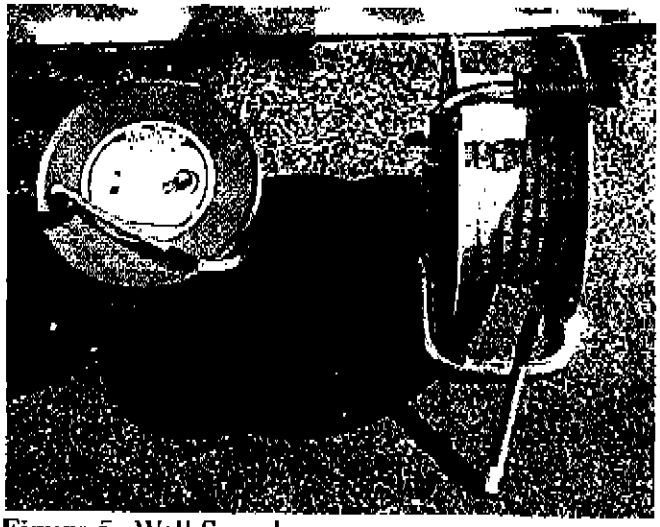

Figure 5. Well Sounder

levels collected by the USGS and District are compiled from the ADAPS database and imported into a spreadsheet. These data are then used to compute average monthly historical levels. A sample description of the USGS's data format (as presented to the District) is provided in **Appendix C**.

How the Data are Stored

USGS Data Management

The USGS and the District use different databases to store water level data. The USGS implemented their database on a hardware called the Data General, model type Aviion 9550, in the mid 1990s. The Data General stores the ground water data for the USGS monitor wells. In addition, it stores water level, water quality, and statistical data for all current and historic surface water and ground water stations. The USGS databases are designed as interactive systems. This interactive system allows the National Water Information System (NWIS) to link as a data processing system, while the INGRES System software links as the relational database manager. Both the National Water Information System and INGRES System are UNIX-based and are available for use on the Data General. There are currently three databases on the Data General: Automated Data Processing System (ADAPS), Water Quality Database (QWDATA), and Ground Water Site Inventory (GWSI). The ADAPS database contains continuous hydrologic recorder data, statistical information, and hydrograph plotting capabilities. The QWDATA database contains monthly or quarterly water level and water quality data. The GWSI Database contains well construction, ownership, and survey information. Most of the available programs are interactive routines that accept user input from the terminal and display output on the screen.

District Data Management

The temporal water level data collected from the District's network of wells are stored in a Oracle database called Hydrogeologic On-Line Well Data Inventory (HOWDI). This database will eventually be merged into the District's corporate water resources database, DBHYDRO. HOWDI does not perform statistical calculations since its primary function is to store data. In the meantime, HOWDI is capable of retrieving archived ground water level data and well construction information. It is anticipated that the DBHYDRO database will replace the HOWDI Database in fiscal year 1999. The District desires to evolve to the Environmental Protection Agency's storage and retrieval national database (STORET), which has recently been completely reengineered and encompasses all environmental data disciplines.

How the Data are Retrieved

USGS Data Retrieval

In order to retrieve data from the USGS's Data General Database, one must obtain a user password from any of the USGS sub-District offices. The ADAPS is a menu-driven retrieval system for hydrologic information pertaining to ground water and surface water stations. Due to the many different functions of this system, this report will focus only on describing the retrieval system for accessing daily ground water level data. **Appendix D, Outline 1** describes the procedure for ADAPS retrievals. **Appendix D, Outline 2**, describes the procedures for retrieving quarterly ground water level data from the Water Quality Database (QWDATA). The GWSI

Database is for retrieving well construction information and is described in **Appendix D, Outline 3**.

District Data Retrieval

Access to the Hydrologic On-Line Well Data Inventory (HOWDI) is internal to the District until its imminent inclusion into DBHYDRO, the District's corporate water resources database. Therefore, District personnel are required to obtain a UNIX user's account form from the Office of Enterprise Engineering, Training Support Division. The application is currently written in Oracle forms 4.5. Contact the Water Resources Evaluation Department, Data Management Division for loading the necessary application. The general public may receive HOWDI ground water data retrievals by contacting the Resource Assessment Division at 561-687-6825.

The HOWDI database is comprised of ground water level data and well construction information. **Appendix E, Form 1 and 2** shows an example of a ground water level extract and a well construction information form.

Ground Water Data Report Format

The USGS and District data are used in the Ground Water Conditions Report (see **Appendix B**) updated and distributed monthly by the District's Resource Assessment Division. This report consists of tables, graphs, and weighted averages of water levels. Water levels are reported as: "Average Change from Previous Month", "Average Historical Value from 1974 to Present", and "Average Change from Last Year". The ground water level data are also used to establish a zero elevation contour line. Ground water levels that fall below this zero line may make a fresh water well susceptible to salt-water contamination. **Figure 6** shows February's relative to March's 1997 zero elevation contour line for the Lower West Coast during a time in which Phase I water restrictions were imposed.

CONCLUSIONS

Data collected from the ground water network of wells in south Florida supports the District's Water Shortage Management team by summarizing a monthly report that describes and depicts ground water levels throughout the Lower East Coast, Lower West Coast, and Upper East Coast Planning areas of the District. Data are also used to meet more specific needs such as developing and calibrating ground water flow models. The Ground Water Network (GWNET) provides modelers with daily, monthly, or quarterly water levels. Furthermore, data are also used by county and municipal agencies for site specific studies. The 634 wells that make up the GWNET are completed in the following aquifers: Surficial, Intermediate, mid-Hawthorn, and Floridan.

The GWNET was developed, upgraded and is monitored by both the District and the USGS through a cost-sharing cooperative agreement. The GWNET allows District staff to monitor ground water levels in multiple aquifers regionally in south Florida. The temporal data

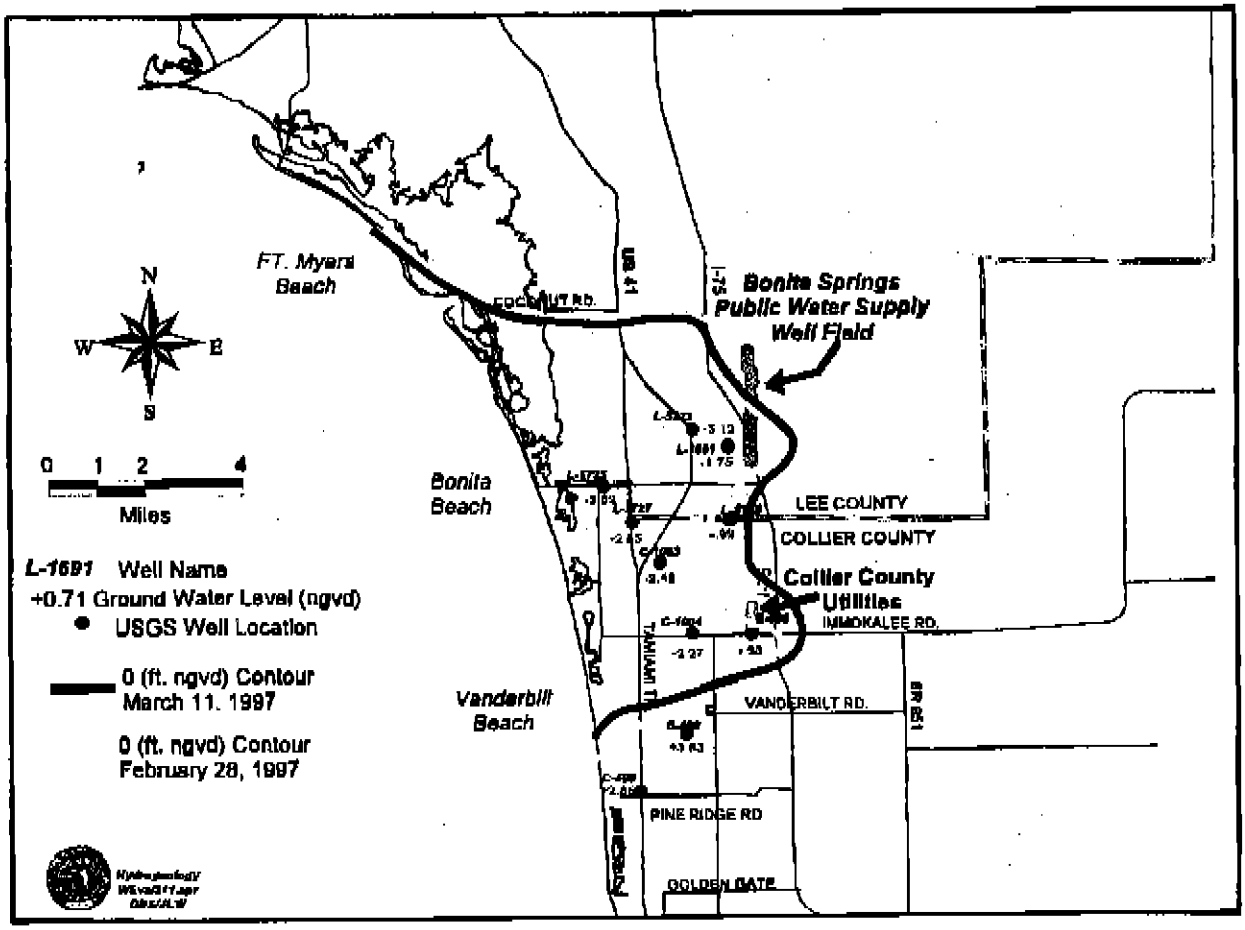

Figure 6. Position of Zero (NGVD) Ground Water Level in the Tamiami Aquifer, March 11 and February 28, 1997.

collected from the GWNET provide invaluable information for investigations related to ground water resources in this portion of the State. It is also valuable from a perspective of forming a historical database, which can be used to determine long-term regional ground water level trends resulting from the development of the area.

In summary, the GWNET is an integral part of managing the water resources in south Florida. The daily, monthly, and quarterly ground water level measurements enable the District to closely monitor areas with increasing ground water withdrawals and salt-water contamination.

RECOMMENDATIONS

The ground water network has undergone many changes throughout the years. The necessity to optimize the network for cost effectiveness formed the basis for these changes. To adequately determine on-coming water shortages, the District needs to establish a critical "baseline" ground water level for every well. A baseline water level is the minimum water level in a well, which the District considers prior to initiating water shortage restrictions. After examining baseline criteria, the District and USGS will need to outfit specific wells with automated data recorders, providing near real-time data collection. The District would like to expand the automated recorder network to include real-time monitor wells in Palm Beach, Martin, and St. Lucie Counties.

To better support the initiative and communicate the District's baseline, historical, and real-time groundwater data, a worldwide Web browser interface is recommended. Much of this data is, or will be in fiscal year 1999, accessible in DBHYDRO, the District's corporate database. Therefore, a key issue is to connect this corporate database to the worldwide Web. A second recommendation is to have analysis and visualization routines added to this data to further improve the ability to make water management decisions and instill greater public confidence in our mission.

Beginning in 1990, the District began a major hydrogeologic reconnaissance effort in the Floridan Aquifer System (FAS). Presently, the District collects ground water levels from the FAS monitor wells on a semi-annual basis. The area of collection is the Kissimmee Planning Area (Glades, Highland, Okeechobee, Polk, Osceola, and Orange Counties), Upper East Coast Planning Area (Martin, Palm Beach, and St. Lucie Counties), Lower West Coast Planning Area (Collier, Hendry, and Lee Counties), and the Lower East Coast Planning Area (Miami-Dade and Broward Counties). Emphasis should be placed on monitoring the FAS on a more frequent time-scale (at least once a month), and incorporate this data into the District's future DBHYDRO database web browser.

Development of additional graphical interfaces to DBHYDRO that support easy access display of statistical data summaries such as minimum, maximum, mean, standard deviation, median, and cumulative distribution is another recommendation. This program should have the capability to calculate the percentage of time that ground water levels remain within a particular range. It should also be capable of flagging problem wells, which have malfunctioned or have potentially erroneous data. Furthermore, algorithms should be developed to allow ground water level data to be analyzed using statistical programs equivalent to those currently in use by the USGS and the INGRES database system.

It is also recommended that the District consider implementing a sophisticated pumpage meter alarm system to all heavy withdrawal users. This meter should be linked to real-time data collection. A signal could then alert the withdrawal user if water levels exceed "baseline" criteria. Implementing this technology would allow the District to foresee declining water levels. Of course, these recommendations could not be possible without total cooperation with utilities, agricultural users, and others that use ground water resources.

Specific quality assurance (QA) guidelines should also be developed to ensure that ground water levels are updated, accurate, and archived. The current QA system includes comparing ground water levels from the current month to the previous month, plotting the ground water level record of one station against another nearby station, and checking ground water level continuity between years for obvious discrepancies.

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In-house Documentation, U.S. Geological Survey, Miami, Florida.

Prinos, S. and T. Richards and R. Krulikas. 1997. Water Resources Data of Florida Water Year 1997. Vol. 2B, U. S. Geological Survey, Miami, Florida.

South Florida Water Management District. 1994. Management of Water Use Permitting Information Manual, Volume III. West Palm Beach, Florida.

APPENDIX A-1: Location of Ground Water Level Monitoring Wells

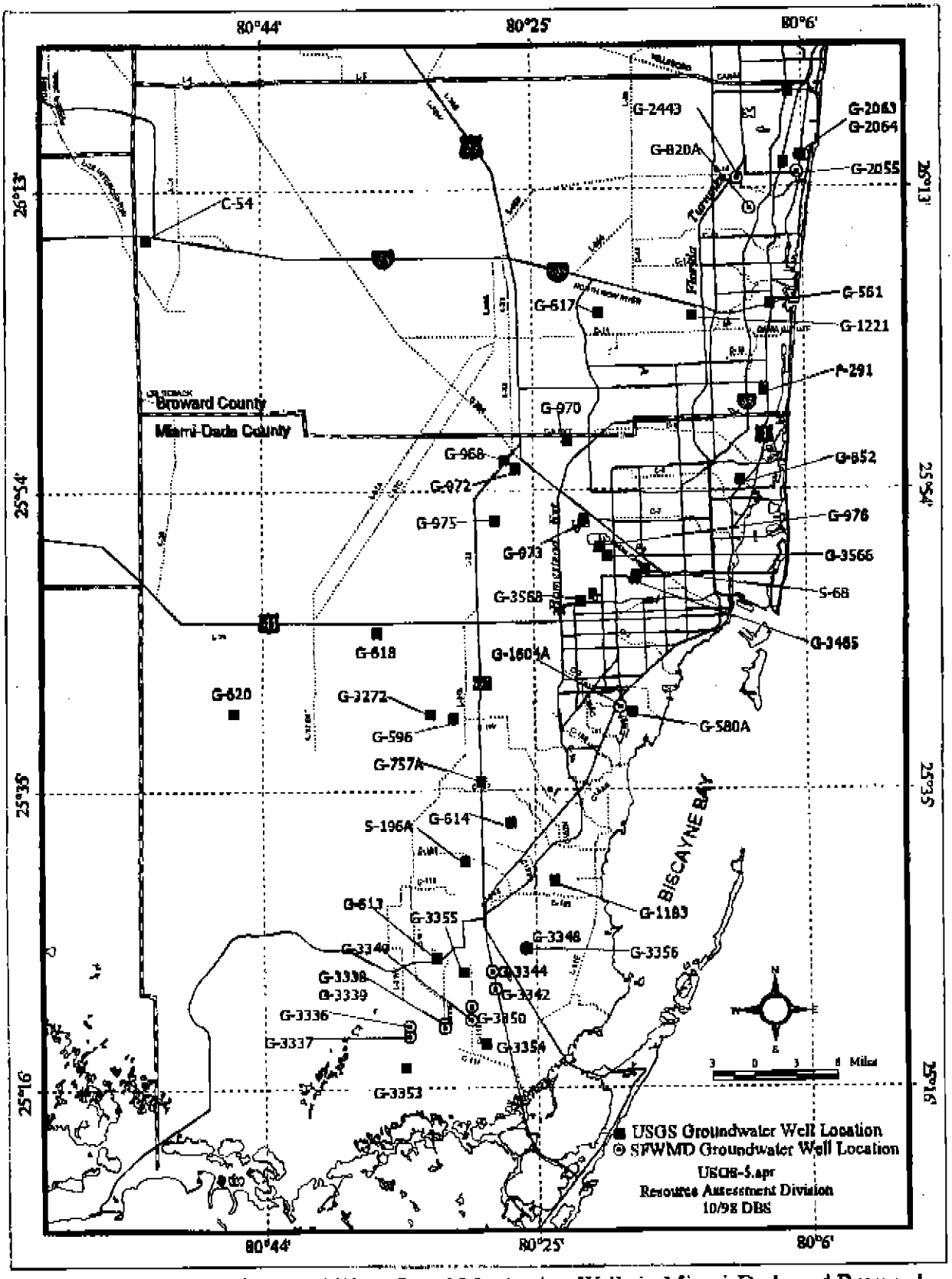

Figure A-1. Location of Ground Water Level Monitoring Wells in Miami-Dade and Broward Counties, Florida.

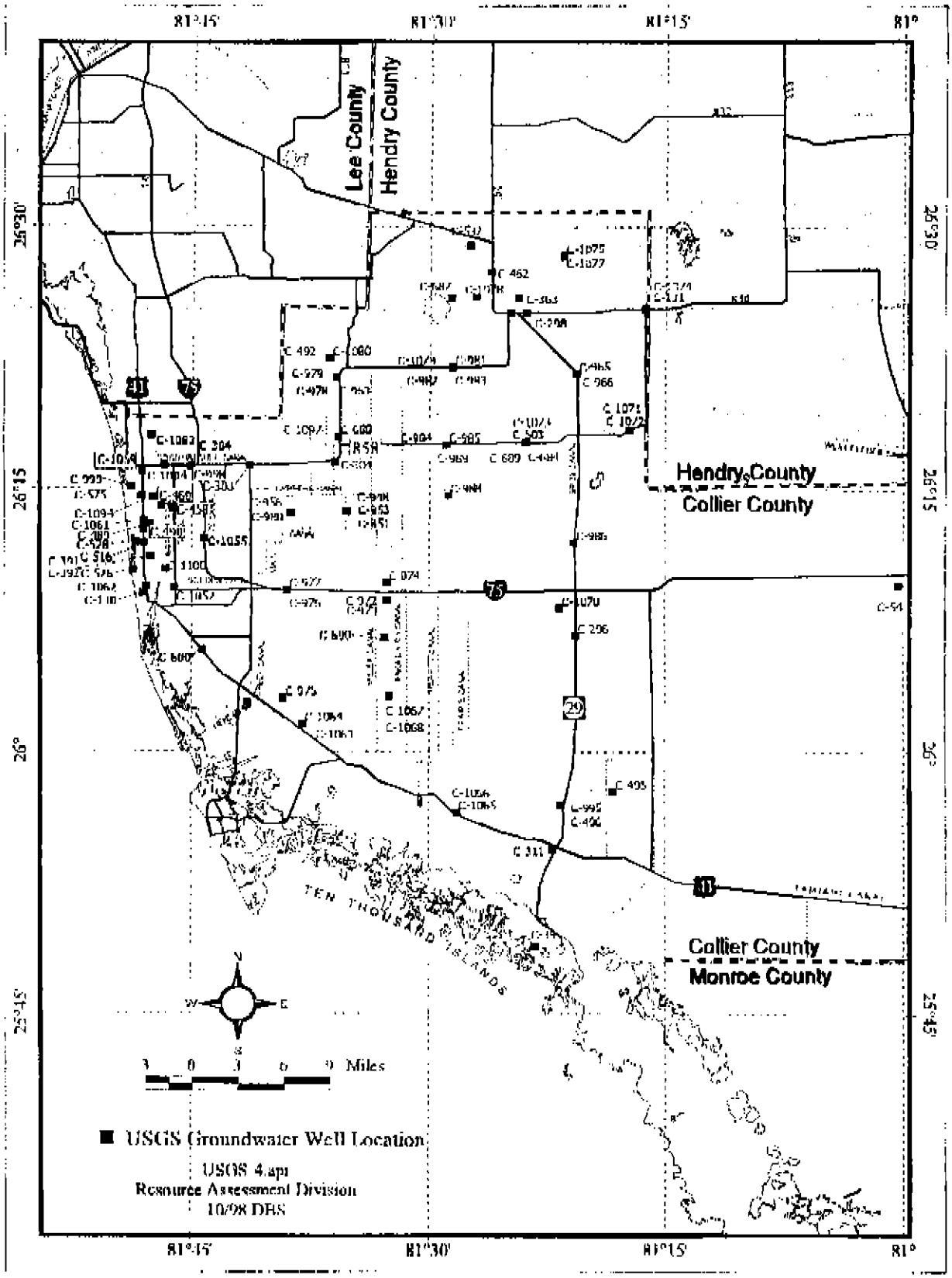

Figure A-2. Location of USGS Ground Water Level Monitoring Wells in Collier County, Florida.

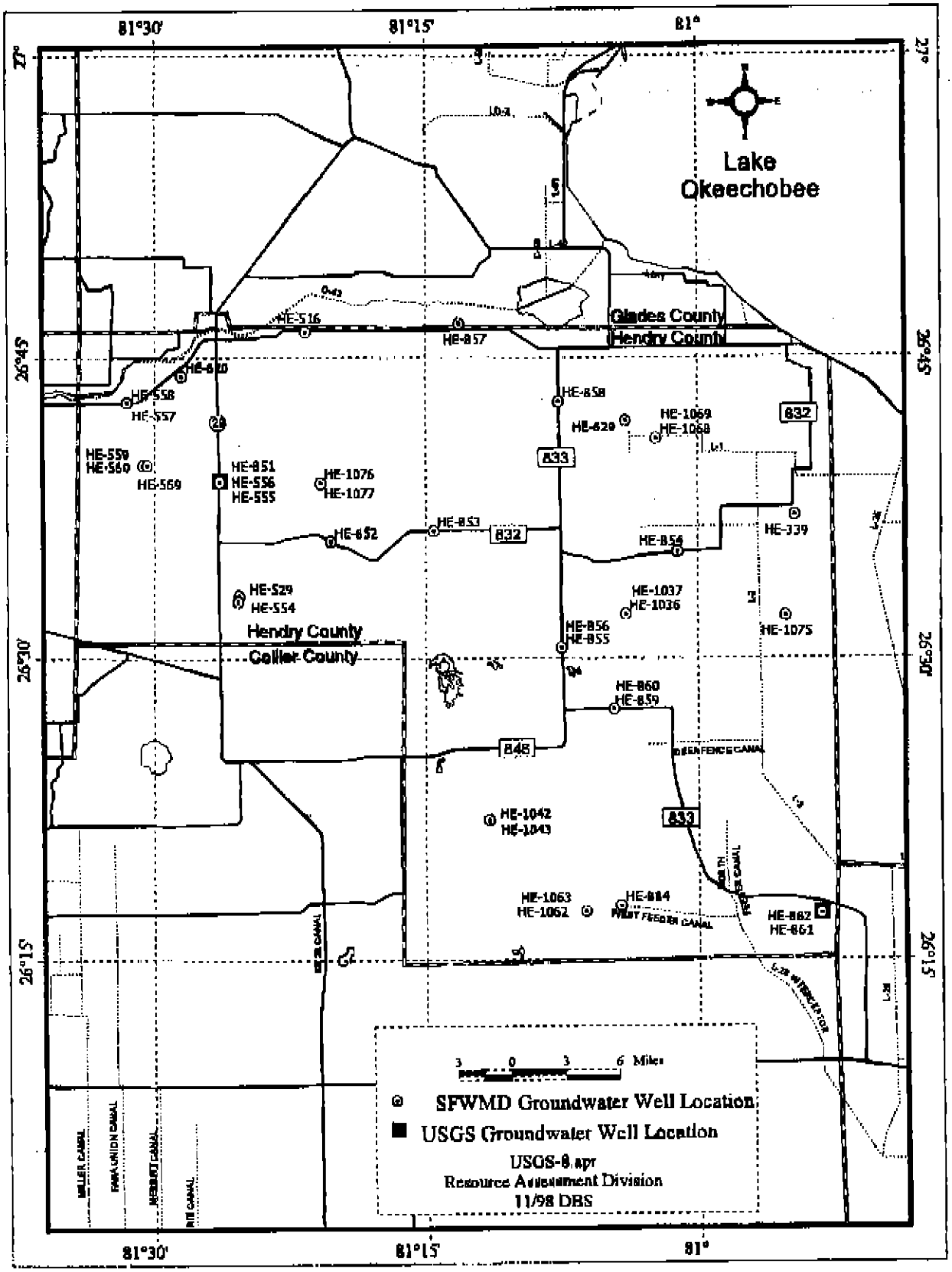

Figure A-3. Location of Ground Water Level Monitoring Wells in Hendry County, Florida.

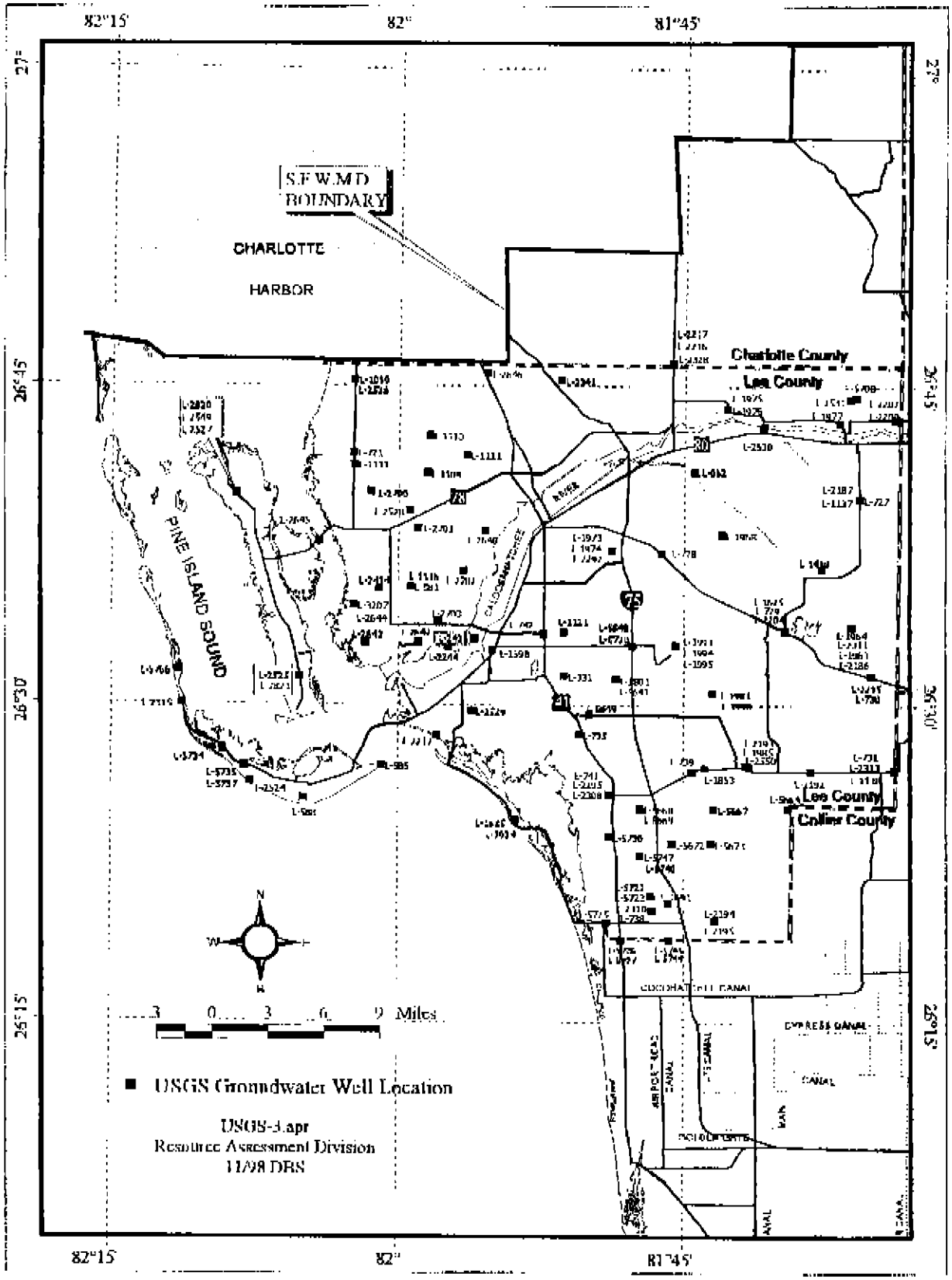

Figure A-4. Location of Ground Water Level Monitoring Wells in Lee County, Florida.

