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**A THREE-DIMENSIONAL FINITE DIFFERENCE
GROUND WATER FLOW MODEL OF THE
FLORIDAN AQUIFER SYSTEM IN MARTIN, ST. LUCIE AND
EASTERN OKEECHOBEE COUNTIES, FLORIDA**

by

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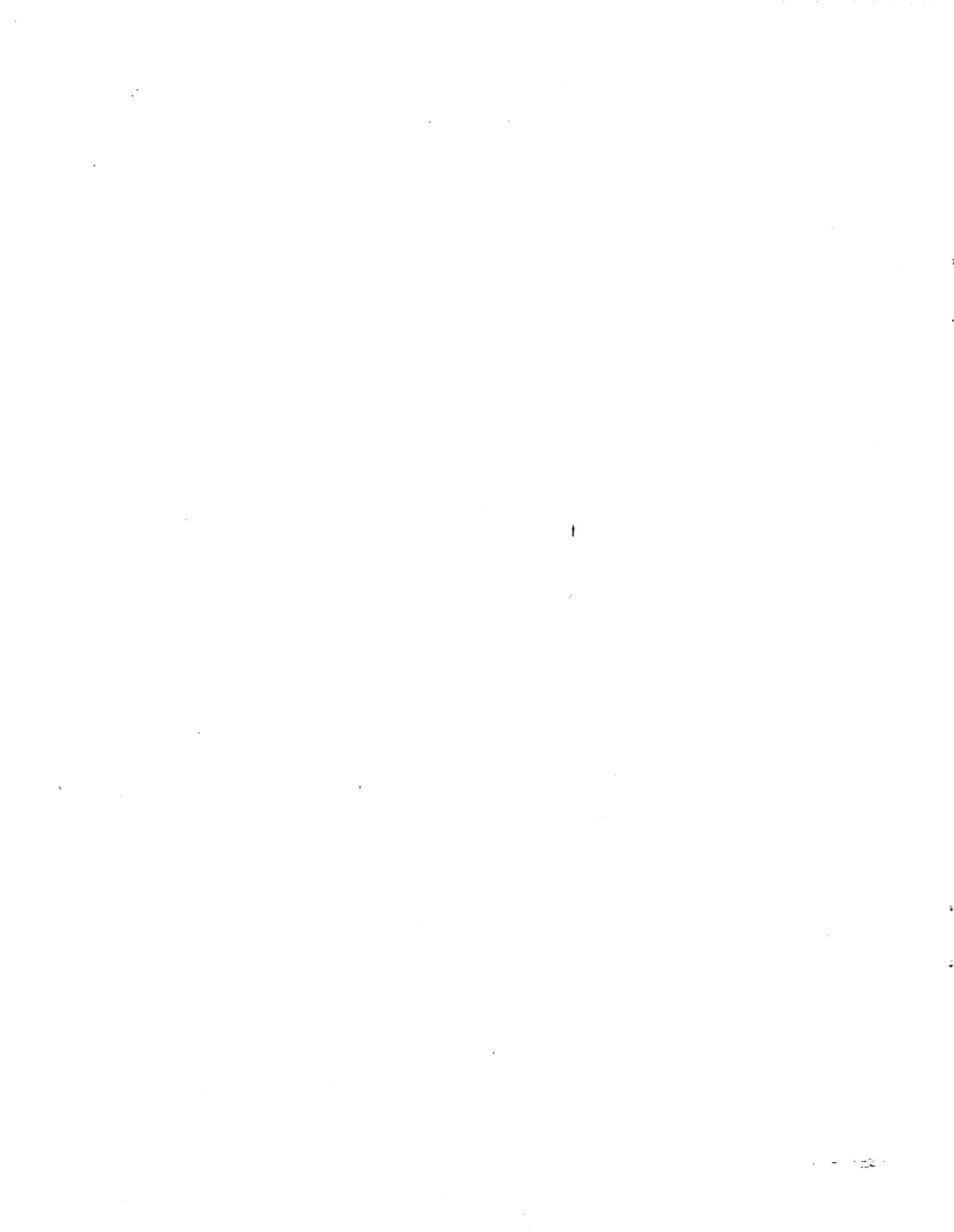
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**Hydrogeology Division
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South Florida Water Management District
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EXECUTIVE SUMMARY

The Upper East Coast Planning Area (UECPA) ground water flow model simulating conditions in the Floridan Aquifer System was developed using the U.S. Geological Survey modular three-dimensional finite-difference ground water flow code, commonly known as MODFLOW. This code was used because it allows a detailed evaluation of ground water flow, it is available in the public domain, it is compatible with most computer systems, and it contains many features which make it easy to use and modify. MODFLOW simulates ground water levels and flow using data describing the aquifers, such as hydraulic conductivity, transmissivity, leakance, and storage. Stress on the aquifers also can be simulated, such as recharge and well withdrawals.

The Upper East Coast Planning Area consists of Martin, St. Lucie, and portions of eastern Okeechobee counties. It is underlain by two aquifer systems: the Surficial Aquifer System and the deeper Floridan Aquifer System. Ground water in the Floridan Aquifer System ranges from moderately to highly mineralized and is currently used almost exclusively for agricultural irrigation. The Floridan Aquifer System includes an upper aquifer and a lower aquifer. The upper aquifer contains major producing zones which yield water for agricultural and potable purposes. The lower aquifer is highly mineralized.

The ground water flow model is composed of four layers representing the Surficial Aquifer System, the Upper Floridan Aquifer, and two of the uppermost portions of the Lower Floridan Aquifer. Confining zones between aquifers are not represented by separate layers within the model. Rather, the confining zones are represented by vertical conductance terms within the top three layers of the model. The horizontal model grid has 54 rows and 53 columns, with a uniform spacing of one mile.

The model was calibrated by adjusting aquifer parameters to match computed water levels with observed levels for the period May 1989 through March 1991. Ground water withdrawal information for the calibration period was obtained from individual water use permits for irrigation issued by the South Florida Water Management District and St. John's River Water Management District. The permits supplied information on the location of wells,

their capacities and well construction data. Further information was obtained by asking the permit holders to estimate their water usage during the calibration period. This was done by mailing questionnaires to the majority of permit holders in the UECPA. The responses to these questionnaires, combined with data from the permits, were used to estimate actual monthly water use during the calibration period. In some cases, agricultural and public water supply monthly water use reports were submitted to the District. These also were used in the model.

Recommendations

This model should be used in the evaluation of water-use permit applications for the Floridan Aquifer System in the UECPA. Where a finer scale or site-specific model is required, the regional model could be used to provide the boundary conditions. The current SFWMD Basis of Review manual specifies a Floridan Aquifer System restricted allocation of 1.5 acre inches for areas within the eastern Okeechobee-northwestern St. Lucie Basin. The current maximum month restriction of 1.5 acre inches should be reviewed using this model. This should be done by making predictive model runs using the maximum withdrawals allowed and observing the impacts on water levels in the aquifer system. The model should continue to be refined and updated whenever additional information becomes available.

Minimum water levels should be established for the Upper Floridan Aquifer in the Upper East Coast Planning Area. All permitted withdrawals should be regulated to ensure the minimum levels are maintained. The establishment of minimum water levels should be a part of the development of the water-supply plan for this area. Model results indicate water quality deterioration in the Upper Floridan Aquifer is likely in the future, therefore, increased monitoring for dissolved solids and chlorides in the Floridan Aquifer System well water is recommended for areas where large water withdrawals are occurring.

Agricultural water use accounted for 90 percent of the Floridan Aquifer System water outflows in the UECPA for the 23 month time period modeled. Accurate estimates of the amount of water being used from Floridan Aquifer wells are essential

in maintaining an accurate ground water flow model. It is recommended that permittees be required to submit monthly water use reports to the District. The reports should indicate the amount of time wells were allowed to flow freely in each month of the year.

Model results and field observations indicate that water levels fluctuate as much as eight feet in three distinct areas in St. Lucie County where intense citrus irrigation withdrawals from the Floridan Aquifer System occur. Caution should be exercised when allocating new withdrawals, and restrictions on additional development of the Floridan Aquifer System should be considered in these areas.

Hydrogeologic studies should be undertaken in areas where existing information is scarce. The areas should be located where future use of the Floridan Aquifer System as a public water supply source is probable. Cities in Martin and St. Lucie counties are currently using the Surficial Aquifer System as a sole source of potable water. There is concern that this source may not provide enough water to meet future demands. The availability of water from the Surficial Aquifer System is limited due to the lack of storage capacity, problems with wetland impacts and susceptibility of the aquifers to contamination by various land use activities.

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ABSTRACT

A three-dimensional ground water flow model representing the Floridan Aquifer System (FAS) in the Upper East Coast Planning Area (the study area) was developed as a tool for evaluating the impacts on the aquifer system resulting from present and future water uses. The FAS flows naturally at land surface and is used primarily for citrus irrigation in the study area. The water is moderately to highly mineralized and is usually blended with surface waters before being applied to citrus trees. Despite its high total dissolved solids content, the aquifer is utilized extensively, especially in St. Lucie County.

The extent and composition of the FAS and three permeable zones within it were defined using previously available and newly collected data. With few exceptions, agricultural ground water supply wells are drilled to the upper portion of the FAS where water quality is best and adequate yields are attained. Model results showed the majority of recharge to the Upper Floridan Aquifer is from deeper portions of the Aquifer System. A smaller, less important, source of recharge is from the north and west model boundaries, coinciding with the boundaries of Okeechobee and Indian River counties.

Present permitted allocations seasonally lower ground water levels as much as eight feet in three distinct areas of St. Lucie County. Survey results indicate that permittees in these areas are observing increasing chlorides in their FAS well water. Water quality degrades with depth in the

FAS and intensive withdrawals increase the potential for upward movement of that degraded water. Additional development of the FAS is not recommended in these three areas encompassing 28 square miles in St. Lucie County.

At present demand levels, ground water from the FAS should be available to meet present and future agricultural needs in the UECPA without adversely impacting water quality or the ability for wells to flow naturally at land surface. The potential for further ground water development will be analyzed using this model by simulating future water use scenarios.

The FAS is utilized on a small scale as a source for public water supply on Hutchinson Island. The water is processed by reverse osmosis to render it potable. The aquifer is providing an adequate quantity for the current level of use. Model results indicate the FAS does not have large scale production potential east of the Intracoastal Waterway, north of Stuart. Previous studies indicate a structural anomaly (possible fault) exists, the axis of which follows the Intracoastal Waterway in a north to south direction. Permeability in the upper FAS is drastically reduced east of this anomaly as is the vertical hydraulic connection between the upper and lower FAS. These factors taken together are responsible for the low yielding wells observed on Hutchinson Island and limit future large scale development of the aquifer in this area.



INTRODUCTION

PURPOSE AND SCOPE

The purpose of this study was to develop a calibrated three-dimensional ground water flow model simulating the Floridan Aquifer System (FAS) underlying the Upper East Coast Planning Area (UECPA). Two aquifer systems underlie the study area, the shallow Surficial Aquifer System and the deeper FAS. There are over 1,300 permitted wells tapping the FAS in the study area, the predominant use being citrus irrigation. Agricultural water demands in the study area are met primarily by surface water and secondarily by FAS water. Public water supplies presently rely primarily on the Surficial Aquifer System rather than the FAS. However, attention is shifting toward the high yielding FAS to augment current public water supplies.

The model was developed as part of the South Florida Water Management District's (SFWMD) effort to develop regional comprehensive water supply plans. These plans will be based on quantitative assessments of the available water resources, of which the Floridan Aquifer is a significant component. Evaluation of existing water supply problem areas, identification of potential problem areas, and development of management guidelines will be integral components of these water supply plans. The model will have immediate use as a regulatory tool to the SFWMD in evaluating requests for large ground water withdrawals.

This report represents the third phase of a four phase Floridan Aquifer System resource assessment of the UECPA. The first phase was completed in 1980 and involved collection and compilation of data in the UECPA, namely structural, flow zone, and water quality mapping (Brown and Reece, 1979), aquifer test data and analysis (Brown, 1980) and lithologic, geophysical, and well construction data (Reece, Brown and Hynes, 1980). The second phase involved developing an interim two-dimensional numerical flow model to evaluate immediate permitting issues arising from large FAS water withdrawal requests (Bower, 1988). One of the recommendations of phase two was that as part of phase three, a three-dimensional calibrated model be developed using the USGS MODFLOW code. This three-dimensional model will be followed by a fourth phase which will include documenting and analyzing the latest resource assessment data gathered over the past three years. The next publication will

include recently gathered water quality data, structural and flow zone mapping, results from a multi-zone FAS Aquifer Performance Test (APT) conducted by the SFWMD in St. Lucie County, and discussions regarding water level fluctuations.

LOCATION OF STUDY AREA

The UECPA is located on the southeast coast of Florida and covers all of St. Lucie, Martin, and parts of Okeechobee counties within the SFWMD (Figure 1). The model area includes all of the UECPA and includes an area approximately five miles outward from the UECPA into the adjacent counties of Indian River, Palm Beach, Okeechobee, and Osceola. It lies generally within Townships 33 through 41 South and Ranges 35 through 43 East, and encompasses approximately 2,862 square miles, 1,500 of which are in the UECPA (Figure 2).

TOPOGRAPHY

Land surface is relatively featureless, with elevations ranging from 0 feet to 60 feet above the National Geodetic Vertical Datum (NGVD), averaging approximately 25 feet NGVD in most of the study area. The major feature is a ridge trending southeast, which occurs in the western portion of the study area. The ridge trends southeast starting in the northwest portion of the UECPA with a maximum elevation of approximately 60 feet above NGVD (Figure 3). The Floridan Aquifer System potentiometric surface is 5-35 feet above land surface in most of the study area, but is at or below land surface in the topographically high areas along the ridge where land surface is 45 feet (NGVD) or higher.

HYDROGEOLOGY

The two major aquifer systems underlying the study area are the Surficial Aquifer System and the Floridan Aquifer System. They extend from land surface to over 1,500 feet in depth. Figure 4 is a generalized hydrogeologic cross section taken from A-A' as shown in Figure 1. The scope of this document includes a brief summary of the hydrogeology which supports the model development. Readers interested in a more detailed discussion of the geology of the Floridan Aquifer System are referred to the following publications: Applin and Applin (1944), Cooke (1945), Puri and Vernon (1959), Stringfield (1966) and Tibbals (1991).

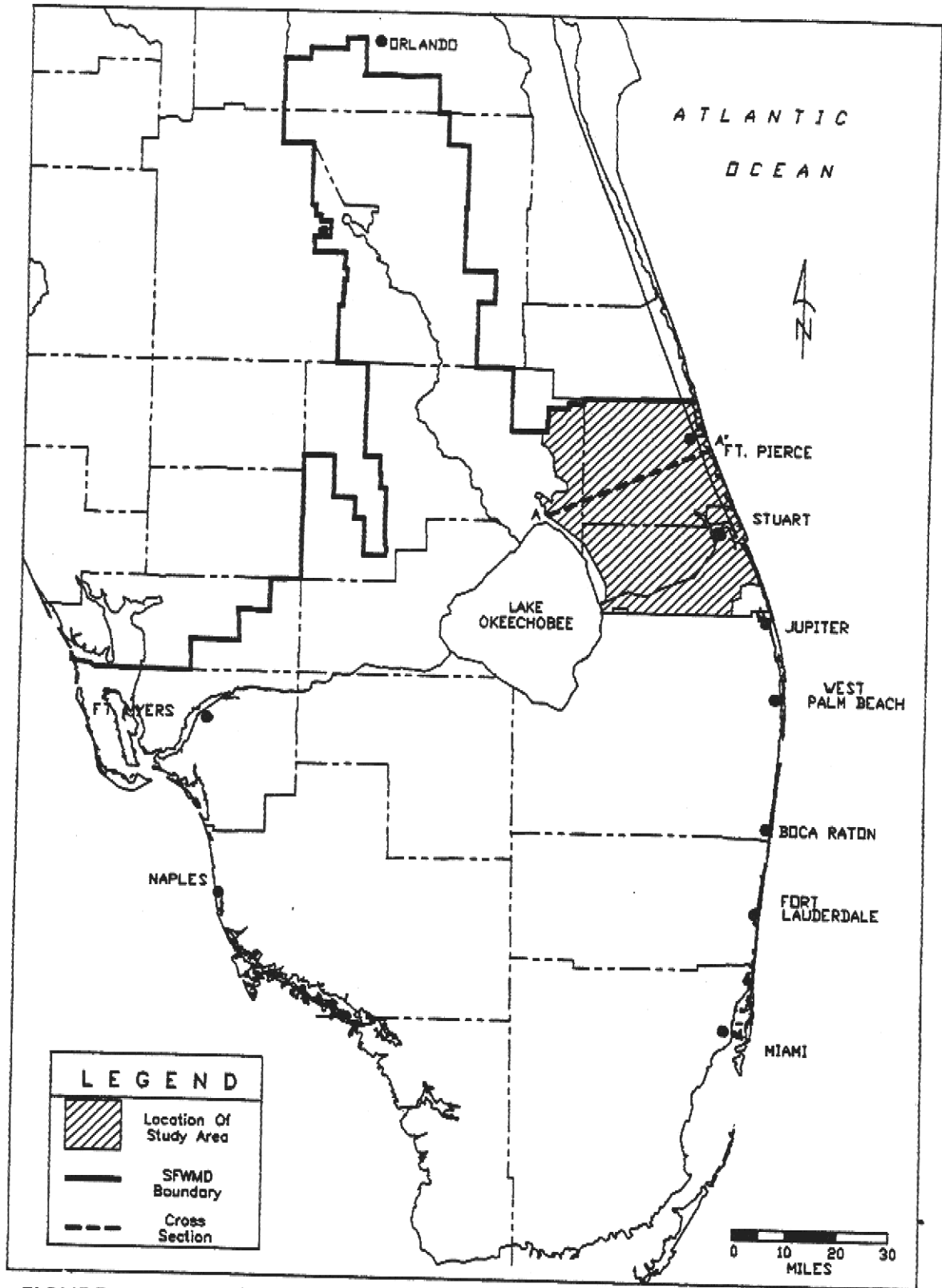


FIGURE 1: Location Map

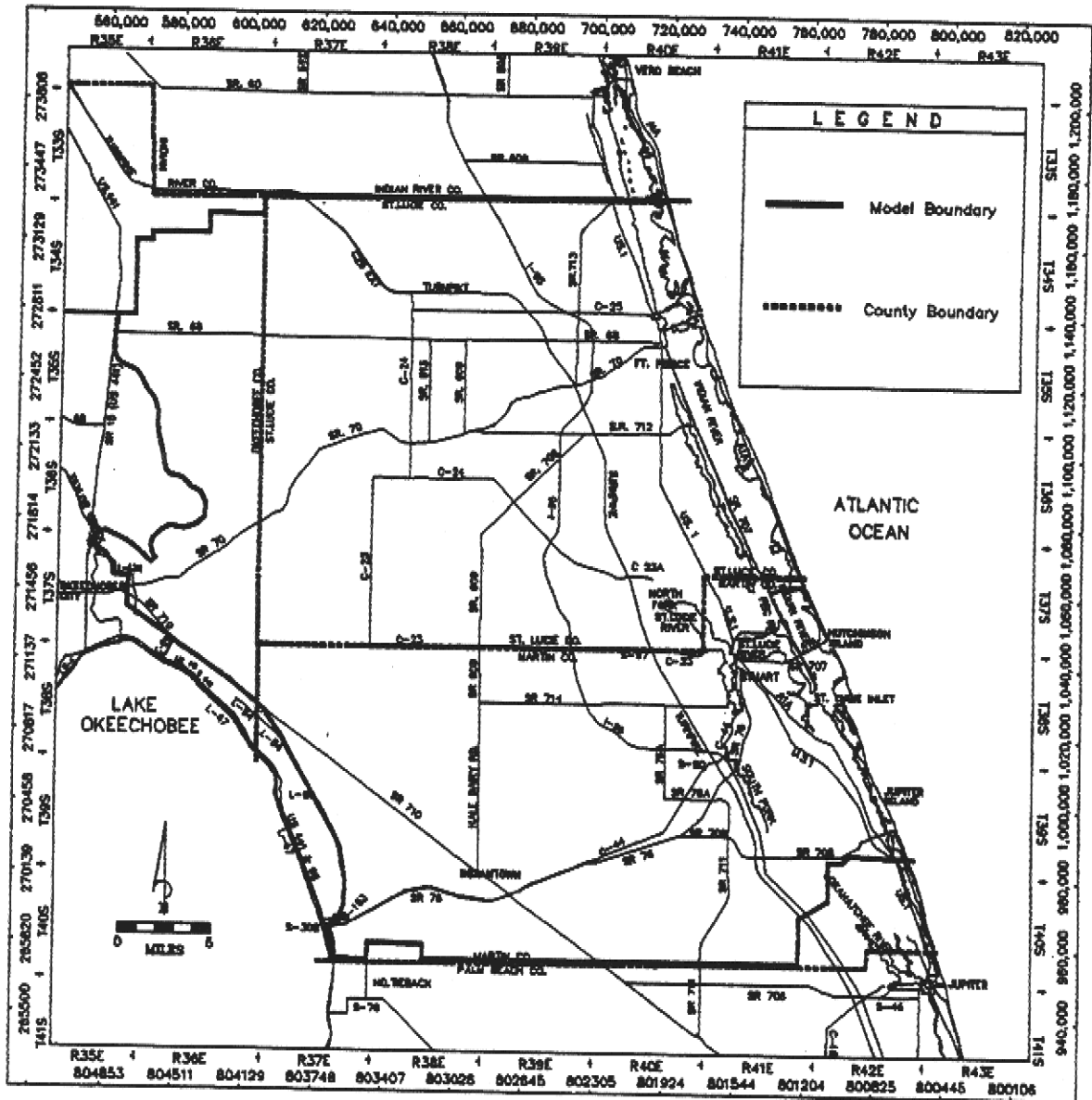


FIGURE 2. Study Area

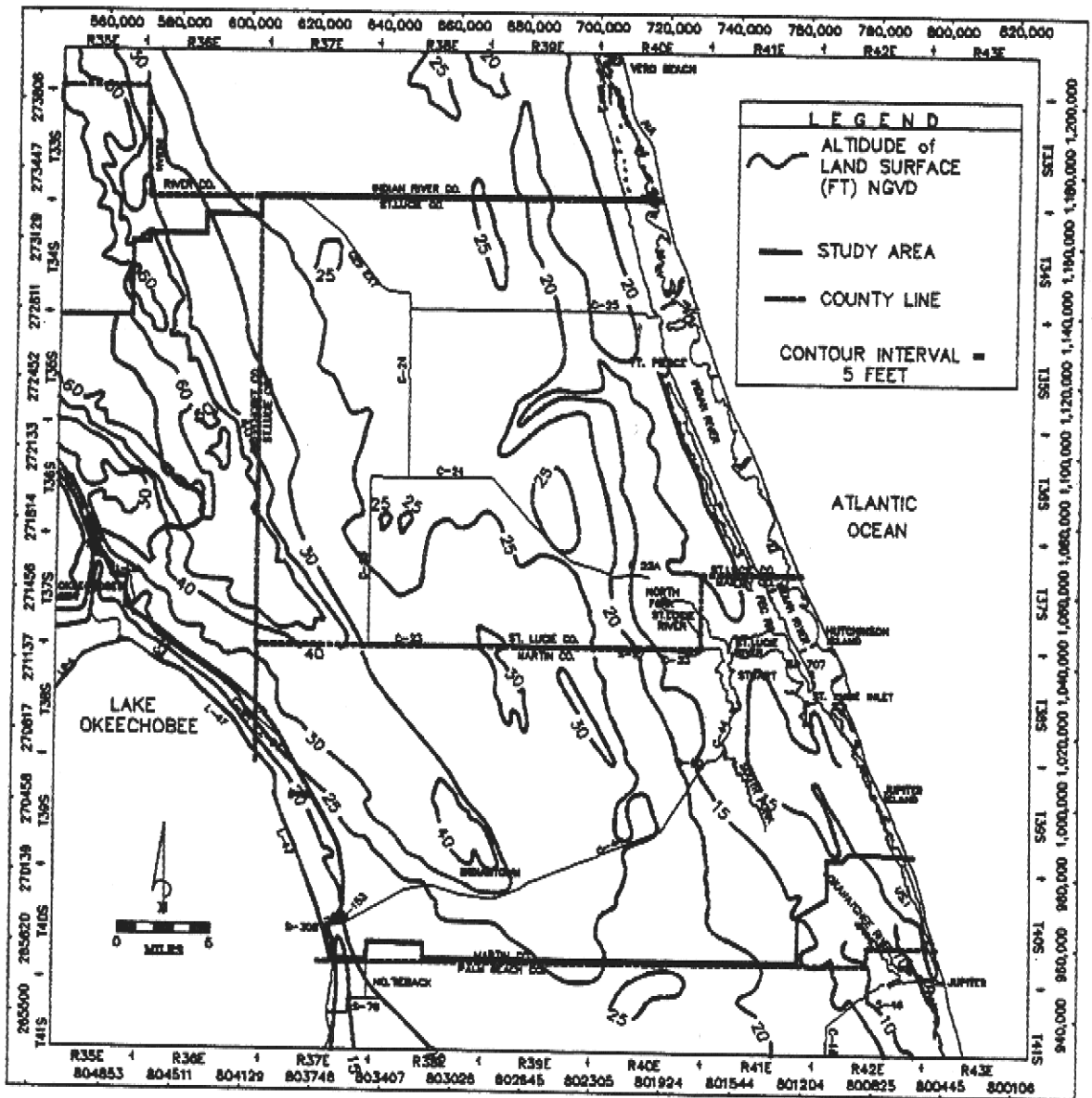


FIGURE 3: Topography of Study Area

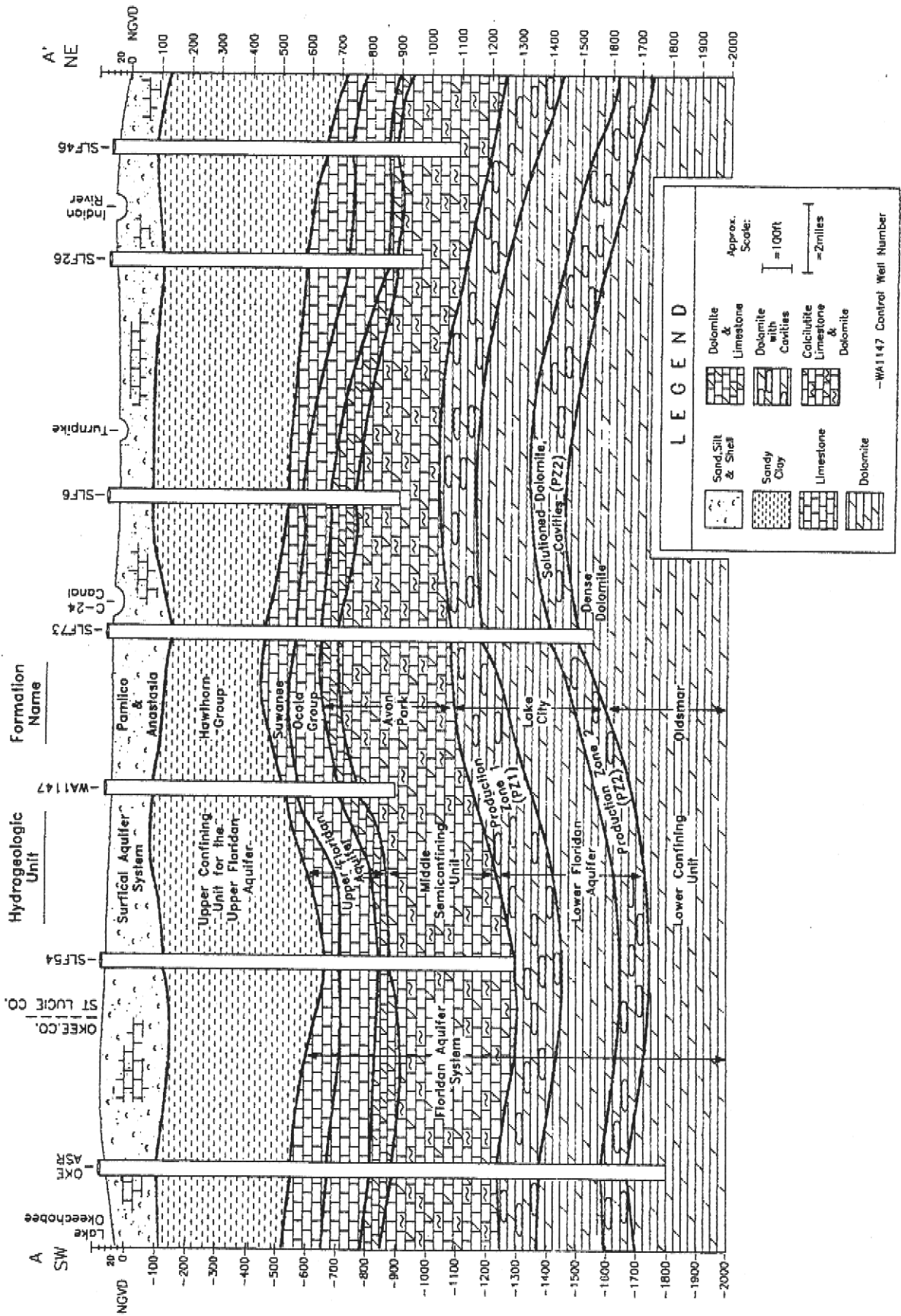


FIGURE 4. Generalized Hydrogeologic Cross Section

Surficial Aquifer System

The uppermost water-bearing interval in the UECPA is the Surficial Aquifer System (SAS). The SAS is the source of most of the potable water used in Martin, St. Lucie and Okeechobee counties. It is comprised of all saturated sediments and rocks from the water table down to the clays and silts of the Hawthorn confining unit and is generally composed of two producing zones. The sediments are composed of unconsolidated fine to medium quartz sand with interbedded lenses of limestone, sandstone, shell and clay of late Miocene and Pleistocene age. These surficial geologic units are areally discontinuous and extremely difficult to correlate stratigraphically over large areas. Aquifer thicknesses range from less than 50 to greater than 250 feet (Brown and Reece, 1979).

The Surficial Aquifer System is unconfined and is recharged locally by rainfall, canals, ditches, small reservoirs, and irrigation water. A small amount of recharge is derived from downward seepage of irrigation water derived from the Floridan Aquifer System (Lichtler, 1960) and, to a lesser extent, upward leakage from the FAS.

Water leaves the Surficial Aquifer System by seepage to canals and ditches, direct flow into the Atlantic Ocean, evapotranspiration where the water table is near land surface, and by pumping wells.

The scope of this investigation does not include a detailed discussion of the Surficial Aquifer System. Due to its role as a primary supply of fresh water to the public, it is covered in two separate studies currently in review: A Three-Dimensional Finite Difference Ground Water Flow Model of the Surficial Aquifer System in Martin County, Florida (Adams, 1992) and A Three-Dimensional Finite Difference Ground Water Flow Model of the Surficial Aquifer in St. Lucie County, Florida (Padgett, in press). The reader is referred to these publications for a more detailed discussion of this aquifer system.

Upper Confining Unit

The upper confining unit consists of Miocene age sediments of the Hawthorn Group. The geologic contact between the Pliocene age basal surficial sediments and Miocene age Hawthorn sediments is conformable and nearly imperceptible. Lithologic logs generally describe the contact as a change from a gray-green silty sand to a dark green fairly dense clay. The upper confining beds are equated with the upper portion of the Hawthorn Group and are contained wholly within the Hawthorn Group (Wedderburn and Knapp, 1983). The sequence is composed of low permeability, phosphatic, silty and clayey sediments that separate and effectively

confine the FAS from the SAS over the entire UECPA study area.

The top of the upper confining beds in the study area is shown in Figure 5. Structurally, the top of the Hawthorn is highest in the northwest corner of St. Lucie County (-80 feet NGVD). It gently dips to the southeast across the study area, occurring as deep as -200 feet NGVD in the extreme southeast portion of Martin County. The thickness of the Hawthorn is somewhat variable (Figure 6), and follows a general thickening trend to the southeast. It is thinnest (250 to 300 feet thick) in the northwest corner of the study area, thickens gradually to the south up to State Road 70 (St. Lucie County), where it flattens out and remains a constant 400-450 feet of thickness into Martin County near State Road 76. Here the Hawthorn Group begins to thicken to the southeast, getting as thick as 750 feet in extreme southeast Martin County.

The Hawthorn Group is separated into two formations (Scott, 1988). They include an upper silty, clayey, phosphatic, fine to very fine grained clastic zone (Peace River Formation) and a lower carbonate zone (Arcadia Formation) that is interbedded with low permeability carbonate muds and clays. The upper zone is generally devoid of permeable intervals. It varies in thickness from 100 to 300 feet. Rubble beds are sometimes present near the base of the upper zone and give a characteristically high response on natural gamma ray logs (Knapp, 1988).

Directly below the rubble beds is a dense dolomite layer sometimes described by local drillers as chert. This dolomite layer is typically between 3 to 10 feet thick and marks the top of the lower carbonate zone. Because of its consolidated, indurated nature, drilling contractors typically use this interval as an anchor to set the base of surface pipe when constructing FAS wells. Most FAS wells are completed as open hole below this dolomite layer. Below the dolomite bed and above the Floridan Aquifer are low permeability, poorly indurated limestones interbedded with calcareous clays and silts. The clay content typically increases with depth until the unit becomes dominated by sandy, plastic, olive gray clay. Thin beds of silty sand and shell also are found in this interval. The potential of the lower section of the Hawthorn to yield water was investigated by Hydro Designs (1988). The results were inconclusive; however, the potential is generally considered poor.

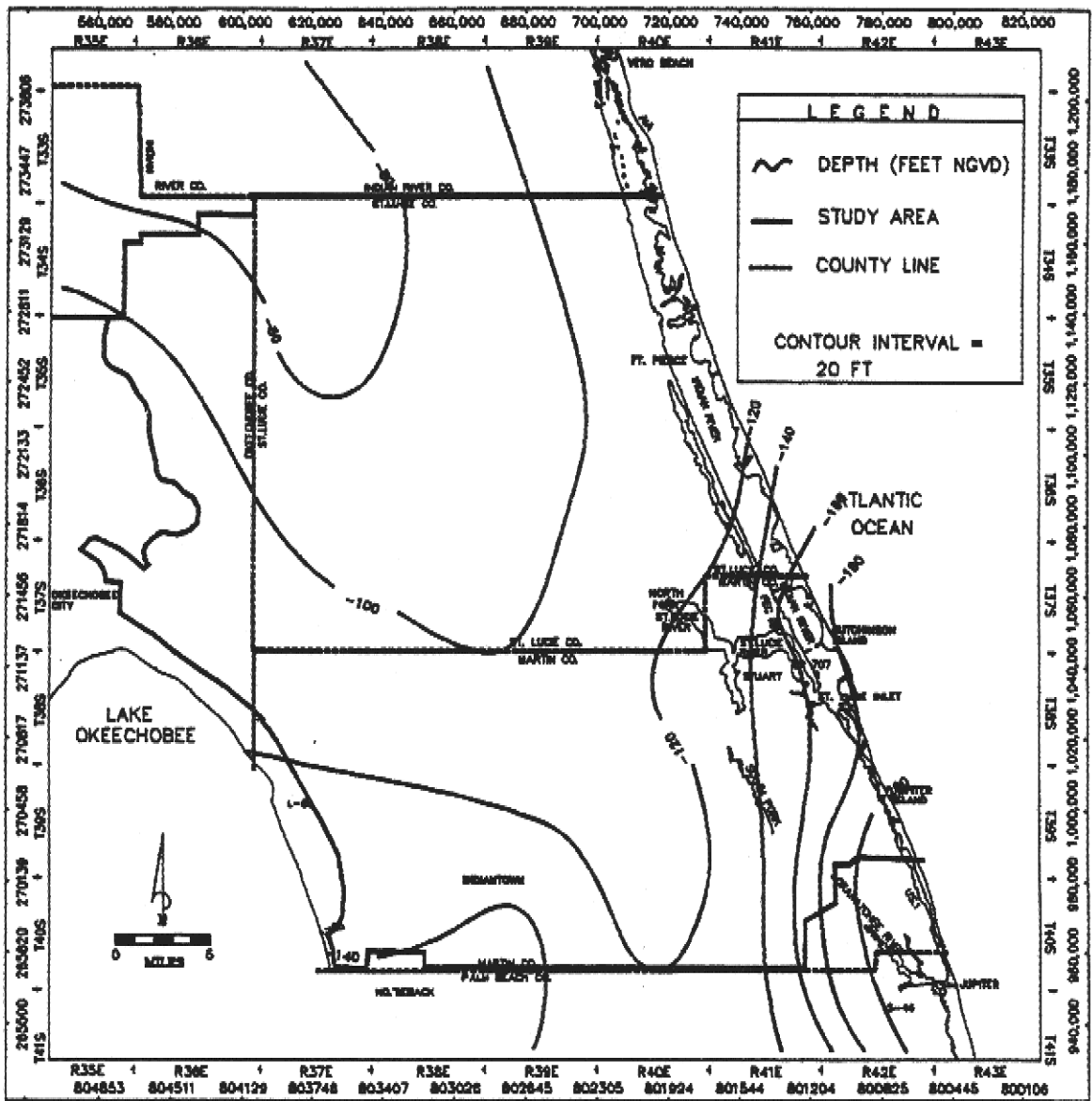


FIGURE 5: Top of the Upper Confining Interval

Floridan Aquifer System

Underlying the upper confining beds is a sandy, chalky, phosphatic limestone. Based on the definition by Parker and others (1955), this limestone unit is considered to comprise the upper portion of the Floridan Aquifer System. The phosphatic component of this unit makes it easily identifiable on gamma ray logs as peaks or intervals of high natural gamma ray activity. Wells completed to this interval or deeper flow naturally at ground level in most of the UECPA.

The Floridan Aquifer System is composed of a sequence of limestones, dolomitic limestones, and dolomites ranging in age from Eocene to early Miocene. It persists areally and ranges from 2,700 to 3,400 feet thick in the UECPA (Miller, 1982). The top occurs at -300 feet NGVD in the extreme northwest corner of the study area and dips to the southeast where it is found at -900 feet NGVD in the extreme southeast corner (Figure 7). Few wells penetrate the entire thickness of the FAS.

The Floridan Aquifer System is classified as an aquifer "system" because multiple permeable intervals sandwiched between confining materials exist in this thick sequence of carbonates. Permeable zones are identified using downhole flowmeter and temperature tools. Flow meter and temperature logs show that each permeable zone contributes varying amounts of flow to the borehole. Flow (permeable) zones are associated with solution cavities and formational unconformities, the latter being correlatable over large regions (Brown and Reece, 1979).

Tibbals (1991) divided the FAS into two aquifers based on the vertical occurrence of two highly permeable zones. These two aquifers are the "Upper Floridan" and the "Lower Floridan" aquifers. The two are separated by a low permeability confining interval dubbed the "middle semi-confining unit". The term Lower Floridan Aquifer should not be confused with the basal portion of the Lower Floridan Aquifer typically referred to as the "boulder zone". Tibbals' nomenclature is adopted in describing the hydrogeology and in model conceptualization for this UECPA study.