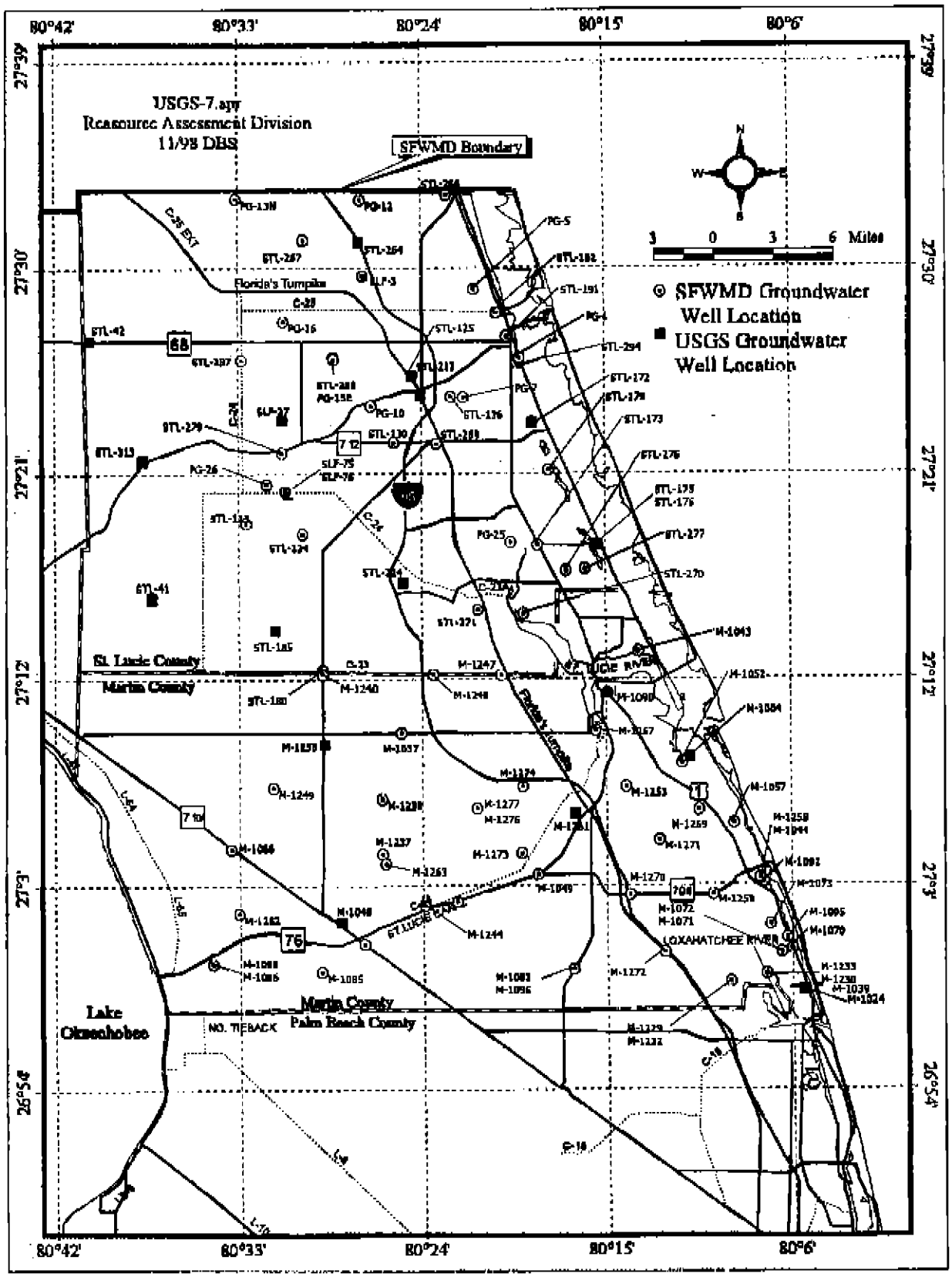

Figure A-5. Location of Ground Water Level Monitoring Wells in Martin and St. Lucie Counties, Florida.

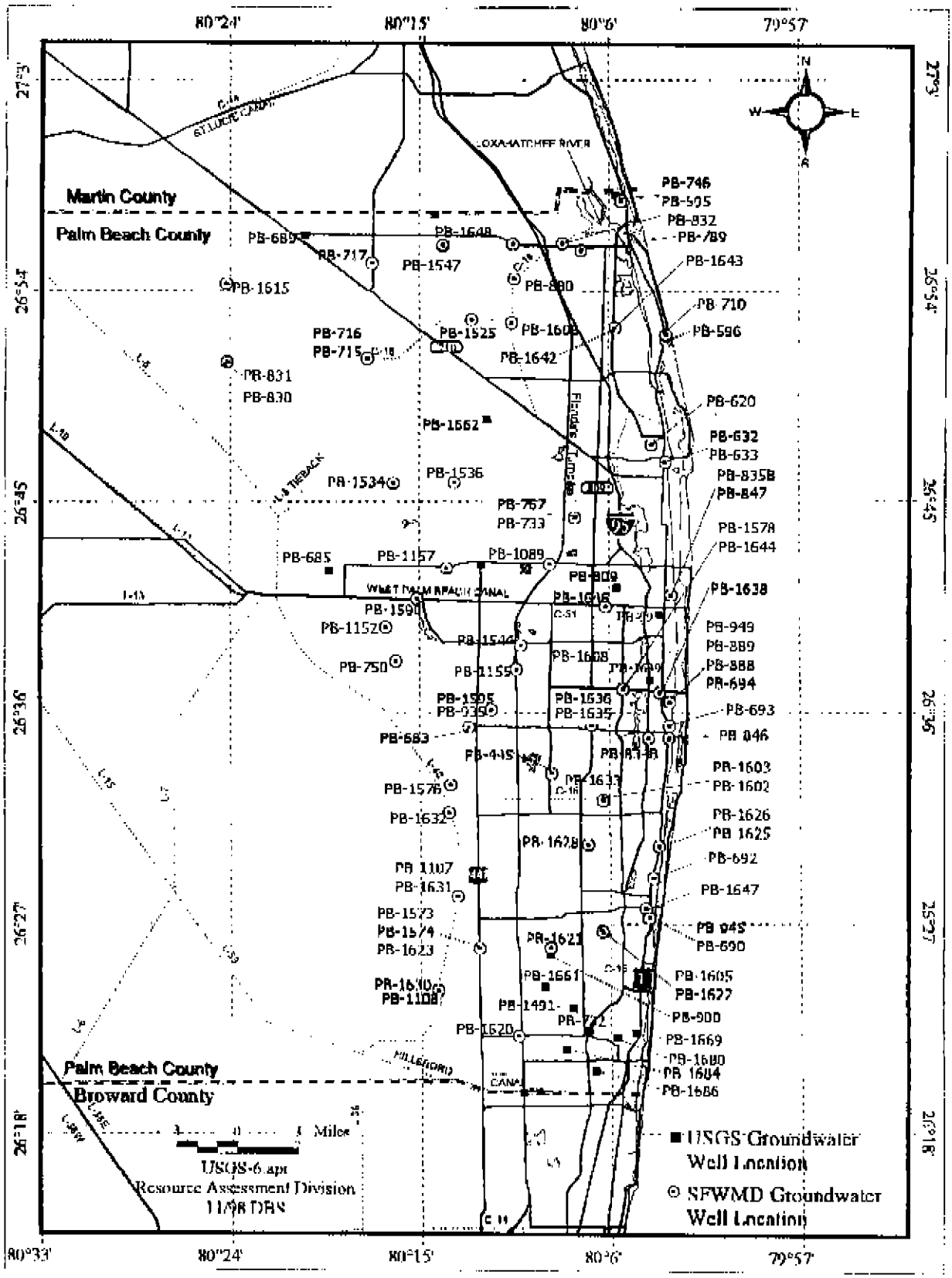

Figure A-6. Location of Ground Water Level Monitoring Wells in Palm Beach County, Florida.

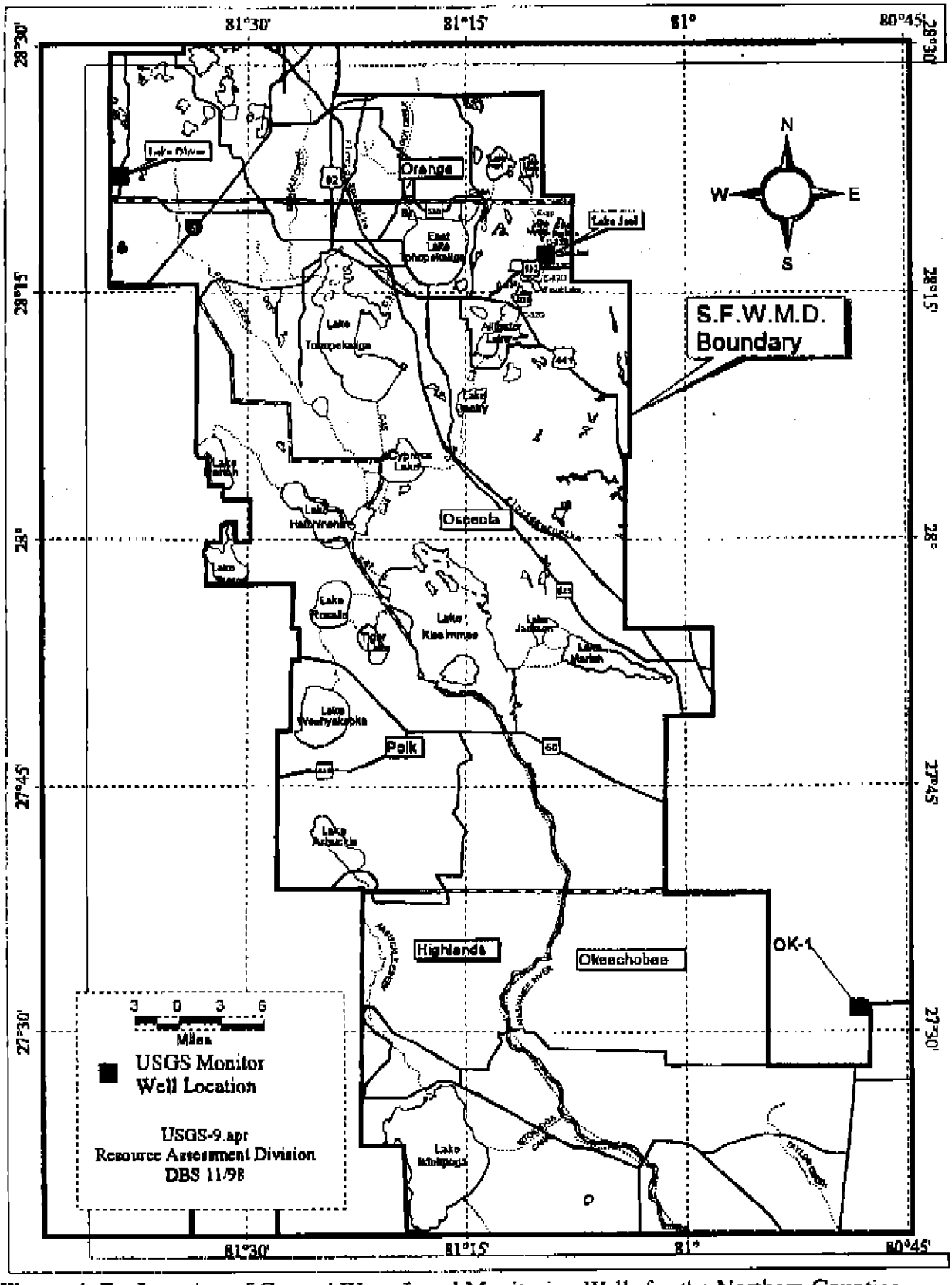

Figure A-7. Location of Ground Water Level Monitoring Wells for the Northern Counties within the Boundaries of the District.

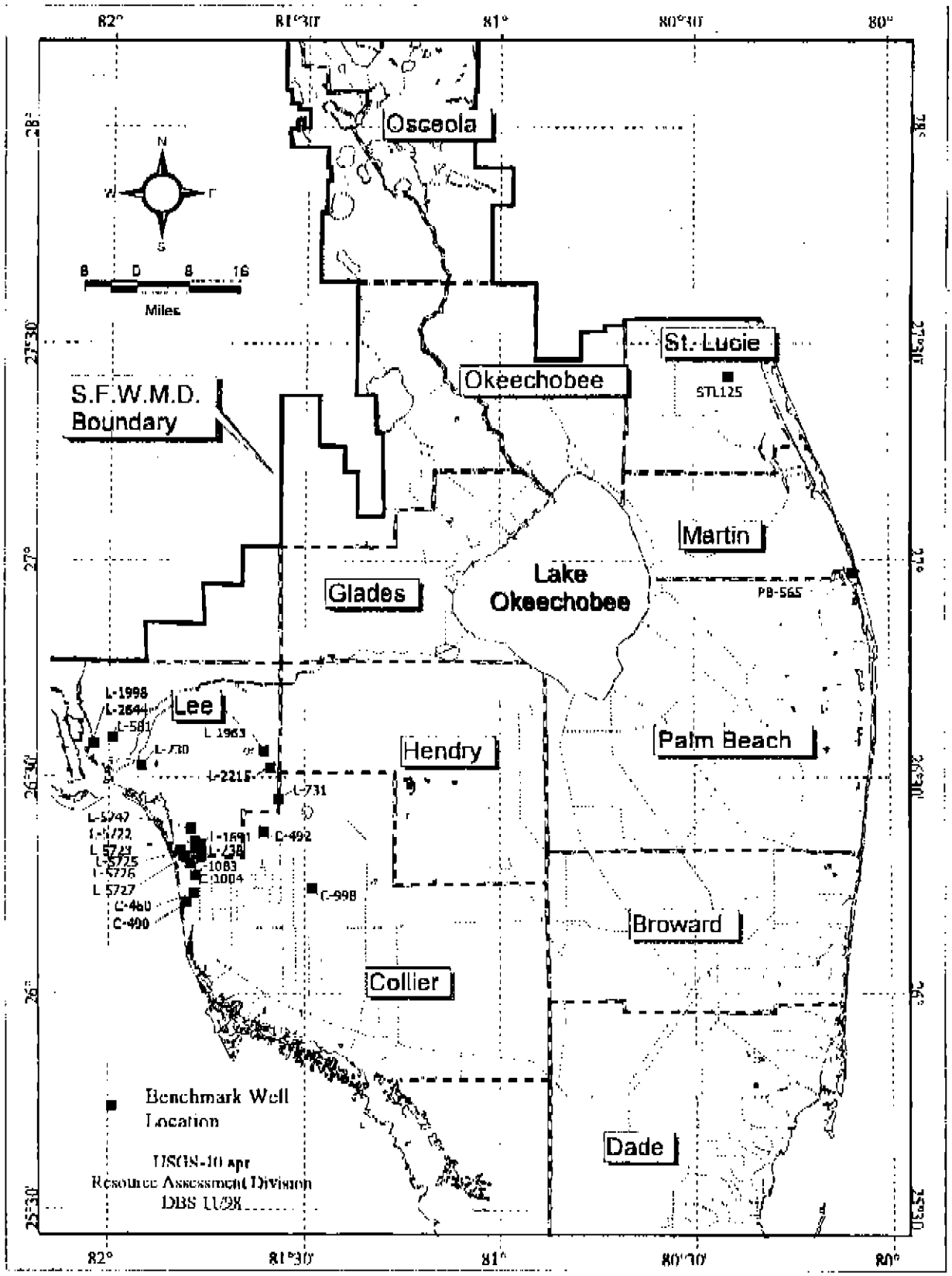

Figure A-8. Location of Ground Water Level Monitoring Wells of the Florida Aquifer within Boundaries of the District.

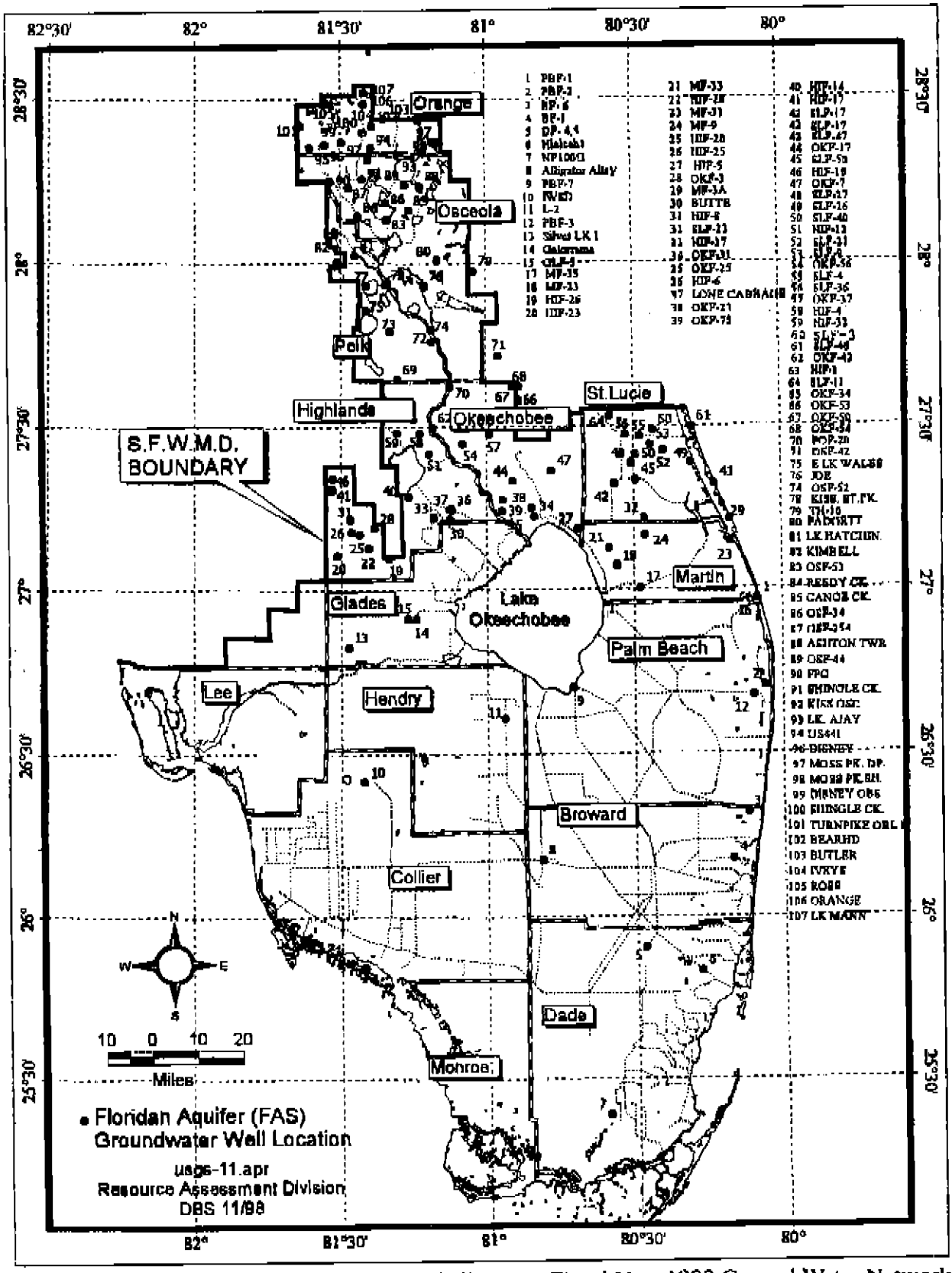

Figure A-9. Location of Floridan Aquifer Wells in the Fiscal Year 1998 Ground Water Network within Boundaries of the District.

APPENDIX A-2: Summary of GWNET

Appendix A-2, summarizes the USGS and the District's Ground Water Network (GWNET) of south Florida. The summaries include: well identification, geographic location, well construction, period of record of ground water level data, measuring point, and frequency type of data collected.

USGS/SFWMD
1998 GROUND WATER LEVEL MONITORING NETWORK

Well #	S/T/R	Latitude	Longitude	Casing Diam (inch)	Casing Depth (feet)	Total Depth (feet)	Period of Record (Month/Year)	Measuring Point Elevation (feet, NGVD)	Frequency & Type of Data (Key)
Broward County									
F-291	22/51/42	260010	800850	6	ND	107	1/39 to current	11.06	DCP
G-561	15/50/42	260545	800820	6	20	20	1/48 to current	10.12	Daily & CON
G-617	15/50/40	260515	802021	6	28	29	1/50 to current	9.60	Daily & CON
G-820A	9/49/42	261149	800947	4	99	100	9/67 to 10/95	12.20	DCP
G-1221	23/50/41	260458	801348	5	12	20	12/62 to current	9.51	DCP
G-2055	36/48/42	261359	800623	2.5	180	180	10/75 to current	11.65	GWL/12 & TAPE
G-2063	30/48/43	261500	800544	2.5	76.5	82	10/75 to current	5.98	GWL/12 & TAPE
G-2064	30/48/43	261501	800605	2.5	200	201	10/75 to current	9.48	GWL/12 & TAPE
G-2443	5/49/42	261337	801034	8	66	145	12/86 to current	10.92	GWL/12 & TAPE
Collier County									
C-39	36/53/29	254851	812145	5	436	484	10/49 to 7/98	5.54	GWL/12 & Pressure gauge
C-54	36/49/34	261021	805300	6	7.2	8.5	2/51 to current	15.74	Daily & CON
C-123	28/49/25	261004	814758	2	96.6	157	5/52 to 10/96	11.81	GWL/4 & TAPE
C-130	4/50/26	260901	814623	6	69	71.5	6/52 to current	7.96	GWL/12 & TAPE
C-131	1/47/30	262520	811619	8	22	54	6/52 to current	29.85	Daily & CON
C-161	27/49/26	261141	814610	2	140	165	10/71 to 10/96	5.78	GWL/4 & TAPE
C-258	3/47/29	262503	812458	4	ND	783	3/59 to current	36.46	GWL/12 & GWL/2 with pressure gauge
C-296	18/50/30	260645	812042	4	8	45	6/59 to current	18.18	Daily & CON
C-298	2/47//29	262509	812354	3	254	303	7/59 to current	33.41	GWL/12 & TAPE
C-303	27/48/26	261813	814123	3	232	300	8/59 to current	17.91	GWL/12, CI/2 & TAPE
C-304	27/48/27	261632	813818	3	232	130	8/59 to current	17.59	GWL/12, CI/2 & TAPE
C-311	25/52/29	255440	812153	4	430	450	12/59 to current	4.99	GWL/12 & pressure gauge
C-363	34/48/29	262555	812425	2	84	119	6/61 to current	35.01	GWL/12 & TAPE
C-391	22/49/25	261124	814730	4	70	75	1/65 to current	11.13	Daily & CON
C-392	22/49/25	261125	814729	8	28	30	1/65 to current	9.98	Daily & CON
C-409A	26/49/25	261024	814757	2	63	73	9/73 to 10/96	16.34	Daily & CON
C-430	23/49/25	261141	814610	2	63	65	3/65 to 10/94	10.50	Daily & CON
C-458	3/49/25	261402	814719	2	63	63	10/71 to current	11.17	GWL/12 & TAPE
C-460	2/49/25	261408	814706	2	64	66	8/73 to current	13.46	Daily & CON & CI/2
C-462	20/48/29	262726	812612	8.62	50	110	11/88 to current	37.11	Daily & CON
C-472A	34/49/25	260925	814754	2	ND	70.2	10/73 to 10/95	14.69	GWL/12 & TAPE
C-474	21/49/25	261117	814624	1.25	11.1	12.8	10/71 to 10/96	6.83	GWL/12 & TAPE
C-474A	21/49/25	261117	814624	2	63	72	9/73 to 10/96	6.67	GWL/12 & TAPE
C-489	3/49/25	261331	814732	8	63	83	5/70 to current	18.66	GWL/12, CI/2 & TAPE
C-490	10/49/25	261317	814800	2	70	71	10/71 to current	18.55	GWL/12 & TAPE
C-491	21/49/25	261117	814625	2	70	71	10/71 to 10/96	12.60	GWL/12 & TAPE

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C-492	22/47/27	262228	813619	6	60	64	10/73 to current	21.54	Daily & CON & CI/2
C-495	9/53/30	255753	811842	6	8	70	1/71 to current	10.08	GWL/12 & TAPE
C-496	28/51/29	255707	812133	6	8	57	1/71 to current	11.85	GWL/CON & Daily
C-503	23/40/29	261742	812343	6	8	20	1/72 to current	22.30	Daily & CON
C-506A	15/49/25	261232	814802	2	62.5	70.7	9/73 to 9/84 monthly 10/84 to 10/96	20.62	Daily & CON
C-515	3/49/25	261346	814802	2	63	71	2/73 to current	16.68	GWL/12 & TAPE
C-516	15/49/25	261117	814825	2	46	63	1973 to current	10.38	GWL/12 & CI/2 & TAPE
C-525	33/49/25	261000	814837	2	63	68	9/73 to 10/96	6.90	CI/2 & TAPE
C-526	28/49/25	261000	814838	2	63	68	9/73 to current	5.71	GWL/12, CI/2 & TAPE
C-528	16/49/25	261000	814838	2	63	80	9/73 to current	4.39	GWL/12, CI/2 & TAPE
C-531	7/46/29	262933	812735	4	210	240	10/75 to 10/96	44.42	Daily & CON
C-532	7/46/29	262933	812735	4	3	13	10/75 to current	44.53	GWL/12 & TAPE
C-578	9/49/26	261318	814803	4	352	652	3/79 to current	15.52	GWL/12 & GWL/2 with pressure gauge
C-598	4/49/28	261416	813054	4	32.5	36.5	9/80 to 10/96	16.54	Daily & CON
C-600	19/50/26	260552	814419	4	48	52	10/80 to current	8.76	Daily & CON
C-684	23/48/29	261742	812043	4	440	490	11/80 to current	22.37	GWL/12 & Pressure gauge
C-687	36/46/28	262554	812839	4	290	310	9/81 to current	25.92	GWL/12 & TAPE
C-688	15/48/27	261804	813547	4	220	242	9/81 to current	18.48	GWL/CON & CI/2 & TAPE
C-689	23/48/29	261742	812043	4	230	265	10/81 to current	23.37	GWL/12 & TAPE
C-690	12/50/28	260634	813235	4	43	48	10/80 to current	11.87	Daily & CON
C-948	11/49/27	261348	813516	6	370	420	10/84 to current	12.35	GWL/12 & pressure gauge
C-951	11/49/27	261349	813513	6	120	170	10/84 to current	16.27	GWL/12 & Daily & CON
C-953	11/49/27	261349	813513	6	12	40	10/84 to current	16.34	Daily & CON & CI/2
C-956	7/49/27	261346	813844	4	60	260	10/84 to current	17.42	GWL/12 & TAPE
C-963	27/47/27	262123	813559	6	310	340	10/84 to current	20.97	GWL/12 & Pressure gauge or TAPE
C-965	29/47/30	262138	812041	2	438	460	10/84 to current	26.86	GWL/12 & TAPE
C-966	29/47/30	262138	812041	6	30	40	10/84 to current	27.55	GWL/12 & TAPE
C-968	1/51/26	260337	813915	6	8	23	10/84 to current	9.35	Daily & CON
C-969	12/51/26	260239	814013	6	25	72	3/85 to current	7.39	Daily & CON
C-971	25/49/26	261722	813512	6	100	150	10/84 to 1996	20.54	GWL/12 & TAPE
C-972	6/50/28	260844	813237	6	25	40	10/84 to current	13.59	GWL/12 & TAPE
C-973	6/50/28	260844	813237	6	90	150	10/84 to current	25.66	GWL/12 & TAPE
C-974	31/49/28	260940	813239	6	400	460	10/84 to current	10.10	Daily & CON & pressure gauge
C-975	6/51/27	260251	813915	6	60	150	10/84 to current	10.10	GWL/12 & CI/2 & TAPE
C-976	31/49/27	260916	813847	6	10	40	10/84 to current	15.25	GWL/12 & TAPE
C-977	31/49/27	260916	813847	6	75	140	10/84 to current	15.94	GWL & CON & CI/2
C-978	27/47/27	262123	813559	6	15	40	10/84 to current	22.86	GWL/CON & TAPE
C-979	27/47/27	262123	813559	6	ND	ND	10/84 to current	22.30	GWL/12 & TAPE

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C-980	7/49/27	261346	813844	6	15	30	10/84 to current	17.77	GWL/12 & TAPE
C-981	24/47/28	262200	812836	6	40	60	10/84 to current	20.24	Daily & CON
C-982	24/47/28	262200	812836	6	150	160	10/84 to current	20.25	GWL/12 & TAPE
C-983	24/47/28	262200	812836	2	480	520	10/84 to current	16.70	GWL/12 & TAPE
C-984	23/48/28	261738	812854	6	30	40	10/84 to current	23.38	GWL/12 & TAPE
C-985	23/48/28	261738	812854	6	80	160	10/84 to current	24.63	GWL/12 & TAPE
C-986	18/49/30	261203	812048	6	28	40	10/84 to current	20.39	GWL/12 & TAPE
C-987	9/51/29	260310	812725	6	280	370	10/84 to 10/95	9.60	GWL/12 & pressure gauge
C-988	2/49/28	261447	812849	4	95	160	10/84 to current	20.41	Daily & CON
C-989	23/48/28	261738	812854	6	240	270	10/84 to current	24.44	GWL/12 & Daily & CON
C-995	12/52/29	255705	812134	2	28	37	3/85 to current	7.22	GWL/12 & TAPE
C-996	3/50/26	260911	814110	4	13.5	23.5	3/85 to current	13.83	GWL/12 & TAPE
C-997	27/48/26	261531	814118	4	12	22	3/85 to current	16.76	Daily & CON
C-998	19/48/25	261823	814501	4	52	62	3/85 to current	17.84	DCP
C-999	33/48/25	261509	814852	4	13	23	4/85 to current	10.70	GWL/12 & TAPE
C-1000	22/49/25	261106	814901	4	14	24	3/85 to 10/96	11.56	GWL/12 & TAPE
C-1001	21/49/25	261117	814825	4	14	24	3/85 to 10/96	12.23	GWL/12 & TAPE
C-1003	34/48/25	261439	814803	4	51	61	3/85 to 10/96	18.53	GWL/12 & TAPE
C-1004	23/48/25	261622	814644	4	52	60	3/86 to current	12.52	DCP
C-1026	15/49/25	261232	814802	4	38	28	4/86 to 10/96	20.23	GWL/12 & TAPE
C-1052	35/49/25	261141	814610	4	10	25	4/86 to current	8.05	GWL/12 & TAPE
C-1054	23/49/25	261141	814610	4	10	25	4/86 to current	12.03	GWL/12 & TAPE
C-1055	18/49/26	260912	814109	4	10	25	4/86 to current	13.37	GWL/12 & TAPE
C-1057	26/48/25	261621	814644	8	8	10.5	4/86 to current	10.89	GWL/12 & TAPE
C-1058	26/48/25	261621	814644	4	62	80	4/86 to current	13.39	GWL/12 & TAPE
C-1059	28/48/25	261608	814609	4	10	25	4/86 to current	12.82	GWL/12, CI/2 & TAPE
C-1060	34/48/25	261500	814802	4	10	25	4/86 to 10/96	15.01	GWL/12 & TAPE
C-1061	10/49/25	261313	814601	4	10	25	4/86 to current	17.78	GWL/12, CI/2 & TAPE
C-1062	34/49/25	260928	814751	4	10	24	4/86 to current	13.97	GWL/12 & TAPE
C-1063	17/51/27	260141	813757	4	30	55	4/86 to current	9.58	GWL/12 & CI/2 & TAPE
C-1064	17/51/27	260141	813757	4	84	120	4/86 to current	10.07	Daily & CON
C-1065	13/52/28	255640	812809	4	27	50	4/86 to current	6.42	GWL/12 & CI/2 & TAPE
C-1066	13/52/28	255640	812809	4	102	180	4/86 to current	4.29	GWL/12, CI/2 & TAPE
C-1067	6/51/28	260315	813231	4	30	66	4/86 to current	9.20	GWL/12 & TAPE
C-1068	6/51/28	260318	813231	4	120	200	4/86 to current	9.02	GWL/12 & TAPE
C-1069	1/50/29	260915	812143	4	20	50	4/86 to 10/95	17.57	GWL/12 & TAPE
C-1070	1/50/29	260915	812143	4	100	205	4/86 to current	17.40	GWL/12 & TAPE
C-1071	14/48/30	261814	811737	4	20	35	4/86 to current	22.98	Daily & CON
C-1072	14/48/30	261814	811737	4	140	260	4/86 to current	23.03	Daily & CON
C-1073	23/48/29	261742	812343	4	100	160	10/86 to current	23.48	GWL/12 & TAPE
C-1074	1/47/30	262520	811619	4	100	130	10/85 to current	29.94	Daily & CON
C-1075	18/46/30	262831	812157	4	8	28	4/86 to current	33.94	Daily & CON

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C-1076	18/46/30	262831	813168	4	65	85	4/86 to current	34.05	GWL/12 & TAPE
C-1077	18/46/30	262831	812158	4	170	246	4/86 to current	35.14	GWL/12 & TAPE
C-1078	31/46/29	262559	812707	4	13	38	4/8 to current	34.99	GWL/12 & TAPE
C-1079	24/47/28	262200	812836	4	298	390	10/85 to current	16.67	Daily & CON
C-1080	22/47/27	262228	813619	4	238	309	10/86 to current	23.46	GWL/12 & CL/2 & TAPE
C-1082	10/48/25	261821	814729	4	10	20	6/87 to 10/96	15.80	GWL/12 & TAPE
C-1083	10/48/25	261858	814719	4	58	74	6/87 to current	15.81	DCP & CL/2
C-1085	12/49/25	261246	814602	2	ND	60	7/89 to 10/93	9.49	GWL/12 & TAPE
C-1086	12/49/25	2812468	814601	6	68	91	7/89 to 10/95	9.60	GWL/12 & TAPE
C-1092	10/51/26	260252	814128	4	ND	19	7/93 to current	7.73	GWL/12 & TAPE
C-1093	2/49/25	261621	814644	4	ND	17	7/93 to current	13.29	GWL/12 & TAPE
C-1094	34/49/25	261498	814726	4	ND	19	7/93 to current	12.56	GWL/12 & TAPE
C-1095	22/50/26	260628	814116	4	47	50	7/93 to 10/94	11.58	GWL/12 & TAPE
C-1096	34/50/26	260458	814118	4	13	18	7/93 to 10/96	9.22	GWL/12 & TAPE
C-1097	15/48/27	261804	813547	4	15	18	7/93 to current	18.44	GWL/12 & TAPE
C-1099	28/50/26	260521	814257	4	114	124	11/93 to 10/06	9.84	Daily & CON
C-1100	26/49/25	261141	814610	4	11	16	9/93 to current	6.33	GWL/4 & TAPE
Hendry County									
HE-003	12/46/33	261859	805854	6	8.2	10	7/50-11/95	21.62	GWL/12 & TAPE
HE-005	27/44/32	263759	810741	6	8.7	13	1/41-12/95	29.72	GWL/12 & TAPE
HE-339	26/44/34	263726	805510	4	11	12.5	1/64-current	15.51	GWL/12 & TAPE
HE-516	1/43/29	264559	812231	2	270	273	1/77-current	19.54	GWL/12 & TAPE
HE-517	30/42/29	264614	812228	8	128	138	2/77-10/95	18.14	Daily & CON
HE-529	21/45/29	263810	812510	4	135	155	10/75-current	35.12	GWL/12 & TAPE
HE-554	21/45/29	263810	812510	4	5	15	10/77-current	35.24	GWL/12 & TAPE
HE-555	21/45/29	263845	812610	4	250	270	1/75-current	32.99	GWL/12 & TAPE
HE-556	21/44/29	263847	812609	4	135	155	10/75-current	32.77	Daily & CON
HE-557	28/43/28	264237	813106	4	80	100	10/75-current	20.21	GWL/12 & TAPE
HE-558	28/43/28	264237	813106	4	3	13	10/75-current	20.27	Daily & CON
HE-559	10/44/28	263930	813015	4	155	165	10/75-current	30.76	GWL/12 & TAPE
HE-560	10/44/28	263930	813015	4	70	80	10/75-current	30.87	GWL/12 & TAPE
HE-569	10/44/28	263930	813015	4	11	17	10/75-current	30.69	GWL/12 & TAPE
HE-620	19/43/29	264353	812810	2	171	350	4/76-current	19.43	GWL/12 & TAPE
HE-629	6/44/33	264133	810408	2	133	144	9/77-current	23.31	GWL/12 & TAPE
HE-851	21/44/29	263845	812610	4	5	13	10/77-current	32.26	GWL/12 & TAPE
HE-852	4/45/30	263546	812006	4	9	14	9/77-current	32.39	GWL/12 & TAPE
HE-853	32/44/31	263618	811425	4	17	61	9/77-current	32.12	GWL/12 & TAPE
HE-854	9/45/33	263510	810207	4	8	14	9/77-current	24.57	GWL/12 & TAPE
HE-855	34/45/32	263141	810736	4	70	90	1/78-current	30.13	GWL/12 & TAPE
HE-856	34/45/32	263141	810736	4	6	11	8/77-current	29.65	GWL/12 & TAPE
HE-857	10/43/31	264541	811245	4	12	17	11/77 to current	20.44	GWL/12 & TAPE

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HE-858	27/43/32	264207	810745	4	12	17	9/77 to current	24.87	GWL/12 & TAPE
HE-859	24/46/32	262735	810437	4	58	59	9/77 to current	29.10	GWL/12 & TAPE
HE-860	24/46/33	262735	810437	4	9	14	9/77 to current	29.33	GWL/12 & TAPE
HE-861	24/48/34	261806	805334	4	37	70	9/77 to current	17.96	GWL/4 & TAPE
HE-862	24/48/34	261806	805334	4	7	10	9/77 to current	17.13	Daily & CON
HE-868	22/47/33	262226	810102	4	97	84	9/77 to current	22.09	GWL/12 & TAPE
HE-884	18/48/33	261801	810425	4	62	67	9/77 to current	20.86	GWL/12 & TAPE
HE-1027	12/45/30	263510	811703	2	4	7	11/87 -01/97	31.20	GWL/12 & TAPE
HE-1028	12/45/30	263510	811703	2	20	60	11/87-1/97	32.02	GWL/12 & TAPE
HE-1029	12/45/30	263510	811703	2	92	182	11/87-1/97	31.70	GWL/12 & TAPE
HE-1036	30/45/33	263221	810409	2	5	10	10/87-current	26.68	GWL/12 & TAPE
HE-1037	30/45/33	263221	810409	2	70	120	10/87 -current	27.55	GWL/12 & TAPE
HE-1042	26/47/31	262214	811133	2	40	80	10/87-current	23.11	GWL/12 & TAPE
HE-1043	26/47/31	262214	811133	2	5	10	10/87-current	23.41	GWL/12 & TAPE
HE-1062	23/48/32	261747	810621	2	5	10	10/87 -current	18.34	GWL/12 & TAPE
HE-1063	23/48/32	261747	810621	2	78	123	10 /87-current	18.42	GWL/12 & TAPE
HE-1068	9/44/33	264043	810227	6	60	160	10/87-current	19.78	GWL/12 & TAPE
HE-1069	9/44/33	264043	810227	2	3	13	10/87-current	20.31	GWL/12 & TAPE
HE-1075	27/45/34	263207	805531	2	135	155	10/87-current	16.15	GWL/12 & TAPE
HE-1076	20/44/30	263840	812040	6	300	340	1/88-current	27.86	GWL/12 & TAPE
HE-1077	20/44/30	263840	812040	6	5	10	1/88-current	30.26	GWL/12 & TAPE
Lee County									
L-331	35/45/24	263125	815218	6	770	900	1944 to current	ND	CL/2
L-581	2/45/23	263609	815906	8	ND	177	5/66 to current	12.98	Daily & CON
L-585	21/46/23	262711	820055	8	335	475	1/64 to current	3.24	GWL/12 & Pressure gauge
L-588	35/46/22	262543	820455	4	403	557	1/64 to current	4.59	GWL/12 & Pressure gauge
L-590	26/46/26	262549	820510	4	464	620	1/64 to 10/95	5.21	GWL/12 & Pressure gauge
L-652	5/44/26	264100	814427	7	188	598	10/87 to current	8.84	GWL/12 & Pressure gauge
L-721	30/43/23	264153	820222	4	9	18	7/68 to current	8.85	GWL/12 & TAPE
L-726	7/43/26	264426	814539	4	14	19	7/68 to 10/95	17.78	GWL/12 & TAPE
L-727	11/44/27	263950	813551	4	67	71	7/68 to current	24.08	Daily & CON
L-728	25/44/25	263713	814610	4	18	19	7/68 to current	22.65	GWL/12 & TAPE
L-729	13/45/26	263337	813943	4	81	103	8/68 to current	31.80	Daily & CON
L-730	35/45/27	263129	813516	4	18.7	19	8/68 to current	33.90	Daily & CON
L-731	25/46/27	262703	813359	4	165	243	8/68 to current	27.58	Daily & CON
L-735	18/46/25	262840	815031	4	223	270	8/68 to current	7.52	GWL/12 & Pressure gauge
L-738	35/47/25	262023	814640	4	61	75	11/68 to current	11.31	DCP
L-739	30/46/26	262658	814433	4	18	20	8/68 to current	21.18	GWL/12 & TAPE
L-741	33/46/25	262553	814854	4	102	119	9/68 to current	16.15	GWL/12 & TAPE
L-742	14/45/24	263326	815224	8	136	225	10/68 to current	11.44	Daily & CON
L-761	16/44/23	263834	820053	6	82	290	6/66 to 10/95	10.01	Daily & CON

Well #	S/T/R	Latitude	Longitude	Casing Diam (inch)	Casing Depth (feet)	Total Depth (feet)	Period of Record (Month/Year)	Measuring Point Elevation (feet, NGVD)	Frequency & Type of Data (Key)
L-954	16/44/24	263901	815500	8	8	14	8/69 to 10/95	8.91	Daily & CON
L-1059	7/43/23	264514	820218	2	156	189	5/70 to current	13.81	GWL/12, Ct/2, & Pressure gauge
L-1089	36/45/24	263124	815214	2	ND	225	7/70 to 10/94	6.82	GWL/12 & TAPE
L-1106	35/35/23	264056	815924	2	143	229	5/70 to 10/96	15.06	GWL/12 & TAPE
L-1107	35/43/23	264148	815925	2	135.5	191	2/70 to 10/96	18.37	GWL/12 & TAPE
L-1108	35/43/23	264149	815827	2	137	216	2/70 to 10/96	19.40	GWL/12 & TAPE
L-1109	35/43/23	264057	815828	2	84	230	2/70 to 10/96	17.16	GWL/12 & TAPE
L-1110	35/43/23	264242	815824	2	147	238	2/70 to current	19.92	GWL/12 & TAPE
L-1111	29/43/24	264149	815623	2	ND	165	5/70 to current	20.59	GWL/12 & TAPE
L-1113	32/43/23	264127	820220	2	126	230	2/70 to current	10.54	GWL/12 & TAPE
L-1114	30/44/24	263721	815724	2	ND	172	1/70 to 10/96	11.95	GWL/12 & TAPE
L-1116	29/44/23	263616	820604	2	106	205	5/70 to 10/96	13.02	GWL/12 & TAPE
L-1117	7/45/24	263411	815610	2	ND	248	2/70 to 10/96	9.85	GWL/12 & TAPE
L-1121	13/45/23	263328	815119	2	147	220	8/70 to current	16.16	GWL/12 & TAPE
L-1124	23/45/24	263233	815501	2	128	230	8/70 to 10/96	6.80	GWL/12 & TAPE
L-1136	2/45/23	263509	815906	4	15	20	6/70 to current	12.71	GWL/12 & TAPE
L-1137	11/44/27	263950	813551	4	15	20	6/70 to current	24.14	Daily & CON
L-1138	25/46/27	262703	813339	4	15	20	6/70 to current	27.69	GWL/12 & TAPE
L-1156	14/45/24	263316	815243	2	ND	220	10/70 to 10/96	15.07	GWL/12 & TAPE
L-1403	25/46/22	262555	820355	4	3.00	12	1/71 to current	8.58	Daily & CON
L-1418	32/44/27	263631	813751	8	55	62	1/71 to current	25.31	Daily & CON
L-1598	21/45/24	263232	815502	2	137	176	7/72 to current	9.02	GWL/12 & TAPE
L-1625	13/45/26	263332	813943	2	162	210	9/75 to current	31.82	GWL/12 & TAPE
L-1634	3/47/24	262438	815348	6	740	950	1/75 to current	5.88	GWL/12 & Pressure gauge
L-1635	3/47/24	262438	815348	6	360	620	2/75 to current	4.71	GWL/12 & Pressure gauge
L-1691	36/47/25	262043	814523	4	58	69	6/73 to current	15.48	Daily & CON
L-1850	20/46/26	262707	814357	4	130	210	10/74 to current	24.73	GWL/12 & TAPE
L-1907	23/43/26	264309	814055	2	55	57	3/74 to 10/96	7.38	GWL/12 & Pressure gauge
L-1963	16/45/27	263345	813616	4	66	74	8/74 to current	33.41	GWL/12 & TAPE
L-1964	15/45/27	263345	813616	4	14	24	12/74 to current	33.40	GWL/12 & TAPE
L-1965	13/45/27	263352	813357	4	50	225	12/68 to 10/96	32.07	GWL/12 & TAPE
L-1968	21/44/26	263801	814302	4	70	165	12/74 to current	25.93	GWL/12 & TAPE
L-1973	28/44/25	263719	814850	4	172	225	9/74 to current	22.54	GWL/12 & TAPE
L-1974	28/44/25	263719	814850	4	85	136	9/74 to current	22.64	GWL/12 & TAPE
L-1975	16/43/26	264359	814245	4	102	168	12/74 to current	15.59	GWL/12 & Pressure gauge
L-1976	16/43/26	264359	814245	4	5	15	9/74 to current	15.54	GWL/12 & TAPE
L-1977	21/43/27	264319	813656	4	65	185	12/74 to current	19.69	GWL/12 & TAPE
L-1978	21/43/27	264319	813656	4	7	17	9/74 to 10/96	18.84	GWL/12 & TAPE
L-1980	33/45/26	263042	814329	4	321	345	12/74 to current	28.92	GWL/12 & Pressure gauge
L-1985	22/46/26	262712	814142	4	43	50	12/74 to current	20.90	GWL/12 & TAPE
L-1992	13/45/27	263352	813351	4	19	29	12/74 to 10/96	32.07	GWL/12 & TAPE

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L-1993	24/45/25	263252	814537	4	190	242	12/74 to current	27.91	Daily & CON
L-1994	24/45/25	263252	814537	4	70	155	12/74 to current	28.52	Daily & CON
L-1995	24/45/25	263252	814537	4	14	24	1/75 to current	28.57	Daily & CON
L-1996	35/47/26	261954	814056	4	65	295	2/75 to 10/96	17.87	Daily & CON
L-1997	35/47/26	261956	814056	4	10	20	2/75 to 10/96	17.53	Daily & CON
L-1998	33/45/26	263042	814329	4	100	160	11/74 to 10/96	29.21	Daily & CON
L-1999	33/45/26	263042	814329	4	16	26	11/74 to current	29.92	GWL/12 & TAPE
L-2186	15/45/27	263345	813616	4	133	160	8/75 to current	33.30	Daily & CON
L-2187	11/44/27	263950	813551	4	136	154	8/75 to current	24.50	GWL/12 & TAPE
L-2192	29/46/27	262701	813827	4	155	184	8/75 to current	31.06	GWL/12 & TAPE
L-2193	22/46/26	262714	814140	4	200	292	9/75 to current	22.03	Daily & CON
L-2194	32/47/26	262022	814321	4	81	137	8/75 to current	17.29	Daily & CON
L-2195	32/47/26	262000	814321	4	14	16	8/75 to current	17.26	Daily & CON
L-2200	24/43/27	264330	813406	4	122	163	9/75 to current	20.00	GWL/12 & TAPE
L-2202	24/43/27	264330	813406	4	7.4	17.4	9/75 to current	20.03	GWL/12 & TAPE
L-2204	13/45/26	263332	813943	2	147	220	8/70 to current	30.65	GWL/12 & TAPE
L-2212	13/46/23	262833	815801	4	135	236	2/84 to current	1.62	GWL/12 & Pressure gauge
L-2215	35/45/27	263129	813516	4	99	149	10/75 to current	31.54	GWL/12 & TAPE
L-2216	1/43/25	264611	814541	4	130	150	10/75 to current	28.61	GWL/12 & TAPE
L-2217	1/43/25	264611	814541	4	10	18	10/75 to current	28.63	GWL/12 & TAPE
L-2244	19/45/23	263212	815706	4	150	207	12/77 to current	8.18	GWL/12 & TAPE
L-2292	28/44/25	263719	814850	4	302	616	8/76 to current	22.30	GWL/12 & Pressure gauge
L-2295	33/46/25	262553	814854	4	300	610	7/76 to current	18.01	GWL/12 & Pressure gauge
L-2308	33/46/25	262553	814854	4	12	13.5	7/76 to current	17.99	GWL/12 & TAPE
L-2310	35/47/25	262023	814640	4	396	550	8/76 to current	10.58	GWL/12 & Pressure gauge
L-2311	15/45/27	263345	813616	4	300	625	8/76 to current	33.35	GWL/12 & Pressure gauge
L-2313	25/46/27	262703	813359	4	400	670	8/76 to current	27.66	GWL/12 & Pressure gauge
L-2316	3/45/21	262958	821116	6	535	596	3/87 to current	9.58	GWL/12 & Pressure gauge
L-2328	1/43/26	264611	814541	4	300	600	9/76 to current	28.52	GWL/12 & Pressure gauge
L-2341	7/43/25	264518	815124	4	300	585	9/96 to current	25.17	GWL/12 & Pressure gauge
L-2434	4/45/23	263508	820101	4	353	700	3/77 to current	17.33	Daily & CON
L-2435	8/45/24	263302	815600	4	352	704	3/77 to current	6.19	GWL/12 & Pressure gauge
L-2524	29/46/21	262623	820744	4	512	625	10/77 to current	7.66	GWL/12 & Pressure gauge
L-2525	26/45/22	263115	820509	4	405	645	10/77 to current	6.19	GWL/12 & Pressure gauge
L-2526	7/43/27	264514	820218	4	300	605	1/78 to 9/96	13.83	GWL/12 & Pressure gauge
L-2527	6/44/22	263953	820831	4	360	605	1/78 to current	10.74	GWL/12 & Pressure gauge
L-2528	11/44/23	263910	815925	4	420	625	1/78 to current	12.27	GWL/12 & Pressure gauge
L-2529	7/46/24	262915	815624	4	304	545	1/78 to current	6.04	GWL/12 & Pressure gauge
L-2530	23/43/26	264308	814049	2	475	614	1/78 to current	9.90	GWL/12 & Pressure gauge
L-2531	10/43/27	264435	813623	4	345	605	3/78 to current	20.66	GWL/12 & Pressure gauge

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L-2549	6/44/22	263953	820831	4	58	80	1/78 to current	10.80	GWL/12 & TAPE
L-2550	22/46/26	262712	814137	6	67	134	3/92 to current	21.07	Daily & CON
L-2583	21/46/22	262652	820702	4	610	650	2/78 to current	8.02	GWL/12 & Pressure gauge
L-2640	20/44/24	263804	815508	4	120	180	5/78 to current	10.14	GWL/12 & TAPE
L-2641	36/44/23	263510	815710	4	118	170	5/78 to 10/96	11.04	GWL/12 & TAPE
L-2642	14/45/23	263216	815716	4	108	160	5/78 to current	7.82	GWL/12 & TAPE
L-2643	17/45/23	263216	820115	4	141	200	5/78 to current	9.28	GWL/12 & TAPE
L-2644	5/45/23	263413	820204	4	128	180	5/78 to current	10.71	Daily & CON
L-2645	24/44/22	263742	820414	4	160	210	5/78 to current	8.24	GWL/12 & Pressure gauge
L-2646	4/43/24	264539	815521	4	170	220	5/78 to current	23.16	GWL/12 & TAPE
L-2700	5/44/23	264002	820129	4	165	205	10/78 to current	9.54	GWL/12 & Pressure gauge
L-2701	14/44/23	263819	815850	4	175	206	10/78 to current	15.72	Daily & CON
L-2702	31/44/24	263607	815816	4	120	155	10/78 to current	11.65	Daily & CON
L-2703	12/45/23	263316	815716	4	120	159	10/78 to 10/96	7.88	Daily & CON
L-2820	6/44/22	263953	820831	4	192	241	10/78 to current	10.56	GWL/12 & Pressure gauge
L-2821	26/45/22	263115	820509	4	290	340	10/78 to current	6.65	GWL/12 & Pressure gauge
L-3206	17/45/23	263216	820115	1.25	8	18	5/78 to 10/96	9.13	GWL/12 & TAPE
L-3207	5/45/23	263413	820204	1.25	8	18	5/78 to current	8.91	GWL/12 & TAPE
L-4820	6/44/24	264057	815725	4	128	190	3/81 to 10/96	16.67	GWL/12 & TAPE
L-5641	33/45/25	263114	814834	4	940	1410	5/84 to current	27.80	GWL/12 & Pressure gauge
L-5648	22/45/24	263252	814758	4	118	123	6/82 to current	24.01	GWL/12 & TAPE
L-5649	10/46/25	262935	814714	4	118	128	10/82 to current	25.10	Daily & CON
L-5664	36/46/26	262516	813938	4	180	300	11/82 to current	24.12	GWL/12 & TAPE
L-5665	36/46/26	262516	813938	4	32	37	11/82 to 10/96	23.60	GWL/12 & TAPE
L-5666	33/46/26	262517	814326	4	140	220	4/83 to 10/96	18.43	GWL/12 & TAPE
L-5667	33/46/26	262517	814326	4	22	32	4/83 to current	19.09	GWL/12 & TAPE
L-5668	2/46/25	262514	814717	4	106	155	11/82 to 10/96	18.47	GWL/12 & TAPE
L-5669	2/46/25	262514	814717	4	23	30	11/82 to current	18.30	GWL/12 & TAPE
L-5672	8/47/26	262331	814338	4	23	38	5/83 to current	19.20	GWL/12 & TAPE
L-5673	8/47/26	262331	814338	4	130	135	5/83 to current	18.22	GWL/12 & TAPE
L-5708	10/43/27	264431	813609	6	620	920	9/84 to current	21.55	GWL/12 & Pressure gauge
L-5720	22/45/24	263252	814758	4	20	30	4/86 to current	24.40	GWL/12 & TAPE
L-5721	10/46/25	262935	814714	4	17	27	3/86 to 10/96	22.72	GWL/12 & TAPE
L-5722	26/47/25	262105	814645	4	11	21	3/86 to current	13.36	GWL/12 & TAPE
L-5723	26/47/26	262105	814645	4	55	140	3/86 to current	13.10	GWL/12 & TAPE
L-5724	4/48/25	261948	814906	4	25	35	4/86 to 10/96	14.39	GWL/12 & TAPE
L-5725	4/48/25	261948	814906	6	65	128	4/86 to current	14.96	GWL/12 & TAPE
L-5726	4/48/25	261859	814729	4	22	32	4/86 to current	13.90	GWL/12 & TAPE
L-5727	4/48/25	261859	814729	4	65	100	4/86 to 10/96	13.95	Real-time & DCP
L-5730	9/47/25	262352	814853	4	27	40	10/87 to current	16.34	GWL/12 & TAPE
L-5731	9/47/25	262351	814854	4	90	120	1/87 to 10/96	15.78	GWL/12 & TAPE
L-5734	18/46/22	262756	820909	4	440	800	10/89 to current	4.44	GWL/12 & Pressure gauge