The Upper Floridan Aquifer (UFA), in the UECPA, is approximately 500 feet thick and composed of two continuous, correlatable flow zones. These flow zones are penetrated by most wells in the UECPA. They occur along unconformities between the Suwannee Formation and the Ocala Group, and the Ocala Group and the Avon Park Formation (Figures 8 and 9). These stratigraphic

unconformities are areally persistent and easily mapped over the study area (Brown and Reece, 1979). However, additional flow zones exist in the UFA that are much harder to correlate. These somewhat random zones are created by solutioning and dolomitization and are not stratigraphically controlled. The UFA was found to have from one to as many as eight separate flow zones associated with it.

The middle semi-confining unit was found at -900 feet NGVD in test well SLF-73 located in central St. Lucie County (C-24 & Shinn Road). It is approximately 200 feet thick and consists largely of chalky calcilutite interbedded with limestones and dolomites. Chalk and calcilutite are relatively impermeable and account for the confining nature of this unit at SLF-73. Few wells in the UECPA fully penetrate the middle semi-confining unit; therefore, data on its variability in thickness and lithology are limited. The confining unit is evident in deep well data (wells generally deeper than 1,000 feet) in the study area.

The upper permeable portion of the Lower Floridan Aquifer (ULFA) was penetrated by deep wells drilled in the study area. It follows the same structural trend as the UFA and is found 200 to 400 feet below its base (Figure 10). The ULFA is 400 feet thick and occurs approximately -1,100 feet NGVD in well SLF-73, central St. Lucie County. Hydraulic testing of this zone was conducted at three sites in St. Lucie and Okeechobee counties. One of these tests was conducted for the SFWMD by an engineering firm (CH2M Hill, 1989); a second test was conducted by the SFWMD (unpublished C-24, St. Lucie County APT Test at SLF 73) and a third test was conducted by Ebasco for Florida Power and Light (1990). The well names respectively are OKEEASR-DEEP, SLF-73, LFM-1. The first two aquifer performance tests (APT's) listed above were performed by the SFWMD to determine the ability of the Lower Floridan interval to store water. The technology of injecting and storing fresh water in an aquifer for future recovery is commonly referred to as Aquifer Storage and Recovery (ASR). This portion of the Lower Floridan was determined to have good potential as an ASR target horizon due to its capacity to receive large volumes of injected water pumped from surface water bodies. This capacity is due to its high porosity and permeability.

The ULFA is traceable throughout the study area. Sources of available data include the two ASR sites mentioned above (CH2M Hill, 1989, SLF-73), two Florida Power and Light cooling water supply wells near Indiantown (Ebasco, 1990), as well as lithologic and geophysical logs from injection wells.

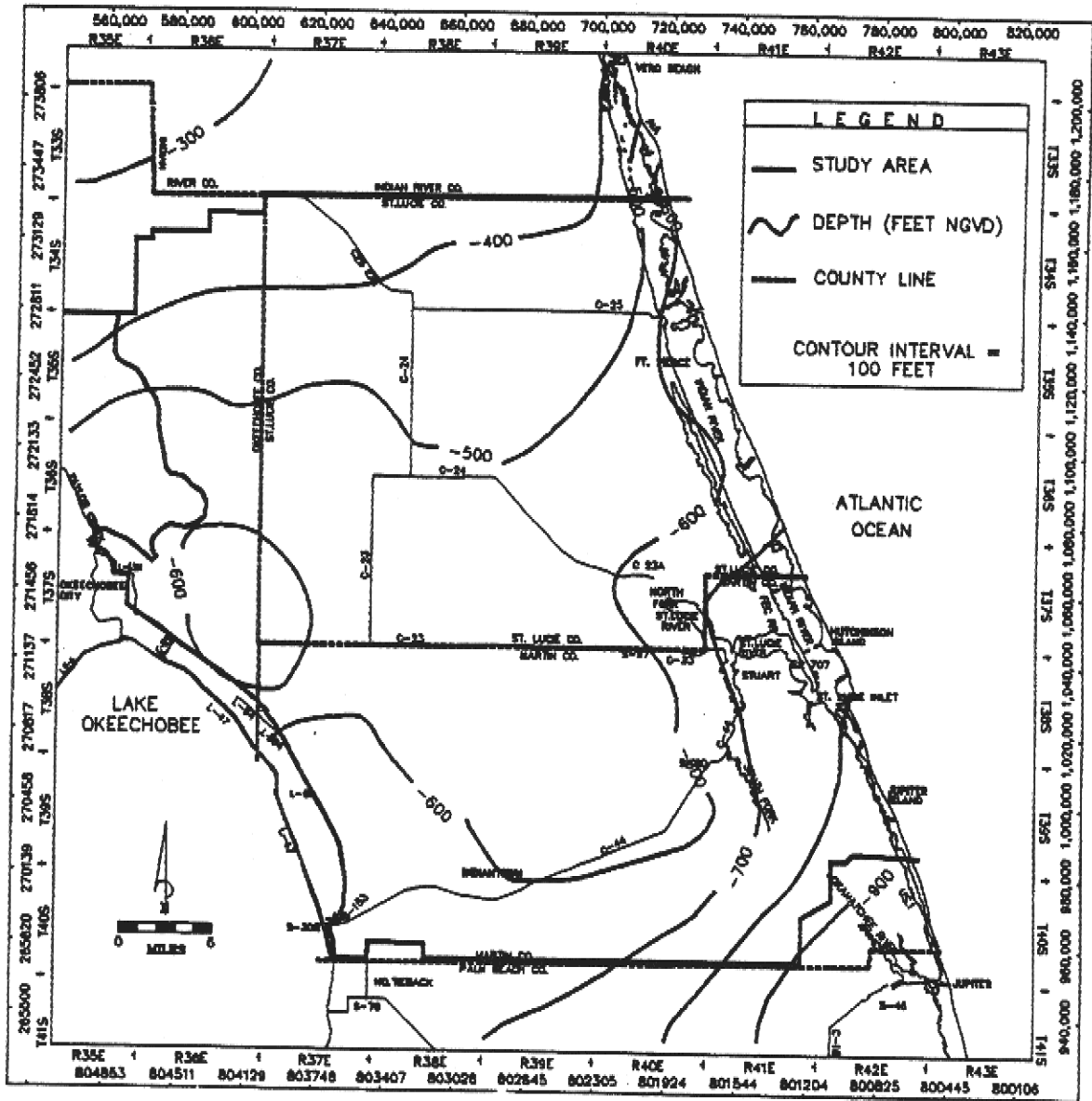


FIGURE 7: Top of the Floridan Aquifer System

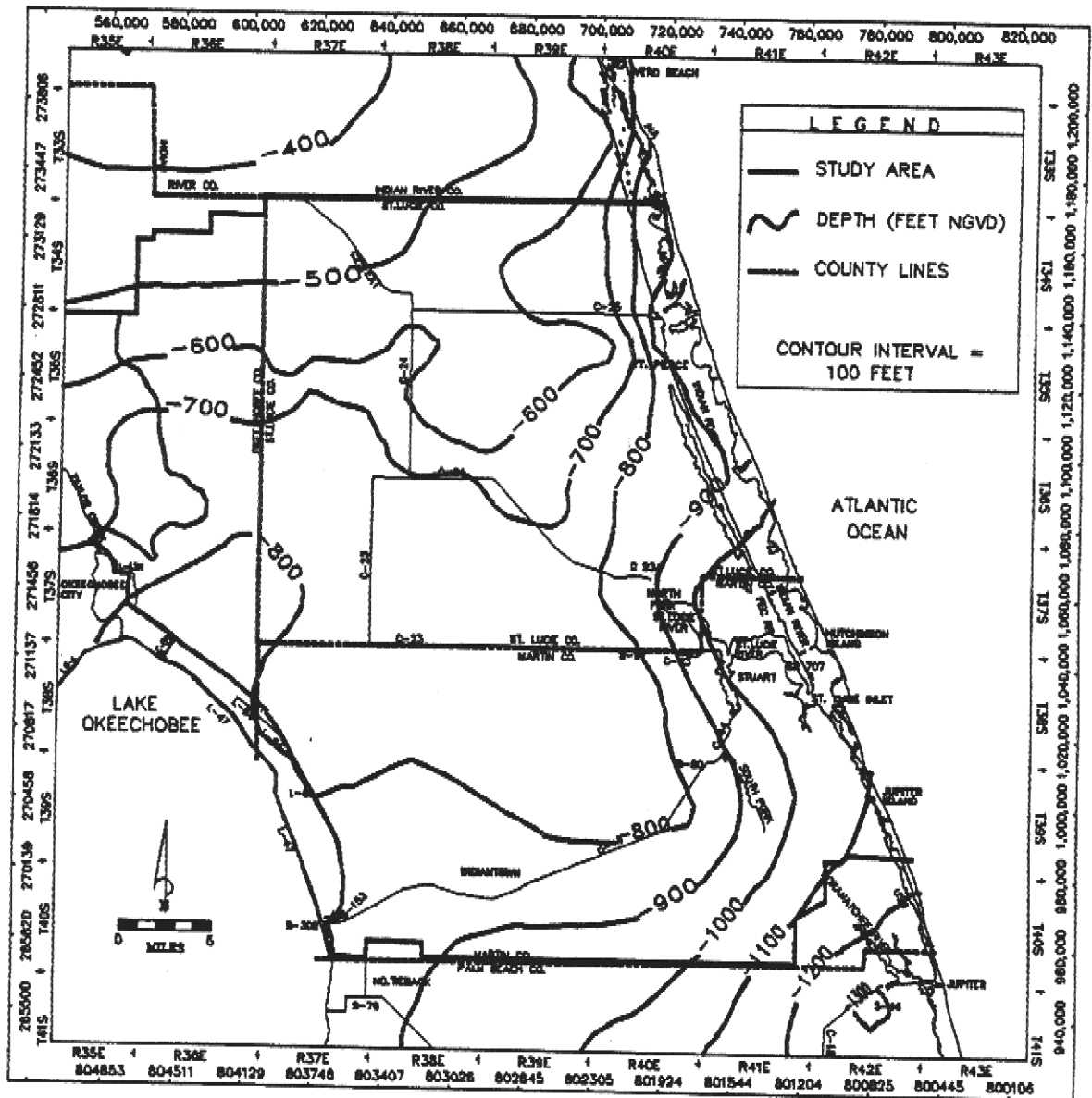


FIGURE 9: Depth to the Unconformity Between the Ocala Group and the Avon Park Formation

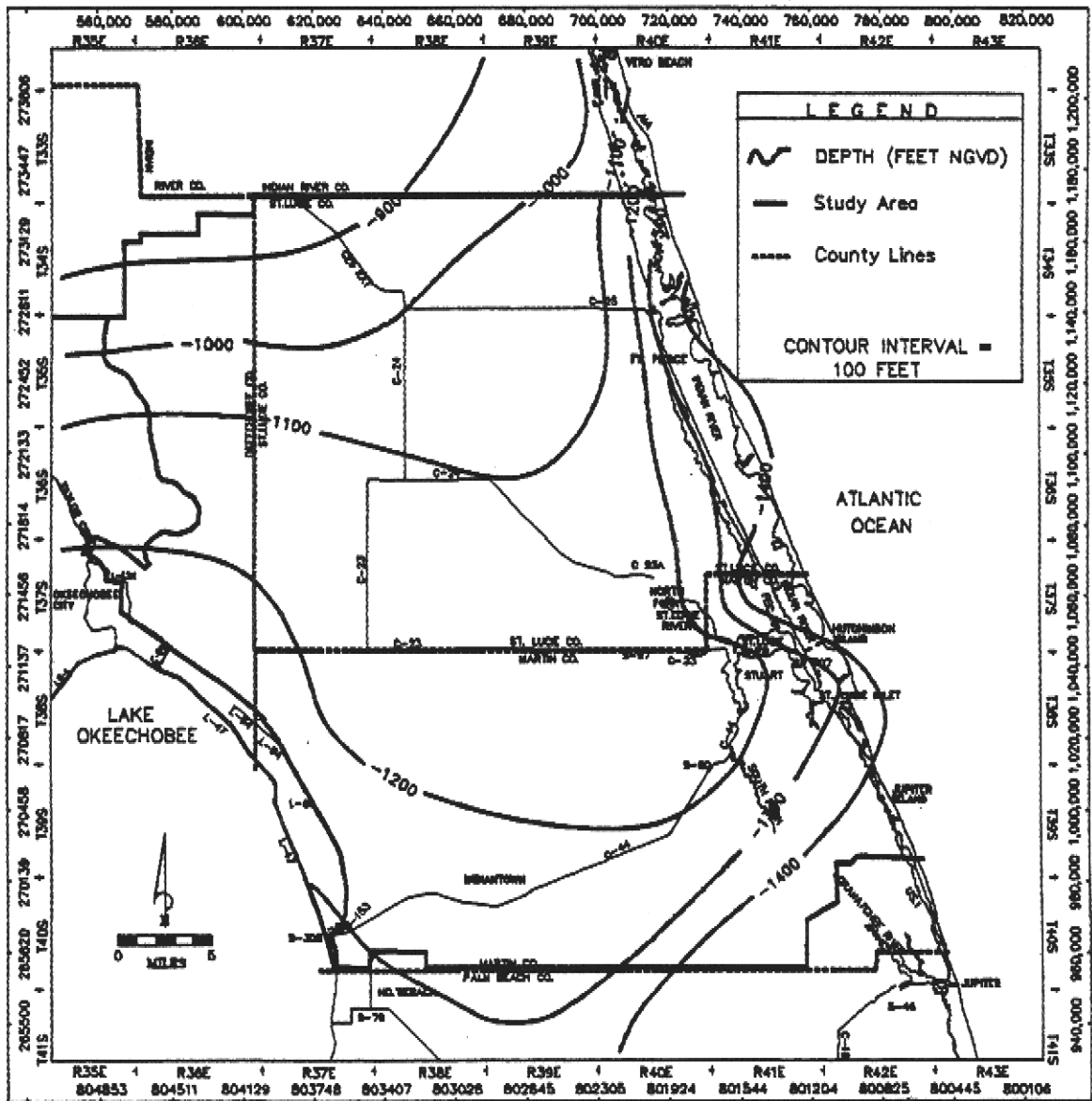


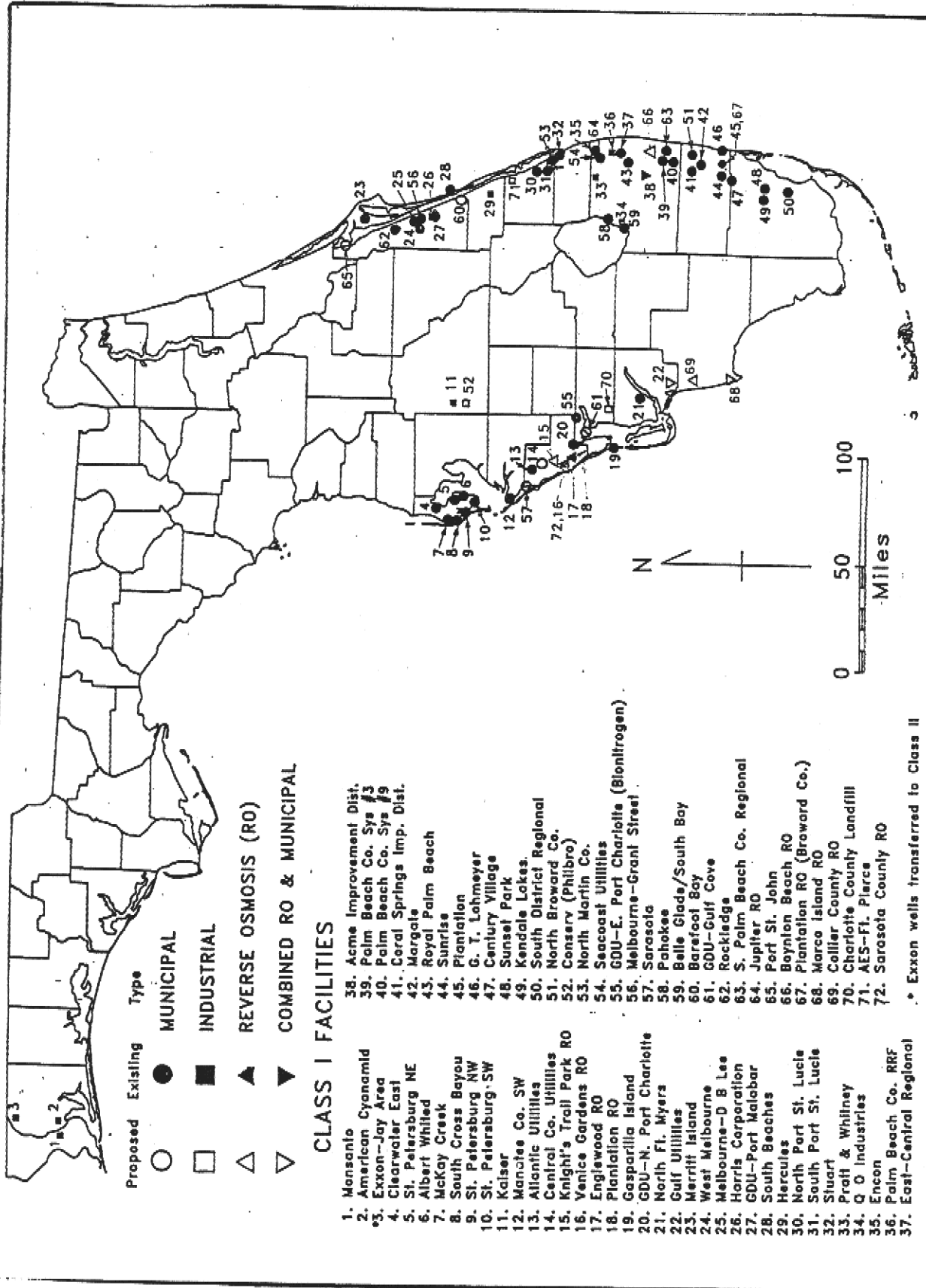
FIGURE 10: Top of Lower Floridan Aquifer Producing Zone 1

Data collection associated with the construction of injection wells typically does not provide detailed data for this portion of the aquifer; the target (the Boulder Zone) is approximately 1,500 feet deeper. However, in most cases, open hole geophysical logs are run before casing is set, and flowmeter and temperature logs from injection wells demonstrate the persistence of the ULFA in the study area.

Borehole geophysical and drill stem tests performed at ASR sites indicate the permeability is cavernous in nature. The cavities occur in two distinct places within the upper 400 feet of the ULFA, separated by an interval of low permeability. The top of the upper and lower cavity systems are found at -1,100 feet NGVD and -1,400 feet NGVD, respectively, at well SLF-73. For ease of reference, hereafter these zones are referred to as the Lower Floridan Aquifer permeable zone 1 (LFAPZ1) and the Lower Floridan Aquifer permeable zone 2 (LFAPZ2) in descending order (refer to Figure 14). Water samples were collected from the LFAPZ1 and the LFAPZ2 intervals using drill stem packers in well SLF-73 and were analyzed for several parameters including, total dissolved solids (TDS) and chlorides. Water samples also were collected from the confining unit between the two intervals and analyzed for TDS and chlorides. The laboratory analyses of the samples collected indicate that water quality is significantly different in each of the permeable zones. Dual packer tests and geophysical logs run in the 250 foot thick interval between flow zones demonstrate its confining nature. Measured heads in LFAPZ1 and LFAPZ2 were nearly the same (approximately 39 feet above NGVD).

Below the ULFA, water quality deteriorates rapidly with depth. An extremely thick confining interval of dense limestones and dolomites extends approximately 1,500 feet below the ULFA. The thickness and lack of porosity in these confining beds effectively preclude water movement.

Underneath the thick confining interval below the ULFA is a highly permeable interval known informally as the Boulder Zone. The Boulder Zone is an extremely permeable, cavernous section at the base of the lower FAS. Its unofficial name was coined from drillers who describe it as drilling a layer of loose, boulder size rocks. It does not significantly affect the Floridan Aquifer System (Tibbals, 1991), because it is hydraulically separated from it. The water levels generally fall below ground level, considerably lower than levels in the Floridan Aquifer System which rise on average 15 feet above ground level. The Boulder Zone is important in south Florida only from the perspective of disposing wastewater through injection wells. Injection wells are receptacles for secondarily treated wastewater and industrial wastes and are located throughout most of southeast Florida (Figure 11). Stratigraphically, the Boulder Zone is in the Oldsmar Formation, which represents the oldest Eocene Age sediments in the section. It is approximately 3,100 to 4,100 feet deep in the UECPA (Miller, 1982b).



- Proposed Existing Type
- MUNICIPAL
 - INDUSTRIAL
 - ▲ REVERSE OSMOSIS (RO)
 - ▼ COMBINED RO & MUNICIPAL

CLASS I FACILITIES

1. Monsanto
2. American Cyanamid
3. Exxon-Jay Area
4. Clearwater East
5. St. Petersburg NE
6. Albert Whitted
7. McKay Creek
8. South Cross Bayou
9. St. Petersburg NW
10. St. Petersburg SW
11. Kaiser
12. Manatee Co. SW
13. Atlantic Utilities
14. Central Co. Utilities
15. Knight's Trail Park RO
16. Venice Gardens RO
17. Englewood RO
18. Plantation RO
19. Gasparilla Island
20. GDU-N. Port Charlotte
21. North Ft. Myers
22. Gulf Utilities
23. Merritt Island
24. West Melbourne
25. Melbourne-D B Lee
26. Harris Corporation
27. GDU-Port Malabar
28. South Beaches
29. Hercules
30. North Port St. Lucie
31. South Port St. Lucie
32. Stuart
33. Pratt & Whitney
34. Q O Industries
35. Encon
36. Palm Beach Co. RRF
37. East-Central Regional
38. Acme Improvement Dist.
39. Palm Beach Co. Sys #3
40. Palm Beach Co. Sys #9
41. Coral Springs Imp. Dist.
42. Margala
43. Royal Palm Beach
44. Sunrise
45. Plantation
46. G. T. Lehmyer
47. Century Village
48. Sunset Park
49. Kendale Lakes
50. South District Regional
51. North Broward Co.
52. Consary (Philbro)
53. North Martin Co.
54. Seacoast Utilities
55. GDU-E. Port Charlotte (Blontrogen)
56. Melbourne-Grant Street
57. Sarasota
58. Pahokee
59. Belle Glade/South Bay
60. Barefoot Bay
61. GDU-Gulf Cove
62. Rockledge
63. S. Palm Beach Co. Regional
64. Jupiter RO
65. Port St. John
66. Boynton Beach RO
67. Plantation RO (Broward Co.)
68. Marco Island RO
69. Collier County RO
70. Charlotte County Landfill
71. AES-Ft. Pierce
72. Sarasota County RO

* Exxon wells transferred to Class II

FIGURE 11. Location of Class I Injection Facilities in Florida (Adapted from DER)

MODEL DESCRIPTION

INTRODUCTION

The U.S. Geological Survey modular three-dimensional finite difference ground water flow model code (McDonald and Harbaugh, 1988), commonly known as MODFLOW was used in this study. This code was selected for the following reasons:

1. It is available in the public domain.
2. It is compatible with most computers with only minor modifications.
3. The modular structure and excellent documentation allow easy modification and the addition of new modules for specialty applications.
4. MODFLOW allows good flexibility of data file structure and management. This facilitates the utilization of and interaction with other software for data manipulation.
5. The ability to record cell-by-cell flow terms feature of the code can be used to:
 - A. Evaluate in detail, flow and head changes associated with various withdrawal scenarios, and
 - B. Generate boundary conditions for higher-resolution models within the regional flow model.

The MODFLOW code contains modules which simulate recharge, evapotranspiration, rivers, drains, wells, and other sources and sinks of water external to the model. The modules utilized for this model are shown in Table 1. Three iterative solution schemes are available for simulating flow problems: slice successive over relaxation (SSOR), strongly implicit procedure (SIP), and the preconditioned conjugate gradient (PCG) method (Kuiper, 1987). SSOR is the better solution method for some strongly layered conditions. However, it is not as direct as SIP; therefore, it requires more time to arrive at a solution. SIP was used for this model application with favorable results.

DISCRETIZATION

Discretization is the process of breaking a continuous section into a set of discrete elements or cells by use of a grid to represent the system numerically. The study area was discretized into a horizontal grid of 54 rows and 53 columns. The cells in the grid are equidimensional and measure one

mile (5,280 feet) a side. The origin of the model grid was set to correspond as closely as possible with the government survey grid, with each model cell representing approximately one section of land (Figure 12). Variations in the survey grid made this somewhat difficult, especially in Okeechobee County, but overall the fit was good.

MODFLOW offers two options for vertical discretization. In a fully three-dimensional model, the confining zones are represented in the model as individual layers. Values of transmissivity, storage, and vertical hydraulic conductivity for the confining zone are required for this approach. A fully three-dimensional model would more accurately simulate flow conditions where horizontal flow in the confining zone is an important part of the flow regime. In a quasi-three-dimensional model, the confining zones are not represented as individual layers, but as vertical conductance terms (V_{cont}) for beds separating the model layers representing aquifers. Within the study area, the values of hydraulic conductivity exhibited by the aquifers are several orders of magnitude greater than those in the confining zones. Therefore, it can be assumed that on the regional scale of the model flow in the aquifers is primarily horizontal, and flow across the confining zones is primarily vertical, and the quasi-three-dimensional approach is a good approximation of the ground water flow regime in the UECFA.

The UEC FAS model contains four layers (Figure 13). Layer 1 represents the Surficial Aquifer System, layer 2 the UFA, layer 3 and 4 represent LFAPZ1 and LFAPZ2, respectively. A more thorough breakdown including brief layer description follows.

Layer 1: Surficial Aquifer System (SAS). The interval between ground level and the top of the Hawthorn Group is approximately 90-240 feet in depth and composed of fine to medium sands, shell, limestone, sandstone, silt and clays. Lithology alternates in composition with depth and is lumped together as one unconfined layer.

Layer 2: Upper Floridan Aquifer (UFA). The UFA includes a series of flow zones associated with solution cavities and erosional surfaces. The UFA, despite its multiple flow zones, was simulated as one model layer rather than multiple layers for three reasons: 1) the vast majority of permitted irrigation wells completed into the Upper Floridan Aquifer

TABLE 1. MODFLOW PACKAGES USED IN THE UECPA MODEL

MODFLOW PACKAGE	FUNCTION	USE IN MODEL
BASIC	Model Administration	Used
BLOCK CENTERED FLOW	Computation of conductance and storage components of finite-difference equations.	Used
WELL	Simulates a source/sink to the aquifer that is not affected by heads in the aquifer.	Used to represent discharge from irrigation and public water supply water use.
GENERAL HEAD BOUNDARY	Simulates a source/sink of water providing recharge/discharge to the aquifer at a rate proportional to the head difference between the source/sink and the aquifer.	Used along all model boundaries in layers 2 and 3.
STRONGLY IMPLICIT PROCEDURE (SIP)	Solves the model's finite difference equations using the Strongly Implicit Procedure.	Used
OBSERVATION NODES	Generates a file of computed water levels for selected model cells.	Used to generate comparative hydrographs and calibration agreement.

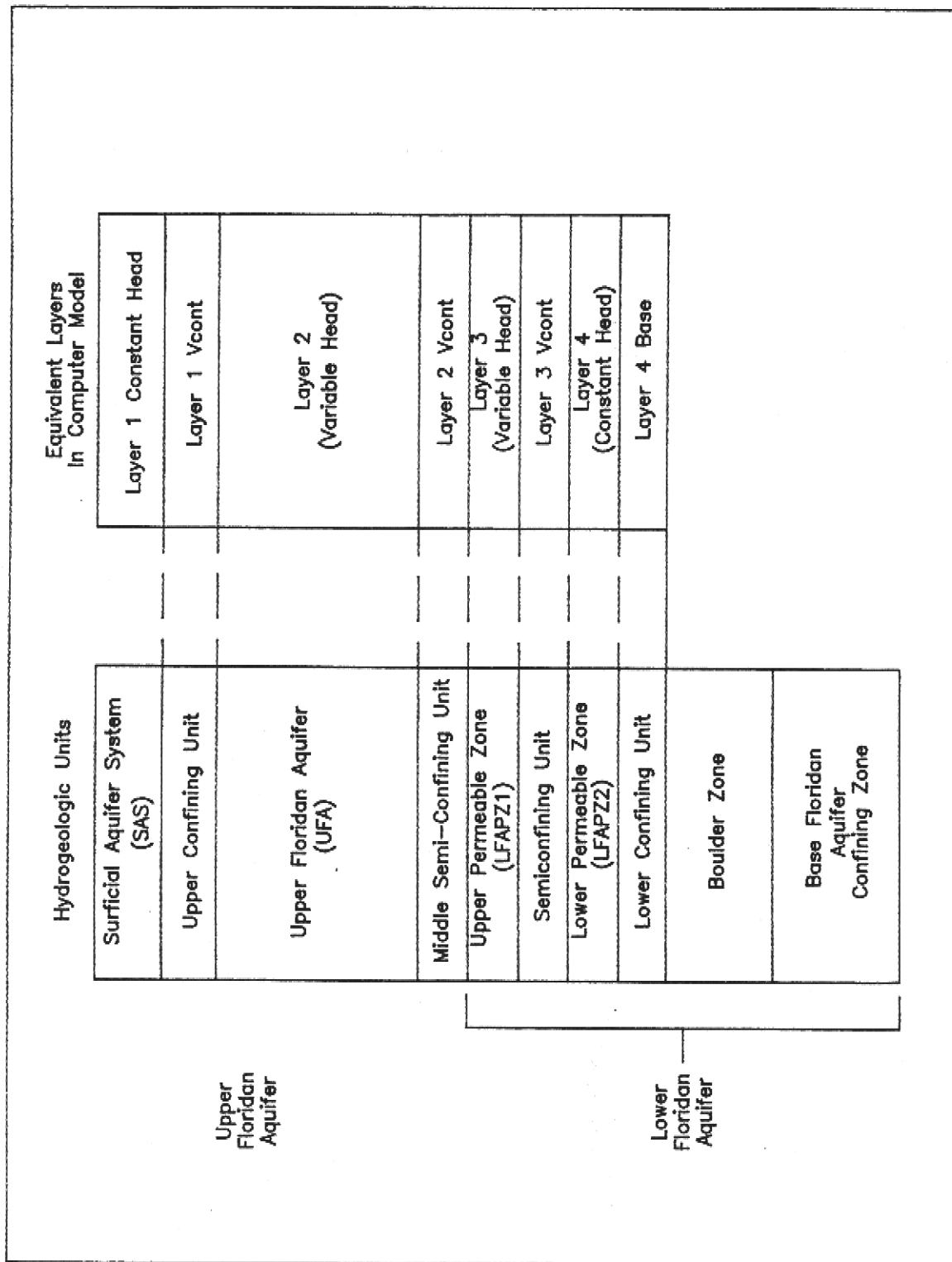


FIGURE 13: Hydrogeologic Units and Corresponding Model Layers

penetrate all or most of the flow zones mentioned above so that withdrawals are from a composite of zones, 2) monitor wells used to calibrate the model are open to multiple zones within the Upper Floridan, making calibration of multiple layers impossible and 3) previous model work by the U. S. Geological Survey discretized the Floridan in East Central Florida in the same manner (Tibbals, 1991).

Geophysical and lithological data abound for the Upper Floridan, because the vast majority of water users in the area complete wells into this portion of the aquifer. There are much less data available for the Lower Floridan Aquifer and the middle semi-confining unit.

The middle semi-confining unit separates the UFA from the LFAPZ1. It is approximately 200-400 feet thick and leaky. The hydraulic connection between the Upper and Lower Floridan Aquifers has been tested via aquifer performance tests in three District-sponsored studies within the modeled area (Wedderburn & Knapp, 1981; CH2M Hill, 1989; SLF-73, SFWMD unpublished APT data). Leakance values obtained from these tests are very similar and average 0.04/day. With few exceptions, this leakance value was employed throughout the modeled area.

Layer 3 and 4: LFAPZ1 and LFAPZ2, respectively. The portion of the Lower Floridan Aquifer reflected by these layers is approximately -1,000 to -1,500 feet NGVD, and 500 feet thick. It is composed of limestones, dolomitic limestones, and dolomites of Eocene age. The entire Lower Floridan Aquifer is 2,000 feet thick in the study area and extends vertically to the top of the Cedar Keys formation (3,000 feet deep). The model conceptualization includes only the upper 500-foot portion of the Lower Floridan, the base of which is commonly found just above the 10,000 mg/l TDS water quality demarcation. An erosional surface exists at the contact between the middle confining interval and the top of the Lower Floridan Aquifer. The surface is considered the top of the Lake City Limestone as described by Applin and Applin (1944). It is easily recognized in borehole geophysical logs by its relatively high electrical resistance and is persistent throughout the study area. It marks the top of layer 3 in the model. In recent writings, the USGS has chosen to meld the former Lake City limestone with the Avon Park formation.

Recent drill stem packer tests (SFWMD, unpublished 1991) indicate the top 500-foot portion of the Lower Floridan contains at least two separate flow zones hydraulically separated by a semi-confining interval composed of homogeneous dolomitic limestones. These two flow systems,

LFAPZ1 and LFAPZ2, are conceptualized in the model as layers 3 and 4, respectively.

BOUNDARY CONDITIONS

The function of boundaries is to impose the effects of the external regional flow system on the modeled area. Several types of boundary conditions are available in MODFLOW. Prescribed flux, specified or constant head and no-flow boundaries were used in this model. Specified head boundaries are those where the head at the boundary remains constant for the model duration. Prescribed flux is used to simulate boundary head changes with time. No-flow boundaries are used where the ground water flow regime is such that flow across a boundary is not expected to occur.

The general head boundary package was used to generate prescribed flux boundaries in layers two and three. According to McDonald and Harbaugh (1988), a general head boundary consists of a water source outside the modeled area which supplies or removes water to a model cell at a rate proportional to the head difference between the source and the adjacent cell. The rate at which water is supplied to a cell is given by:

$$Q_m = C_m(H_m - h) \quad (1)$$

where

Q_m is the flow rate to or from the cell from boundary m (ft³/day)

C_m is the constant of proportionality for boundary m (ft³/day)

H_m is the average head at the source boundary m (ft), and

h is the average head in the cell (ft)

The constant of proportionality for boundary m defined herein as the horizontal conductance, C_m , (ft²/day) was calculated using equation 2:

$$C_m = K_h b W / F_c L \quad (2)$$

where

K_h is the horizontal hydraulic conductivity of the cell (ft/day);

b is the average thickness of the layer (ft);

W is the width of the cell (ft)

F_c is a dimensionless calibration factor for general head boundary representation;

L is the length of the assumed flow path line (ft)

A potential problem in the use of specified head boundaries is that the model may overestimate the

flow into the model if steep ground water gradients (such as those around a pumping well) approach the boundary. A breakdown of boundary cell types and geographic limits are discussed below.

Boundary Cell Types

Constant Head

Layer 1: All cells in layer 1 (SAS), are assigned specified (constant) heads. Layer 1 is effectively separated from layer 2 (FAS) by thick clays and silts of the Hawthorn confining zone. Since the SAS is independent of the FAS and because the scope of this project does not include calibrating the SAS, layer 1 heads were held constant to reduce unnecessary work in further simulating this unconfined system. For the purposes of this study, water levels for layer 1 were assumed to be approximately 5 feet lower than ground level elevation. Topographic levels were obtained from USGS quadrangle maps of the study area, heads for each cell were obtained by subtracting five feet from the topographic levels as referenced to mean sea level. The resultant heads were not permitted to fall below zero. The resultant levels are presented graphically in Appendix A, Figure A-3.

The Surficial Aquifer System was modeled independently in two separate studies currently in press (Adams, 1992, and Padgett, in press).

Layer 4: All cells in layer 4 (LFAPZ2), are assigned specified heads. Heads in this layer were found to be approximately equivalent to heads in layers 2 and 3, however, there were no temporal data available documenting head changes if they exist. Calibration of this layer was not possible due to the lack of head data. Water levels in the Upper Floridan Aquifer (layer 2) fluctuate seasonally in response to stresses induced by pumping. However, since there were no significant well withdrawals from the Lower Floridan Aquifer (layers 3 and 4) and because there is over 500 feet of confinement between layers 2 and 4 it was assumed that fluctuations in layer 4 heads were minimal. Based on those assumptions, all cells in layer 4 were simulated as constant head. The specified head value for each boundary cell in layer 4 was set equal to the boundary cell heads in layer 2 observed in March, 1990.

Head Dependent Flux Boundary

Layers 2 and 3: Potentiometric data have been gathered monthly in the Upper Floridan Aquifer (layer 2) corresponding to each stress period in the model simulation and were used to develop a general head package. Figure 14 shows the type cells comprising both layers 2 and 3. Potentiometric

maps indicate a small change in flux with time across the boundaries, justifying the need for a specified flux boundary. The water levels in the LFAPZ1 (layer 3) are influenced by and nearly equal to those in the UFA (layer 2) as evidenced by hydrographs in wells completed into these zones. Therefore, it was assumed the heads at all boundaries in layers 2 and 3 were equal. These head values were determined for each cell of all boundaries by interpolating existing monthly UFA (layer 2) water level data.

Conductance terms are required input for specified flux cells. Conductance values are initially based on the length, width, layer thickness, and hydraulic conductivity of the boundary cell and adjacent variable head cell. The physical basis for conductance between two adjacent cells was previously discussed and is expressed by equation 2 in the Boundary Conditions section. Equation 2 simplifies to $C=T$ when the following assumptions and conditions are met:

$L = W$; given for equidimensional cells

$K_h * b = T$; given

$F_c = 1.0$; default calibration factor

In general, however, it should be recognized that formulation of a single conductance term to account for a three-dimensional flow process is inherently an empirical exercise, and that adjustment during calibration is almost always required (McDonald and Harbaugh, 1988). In order to better simulate a constant head boundary around the active edges of the model and to best calibrate the transient model, the calibration factor F_c , as shown in equation 2, was set to 0.1. Using the assumptions given above for values of L and T , and setting F_c equal to 0.1, the solution to equation 2 is $C=10T$. Therefore, the conductance value for all boundary cells was set equal to ten times the cell's transmissivity.

Increasing the conductance term caused the prescribed flux boundary cells to function as prescribed head cells. Prescribed head cells differ from constant head cells in that the head values can change between stress periods. The setting of $F_c = 0.1$ was considered the best adjustment for two reasons:

- 1) Monitor wells on the boundaries calibrated better.
- 2) Volumetric budget data reflect a significant influx of water into the system from the boundaries rather than exclusively from below through vertical leakage.