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L-5735	20/46/22	262709	820801	1.25	740	770	3/87 to current	4.50	GWL/12 & Pressure gauge
L-5737	20/46/22	262709	820801	4	665	700	3/87 to current	4.50	GWL/12 & Pressure gauge
L-5744	1/48/25	261926	814547	4	10	15	6/87 to current	13.34	GWL/12 & TAPE
L-5745	1/48/25	261926	814547	4	57	105	1/87 to current	13.60	DCP
L-5746	15/47/25	262259	814716	4	10	15	7/87 to current	15.39	GWL/12 & TAPE
L-5747	15/47/25	262259	814716	4	59	105	7/87 to current	15.66	GWL/12 & TAPE
L-5766	26/45/21	263138	821127	4	686	730	4/89 to current	7.57	GWL/12 & Pressure gauge
L-5801	33/45/25	263114	814834	1	450	635	3/92 to current	27.80	GWL/12 & Pressure gauge
Martin County									
M-1004	30/38/42	270835	801056	6	17	17	10/73 to current	10.76	Daily & CON
M-1024	19/40/43	265822	800527	6	80	83	12/75 to current	26.02	DCP
M-1037	22/39/39	270941	802504	2	ND	24	11/75 to current	33.00	GWL/12 & TAPE
M-1039	19/40/43	265822	800527	2	123	180	1/76 to current	24.21	GWL/12 & TAPE
M-1043	ND	271354	801326	2	152	210	ND	25.41	GWL/12 & TAPE
M-1044	27/39/42	270320	800733	2	163	200	11/74 to current	12.71	GWL/12 & TAPE
M-1045	30/40/40	265728	802226	2	ND	23	8/75 to current	25.90	GWL/12 & TAPE
M-1048	6/40/39	270124	802802	4	25	80	3/75 to current	35.83	Daily & CON
M-1049	ND	270331	801822	ND	ND	80	1/75 to 11/96	ND	GWL/12 & TAPE
M-1052	30/38/42	270821	801116	2	123	162	1/75 to current	6.40	GWL/12 & TAPE
M-1057	9/39/42	270543	800847	2	69	75	5/87 to current	15.93	GWL/12 & TAPE
M-1066	17/39/38	270442	803323	2	ND	30	11/75 to 5/97	34.20	GWL/12 & TAPE
M-1070	12/40/42	270012	800602	2	116	310	1/86 to current	21.04	GWL/12 & TAPE
M-1071	12/40/42	270002	800632	2	114	118	12/75 to current	13.05	GWL/12 & TAPE
M-1072	12/40/42	270002	800632	2	30	34	5/82 to current	14.87	GWL/12 & TAPE
M-1073	2/40/42	270117	800703	2	ND	54	12/75 to current	20.49	GWL/12 & TAPE
M-1080	ND	270028	802654	ND	ND	24	11/75 to 10/88	ND	GWL/12 & TAPE
M-1081	34/39/40	270221	802219	2	ND	24	4/79 to current	29.13	GWL/12 & TAPE
M-1083	18/40/41	265917	801641	2	19	24	5/76 to current	24.03	GWL/12 & TAPE
M-1085	13/40/38	265927	802860	2	ND	83	4/76 to current	27.44	GWL/12 & TAPE
M-1086	18/40/38	265937	803420	2	45	45	5/76 to current	28.27	GWL/12 & TAPE
M-1088	18/40/38	265937	803421	2	100	180	5/88 to current	25.70	GWL/12 & TAPE
M-1092	26/39/42	270311	800722	2	155	260	11/76 to current	7.12	GWL/12 & TAPE
M-1095	12/40/42	270042	800614	2	95	240	5/81 to current	30.75	GWL/12 & TAPE
M-1096	18/40/41	265917	801641	2	105	240	5/88 to current	22.48	GWL/12 & TAPE
M-1229	21/40/42	265845	800900	2	140	150	5/88 to current	9.80	GWL/12 & CI & TAPE
M-1230	14/40/42	265906	800717	2	125	135	5/88 to current	8.90	GWL/12 & TAPE
M-1231	28/40/41	265726	801419	2	115	182	10/88 to current	22.75	GWL/12 & TAPE
M-1232	21/40/42	265845	800900	2	17.5	17.5	5/88 to current	9.72	GWL/12 & CI & TAPE
M-1233	14/40/42	265906	800717	2	11.5	16.5	5/88 to current	8.81	GWL/12 & TAPE
M-1234	18/40/41	265725	801418	6	18	18	10/88 to current	23.65	Daily & CON
M-1235	27/39/41	270240	801348	2	160	160	10/88 to current	17.22	GWL/12 & TAPE

Well #	S/T/R	Latitude	Longitude	Casing Diam (Inch)	Casing Depth (feet)	Total Depth (feet)	Period of Record (Month/Year)	Measuring Point Elevation (feet, NGVD)	Frequency & Type of Data (Key)
M-1236	22/39/40	270424	801910	2	105	140	10/88 to current	24.82	GWL/12 & TAPE
M-1237	10/39/39	270428	802601	2	160	160	10/88 to current	26.84	GWL/12 & TAPE
M-1238	4/39/39	270651	802601	2	122	122	10/88 to current	27.16	GWL/12 & TAPE
M-1239	23/39/40	270331	801822	2	107	130	10/88 to 11/93	23.00	GWL/12 & TAPE
M-1240	6/38/39	271213	802854	2	125	130	10/88 to current	29.17	GWL/12 & TAPE
M-1244	36/39/39	270210	802357	2	30	30	10/88 to current	33.70	GWL/12 & TAPE
M-1247	4/38/40	271217	802007	2	107	107	10/88 to current	21.76	GWL/12 & TAPE
M-1248	1/38/39	271218	802006	2	50	60	10/88 to current	31.72	GWL/12 & TAPE
M-1249	34/38/38	270723	803122	2	13	23	10/88 to current	44.72	GWL/12 & TAPE
M-1252	32/39/38	270150	803259	2	87.8	148	5/89 to current	24.29	GWL/12 & TAPE
M-1253	34/38/41	270721	801403	2	111	157	4/89 to current	18.40	GWL/12 & TAPE
M-1255	18/38/39	270913	802649	4	26.6	28.4	5/89 to current	31.15	Daily & CON
M-1257	34/38/41	270720	801402	6	19.8	22.7	4/89 to 10/96	19.93	Daily & CON
M-1258	27/39/42	270320	800733	2	19	18.2	4/89 to current	10.44	GWL/12 & TAPE
M-1259	28/39/42	270238	800947	2	37.0	37.7	4/89 to current	14.87	GWL/12 & TAPE
M-1261	6/39/41	270609	801634	6	20.00	23.00	5/89 to current	18.84	Daily & CON
M-1263	22/39/39	270401	802549	2	14.7	15.0	5/89 to current	26.32	GWL/12 & TAPE
M-1267	17/38/41	270947	801531	2	110	110	5/90 to current	4.32	GWL/12 & TAPE
M-1269	6/34/42	270619	801003	2	23	23	5/90 to current	19.54	GWL/12 & TAPE
M-1270	27/39/41	270240	801346	2	21	21	5/90 to current	15.60	GWL/12 & TAPE
M-1271	12/40/41	270460	801224	2	26	26	5/90 to current	13.80	GWL/12 & TAPE
M-1272	12/40/41	270011	801214	2	23	23	5/90 to current	16.40	GWL/12 & TAPE
M-1273	22/39/40	270429	801910	2	19.5	20	5/90 to current	25.00	GWL/12 & TAPE
M-1274	35/39/40	270723	801909	2	22.5	22.5	5/90 to current	22.47	GWL/12 & TAPE
M-1276	5/39/40	270621	802120	2	142	142	5/90 to current	34.34	GWL/12 & TAPE
M-1277	5/39/40	270621	802120	2	27	27	5/90 to current	34.46	GWL/12 & TAPE
Miami-Dade County									
G-580A	11/55/40	254000	801810	6	4	22	9/60 to current	11.70	DCP
G-596	14/55/38	253816	803044	6	11	13	1/49 to current	10.76	Daily & CON
G-613	3/58/38	252425	803200	6	18	21	1/50 to current	9.13	DCP
G-614	21/56/39	253258	802643	6	18	20	1/50 to current	14.39	Daily & CON
G-616	14/48/41	261710	801350	6	15	15	1/52 to current	16.01	Daily & CON
G-618	12/54/37	254540	803600	6	11	20	1/50 to current	10.15	Daily & CON
G-620	30/55/36	254000	804600	6	6	16	1/50 to current	9.85	DCP
G-757A	1/56/38	253537	802844	6	ND	33	1/56 to current	12.56	Daily & CON
G-852	20/52/42	255437	801032	6	ND	20	1/59 to current	8.38	DCP
G-853	35/48/42	261434	800719	4	27	27	1/60 to current	22.14	Daily & CON
G-855	6/55/39	254038	802802	6	ND	20	1/58 to current	9.45	Daily & CON
G-858	15/55/39	253854	802428	6	ND	20	1/59-11/94	10.22	Daily & CON
G-968	9/52/39	255600	802700	16	ND	50	4/60 to current	10.85	Daily & CON

Well #	S/T/R	Latitude	Longitude	Casing Diam (inch)	Casing Depth (feet)	Total Depth (feet)	Period of Record (Month/Year)	Measuring Point Elevation (feet, NGVD)	Frequency & Type of Data (Key)
G-970	6/52/40	255709	802237	6	ND	15	1/58 to current	10.75	DCP
G-972	16/52/39	255500	802640	6	ND	15	1/58 to current	12.39	DCP
G-973	5/53/40	255209	802128	6	ND	15	4/58 to current	9.30	Daily & CON
G-975	32/52/36	255208	802740	6	ND	15	7/58 to current	14.53	DCP
G-976	22/53/39	254918	802533	6	ND	15	1/59 to current	12.38	DCP
G-1183	12/57/39	252918	802342	9	ND	47	1/69 to current	8.05	DCP
G-1260	1/48/42	261903	800656	6	ND	90	1/61 to current	12.21	DCP
G-1604A	11/55/40	254021	801830	2.5	ND	62	10/75 to current	9.88	GWL/12 & TAPE
G-2147	30/48/43	261501	800607	6	ND	18	10/74 to current	11.62	DCP
G-2852	33/47/42	261938	801010	2	130	130	10/88 to current	18.74	GWL/12 & TAPE
G-2853	33/47/42	261938	801010	2	16	16	10/88 to current	16.29	GWL/12 & TAPE
G-3272	9/55/38	253952	803215	4	7.5	10	11/94-current	9.40	GWL/CON
G-3336	31/58/38	252014	803357	2	ND	38	11/84 to current	4.53	GWL/12 & TAPE
G-3337	6/59/38	251912	803357	2	ND	100	11/84 to current	4.89	GWL/12 & TAPE
G-3338	34/58/38	252014	803128	2	ND	58	10/84 to current	9.52	GWL/12 & TAPE
G-3339	34/58/39	251957	803128	2	ND	57.5	10/84 to current	7.72	GWL/12 & TAPE
G-3340	3/59/38	251902	803124	2	ND	48	10/84 to 02/97	4.92	GWL/12 & TAPE
G-3342	19/58/39	252228	802755	2	ND	78	10/84 to current	5.14	GWL/12 & TAPE
G-3344	7/58/39	252334	802601	2	ND	58.5	10/84 to current	3.40	GWL/12 & TAPE
G-3345	23/57/39	252719	802412	2	ND	79	2/85 to 10/95	3.90	GWL/12 & TAPE
G-3348	4/58/39	252502	802543	2	ND	61.7	1/86 to current	2.63	GWL/12 & TAPE
G-3349	34/58/38	252027	802937	2	ND	68	1/85 to current	8.41	GWL/12 & TAPE
G-3350	23/58/38	252120	802936	2	ND	83.4	1/86 to 9/93	3.59	GWL/12 & TAPE
G-3353	18/59/38	251744	803414	6	ND	8	9/85 to current	4.71	Daily & CON
G-3354	7/59/39	251855	802834	6	ND	8	9/85 to current	7.27	Daily & CON
G-3355	11/58/38	252332	803005	6	ND	13	8/85 to current	7.73	DCP
G-3356	34/57/39	252506	802541	6	ND	13	10/85 to current	5.09	DCP
G-3465	25/53/40	254823	801752	4	28.8	28.8	1/88 to current	10.35	DCP
S-196A	35/56/38	253029	802956	6	ND	20	1/32 to current	13.48	DCP
Palm Beach County									
PB-1590A	28/43/41	264209	801512	2	18	20	12/86-current	20.15	GWL/12 & TAPE
PB-099	4/44/43	264014	800335	6	18	18	7/48-current	16.69	Daily & CON
PB-445	10/45/42	263328	800952	4	11.4	11.4	1/64-current	22.66	Daily & CON
PB-561	30/43/42	264230	801205	6	ND	11.3	10/70-current	20.81	Daily & CON
PB-565	25/40/42	265812	800539	6	ND	21.9	10/70-current	17.24	DCP
PB-595	30/40/43	265803	800522	2	114	115	10/75-current	22.41	GWL/12 & TAPE
PB-596	28/41/43	265159	800311	2	62	62	6/75-current	6.77	GWL/12 & TAPE
PB-618	28/42/43	264659	800351	2	32	36	2/75-7/95	14.00	GWL/4 & TAPE
PB-620	28/42/43	264730	800355	2	32	36	9/90-current	11.75	GWL/12 & Cl & TAPE
PB-632	28/42/43	264646	800314	2	ND	252	10/72-current	9.38	GWL/2 & TAPE

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PB-633	28/42/43	264646	800314	2	ND	19	5/88-current	9.24	GWL/12 & TAPE
PB-683	37/44/41	263524	801243	6	17	17	10/73-current	20.85	Daily & CON
PB-685	33/47/42	264731	800355	6	17	17	10/88-current	19.32	Daily & CON
PB-689	4/41/40	265633	802030	6	17	17	5/83-current	27.43	Daily & CON
PB-690	21/46/43	262711	800408	2	72	72	2/76-current	12.32	GWL/12 & CI & TAPE
PB-692	9/46/43	262853	800354	2	231	279	2/76-current	13.33	GWL/12 & TAPE
PB-693	34/44/43	263629	800307	2	ND	275	10/75-current	7.04	GWL/12 & TAPE
PB-694	27/44/43	263627	800306	2	166	249	10/76-current	8.44	GWL/12 & TAPE
PB-710	28/41/43	265214	800312	2	18	23	10/80-current	17.16	GWL/12 & CI & TAPE
PB-715	6/42/41	265114	801731	2	10	15	10/75-current	26.01	GWL/12 & TAPE
PB-716	6/42/41	265114	801731	2	10	15	10/75-current	25.81	GWL/12 & TAPE
PB-717	26/41/40	265518	801717	ND	ND	25	10/75-current	24.51	GWL/12 & TAPE
PB-719	11/42/42	265018	800742	2	ND	26	10/75-6/96	18.86	GWL/12 & TAPE
PB-733	11/43/42	264423	800735	2	160	165	3/74-current	18.18	GWL/12 & TAPE
PB-746	30/40/43	265603	800525	1.25	82	83	10/75-current	18.83	GWL/12 & CI & TAPE
PB-750	15/44/41	263815	801610	2	80	83	5/76-current	16.60	GWL/12 & TAPE
PB-751	15/44/41	263815	801610	2	ND	25	9/75-current	16.68	GWL/12 & TAPE
PB-767	11/43/42	264423	800735	2	39	40	9/74-current	19.45	GWL/12 & TAPE
PB-789	2/41/42	265538	800718	2	ND	110	10/75-current	6.86	GWL/12 & CI & TAPE
PB-795	28/42/43	264659	800351	2	200	200	10/88-7/95	13.00	GWL/4 & TAPE
PB-809	31/43/43	264123	800538	4	145	150	6/75-current	16.65	Daily & CON
PB-830	2/42/39	265104	802443	4	120	120	12/74-current	24.10	GWL/12 & TAPE
PB-831	2/42/39	265106	802414	4	21	25	11/74-current	26.47	Daily & CON
PB-832	3/41/42	265615	800802	4	141	153	12/74-current	13.72	GWL/12 & CI & TAPE
PB 834B	3/45/43	263451	800300	2	185	185	12/74-current	7.77	GWL/12 & CI & TAPE
PB-835B	34/43/43	264103	800259	2	91	91	12/74-7/95	3.70	GWL/4 & TAPE
PB-846	3/45/43	263451	800309	2	91	160	12/74-current	7.44	GWL/12 & TAPE
PB 847	34/43/43	264103	800260	2	ND	100	12/74-current	4.60	GWL/12 & TAPE
PB-875	17/41/42	265437	801031	2	20	24	11/88-current	18.46	GWL/12 & CI & TAPE
PB-880	17/41/42	265437	801031	4	118	118	5/83-current	17.06	GWL/12 & CI & TAPE
PB-888	27/44/43	263627	800304	2	ND	26	10/76-current	8.25	GWL/12 & TAPE
PB-889	27/44/43	263627	800304	2	ND	196	1/76-current	8.25	GWL/12 & TAPE
PB 900	27/46/42	262534	800851	4	63	63	2/76-current	22.31	Daily & CON
PB-935	31/42/42	263607	801138	2	44	48	4/77-current	19.14	GWL/12 & TAPE
PB-945	21/46/43	262711	800410	2	ND	181.4	11/76-current	14.80	GWL/12 & CI & TAPE
PB-949	27/44/43	263629	800307	2	196	297	3/77-current	8.02	GWL/12 & TAPE
PB-1089	27/43/42	264225	800848	2	ND	160	7/80-current	15.78	GWL/12 & TAPE
PB-1097	23/45/41	263145	801343	2	ND	160	7/80-current	25.85	GWL/12 & TAPE
PB 1107	21/46/41	262808	801317	2	105	105	7/80-current	25.27	GWL/12 & TAPE
PB-1108	2/47/41	262406	801413	2	80	90	7/80-current	25.92	GWL/12 & TAPE
PB-1152	8/44/41	263939	801643	2	110	115	5/83-current	15.81	GWL/12 & TAPE
PB 1153	3/44/41	264027	801350	2	40	45	10/83-7/95	16	GWL/4 & TAPE

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PB-1155	20/42/44	263755	801019	2	75	80	5/83-current	16.05	GWL/12 & Cl & TAPE
PB-1157	26/43/41	264219	801336	2	95	100	5/83-current	18.19	GWL/12 & TAPE
PB-1525	25/41/41	265257	801234	2	20	22	11/87-current	19.15	GWL/12 & TAPE
PB-1534	32/42/41	264553	801645	2	20	22	11/87-current	21.46	GWL/12 & TAPE
PB-1536	35/42/41	264558	801323	2	20	22	11/87-current	19.45	GWL/12 & TAPE
PB-1544	8/44/42	263857	801010	6	230	230	11/87-current	17.24	GWL/12 & TAPE
PB-1547	3/41/41	265805	801355	6	115	120	11/87-current	19.54	GWL/12 & TAPE
PB-1548	3/41/41	265805	801355	2	60	60	11/87-current	19.19	GWL/12 & TAPE
PB-1573	25/46/41	262548	801216	2	60	70	11/87-current	16.54	GWL/12 & TAPE
PB-1574	25/46/41	262548	801216	2	223	240	11/87-current	18.65	GWL/12 & TAPE
PB-1576	14/45/41	263256	801333	2	160	160	11/93-current	17.00	GWL/12 & TAPE
PB-1577	14/45/41	263256	801333	6	148	150	5/93-current	17.00	GWL/12 & TAPE
PB-1578	29/44/43	263700	800520	2	ND	226	11/87-current	12.39	GWL/12 & TAPE
PB-1583	28/43/41	264209	801511	2	150	160	12/86-current	19.59	GWL/12 & TAPE
PB-1595	30/44/41	263607	801138	2	ND	118.05	5/94-current	19.17	GWL/12 & TAPE
PB-1602	18/45/43	263245	800620	2	50	50	11/87-current	16.11	GWL/12 & TAPE
PB-1603	18/45/43	263245	800620	2	180	180	5/89-6/97	15.54	GWL/12 & TAPE
PB-1605	24/46/42	262633	800622	2	250	250	11/87-current	13.31	GWL/12 & TAPE
PB-1608	29/41/42	265250	801039	6	150	150	5/88-current	17.75	GWL/12 & TAPE
PB-1613	14/41/39	265427	802413	2	162	162	5/88-9/96	25.07	GWL/12 & TAPE
PB-1615	14/41/39	265427	802413	2	ND	20	5/88-9/96	25.45	GWL/12 & TAPE
PB-1618	35/47/42	261950	800738	2	20	20	5/88-7/95	37.00	GWL/12 & TAPE
PB-1620	20/47/42	262100	801024	2	20	20	5/88-current	17.31	GWL/12 & TAPE
PB-1621	27/46/42	262553	800648	2	20	20	5/88-11/96	20.47	GWL/12 & TAPE
PB-1622	24/46/42	262634	800622	2	21	21	5/88-current	13.68	GWL/12 & TAPE
PB-1623	25/46/41	262548	801216	2	22.50	22.50	4/86-current	18.12	GWL/12 & TAPE
PB-1624	ND	262738	800418	ND	ND	ND	ND	ND	ND
PB-1625	33/46/43	263015	800408	2	22.5	23	5/88-current	21.81	GWL/12 & TAPE
PB-1626	33/46/43	263015	800408	2	108	108	5/88-current	22.21	GWL/12 & TAPE
PB-1627	36/45/42	263022	800660	2	20	20	5/88-current	18.41	GWL/12 & TAPE
PB-1628	36/45/42	263022	800660	2	109	109	5/88-current	18.42	GWL/12 & TAPE
PB-1630	3/47/41	262406	801413	2	29.8	30	5/88-current	26.05	GWL/12 & TAPE
PB-1631	11/46/41	262808	801317	2	29	29	5/88-current	25.38	GWL/12 & TAPE
PB-1632	23/45/41	263145	801343	2	30	30	5/88-current	25.85	GWL/12 & TAPE
PB-1633	15/45/42	263324	800851	2	120	120	10/88-current	21.11	GWL/12 & TAPE
PB-1634	15/45/42	263324	800851	4	25	25	5/88-current	20.90	GWL/12 & TAPE
PB-1635	36/44/42	263529	800651	2	24	24	10/88-current	18.06	GWL/12 & TAPE
PB-1636	36/44/42	263529	800651	2	79	79	10/88-current	18.24	GWL/12 & TAPE
PB-1637	05/47/42	265027	801002	2	21.7	22	10/88-1/95	20.00	GWL/12 & TAPE
PB-1638	28/44/43	263656	800335	2	25	25	10/88-current	17.16	GWL/12 & TAPE
PB-1639	28/44/43	263656	800335	4	25	25	5/89-current	18.45	Daily & CON
PB-1641	37/44/41	263524	801245	4	125	125	10/88-current	20.40	GWL/12 & TAPE

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PB-1642	30/41/43	265233	800540	4	20	21	10/88-current	16.05	Daily & CON
PB-1643	30/41/43	265233	800541	2	87	92	10/88 current	14.43	GWL/12 & TAPE
PB-1644	29/44/43	263700	800520	1.5	ND	26.2	5/88-2/97	14.34	GWL/12 & TAPE
PB-1645	8/44/43	264033	800609	1.5	ND	27.5	5/88-current	16.47	GWL/12 & TAPE
PB-1646	5/44/43	264033	800609	8	ND	98.1	5/88-current	16.37	GWL/12 & TAPE
PB-1647	16/46/43	262739	800419	2	113	113	5/88-current	24.51	GWL/12 & TAPE
PB-1648	6/41/42	265609	801035	2	20	20	10/88-current	16.47	GWL/12 & TAPE
PB-1649	6/41/42	265609	801035	2	165	165	10/88-current	18.31	GWL/12 & TAPE
PB-1662	24/42/41	264839	801150	4	23	25	10/91-current	24.56	Daily & CON
St. Lucie County									
PG-001	15/35/40	272553	801917	2	36.5	40	5/76 to current	32.79	GWL/12 & TAPE
PG-005	29/34/40	272908	802144	2	25.1	30	5/76 to current	22.9	GWL/12 & TAPE & Cl
PG-007	20/35/40	272426	802150	2	24	24	5/76 to current	17.18	GWL/12 & TAPE
PG-010	28/35/39	272346	802625	2	ND	26	5/76 to 6/96	19.66	GWL/12 & TAPE
PG-012	5/34/39	273304	802653	2	ND	22	5/76 to current	21.04	GWL/12 & TAPE
PG013N	5/34/38	273256	803247	2	58	58	9/76 to current	26.78	GWL/12 & TAPE
PG-015E	18/35/39	272610	802619	2	ND	58	9/76 to current	26.57	GWL/12 & TAPE
PG-016	11/35/38	272717	803049	2	25	25	5/96 to current	23.00	GWL/12 & TAPE
PG-025	3/37/40	271731	801940	2	27	27	5/96 to 9/96	12.10	GWL/12 & TAPE
PG 026	17/36/40	272056	802146	2	23	23	5/76 to current	21.91	GWL/12 & TAPE
STL-123	28/36/38	271853	803237	4	13	13	5/88 to 9/96	26.81	GWL/12 & TAPE
STL-125	23/35/39	272525	802428	4	12	12	1/07 to current	23.16	GWL/12 & TAPE
STL-130	3/36/39	272226	802520	1.25	12.81	15	5/88 to current	24.73	GWL/12 & TAPE
STL-134	36/36/38	271823	802952	2	12.81	15	5/88 to current	25.76	GWL/12 & TAPE
STL-136	30/35/40	272425	802235	1.25	12.22	14	5/88 to current	17.14	GWL/12 & TAPE
STL-172	35/35/40	272316	801836	6	26	30	5/88 to current	20.38	Daily & CON
STL-298	35/35/40	272316	801835	2	100	130	9/90 to current	19.44	GWL/12 & TAPE
STL 173	35/36/40	271755	801819	2	47	162	9/75 to current	12.95	GWL/12 & TAPE
STL-174	36/36/40	271754	801706	2	26	30	2/75 to current	18.68	GWL/12 & TAPE
STL 175	32/36/41	271755	801530	6	68	200	2/75 to current	21.66	Daily & CON
STL-176	32/36/41	271755	801530	6	26	30	2/74 to current	22.20	Daily & CON
STL 177	32/36/41	272552	801916	2	202	202	12/87 to 12/92	30.37	GWL/12 & TAPE
STL-180	31/37/39	271226	802855	2	ND	26	9/76 to current	29.76	GWL/12 & TAPE
STL-185	23/37/38	271440	802955	4	113	115	09/76 to current	30.33	DAILY & CON
STL-191	10/35/40	272703	801949	2	90	133	1/87 to current	8.16	GWL/12 & TAPE
STL-192	4/35/40	272805	802019	2	ND	95	9/76 to current	21.47	GWL/12 & TAPE
STL-214	11/37/39	271618	802458	6	70	134	5/88 to current	28.40	Daily & CON
STL 264	17/34/39	273109	802703	6	90	124	5/88 to current	24.00	Daily & CON
STL-213	26/35/39	272427	802402	6	70	134	5/88 to current	17.79	Daily & CON
STL 266	6/34/40	273318	802213	2	41.5	42	5/89 to current	35.64	GWL/12 & TAPE
STL-267	13/34/38	273118	802948	6	ND	20	5/91 to current	26.62	GWL/12 & TAPE

Well #	S/T/R	Latitude	Longitude	Casing Diam (inch)	Casing Depth (feet)	Total Depth (feet)	Period of Record (Month/Year)	Measuring Point Elevation (feet, NGVD)	Frequency & Type of Data (Key)
STL-269	13/34/38	272223	802318	2	22	22	5/91to current	21.52	GWL/12 & TAPE
STL-270	14/37/40	271457	801902	2	23	23	5/89 to current	7.68	GWL/12 & TAPE
STL-271	17/37/40	271508	802116	2	23	23	10/89 to current	16.81	GWL/12 & TAPE
STL-276	6/37/41	271649	801657	2	22.5	22.5	5/89 to current	14.27	GWL/12 & TAPE
STL-277	5/37/41	271655	801600	2	18.5	21.5	5/89 to current	19.30	GWL/12 & TAPE
STL-278	12/36/40	272110	801747	2	23.5	26.5	5/91 to current	16.96	GWL/12 & TAPE
STL-279	10/36/38	272159	803052	2	ND	132	12/92 to current	22.75	GWL/12 & TAPE
STL-286	17/35/39	272603	803249	2	ND	80	11/92to current	26.20	GWL/12 & TAPE
STL-287	17/35/38	272603	803249	2	ND	132	11/92 to current	26.48	GWL/12 & TAPE
STL-294	15/35/40	272552	801916	2	ND	153	9/90 to current	33.05	GWL/12 & TAPE
STL-295	18/35/97	272610	802819	2	ND	115	5/91 to current	27.41	GWL/12 & TAPE
STL-313	10/36/37	272138	803741	6	30	122	1/93 to current	31.69	Daily & CON
STL-41	15/37/37	271638	803706	6	13	17	1/50 to current	31.27	Daily & CON
STL-42	7/35/37	272655	804016	6	13	18	1/50 to current	30.71	Daily & CON

Key

DCP	Data Collection Platform
CON	Continuous Recorder
TAPE	Measuring tape or electronic sensor
Pressure	Gauge that measures head pressures above the sonde
GWL/12	Ground Water Levels measured monthly
GWL/4	Ground Water Levels measured quarterly
GWL/2	Ground Water Level measured twice per year
Cl/2	Chlorides collected twice per year
ND	No data

APPENDIX A-3: Summary of FAS Ground Water Level Monitoring Network

Appendix A-3, summarizes the USGS/SFWMD ground water monitoring network for the Floridan Aquifer System. The summaries include: well identification, geographic location, well construction, measuring point, and frequency type of data collected.