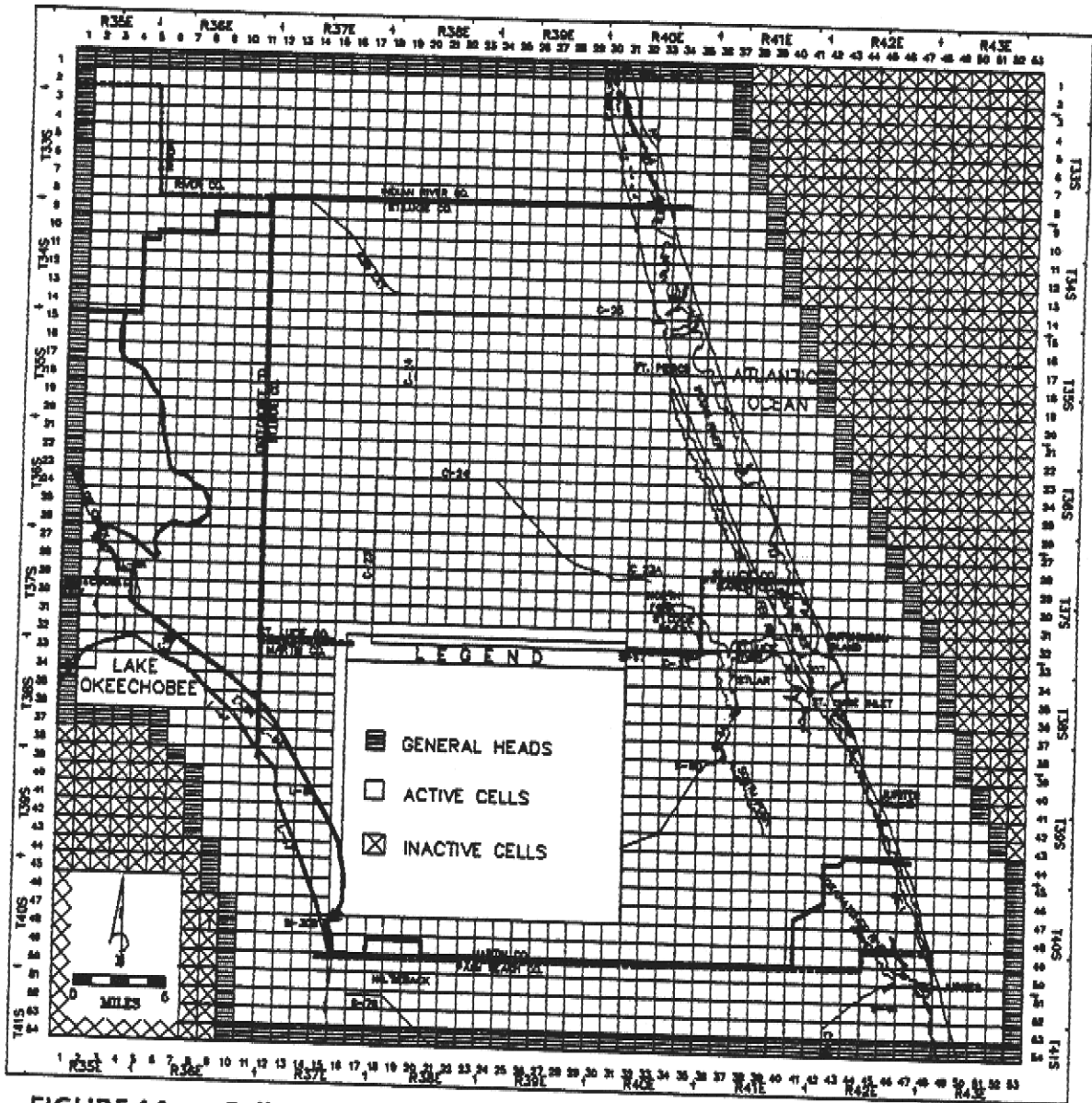


FIGURE 14: Cell Types, Layer 2 and Layer 3

Geographic Limits and Locations of Boundaries

Figure 15 shows the boundaries and type cells used for every layer in the model. Layer 1 (SAS) is composed entirely of constant head cells. The boundaries are also constant head cells and were set varying distances outside the study area. In a clockwise direction, the distance each boundary extends outside the study area were: north eight miles, east five miles from the coastline, south five miles, and west approximately five miles. Layers 2 and 3 consist of general head boundaries which extend outside the study area the same distance as layer 1 in all directions except the east. This eastern boundary was extended five miles east of the barrier island toward the Atlantic Ocean. Layer 4, like layer 1, is composed of constant head cells, its boundaries are located in the same place as layers 2 and 3.

In all layers, the north boundary was set eight miles (cells) into Indian River County in order to include the large withdrawals from the UFA north of the study area political boundary (St. Lucie-Indian River County Line). Dense citrus groves irrigate with Floridan Aquifer System water from more than 500 wells in this northern eight miles of the model area. Utilities in southern Indian River County operate R.O. plants which together withdrew approximately 70 million gallons in March, 1990. The combined agricultural and public water supply stresses alter the flow system in the study area and are, therefore, necessarily included in the simulation.

Layers 2 and 3 are composed of active cells and are represented at the boundaries by general head cells (head dependent flux). The placement of the boundaries for these two layers is identical. Layer 2 (the UFA) and layer 3 (the LFAPZ1) are confined and occur -400 to -1,000 feet NGVD and -600 to -1,300 feet NGVD respectively near the coast. These layers are not hydraulically connected with the ocean at the east model boundary. The FAS outcrops ten to twenty miles east of the coast in the Straits of Florida at a depth of approximately 900 feet below sea level (Figure 16). The boundary was placed five miles east of the coast to avoid boundary effects within the study area. For this modeled system, five miles is an acceptable buffer area separating an area of interest from a boundary (Richard Bower, verbal communication, 1989).

The remaining south and west model boundaries were set a minimum of five miles (cells) outside the study area to avoid boundary effects as explained above.

HYDRAULIC CHARACTERISTICS

Transmissivity

Layer 1

MODFLOW requires input of hydraulic conductivity values for unconfined layers. However, as discussed previously, all cells in layer 1 are the prescribed head (constant head) type. This designation causes one value of head for each cell to be maintained throughout the simulation, thus heads are not calculated for cells in this layer. Therefore, aquifer parameter values provided, with the exception of starting head and Vcont values, are irrelevant to the model run.

Layer 1 is specified as unconfined in the model. MODFLOW calculates the transmissivity of unconfined aquifers by multiplying the user-specified hydraulic conductivity by the saturated thickness of the aquifer. Initial saturated thickness is calculated from the starting head and aquifer bottom data, both of which are required input for an unconfined aquifer.

A hydraulic conductivity of 50 ft/day was applied regionally for layer 1 representing the SAS. This value represents an approximate average of values obtained in APT tests in the area (Padgett, Adams, verbal communications). Elevation at the layer bottom was identified using borehole geophysical logs and available lithological information (Appendix A-1). A matrix of values was obtained by applying a kriging interpolation technique to these data points.

Layer 2

Layer 2 (UFA) is specified as confined in the model. In a confined system, the water level does not usually fall below the top of the aquifer, so the transmissivity remains constant since the aquifer remains completely saturated. Therefore, a direct value for transmissivity is the required input rather than hydraulic conductivity and thickness.

Transmissivity values were obtained from several sources:

- Bower (1988) specific capacity regression curve methodology. A new, but similar regression curve was generated for this study.
- Recent consultant reports.
- Indian River Hydrogeology publication; USGS (1988).
- Results of a recent drilling and testing project conducted by the SFWMD on C-24 canal (SLF73), St. Lucie County.

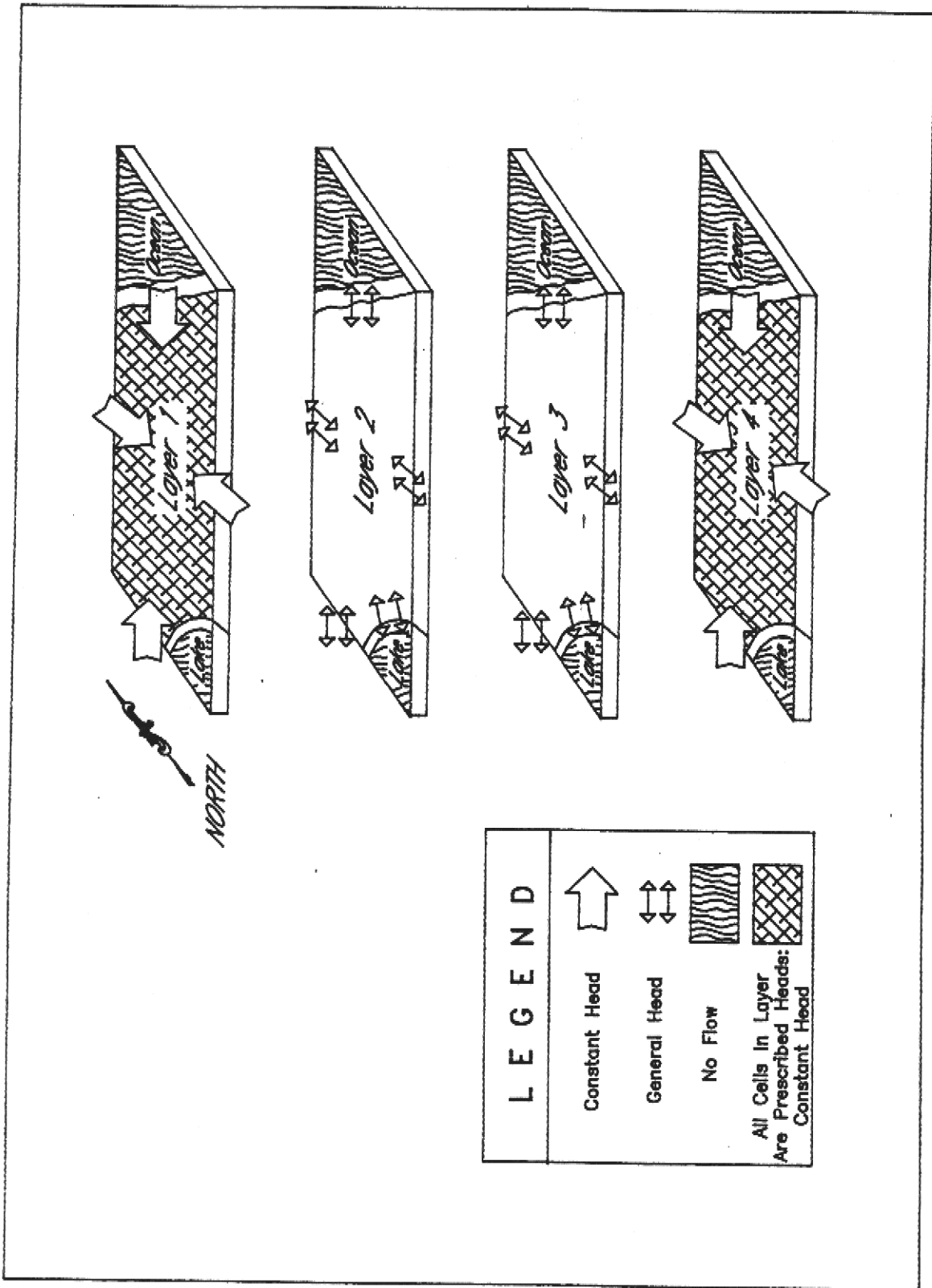


FIGURE 15: Model Boundary Conceptualization, Layers 1 through 4

Most transmissivity values were obtained using the same procedure originally outlined by Trost (unpublished report, 1985) and later adopted by Bower (1988). Here, specific capacity values are related to transmissivity by using a regression analysis on 19 values of corrected specific capacity and associated values of transmissivity. The relationship is described in the equation:

$$\log_{10}(T_e) = 4.056 + 0.816(\log_{10}(S_{cc})) \quad (3)$$

where

T_e = estimated transmissivity value (gpd/ft)

S_{cc} = corrected specific capacity value (gpm/ft)

The correlation coefficient, r , determined in the regression analysis was 0.83 (Bower, 1988).

For this study, a new regression curve was generated (Figure 19) using the same data originally used by Trost (Brown, 1980) with minor modifications. When generating the regression curve, three new data points were incorporated into the analysis. The transmissivity and specific capacity data added are denoted in Tables 2 and 3. Where possible, the raw data from the aquifer performance tests were analyzed by the author to determine aquifer parameters independently. The new regression curve is presented in Figure 17. The new correlation coefficient calculated was 0.73 which indicates a statistically high reliability for the linear relationship established. Specific capacity data for 56 wells in the UECPA then were used to predict transmissivity for those wells. The locations of all transmissivity values from sources listed above are shown in Figure 18. Their values are cross referenced to Table 2. These values were regionalized using a kriging interpolation technique to create an array. A regional map of transmissivity for layer 2 (UFAS) used in this model is presented in Figure 19.

Transmissivity was altered to 670 ft²/day (5,000 gpd/ft) in grid cells east of a structural feature indicative of faulting or downwarping. A trace of this feature follows the Intracoastal Waterway from Vero Beach to north Martin County, where it veers east toward the ocean (Figure 20). Hydraulic discontinuity is suspected along this line. For ease of reference, the term "fault" is applied loosely in describing the hydraulic characters associated with this structural and hydrogeologic anomaly. The emphasis here is not the cause of the feature, but the effects it has on the hydrogeology of the area. Previous works by Lichtler (1960), Law Engineering (1975), Mooney (1980), and Armstrong (1980) describe and discuss its nature in detail.

Permeability contrasts are observed between FAS wells on either side of the fault. East of the fault, wells have lower yield and drastically reduced permeability than wells on the west side. The model's sensitivity to transmissivity near the fault trace has a limited effect on modeled water levels in cells on either side of the fault. The value applied regionally to the downthrown (eastern) portion of the fault was estimated based on well yields and APT's from wells drilled in the FAS at Brynn Mawr Boy's Club and Joe's Point. Both wells indicate very low permeability in the UFAS. Hydrographs of observation wells SLF-46 and SLF-47 on the east (downthrown) side show considerably more drawdown than would be expected if transmissivity were higher. The geographic location and placement of the fault trace was based on the following:

- 1) the assumption that the wells discussed above with anomalously low permeability in the FAS are located east of the fault line,
- 2) study of cores in the Martin County area by Armstrong (1980), and
- 3) a thorough analysis of the available geophysical logs along both sides of the fault.

Layers 3 and 4

Figure 21 shows the locations of all wells in the modeled area where aquifer parameters are available for layers 3 and 4. Well construction and aquifer parameters are listed in Table 3 along with the model layers penetrated by each well.

Only three composite (layers 3 and 4) transmissivity values exist for these layers: the Lake Okeechobee ASR project (535,000 ft²/day), the C-24 canal Floridan drilling project (100,000 ft²/day (tentative)) and the Florida Power & Light study near Indiantown (334,000 ft²/day, Ebasco Envir., 1990). It was conservatively assumed that these transmissivity values may be higher than the regional value, so a composite estimate of 66,845 ft²/day was used. The 66,845 ft²/day (500,000 gpd/ft) value is divided equally between layer 3 (LFAPZ1), and layer 4 (LFAPZ2) and applied regionally for every cell in both layers. The model's sensitivity to changes in transmissivity was analyzed for layers 3 and 4; it was found to be minimal.

Specific Yield

Specific yield of the SAS (layer 1) was set at 0.2, which represents the average value of the sediments that make up the aquifer (Fetter, 1980). Since the layer is comprised of cells assigned constant heads, the value given is irrelevant but necessary to input.

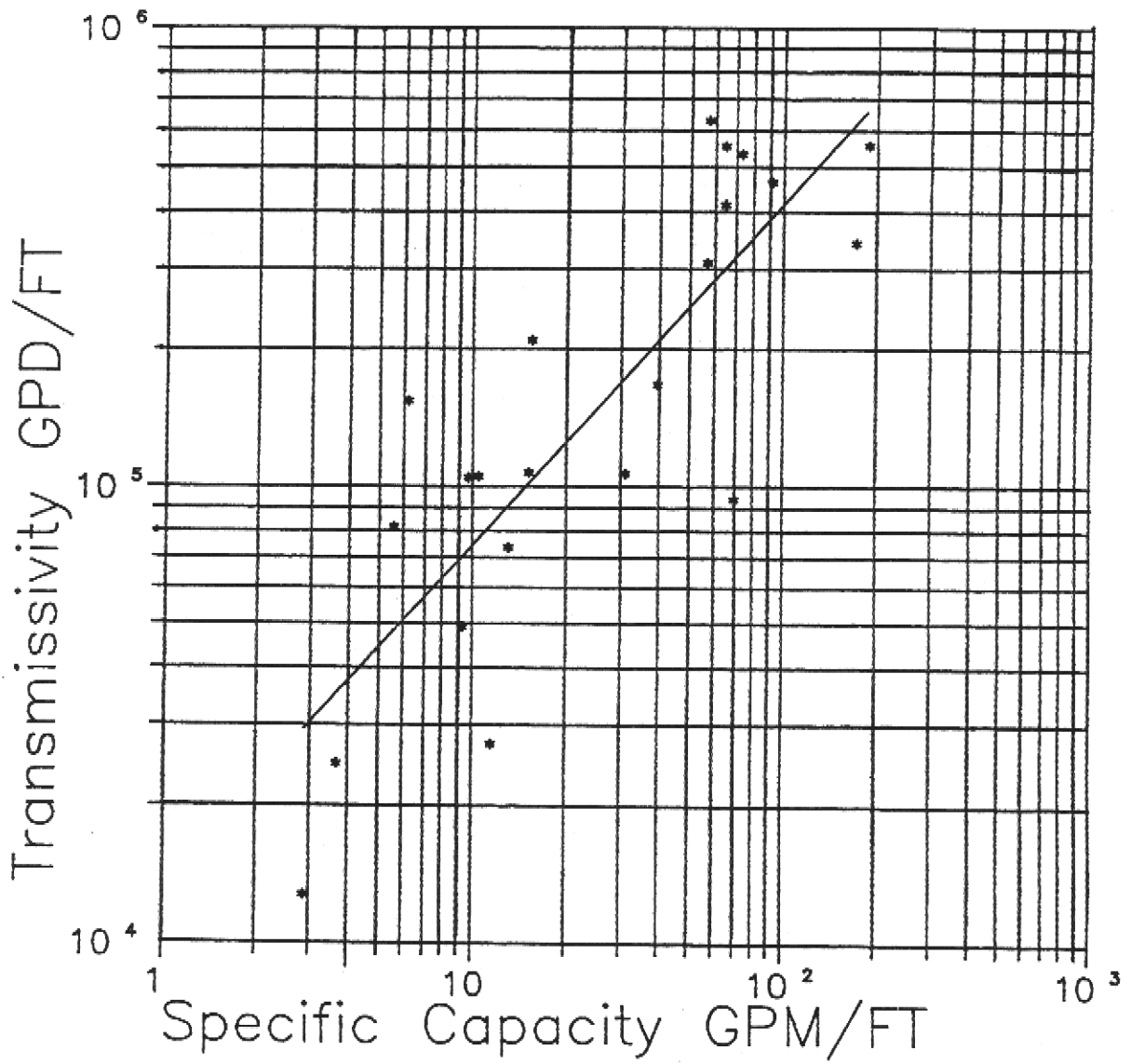


FIGURE 17: Modified Regression Curve Used to Calculate Transmissivity using Specific Capacity Data

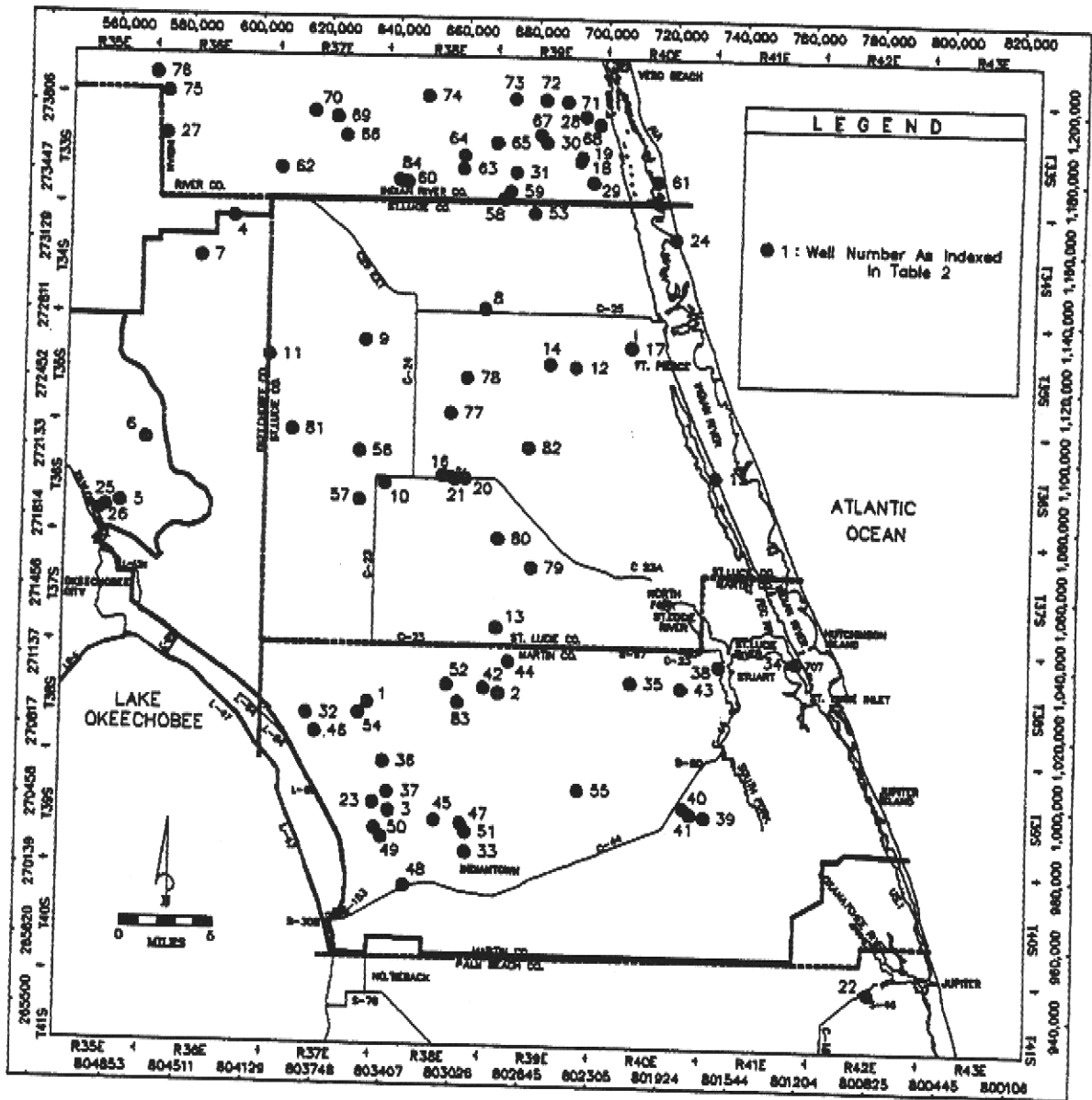


FIGURE 18: Location of Wells with Transmissivity and Specific Capacity Data Used in Model, Layer 2

TABLE 2: LAYER 2 (Upper Floridan Aquifer) AQUIFER PERFORMANCE TEST DATA USED IN MODEL

MAP #	WELL NAME	STATE PLANE COORDINATES (FT)		TOTAL DEPTH (Feet)	CASING DEPTH (Feet)	TRANS-MISSIVITY (gpd/ft)	ANALYSIS METHOD	STORATIVITY (E-4/D)	SOURCE
		X	Y						
1	MF-6*	635487	1027110	1052	400	104900	SR		BROWN, 80-1
2	MF-9*	673410	1030384	880	342	104300	SR		BROWN, 80-1
3	MF-23*	642188	996134	1119	456	73500	SR		BROWN, 80-1
4	OKF-2*	593433	1166945	666	218	153400	SR		BROWN, 80-1
5	OKF-5*	562688	1083782	1181	440	341600	SR		BROWN, 80-1
6	OKF-7*	569511	1102271	963	412	27200	SR		BROWN, 80-1
7	OKF-13*	584276	1155313	1200	600	556000	SR		BROWN, 80-1
8	SLF-4*	667351	1141435	993	482	461700	SR		BROWN, 80-1
9	SLF-9*	632615	1131915	1058	256	531526	SR		BROWN, 80-1
10	SLF-15*	639063	1090535			629200	MR	9.5	BROWN, 80-1
11	SLF-20*	604518	1127187	896	311	81495	SR		BROWN, 80-1
12	SLF-21*	693823	1124791	707	156	49000	SR		BROWN, 80-1
13	SLF-23*	672337	1049363	894	350	106700	SR		BROWN, 80-1
14	SLF-24*	686340	1125563			208500	MR	1.9	BROWN, 80-1
15	SLF-28*	734915	1093704	883	200	24600	SR		BROWN, 80-1

LEGEND FOR METHODS OF ANALYSIS:

WAL: WALTON TYPE CURVE MATCHING, MONITOR WELL AVAILABLE

SR: SINGLE WELL RECOVERY TEST/JACOB STRAIGHT LINE

USGS: USGS WATER INVESTIGATIONS REPORT 89-4073

SC: SPECIFIC CAPACITY FIT TO REGRESSION CURVE

MR: MONITOR WELL RECOVERY TEST/JACOB STRAIGHT LINE

USGS: USGS PROVISIONAL DATA TYPE UNKNOWN; TROST UNPUB.

WALT: WALTON TYPE CURVE MATCHING

*: DENOTES WELLS USED IN REGRESSION ANALYSIS

***: NEWEST DATA USED IN REGRESSION ANALYSIS

TABLE 2: LAYER 2 (Upper Floridan Aquifer) AQUIFER PERFORMANCE TEST DATA USED IN MODEL

MAP #	WELL NAME	STATE PLANE COORDINATES(FT)		TOTAL DEPTH (Feet)	CASING DEPTH (Feet)	TRANS-MISSIVITY (gpd/ft)	ANALYSIS METHOD	STORATIVITY (E-4/D)	SOURCE
		X	Y						
16	SLF-51*	662505	1092238	1000	600	107077	WALT	2.7	Wedderburn, 83-7
17	FBW-1**	709923	1130728	904	508	309000	SR		CH2MHILL, 1988
18	GM.IR37F	693717	1184269	745	N/A	50000	USGS	4	Schiner, 1988
19	SJ.IR40F	694252	1185282	704	N/A	56800	USGS	3.9	Schiner, 1988
20	SLF75	659259	1092023	700	480	210000	WALT	2.3	SPWMD, Unpublished
21	SLF76	659259	1092023	860	790	110000	WALT	6.4	SPWMD, Unpublished
22	JUP-R.O.	781929	945861	1500	1073	36890	MR	8	Geraghty & Miller, 1989
23	LFM1-S**	642688	996090	1202	800	94000	WALT	7.0	Ebasco Environ., 1990
24	BRYN MAWR	722002	1162199	1730	640	253	SR		Geraghty & Miller, 1990
25	OKF-26	556377	1081248	825	625	54945	SC		Trost, Unpublished
26	OKF-27	556377	1081248	725	477	51695	SC		Trost, Unpublished
27	FGS-IR202	573587	1190634	700	209	126082	SC		Trost, Unpublished
28	FGS-IR243	695094	1197000	900	220	81666	SC		Trost, Unpublished
29	FGS-IR245	697706	1178129	850	220	100083	SC		Trost, Unpublished
30	FGS-IR251	683885	1189474	700	220	123915	SC		Trost, Unpublished
31	FGS-IR253	675286	1180751	800	220	119582	SC		Trost, Unpublished
32	FGS-M-29	617612	1023723	1100	450	82750	SC		Trost, Unpublished
33	FGS-M-34	664652	984707	1100	450	372713	SC		Trost, Unpublished
34	FGS-M-88	759605	1040536	1180	700	75167	SC		Trost, Unpublished
35	FGS-M-143	711689	1033897	958	272	139804	SC		Trost, Unpublished
36	FGS-M-146	640332	1010264	1155	432	217440	SC		Trost, Unpublished

TABLE 2: LAYER 2 (Upper Floridan Aquifer) AQUIFER PERFORMANCE TEST DATA USED IN MODEL

MAP #	WELL NAME	STATE PLANE COORDINATES (FT)		TOTAL DEPTH (Feet)	CASING DEPTH (Feet)	TRANS-MISSIVITY (gpd/ft)	ANALYSIS METHOD	STORATIVITY (E-4/D)	SOURCE
		X	Y						
37	FGS-M-168	641808	1001484	1080	500	183136	SC		Trost, Unpublished
38	FGS-M-443	737038	1039085	951	275	70472	SC		Trost, Unpublished
39	FGS-M-740	733492	995745	990	474	278827	SC		Trost, Unpublished
40	FGS-M-741	727512	998235	890	460	71917	SC		Trost, Unpublished
41	FGS-M-742	729510	996530	1003	460	67945	SC		Trost, Unpublished
42	FGS-M-746	669159	1081881	510	360	103332	SC		Trost, Unpublished
43	FGS-M-748	726237	1032561	773	397	76611	SC		Trost, Unpublished
44	FGS-M-759	676080	1039584	853	650	164719	SC		Trost, Unpublished
45	FGS-M-901	655486	993658	1110	490	91777	SC		Trost, Unpublished
46	FGS-M-909	620247	1018480	1095	470	99360	SC		Trost, Unpublished
47	FGS-M-913	663174	992779	1100	500	93944	SC		Trost, Unpublished
48	FGS-M-919	646966	974744	950	636	176636	SC		Trost, Unpublished
49	FGS-M-920	640226	988554	1033	488	74444	SC		Trost, Unpublished
50	FGS-M-921	638228	991072	1032	455	87444	SC		Trost, Unpublished
51	FGS-M-923	664539	990361	1000	500	155692	SC		Trost, Unpublished
52	FGS-M-927	658408	1032645	792	450	109110	SC		Trost, Unpublished
53	FGS-STL44	680828	1169163	691	125	150637	SC		Trost, Unpublished
54	USGS-M-1	632877	1024072	NA	NA	104700	SC		Trost, Unpublished
55	USGS-M-2	696936	1002924	NA	NA	112200	SC		Trost, Unpublished
56	USGS-STL2	631458	1099699	NA	NA	464000	SC		Trost, Unpublished
57	USGS-STL3	631684	1085563	NA	NA	168000	SC		Trost, Unpublished

TABLE 2: LAYER 2 (Upper Floridan Aquifer) AQUIFER PERFORMANCE TEST DATA USED IN MODEL

MAP #	WELL NAME	STATE PLANE COORDINATES (FT)		TOTAL DEPTH (Feet)	CASING DEPTH (Feet)	TRANS-MISSIVITY (gpd/ft)	ANALYSIS METHOD	STORATIVITY (E-4/D)	SOURCE
		X	Y						
58	IR7F	671990	1172961	940	NA	268319	SC		Schiner, 1988
59	IR12F	673781	1175190	900	NA	279472	SC		Schiner, 1988
60	IR20F	643803	1177697		NA	323745	SC		Schiner, 1988
61	IR21F	716332	1178730	943	NA	40508	SC		Schiner, 1988
62	IR26F	606897	1181217	900	NA	284558	SC		Schiner, 1988
63	IR28F	660076	1181596	880	NA	734668	SC		Schiner, 1988
64	IR42F	660240	1185434	836	NA	366662	SC		Schiner, 1988
65	IR47F	669582	1189108	860	NA	149033	SC		Schiner, 1988
66	IR53F	625673	1190764		NA	507890	SC		Schiner, 1988
67	IR54F	682166	1191587	900	NA	344646	SC		Schiner, 1988
68	IR57F	699153	1194798	660	NA	94309	SC		Schiner, 1988
69	IR61F	622778	1196107	960	NA	539193	SC		Schiner, 1988
70	IR64F	616298	1197602	570	NA	238340	SC		Schiner, 1988
71	IR72F	689587	1201215	671	NA	55619	SC		Schiner, 1988
72	IR76F	683379	1201691	750	NA	61336	SC		Schiner, 1988
73	IR77F	674565	1201853	746	NA	86492	SC		Schiner, 1988
74	IR80F	649290	1202357		NA	165091	SC		Schiner, 1988
75	IR84F	573834	1202752		NA	111344	SC		Schiner, 1988
76	IR95F	570407	1208199	960	NA	237501	SC		Schiner, 1988
77	SLF27	657833	1111002	900	300	229062	SC		Trost, Unpublished
78	SLF40	662479	1121219	NA	376	111367	SC		Trost, Unpublished

TABLE 2: LAYER 2 (Upper Floridan Aquifer) AQUIFER PERFORMANCE TEST DATA USED IN MODEL

MAP #	WELL NAME	STATE PLANE COORDINATES(FT)		TOTAL DEPTH (Feet)	CASING DEPTH (Feet)	TRANS-MISSIVITY (gpd/ft)	ANALYSIS METHOD	STORATIVITY (E-4/D)	SOURCE
		X	Y						
79	SLF61	682099	1066875	695	350	61119	SC		Trost, Unpublished
80	SLF62	672318	1075011	935	480	83132	SC		Trost, Unpublished
81	SLF67	611696	1105597	NA	300	107007	SC		Trost, Unpublished
82	SLF69	680591	1101403	NA	300	218429	SC		Trost, Unpublished
83	MF2	661770	1027509	NA	300	94933	SC		Trost, Unpublished
84	IR370	643803	1177697	NA	300	260087	SC		Trost, Unpublished

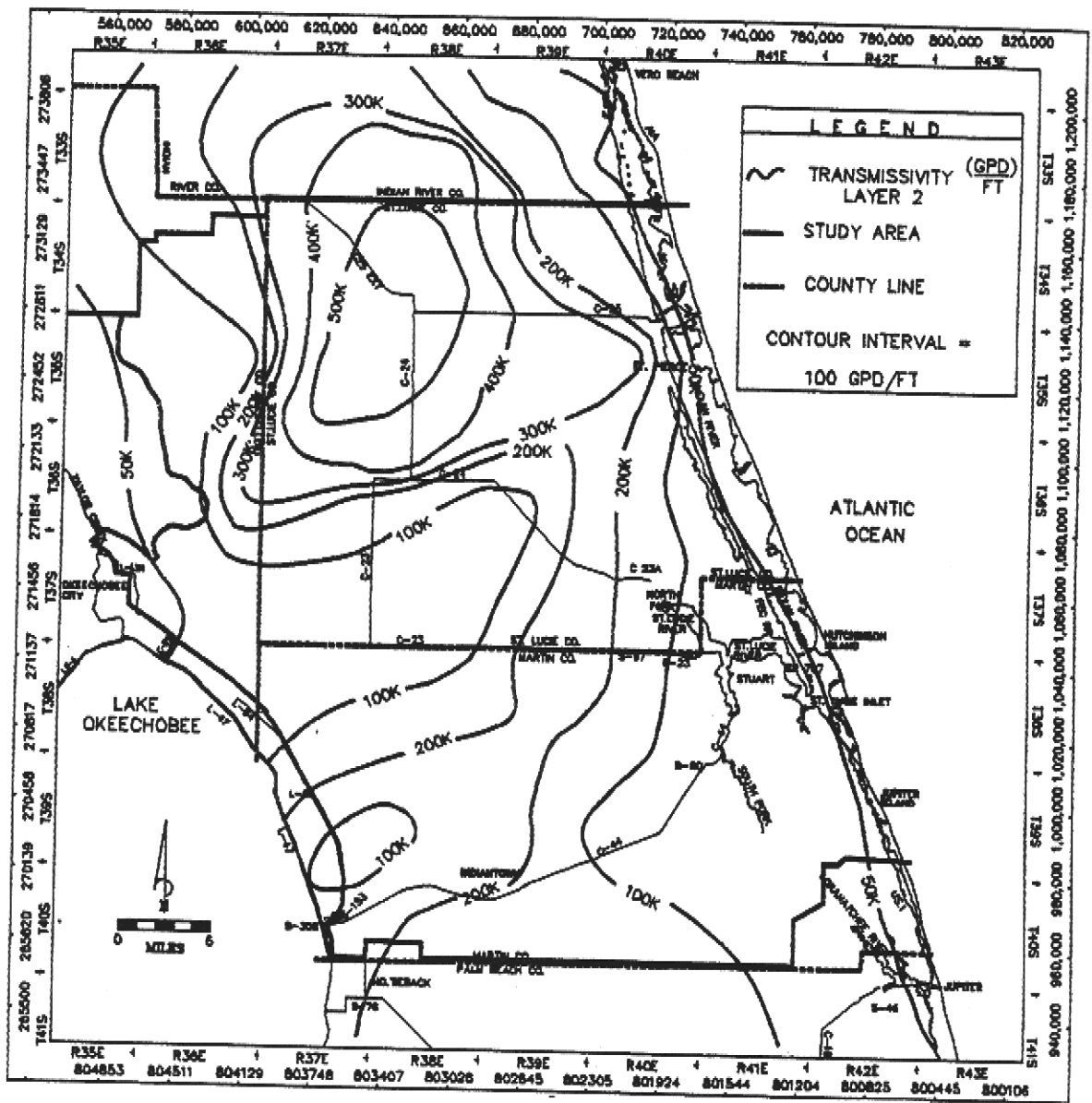


FIGURE 19: Transmissivity of the Upper Floridan Aquifer

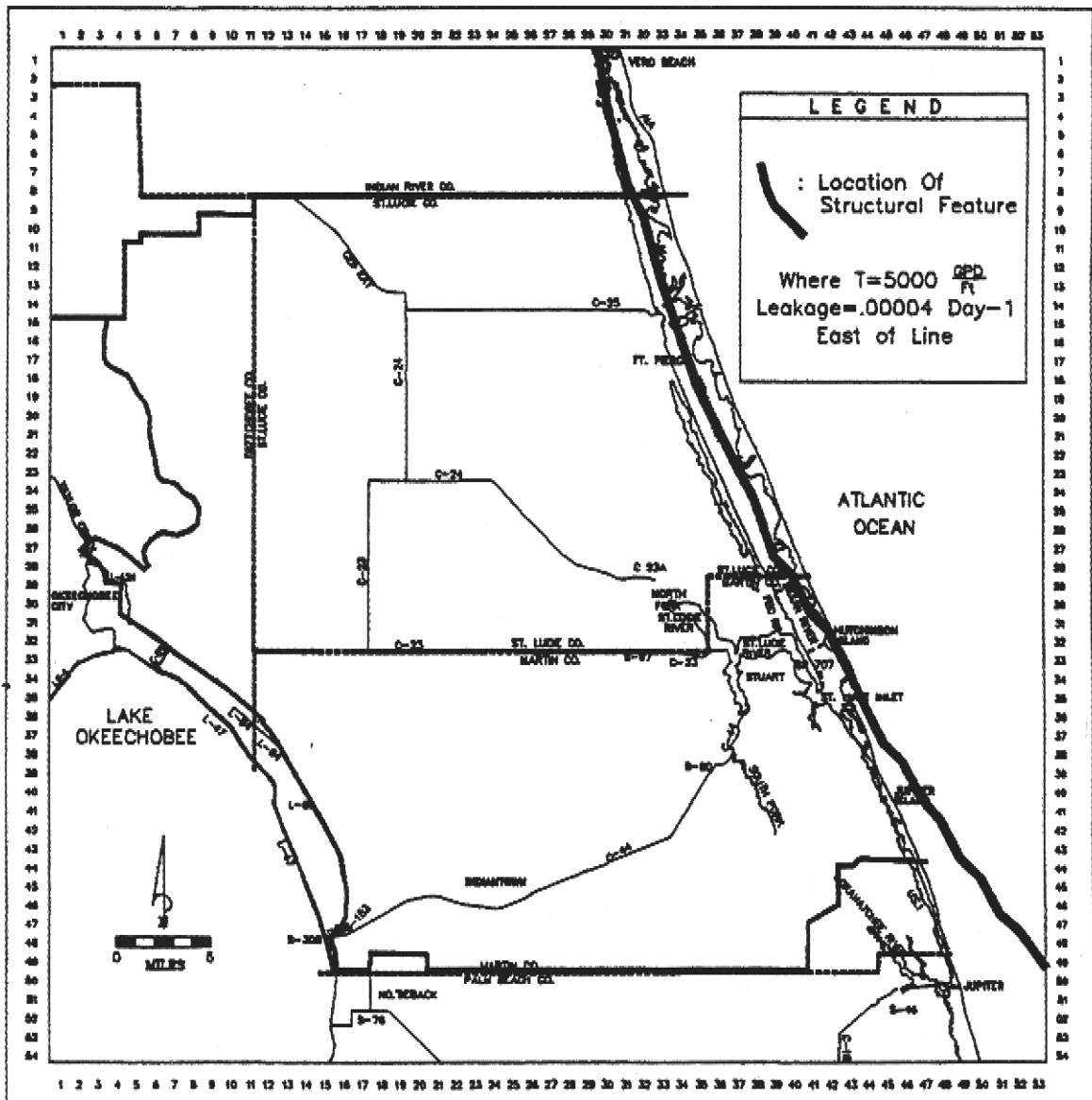


FIGURE 20: Location of Structural Feature Associated with Hydraulic Discontinuity, Transmissivity and Vertical Conductance Variance Used in Model