USGS/SFWMD
1998 FAS GROUND WATER LEVEL MONITORING NETWORK

Well_Id	Latitude	Longitude	Casing Diam. (inch)	Casing Depth (feet)	Total Depth (feet)	Measuring Point Elevation (feet, NGVD)	Frequency & Type of Data
Broward County							
* ALLIGATOR ALLEY (G-2617)	261016	804920	2**	1648	1726	16.03	MONTHLY/PRESSURE
* ALLIGATOR ALLEY (G-2618)	261016	804920	2**	1104	1164	16.17	MONTHLY/PRESSURE
* ALLIGATOR ALLEY (G-2619)	261016	804920	16	995	1052	16.00	MONTHLY/PRESSURE
BF-1	261023	801048	2	2100	2250	12.2	MONTHLY/TAPE
* BF-4S	261023	801048	2	1090	1200	13.4	MONTHLY/PRESSURE
* BF-4M	261023	801048	6	1550	1600	12.69	MONTHLY/PRESSURE
BF-6	261851	800727	6	960	1128	17.04	MONTHLY/PRESSURE
Collier County							
* IWSD-MZ1	262448	812554	16**	788	880	36.69	MONTHLY/WELL SOUNDER
* IWSD-MZ2	262448	812554	12**	1065	1160	37.52	MONTHLY/PRESSURE
* IWSD-MZ3	262448	812554	7.625**	1720	1680	37.61	MONTHLY/PRESSURE
* IWSD-MZ4	262448	812554	2.375**	2200	2354	37.15	MONTHLY/PRESSURE
Glades County							
GATORRAMA	265452	811854	5		1100	36.80	SEMI-ANNUAL/PRESSURE
GLF-5	265454	811510	12	290	1620	33.03	SEMI-ANNUAL/PRESSURE
SILVER LK1	264943	812906	4		508	47.00	SEMI-ANNUAL
Hendry County							
L2-TW	263530	805658	4	1400	1810	20.34	MONTHLY/PRESSURE
Highlands County							
BUTTE	271303	810805	4			28.50	SEMI-ANNUAL
HIF-3	273138	811542	12		1280	88.75	SEMI-ANNUAL/TAPE
HIF-4	272906	811420	6		1300	70.09	SEMI-ANNUAL/TAPE
HIF-5	271134	812343	12	602	1610	147.23	SEMI-ANNUAL/TAPE
HIF-6	271456	810747	4		520	29.08	SEMI-ANNUAL/PRESSURE
HIF-8	271325	812850	16		1450	89.91	SEMI-ANNUAL/TAPE
HIF-13	272612	811229				53.78	SEMI-ANNUAL/TAPE
HIF-14	271726	811639	8		1500	38.81	SEMI-ANNUAL/ PRESSURE
HIF-16	271842	813227	16		1225	95.58	SEMI-ANNUAL/TAPE
HIF-17	271842	813227	16		1750	96.84	SEMI-ANNUAL
HIF-20	271004	812841	12	~ 352	1350	67.52	SEMI-ANNUAL
HIF-23	270605	813107	16	700	1550	78.48	SEMI-ANNUAL/TAPE
HIF-25	271045	812830	8	622	780	82.35	SEMI-ANNUAL
HIF-26	270559	812026	12	350	1610	139.86	QUARTERLY/TAPE
HIF-28	270727	812553	12		1400	92.34	SEMI-ANNUAL

Well_Id	Latitude	Longitude	Casing Diam. (inch)	Casing Depth (feet)	Total Depth (feet)	Measuring Point Elevation (feet, NGVD)	Frequency & Type of Data
HIF-32	272915	811902	12		1360	67.02	SEMI-ANNUAL/TAPE
HIF-37	271323	811909				31.10	SEMI ANNUAL/PRESSURE
LONE CABBAGE	271503	810909	4		647	29.00	SEMI ANNUAL/PRESSURE
Miami-Dade County							
DF-4	255435	802807	6	1140	1230	13.56	MONTHLY/PRESSURE
DF-5	255435	802807	2	1700	1800	13.88	MONTHLY/PRESSURE
HIALEAH #1	254941	801717	14	955	1105	10.59	MONTHLY/PRESSURE
NP100	252256	803612	8	620	1333	7.23	MONTHLY/PRESSURE TROLL
Okeechobee County							
OKF-3	271110	804145	8	430	433	36.07	PLUGGED
OKF-7	272158	804709	8	412	983	61.98	SEMI-ANNUAL/TAPE
OKF-17	272010	805508	6	535	986	41.54	SEMI-ANNUAL/PRESSURE
OKF-23	271514	805116	6	496	925	34.44	SEMI ANNUAL/PRESSURE
OKF-25	271438	805719	6			32.80	SEMI-ANNUAL/PRESSURE
OKF-31	271340	805040	6	475	1079	25.72	SEMI ANNUAL/PRESSURE
OKF-34	273217	810126	8	276	1143	67.21	SEMI-ANNUAL/TAPE
OKF-37	272852	805958	8	300	1039	61.88	SEMI-ANNUAL
OKF-42	273007	811146	6	370	1152	40.57	SEMI-ANNUAL/PRESSURE
OKF-53	273502	805355				60.23	SEMI-ANNUAL/TAPE
OKF-54	273740	805512	12	260	973	65.98	SEMI-ANNUAL
OKF-56	272704	8105350	10			55.70	SEMI-ANNUAL/TAPE
OKF-75	271640	805715	8		1100	37.12	SEMI-ANNUAL
POF-20	273958	810806	6	260	1000		SEMI-ANNUAL
Osceola County							
ASHTON TWR	281443	811405	4		400	75.99	SEMI-ANNUAL/TAPE
CANOE CK.	281006	811626	4		500	74.66	SEMI ANNUAL/TAPE
E. Lake Wales	275137	812525	12		637		SEMI-ANNUAL
FPC	281536	813248	6	83	261	75.26	SEMI-ANNUAL/TAPE
JOE	275609	811320	4	288	400	59.09	SEMI-ANNUAL/TAPE
KIMBELL	280558	813148	4	149	399		SEMI ANNUAL
KISS. ST. PK.	275634	812118	6	225	560		SEMI-ANNUAL
LK HATCHIN	280153	812741	10	170	411		SEMI-ANNUAL
LK. AJAY	282051	811332	6	373	470	62.37	SEMI-ANNUAL/TAPE
OSF-34	281146	812117	10	302	582	78.54	SEMI-ANNUAL
OSF-42	282046	811358	6	217	433		SEMI-ANNUAL
OSF-44	281456	811717	8	481	614	75.92	SEMI ANNUAL/ELECTRIC TAPE
OSF-52	274807	811155	6	172	880	55.05	SEMI-ANNUAL/ELECTRIC TAPE
OSF-53	280823	812103	6	160	960	61.12	SEMI-ANNUAL/ELECTRIC TAPE

Well_Id	Latitude	Longitude	Casing Diam. (inch)	Casing Depth (feet)	Total Depth (feet)	Measuring Point Elevation (feet, NGVD)	Frequency & Type of Data
OSF-254	281429	812905	6		328	76.65	SEMI-ANNUAL/ELECTRIC TAPE
PADGETT	280054	811039	6		500	81.70	SEMI-ANNUAL
REEDY CK.	280905	812701	6	124	398	66.62	SEMI-ANNUAL/ELECTRIC TAPE
SHINGLE CK.	281559	812607	4		200	60.73	SEMI-ANNUAL/ELECTRIC TAPE
TH-10	275852	810305	4	242	405	76.50	SEMI-ANNUAL/ELECTRIC TAPE
Orange County							SEMI-ANNUAL
BEARHD	282704	812143	6	363	455	94.46	SEMI-ANNUAL
BUTLER	282749	813158	8	120	347	108.23	SEMI-ANNUAL/TAPE
DISNEY	282218	813350	3	128	141	96.00	SEMI-ANNUAL
DISNEY OBS	282250	813021	4	171	252	108.56	SEMI-ANNUAL
SHINGLE CK.	282434	812603				82.77	SEMI-ANNUAL
IVEYS	282923	812828	4	188	337	126.20	SEMI-ANNUAL/TAPE
LK MANN	283144	812542	16		398	94.75	SEMI-ANNUAL/ELECTRIC TAPE
MOSS PK. SH.	282241	811128	4	26	29	72.05	SEMI-ANNUAL/ELECTRIC TAPE
MOSS PK.DP.	282241	811128	4	240	480	71.69	SEMI-ANNUAL/ELECTRIC TAPE
ORANGE	282945	812550	12	211	417	97.22	SEMI-ANNUAL/ELECTRIC TAPE
ROSS	282936	813402	4	180	280	111.62	SEMI-ANNUAL/TAPE
TRNPK ORL S.	282545	812409	8	212	450	97.99	SEMI-ANNUAL
US441	282141	812417	4	317	435	89.37	SEMI-ANNUAL/TAPE
Palm Beach County							
PBF-1	265807	800512	6		1038	17.1	MONTHLY/PRESSURE
PBF-2	264215	800349	9.5**	948	1090	18.09	MONTHLY/PRESSURE
* PBF-3L	264032	800611	2**	2340	2485	24.63(?)	MONTHLY/PRESSURE
* PBF-3M	264032	800611	2**	1360	1500	24.63(?)	MONTHLY/PRESSURE
* PBF-3U	264032	800611	2**	1050	1250	24.63(?)	MONTHLY/PRESSURE
* PBF-7U	264158	804257	2**	1200	1447	24.25	MONTHLY/PRESSURE
* PBF-7L	264158	804257	2**	1940	2040	24.37	MONTHLY/PRESSURE
Martin County							
MF-3A	271249	801044	8	543	980	12.53	SEMI-ANNUAL/ PRESSURE
MF-9	271003	802800	6	342	880	29.48	SEMI-ANNUAL/ PRESSURE
MF-23	270425	803347	4	456	1119	33.35	SEMI-ANNUAL/ PRESSURE
MF-31	270847	801038	6	844	1091	13.55	SEMI-ANNUAL/ PRESSURE
MF-33	270742	803525	8	420	1200	35.26	SEMI-ANNUAL/ PRESSURE
MF-36	270010	802900	10	390	1340	28.94	SEMI-ANNUAL/ PRESSURE
St. Lucie County							
SLF-3	272927	802616	16		1106	26.53	SEMI-ANNUAL/ PRESSURE

Well Id	Latitude	Longitude	Casing Diam. (inch)	Casing Depth (feet)	Total Depth (feet)	Measuring Point Elevation (feet, NGVD)	Frequency & Type of Data
SLF-4	272823	802902	9	482	993	27.53	SEMI-ANNUAL / PRESSURE
SLF-9	272650	803528	10	269	1058	26.57	SEMI ANNUAL/ PRESSURE
SLF-11	273212	803611	8	224	946	25.99	SEMI-ANNUAL/ PRESSURE
SLF-17	271933	803418	10	320	1286	26.38	SEMI-ANNUAL/ PRESSURE
SLF 21	272537	802409	3.5	156	707	21.65	SEMI-ANNUAL/ PRESSURE
SLF-23	271311	802811	6	350	894	32.37	SEMI ANNUAL/ PRESSURE
SLF-27	272322	803049	8		900	25.78	SEMI ANNUAL/ PRESSURE
SLF 36	272840	803156				24.50	SEMI-ANNUAL/ PRESSURE
SLF-40	272503	802957	6	376	786	24.69	SEMI-ANNUAL / PRESSURE
SLF 46	273007	801825	6	666	1100	6.71	SEMI-ANNUAL/ PRESSURE
SLF-47	271938	801352	6	850	1230	5.88	SEMI-ANNUAL/ PRESSURE
SLF-50	272016	802953	8	600	870	31.75	SEMI-ANNUAL/ PRESSURE
SLF-74	272015	802924	10 to 8	1008	1450	31.08	GWL/12/ PRESSURE
SLF 75	272015	802924	10 to 8	ND	700	29.04	GWL/12/ PRESSURE
SLF-76	272015	802924	10 to 8	ND	660	28.83	GWL/12/ PRESSURE

Key

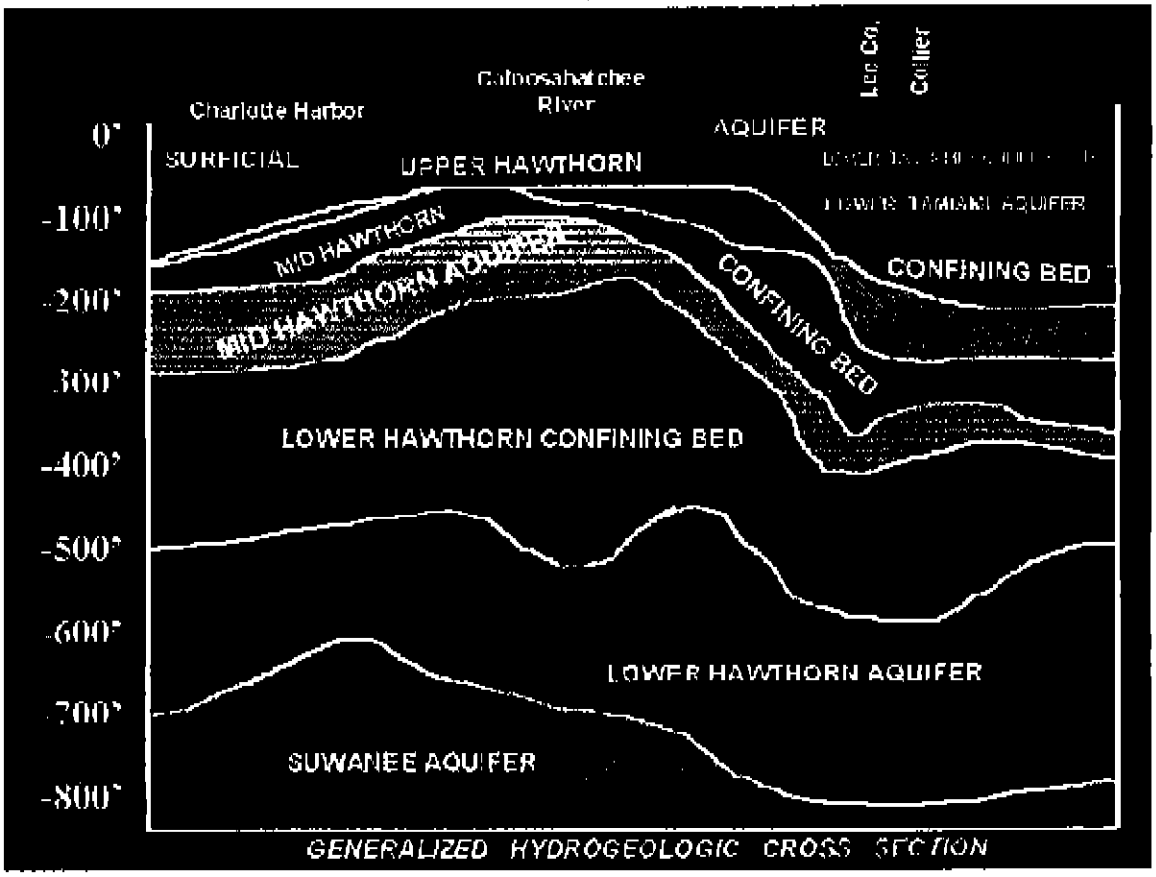
* Nested Monitor Wells

**Casing Diameter Modified from Initial Well Construction

APPENDIX B: SFWMD's Monthly Ground Water Conditions Report

1998 Ground Water Conditions

January | February | March | April | May | June
July | August | September | October | November | December



Ground Water Conditions Report
March 1998

Network of Ground Water Wells

The U.S. Geological Survey, through a cost-sharing agreement with the SFWMD, collects water level data from three-hundred and sixty-five (365) Surficial, fifty-seven (57) Intermediate and three (3) Floridan aquifer wells within the District every month. In addition, the SFWMD collects water levels from two-hundred and forty-five (245) Surficial wells, and ten (10) Intermediate aquifer wells in Dade, Hendry, Martin, Palm Beach, and St. Lucie counties. The Intermediate aquifer underlying the Lower West Coast area includes both the sandstone and mid-Hawthorn aquifers. These water levels are published by the USGS in a Ground Water Resources Data publication (Volume 2B) each year.

One hundred and thirty-one (131) Surficial Aquifer wells and forty-seven (47) Intermediate Aquifer wells of the total wells monitored every month within the boundaries of the South Florida Water Management District are used to create this report. Table 1 shows the number of wells monitored in each county. The methods used to calculate and compare the average water levels in the wells are described in the section under Methodology.

Figure 1 displays the average water levels in each county measured during the last four days of March from the network of wells described above. In addition to showing March water levels, the bar graphs in Figure 1 also provide a comparison with historical ground water level averages.

Graph 1 illustrates the magnitude of residuals plotted in Figure 1. The zero base line represents equality between this month's and the historic average water levels. Where values fall below zero, the current month's water level was below the historical average for that county.

Methodology

Rather than compare and contrast water levels individually, one mean level is calculated using all the wells in the network for each aquifer underlying a particular county. These monthly mean water levels are then used to describe current ground water conditions by comparing each of them with the following: previous month's mean, historical mean (1974 to present), and previous year's mean for the same month. These comparisons are listed in Tables 2a-f as follows: change during the past month, deviation from historical March mean, and change from March 1997, respectively.

Potable water supplies are primarily withdrawn from the Surficial Aquifer System (SAS) in the Upper and Lower East Coast areas. Therefore, only Surficial Aquifer monitor wells are summarized in Tables 2a-f for these two areas. Four aquifers are commonly used for potable irrigation water in the Lower West Coast, these are the: Surficial, lower Tamiami, Sandstone and mid-Hawthorn aquifers. Ground water levels in each of these Lower West Coast aquifers are also listed in Tables 2a-f.

Key Indicator Wells

In addition to comparing mean water levels from multiple wells in each aquifer, this month's ground water levels are also summarized using key indicator wells. A key indicator well reflects changes in ground water levels within a local area which are thought to give the strongest indication of an oncoming drought or water shortage situation. The locations of key indicator wells used in this report are shown in Figure 2. Figure 2 also illustrates (with inset bar graphs) how the current month's water levels in these wells compare to the historical monthly water level averages.

Water level changes with time for each key indicator well are illustrated with the hydrographs shown in Figures 3 through 15. These hydrographs include two curves, one showing the past twelve months of water levels and the other showing historic monthly means. These historic monthly means were calculated using water level data from 1974 to present.

The ground water level seen in indicator well G-853, Broward County, reflects March's pumping from the City of Pompano Beach public water supply wellfield located approximately 0.2 miles away. Pumping from domestic supply mid-Hawthorn wells within the Ft. Myers/Cape Coral Area, account for the low water level measured in L-581 during the month of March.

| Home | Tables | Graphs | Hydrographs | Maps | Report

Contact: *Resource Assessment Division*, Water Resource Evaluation Department

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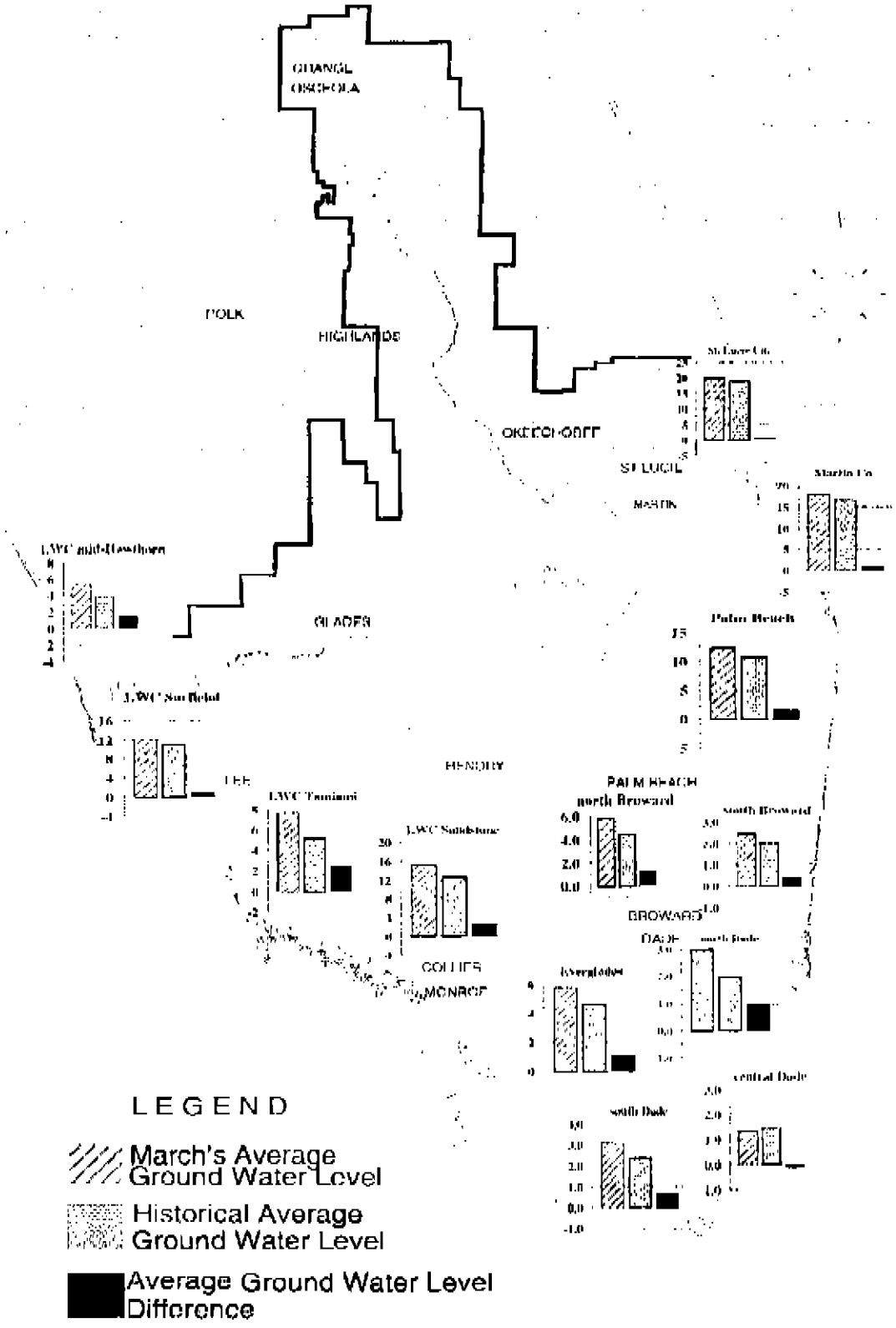
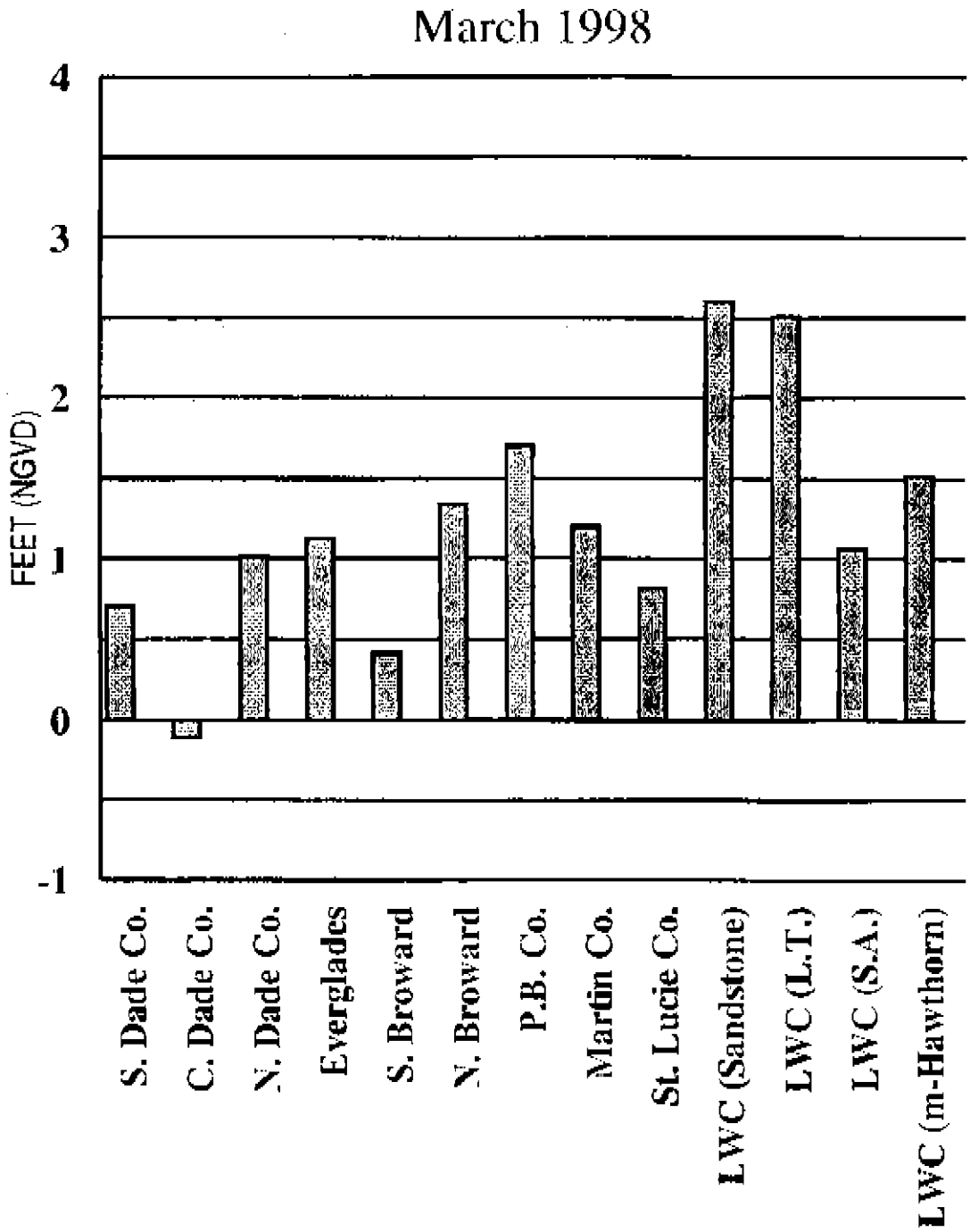


Figure B-1. Ground Water Levels for March 1998.