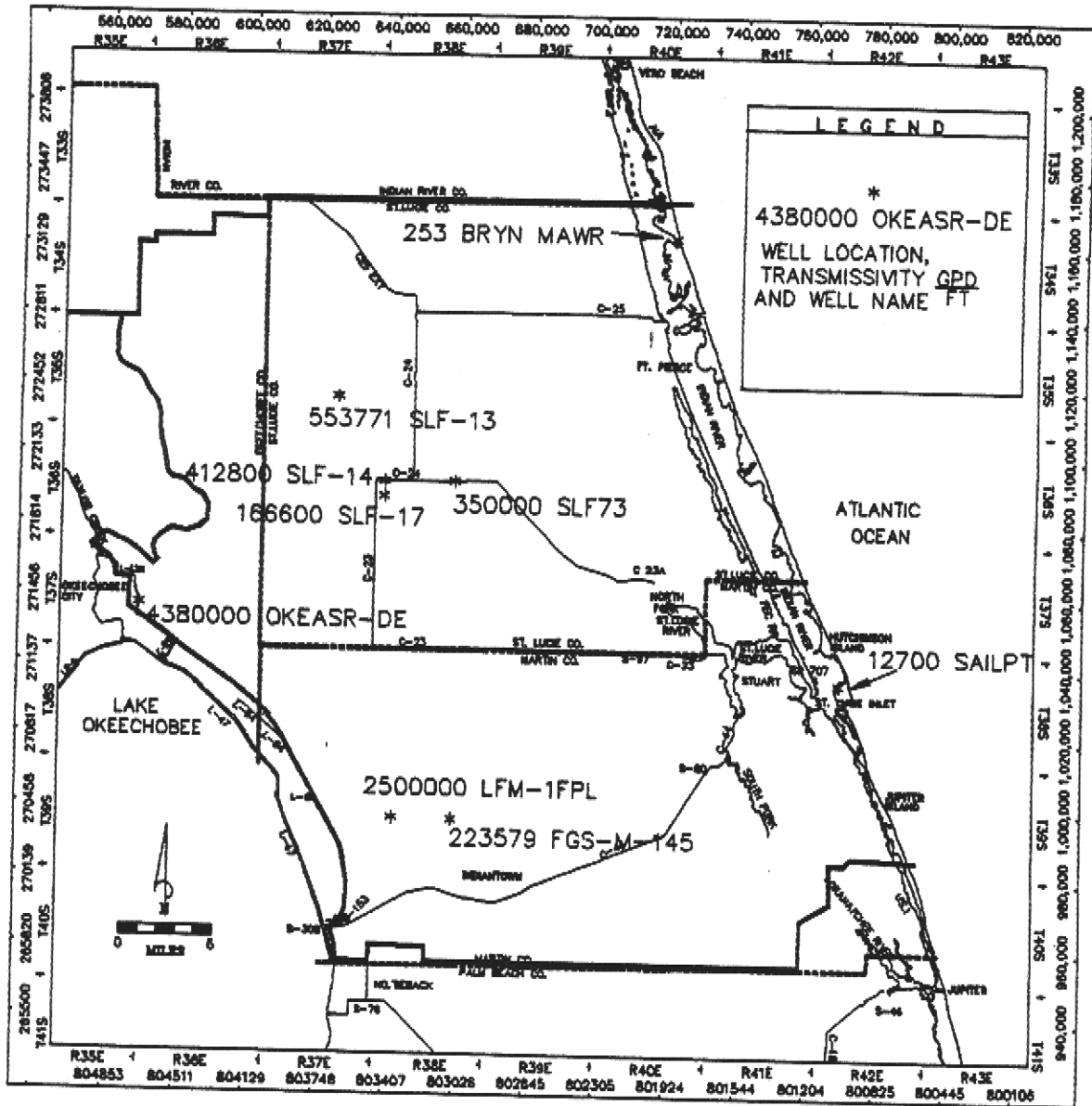


FIGURE 21: Location of Wells with Transmissivity Data, Layer 3 and Layer 4

TABLE 3: LAYER 2, 3 & 4 (FAS) - AQUIFER PERFORMANCE TEST DATA USED IN MODEL

WELL NAME	STATE PLANE COORDINATES (FT)		TOTAL DEPTH (Feet)	CASING DEPTH (Feet)	TRANS-MISSIVITY (gpd/ft)	ANALYSIS METHOD	STORATIVITY (E-4/D)	LEAKANCE (Day ⁻¹)	SOURCE	MODEL LAYERS PENE-TRATED
	X	Y								
OKEASR-DEE	569590	1056025	1700	1268	4,380,000	HANJ	12.5	.01-.001	CH2M HILL, 1989	3, 4
LFM-1DEEP**	642688	996090	1648	800	2,500,000	HANJ	7	.0022	EBASCO ENVIR, 1990	3, 4
SLF-13*	625457	1115937	1238	344	553,771	SR			BROWN, 80-1	2,3
SLF-14*	639149	1091949	1286	318	412,800	SR			BROWN, 80-1	2,3
SLF-17*	639073	1087809	1286	320	166,600	SR			BROWN, 80-1	2,3
BRYN MAWR	722002	1162199	1730	640	253	SR			CARTER ASSOC., 1990	2,3
FGS-M-145	659636	995794	1485	425	223,579	SC			TROST, UNPUBLISHED	2,3, 4
SLF73	659259	1092023	1550	1080	350,000	WALT	2.6	0.044	SFWMD, UNPUBLISHED	3, 4
SAILPT	770566	1035356	1525	630	12,700	HANJ	5		GEE & JENSON, 1977	2,3

LEGEND FOR METHODS OF ANALYSIS:

WALT: WALTON TYPE CURVE MATCHING, MONITOR WELL AVAILABLE

HANJ: HANTUSH-JACOB CURVE MATCHING

SR: SINGLE WELL RECOVERY TEST/JACOB STRAIGHT LINE

SC: SPECIFIC CAPACITY FIT TO REGRESSION CURVE

*: DENOTES WELLS USED IN REGRESSION ANALYSIS

** : NEWEST DATA USED IN REGRESSION ANALYSIS

Storage

Storage coefficients for the UFA (layer 2) were obtained from aquifer tests in the area, are limited in number, and range between 0.00019 and 0.00095 (Table 2). Based on these available data and a review of recent model literature (Bower, 1988), a uniform storage coefficient of 0.0004 was assigned to all of the active model cells in layer 2. Very few storage coefficients for layers 3 and 4 are available. Those existing range from 0.0012 (CH2M Hill, ASR, 1989) to 0.0026 (SFWMD). A sensitivity analysis of this parameter shows very little change in water levels with large changes to the storage coefficient. Since the lithologic and permeability characteristics of this lower Floridan Aquifer section are very similar to those in the Upper Floridan Aquifer section, the same value of 0.0004 was used for storage coefficient for all cells in layers 3 and 4.

Vertical Conductance

Base Layer 1: (Upper Confining Unit)

MODFLOW uses the term V_{cont} to define the degree of confinement between layers. It is employed in the quasi-three-dimensional modeling approach discussed in the previous section. It is defined for each cell and is the average vertical hydraulic conductivity of the confining unit divided by the thickness of that confining unit. The vertical hydraulic conductivity of the upper confining unit (in this case the Hawthorn) was estimated based on the lithologic composition of the Hawthorn (Driscoll, 1986). A standard vertical hydraulic conductivity of 3.1×10^{-4} ft/day was applied regionally throughout the model. The upper confining unit ranges from 250 to 800 feet thick in the study area; thickness was estimated using lithologic and geophysical data compiled for this project (see Appendix A). Values of thickness for each cell were determined using a kriging interpolation technique. The range of leakage values used was from 7.7×10^{-2} to 3.8×10^{-7} per day.

Base Layer 2: (Middle Semi-Confining Unit)

Three values of leakage were obtained in the study area via aquifer performance tests. The APT leakage results are similar and far enough apart areally to justify a regional assumption of leakage. The values range between 0.05/day to 0.001/day. Most of the more reliable data report leakage values of 0.04/day to 0.05/day. Paucity of data for both vertical hydraulic conductivity and thickness of this confining unit necessitated the broad application of a v_{cont} (leakage) value of 0.04/day over the entire model area with the exception of the coastal area.

V_{cont} was reduced three orders of magnitude from the St. Lucie-Indian River County border south to Martin County, and east of the Intracoastal Waterway along the structural anomaly shown in Figure 20. Structural and lithologic data support a plausible fault or downwarping hinged on this boundary. Hydrographs of the two available monitor wells on the St. Lucie barrier island suggest very low overall leakage rates and are successfully brought into calibration using this method.

Base Layer 3:

No direct V_{cont} (leakage) data is available for the base of layer 3. One value was used regionally determined through sensitivity analysis. The thickness of this confining interval is approximately 250 feet at SLF-74 and the Okeechobee ASR well. The value of V_{cont} applied regionally is 0.00032/day. The approximate value of vertical hydraulic conductivity for the above wells where thickness is defined at 250 feet is 0.08 ft/day.

Base Layer 4:

MODFLOW does not require a V_{cont} term for the base of the lowest layer. It is implicit that there is no flow at this boundary.

GROUND WATER USE

Upper Floridan Aquifer water use estimates for the model were determined using data from individual water use permits issued by the District coupled with the results of a comprehensive questionnaire issued to permit holders in the UECPA. Individual water use permits are required by the District if the average daily water withdrawals equals or exceeds 100,000 gallons per day (gpd). The District also issues general water use permits to all uses less than 100,000 gallons per day. The only exceptions are single family homes, duplexes, and water use strictly for fire-fighting (SFWMD, 1985). General water use permits were not included in the determination of water use estimates because few exist for the FAS. By far, the major use of water from the FAS is for agricultural purposes.

A modification to the MODFLOW code was made to enable the program to input three individual well package files. This modification was used to segregate into files three classifications of wells. The classifications used were: agricultural wells within the District boundaries, agricultural wells outside the boundaries and all wells with monthly pumping reports submitted to the SFWMD including public water supplies, agricultural and industrial wells. The wells are indexed in separate files by row and column, each line represents one well and is referenced by permit number.

Agricultural

Agricultural water use accounts for over 99 percent of the permitted FAS ground water use in the UECPA. Figure 22 shows the estimated agricultural water use for each cell in the model. Most agricultural enterprises are involved in citrus production. With a few exceptions, records of water withdrawn generally do not exist for agricultural uses. Therefore, agricultural water use was estimated.

Data on all agricultural water uses from individual water use permits were assembled into several spreadsheets organized by county (Appendix C). Information pertinent to calculating water withdrawals included permit number, well construction data, capacity (natural flow rate in gallons per minute), planar coordinates (location) of the wells, and status (e.g. is well currently existing or proposed). Data for wells in Indian River County were obtained from St. John's River Water Management District and compiled into separate spreadsheets. Other data in the water use spreadsheets include crop type, permitted annual allocation, soil type, irrigation efficiency, total irrigated acres, rain station code, etc. These additional permit data were included to provide flexibility in applying the traditional Blaney-Criddle method for estimating water withdrawals.

Water requirements of various crops generally is estimated by the District using a method described by the U. S. Soil Conservation Service (USDA, 1970). This method uses the modified Blaney-Criddle formula. Factors such as crop type, soil type, air temperature, daylight hours, effective rainfall, and irrigation system efficiency are used to estimate the irrigation requirements of various crops. This method is useful for estimating crop water needs but does not address the source water for these needs. In the study area, surface water systems in the form of major canals and feeder ditches are the dominant

irrigation source. Unblended FAS water is highly mineralized and marginally tolerable to citrus.

The tolerance range of citrus trees to chloride levels in irrigation waters varies depending on the tree type (e.g. orange, grapefruit, tangerine, etc.) and the irrigation method. The leaves of the trees are more sensitive to saline irrigation water than their roots are; therefore, methods of irrigation like overhead spray require water with lower chloride concentrations than a method like drip or flood. The tolerance range for the average citrus tree type for three common irrigation methods employed in the UECPA are listed in Table 4 (Calvert, 1982). Chloride concentrations in waters from FAS wells range between 300 milligrams per liter (mg/l) to 3,000 mg/l and average 900 mg/l throughout the UECPA. It was found that in areas where surface water supply is available (close to major canals, etc.), existing FAS wells are only occasionally used during the normal growing season.

To address the FAS utilization issue, a questionnaire was developed and distributed to the majority of permit holders in the UECPA (Appendix F). Agricultural water withdrawals were estimated using the results of this questionnaire. They were distributed to 360 agricultural permit holders in the study area. A comprehensive series of questions about FAS water use was included in the survey. Among other things, the questions were designed to allow quantitative analysis of the water withdrawn for the 1989 to 1990 time period as well as "average year" patterns. Part of the questionnaire asked for the amount of time FAS wells were allowed to flow freely during each month of the calibration period (May 1989 to March 1991). Responses to 130 questionnaires, 36 percent of those delivered, were entered into a database software program (DBASE). The program was used to calculate the average hours Floridan aquifer wells were allowed to flow freely

Table 4. Citrus Chloride Tolerance Levels for Common Irrigation Methods (Calvert, 1982)

<u>Irrigation Method</u>	<u>Chloride Concentration Tolerance Level (ppm)</u>
Overhead Sprinkler	800 to 1,000
Drip	1,500 to 2,000
Flood	<2,000

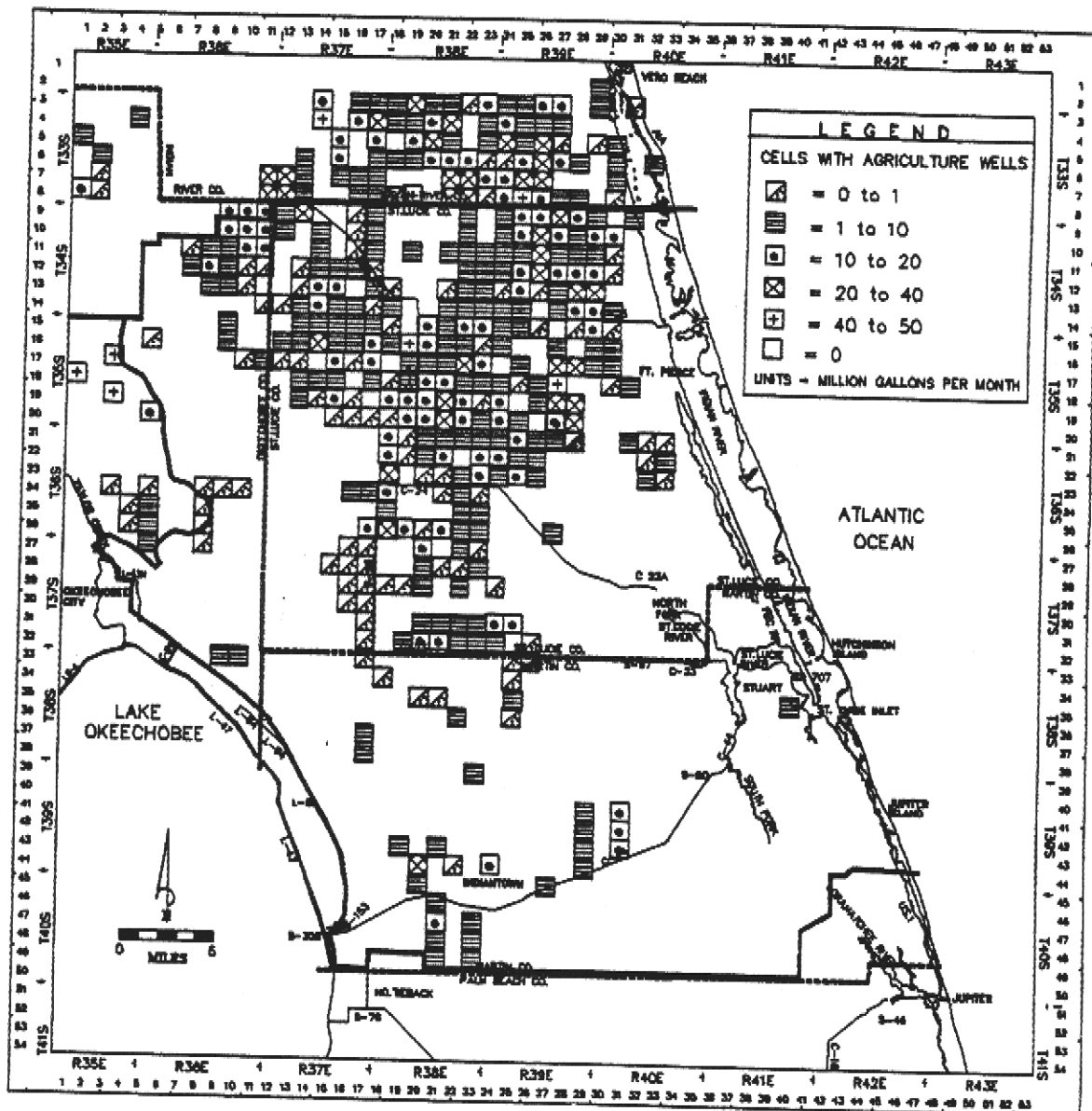


FIGURE 22: Estimated Agricultural Water Use for March 1990 Used in Steady State Model

during each month of the model simulation. The results are listed in Table 5.

The assumption made in the water use calculations was that the hours a well is open and flowing in any one month (hrs/month), multiplied by that well's capacity (gals/hr.), will equal the water volume withdrawn for that well in that month (gals/month). The capacity of each well was taken from the permits where available, or was estimated based on well diameter (Trost, unpublished). A program was developed to perform the above calculations for each permitted FAS well in the study area. The months of June 1990 through March 1991 were not included on the questionnaire; therefore, the previous years' monthly averages were used in the calculations. Fortunately, precipitation was very similar in these months for 1990 and 1991, so water use was likely very similar.

In cases where no questionnaire response was received for a specific permit, withdrawals were calculated using the average hours outlined above. For those permits where a response was received, the hours per month response was used directly to calculate withdrawals.

In some circumstances, agricultural pumpage reports are submitted to the District on a monthly basis (Appendix B). Those reports were updated using phone contacts and are represented in a separate model file. In all cases, each line (well) includes the permit number for reference. The agricultural pumpage reports and public water supply wells are combined into this file.

Public Water Supply Wells

FAS water is rarely used for public water supply due to its high chloride content. The exceptions are reverse osmosis (R.O.) water purifying facilities on Hutchinson Island, R.O. facilities in southern Indian River County, a Fort Pierce Utilities FAS blending well, and Jupiter R.O. wells. Monthly pumpage from the above wells was obtained either from DER operating reports or verbally from utility operators (Appendix B). The locations of cells with public water supply wells and their total discharge in March 1990 is shown in Figure 23. In cases where there were multiple wells per facility, utility personnel were contacted to obtain a breakdown of water withdrawn per well. All verbal and written contacts were documented in spreadsheet form. The public water supply wells are represented in the same file as mentioned above.

Industrial Uses

One industrial water use of the FAS was found in the study area: Caulkins Fruit Processing Plant near Indiantown, Martin County. Water withdrawal volumes were obtained verbally from the plant operator. This well also appears in the same model file mentioned above.

TABLE 5: AVERAGE HOURS FLORIDAN AQUIFER SYSTEM AGRICULTURAL WELLS USED PER MONTH FROM 1990 SURVEY (HOURS LEFT FLOWING NATURALLY PER MONTH)

<u>YEAR</u>	<u>MONTH</u>	<u>HOURS</u>
1989	January	71
	February	84
	March	107
	April	132
	May	135
	June	59
	July	45
	August	37
	September	42
	October	51
	November	76
	December	100
1990	January	79
	February	83
	March	130
	April	158
	May	165

Note: Date of Questionnaire, May 1990.

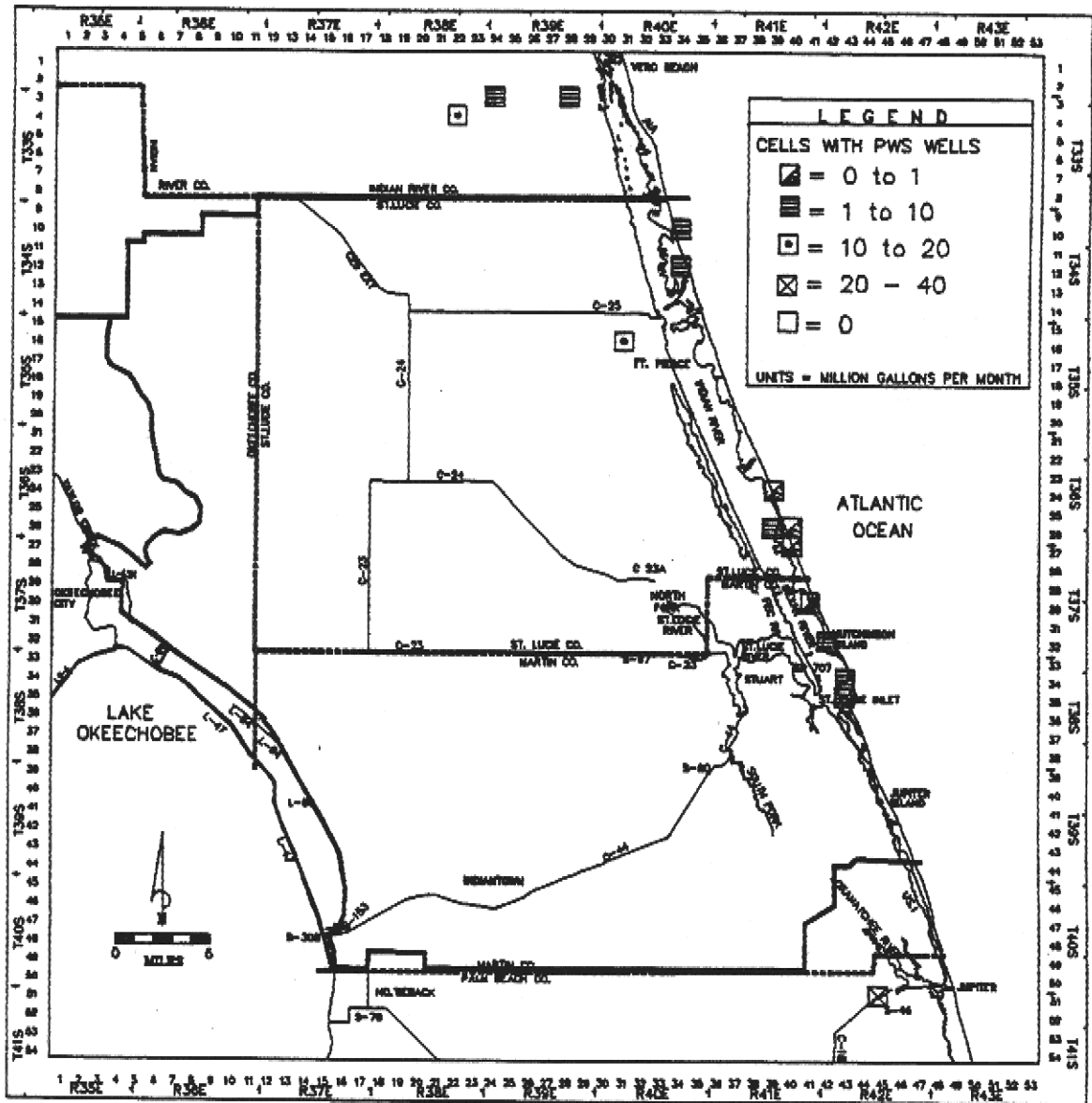


FIGURE 23: Public Water Supply Use for March 1990 Used in Steady State Model

CALIBRATION

The UECPA model was calibrated to both steady state and transient conditions. Layer 2 is the only calibrated layer in this model; it represents the Upper Floridan Aquifer. Wells providing temporal head data in the lower layers were non-existent in the study area; therefore, calibration of those layers was not possible. Locations of observation wells used in the calibration process are shown in Figure 24. The calibration period was May 1989 through March 1991, an interval of 23 months. It was chosen to correspond with the period that monthly UFA water levels were collected by the District. UFA water levels have been collected semi-annually by the District since 1979 as part of a cooperative program with the USGS. During the period between September 1989 and August 1991, the frequency of data collection was increased to monthly, and the number of wells on the monitor well network was increased to 54 specifically for this study. The last five months of the data collection period (April to August 1991) were not used in this model but may be incorporated into future versions. All monitor wells in the network were surveyed by District personnel. Each well's elevation, referenced to NGVD datum, was obtained and used for all head calculations in the model. A multi-year period was chosen so that the effect of annual variations in irrigation practices could be seen.

STEADY STATE CALIBRATION

Methods

Steady state is a theoretical condition which defines the aquifer system in a state of equilibrium. In other words, given the average water budget (inflows and outflows) of the aquifer and given enough time for water levels to stabilize, a definable water level will be attained. Heads computed by the steady state model should emulate that theoretical water level.

The theoretical steady state water level is not a physical property measurable in the field. Rather, it is based on an educated guess of what that equilibrium level should be. Measuring the degree of calibration of the steady state model, therefore, is not an exact science and is assessed by comparing how close the model comes to computing a hypothetical steady state water level based on speculative average budget conditions.

The goal was to simulate steady state water levels representing the average month in a year. Therefore, average month conditions were input into the model. Those conditions included well

withdrawals and boundary fluxes. Hydrographs of FAS wells in the study area demonstrate water level fluctuations ranging from as little as one foot to as high as eight feet between the ends of wet (September) and dry seasons (May). The larger fluctuations are found in areas of high well densities. The average observed water levels for the majority of UFA wells occur in the month of March. Therefore, March 1990 levels were assumed to approximate steady state levels under average annual conditions. March 1990 stresses and fluxes were implemented as inputs to the steady state model. The resultant computed heads were compared to March 1990 observed water levels. A well was considered calibrated if the difference between computed levels and March 1990 observed levels fell within the minimum to maximum annual water level range for that well. Figure 25 illustrates the difference between the simulated steady state levels and the March 1990 levels.

The steady state and transient models were calibrated interactively. Changes made to one were incorporated into the other. Initial steady state runs served to make the first adjustments to the model parameters. Transient calibration runs were then made and aquifer parameters as well as pumping estimates were refined. These refinements then were applied back into the steady state model. This iterative process was repeated until both models were satisfactorily calibrated.

Results

Layer 2 (Upper Floridan Aquifer)

Figure 26 shows the simulated head distributions within layer 2 (Upper Floridan Aquifer) for March 1990 conditions. All wells fell within the calibration tolerance range. Meeting that criteria was somewhat difficult in one area of the model in particular, which extends from north central St. Lucie County north into south central Indian River County. This area was considered a problem because it displayed the largest difference between computed and March 1990 observed heads. The difference was between 5 to 8 feet and can be seen in Figure 27. This area has a high density of FAS wells, which combined withdrew several million gallons per day in March. Observation wells in this area include SLF-3, SLF-70 and IR-312. Minimum and maximum annual water levels range 6.5, 6, and 8 feet respectively in these wells. Satisfactory calibration was attained but just within the range.

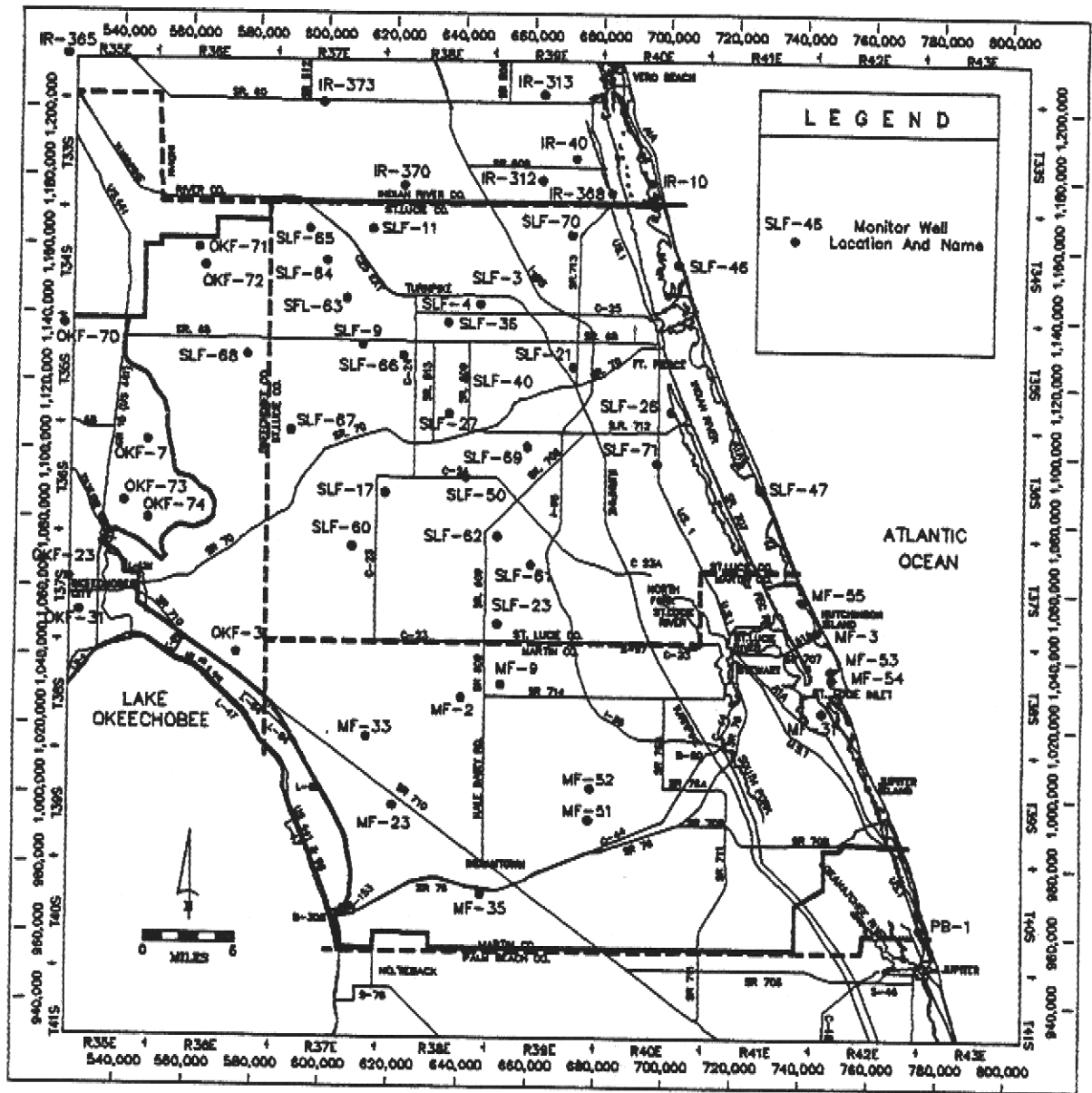


FIGURE 24: Location of Monitoring Wells Used to Verify Modeled Water Levels

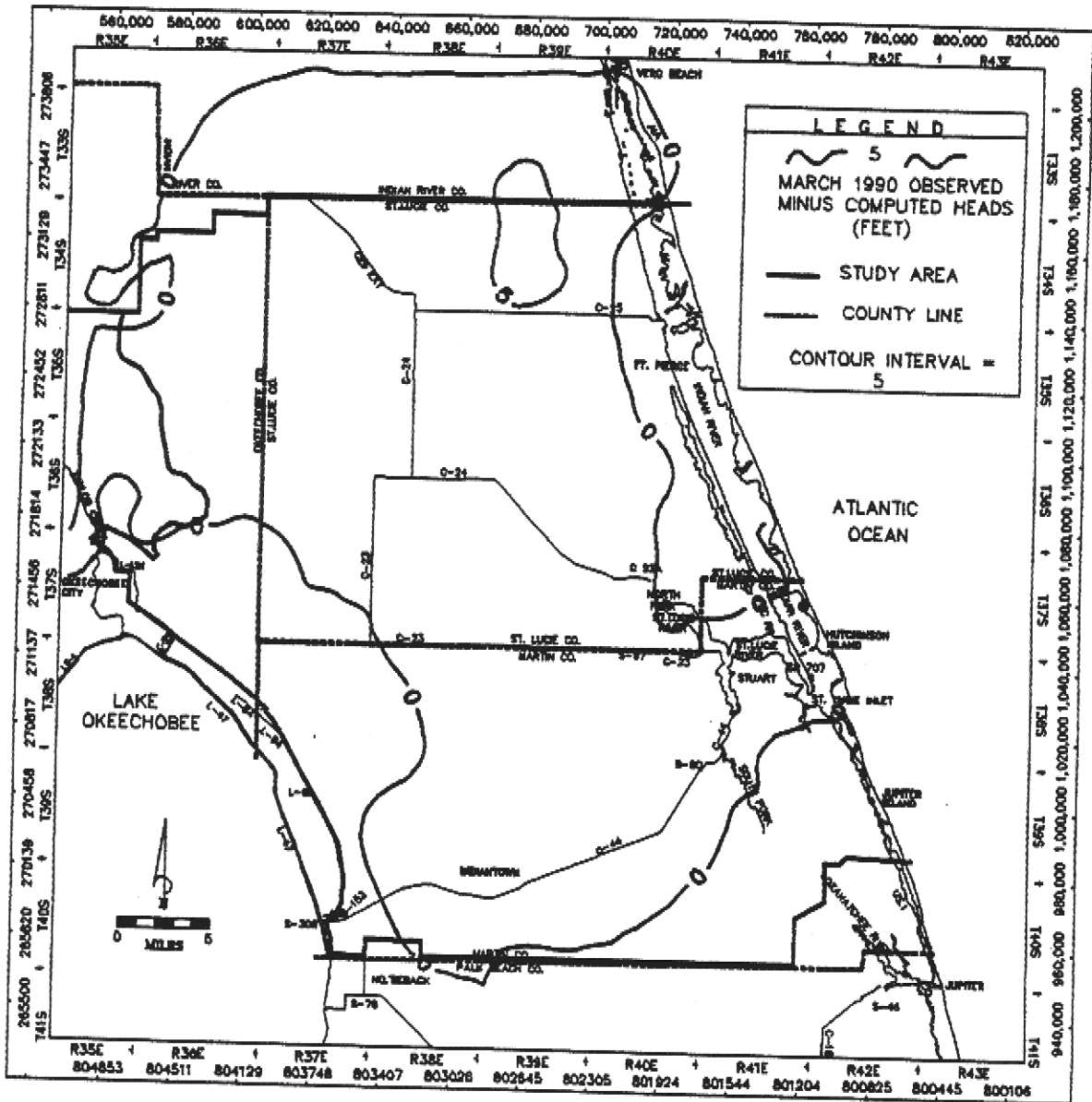


FIGURE 25: March 1990 Observed Minus Steady State Computed Water Levels, Layer 2

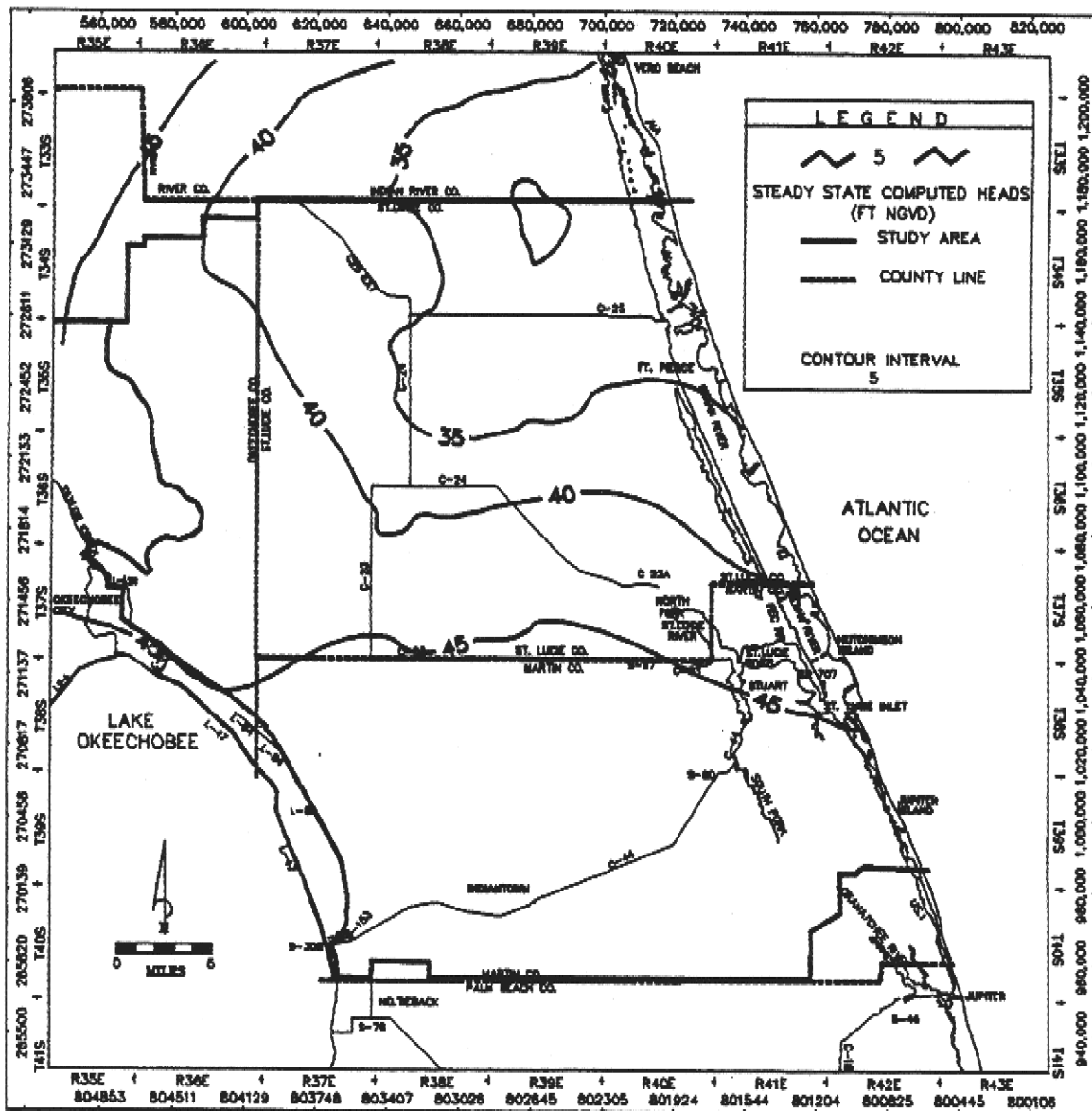


FIGURE 26: Simulated Steady State Computed Water Levels, Layer 2

defined. In all other model areas, the difference between computed and March levels was much closer and easily met the calibration criteria.

Figure 28 shows the direction and magnitude of simulated horizontal flow in the Upper Floridan Aquifer. Each arrow represents the direction and magnitude of flow from an individual cell. The horizontal flow arrows generally point toward areas of intensive ground water use. The largest and most numerous flow vectors are in west central and north central St. Lucie County. These two dense clusters point toward two areas of intense water use from the FAS. Large clusters of flow vectors are also seen in all the north central and western portions of Indian River County. Figure 29 is a representation of the vertical flow vectors between layer 1 and layer 2. Downward flow from layer 1 to layer 2 is seen in the Highlands area of Okeechobee County where water levels of the SAS are higher than the FAS because of the high ground level elevation. Upward flow is generally the rule since water levels are higher in the FAS than in the SAS over the rest of the study area. Figure 30 illustrates the simulated vertical flow vectors between layer 2 and layer 3. It can be seen that most vectors are upward and the largest flow vectors are associated with areas of intense well discharges.

Figure 31 illustrates the volumetric budget in layer 2 for steady state conditions. Approximately 91.1% or 140 million gallons per day (MGD) of the total inflow to this layer is recharge from the LFAPZ1 (layer 3), 8.7% (13.4 MGD) is from the general head cells, and 0.2% (0.25 MGD) is from downward leakage from the Surficial Aquifer System (layer 1). The flow from the general head (specified flux) cells represents flow into the modeled area from Okeechobee and Indian River counties. Of the total outflows, 4.8% (7.4 MGD) is downward leakage to layer 3 (LFAPZ1), 4.5% (6.6 MGD) is upward leakage to the Surficial Aquifer (layer 1), .01% (1.5 MGD) is to general head cells, 53.3% (81.8 MGD) is to agricultural wells in the UECPA, 27.2% (41.7 MGD) is to wells in Indian River County, 9.4% (14.5 MGD) is to all other wells whose pumpage is reported. Generally, water supply pumpage is balanced by upward leakage from lower parts of the FAS. Outflow to the general head cells represents horizontal flow out of the modeled area, mainly to northeastern Indian River County and to a limited degree to the ocean.

Layer 3 (Lower Floridan Aquifer Producing Zone 1)

Figure 32 shows the water levels within layer 3 (LFAPZ1) for March 1990 conditions. Layer 3 observed minus steady state computed heads is

shown in Figure 33; they range between 0 and 9 feet with the highest drawdowns in areas with intense agricultural water withdrawals from layer 2 (UFA). Figure 34 shows the magnitude and direction of simulated horizontal flow in layer 3 (LFAPZ1). It can be seen that the vectors are similar to those in layer 2. The larger clusters point in the direction of intensive water use from layer 2. Although there is negligible pumping from layer 3, water in layer 3 flows in response to pumping from layer 2 (the UFA). The vertical flow representing leakage between layers 3 and 4 can be seen in Figure 35. Most of the flow is upward providing recharge to layer 3. Large upward flows are seen in areas of intensive withdrawals from layer 2.

The volumetric budget for layer 3 is illustrated in Figure 36. The majority of inflow, 82.8% (134.8 MGD) is upward leakage from the LFAPZ2, 12.7% (20.6 MGD) comes from general head cells, 4.5% (7.4 MGD) comes in from layer 2 (UFAS). The flow from the general head cells represent flow into the modeled area from Okeechobee and Indian River counties. Total outflow consists of 85.9% (139.9 MGD) to upward leakage, 13.1% (21.3 MGD) to downward leakage, 0.01% (1.5 MGD) to general head cells. The outflow to general head cells represents flow out of the modeled area into northeastern Indian River County and partially to the ocean.

Figure 37 shows the combined volumetric budget for the entire model. Total inflow consists of 79.7% (4.12 billion gallons per day (BGD)) from constant head cells, 20.3% (1.0 BGD) from general head cells. Constant head sources are either layer 4 (LFAPZ2) or the north and west boundaries of layer 4. Total outflow consists of 16.6% (851.7 MGD) to constant head cells, 1.9% (100.1 MGD) to general head cells, 48.3% (2.5 BGD) to UECPA agricultural wells, 24.6% (1.3 BGD) to Indian River wells, 8.6% (446.4 MGD) to other reported well pumping including public water supplies. The outflow through the constant head cells represents movement out of the northeastern boundary of layer 4 (LFAPZ2) boundaries, layer 4 itself, and to a smaller extent layer 1 (SAS).

TRANSIENT CALIBRATION

Methods

The transient model differs from the steady state in that several time periods (stress periods) representing months are simulated. The model calculates heads for each stress period of the simulation based on defined boundary conditions and stresses for each month simulated in the model. The transient model comprised 23 stress periods

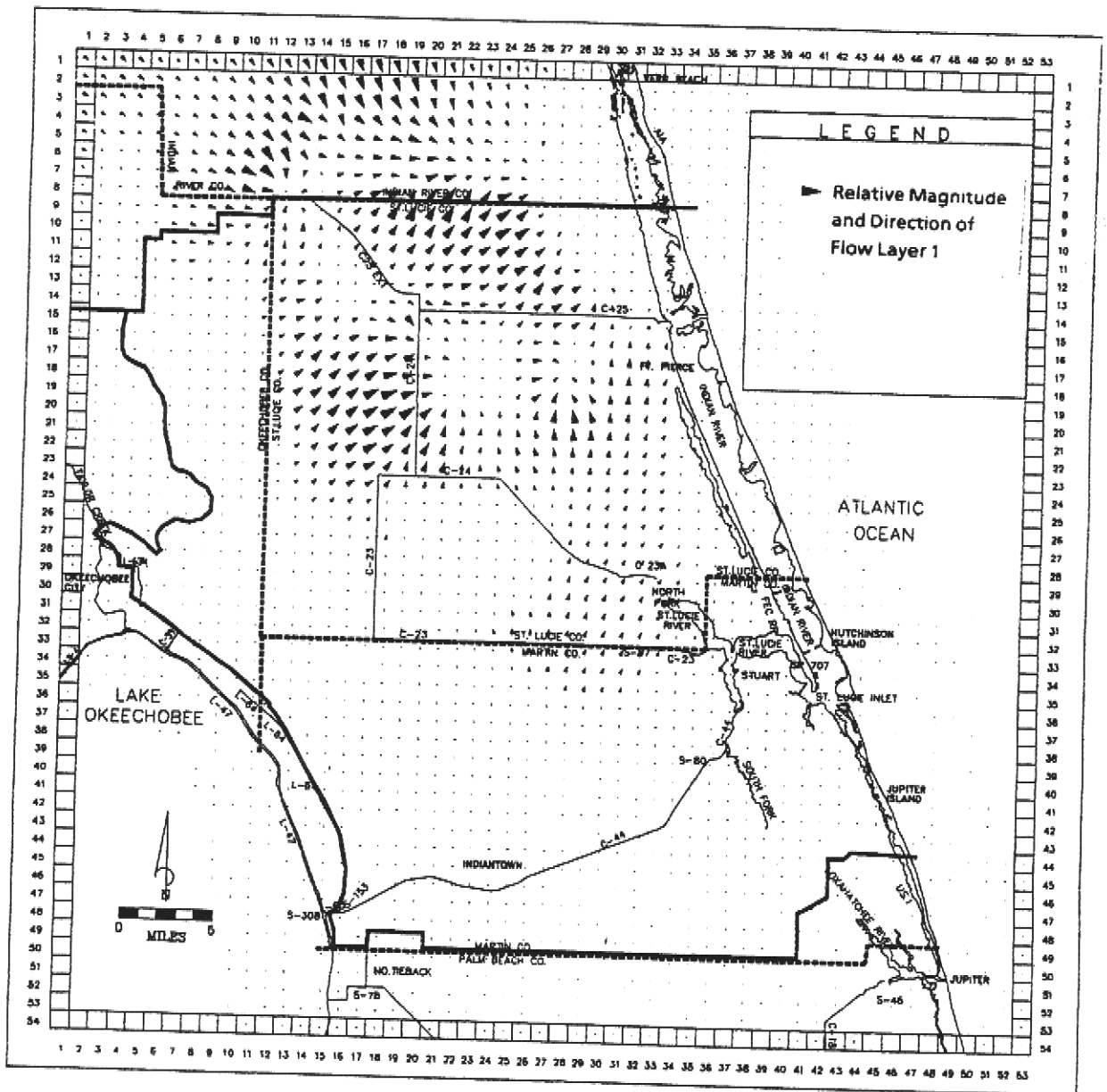


FIGURE 28: Simulated Steady State Horizontal Flow Vectors, Layer 2 (Upper Floridan Aquifer System)

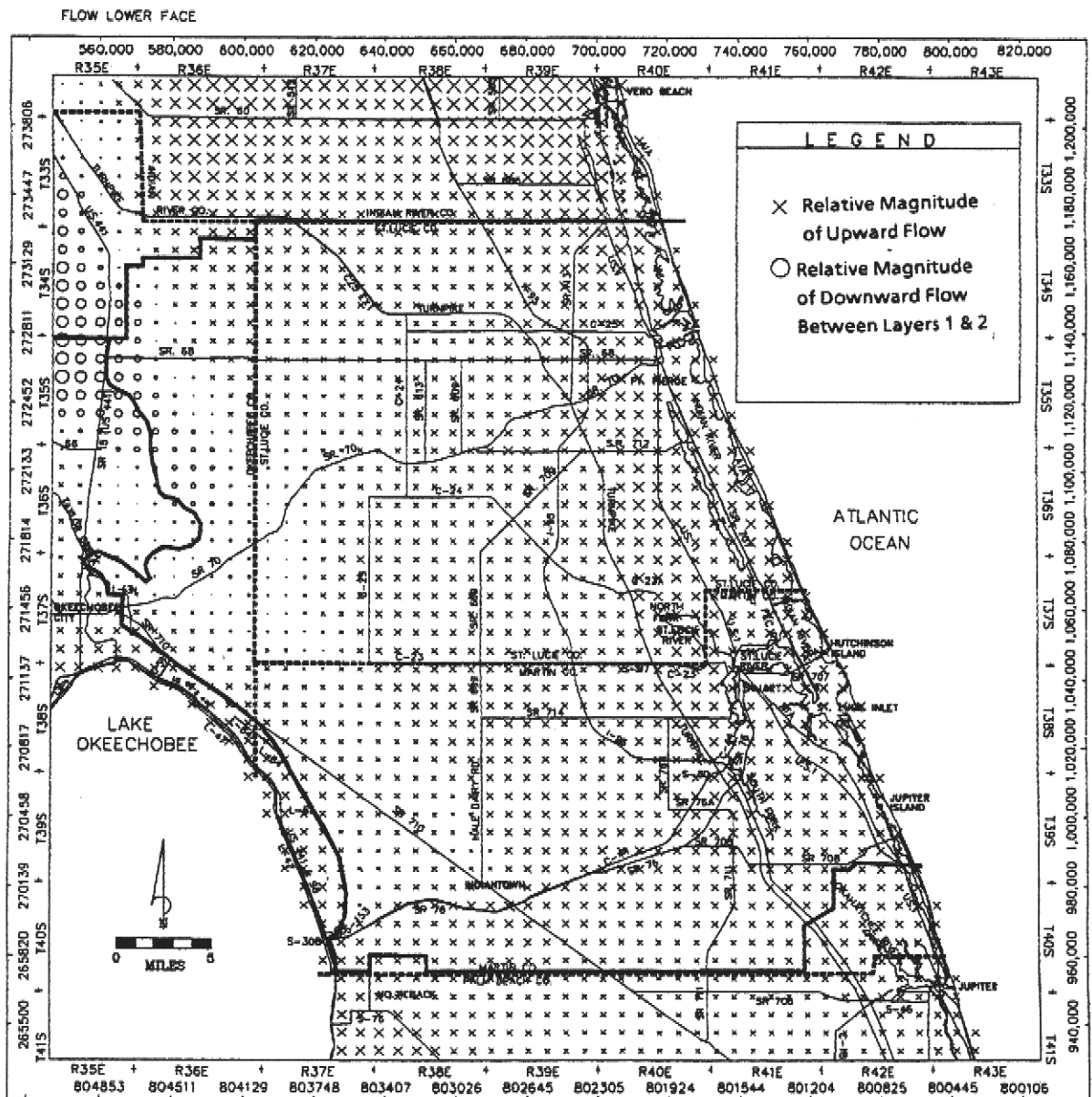


FIGURE 29: Simulated Steady State Vertical Flow Vectors Between Layers 1 and 2

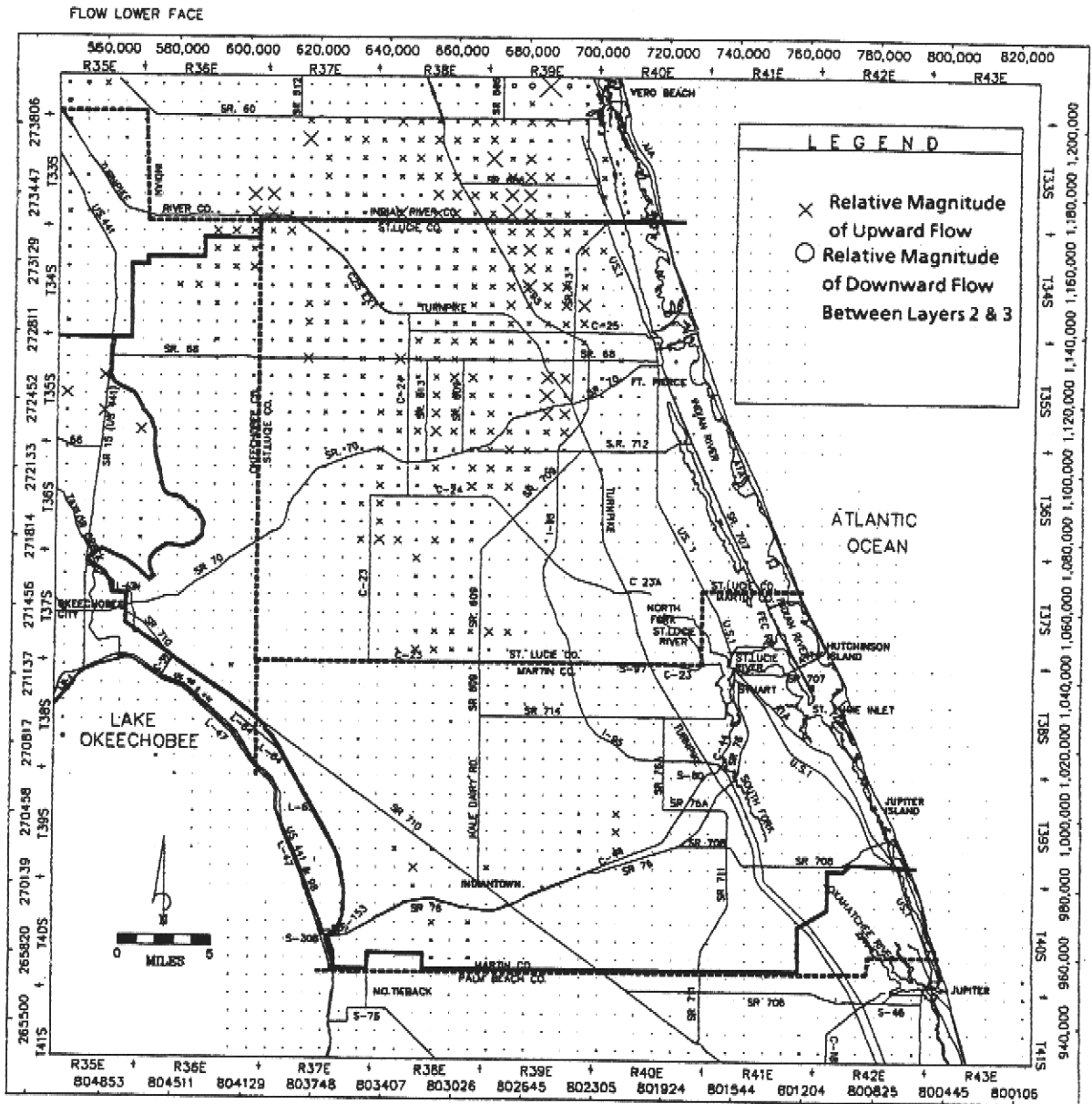


FIGURE 30: Simulated Steady State Vertical Flow Vectors Between Layers 2 and 3

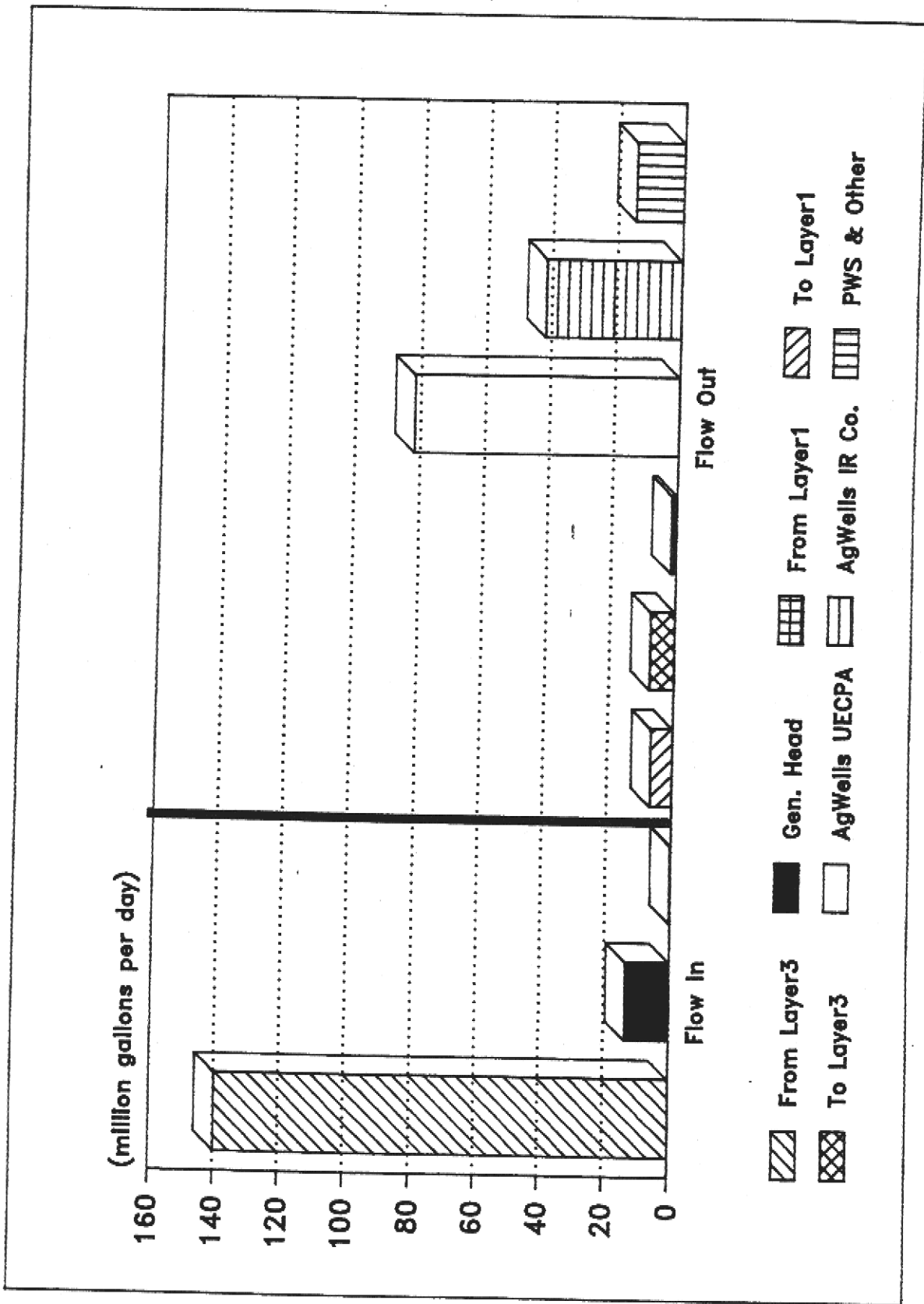


FIGURE 31: Volumetric Budget, Layer 2 (Upper Floridan Aquifer), Steady State Conditions

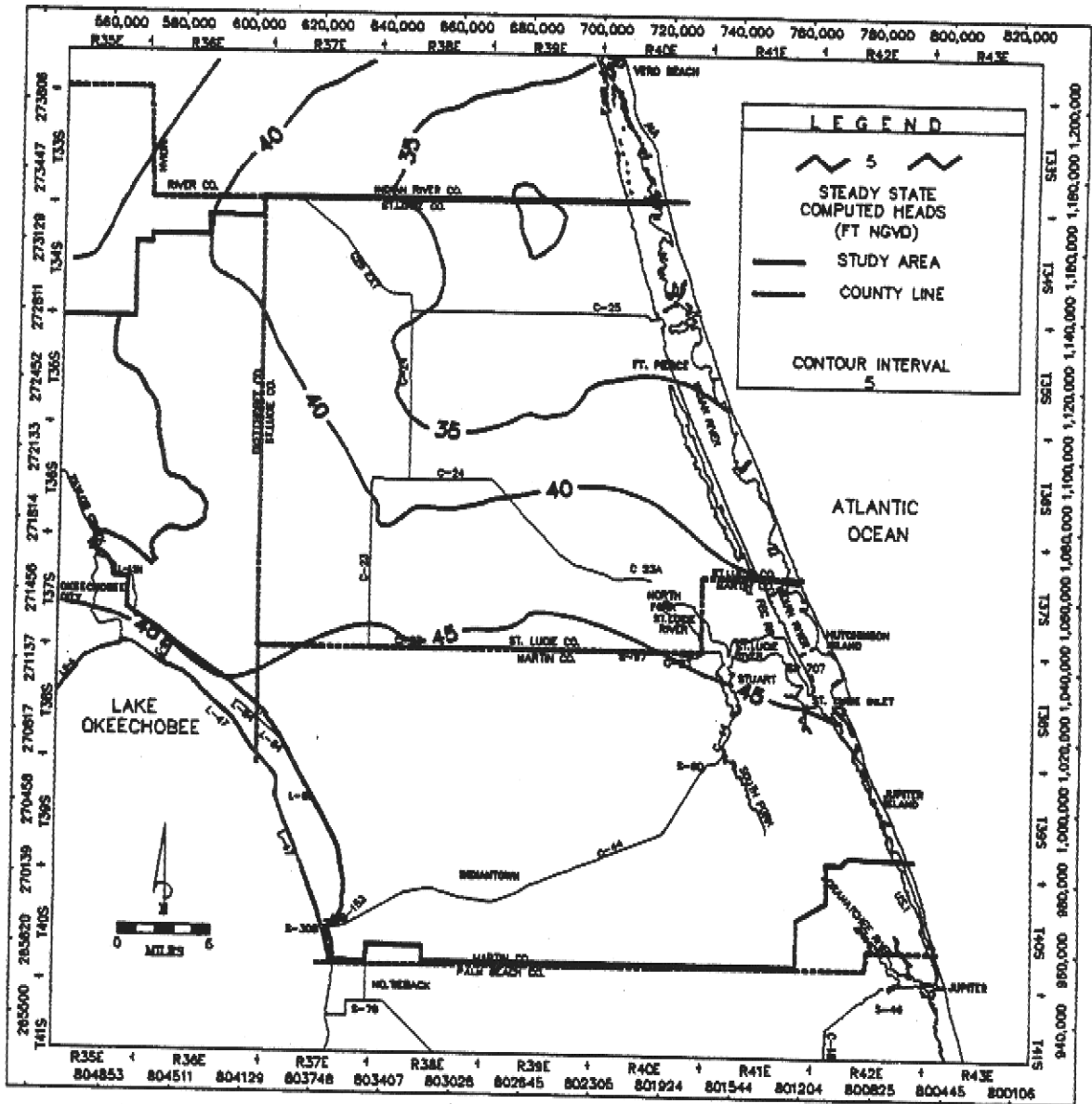


FIGURE 32: Simulated Steady State Water Levels , Layer 3

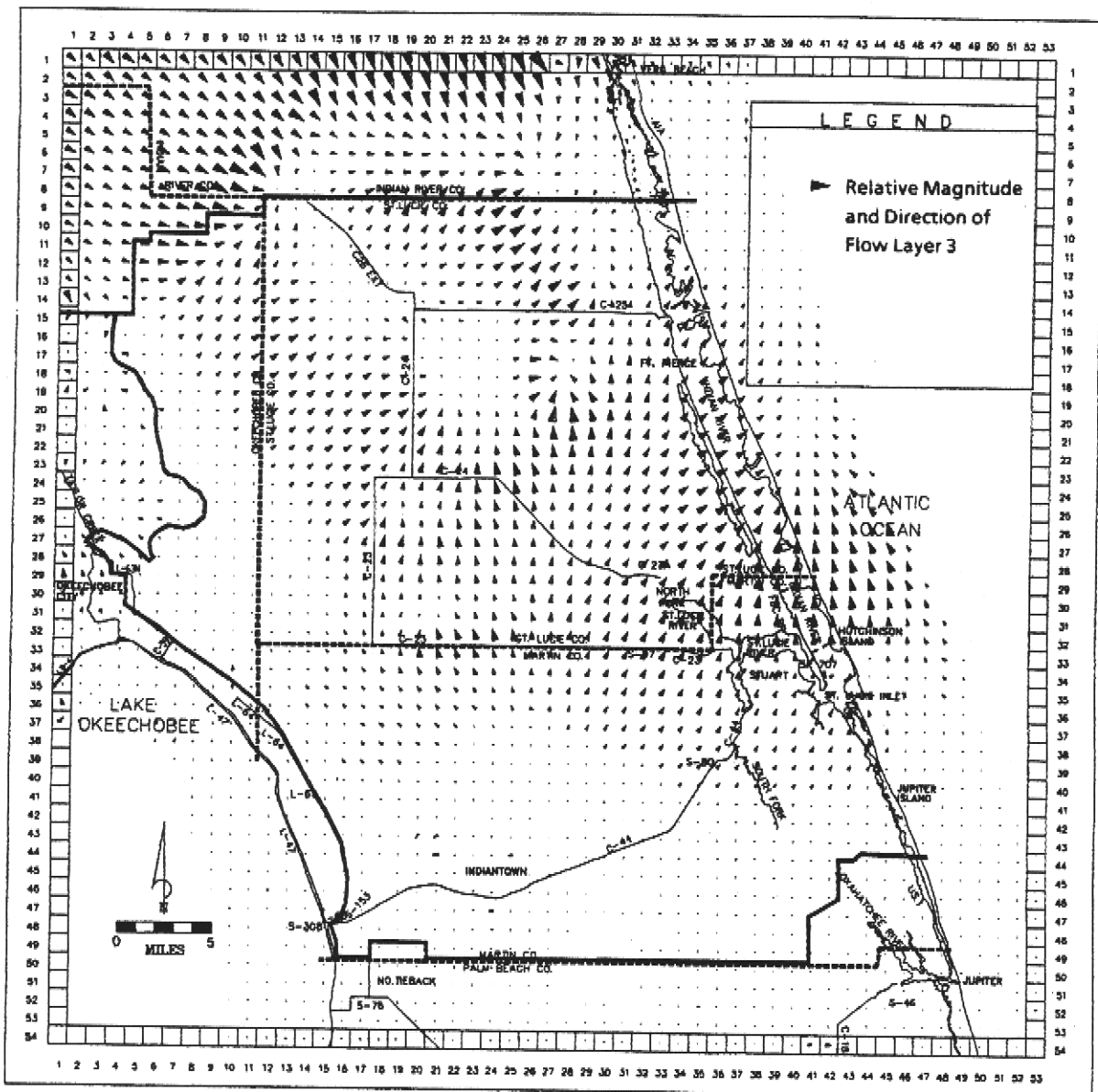


FIGURE 34: Simulated Steady State Horizontal Flow Vectors, Layer 3

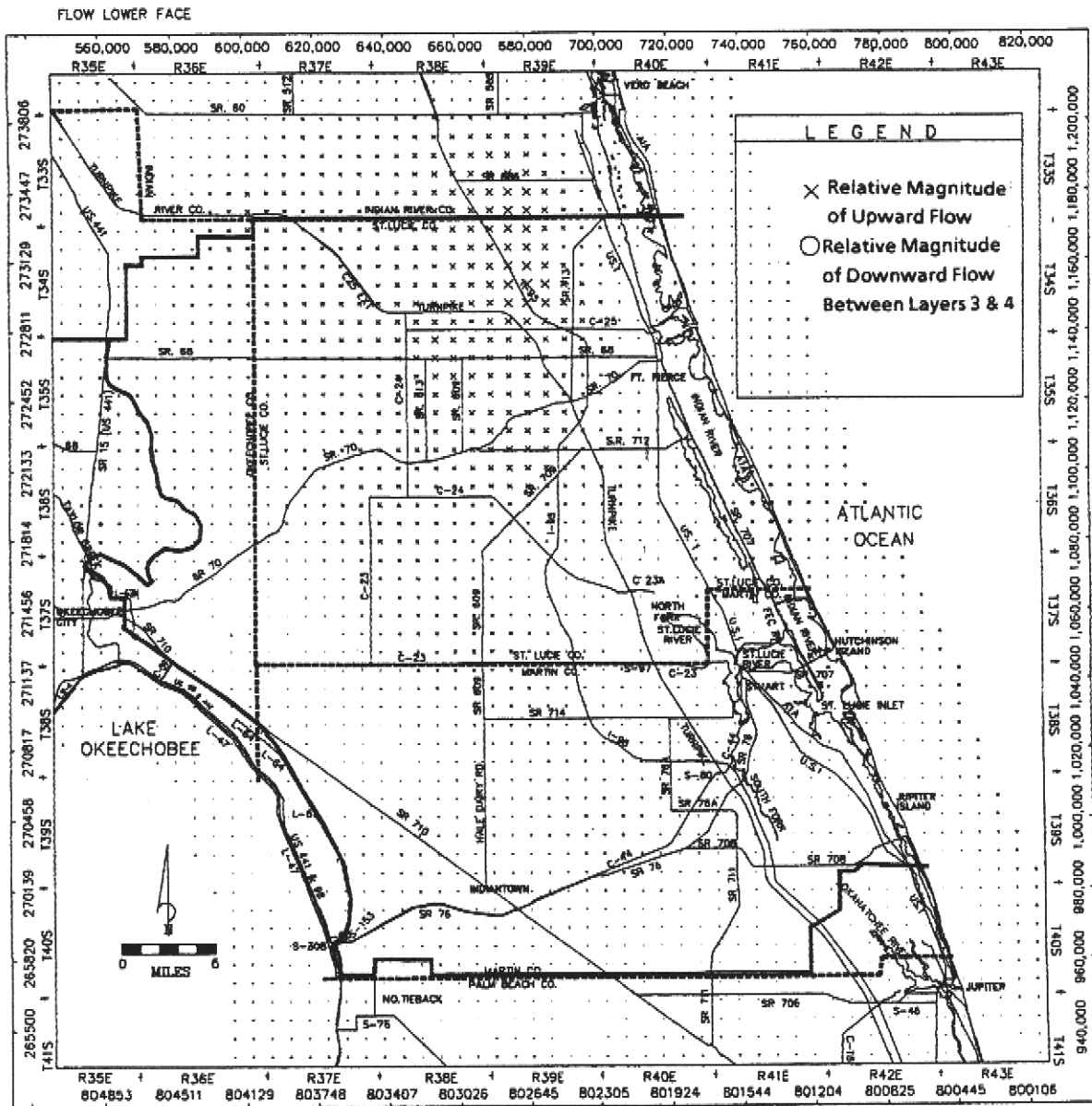


FIGURE 35: Simulated Steady State Vertical Flow Vectors Between Layers 3 and 4

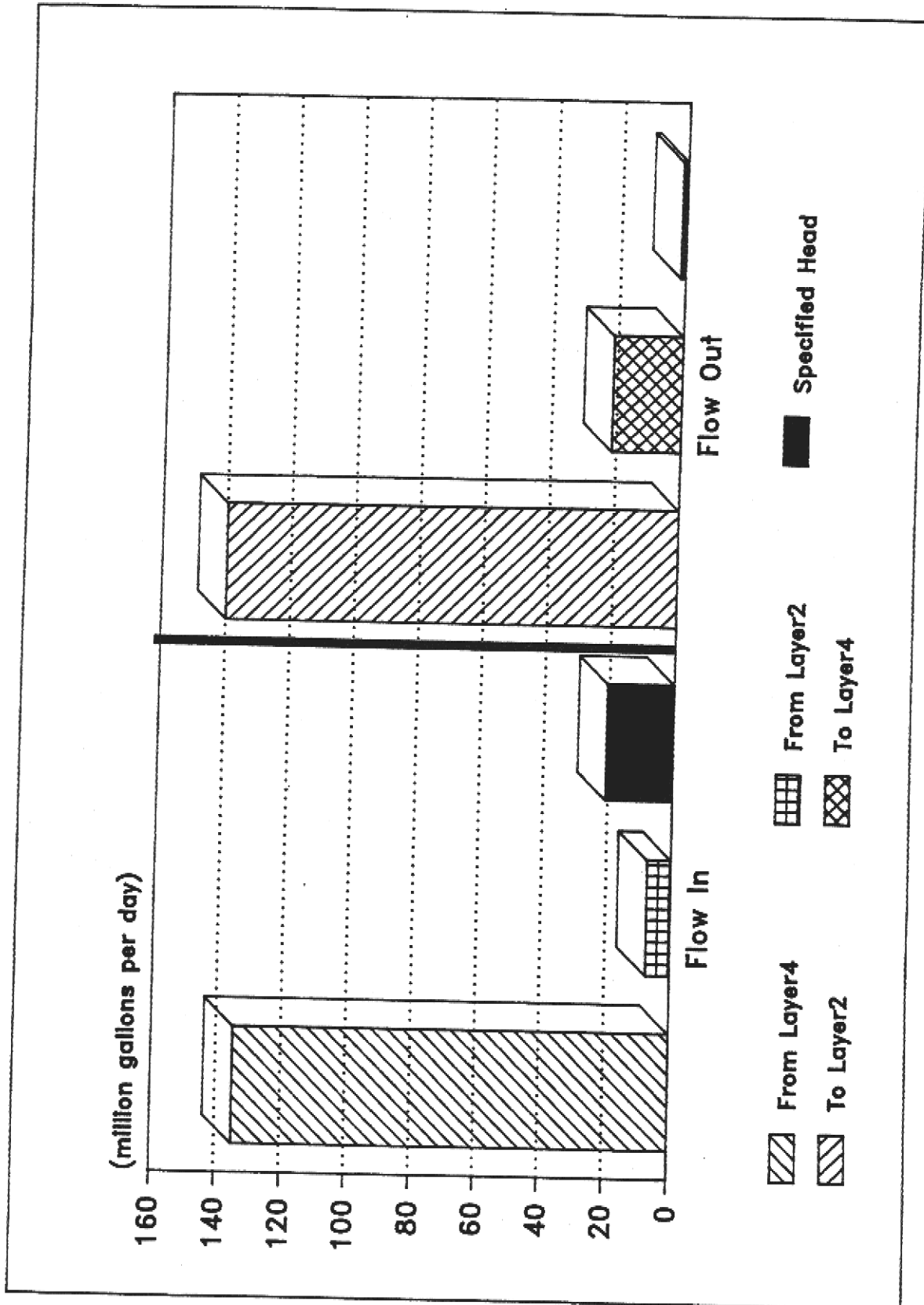


FIGURE 36: Volumetric Budget, Layer 3 (LFAPZ1), Steady State Conditions

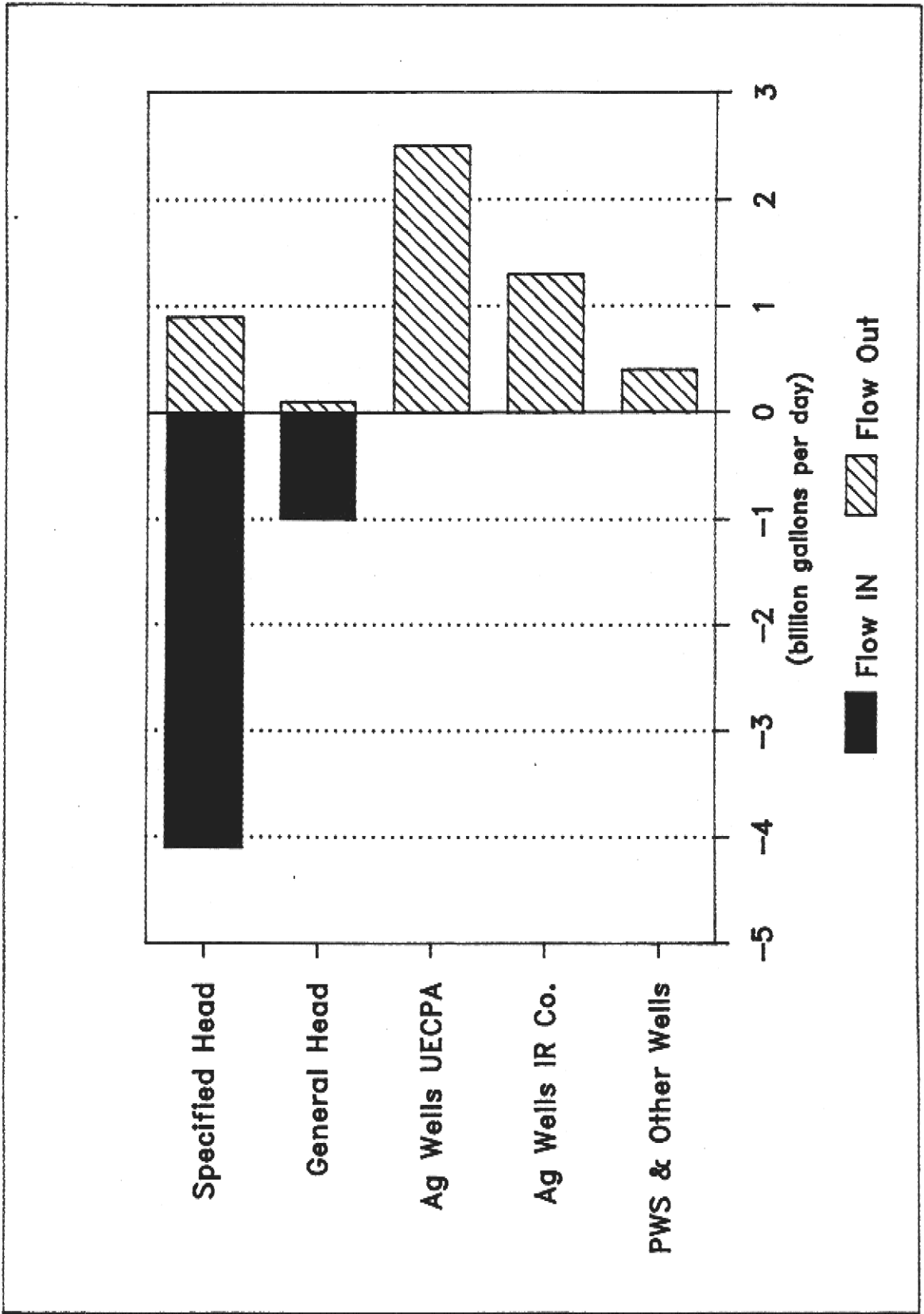


FIGURE 37: Volumetric Budget for Entire Model

representing 23 months. Each stress period contained five time steps. The number of time steps was found to have little effect on final computed head solutions.