Table B-1. Denotes the Number of Wells in Each County Used To Develop this Report.

County	Monitored by:	Surficial Aquifer System	Intermediate Aquifer System
North Broward	SFWMD	9	0
South Broward	SFWMD	15	0
Collier	USGS	30	15
Central Dade	SFWMD	9	0
North Dade	SFWMD	17	0
South Dade	SFWMD	14	0
Everglades Area	SFWMD	7	0
Hendry	SFWMD	0	2
Lee	USGS	8	30
Martin	SFWMD	4	0
Palm Beach	SFWMD	12	0
St. Lucie	SFWMD	6	0



Graph B-1. Average water levels in each region relative to the historic average for March 1998. The zero base-line is where the two are equal.

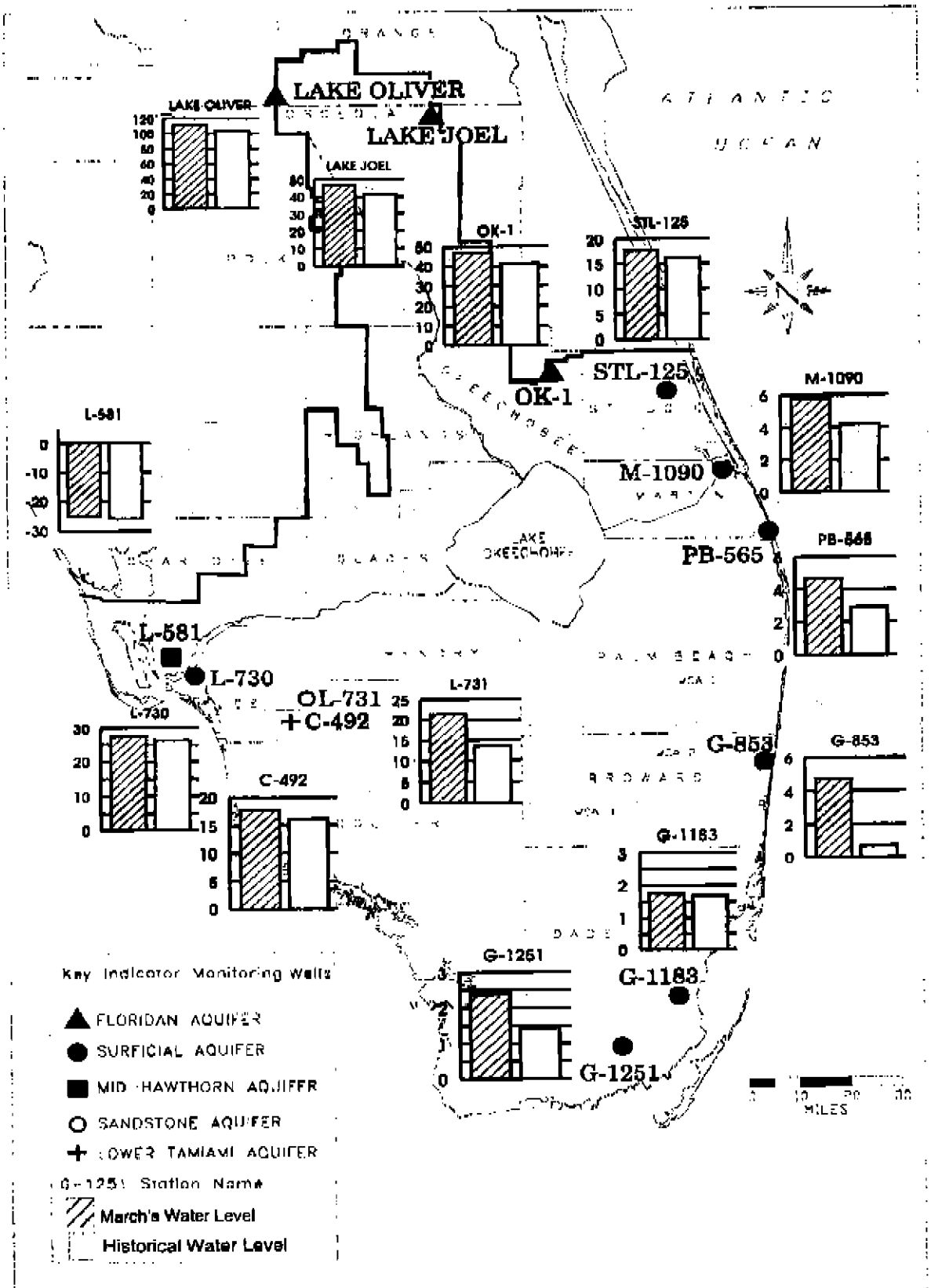
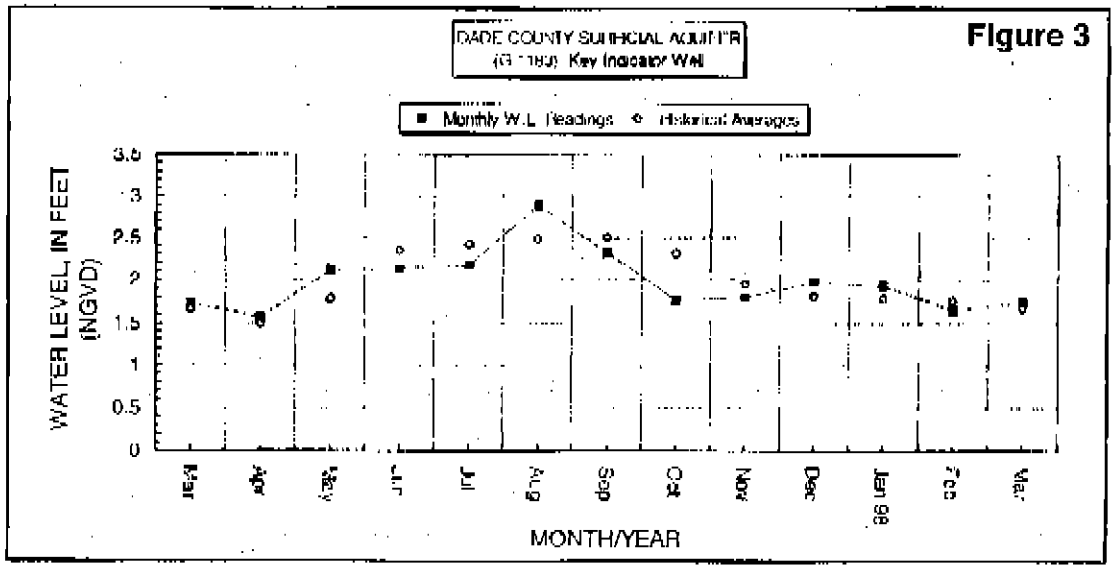
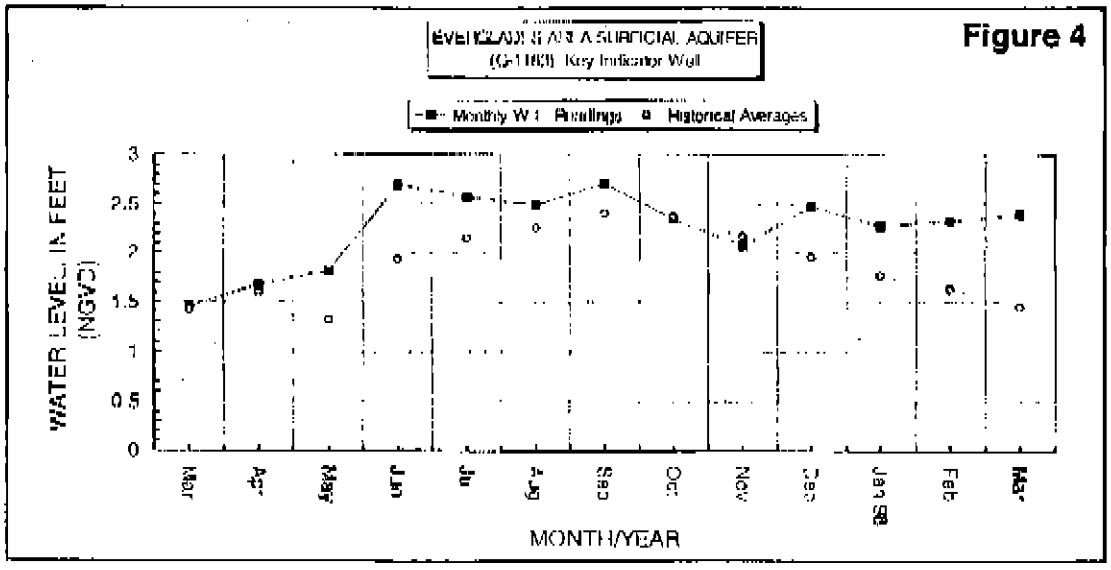
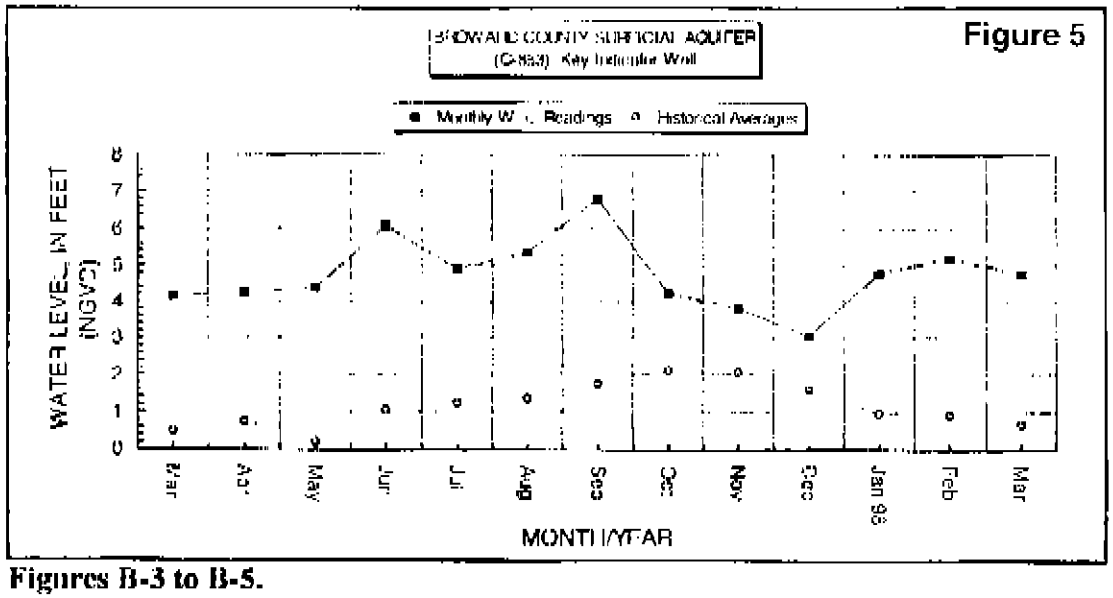


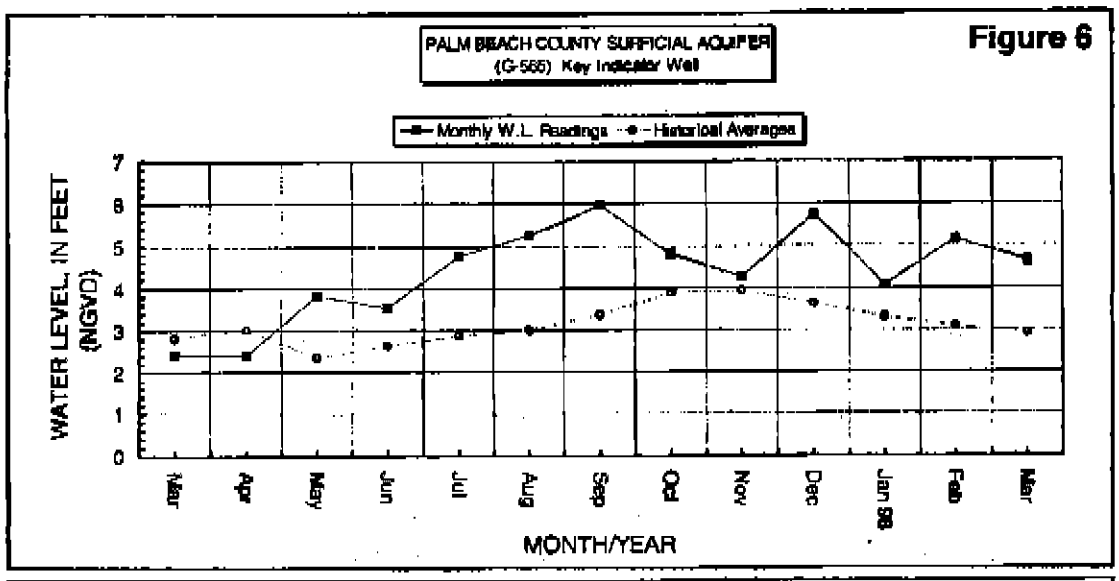
Figure B-2. Location of key indicator wells comparing this month's water level with the historic averages.

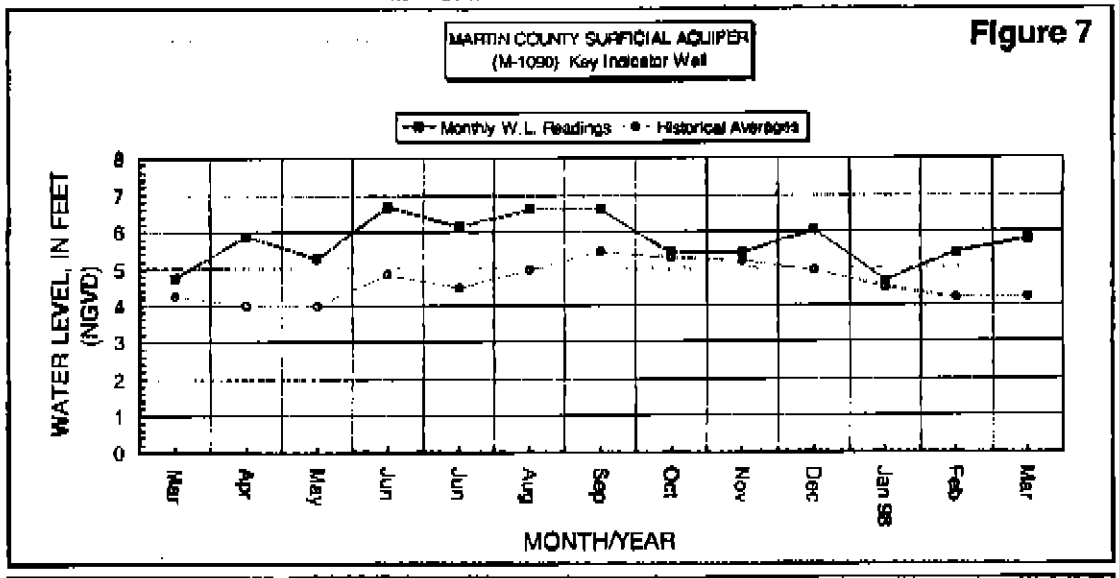


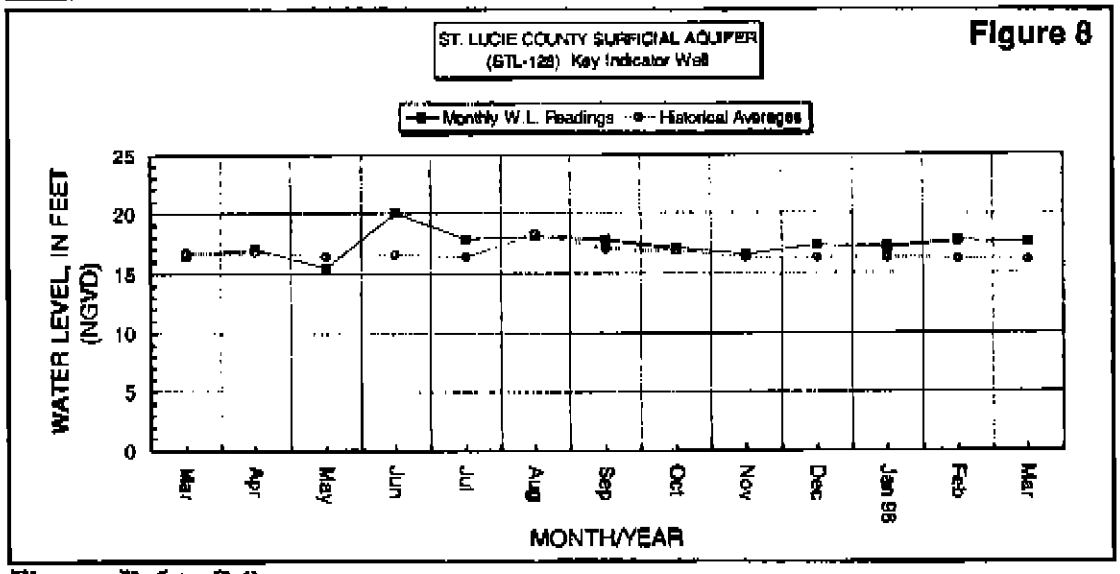




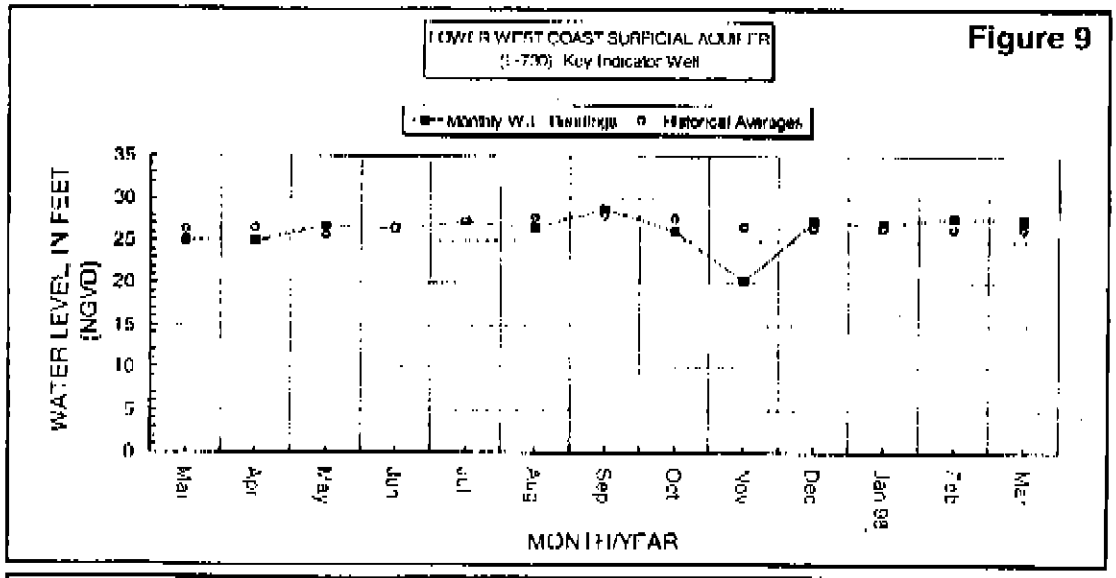
Figures B-3 to B-5.

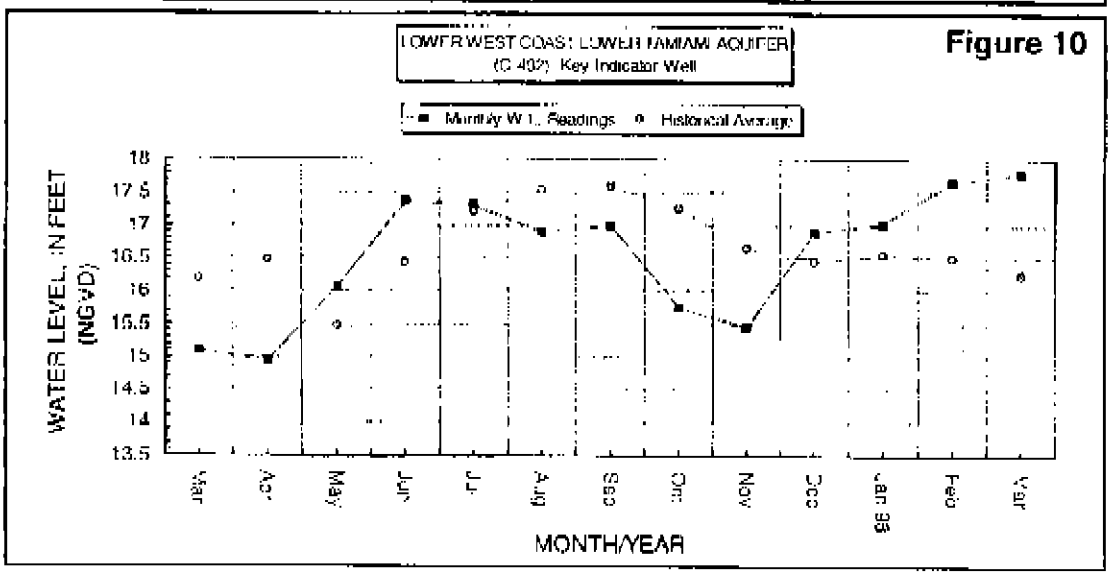


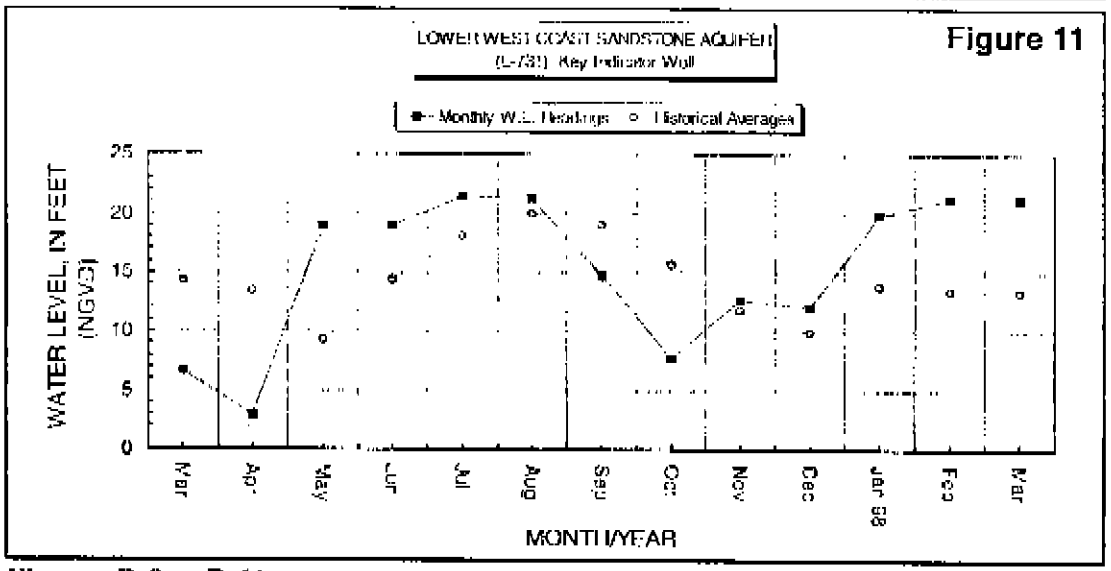




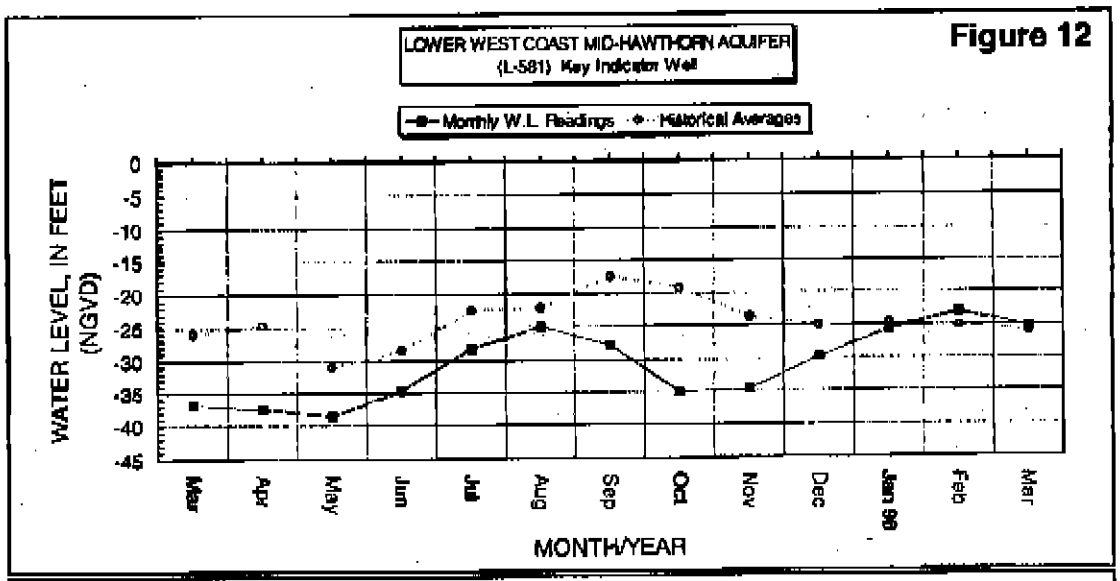
Figures B-6 to B-8.

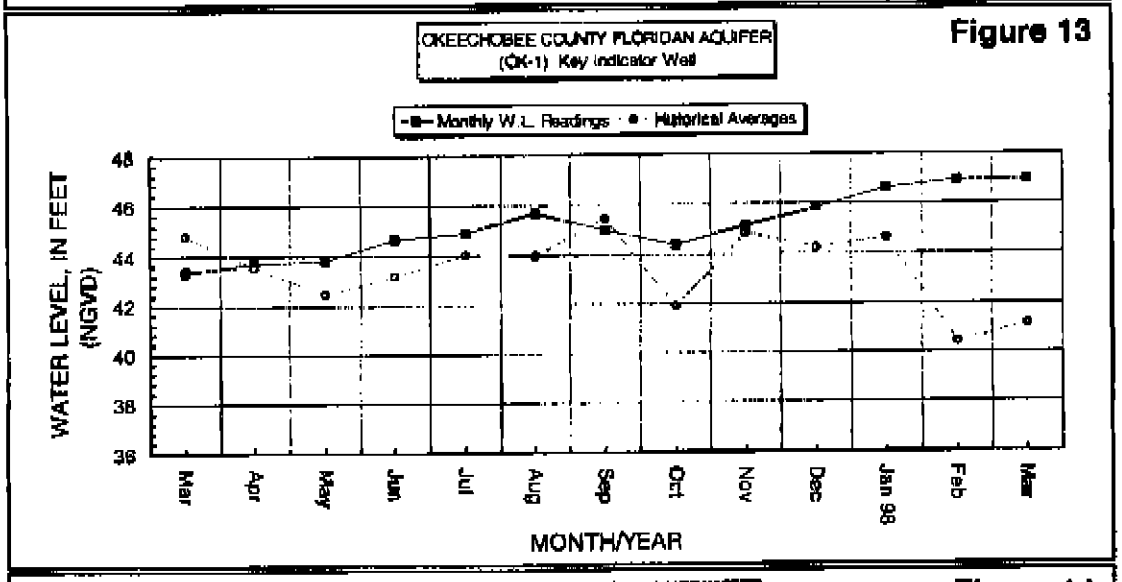


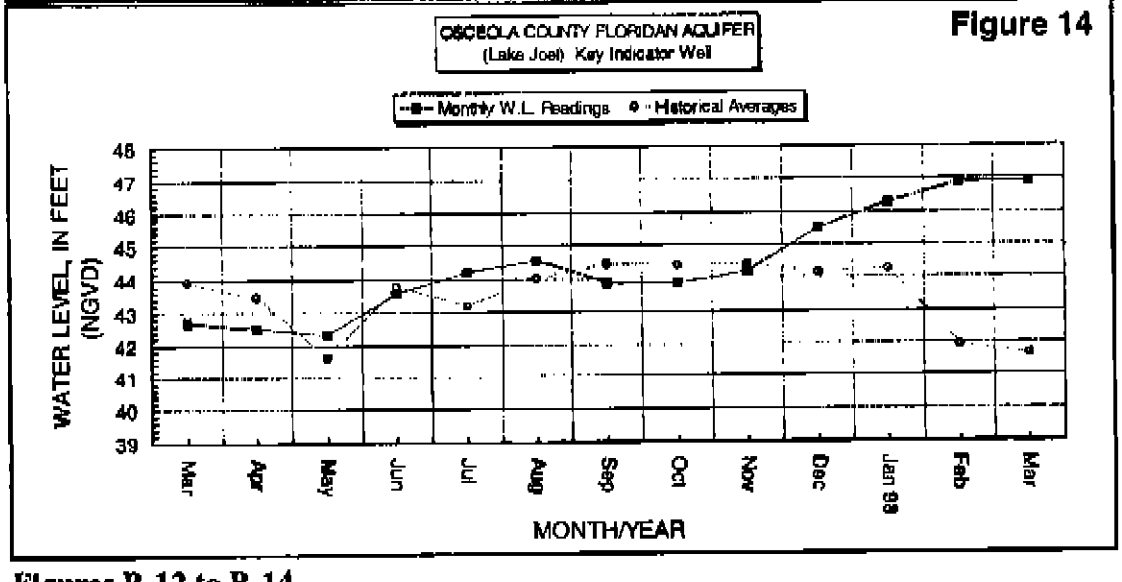




Figures B-9 to B-11.







Figures B-12 to B-14.

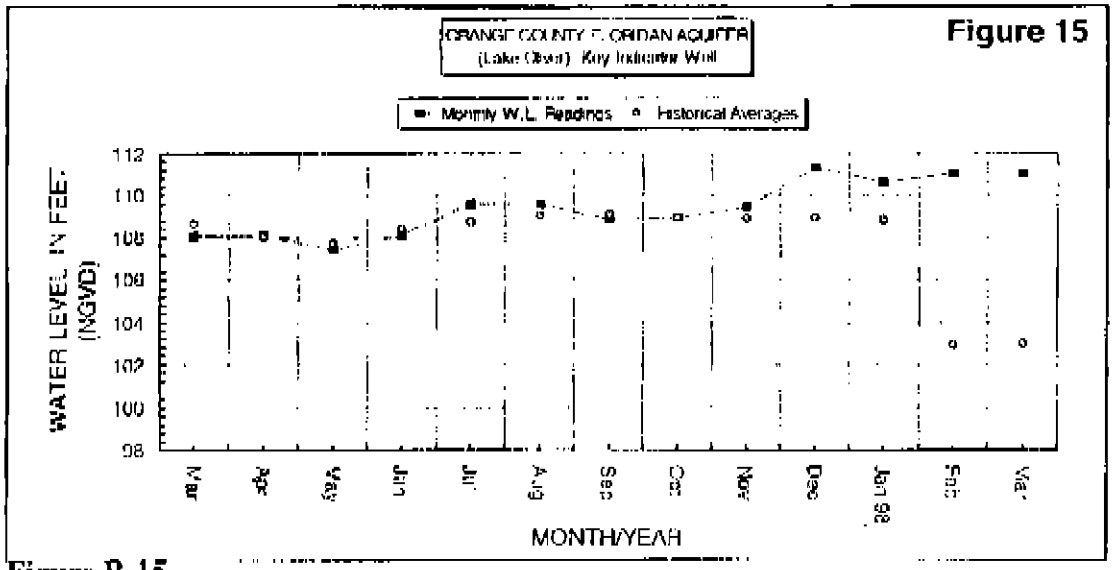


Figure 15
Monthly W.L. Readings
Historical Averages
WATER LEVEL IN FEET (NGVD)
112
110
108
106
104
102
100
98
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan 98
Feb
Mar
MONTH/YEAR

Figure B-15.

Table B-2. Ground Water Level Summary for the Lower East Coast at the end of March 1998.

GROUND WATER LEVEL SUMMARY
LOWER EAST COAST
END OF MARCH 1998

Table 2a. DADE COUNTY

South Dade County

Change during past month:	-0.22 ft
Deviation from mean for the month of March:	0.70 ft
Change from March 1997:	0.60 ft

Central Dade County

Change during past month:	-0.91 ft
Deviation from mean for the month of March:	-0.11 ft
Change from March 1997:	0.18 ft

North Dade County

Change during past month:	-0.18 ft
Deviation from mean for the month of March	1.01 ft
Change from March 1997:	0.76 ft

Everglades Area

Change during past month:	-0.25 ft
Deviation from mean for the month of March:	1.13 ft
Change from March 1997:	0.97 ft

Table 2b. BROWARD COUNTY

South Broward County

Change during past month:	-0.55 ft
Deviation from mean for the month of March:	0.40 ft
Change from March 1997:	0.16 ft

North Broward County

Change during past month:	-0.08 ft
Deviation from mean for the month of March:	1.33 ft
Change from March 1997:	0.73 ft

Table 2c. PALM BEACH COUNTY

Palm Beach County

Change during past month:	0.15 ft
Deviation from mean for the month of March:	1.72 ft
Change from March 1997:	1.02 ft

Table B-2 Continued. Ground Water Level Summary for the Lower East Coast at the end of March 1998.

UPPER EAST COAST
END OF MARCH 1998

Table 2d. MARTIN COUNTY

Martin County

Change during past month:	0.00 ft
Deviation from mean for the month of March:	1.20 ft
Change from March 1997:	2.87 ft

Table 2e. ST. LUCIE COUNTY

St Lucie County

Change during past month:	0.12 ft
Deviation from mean for the month of March:	0.82 ft
Change from March 1997:	1.87 ft

Table 2f. LOWER WEST COAST

Surficial Aquifer

Change during past month:	-0.45 ft
Deviation from mean for the month of March:	1.06 ft
Change from March 1997:	1.98 ft

Lower Tamiami Aquifer

Change during past month:	0.08 ft
Deviation from mean for the month of March:	2.51 ft
Change from March 1997:	3.76 ft

Lower Tamiami Aquifer-Bonita Springs/North Naples Area

Change during past month:	0.29 ft
Deviation from mean for the month of March:	2.15 ft
Change from March 1997:	4.93 ft

Sandstone Aquifer

Change during past month:	-0.17 ft
Deviation from mean for the month of March:	2.33 ft
Change from March 1997:	6.43 ft

Mid-Hawthorn Aquifer

Change during past month:	-0.49 ft
Deviation from mean for the month of March:	1.52 ft
Change from March 1997:	6.84 ft

Mid-Hawthorn Aquifer - Ft Myers/Cape Coral Area

Change during past month:	-0.76 ft
Deviation from mean for the month of March:	1.32 ft

APPENDIX C: USGS Monthly Ground Water Level Data Extract

United States Geological Survey
Water Resources Division
Miami, Florida

Monthly Water-level Report
for
South Florida

Provisional Data - Subject to Revision

For further information, contact:

Hydrologic Surveillance and Data Management Section

(305) 717-5827

United States Department of the Interior
Geological Survey
Water Resources Division
Miami, Florida

End of Month Water-Level Readings in Selected Recorder Wells

Page	Area
1	South Broward County
2	South Broward affected by pumpage
3	North Broward County
4	North Broward affected by pumpage
5	South Dade County
6	South Dade affected by pumpage
7	Central Dade County
8	Central Dade affected by pumpage
9	Northeast Dade County
10	North Dade affected by pumpage
11	Northwest Dade County
12	Everglades Area - Dade County
13	Palm Beach County
14	Martin County
15	St. Lucie County
16	Lower West Coast - Surficial Aquifer
1	Lower West Coast - Lower Tamiami Aquifer
1	Lower West Coast - Sandstone Aquifer
1	Lower West Coast - Mid-Hawthorn Aquifer

U.S. Geological Survey, Miami, Florida 04/14/98

End of Month Water Level Readings

At Selected Continuous Monitoring Sites

P R O V I S I O N A L D A T A

South Broward County Report for Mar 1998

Well Number	This Year: MG for Mar	This Year: Mean Last Month	This Year: Change During Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 To Present Mar Mean	Last Year: Mar Mean Last Year	Last Year: Change From Mar Mean Last Yr	Extremes: Start of Record	Extremes: Maximum of Record	Extremes: Minimum of Record
F - 291	1.79	2.51	-0.72	1.22	0.57	1.21	0.58	1933	7.26	0.16
G - 561	2.01	2.64	-0.63	1.35	0.66	1.55	0.46	1948	9.40	0.05
G - 617	3.85	4.23	-0.38	3.61	0.24	3.84	0.01	1950	6.98	2.46
G -1320	1.59	2.25	-0.66	1.41	0.18	1.55	0.04	1962	6.37	0.40
G -1221	2.05	2.34	-0.29	1.90	0.15	2.12	-0.07	1962	7.02	0.67
G -1223	2.26	2.62	-0.36	2.22	0.04	2.30	-0.04	1962	6.45	1.18
G -1224	1.74	2.39	-0.65	1.29	0.45	1.25	0.49	1962	5.67	-0.12
G -1225	2.64	3.07	-0.43	2.05	0.59	2.20	0.44	1962	6.29	0.70
G 1636	3.14	3.67	-0.53	3.78	0.36	3.21	-0.07	1971	5.14	1.79
G -2032	4.37	4.80	-0.43	4.16	0.21	4.40	-0.03	1972	7.25	2.85
G -2034	3.34	4.04	-0.70	3.36	-0.02	3.48	-0.14	1972	6.34	1.49

AVERAGE CHANGE	AVERAGE DEVIATION	AVERAGE CHANGE
-0.33	0.31	0.13

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

U.S. Geological Survey, Miami, Florida 04/14/98

End of Month Water Level Readings

At Selected Continuous Monitoring Sites

P R O V I S I O N A L D A T A

South Broward affected by pumpage Report for Mar 1998

Well Number	This Year: IG For Mar	This Year: Mean Last Month	This Year: Change During Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 To Present Mar Mean	Last Year: Mar Mean Last Year	Last Year: Change From Mar Mean Last Yr	Extremes: Start of Record	Extremes: Maximum of Record	Extremes: Minimum of Record
G -1226	1.60	2.02	-0.42	1.19	0.41	1.18	0.42	1962	8.97	0.30
G -1473	1.52	2.38	-0.86	1.16	0.36	1.24	0.28	1969	5.97	0.21
S - 329	2.47	3.05	-0.58	1.03	1.44	2.61	-0.14	1940	10.76	-1.26
		AVERAGE CHANGE	-0.62		AVERAGE DEVIATION	0.74	AVERAGE CHANGE	0.19		

Note: — = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

U.S. Geological Survey, Miami, Florida 04/14/98

End of Month Water Level Readings

At Selected Continuous Monitoring Sites

P R O V I S I O N A L D A T A

North Broward County Report for Mar 1998

Well Number	This Year: IG For Mar	This Year: Mean Last Month	This Year: Change During Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 To Present Mar Mean	Last Year: Mar Mean Last Year	Last Year: Change From Mar Mean Last Yr	Extremes: Start of Record	Extremes: Maximum of Record	Extremes: Minimum of Record
G -1213	12.04	11.99	0.05	12.18	-0.14	11.67	0.37	1962	17.35	9.39
G -1265	5.20	4.74	0.46	2.76	2.44	4.31	0.89	1961	15.02	0.71
G -1315	10.98	10.39	0.56	9.63	1.32	9.92	1.03	1969	13.66	6.26
G -1316	7.75	7.99	-0.24	8.27	-0.52	---	---	1969	11.02	6.67
G 2031	7.90	8.01	-0.11	7.31	0.59	7.44	0.46	1972	10.96	4.75
G -2033	6.78	6.85	-0.07	6.52	0.26	6.47	0.31	1972	11.36	5.21
			AVERAGE CHANGE 0.11		AVERAGE DEVIATION 0.66		AVERAGE CHANGE 0.61			

Note: -- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

U.S. Geological Survey, Miami, Florida 04/14/98

End of Month Water Level Readings

At Selected Continuous Monitoring Sites

P R O V I S I O N A L D A T A

North Broward affected by pumpage Report for Mar 1998

	This Year			Long Term		Last Year		Extremes		
Well Number	IG For Mar	Mean Last Month	Change During Month	1974 to Present Mar Mean	Deviation From 1974 To Present Mar Mean	Mar Mean Last Year	Change From Mar Mean Last Yr	Start of Record	Maximum of Record	Minimum of Record
G - 853	4.75	5.23	-0.48	0.67	4.08	3.98	0.77	1960	11.28	-6.54
G -2147	4.87	4.76	0.11	2.05	2.82	3.83	1.04	1974	7.94	-1.02
G -2395	-8.06	-7.05	-1.01	-9.22	1.16	-9.00	0.94	1984	-2.29	-14.58
			AVERAGE CHANGE -0.46		AVERAGE DEVIATION 2.69		AVERAGE CHANGE 0.92			

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

U.S. Geological Survey, Miami, Florida 04/16/98

End of Month Water Level Readings

At Selected Continuous Monitoring Sites

P R O V I S I O N A L D A T A

South Dade County Report for Mar 1998

Well Number	This Year: TG For Mar	This Year: Mean Last Month	This Year: Change During Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 To Present Mar Mean	Last Year: Mar Mean Last Year	Last Year: Change From Mar Mean Last Yr	Extremes: Start of Record	Extremes: Maximum of Record	Extremes: Minimum of Record
F - 358	2.98	---		2.07	0.91	2.23	0.75	1940	8.19	-1.18
G - 613	2.37	2.53	-0.16	1.67	0.70	1.84	0.53	1950	6.11	-1.49
G - 614	3.50	3.81	-0.31	2.46	1.04	2.62	0.88	1950	11.04	-0.62
G - 757A	4.30	4.67	-0.37	3.35	0.95	3.50	0.80	1956	9.60	0.00
G - 789	3.59	4.08	-0.49	2.75	0.84	2.95	0.64	1956	7.73	-0.90
G - 860	2.35	2.30	0.05	2.32	0.03	2.27	0.08	1959	9.45	0.38
G -1362	4.17	4.59	-0.42	3.43	0.74	3.37	0.80	1968	9.35	0.29
G 1363	3.95	4.37	0.42	2.99	0.96	3.20	0.75	1968	9.80	-0.70
G -1486	2.85	2.70	0.15	2.09	0.76	2.13	0.72	1970	8.87	-0.82
S 182A	2.54	2.61	0.07	2.29	0.25	2.41	0.13	1940	10.70	-0.44
S - 196A	3.84	4.02	-0.18	2.72	1.12	2.85	0.99	1932	9.63	-1.64

AVERAGE CHANGE	AVERAGE DEVIATION	AVERAGE CHANGE
-0.22	0.75	0.64

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

U.S. Geological Survey, Miami, Florida 04/14/98

End of Month Water Level Readings

At Selected Continuous Monitoring Sites

P R O V I S I O N A L D A T A

South Dade affected by pumpage Report for Mar 1998

Well Number	This Year: IG For Mar	This Year: Mean Last Month	This Year: Change During Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 To Present Mar Mean	Last Year: Mar Mean Last Year	Last Year: Change From Mar Mean Last Yr	Extremes: Start of Record	Extremes: Maximum of Record	Extremes: Minimum of Record
G - 864	2.63	2.87	-0.24	1.89	0.74	1.88	0.75	1961	8.40	-1.20
G - 864A	2.45	2.70	-0.25	1.73	0.72	---	---	1962	8.41	-1.11
G -1183	1.75	1.92	-0.17	1.67	0.08	1.73	0.02	1969	5.59	-0.83

AVERAGE CHANGE	AVERAGE DEVIATION	AVERAGE CHANGE
-0.22	0.51	0.39

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

U.S. Geological Survey, Miami, Florida 04/14/98

End of Month Water Level Readings

At Selected Continuous Monitoring Sites

P R O V I S I O N A L D A T A

Central Dade County Report for Mar 1998

Well Number	This Year: IG For Mar	This Year: Mean Last Month	This Year: Change During Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 To Present Mar Mean	Last Year: Mar Mean Last Year	Last Year: Change From Mar Mean Last Yr	Extremes: Start of Record	Extremes: Maximum of Record	Extremes: Minimum of Record
F - 179	2.12	2.38	-0.26	1.90	0.22	1.79	0.33	1939	7.21	0.69
F - 319	1.90	2.40	-0.50	2.04	-0.14	2.12	-0.22	1940	9.86	0.47
G - 553	3.24	3.34	-0.10	2.87	0.37	2.61	0.63	1947	11.06	0.81
G - 580A	2.12	2.37	-0.25	2.22	-0.10	2.22	-0.10	1960	9.34	0.58
G - 855	4.61	5.20	-0.59	3.90	0.71	3.75	0.86	1958	8.00	1.00
G -3439	4.13	4.81	-0.68	3.75	0.38	3.54	0.59	1987	6.88	2.15
		AVERAGE CHANGE	-0.40	AVERAGE DEVIATION	0.24	AVERAGE CHANGE	0.35			

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

U.S. Geological Survey, Miami, Florida 04/14/98

End of Month Water Level Readings

At Selected Continuous Monitoring Sites

P R O V I S I O N A L D A T A

Central Dade affected by pumpage Report for Mar 1998

Well Number	This Year: IG For Mar	This Year: Mean Last Month	This Year: Change During Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 To Present Mar Mean	Last Year: Mar Mean Last Year	Last Year: Change From Mar Mean Last Yr	Extremes: Start of Record	Extremes: Maximum of Record	Extremes: Minimum of Record
G - 551	0.01	---	---	0.32	-0.31	-.64	0.65	1947	8.77	-2.49
G -1074B	-3.79	-3.03	-0.76	-4.52	0.73	-6.56	2.77	1984	3.91	-9.52
G -3074	-2.19	1.94	-4.13	0.70	-2.89	1.72	-3.91	1977	6.30	-3.78
		AVERAGE CHANGE			AVERAGE DEVIATION		AVERAGE CHANGE			
		-2.44			-0.82		-0.16			

Note: -- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

U.S. Geological Survey, Miami, Florida 04/14/98

End of Month Water Level Readings

At Selected Continuous Monitoring Sites

P R O V I S I O N A L D A T A

Northeast Dade County Report for Mar 1998

Well Number	IG For Mar	This Year: Mean Last Month	This Year: Change During Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 to Present Mar Mean	Last Year: Mar Mean Last Year	Last Year: Change From Mar Mean Last Yr	Extremes: Start of Record	Extremes: Maximum of Record	Extremes: Minimum of Record
F - 46	2.85	2.55	0.30	1.87	0.98	1.57	1.28	1939	9.10	1.10
G - 852	1.87	2.41	-0.54	1.78	0.09	1.71	0.16	1959	6.40	0.17
G -3327	1.83	2.20	-0.37	1.75	0.08	1.62	0.21	1984	6.05	0.95
G -3328	1.92	2.26	-0.34	1.93	-0.01	1.94	-0.02	1984	4.87	1.14
G -3329	2.33	2.93	-0.60	2.66	-0.33	2.63	-0.30	1984	7.28	1.63
G -3465	1.71	2.11	-0.40	1.74	-0.03	1.32	0.39	1988	7.34	0.18
G -3466	1.56	1.62	-0.06	1.11	0.45	.33	1.23	1989	7.26	0.74
G -3467	1.75	2.06	-0.31	1.49	0.26	1.43	0.32	1988	5.83	0.69
S 18	2.06	2.25	0.19	1.93	0.13	2.04	0.02	1939	7.54	0.05
		AVERAGE CHANGE -0.28			AVERAGE DEVIATION 0.17		AVERAGE CHANGE 0.35			

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

U.S. Geological Survey, Miami, Florida 04/14/98

End of Month Water Level Readings

At Selected Continuous Monitoring Sites

P R O V I S I O N A L D A T A

North Dade affected by pumpage Report for Mar 1998

Well Number	This Year: IG For Mar	This Year: Mean Last Month	This Year: Change During Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 To Present Mar Mean	Last Year: Mar Mean Last Year	Last Year: Change From Mar Mean Last Yr	Extremes: Start of Record	Extremes: Maximum of Record	Extremes: Minimum of Record
F - 239	1.75	1.67	0.08	0.47	1.28	---	---	1969	7.58	-1.44
G - 3	0.67	.94	-0.27	-0.22	0.89	.41	0.26	1940	7.68	-3.77
G - 976	5.22	5.31	-0.09	3.68	1.54	3.27	1.95	1959	6.72	0.61
G -1368A	0.57	-.74	1.31	-4.57	5.14	-.18	0.75	1974	6.75	-14.01
G -3253	5.15	5.20	-0.05	0.39	4.76	1.36	3.79	1981	6.50	-4.78
G -3259A	5.24	5.29	-0.05	2.10	3.14	2.79	2.45	1983	6.71	-1.57
S - 19	1.38	1.82	-0.44	1.19	0.19	.98	0.40	1939	7.63	-1.44
S - 68	1.01	1.14	-0.13	-0.50	1.51	-.44	1.45	1940	7.08	-4.39

AVERAGE CHANGE	AVERAGE DEVIATION	AVERAGE CHANGE
0.04	2.31	1.58

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

U.S. Geological Survey, Miami, Florida 04/14/98

End of Month Water Level Readings

At Selected Continuous Monitoring Sites

P R O V I S I O N A L D A T A

Northwest Dade County Report for Mar 1998

Well Number	This Year: IG For Mar	This Year: Mean Last Month	This Year: Change During Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 To Present Mar Mean	Last Year: Mar Mean Last Year	Last Year: Change From Mar Mean Last Yr	Extremes: Start of Record	Extremes: Maximum of Record	Extremes: Minimum of Record
G 968	7.09	7.25	-0.16	5.85	1.24	6.12	0.97	1960	8.49	1.70
G - 970	2.73	3.17	-0.42	2.57	0.16	3.02	-0.27	1958	5.52	1.35
G - 973	2.78	3.08	-0.30	2.57	0.21	2.72	0.06	1958	6.19	0.92
G - 975	6.11	6.39	-0.28	5.04	1.07	4.87	1.24	1958	8.78	2.07
G -1166	1.85	---	.	2.14	-0.29	2.17	-0.32	1961	6.92	1.33
G -1488	6.95	7.03	-0.10	5.80	1.13	5.93	1.00	1970	7.63	2.74
G -1637	3.97	4.91	-0.94	3.78	0.19	4.03	-0.06	1971	5.69	2.19
G -3264A	4.53	4.48	0.05	2.92	1.61	3.11	1.42	1983	5.84	0.89
AVERAGE CHANGE			-0.31	AVERAGE DEVIATION	0.67	AVERAGE CHANGE	0.51			

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

U.S. Geological Survey, Miami, Florida 04/14/98

End of Month Water Level Readings

At Selected Continuous Monitoring Sites

P R O V I S I O N A L D A T A

Everglades Area - Dade County Report for Mar 1998

Well Number	This Year: IG For Mar	This Year: Mean Last Month	This Year: Change During Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 To Present Mar Mean	Last Year: Mar Mean Last Year	Last Year: Change From Mar Mean Last Yr	Extremes: Start of Record	Extremes: Maximum of Record	Extremes: Minimum of Record
G - 596	5.31	5.68	-0.37	4.37	0.94	4.59	0.72	1949	8.37	0.56
G - 618	7.32	7.47	-0.15	6.19	1.13	6.82	0.50	1950	9.52	2.56
G - 620	6.89	7.12	-0.23	6.01	0.88	6.16	0.73	1950	8.43	1.86
G -1251	2.40	2.41	-0.01	1.44	0.96	1.55	0.85	1955	3.38	-1.76
G -1487	5.73	6.24	-0.51	4.84	0.89	4.68	1.05	1970	7.54	1.59
G -1502	6.85	7.01	-0.16	4.82	2.03	5.22	1.63	1970	7.89	0.49
G -3437	5.58	5.89	-0.31	4.53	1.05	4.30	1.28	1986	7.44	1.54
			AVERAGE CHANGE -0.25		AVERAGE DEVIATION 1.13		AVERAGE CHANGE 0.97			

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

U.S. Geological Survey, Miami, Florida 04/14/98

End of Month Water Level Readings

At Selected Continuous Monitoring Sites

P R O V I S I O N A L D A T A

Palm Beach County Report for Mar 1998

Well Number	This Year: LG For Mar	This Year: Mean Last Month	This Year: Change During Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 To Present Mar Mean	Last Year: Mar Mean Last Year	Last Year: Change From Mar Mean Last Yr	Extremes: Start of Record	Extremes: Maximum of Record	Extremes: Minimum of Record
PB - 99	9.79	9.95	-0.16	7.55	2.24	---	---	1948	14.05	5.01
PB - 445	17.34	17.39	-0.05	17.47	-0.13	17.35	0.01	1964	20.24	16.04
PB - 561	16.35	16.53	-0.18	14.09	2.26	14.81	1.54	1970	17.98	10.94
PB - 565	4.63	4.91	-0.28	2.31	2.32	2.39	2.24	1970	11.39	0.23
PB - 683	17.61	17.78	-0.17	14.85	2.76	16.64	0.97	1973	18.62	13.61
PB - 685	14.73	14.77	-0.04	14.13	0.60	12.98	1.75	1988	17.72	11.69
PB - 732	7.37	6.39	0.98	5.58	1.79	5.87	1.50	1974	9.72	3.43
PB - 809	11.18	11.69	-0.51	9.66	1.52	10.40	0.78	1975	13.90	4.83
PB - 831	22.75	22.64	0.11	20.59	2.16	21.60	1.15	1974	23.56	18.64
PB -1491	5.96	4.01	1.95	2.33	3.63	5.07	0.89	1984	10.03	-3.04
		AVERAGE CHANGE		AVERAGE DEVIATION		AVERAGE CHANGE				
		0.16		1.85		1.20				

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

U.S. Geological Survey, Miami, Florida 04/14/98

End of Month Water Level Readings

At Selected Continuous Monitoring Sites

P R O V I S I O N A L D A T A

Martin County Report for Mar 1998

Well Number	This Year: IG For Mar	This Year: Mean Last Month	This Year: Change During Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 To Present Mar Mean	Last Year: Mar Mean Last Year	Last Year: Change From Mar Mean Last Yr	Extremes: Start of Record	Extremes: Maximum of Record	Extremes: Minimum of Record
M -1004	4.81	4.80	0.01	4.60	0.21	3.34	1.47	1973	9.34	2.29
M -1048	31.04	31.05	-0.01	28.85	2.19	26.77	4.27	1975	33.81	25.11

AVERAGE CHANGE	AVERAGE DEVIATION	AVERAGE CHANGE
0.00	1.20	2.87

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

U.S. Geological Survey, Miami, Florida
End of Month Water Level Readings
At Selected Continuous Monitoring Sites

04/14/98

P R O V I S I O N A L D A T A

St. Lucie County

Report for Mar 1998

Well Number	This Year: TG For Mar	This Year: Mean Last Month	This Year: Change During Month	Long Term: 1974 to Present Max Mean	Long Term: Deviation From 1974 To Present Mar Mean	Last Year: Mar Mean Last Year	Last Year: Change From Mar Mean Last Yr	Extremes: Start of Record	Extremes: Maximum of Record	Extremes: Minimum of Record
STL- 41	27.28	27.18	0.10	25.37	1.91	23.10	4.18	1976	30.97	21.89
STL- 42	26.02	25.77	0.25	25.41	0.61	25.54	0.48	1950	30.27	22.70
STL- 125	17.56	17.46	0.10	16.13	1.43	---	---	1967	20.81	13.53
STL- 172	14.17	14.16	0.01	14.24	-0.07	13.73	0.44	1975	16.44	10.74
STL- 213	12.27	12.15	0.12	12.08	0.19	10.49	1.78	1988	16.39	8.91
STL 214	22.39	22.28	0.11	21.55	0.84	19.92	2.47	1989	25.46	18.92