Calibration is based on a good match between computed heads for each stress period and monthly water levels observed at monitor wells. Computed and observed heads cannot always match perfectly for reasons which will be addressed later. A tolerance range is typically defined for calibration criteria. In this case, the tolerance range for the average difference between modeled and observed heads averaged over the calibration period was ± 4 feet. This range was chosen based on previous studies where ranges from 4 to 5 feet were applied to deeper confined aquifer systems (Bower, 1990; Smith, 1990). The model was considered to be satisfactorily calibrated, within the tolerance range, to all 54 observation wells on the network. The range of observed versus simulated average head differences was between -2.0 and +2.7 feet (Figure 38).

The tolerance range for confined aquifers is generally higher than the range for unconfined for the following reasons:

1. In unconfined aquifers, small changes in water levels reflect potentially large impacts, particularly to wetlands, and
2. The aquifer parameters, especially storativity, of the deeper confined aquifers cause heads within these aquifers to fluctuate more in response to stress when compared to unconfined aquifers.

Comparative hydrographs for observed and simulated water levels were generated for those cells that correspond to the locations of monitor wells (Appendix E). These were used to aid in the interpretation of the numerous model runs. Where a month's data was not available, a value of 20.10 feet was assigned to fill in the data gap. This was necessary due to limitations in the program that generated the plot. Therefore, all 20.10 foot values on the comparison plots should be disregarded.

The agreement of a computed water level with its counterpart observed level can be affected by the following conditions:

1. MODFLOW simulates well withdrawals from a cell as a single stress located at the node, or center of the cell. In reality, the area represented by a cell may contain many pumping wells. This situation is common throughout the UECPA model, due to the large size of the cells. Combining all the well

withdrawals located within a cell and locating the total withdrawal at the center of the cell is not a completely accurate simulation. In addition, the computed head in a cell represents the average of all heads within the cell. In reality, the head will vary throughout the area represented by a cell in response to the actual stresses. In areas of higher ground water gradients, such as those caused by intensive well withdrawals, water levels throughout a cell can vary significantly from the average. If a cell contains both a monitor well and intensive well withdrawals, or a monitor well is located in a cell adjacent to a cell or cells containing intense well withdrawals, or if a monitor well is not located near the center of the corresponding cell, the agreement of simulated water levels with observed levels can be affected significantly. This situation is referred to as cell-wide averaging, and occurs at several locations in the UECPA model.

2. The model was run using one month stress periods, and the simulated heads represent end of the month levels. Observed water levels were taken on various days throughout a given month. The discrepancy caused by this situation can be minimized by averaging the difference between observed and simulated heads over the calibration period when comparing the results.

Initially, the model was run with the input data sets as discussed in the Model Description section of this report. Modifications to these data sets necessary to achieve calibration are discussed in the following sections.

Layer 2 (UFA) is the only layer calibrated in this model so most changes were made to the parameters and pumping estimates of this layer. Layer 1 (Surficial Aquifer System) had no effect on layer 2 calibration because the layer 1 Vcont (leakance) term was extremely small. Confidence in layer 1 Vcont is relatively high since the thickness and impermeable nature of the Hawthorn confining unit is well known. The SAS was modeled as a separate layer primarily to see the amount of recharge it received from the UFA. That volume was determined in the steady state run volumetric budget and is approximately 6 million gallons per day.

The adjustments to the model were made in three ways listed in order of importance:

1. Vertical conductance (Vcont) of layer 2 and layer 3

- 2) Refinements to water use estimates, and
- 3) Prescribed head levels in layer 4.

Each of these adjustments merit their own discussion and are documented in the following three subsections.

Vertical Conductance

Because layer 2 (UFA) is well confined and because the natural head gradient favors upward flow, very little water enters layer 2 from above. The only exception is in the high ground level elevation areas where the flow gradient is reversed. Most of the recharge sources typical for an unconfined system such as rivers, canals, and rainfall do not reach the UFA (layer 2) in the study area. Rather, the recharge source is either from below through upward vertical leakage or from the boundaries. It became clear early in the calibration process that most water taken from the UFA via wells is replaced with vertically migrating water from below the UFA.

The model was sensitive to vertical conductance (Vcont) adjustments to both layers 2 and 3. Relatively little is known about the degree of interconnection between the UFA (layer 2) and LFAPZ1 (layer 3). Less is known about the interconnection between the LFAPZ1 (layer 3) and LFAPZ2 (layer 4). Layer 2 and layer 3 vertical conductance was varied from 0.05 day⁻¹ to 0.00001 day⁻¹, which represents the range reported in UFA (layer 2) aquifer performance tests. It was determined that calibration of layer 2 could be attained using many combinations of layer 2 Vcont and layer 3 Vcont. One of the two unknown Vcont variables had to be held constant and the other adjusted to proceed with calibration. Lacking any information on layer 3 Vcont and knowing the average layer 2 Vcont value obtained from aquifer performance tests, Vcont in layer 2 was uniformly set to .04/day in most of the cells in this layer. The cells not set to this value are east of the coastal fault.

UFA water levels fluctuate radically in monitor wells east of the fault in response to small volumes of withdrawn water. Relatively small volumes are used because agricultural enterprises are virtually non-existent east of the Intracoastal Waterway. Observed and computed heads best matched in barrier island monitor wells when a uniform Vcont value of 0.00004 day⁻¹ for layer 2 was used east of the fault. The positioning of this fault is discussed in the Transmissivity Section of this report. A large data gap exists in the FAS on the barrier island between monitor well SLF-46 and

SLF-47. Refinements to the model should be made here in the future if data becomes available.

After layer 2 Vcont was established, layer 3 Vcont was adjusted until computed and observed water levels in layer 2 best matched. The final uniform value of Vcont used for all cells in layer 3 was 0.00032 day⁻¹. This value was multiplied by the thickness of the confining zone to ensure that the corresponding values of vertical hydraulic conductivity remained reasonable. The range for vertical hydraulic conductivity was 0.064 to 0.16 ft/day, which is within the expected range for dolomitic limestone (Driscoll, 1986).

Refinements to Wells Package

Once the Vcont terms were specified, pumping estimates needed to be adjusted. The pumping estimates were adjusted up in some areas, down in others. The estimates were adjusted upward in all wells for the following months:

May 1989	+ 30%
June 1989	+ 20%
May 1990	+ 34%
June 1990	+ 32%
July 1990	+ 5%

This represents changes made to five out of 23 stress periods. Based on model results, actual UFA water use was higher than the average survey response reflected in these months. Water use estimates may have been low for the following reasons:

- 1) Withdrawals by non permitted users were not factored in to the estimates.
- 2) Since these were unusually dry years more water was used than the average permittee responding to the survey was aware of.
- 3) The estimates of use in these months were understated in the survey responses due to concerns about exceeding permitted allocations.

All well withdrawals in Indian River County were decreased by 30 percent. Thirty one percent of all water discharged to wells in the model was from cells in Indian River County. A regional cone of depression caused by these concentrated withdrawals for agricultural irrigation occurred in the south-central portion of the county. The initial estimates were decreased to bring both the steady state and transient models into calibration. Initial water use estimates may have been high because all survey responses were from permittees inside the

SFWMD boundaries and did not reflect Indian River County water use. It appears FAS wells may have been used less there than in the UECPA during the calibration period. The changes to cells in Indian River County do not directly impact model results within the UECPA; they merely alter the fluxes at the boundary of the UECPA. The impacts were considered minimal.

Decreases in water use estimates were made for all stress periods to four small areas in the model where initial estimates created unrealistically high cones of depression. The cells affected and percentage decrease are listed in Table 6 and plotted in Figure 39.

Cells in these four areas have the highest water withdrawals in the model. It is possible those withdrawals were overestimated by 20-30% due to decreased capacity of wells caused by lowered heads. The inherent property of artesian wells to flow less in areas with lower heads is not addressed in this model. Well capacities were obtained either directly from the permit file or were assumed based on the diameter of the wells. The assumptions based on well diameter are based on the average observed capacities relative to casing size. Relatively low heads were observed in those cells where the modifications to pumpage were applied. Therefore, wells in those areas produce less than the original estimates. Modifications to account for this problem is needed in future model versions.

Additions to the initial well package were made in one case where unpermitted wells were withdrawing substantial volumes of water. Lakewood Park is a residential community in north-central St. Lucie County that uses FAS water to fill its numerous man made ponds. Monitor well SLF-70 is owned by the community and used to fill one of approximately 20 ponds on site. There are no records of water withdrawals for the calibration period so estimates were made knowing the number of wells and their capacities. Those estimates were refined by running the model enough times to closely match the observed monthly heads seen at SLF-70.

One addition was made on the St. Lucie County coast where an irrigation well exists, is utilized, and no pumpage reports are kept. That addition was for a single well named SLF-46. The well is also a monitor well. There are no other known FAS wells in the same cell as SLF-46. Reasonable withdrawal estimates were made knowing the well's capacity and purpose. Those estimates were refined by numerous transient model runs until the computed and observed heads closely matched for that cell.

Prescribed Head Levels Layer 4

Prescribed heads in layer 4 were generated initially by interpolating layer 2 (UFAS) March 1990 observed water levels to obtain an array with a head value for each cell in the layer. This was done based on the observation that heads in layers 2, 3 and 4 are generally the same to within ± 3 feet. During the transient calibration process, that array was altered slightly. Initial model runs computed heads in some cells both higher and lower than observed in monitor wells corresponding to those cell locations. The differences between computed and observed values at cells corresponding to monitor wells were recorded. They ranged between -2 to +5 feet. Where those recordings were one foot or higher, they were added to the original March 1990 observed recordings for each respective well. This modified list of water levels then was used to generate a new array of prescribed heads using the interpolative statistical method of kriging. This new array was substituted for the original layer 4 prescribed heads file in subsequent model runs resulting in an improved transient calibration. The modified heads used to generate layer 4 prescribed heads as well as the amount and percent the original value of head changed are listed in Table 7. The cell locations of those wells with modified heads are shown in Figure 40.

The layer 4 prescribed heads represent the steady state water level in that layer. There are not enough data available on layer 4 heads spatially to dispute the final values used in the model calibration.

Results

Layer 2 (Upper Floridan Aquifer)

The model was considered to be satisfactorily calibrated, within the tolerance range, to all 54 observation wells on the network. The range of observed versus simulated average differences was between -2.0 and +2.7 feet. Figures 41 and 42 show the simulated head distributions in May 1990 (end of dry season) and September 1990 (end of wet season), respectively in layer 2. Generally, the highest water levels occur in the south portion of the model. Higher water levels represented by the 48 foot contour line are furthest north in central Martin County. The highest water levels are found in Palm Beach County. The natural flow direction is best described by the end of wet season map when water levels are rebounded fully. This map shows the direction of flow is north in Palm Beach and Martin counties. Soon after crossing the St. Lucie County border, the direction of flow veers more easterly,

TABLE 6: DECREASES TO INITIAL PUMPING ESTIMATES FOR CALIBRATION ENHANCEMENT

AREA	ROW	COLUMN	% DECREASE
Area 1	10	25-26	30%
	11	25-26	30%
	12	25-26	30%
	13	25	30%
Area 2	18	20-22	30%
	19	18-22	30%
	20	19-22	30%
Area 3	26	18-20	30%
	27	19-20	30%
	28	19-20	30%
Area 4	6	25-26	20%
	7	25-26	20%
	8	25	20%

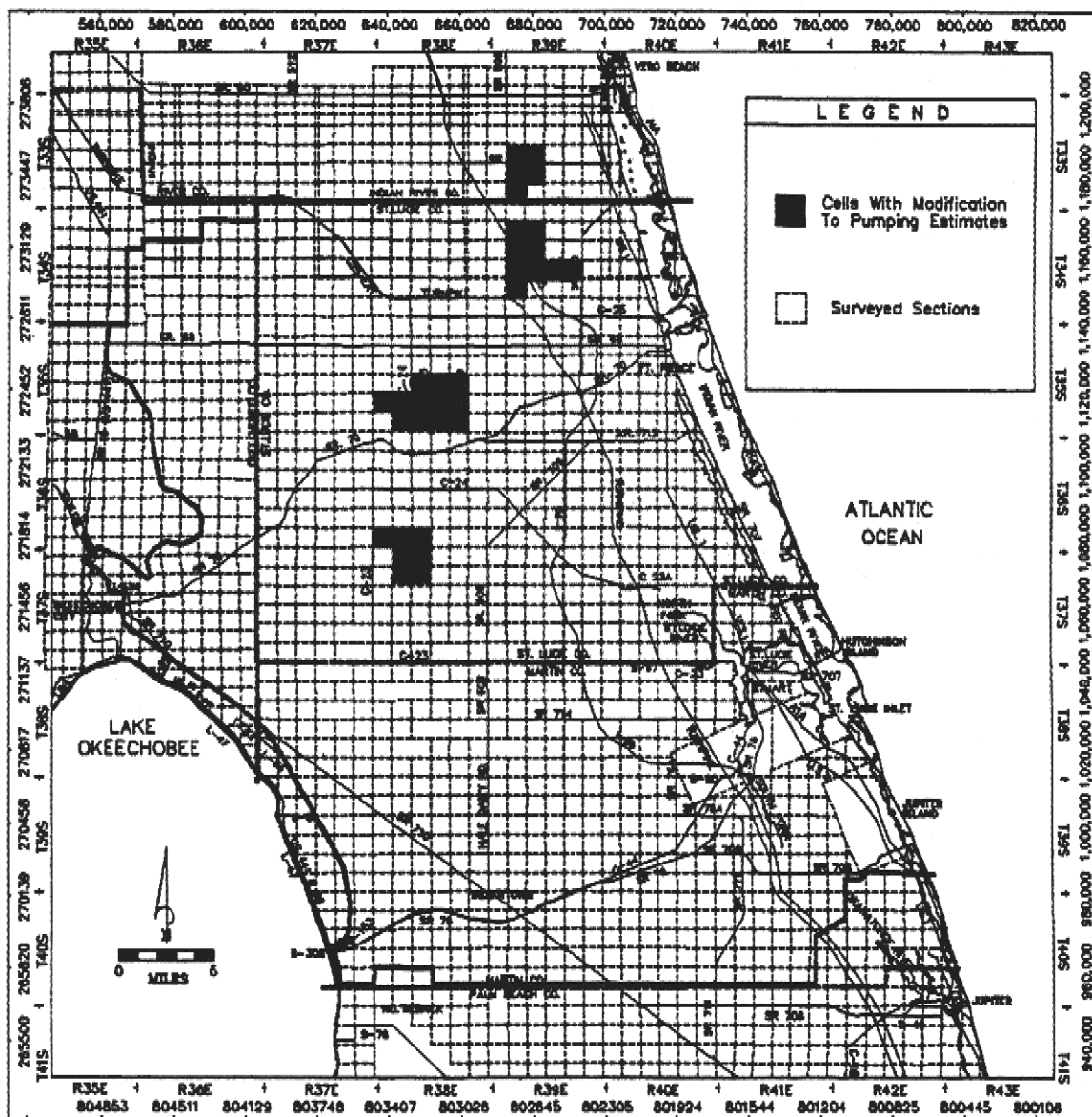


FIGURE 39: Location of Areas in Model Where the Largest Annual Water Level Fluctuations Occur in Layer 2 (Upper Floridan Aquifer) and Where Original Water Use Estimates were Decreased

TABLE 7: CHANGES MADE TO SPECIFIED HEAD LAYER 4 FROM MARCH 1990 OBSERVED HEADS

Monitor Well Name	Original Mar/90 Head NGVD (ft)	New Mod. Head NGVD (ft)	Changes (ft)
MF-3	45.0	47.0	2.0
MF-33	45.7	46.7	1.0
MF-55	42.1	41.1	-1.0
OKF-31	44.5	45.5	1.0
OKF-73	41.3	40.3	-1.0
SLF-3	37.9	43.0	5.1
SLF-4	38.4	39.4	1.0
SLF-17	42.4	44.4	2.0
SLF-21	36.1	37.1	1.0
SLF-36	38.9	42.9	4.0
SLF-40	39.3	41.3	2.0
SLF-50	40.8	41.8	1.0
SLF-61	45.8	43.8	-2.0
SLF-64	40.4	41.4	1.0
SLF-69	40.7	43.7	3.0
SLF-71	39.3	40.3	1.0
IR-312	35.6	37.6	2.0

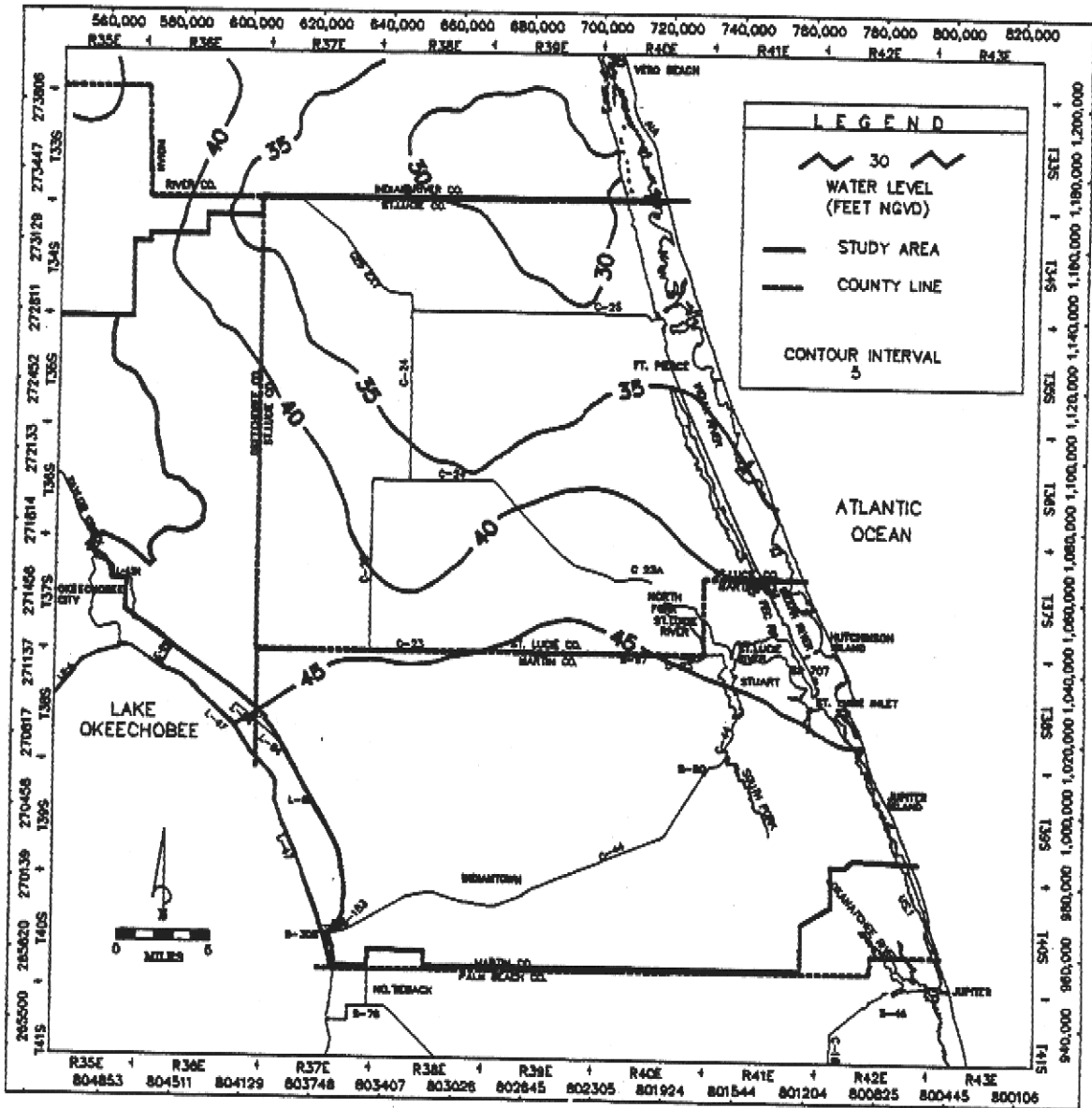


FIGURE 41: Simulated Water Levels, Layer 2 (Upper Floridan Aquifer), May 1990

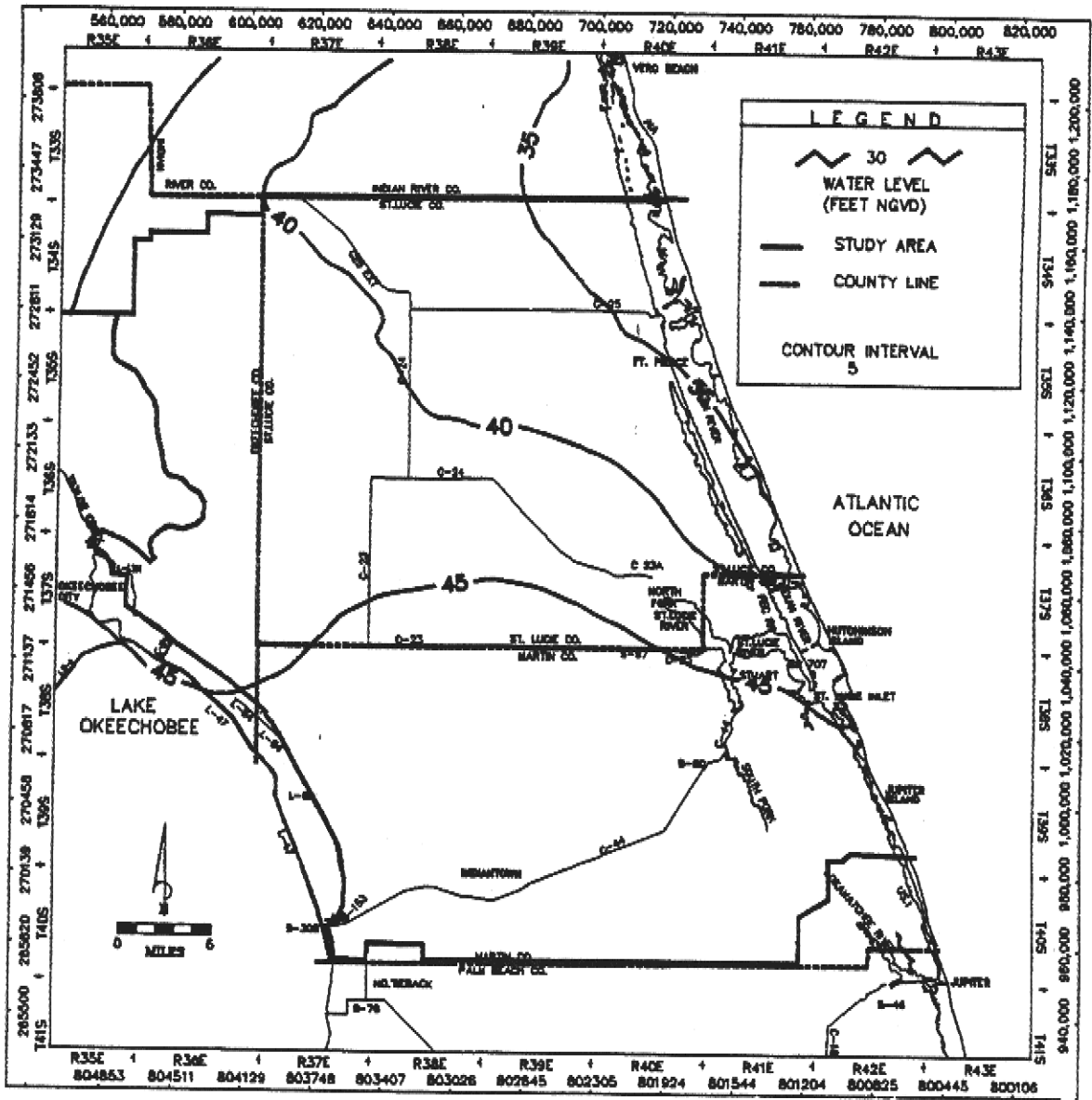


FIGURE 42: Simulated Water Levels, Layer 2 (Upper Floridan Aquifer), September 1990

becoming eastward near the City of Ft. Pierce, St. Lucie County. At this point, the water seems to flow out under the Atlantic Ocean. The end of dry season map shows a marked warping of the end of wet season contour lines. The contours move in toward areas of intense water well withdrawals. Water levels change between 0 to 8 feet between wet and dry season; the average change is approximately three feet.

Layer 3 (Lower Floridan Aquifer Producing Zone 1)

Figures 43 and 44 show the simulated head distribution in May and September for layer 3. Comparison to figures 41 and 42 show the general head distributions, and, therefore, the regional flow patterns, to be similar to the UFA. Water levels in the LFAPZ1 (layer 3) react fairly quickly to changes in water levels in the UFA (layer 2) due to its fairly good hydraulic connection to it and the large differences in gradient established by lowered heads in layer 2 resulting from pumping.

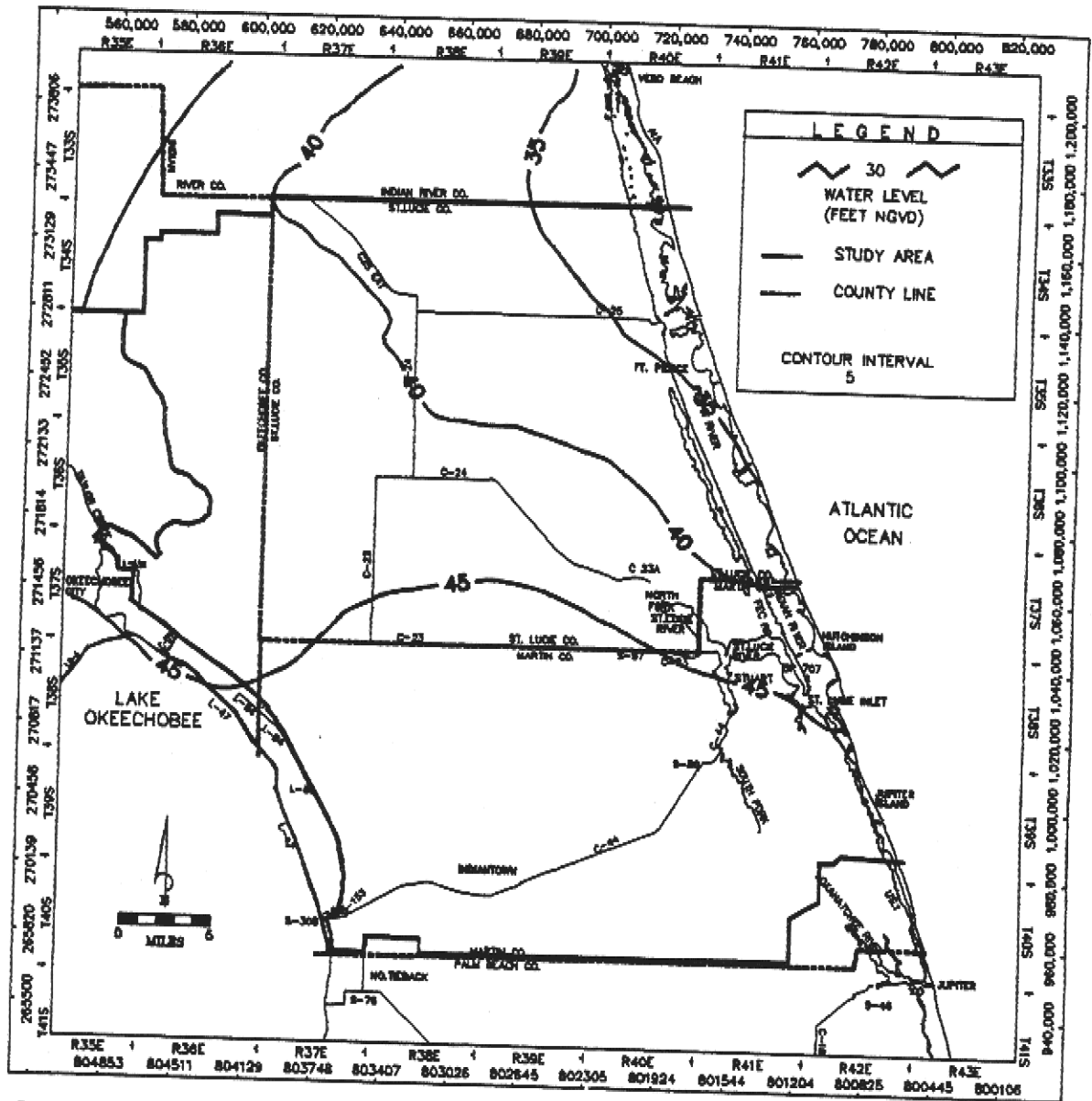


FIGURE 44: Simulated Water Levels, Layer 3 (Lower Floridan Aquifer Producing Zone 1), September 1990

SENSITIVITY TESTING

The model was tested to check its sensitivity to changes in the boundary conditions, aquifer parameters, and layer 4 prescribed head conditions. Boundary conditions were tested two ways:

1. By replacing the existing specified boundaries with constant head boundaries. This, in effect, provided the boundary cells with a constant head through all stress periods of the simulation. The model then was run using steady state conditions and the constant head configuration, and the resulting heads were compared to the steady state calibration run (baserun). This resulted in an average head difference of -0.12 feet, the majority of that change was in the boundary cells themselves. The impact on layer 2 (Upper Floridan Aquifer System) volumetric budget was a 6.7 percent decrease of net inflows and outflows.
2. MODFLOW was modified by SFWMD personnel to permit the user to incorporate a multiplier to conductance values in the General Heads package. The conductance multiplier used in the general head package (specified flux boundary cells) was changed from the initial value of 10.0 to 0.1, 1.0, 100.0, 1000.0, and 10,000.0. The conductance parameter controls the rate of flow through the boundary cells.

The results of these changes demonstrated small, relatively insignificant changes in computed heads ranging between (-0.18 to 0.02 feet). Most head differences occurred in boundary cells, whereas very little changes occurred in the majority of model cells. The percent the volumetric budget change inflows and outflows changed from the base run ranged from -2.6% for a conductance multiplier of 0.1 to +1.1% differences for conductance multiplier greater than or equal to 100.0. Significant head differences resulting from the various types of boundary conditions are limited to a range of two cells inward from the location of the specified boundary. The specified flux boundary used is considered a conservative and accurate method of defining boundaries and should be valid for the various uses planned for this model.

Aquifer parameters were tested by altering the following: prescribed heads in constant head layer 1, layer 2 transmissivity, V_{cont} between layers 1 and 2, storage coefficient in layer 2, layer 3 transmissivity, V_{cont} between layers 2 and 3, V_{cont}

between layers 3 and 4, and prescribed heads in constant head layer 4. The impacts these changes had on layer 2 computed steady state heads and volumetric budgets are presented in Tables 8 and 9. It was assumed that testing this range of values would bracket the range of uncertainty for each parameter. Only head and volumetric changes which occurred in layer 2 (UFAS) cells were recorded since this was the only calibrated layer in the model and represents the most important portion of the FAS from a water resource point of view.

LAYER 2 (UPPER FLORIDAN AQUIFER)

Simulated heads in layer 2 are highly sensitive to the following changes: V_{cont} between layers 2 and 3, V_{cont} between layers 3 and 4 and, prescribed heads in layer 4 (constant head layer). Computed heads were moderately sensitive to transmissivity of layers 2 and 3, and generally insensitive to changes to all other parameters. Doubling V_{cont} in layer 2 resulted in a maximum change of +1.85 feet, with an average change of +0.01 feet, the volumetric budget showed a 0.15% increase in water originating from layer 3. Halving layer 2 V_{cont} caused a maximum change in simulated heads of -2.0 feet, with an average change of -0.02 feet, the volumetric budget demonstrated water supplied to layer 2 from layer 3 decreased 0.2%. Doubling V_{cont} in layer 3 resulted in a maximum change of +2.49 feet, with an average change of +0.38 feet, the budget shows 3.3% more water was supplied from layer 3. Halving layer 3 V_{cont} resulted in a maximum decrease in layer 2 simulated heads of -3.56 feet, with an average change of -0.71 feet, 2.5% less water was supplied by layer 3. Doubling transmissivity in layer 2 resulted in a maximum increase of +2.34 feet, with an average rise of +0.20 feet in layer 2, the budget showed a 0.4% increase of water from all sources into layer 2. Doubling the transmissivity of layer 3 resulted in a maximum head rise of 0.88 feet and an average of 0.04 feet, a 3.0% increase of water from all sources was indicated by the volumetric budget. Layer 2 is more sensitive to changes in transmissivity than layer 3 because it has lower transmissivity values. The largest changes in head were near areas of large withdrawals. Therefore, impacts parameter changes had on computed heads were most evident near large withdrawals and negligible where withdrawals were nonexistent.

TABLE 8. SENSITIVITY RESPONSES IN LAYER 2 COMPUTED HEADS DUE TO CHANGES IN MODEL PARAMETERS (In feet above steady-state base run)

Layer in Which Change Made	Parameters Changed from Calibration Run	Max. Increase in Water Level (Layer 2)	Max. Decline in Water Level (Layer 2)	Average Change in Water Level (Layer 2)	Standard Deviation (Layer 2)
Layer 1	Starting Head + 5	0.07	0.00	0.01	0.01
	Starting Head -5	0.03	-0.03	-0.01	0.01
	Layer 1-2, VCONT x2	0.01	-0.46	-0.06	0.05
	Layer 1-2, VCONT x10	0.23	-3.51	-0.38	0.41
	Layer 1-2, VCONT x.5	0.22	-0.01	0.02	0.02
	Layer 1-2, VCONT x.1	0.39	0.07	0.04	0.02
Layer 2	Starting Head + 10	0.00	0.00	0.00	0.00
	Transmissivity x2	2.34	-0.32	0.20	0.20
	Transmissivity x5	4.89	-0.85	0.13	0.22
	Layer 2-3, VCONT x2	1.85	-0.08	0.01	0.02
	Layer 2-3, VCONT x10	4.85	-0.17	0.03	0.22
	Layer 2-3, VCONT x.5	0.09	-2.00	-0.02	0.12
	Layer 2-3, VCONT x.1	0.25	-6.14	-0.13	0.44
	Storage Coeff. x.1	0.07	-0.03	0.00	0.01
	Storage Coeff. x10	0.15	-0.06	0.02	0.04
	Storage Coeff. x100	1.18	-0.31	0.13	0.29
Layer 2 (Layer 2 Gen. Heads Package Conductivity Term Adjusted)	Constant Head	1.38	-1.94	-0.12	0.26
	Cond. x.1	0.44	-4.45	-0.18	0.39
	Cond. x1	0.37	-3.09	-0.08	0.19
	Cond. x100	1.61	-0.20	0.02	0.06
	Cond. x1,000	1.95	-0.24	0.02	0.07
	Cond. x10,000	1.96	-0.24	0.02	0.07
Layer 3	Transmissivity x2	0.88	-0.40	0.04	0.20
	Transmissivity x10	3.37	-1.93	0.18	0.95
	Transmissivity x.5	0.28	-0.86	-0.03	0.15
	Transmissivity x.1	0.84	-3.67	-0.06	0.32
	Layer 3-4, VCONT x2	2.49	-0.56	0.38	0.57
	Layer 3-4, VCONT x10	5.88	-1.36	0.70	0.70
	Layer 3-4, VCONT x.5	0.60	-3.56	-0.71	0.90
	Layer 3-4, VCONT x.1	0.51	-16.56	-4.63	4.59
Layer 4	Starting Head + 5	4.97	-28.04	-0.12	7.68
	Starting Head -5	0.00	-29.73	-7.23	5.80

TABLE 9. SENSITIVITY RESPONSES IN LAYER 2 VOLUMETRIC BUDGETS DUE TO CHANGES IN MODEL PARAMETERS

Layer in Which Change Made	Parameters Changed from Calibration Run	IN % Change into Layer 2 from:					OUT % Change out of Layer 2 to:				
		Layer 1	Layer 3	Head Dep Bounds	Total In	Layer 1	Layer 3	Head Dep Bounds	Total Out		
Layer 1	Starting Head + 5	61.4	-1.0	-0.8	-0.7	-2.6	0.9	1.1	0.6		
	Starting Head - 5	-44.9	0.8	0.8	0.7	19.7	-1.9	-1.2	0.7		
	Layer 1-2, VCONT x2	10.1	5.4	4.2	5.3	138.9	-12.2	-6.1	5.3		
	Layer 1-2, VCONT x10	894.5	35.8	24.3	36.3	880.4	-26.2	-26.2	36.3		
	Layer 1-2, VCONT x.5	-50.0	-1.8	-1.3	-1.8	-49.9	6.3	2.1	-1.8		
	Layer 1-2, VCONT x.1	-90.0	-3.1	-2.3	-3.2	-90.0	12.7	4.0	-3.2		
Layer 2	Starting Head + 10	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	Transmissivity x2	0.7	-1.4	20.1	0.4	0.3	6.5	12.8	0.5		
	Transmissivity x5	2.2	-2.2	68.2	4.0	1.0	69.5	58.4	4.0		
	Layer 2-3, VCONT x2	0.0	0.2	1.6	0.3	0.0	5.0	3.3	0.3		
	Layer 2-3, VCONT x10	0.0	0.3	6.9	0.9	0.1	16.9	6.8	0.9		
	Layer 2-3, VCONT x.5	0.0	-0.2	-1.8	-0.4	-0.1	-6.6	-5.4	-0.4		
	Layer 2-3, VCONT x.1	0.3	-1.3	-7.2	-1.8	-0.6	-31.9	-24.7	-1.8		
	Storage Coeff. x.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	Storage Coeff. x10	0.1	-0.2	-0.8	0.0	0.2	0.0	-1.1	0.0		
	Constant Head	-22.7	-1.4	-100.0	-6.7	-5.5	-73.9	-100.0	-6.7		
Layer 2 (Layer 2 Gen. Heads Package Conductivity Term Adjusted)	Cond. x.1	4.3	3.6	-86.4	-4.2	-1.0	-66.4	-98.0	-4.2		
	Cond. x1	2.0	1.0	-39.6	-2.6	-0.5	-37.0	-78.0	-2.6		
	Cond. x100	-0.5	0.9	3.0	1.1	0.1	-14.0	177.1	1.1		
	Cond. x1,000	-0.6	1.3	-8.0	0.5	0.1	-46.3	275.1	0.5		
	Cond. x10,000	-0.6	1.0	-10.0	0.1	0.1	-56.9	286.3	0.1		
	Transmissivity x2	0.7	0.7	26.4	3.0	0.3	54.1	35.6	3.0		
	Transmissivity x10	2.2	3.3	156.0	16.6	1.5	307.3	169.8	16.6		
	Transmissivity x.5	-0.4	1.2	-11.4	0.1	-0.2	1.1	-5.4	0.5		
	Transmissivity x.1	-0.7	2.5	-21.5	0.5	-0.4	12.1	-9.7	0.5		
	Layer 3-4, VCONT x2	-2.2	3.3	156.0	16.6	1.5	307.3	169.8	16.6		
Layer 3-4, VCONT x10	-4.1	6.8	72.0	12.4	4.8	243.0	52.1	12.4			
Layer 3-4, VCONT x.5	1.8	-2.5	12.2	-1.2	-4.5	-20.7	-4.3	-1.2			
Layer 3-4, VCONT x.1	40.0	-11.1	98.8	-1.4	-26.6	6.1	-59.1	-1.4			
Layer 4	Starting Head + 5	-29.9	48.8	751.1	110.0	13.0	1,954.1	1,526.0	109.8		
	Starting Head - 5	39.4	9.5	1,182.8	111.7	-22.3	2,357.3	-100.0	111.7		

RESULTS

1. Regional water levels identified by well observations have been simulated by a ground water flow model for the upper Floridan Aquifer in the Upper East Coast Planning Area. The impacts of additional FAS water use now can be determined with the aid of the three dimensional ground water flow model which was developed and validated using 54 wells to 23 months of water level data.
2. Model results indicate that the most significant source of recharge to the Upper Floridan Aquifer in the Upper East Coast Planning Area is leakance from the Lower Floridan Aquifer. Approximately 91 percent (140 MGD) of the recharge in the study area was provided by upward leakance. The remaining nine percent (13.4 MGD) mostly comes from the borders of the study area across Okeechobee and Indian River counties. Leakance values more than transmissivity values are critical for determining expected well yields in the FAS.
3. Withdrawals from agricultural wells account for approximately 90 percent (138 MGD) of the outflow from the modeled area. The remaining outflow is comprised of 4.5 percent (6.6 MGD) upward and 4.8 percent (7.4 MGD) downward leakance. Ground water flow out of the modeled area boundaries is minor and accounts for 1.0 percent of the total (1.5 MGD). The majority of that water escapes to the Atlantic Ocean east of St. Lucie and Indian River counties.
4. Permeability and vertical leakance in the UFA is drastically reduced east of a structural anomaly, a trace of which follows the Intracoastal Waterway from Vero Beach to north Martin County, where it veers east toward the ocean. These factors are responsible for low yielding wells observed on Hutchinson Island and limit future large scale development of the aquifer in this area.