AVERAGE CHANGE 0.11 | AVERAGE DEVIATION 0.82 | AVERAGE CHANGE 1.87

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

U.S. Geological Survey, Miami, Florida 04/14/98

End of Month Water Level Readings

At Selected Continuous Monitoring Sites

P R O V I S I O N A L D A T A

Lower West Coast - Surficial Aquifer Report for Mar 1998

Well Number	This Year: IG For Mar	This Year: Mean Last Month	This Year: Change During Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 To Present Mar Mean	Last Year: Mar Mean Last Year	Last Year: Change From Mar Mean Last Yr	Extremes: Start of Record	Extremes: Maximum of Record	Extremes: Minimum of Record
C - 296	11.71	11.78	-0.07	9.74	1.97	9.33	2.38	1959	14.06	6.19
C - 690	5.61	5.85	-0.24	5.02	0.59	4.10	1.51	1980	10.07	2.50
C - 953	7.86	8.07	-0.21	6.56	1.30	5.09	2.77	1984	13.05	4.46
C -1063	3.63	3.25	0.38	2.89	0.74	2.05	1.58	1986	5.57	0.36
C -1065	1.54	1.59	-0.05	1.05	0.49	.72	0.82	1986	5.05	0.60
C -1075	30.55	34.76	-4.21	30.34	0.21	25.85	4.70	1986	30.93	25.83
L - 730	27.57	27.67	-0.10	26.36	1.21	24.84	2.73	1968	30.48	24.40

AVERAGE CHANGE	AVERAGE DEVIATION	AVERAGE CHANGE
-0.64	0.93	2.36

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

U.S. Geological Survey, Miami, Florida 04/14/98

End of Month Water Level Readings

At Selected Continuous Monitoring Sites

P R O V I S I O N A L D A T A

Lower West Coast - Lower Tamiami Aquifer Report for Mar 1998

Well Number	This Year: TG For Mar	This Year: Mean Last Month	This Year: Change During Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 To Present Mar Mean	Last Year: Mar Mean Last Year	Last Year: Change From Mar Mean Last Yr	Extremes: Start of Record	Extremes: Maximum of Record	Extremes: Minimum of Record
C - 460	6.81	7.42	-0.61	3.66	3.15	4.43	2.38	1973	10.63	-1.32
C - 492	17.78	17.71	0.07	16.25	1.53	14.92	2.86	1970	18.68	12.35
C - 988	12.54	12.96	-0.42	10.26	2.28	---	---	1984	15.90	3.87
C 1004	2.54	5.73	3.19	1.54	1.00	.73	1.81	1985	9.44	-4.01
C -1072	16.78	16.75	0.03	13.82	2.96	12.03	4.75	1986	20.41	7.46
C -1083	3.76	5.59	1.83	1.53	2.23	.10	3.66	1987	8.32	-4.27
L - 738	3.51	5.15	-1.64	0.53	2.98	-2.98	6.49	1968	9.97	-5.51
L 7194	9.51	8.97	0.54	5.17	4.34	---	---	1975	13.42	-2.50
L -5747	3.21	4.89	-1.68	4.34	-1.13	---	---	1987	12.73	-6.87
			AVERAGE CHANGE -0.97		AVERAGE DEVIATION 2.15		AVERAGE CHANGE 3.66			

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

U.S. Geological Survey, Miami, Florida
End of Month Water Level Readings
At Selected Continuous Monitoring Sites

P R O V I S I O N A L D A T A

Report for Mar 1998

Lower West Coast - Sandstone Aquifer

Well Number	This Year: IG For Mar	This Year: Mean Last Month	This Year: Change During Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 To Present Mar Mean	Last Year: Mar Mean Last Year	Last Year: Change From Mar Mean Last Yr	Extremes: Start of Record	Extremes: Maximum of Record	Extremes: Minimum of Record
C - 688	13.01	12.76	0.25	9.42	3.59	9.42	3.59	1981	15.81	1.95
C -1079	13.49	11.29	2.20	5.09	8.40	3.37	10.12	1986	15.98	-6.84
HE - 556	23.06	23.43	-0.37	20.02	3.04	15.65	7.41	1975	25.99	6.54
L - 727	15.90	15.89	0.01	14.83	1.07	11.89	4.01	1968	18.53	12.19
L - 729	19.34	19.06	0.28	16.75	2.59	9.09	10.25	1968	25.46	11.54
L - 731	21.27	20.66	0.61	13.34	7.93	7.28	13.99	1968	24.62	-7.86
L -1994	17.09	17.60	-0.51	15.69	1.40	11.05	6.04	1974	27.19	8.89
L -1998	-19.47	-15.73	-3.74	-7.33	-12.14	---	---	1974	22.63	-24.41
L -2215	19.66	19.44	0.22	---	---	---	---	1975	25.97	6.06
			AVERAGE CHANGE -0.12		AVERAGE DEVIATION 1.98		AVERAGE CHANGE 7.92			

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

U.S. Geological Survey, Miami, Florida
End of Month Water Level Readings
At Selected Continuous Monitoring Sites

04/14/98

P R O V I S I O N A L D A T A

Lower West Coast - Mid-Hawthorn Aquifer

Report for Mar 1998

Well Number	This Year: IG For Mar	This Year: Mean Last Month	This Year: Change During Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 To Present Mar Mean	Last Year: Mar Mean Last Year	Last Year: Change From Mar Mean Last Yr	Start of Record	Extremes: Maximum of Record	Extremes: Minimum of Record
L - 581	-25.36	24.02	1.34	-25.94	0.58	-37.12	11.76	1965	-4.77	-47.39
L - 742	-36.56	-33.28	-3.36	-46.86	10.22	-58.02	21.33	1968	3.02	-76.61
L -2540	-15.59	-12.81	-2.78	-13.42	-2.17	---	---	1978	-0.34	-42.89
L 2646	6.53	5.29	11.82	-0.72	7.25	-11.09	17.62	1978	9.23	-12.65
L -2701	-23.16	-12.53	-9.63	-19.04	5.88	-23.19	10.03	1978	-2.81	-36.94
---	--	---	---	---	---	---	---	---	---	---
		AVERAGE CHANGE	0.74	AVERAGE DEVIATION	4.35	AVERAGE CHANGE	15.20			

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

United States Department of the Interior
Geological Survey
Water Resources Division
Miami, Florida

End of Month Water-Level Readings in Selected Taped Wells

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1	Palm Beach County
2	Lower West Coast - Surficial Aquifer
3	Lower West Coast - Lower Tamiami Aquifer
4	Lower West Coast - Sandstone Aquifer
5	Lower West Coast - Mid-Hawthorn Aquifer
6	South Florida - Broward County
7	South Florida - Dade County

WARNING: TAPED WELLS MAY BE MEASURED ON ANY DAY OF THE MONTH **

U.S. Geological Survey, Miami, Florida

04/14/98

MONTHLY TAPED WATER LEVEL READINGS FOR SELECTED WELLS IN SOUTH FLORIDA

!! WARNING: TAPED WATER LEVELS MAY BE MEASURED ON ANY DAY OF THE MONTH !!

P R O V I S I O N A L D A T A

Palm Beach County

Report for Mar 1998

Well Number	IG For Mar	This Year: IG Last Month	This Year: Change From IG Last Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 Mar to Present Mar Mean	Last Year: Mar IG Last Year	Last Year: Change From Mar IG Last Yr
P2 -1063	7.74	7.75	-0.01	7.42	0.32	8.31	0.57
		AVERAGE CHANGE	-0.01	AVERAGE DEVIATION	0.32	AVERAGE CHANGE	0.57

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

U.S. Geological Survey, Miami, Florida 04/14/98

MONTHLY TAPED WATER LEVEL READINGS FOR SELECTED WELLS IN SOUTH FLORIDA
!! WARNING: TAPED WATER LEVELS MAY BE MEASURED ON ANY DAY OF THE MONTH !!

P R O V I S I O N A L D A T A

Lower West Coast - Surficial Aquifer

Report for Mar 1998

Well Number	IG For Mar	This Year: IG Last Month	This Year: Change From IG Last Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 to Present Mar Mean	Last Year: Mar IG Last Year	Last Year: Change From Mar IG Last Yr
C -1061	13.23	13.07	0.16	12.75	0.48	14.05	-0.82
L -1136	6.29	6.79	-0.50	4.47	1.82	4.61	1.68
L -5726	10.04	10.17	-0.13	8.39	1.65	7.56	2.48
		AVERAGE CHANGE	-0.16	AVERAGE DEVIATION	1.32	AVERAGE CHANGE	1.11

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

U.S. Geological Survey, Miami, Florida 04/14/98

MONTHLY CAPED WATER LEVEL READINGS FOR SELECTED WELLS IN SOUTH FLORIDA

!! WARNING: CAPED WATER LEVELS MAY BE MEASURED ON ANY DAY OF THE MONTH !!

P R O V I S I O N A L D A T A

Lower West Coast Lower Tamiami Aquifer Report for Mar 1998

Well Number	IG For Mar	This Year: IG Last Month	This Year: Change From IG Last Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 to Present Mar Mean	Last Year: Mar IG Last Year	Last Year: Change From Mar IG Last Yr
C - 394	9.29	8.94	0.35	6.84	2.45	5.04	4.25
C - 462	34.27	34.44	-0.17	28.43	5.84	27.79	6.48
C 489	1.43	3.57	2.14	2.90	-1.47	1.88	-0.45
C - 516	4.88	5.40	-0.52	3.93	0.95	3.48	1.40
C - 526	2.75	3.13	-0.38	2.65	0.10	2.45	0.30
C - 528	2.76	2.76	0.00	2.11	0.65	2.04	0.72
C - 600	3.35	3.44	-0.09	2.83	0.52	2.60	0.75
C - 977	7.12	7.36	-0.24	6.18	0.94	4.53	2.59
C - 982	13.25	13.15	0.10	5.52	7.73	6.32	6.93
C - 998	4.53	7.35	-2.82	0.95	3.58	-0.81	5.34
C 1066	0.99	0.91	0.08	0.29	0.70	-0.4	1.39
C -1068	3.63	3.62	0.01	3.20	0.43	2.77	0.86
C -1070	12.93	12.96	-0.03	11.76	1.17	10.96	1.97
L -1691	5.86	6.47	-0.61	0.05	5.81	-0.76	6.62
L -5723	7.22	4.26	2.96	-0.67	7.89	-4.59	11.81
L 5725	3.27	2.74	0.53	0.02	3.25	-3.60	6.87
L -5745	6.08	3.63	9.71	0.69	5.39	-0.73	6.81
		AVERAGE CHANGE	0.43	AVERAGE DEVIATION	2.70	AVERAGE CHANGE	3.80

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

U.S. Geological Survey, Miami, Florida 4/14/98

MONTHLY TAPED WATER LEVEL READINGS FOR SELECTED WELLS IN SOUTH FLORIDA

!! WARNING: TAPED WATER LEVELS MAY BE MEASURED ON ANY DAY OF THE MONTH !!

P R O V I S I O N A L D A T A

Lower West Coast - Sandstone Aquifer

Report for Mar 1998

Well Number	IG For Mar	This Year: IG Last Month	This Year: Change From IG Last Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 to Present Mar Mean	Last Year: Mar IG Last Year	Last Year: Change From Mar IG Last Yr
C - 298	22.49	23.41	-0.92	19.62	2.87	16.45	6.04
C - 303	7.96	8.22	-0.26	4.92	3.04	3.37	4.59
C - 989	12.89	12.27	0.62	6.86	6.03	5.34	7.55
C -1080	29.60	29.50	0.10	25.91	3.70	29.60	0.00
L - 741	9.79	9.78	0.01	8.93	0.86	6.54	3.25
L -1963	19.40	20.44	-1.04	17.21	2.19	5.56	13.84
L -1974	17.94	17.94	0.00	16.68	1.26	16.48	1.46
L -2187	16.05	16.42	-0.37	14.54	1.51	11.78	4.27
		AVERAGE CHANGE	-0.24	AVERAGE DEVIATION	2.68	AVERAGE CHANGE	5.12

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

U.S. Geological Survey, Miami, Florida 04/14/98

MONTHLY TAPED WATER LEVEL READINGS FOR SELECTED WELLS IN SOUTH FLORIDA

!! WARNING: TAPED WATER LEVELS MAY BE MEASURED ON ANY DAY OF THE MONTH !!

P R O V I S I O N A L D A T A

Lower West Coast - Mid-Hawthorn Aquifer

Report for Mar 1998

Well Number	1G For Mar	This Year 1G Last Month	This Year Change From 1G Last Month	Long Term 1974 to Present Mar Mean	Long Term Deviation From 1974 to Present Mar Mean	Last Year Mar 1G Last Year	Last Year Change From Mar 1G Last Yr
C - 511	38.30	38.60	-0.30	37.89	0.41	36.40	1.90
C - 684	34.40	34.20	0.20	33.30	1.10	32.40	2.00
C - 963	30.80	30.40	0.40	27.67	3.13	28.60	2.20
C - 965	20.79	21.13	-0.34	16.81	3.98	15.57	5.22
C 974	37.70	36.90	0.80	35.54	2.16	35.10	2.60
C - 984	18.74	18.50	0.24	17.48	1.26	16.88	1.86
L - 735	2.20	1.69	0.51	5.77	-3.57	-3.94	6.14
L -1059	14.40	14.80	-0.40	12.26	2.14	5.27	9.13
L -1111	-7.63	-6.71	-0.92	-4.07	-3.56	11.30	3.67
L -1121	-32.24	-28.74	-3.50	-34.13	1.89	-47.89	15.65
L -1898	18.65	14.13	4.52	-19.44	2.79	-33.66	15.31
L -1973	11.77	11.81	-0.04	12.36	-0.59	7.94	3.83
L -1983	27.64	27.78	-0.14	29.90	-2.26	26.51	1.13
L -2244	-18.70	-15.57	-3.13	-28.60	9.90	30.47	11.77
L -2642	-18.12	-14.82	-3.30	-21.26	3.14	-28.76	10.64
L 2643	-4.19	-2.87	-1.32	0.66	-4.85	-9.05	4.86
L -2645	14.70	15.00	-0.30	14.36	0.34	12.20	2.50
L -2700	9.29		---	10.28	-0.99	5.91	3.38
L -2820	15.60	15.80	-0.20	14.93	0.67	13.00	2.60
L -2821	13.90	14.00	-0.10	13.62	0.28	11.60	2.30
		AVERAGE CHANGE	-0.87	AVERAGE DEVIATION	0.77	AVERAGE CHANGE	5.42

U.S. Geological Survey, Miami, Florida 04/14/98

MONTHLY TAPED WATER LEVEL READINGS FOR SELECTED WELLS IN SOUTH FLORIDA

!! WARNING: TAPED WATER LEVELS MAY BE MEASURED ON ANY DAY OF THE MONTH !!

P R O V I S I O N A L D A T A

South Florida - Broward County

Report for Mar 1998

Well Number	IG For Mar	This Year: IG Last Month	This Year: Change From IG Last Month	Long Term: 1974 to Present Mar Mean	Long Term: Deviation From 1974 Mar to Present Mean	Last Year: Mar IG Last Year	Last Year: Change From Mar IG Last Yr
G - 854	3.10	3.27	-0.17	2.67	0.43	3.37	-0.27
G -1240	1.45	1.97	-0.52	1.37	0.08	1.17	0.28
G -1343	2.40	2.76	-0.36	1.95	0.45	3.18	-0.78
G -1597	1.37	1.94	-0.57	1.17	0.20	1.15	0.22
G -2122	1.97	2.03	-0.06	1.42	0.55	1.85	0.12
G -2130	1.55	1.74	-0.19	1.12	0.43	1.57	-0.02
G -2410	1.23	1.99	-0.76	1.19	0.04	1.14	0.09
G -2425	1.68	2.36	-0.68	1.42	0.26	1.42	0.26
		AVERAGE CHANGE	-0.41	AVERAGE DEVIATION	0.30	AVERAGE CHANGE	-0.02

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

U.S. Geological Survey, Miami, Florida 04/14/98

MONTHLY TAPED WATER LEVEL READINGS FOR SELECTED WELLS IN SOUTH FLORIDA
!! WARNING: TAPED WATER LEVELS MAY BE MEASURED ON ANY DAY OF THE MONTH !.

P R O V I S I O N A L D A T A

South Florida - Dade County Report for Mar 1998

Well Number	IG For Mar	This Year IG Last Month	This Year Change From IG Last Month	Long Term 1974 to Present Mar Mean	Long Term Deviation From 1974 to Present Mar Mean	Last Year Mar IG Last Year	Last Year Change From Mar IG Last Yr
G - 896	1.81	2.68	-0.87	2.28	-0.47	2.51	0.70
G -3348	2.19	2.01	0.18	1.77	0.42	1.52	0.67
		AVERAGE CHANGE	0.34	AVERAGE DEVIATION	-0.02	AVERAGE CHANGE	-0.01

Note: --- = No data available

Water level data in feet NGVD -
National Geodetic Vertical Datum of 1929

PROVISIONAL DATA - Unpublished USGS data subject to revision Contact Hydrologic Records Section (305)594-0655.

APPENDIX D: Retrieving Ground Water Level Data

OUTLINE 1

A Step by Step Prompt and Response for Retrieving Ground Water Level Data from the U. S. Geological Survey's Miami sub-District ADAPS Database.

- Telnet to 144.47.26.4
- Login: Enter your username
- Password: Enter your password
- Wso4sflmia:/guests/switanck> rlogin fso2sflmia
- Password: Reenter your password
- Fs02sflmia:/guests/switanek>ADAPS
- Select desired menu option or program_name: DI
- Select desired menu option or program name: 1 (Daily Value Tables are Selected)
- Enter: PA to edit field or Carriage Return
- Enter Code for Option to Change: SC (Statistical Code)
- Enter "L" for list: L
  - Select from the list of statistical parameters: 1 (MAXIMUM)
- Enter Code for Option to Change: SU (Summary Use Option File
  - Enter Choices Seperated by Commas or Blanks: 1 2 3 4 5 9 10
- Enter Code for Option to Change: 'Carriage Return'
- Enter: PA,OT,OF,DB,AG,ST,DD,YR,BA: OF
  - Give an output file
- Enter: PA,OT,OF,DB,AG,ST,DD,YR,BA: ST
  - Enter station name: C -1004
  - Enter number of parameter desired:1 (72020 Elevation DCP, Ft (NGVD)
- Enter: PA,OT,OF,DB,AG,ST,DD,YR,BA: YR
  - TYPE of YEAR: 1 (January)
  - YEARS: 2
    - Enter starting year: 1996
    - Enter ending year: 1997
- Enter: PA,OT,OF,DB,AG,ST,DD,YR,BA: 'Carriage Return'
- More Tables? [Y/N]: N
- Select desired menu or program name: ex (exit system)
- Wso4sflmia:/guests/switanek> ls
  - List your files...locate your output file
- Transfer your file to a Word document Software Package.

OUTLINE 2

A Step by Step Prompt and Response for Retrieving Quarterly Ground Water Level Data from the U.S. Geological Survey's Miami sub-District QWDATA Database.

- Telnet to 144.47.26.4
- Login: Enter your username
- Password: Enter your password
- Wso4sflmia:/guests/switanek> rlogin fso2sflmia
- Password: Reenter your password
- Fso2sflmia:/guests/switanek> qwdata
- Please enter a number from the above or Unix command: 3 (Retrieve Samples)
- Please enter a number from the above or Unix command: 3 (Locate Sites And/Or Samples)
- Do you want to locate sites: N (no)
- Do you want to retrieve records from a specific site: Y (yes)
- Will the stations or numbers come from the terminal: Y
- Place an "X" on the item you want to choose from
  - Date X
  - Parameter Value and Code X
- Earliest Date: YYYYMMDD
  - 19960101
- Latest Date: YYYYMMDD
  - 19980101
- Parameter Code 72020
  - Carriage Return until you get out of loop
- Please enter station number (quit to end): 273127080481401
- Please enter station number (quit to end): quit
- Do you want those records sorted: Y
  - Sort: IBC
- Please enter the name of files to hold records: Select a filename
- Do you want to save a list of sites that have qwdata: N
- Please enter a number from the above list: 6 (make water quality tables)
- Please enter the file name of records numbers (99 to end): Enter your selected filename
- Please enter name of file to hold table: filename.tbl
- Do you want to use existing table definition: N
- Table Type : 1
  - Reporting year: 'Carriage Return'
  - Carrige Return seven times until you reach the next option
- Do you want to change this definition: N
- Do you want to save this table for reuse: N
- Do you want to enter parameters from the terminal: Y
  - Parameter1> dates
  - Parameter2> times
  - Parameter3> staid
  - Parameter4> local
  - Parameter5> 72020

    - Parameter6> 'Carriage Return'
- Please enter your choice of rounding options: D (default)
- Do you want to make another table now: N
- Please enter number from above list: 99 (exit system)
- Wso4sflmia:/guests/switanek> ls (list files)
    - Locate your selected file
    - File transfer your file to your area
    - View file in a Word Document Software Package
- Wso4sflmia:/guests/switanek> exit

OUTLINE 3

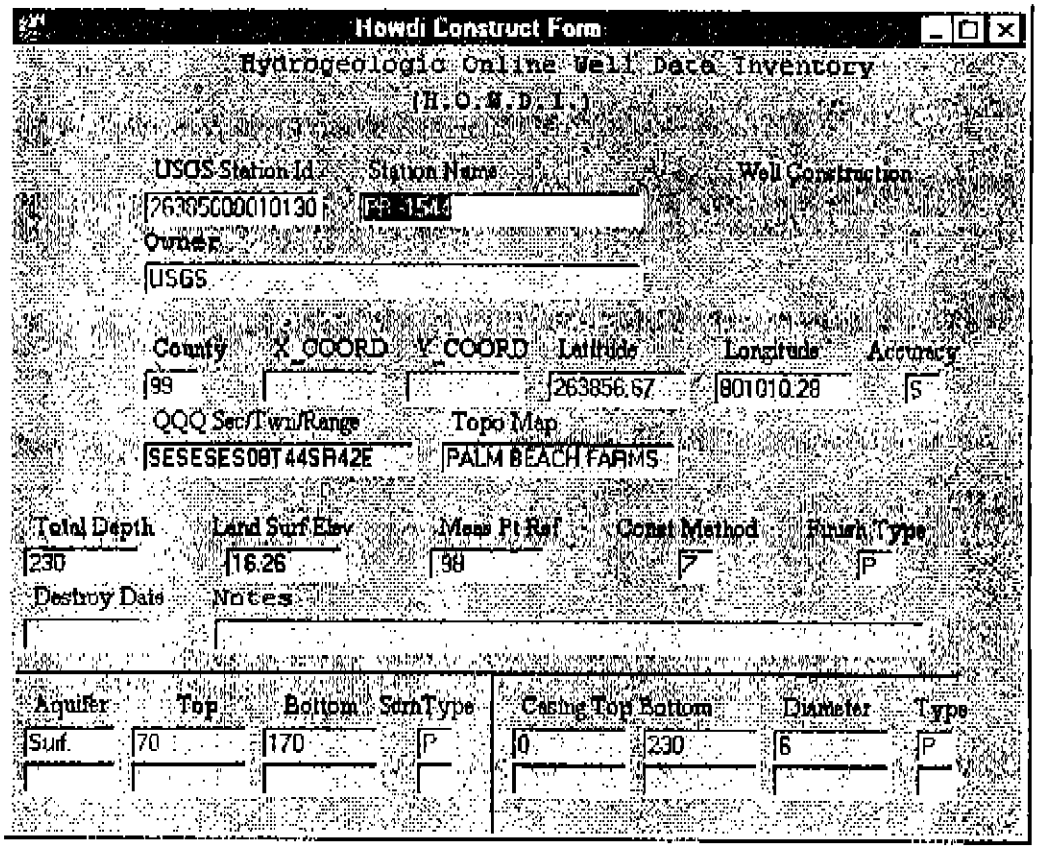
A Step by Step Prompt and Response for Retrieving Monitor Well Construction Information from the U.S. Geological Survey's Miami sub-District GWSI Database.

- Telnet to 144.47.26.4
- Login: Enter your username
- Password: Enter your password
- Wso4sflmia:/guests/switanek> rlogin fs02sflmia
- Password: Reenter your password
- Fso2sflmia:/guests/switanek> gwsi
- Select Program Code: 6 (Retrieval/Tables)
- Enter set-up parameters: 'Carriage Return'
- Enter root path name (CR=GW): 'Carriage Return'
- Which field do you wish to use for gross selection: ? (shows field listing)
  - 9 (Station name)
- Do you wish to load gross select key from file: N
- Enter Station Name: C – 1004
- Enter Station Name: 'Carriage Return'
- Enter item number to change: 'Carriage Return'
- Specify format: 2 (dump)
- Enter filename for output table: 'Carriage Return'
- Enter Title you wish to appear: Well Information
- Which field set do you wish to use: 3 (All)
- Enter field or exclude: 'Carriage Return'
- Do you wish to print empty fields: N
- Do you wish to restrict output or related fields: N
- Enter item number to change or CR to continue: 'Carriage Return'
- Enter item number to change or CR to continue: 'Carriage Return'
- Enter item number to change or CR to continue: 'Carriage Return'
- Enter review/modify parameters: 'Carriage Return'
- Enter name of program control file: 'Carriage Return'
- Enter processing parameters: 'Carriage Return'
  - Processing GWSI files
- Enter file disposition parameters: 'Carriage Return'
- Enter carriage return to exit or A for another retrieval: 'Carriage Return'
- Press enter for menu: 'Carriage Return'
- Select Program code: 99 (exit system)
- Wso4sflmia:/guests/switanek> ls (list files)
  - File transfer your selected file and view in a word document software package
- Wso4sflmia:/guests/switanek> exit

Form 1

An Example Form of a Ground Water Level Data Extract from South Florida Water Management District's HOWD1 Sample Database.

COUNTY_NAME	STATION	DATE	TIME	TPV	LSE	MPR	W/L
PALM BEACH	PB -1544	22-JAN-1998	0929	3.43	16.26	.98	13.81
	PB -1544	24-FEB-1998	0816	3.81	16.26	.98	13.43
	PB -1544	18-MAR-1998	1348	4.82	16.26	.98	12.42
	PB -1544	16-APR-1998	0816	5.93	16.26	.98	11.31
	PB -1544	13-MAY-1998	0823	5.92	16.26	.98	11.32
	PB -1544	23-JUN-1998	0829	7.21	16.26	.98	10.03
	PB -1544	21-JUL-1998	0821	4.95	16.26	.98	12.29
	PB -1544	19-AUG-1998	0851	5.40	16.26	.98	11.84
	PB -1544	11-SEP-1998	0802	5.06	16.26	.98	12.18
	PB -1547	14-JAN-1998	1324	2.41	19.74	-.20	17.13
	PB -1547	25-FEB-1998	1302	1.68	19.74	-.20	17.86
	PB -1547	26-MAR-1998	NA01		19.74	-.20	
	PB -1547	23-APR-1998	1337	3.22	19.74	-.20	16.32
	PB -1547	20-MAY-1998	1431	3.35	19.74	-.20	16.19
	PB -1547	25-JUN-1998	1258	3.81	19.74	-.20	15.73
	PB -1547	23-JUL-1998	1235	2.02	19.74	-.20	17.52
	PB -1547	20-AUG-1998	1259	1.94	19.74	-.20	17.60
	PB -1548	14-JAN-1998	1325	2.38	19.49	-.30	16.81
	PB -1548	25-FEB-1998	1303	1.76	19.49	-.30	17.43
	PB -1548	26-MAR-1998	1448	1.91	19.49	-.30	17.28

Form 2

An Example Form of Well Construction Information from South Florida Water Management District's HOWDI Well Construction Database.