CONCLUSIONS AND RECOMMENDATIONS

1. Currently, portions of the UECPA are limited by the SFWMD to allocations of 1.5 acre-inches per month. The FAS model can be used to test the basis for this number.
2. Since the water quality of the lower Floridan Aquifer is probably inferior to that of the upper Floridan Aquifer, and the lower Floridan Aquifer System is the major source of recharge to the upper system, water quality deterioration in the upper Floridan Aquifer System can be expected in the future, especially in areas of intense water withdrawals. Model results and field observations indicate that water levels fluctuate annually as much as eight feet in three areas of intense citrus irrigation located in north and north-central St. Lucie County (refer to Figure 42). Permitted FAS user surveys showed that water quality deterioration has already been observed in these areas. Additional development of the FAS should not be permitted in these three areas.
3. Since deteriorating water quality is a probability in the future, water from selected Floridan Aquifer wells should be monitored for total dissolved solids and chlorides on a quarterly basis. The monitor wells should be in areas of high water use. Water quality changes with time then can be used to characterize the water quality of the lower Floridan Aquifer and continue to verify current assumptions about upward leakance and its impacts on the Upper Floridan Aquifer.
4. Leakance and head differentials between the Upper and Lower portions of the Floridan Aquifer proved to be the most important parameters in the calibration process. Such data are obtained by drilling a test site containing two lower Floridan Aquifer wells to approximately -1,600 feet NGVD and two upper Floridan Aquifer wells to approximately -1,000 feet NGVD, followed by two aquifer performance tests. There were only three aquifer performance tests of this type performed in the entire study area. It is recommended that at least two additional test sites be constructed and tested to obtain verification of the leakance and water level parameters used in the model. The well sites should be located in areas where the FAS is projected to be used for future public water supply. The FAS will probably be utilized as a public water supply source in the near future in parts of Martin and St. Lucie counties because of problems with Surficial Aquifer ground water contamination and wetland impacts.
5. This was the first calibrated three dimensional regional Floridan Aquifer system model developed for SFWMD needs. It is recommended that future regional FAS modeling projects incorporate information regarding leakance and head values in the lower portions of the FAS. Those data are obtained by testing the interconnection between the upper and lower Floridan Aquifer by drilling and testing deep wells as described in Recommendation 4 above. Since construction of deep aquifer performance test sites is very expensive, it is recommended that the feasibility of developing future regional models of the Floridan Aquifer System with respect to budgetary constraints be carefully analyzed.
6. The accuracy of any model depends on proper assumptions. It was found that agricultural water use accounted for 90 percent of the FAS water withdrawals in the study area. Accurate estimates of the amount of agricultural withdrawals were paramount in developing this model. A survey was used to obtain critical information on water withdrawals in the period modeled. It was found that water use habits of UFA permittees in the study area varied considerably. The survey provided adequate answers for making crude water use estimates, but more exact data are necessary to be able to model the system more precisely. It is recommended that permittees in the study area be required to submit monthly pumpage reports to the District. The reports should show the amount of time wells were allowed to flow freely for each month of the year. A small percentage of UFA permittees already are submitting these monthly reports since it was stipulated as a special condition in their water use permit. Actual water use records would provide valuable data in the calibration of future

models, particularly in areas of heavy ground water use.

7. This model can be used to simulate proposed water use scenarios on a regional basis. Where a finer scale or site-specific evaluation is required, the regional model can be used to provide boundary conditions. The District is currently working on a software program capable of zooming in on user-specified areas of the regional model and extracting data to form a submodel, or model within a model.

Submodels will have a finer grid resolution and be capable of simulating small scale impacts on adjacent users. The model in its present configuration is limited in its ability to assess impacts on a small scale due to the regional nature of the model grid. As a result, small scale impacts on adjacent users may be overlooked due to cell-wide averaging. Improved grid resolution is needed to better assess these small scale impacts.

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APPENDIX A
GEOLOGIC AND HYDROSTRATIGRAPHIC DATA

**APPENDIX A
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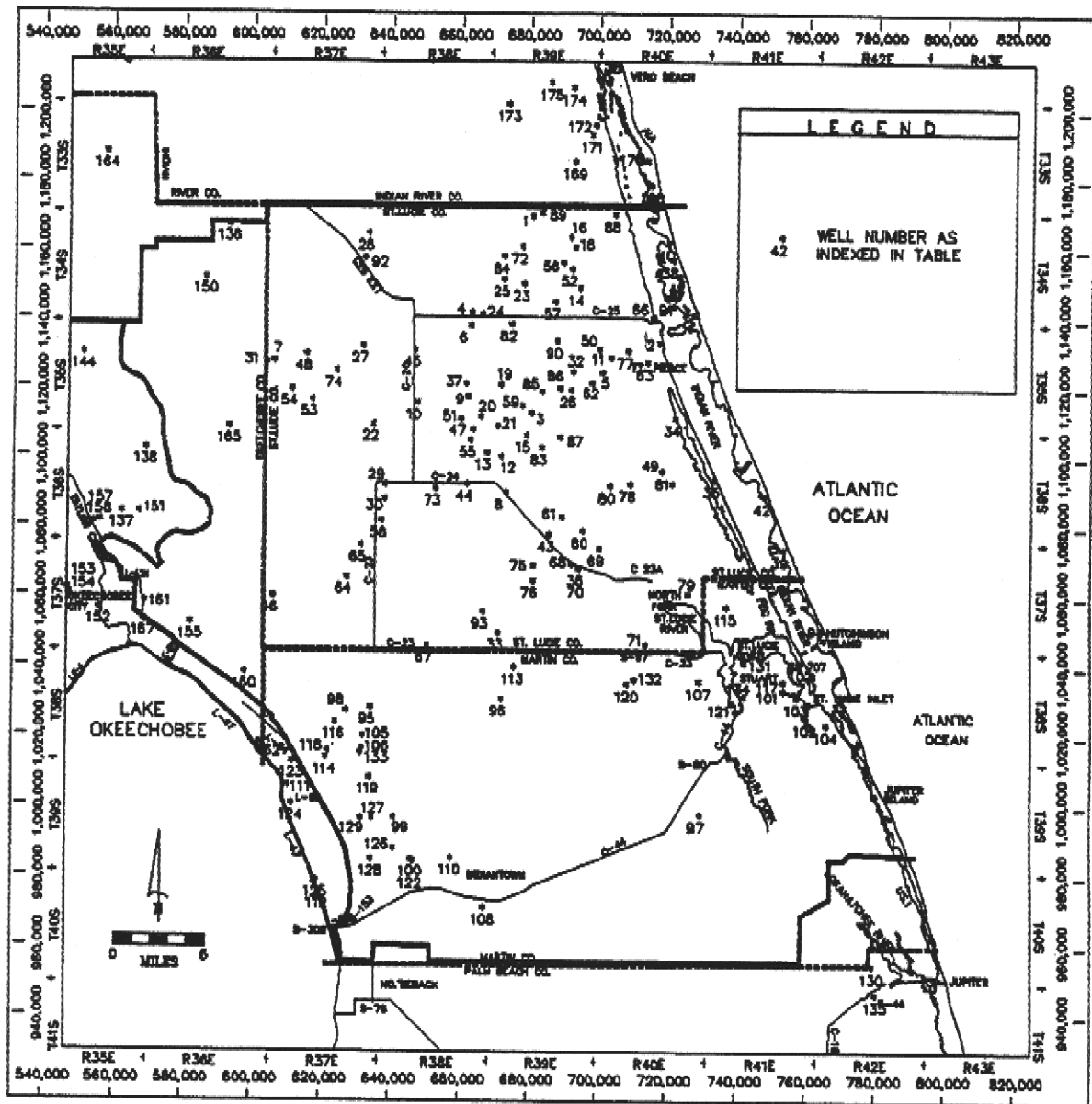


FIGURE A-1: Location of Geologic Control and Water Quality Wells as Indexed in Table 2

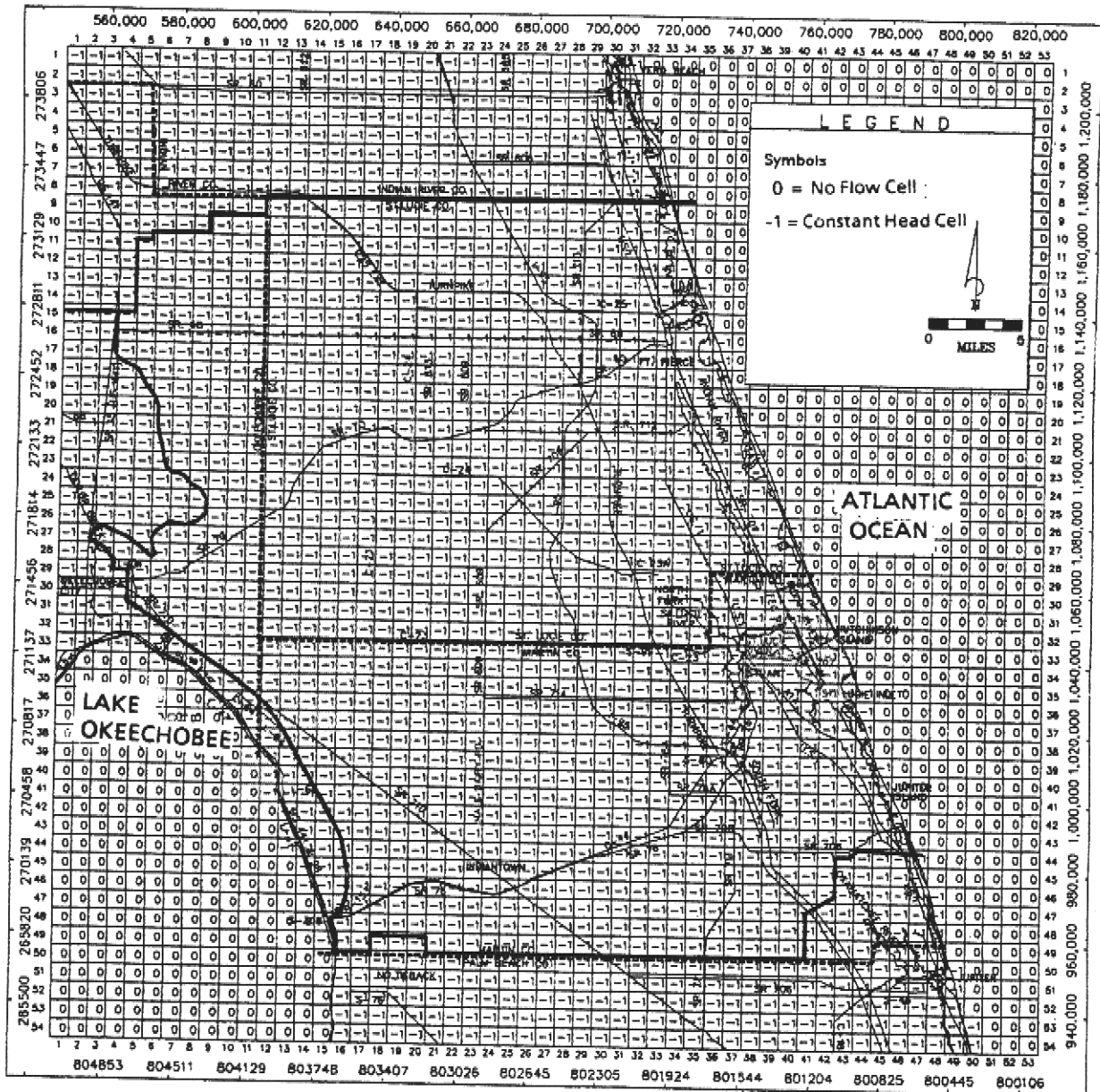


FIGURE A-4: Cell Types Used in Model, Layer 1

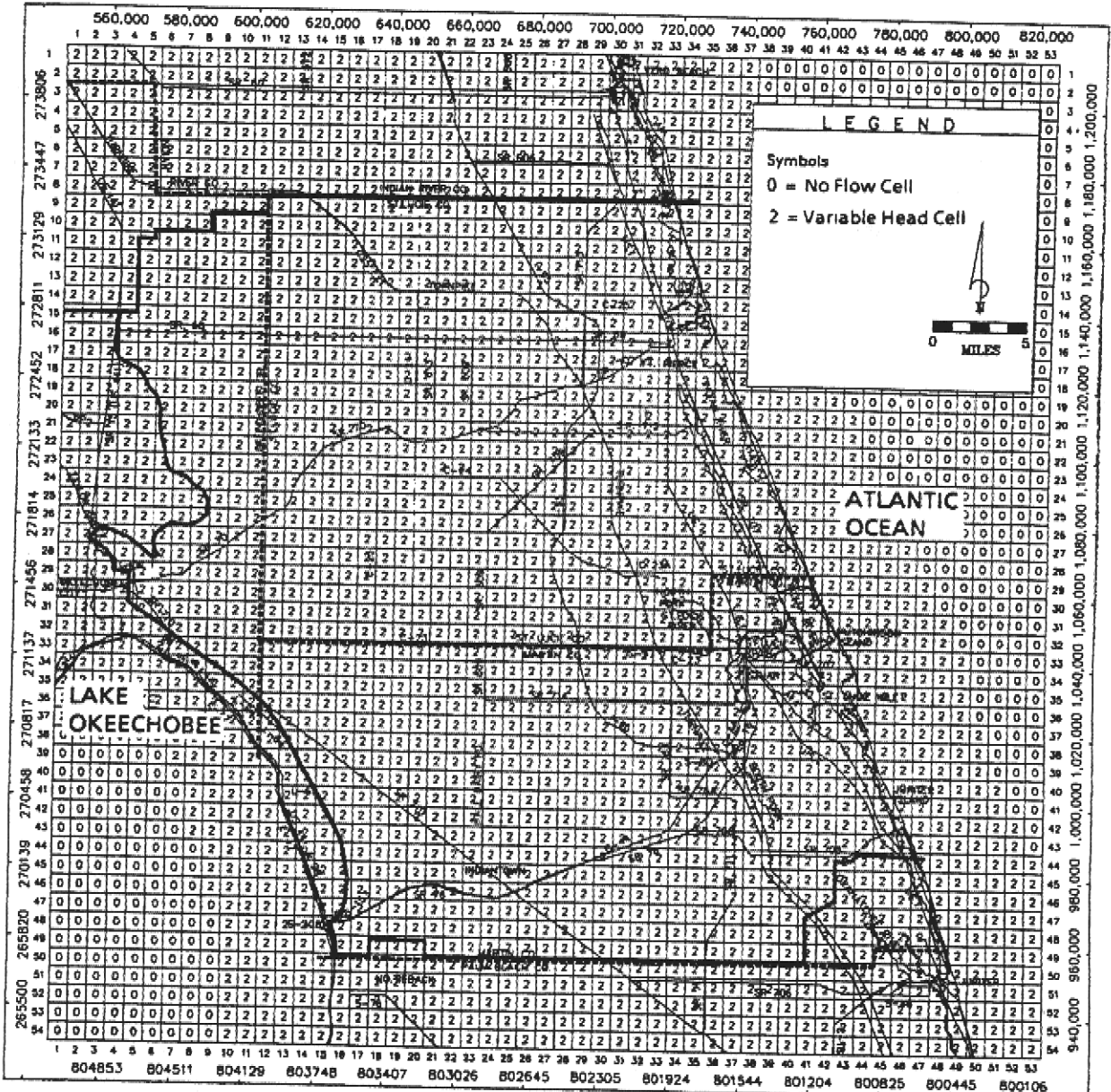


FIGURE A-5: Cell Types Used in Model, Layer 2

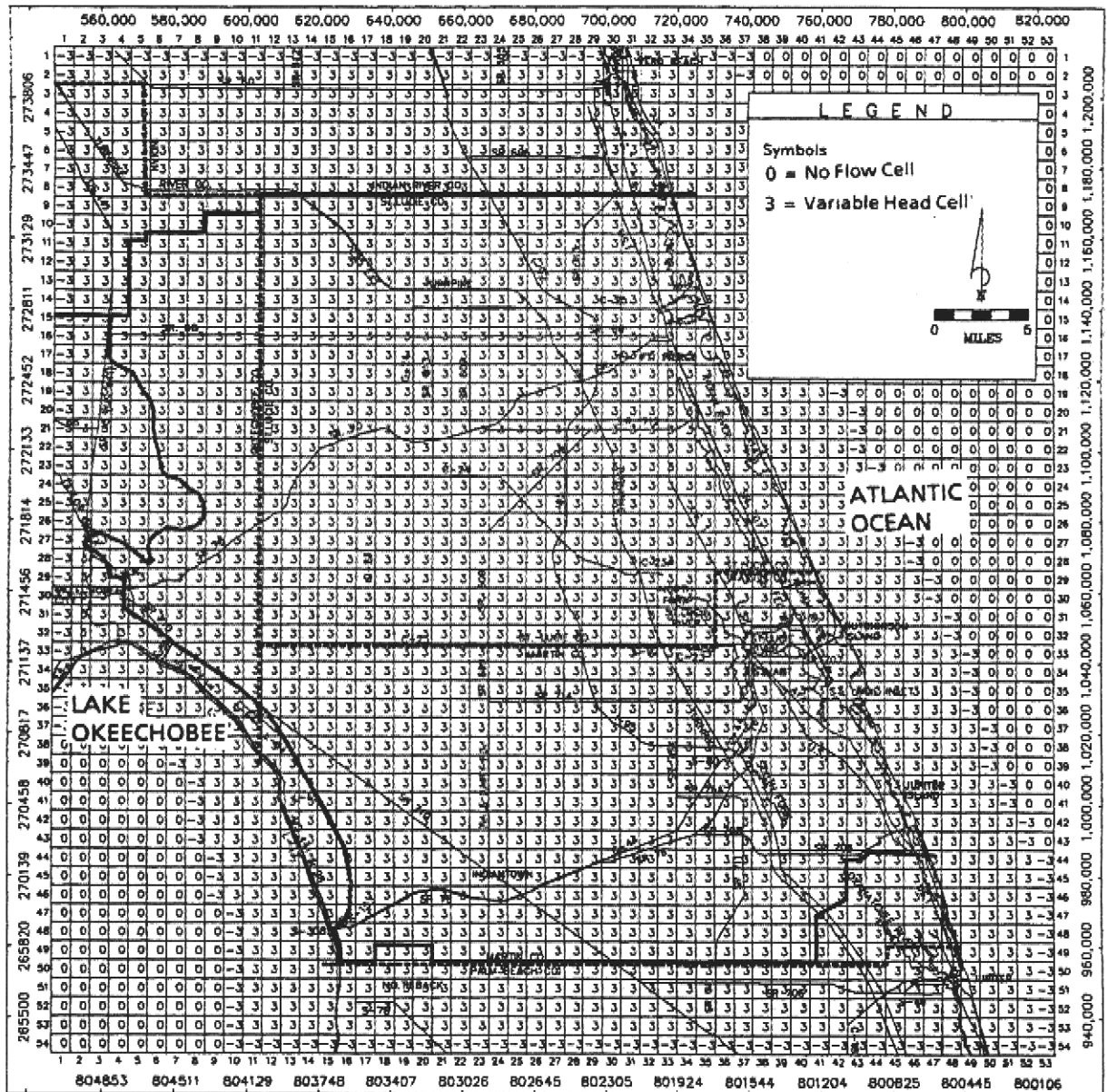


FIGURE A-6: Cell Types Used in Model, Layer 3

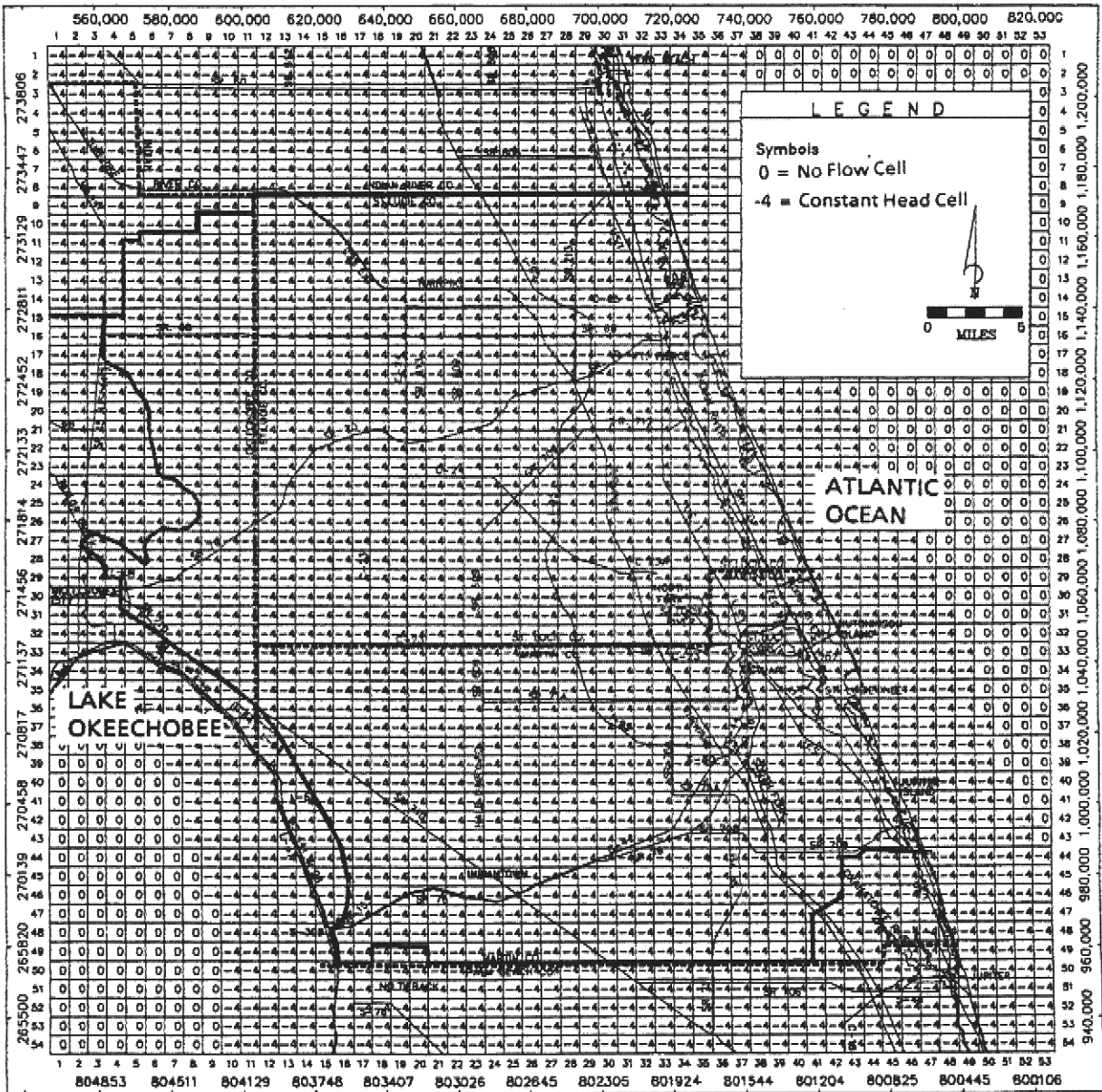


FIGURE A-7: Cell Types Used in Model, Layer 4

TABLE A-1: Specific Capacity Data Used to Calculate Transmissivity

SPECIFIC CAPACITY DATA USED TO CALCULATE TRANSMISSIVITY										
WELL NAME	TOTAL DEPTH (FT)	CASING DEPTH (FT)	CASING DIA. (INCH)	AQUIF PENET (FT)	DISCH Q (GPM)	W.L. DRWD (FT)	UNCOR. SP. CAP GAL/M	CORR. DRWD (FT)	CORR. SP. CAP GAL/M	CALC. TRANS. GAL/D/FT
MF-2		300	6		217	15.0	14.5	13.5	16.1	94933
MF-4	1525	630	6	400	240	83.0	2.9	83.0	2.9	12700
MF-6	1052	400	5	653	72	7.5	9.6	6.8	10.5	104900
MF-9	880	342	6	538	83	9.0	9.2	8.6	9.7	104300
MF-23	1119	456	5.5	663	167	15.3	10.9	12.7	13.1	73500
LFM-1	1282	800	8	482	600	15.2	39.5	8.6	70.0	94000
FGS-M-29	1100	450	4	650	150	20.8	7.2	11.8	12.7	82750
FGS-M-34	1100	450	6	650	400	12.2	32.8	4.3	93.0	372713
FGS-M-88	1180	700	5	380	250	36.3	6.9	23.7	10.6	75167
FGS-M-143	958	272	6	686	550	27.5	20.0	19.3	28.5	139804
FGS-M-146	1155	432	5	723	300	16.8	17.9	6.0	50.0	217440
FGS-M-168	1080	500	5	580	300	19.9	15.1	7.4	40.5	183136
FGS-M-443	951	275	6	676	300	35.0	8.6	32.3	9.3	70472
FGS-M-740	990	474	6	516	650	28.7	22.6	9.7	67.0	278827
FGS-M-741	890	460	6	430	235	27.5	8.5	24.3	9.7	71917
FGS-M-742	1003	460	6	543	225	29.0	7.8	26.2	8.6	67945
FGS-M-746	510	360	6	150	325	22.0	14.8	17.7	18.4	103332
FGS-M-748	773	397	6	376	300	31.2	9.6	27.2	11.0	76611
FGS-M-759	853	650	6	203	400	23.0	17.4	11.3	35.4	164719
FGS-M-901	1110	490	8	620	150	10.3	14.6	9.9	15.2	91777
FGS-M-909	1095	470	6	625	300	22.0	13.6	17.3	17.3	99360
FGS-M-913	1100	500	6	600	120	8.0	15.0	7.6	15.8	93944
FGS-M-919	950	636	8	314	750	27.0	27.8	19.4	38.7	176636
FGS-M-920	1033	488	5	585	225	28.0	8.0	21.7	10.4	74444
FGS-M-921	1032	455	5	577	250	26.0	9.6	17.8	14.0	87444
FGS-M-923	1000	500	8	500	300	10.3	29.1	9.1	32.9	155692
FGS-M-927	792	450	6	342	350	23.8	14.7	17.5	20.0	109110
FGS-STL44	691	125	5	691	350	15.0	23.3	11.1	31.5	150637
OKF-2	666	218	5.7	468	93	15.3	6.1	14.9	6.2	153400
OKF-5	1181	440	6	593	176	1.5	117.3	1.0	172.5	341600
OKF-7	963	412	8	515	265	26.2	10.1	22.8	11.6	27200
OKF-13	1200	600	12	600	789	7.0	112.7	4.2	188.8	556000
OKF-26	825	625	12	216	400	80.0	5.0	79.6	5.0	54945

TABLE A-1: Specific Capacity Data Used to Calculate Transmissivity
(Continued)

SPECIFIC CAPACITY DATA USED TO CALCULATE TRANSMISSIVITY										
WELL NAME	TOTAL DEPTH (FT)	CASING DEPTH (FT)	CASING DIA. (INCH)	AQUIF PENET (FT)	DISCH Q (GPM)	W.L. DRWD (FT)	UNCOR. SP.CAP GAL/M	CORR. DRWD (FT)	CORR. SP.CAP GAL/M	CALC. TRANS. GAL/D/FT
OKF-27	725	477	12	248	346	85.0	4.1	84.8	4.1	51695
SLF-4	993	482	9	511	752	11.8	63.7	8.2	91.7	461700
SLF-9	1058	256	10	795	906	14.0	64.7	12.4	73.1	531526
SLF-13	1238	344	12	894	881	14.5	60.7	13.6	64.8	553771
SLF-14	1700	1268	24	950	688	14.1	48.8	10.6	64.9	412800
SLF-15					808	14.1	57.3	14.1	57.3	629200
SLF-20	896	311	5	585	71	13.3	5.3	12.7	5.6	81495
SLF-21	707	156	3.5	544	91	12.4	7.3	9.8	9.3	49000
SLF-23	894	350	6	544	283	12.2	23.2	9.1	31.1	106700
SLF-24			10		229	15.3	14.9	14.8	15.5	208500
SLF-27	900	300	8	600	463	10.2	45.4	8.7	53.2	229062
SLF-28	883	200	4	683	28	7.9	3.5	7.6	3.7	24600
SLF-40		376	6		264	15.6	16.9	12.8	20.6	111367
SLF-51	1000	600	6	175	388	35.4	10.9	25.5	15.2	107077
SLF61	695	350	5	345	104	16.6	6.3	15.5	6.7	61119
SLF62	935	480	5	455	178	18.0	9.9	13.9	12.8	83132
SLF67		300	6		200	11.6	17.2	10.3	19.4	107007
SLF69		300	6		734	16.6	44.2	14.6	50.3	218429
SLF75	700	480	8	220	550	13.7	40.1		40.1	210000
SLF76	860	790	8	70	260	14.44	18.0	13.0	18.0	110000
FBW-1	904	508	12	396	700	13.0	54.0	12.22	57.0	309000
FGS-IR202	700	209	6	491	440	22.0	20.0	17.8	24.7	126082
FGS-IR243	900	220	6	680	450	41.0	11.0	36.2	12.4	81666
FGS-IR245	850	220	4	630	330	37.0	8.9	18.9	17.5	100083
FGS-IR251	700	220	4	480	200	16.0	12.5	8.3	24.1	123915
FGS-IR253	800	220	5	580	240	14.0	17.1	10.5	22.9	119582
IR7F	940		8		650	12.0	54.0	10.6	61.3	258319
IR12F	900		8		700	12.0	64.0	10.42	67.2	279472
IR20F			8		850	13.0	94.0	10.7	79.4	323745
IR21F	943		6		30	30.0	1.0	29.94	1.0	40508

TABLE A-1: Specific Capacity Data Used to Calculate Transmissivity
(Continued)

SPECIFIC CAPACITY DATA USED TO CALCULATE TRANSMISSIVITY										
WELL NAME	TOTAL DEPTH (FT)	CASING DEPTH (FT)	CASING DIA. (INCH)	AQUIF PENET (FT)	DISCH Q (GPM)	W.L. DRWD (FT)	UNCOR. SP.CAP GAL/M	CORR. DRWD (FT)	CORR. SP.CAP GAL/M	CALC. TRANS. GAL/D/FT
IR26F	900		12		1000	15.0	200.0	14.58	68.6	284558
IR28F	880		8		1600	12.0	152.0	8.28	193.2	734668
IR42F	836		4		400	12.0	67.0	4.38	91.3	366662
IR47F	860		8		300	10.0	33.0	9.66	31.1	149033
IR53F			20		1800	14.0	180.0	13.8	130.4	507890
IR54F	900		6		450	8.0	64.0	5.28	85.2	344646
IR57F	660		8		450	29.0	18.0	28.3	15.9	94309
IR61F	960		10		1800	16.0	150.0	12.94	139.1	539193
IR64F	570		10		800	15.0	100.0	14.34	55.8	238340
IR72F	671		4		50	10.0	12.0	9.64	5.2	55619
IR76F	750		4		70	11.0	14.0	10.34	6.8	61336
IR77F	746		4		50	4.0	12.0	3.64	13.7	86492
IR80F			8		240	7.0	34.0	6.76	35.5	165091
IR84F			6		40	2.0	20.0	1.94	20.6	111344
IR95F	960		8		600	12.0	50.0	10.8	55.6	237501
IR370		300	8		717	15.0	47.8	11.6	61.8	260087

TABLE A-2: Geologic and Water Quality Data from FAS Well Inventory in UEC

MAP #	WELL NAME	DATA	STATE PLANARS		TOP OF FORMATION NGVD (FEET)				DEPTH FT B.L.S	COND M.S.	CHLOR MG/L	TEMP °F	FLOW GPM	DIAM INCH	G.L. ELEV FT. NGVD
			EAST (FEET)	NORTH (FEET)	HAWTH	OLIG	OCALA	AVON							
1	WA-727	G	681817	1169470	-80	-410	-464	-568	1000	6010	1770	84.6	2430	10	20
2	WA-815	G	718920	1133099	-113	-641	-763	-830	995	2982	530	79	600	8	5
3	WA-820	G	681712	1112819	-90	-446	-520	-570	922	1260	420	79.6	254	8	20
4	WA-823	G	664197	1141826	-96	-428	-472	-528	640	1280	350	82	135	4	20
5	WA-825	G	702475	1124530	-124	-494	-574	-625	670	1390	250	80	360	3	16
6	WA-826	G	663853	1137987	-100	-486	-530	-594	814	3230	870	82.9	249	5	20
7	WA-827	G	606769	1127698	-85	-435	-485	-575	830	1510	870	81	153	4	25
8	WA-829	G	674420	1089763	-100	-530	-580	-660	741	3050	967	84	360	5	20
9	WA-875	G	663214	1117587	-90	-472	-520	-584	704	2080	510	81	95	4	20
10	WA-878	G	648530	1115814	-90	-434	-488	-574	766	3050	811	82	1000	10	20
11	WA-887	G	704887	1128784	-89	-455	-521	-583	894	1450	214	78	243	5	17
12	WA-1000	G	672933	1100158	-104	-464	-537	-608	888	3710	726	82	258	5	15
13	WA-1005	G	658690	1101352	-100	-474	-518	-590	830	2975	885	82	217	4	20
14	WA-1009	G	695779	1148834	-112	-404	-468	-630	904	2168	492	79.2	221	5	20
15	WA-1016	G	680298	1106451	-117	-489	-553	-613	876	2838	695	82	425	8	20
16	WA-1031	G	693006	1163564	-90	-392	-450	-616	686	1935	283	79	135	4	20
17	WA-1032	G	728097	1151125	-108	-706	-910	-990	1020	6270	1734	76.5	250	5.5	20
18	WA-1033	G	694281	1160541	-84	-368	-428	-622	740	1990	367	78.1	219	4	20
19	WA-1083	G	672844	1120959	-100	-459	-504	-568	646	612	275	76.8	156	4	20
20	WA-1085	G	666933	1111846	-98	-456	-496	-568	784	1780	375	79.8	124	4	20
21	WA-1087	G	671903	1109141	-90	-460	-500	-572	624	2046	435	79.4	202	4	20

TABLE A-2: Geologic and Water Quality Data from FAS Well Inventory in UEC
(Continued)

MAP #	WELL NAME	DATA	STATE PLAINARS		TOP OF FORMATION NGVD (FEET)				DEPTH FT B.L.S	COND M.S.	CHLOR NG/L	TEMP °F	FLOW GPM	DIAM INCH	G.I. ELEV FT. NGVD
			EAST (FEET)	NORTH (FEET)	HAWTH	OLIG	OCALA	AVON							
22	WA-547	G	635843	1109508	-90	-540	-618	-714	820	2870	-	80.6	20	6	25
23	SLF-3A	G	679473	1150071	-	-465	-501	-609	1215	-	-	-	-	-	15
24	SLF-4	G	667351	1141435	-93	-433	-500	-543	993	2960	-	81.6	-	9	27
25	SLF-5	GL	673614	1151257	-115	-456	-500	-615	1227	3680	-	79.5	-	12	25
26	SLF-6	G	693308	1119537	-97	-459	-519	-	596	1518	-	77.5	-	3	20
27	SLF-9	G	632615	1131915	-68	-440	-485	-556	1058	3880	1500	81.5	-	-	25
28	SLF-11	G	634038	164435	-78	-350	-412	-464	946	2300	-	80.8	-	8	26
29	SLF-14	GL	639149	1091949	-99	-531	-615	-713	1286	-	-	83.5	-	-	25
30	SLF-17	G	639073	1087809	-96	-555	-625	-742	1287	2700	-	84	-	-	25
31	SLF-20	G	604518	1127187	-93	-462	-515	-620	896	1465	-	83.3	-	-	29
32	SLF-21	G	693823	1124791	-93	-444	-509	-580	707	1300	300	78.8	-	4	21
33	SLF-23	GL	672337	1049363	-87	-508	-625	-734	894	-	-	89.2	-	-	30
34	SLF-26	G	723635	1111413	-125	-600	-750	-870	958	-	-	74.6	-	-	15
35	SLF-28	G	734915	1093704	-64	-595	-735	-855	883	-	-	76.1	-	-	26
36	SLF-31	G	695810	1067948	-105	-605	-695	-775	1008	2579	-	82	-	-	25
37	SLF-40	G	662479	1121219	-90	-442	-490	-552	786	2424	-	81	-	6	20
38	SLF-42	G	722662	1156952	-118	-594	-775	-895	1060	3900	-	76.2	-	6	5
39	SLF-44	G	754882	1073628	-145	-638	-840	NDE	876	2712	-	76	500	6	5
40	SLF-45	G	721463	1162095	-75	-595	-795	-910	1100	4310	-	75.8	-	6	5
41	SLF-46	G	724669	1152217	-113	-657	-809	-955	1100	3754	-	75.8	100	6	5

TABLE A-2: Geologic and Water Quality Data from FAS Well Inventory in UEC
(Continued)

MAP #	WELL NAME	DATA	STATE PLANARS		TOP OF FORMATION NGVD (FEET)			DEPTH FT B.L.S	COND M.S.	CHLOR MG/L	TEMP °F	FLOW GPM	DIAM INCH	G.I. ELEV FT. NGVD
			EAST (FEET)	NORTH (FEET)	HAWTH	OLIG	OCALA							
42	SLF-47	G	749646	1088844	-162	-643	-845	-992	1088	203	75.6	50	6	5
43	SLF-48	G	687102	1077803	-115	-533	-605	-710	-	-	-	-	-	25
44	SLF-50	GL	662956	1092240	-112	-570	-646	-740	-	1000	84	-	12	31
45	SLF-53	G	647734	1130958	-85	-511	-565	-635	-	1000	82	500	10	25
46	SLF-54	G	606948	1059741	-131	-675	-725	-845	-	-	-	-	10	25
47	SLF-73	GL	664600	1108000	-125	-480	-540	-620	-	-	-	-	-	-
48	WA-1107	G	616134	1129642	-78	-472	-514	-	2012	410	78.8	164	5	26
49	WA-1117	G	719842	1096043	-101	-537	-667	-803	3752	920	74.6	246	5	13
50	WA-1134	G	701631	1131292	-110	-410	-492	-542	2000	420	78	320	5.5	20
51	WA-1136	G	661167	1111116	-90	-414	-472	-550	3110	775	78	100	4	205
52	WA-1139	G	693411	1154377	-114	-376	-448	-630	2764	665	81	478	8	20
53	WA-1111	G	617795	1116419	-85	-550	-601	-711	4500	1125	83	110	6	25
54	WA-1119	G	612108	1119533	-78	-455	-500	-600	2052	410	80.4	50	5	25
55	WA-1140	G	663896	1104967	-80	-450	-492	-570	4500	1188	83	126	4	20
56	WA-1142	G	690791	1156081	-100	-390	-446	-630	1984	468	79	209	4	20
57	WA-1144	G	688502	1144962	-94	-434	-500	-630	2347	538	79	245	5	20
58	WA-1147	G	638282	1081546	-93	-530	-583	-721	2080	403	82	184	5	25
59	WA-1158	G	678998	1115028	-100	-520	-576	-630	3218	742	81.8	161	4	20
60	WA-565	G	697021	1078759	-105	-534	-653	-725	3610	894	83	170	6	25
61	WA-582	G	690777	1082768	-105	-531	-605	-685	2913	739	80	130	6	25

TABLE A-2: Geologic and Water Quality Data from FAS Well Inventory in UEC
(Continued)

MAP #	WELL NAME	DATA	STATE PLANNERS		TOP OF FORMATION NGVD (FEET)				DEPTH FT B.L.S.	COND M.S.	CHLOR MG/L	TEMP °F	FLOW GPM	DIAM INCH	G.L. ELEV FT. NGVD
			EAST (FEET)	NORTH (FEET)	HAWTH	OLIG	OCALA	AVON							
62	WA-699	G	699517	1121486	-100	-495	-575	-640	1910	420	79	600	6	25	
63	WA-708	G	715616	1127527		-570	-690	-800	1496	708	75	125	4	10	
64	WA-1082	G	628231	1065255	-91	-517	-625	-761	4558	1098	85	571	7	25	
65	WA-1175	G	632262	1074457	-95	-421	-519	NDE	1512	325	77.7	150	4	5	
66	WA-1186	G	716989	1140258	-110	-580	-720	-804	1928	330	76.6	500	6	10	
67	WA-1195	G	651586	1045645	-100	-530	-630	-770	3138	778	82.1	1000	8	30	
68	WA-612	G	693638	1069251	-110	-620	-726	-800	1590	799	79.6	75	5	0	
69	WA-611	G	701918	1073633	-100	-516	-590	-666	3582	940	79.2	25	6	0	
70	WA-615	G	695629	1068048	-100	-620	-700	-804	4580	880	78.2	100	6	0	
71	WA-625	G	715418	1046034					4060	1010	81.6	50	4	0	
72	HD-3	G	678795	1160772	-88	-393	-443								
73	HD-4	G	653763	1090790	-105	-550	-613	-715							
74	HD18	G	624888	1124923	-61	-451	-511							28	
75	HD22	G	682541	1068795	-101	-531	-594							29	
76	HD23	G	682380	1064453	-120	-573	-678	-780						24	
77	FB-1	GL	709923	1130728	-70	-486	-556	-632	630	320			12	20	
78	NPSLI	GL	710753	1092360	135	-563	-705	-815						15	
79	SPSLI	GL	727706	1060642		-685	-860	-985	4500	1500				15?	
80	W-4086	G	704804	1091723		-594	-660	-800						31	
81	FPLAG	GL	722748	1092424		-523	-680							15?	

TABLE A-2: Geologic and Water Quality Data from FAS Well Inventory in UEC
(Continued)

MAP #	WELL NAME	DATA	STATE PLANARS		TOP OF FORMATION NGVD (FEET)			DEPTH FT B.L.S	COND M.S.	CHLOR MG/L	TEMP °F	FLOW GPM	DIAM INCH	G.I. ELEV FT. NGVD
			EAST (FEET)	NORTH (FEET)	HAWTH	OLIG	OCALA							
82	SL-3	G	675831	1138442	-97	-437	-527	-	-	-	-	-	23	
83	SL-6	G	684732	1102835	-78	-538	-588	900	-	-	-	-	22	
84	SL-11	G	673586	1157821	-92	-400	-458	705	-	-	-	-	22	
85	W1023	L	684748	1118992	-81	-	-481	930	-	-	-	-	19	
86	W1052	L	690151	1120027	-101	-481	-591	-	-	-	-	-	19	
87	W1393	L	690037	1105889	-78	-518	-623	1000	-	-	-	-	17	
88	W3018	L	705847	1169990	-119	-419	-519	714	-	-	-	-	6	
89	W3023	L	684512	1170492	-122	-377	-413	691	-	-	-	-	20	
90	W7677	L	689186	1133655	-103	-369	-474	576	-	-	-	-	22	
91	W14703	L	721911	1146243	-86	-583	-651	1092	-	-	-	-	5	
92	W15106	L	632801	1157463	-65	-355	-415	900	-	-	-	-	35	
Martin Co. Well Data														
93	MF-1	G	667888	105504	-	-534	-644	-760	4170	-	90.8	-	7	-
94	MF-3	GL	766873	1047651	-	-697	-875	-	2618	-	77.7	-	8	-
95	MF-6	G	635484	1027817	-	-585	-676	-750	1638	-	81	-	4	-
96	MF-9	G	673410	1030384	-	-510	-594	-716	4777	-	86.1	-	6	-
97	MF-10	G	731133	997246	-	-564	-646	-790	4160	-	78.6	-	5.5	20
98	MF-20	GL	628261	102688	-	-590	-650	-710	-	-	81.3	-	8	30
99	MF-23	G	642188	996134	-	-675	-740	-850	1200	-	81	-	6	16
100	MF-25	GL	647112	984337	-	-	-722	-840	1468	-	82.2	-	8	28

TABLE A-2: Geologic and Water Quality Data from FAS Well Inventory in UEC
(Continued)

MAP #	WELL NAME	DATA	STATE PLANNERS		TOP OF FORMATION NGVD (FEET)				DEPTH FT B.L.S.	COND M.S.	CHLOR MG/L	TEMP °F	FLOW GPM	DIAM INCH	G.L. ELEV FT. NGVD
			EAST (FEET)	NORTH (FEET)	HAWTH	OLIG	OCALA	AVON							
101	MF-27	GL	755137	1033035	-	-735	-895	-	991	1180	-	75.2	-	8	15
102	MF-28	G	760322	1041348	-	-780	-926	-	1070	3140	-	75.2	-	5	10
103	MF-30	G	758942	1031140	-	-728	-900	-	1157	2765	-	75	-	4	16
104	MF-31	GL	767575	1023218	-	-795	-980	-	1091	3042	-	75	-	6	5
105	MF-32	G	633253	1019631	-	-620	-694	-776	1100	2375	-	82.4	-	8	20
106	MF-33	G	632994	1015995	-	-642	-692	-800	1200	1470	-	82.4	-	8	12.5
107	MF-34	G	730735	1035717	-	-590	-700	-	800	3602	-	77	-	6	20
108	MF-35	GL	668237	970484	-	-610	-680	-850	1340	3078	-	84.6	-	10	20
109	MF-36B	G	761509	1025199	-	-746	-900	-	1021	2150	-	75	-	6	20
110	MF-37	G	658684	984784	-	-614	-726	-850	1260	1984	-	82	-	10	20
111	W-5441	L	611429	1005429	-	-625	-698	-818	992	-	-	-	-	-	25
112	W-5442	L	619011	977582	-	-644	-724	-759	997	-	-	-	-	-	6
113	WA-1151	G	676983	1039689	-	-530	-642	-770	849	5086	-	88	-	6	20
114	WA-1155	G	622340	1013336	-	-610	-704	-780	1176	3600	-	81	-	5	20
115	JENSON	L	738649	1056968	-	-735	-873	-1060	3600	-	-	-	-	-	15
116	W-14666	L	625110	1023543	-	-568	-648	-708	1200	-	-	-	-	-	32
117	W-13966	L	755121	1035559	-	-734	-904	-	1027	-	-	-	-	-	16
118	W-4212	L	622877	1015256	-	-655	-705	-830	1096	-	-	-	-	-	30
119	W-4160	L	635099	1007722	-	-552	-680	-	778	-	-	-	-	-	32
120	W-2861	L	710059	1034797	-	-568	-648	-712	958	-	-	-	-	-	20

TABLE A-2: Geologic and Water Quality Data from FAS Well Inventory in UEC
(Continued)

MAP #	WELL NAME	DATA	STATE PLAINARS		TOP OF FORMATION NGVD (FEET)				DEPTH FT B.L.S	COND M.S.	CHLOR MG\L	TEMP °F	FLOW GPM	DIM INCH	G.L. ELEV FT. NGVD
			EAST (FEET)	NORTH (FEET)	HAWTH	ODIG	OCALA	AVON							
121	W-4399	L	740255	1029410	-	-798	-955	-	1057	-	-	-	-	-	12
122	W-14754	L	647747	983835	-	-712	-752	-	1220	-	-	-	-	-	28
123	W-15816	L	612766	1012299	-	-	-681	-	1019	-	-	-	-	-	15
124	W-15817	L	612528	1000080	-	-	-708	-	1007	-	-	-	-	-	15
125	W-15818	L	619642	978089	-	-695	-725	-	1013	-	-	-	-	-	15
126	BOG-22	G	642129	987248	-	-675	-775	-	997	-	-	-	-	-	25
127	BOG-23	G	636042	996113	-	-660	-790	-	1119	-	-	-	-	-	25
128	BOG-25	G	635629	984298	-	-674	-794	-	1042	-	-	-	-	-	24
129	BOG-26	G	632607	996001	-	-640	-746	-	1056	-	-	-	-	-	24
130	PBF-2	G	80931	953978	-	-980	-1085	-1197	1337	-	-	-	-	-	5
131	C.Stuart	GL	743799	1041044	-	-790	-945	-1055	1055	-	-	-	-	-	-
132	L-143	G	712219	1036121	-	-568	-648	-712	958	-	-	-	-	-	20
133	L-146	G	632365	1014781	-	-716	-737	-758	1155	-	-	-	-	-	40
134	L-841	G	743856	1031451	-	-856	-957	-	1057	-	-	-	-	-	10
135	JUP-R/O	GL	781929	945861	-	-1076	-1188	-1328	1500	-	-	-	-	-	12
OKEECHOBEE WELL DATA															
136	OKF-2	G	593433	1166945	-	-342	-372	-438	686	1022	-	78.8	-	6	28
137	OKF-5	G	562688	1083782	-	-474	-550	-700	1181	7176	-	82.6	-	8	36
138	OKF-7	G	569511	1102271	-	-587	-619	-749	1050	504	-	76	-	8	51
139	OKF-6*	G	519921	1110295	-	-416	-470	-607	872	-	-	80	-	8	45

TABLE A-2: Geologic and Water Quality Data from FAS Well Inventory in UEC
(Continued)

MAP #	WELL NAME	DATA	STATE PLAINARS		TOP OF FORMATION NGVD (FEET)			DEPTH FT B.L.S	COND M.S.	CHLOR MG/L	TEMP °F	FLOW GPM	DIAM INCH	G.I. ELEV FT. NGVD
			EAST (FEET)	NORTH (FEET)	HAWTH	OLIG	OCALA							
140	OKF-16*	G	525882	1090608	-	-438	-552	-698	960	-	-	82	4	42
141	OKF-17*	G	526333	1091315	-	-518	-554	-683	983	782	-	79.4	6	42
142	OKF-18*	G	496486	1129273	-	-381	-421	-555	1015	480	-	80.1	8	55
143	OKF-19*	G	511261	1132809	-	-308	-364	-478	948	1576	-	79	8	66
144	OKF-29	G	551354	1129710	-	-367	-397	-533	1039	320	-	77	6	67
145	OKF-34*	G	492168	1162192	-	-305	-373	-505	1143	430	-	76.4	10	65
146	OKF-36*	G	491087	1159062	-	-249	-303	-419	896	1780	-	78.2	9	65
147	OKF-37*	G	500180	1144016	-	-420	-474	-600	1039	510	-	81.3	6	62
148	OKF-42*	GL	462326	114851	-	-341	-371	-565	1074	718	-	80.6	6	35
149	OKF-54*	G	525904	1197341	-	-250	-280	-380	973	648	-	76.3	12	70
150	HD-16	G	586715	1151683	-	-375	-390	-475	1000	-	-	-	-	6
151	HD-13	G	567690	1083782	-	-575	-590	-960	1200	-	-	-	-	5
152	W50	L	556412	1056005	-	-	-583	-	1175	-	-	-	-	10
153	W51	L	547833	1060033	-	-549	-619	-	810	-	-	-	-	5
154	W2844	L	547290	1061446	-	-568	-601	-	925	-	-	-	-	5
155	W2855	L	583047	1052011	-	-800	-865	-	1448	-	-	-	-	-
156	W2857*	L	510831	1056573	-	-424	-479	-	1110	-	-	-	-	-
157	W4480	L	556377	081248	-	-566	-577	-	825	-	-	-	-	-
158	W4572	L	554574	1080741	-	-540	-611	-645	725	-	-	-	-	-
159	W4699*	L	490986	1110493	-	-370	-490	-	1205	-	-	-	-	-

TABLE A-2: Geologic and Water Quality Data from FAS Well Inventory in UEC
(Continued)

MAP #	WELL NAME	DATA	STATE PLANNARS		TOP OF FORMATION NGVD (FEET)			DEPTH FT B.L.S	COND M.S.	CHLOR MG/L	TEMP °F	FLOW GPM	DIAM INCH	G.I. ELEV FT. NGVD
			EAST (FEET)	NORTH (FEET)	HAWTH	OLIG	OCALA							
160	W4896	L	598879	1037910	-	-453	-543	1313	-	-	-	-	-	-
161	W4984	L	569587	1058044	-	-419	-454	1000	-	-	-	-	-	-
162	W5405	L	599652	1017212	-	-578	-631	1008	-	-	-	-	-	-
163	W6173*	L	529799	1037801	-	-	-396	772	-	-	-	-	-	-
164	W6175	L	557578	1187781	-	-	-385	764	-	-	-	-	-	-
165	W12541	L	593749	1108581	-	-514	-604	11277	-	-	-	-	-	-
166	W15813*	L	513069	1113523	-	-376	-406	10836	-	-	-	-	-	-
167	OKE-ASR	GL	569235	1052692	-	-560	-686	1800	-	-	-	-	-	20
168	IR-320	G	716333	1178427	-	-655	-840	943	-	-	-	-	-	3
169	IR-321	G	693982	1185280	-	-335	-410	888	-	-	-	-	-	23
170	IR-322	G	715125	1185489	-	-562	-756	843	-	-	-	-	-	2
171	IR-326	G	699072	1193081	-	-363	-431	703	-	-	-	-	-	11
172	IR-198	G	700048	1195712	-	-435	-526	941	-	-	-	-	-	5
173	IR-333	G	674565	1201853	-	-310	-344	746	-	-	-	-	-	21
174	IR-335	G	693429	1206585	-	-348	-464	673	-	-	-	-	-	16
175	IR-336	G	686857	1208069	-	-350	-420	620	-	-	-	-	-	21

* : denotes wells West of the study area boundaries, not portrayed in location map.

G: Geophysical logs available

L: Lithologic logs available

APPENDIX B
MONTHLY WATER USE REPORTS
SUBMITTED TO THE
SOUTH FLORIDA WATER MANAGEMENT DISTRICT

**APPENDIX B
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TABLE B-1: 1989 Monthly Agricultural Pumpage Reports

PERMIT/ FACILITY #	MODEL COORDS			1989 PUMPAGE IN MILLION GALLONS PER MONTH											
	LAY	ROW	COL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
5600035-1	2	12	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75	1.52	1.40	1.26	1.62	1.52
5600035-2	2	11	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75	1.52	1.40	1.26	1.62	1.52
5600035-3	2	11	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75	1.52	1.40	1.26	1.62	1.52
5600035-4	2	11	16	1.32	1.62	1.19	2.34	2.95	1.28	0.75	1.52	1.40	1.26	1.62	1.52
5600035-5	2	10	16	1.32	1.62	1.19	2.34	2.95	1.28	0.75	1.52	1.40	1.26	1.62	1.52
5600035-6	2	11	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75	1.52	1.40	1.26	1.62	1.52
5600035-7	2	10	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75	1.52	1.40	1.26	1.62	1.52
5600035-8	2	10	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75	1.52	1.40	1.26	1.62	1.52
5600035-9	2	10	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75	1.52	1.40	1.26	1.62	1.52
5600035-10	2	10	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75	1.52	1.40	1.26	1.62	1.52
5600035-11	2	9	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75	1.52	1.40	1.26	1.62	1.52
5600035-12	2	9	16	1.32	1.62	1.19	2.34	2.95	1.28	0.75	1.52	1.40	1.26	1.62	1.52
5600035-13	2	9	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75	1.52	1.40	1.26	1.62	1.52
5600035-14	2	8	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75	1.52	1.40	1.26	1.62	1.52
5600071-1	2	24	21	2.00	0.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600071-2	2	24	21	2.00	0.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600071-3	2	24	21	2.00	0.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600071-4	2	24	21	2.00	0.00	0.00	2.00	2.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600096-1	2	14	24	3.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55
5600096-2	2	14	24	3.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55
5600096-3	2	14	24	3.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55
5600096-4	2	13	24	3.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55
5600096-5	2	13	23	3.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55
5600096-6	2	14	23	3.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55
5600096-7	2	14	23	3.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55
5600096-8	2	14	23	3.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55
5600096-9	2	14	23	3.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55
5600096-10	2	14	23	3.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55
5600096-11	2	14	23	3.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55
5600096-12	2	13	23	3.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55
5600096-13	2	13	22	3.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55
5600096-14	2	14	22	3.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55

TABLE B-1: 1989 Monthly Agricultural Pumpage Reports (Continued)

PERMIT FACILITY #	MODEL COORDS			1989 PUMPAGE IN MILLION GALLONS PER MONTH											
	LAY	ROW	COL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
5600096-15	2	14	22	3.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55
5600096-16	2	14	22	3.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55
5600096-17	2	14	21	3.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55
5600096-18	2	14	21	3.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55
5600096-19	2	14	21	3.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55
5600096-20	2	13	21	3.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55
5600096-21	2	13	24	3.60	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.55
5600098-7	2	11	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600098-10	2	8	13	0.07	0.07	0.06	4.22	15.79	12.67	0.00	0.00	0.00	0.00	0.00	2.30
5600098-11	2	9	13	0.07	0.07	0.06	4.22	15.79	12.67	0.00	0.00	0.00	0.00	0.00	2.30
5600098-12	2	9	13	0.03	0.07	0.06	4.22	12.98	4.61	0.00	0.00	0.00	0.00	0.00	0.00
5600098-13	2	9	13	0.00	0.00	14.40	4.22	4.43	4.61	0.00	0.00	0.00	0.00	0.00	0.00
5600098-13A	2	9	13	7.20	0.00	0.00	10.56	11.04	11.52	0.00	0.00	0.00	0.00	0.00	9.21
5600098-14	2	10	13	0.00	0.00	0.00	0.00	11.04	11.52	0.00	0.00	0.00	0.00	0.00	9.21
5600098-14A	2	9	13	2.88	0.00	14.40	10.56	11.04	11.52	0.00	0.00	0.00	0.00	0.00	9.21
5600098-15	2	10	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600098-16	2	11	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.88
5600098-18	2	11	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.88
5600098-19	2	11	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.20
5600098-20	2	12	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.88
5600101-1	2	10	30	3.46	3.46	3.46	3.46	3.46	3.46	3.46	3.46	3.46	3.46	3.46	3.46
5600116-1	2	27	16	0.02	0.03	0.07	0.27	1.17	0.08	0.01	0.00	0.00	0.00	0.03	0.00
5600116-2	2	27	17	0.01	0.02	0.04	0.14	0.58	0.04	0.00	0.00	0.00	0.00	0.01	0.00
5600116-3	2	28	15	0.02	0.03	0.07	0.27	1.17	0.08	0.01	0.00	0.00	0.00	0.03	0.00
5600116-4	2	28	16	0.03	0.05	0.11	0.41	1.75	0.12	0.01	0.00	0.00	0.00	0.04	0.00
5600116-5	2	28	17	0.03	0.05	0.11	0.41	1.75	0.12	0.01	0.00	0.00	0.00	0.04	0.00
5600116-6A	2	29	16	0.03	0.05	0.11	0.41	1.75	0.12	0.01	0.00	0.00	0.00	0.04	0.00
5600116-7	2	29	17	0.03	0.05	0.11	0.41	1.75	0.12	0.01	0.00	0.00	0.00	0.04	0.00
5600116-8	2	30	16	0.01	0.02	0.04	0.14	0.58	0.04	0.00	0.00	0.00	0.00	0.01	0.00
5600116-9	2	30	17	0.02	0.03	0.07	0.27	1.17	0.08	0.01	0.00	0.00	0.00	0.03	0.00
5600116-10	2	31	17	0.01	0.02	0.04	0.14	0.58	0.04	0.00	0.00	0.00	0.00	0.01	0.00
5600116-11	2	32	17	0.01	0.02	0.04	0.14	0.58	0.04	0.00	0.00	0.00	0.00	0.01	0.00
5600116-12	2	33	17	0.01	0.02	0.04	0.14	0.58	0.04	0.00	0.00	0.00	0.00	0.01	0.00

TABLE B-1: 1989 Monthly Agricultural Pumpage Reports (Continued)

PERMIT/ FACILITY #	MODEL COORDS			1989 PUMPAGE IN MILLION GALLONS PER MONTH											
	LAY	ROW	COL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
5600116-13	2	34	18	0.01	0.02	0.04	0.14	0.58	0.04	0.00	0.00	0.00	0.00	0.01	0.00
5600147-1	2	15	23	0.00	0.00	0.00	0.00	0.00	1.30	0.00	0.00	3.02	0.00	0.00	0.00
5600147-2	2	15	23	0.00	0.00	0.00	0.00	0.00	1.30	0.00	0.00	3.02	0.00	0.00	0.00
5600147-3	2	15	23	0.00	0.00	0.00	0.00	0.00	1.30	0.00	0.00	3.02	0.00	0.00	0.00
5600147-4	2	15	23	0.00	0.00	0.00	0.00	0.00	1.30	0.00	0.00	3.02	0.00	0.00	0.00
5600417-1	2	17	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600417-2	2	17	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600417-3	2	17	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600428-16	2	30	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600428-19	2	28	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600428-21	2	27	26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600428-22	2	27	26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600428-23	2	27	24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600428-25	2	27	26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600428-18	2	30	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600473-1	2	10	14	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-3	2	11	14	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-4	2	12	14	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-5	2	12	15	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-6	2	12	14	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-7	2	12	16	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-8	2	12	16	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-9	2	14	16	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-10	2	14	16	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-11	2	14	17	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-12	2	12	17	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-13	2	15	17	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-14	2	15	17	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-16	2	13	17	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-17	2	15	18	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-18	2	15	16	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-19	2	15	18	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-20	2	15	16	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11

TABLE B-1: 1989 Monthly Agricultural Pumpage Reports (Continued)

PERMIT/ FACILITY #	MODEL COORDS			1989 PUMPAGE IN MILLION GALLONS PER MONTH											
	LAY	ROW	COL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
5600473-21	2	15	16	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-22	2	15	16	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-23	2	12	14	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-24	2	12	14	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-25	2	11	14	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-26	2	10	14	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-27	2	12	15	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-28	2	16	16	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-29	2	16	16	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-30	2	15	17	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-31	2	13	17	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
5600473-32	2	13	17	6.39	6.80	0.00	0.24	8.76	3.45	0.60	0.00	0.00	0.00	1.98	3.11
4300030-3	2	34	43	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21
4300030-4	2	34	43	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21	4.21
4300030-5	2	35	43	3.13	3.10	3.45	3.59	4.08	4.00	3.48	3.69	4.76	3.82	3.86	3.33
4300030-7	2	35	43	3.13	3.10	3.45	3.59	4.08	4.00	3.48	3.69	4.76	3.82	3.86	3.33
4300030-9	2	35	43	3.13	3.10	3.45	3.59	4.08	4.00	3.48	3.69	4.76	3.82	3.86	3.33
4300030-10	2	35	43	3.13	3.10	3.45	3.59	4.08	4.00	3.48	3.69	4.76	3.82	3.86	3.33
4300030-11	2	35	43	3.13	3.10	3.45	3.59	4.08	4.00	3.48	3.69	4.76	3.82	3.86	3.33
4300030-12	2	35	43	3.13	3.10	3.45	3.59	4.08	4.00	3.48	3.69	4.76	3.82	3.86	3.33
4300030-13	2	35	43	3.13	3.10	3.45	3.59	4.08	4.00	3.48	3.69	4.76	3.82	3.86	3.33
4300031-7	2	35	40	13.82	13.82	13.82	13.82	13.82	13.82	0.00	0.00	0.00	0.00	13.82	13.82
430082	2	32	39	0.00	0.00	0.96	0.83	0.72	0.00	0.60	0.00	0.00	0.00	0.00	0.00
4300140-1	2	48	46	3.95	116.62	0.09	0.12	0.14	3.34	1.94	0.00	0.00	0.00	0.00	0.00
4300260-1	2	44	24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14.40
4700003-1	2	31	1	5.92	1.26	0.00	1.97	3.29	3.95	2.63	0.00	0.00	1.95	3.95	3.74
4700007-1	2	12	8	0.58	4.45	6.84	8.84	20.75	14.70	3.67	0.00	2.45	0.82	9.88	11.80
4700008-7	2	12	7	0.00	9.44	3.39	4.21	9.48	6.55	2.57	0.01	5.46	1.40	6.43	12.60
4700008-2	2	12	8	0.00	9.48	3.35	4.60	9.01	7.02	3.74	1.64	2.30	1.68	6.36	6.43
4700017-1	2	11	7	9.88	99.18	7.12	5.89	13.73	8.20	3.21	1.64	1.65	1.93	8.94	5.72
4700082-4	2	19	3	22.66	20.47	22.66	21.93	22.66	21.93	21.93	21.93	21.93	21.93	21.93	21.93
4700082-2	2	17	3	22.66	20.47	22.66	21.93	22.66	21.93	21.93	21.93	21.93	21.93	21.93	21.93
4700082-3	2	18	1	22.66	20.47	22.66	21.93	22.66	21.93	21.93	1.93	21.93	21.93	21.93	21.93

TABLE B-2: 1990 Monthly Agricultural Pumpage Reports

PERMIT/ FACILITY #	MODEL COORDS			1990 PUMPAGE IN MILLION GALLONS PER MONTH						
				JAN	FEB	MAR	APR	MAY	JUN	JUL
	LAY	ROW	COL							
5600035/1	2	12	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75
5600035/2	2	11	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75
5600035/3	2	11	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75
5600035/4	2	11	16	1.32	1.62	1.19	2.34	2.95	1.28	0.75
5600035/5	2	10	16	1.32	1.62	1.19	2.34	2.95	1.28	0.75
5600035/6	2	11	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75
5600035/7	2	10	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75
5600035/8	2	10	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75
5600035/9	2	10	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75
5600035/10	2	10	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75
5600035/11	2	9	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75
5600035/12	2	9	16	1.32	1.62	1.19	2.34	2.95	1.28	0.75
5600035/13	2	9	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75
5600035/14	2	8	17	1.32	1.62	1.19	2.34	2.95	1.28	0.75
5600071/1	2	24	21	2.00	0.00	0.00	2.00	2.00	0.00	0.00
5600071/2	2	24	21	2.00	0.00	0.00	2.00	2.00	0.00	0.00
5600071/3	2	24	21	2.00	0.00	0.00	2.00	2.00	0.00	0.00
5600071/4	2	24	21	2.00	0.00	0.00	2.00	2.00	0.00	0.00
5600096/1	2	14	24	0.00	0.00	0.75	0.00	0.00	0.00	0.00
5600096/2	2	14	24	0.00	0.00	0.75	0.00	0.00	0.00	0.00
5600096/3	2	14	24	0.00	0.00	0.75	0.00	0.00	0.00	0.00
5600096/4	2	13	24	0.00	0.00	0.75	0.00	0.00	0.00	0.00
5600096/5	2	13	23	0.00	0.00	0.75	0.00	0.00	0.00	0.00
5600096/6	2	14	23	0.00	0.00	0.75	0.00	0.00	0.00	0.00
5600096/7	2	14	23	0.00	0.00	0.75	0.00	0.00	0.00	0.00
5600096/8	2	14	23	0.00	0.00	0.75	0.00	0.00	0.00	0.00
5600096/9	2	14	23	0.00	0.00	0.75	0.00	0.00	0.00	0.00
5600096/10	2	14	23	0.00	0.00	0.75	0.00	0.00	0.00	0.00
5600096/11	2	14	23	0.00	0.00	0.75	0.00	0.00	0.00	0.00
5600096/12	2	13	23	0.00	0.00	0.75	0.00	0.00	0.00	0.00
5600096/13	2	13	22	0.00	0.00	0.75	0.00	0.00	0.00	0.00
5600096/14	2	14	22	0.00	0.00	0.75	0.00	0.00	0.00	0.00

TABLE B-2: 1990 Monthly Agricultural Pumpage Reports (Continued)

PERMIT/ FACILITY #	MODEL COORDS			1990 PUMPAGE IN MILLION GALLONS PER MONTH						
				JAN	FEB	MAR	APR	MAY	JUN	JUL
	LAY	ROW	COL							
5600096/15	2	14	22	0.00	0.00	0.75	0.00	0.00	0.00	0.00
5600096/16	2	14	22	0.00	0.00	0.75	0.00	0.00	0.00	0.00
5600096/17	2	14	21	0.00	0.00	0.75	0.00	0.00	0.00	0.00
5600096/18	2	14	21	0.00	0.00	0.75	0.00	0.00	0.00	0.00
5600096/19	2	14	21	0.00	0.00	0.75	0.00	0.00	0.00	0.00
5600096/20	2	13	21	0.00	0.00	0.75	0.00	0.00	0.00	0.00
5600096/21	2	13	24	0.00	0.00	0.75	0.00	0.00	0.00	0.00
5600098/7	2	11	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600098/10	2	8	13	0.07	0.07	0.06	4.22	15.79	12.67	0.00
5600098/11	2	9	13	0.07	0.07	0.06	4.22	15.79	12.67	0.00
5600098/12	2	9	13	0.03	0.07	0.06	4.22	12.98	4.61	0.00
5600098/13	2	9	13	0.00	0.00	14.40	4.22	4.43	4.61	0.00
5600098/13a	2	9	13	7.20	0.00	0.00	10.56	11.04	11.52	0.00
5600098/14	2	10	13	0.00	0.00	0.00	0.00	11.04	11.52	0.00
5600098/14a	2	9	13	2.88	0.00	14.40	10.56	11.04	11.52	0.00
5600098/15	2	10	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600098/16	2	11	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600098/18	2	11	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600098/19	2	11	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600098/20	2	12	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600101/1	2	10	30	11.88	11.88	11.88	3.46	3.46	3.46	3.46
5600116/1	2	27	16	0.02	0.03	0.07	0.27	1.17	0.08	0.01
5600116/2	2	27	17	0.01	0.02	0.04	0.14	0.58	0.04	0.00
5600116/3	2	28	15	0.02	0.03	0.07	0.27	1.17	0.08	0.01
5600116/4	2	28	16	0.02	0.05	0.11	0.41	1.75	0.12	0.01
5600116/5	2	28	17	0.02	0.05	0.11	0.41	1.75	0.12	0.01
5600116/6	2	29	16	0.02	0.05	0.11	0.41	1.75	0.12	0.01
5600116/7	2	29	17	0.02	0.05	0.11	0.41	1.75	0.12	0.01
5600116/8	2	30	16	0.01	0.02	0.04	0.14	0.58	0.04	0.00
5600116/9	2	30	17	0.02	0.03	0.07	0.27	1.17	0.08	0.01
5600116/10	2	31	17	0.01	0.02	0.04	0.14	0.58	0.04	0.00
5600116/11	2	32	17	0.01	0.02	0.04	0.14	0.58	0.04	0.00
5600116/12	2	33	17	0.01	0.02	0.04	0.14	0.58	0.04	0.00
5600116/13	2	34	18	0.01	0.02	0.04	0.14	0.58	0.04	0.00

TABLE B-2: 1990 Monthly Agricultural Pumpage Reports (Continued)

PERMIT/ FACILITY #	MODEL COORDS			1990 PUMPAGE IN MILLION GALLONS PER MONTH						
				JAN	FEB	MAR	APR	MAY	JUN	JUL
	LAY	ROW	COL							
5600147/1	2	15	23	0.00	0.00	0.78	0.00	0.00	1.30	0.00
5600147/2	2	15	23	0.00	0.00	0.78	0.00	0.00	1.30	0.00
5600147/3	2	15	23	0.00	0.00	0.78	0.00	0.00	1.30	0.00
5600147/4	2	15	23	0.00	0.00	0.78	0.00	0.00	1.30	0.00
5600417/1	2	17	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600417/2	2	17	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600417/3	2	17	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600417/4	2	17	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600417/5	2	17	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600417/6	2	17	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600417/7	2	17	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600417/8	2	17	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600417/9	2	17	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600417/10	2	17	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600417/11	2	17	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600417/12	2	17	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600417/13	2	17	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600417/14	2	17	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600428/16	2	30	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600428/19	2	28	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600428/21	2	27	26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600428/22	2	27	26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600428/23	2	27	24	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600428/24	2	27	26	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600428/25	2	30	27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600428/26	2	33	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600428/27	2	33	28	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5600473/1	2	10	14	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/2	2	11	14	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/3	2	12	14	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/4	2	12	15	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/5	2	12	14	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/6	2	12	16	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/7	2	12	16	1.38	0.49	1.38	0.24	15.74	4.54	1.21

TABLE B-2: 1990 Monthly Agricultural Pumpage Reports (Continued)

PERMIT/ FACILITY #	MODEL COORDS			1990 PUMPAGE IN MILLION GALLONS PER MONTH						
	LAY	ROW	COL	IAN	FEB	MAR	APR	MAY	JUN	JUL
5600473/8	2	14	16	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/9	2	14	16	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/10	2	14	17	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/11	2	12	17	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/12	2	15	17	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/13	2	15	17	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/14	2	13	17	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/15	2	15	18	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/16	2	15	16	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/17	2	15	18	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/18	2	15	16	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/19	2	15	16	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/20	2	15	16	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/21	2	12	14	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/22	2	12	14	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/23	2	11	14	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/24	2	10	14	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/25	2	12	15	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/26	2	16	16	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/27	2	16	16	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/28	2	15	17	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/29	2	13	17	1.38	0.49	1.38	0.24	15.74	4.54	1.21
5600473/30	2	13	17	1.38	0.49	1.38	0.24	15.74	4.54	1.21
4300030/1	2	34	43	4.21	4.21	4.21	4.21	4.21	4.21	4.21
4300030/2	2	34	43	4.21	4.21	4.21	4.21	4.21	4.21	4.21
4300030/3	2	35	43	3.13	3.10	3.45	3.59	4.08	4.00	3.48
4300030/4	2	35	43	3.13	3.10	3.45	3.59	4.08	4.00	3.48
4300030/5	2	35	43	3.13	3.10	3.45	3.59	4.08	4.00	3.48
4300030/6	2	35	43	3.13	3.10	3.45	3.59	4.08	4.00	3.48
4300030/7	2	35	43	3.13	3.10	3.45	3.59	4.08	4.00	3.48
4300030/8	2	35	43	3.13	3.10	3.45	3.59	4.08	4.00	3.48
4300030/9	2	35	43	3.13	3.10	3.45	3.59	4.08	4.00	3.48
4300031/7	2	35	40	13.82	13.82	7.09	13.82	13.82	13.82	0.00
4300082/1	2	32	39	0.00	0.00	1.00	1.00	1.00	0.00	0.60

TABLE B-2: 1990 Monthly Agricultural Pumpage Reports (Continued)

PERMIT/ FACILITY #	MODEL COORDS			1990 PUMPAGE IN MILLION GALLONS PER MONTH						
	LAY	ROW	COL	JAN	FEB	MAR	APR	MAY	JUN	JUL
4300140/1	2	48	46	0.00	0.00	0.00	0.12	0.14	3.34	1.94
4300260/1	2	44	24	14.40	14.40	14.40	14.40	0.00	0.00	0.00
4700003/1	2	31	1	5.92	0.00	0.00	1.97	3.29	3.95	2.63
4700007/1	2	12	8	0.58	4.45	6.84	8.84	20.75	14.70	3.67
4700008/1	2	12	7	0.00	2.18	5.42	4.21	9.48	6.55	2.57
4700008/2	2	12	8	0.31	2.34	5.42	4.60	9.01	7.02	3.74
4700017/1	2	11	7	0.00	0.02	0.02	5.89	13.73	8.20	3.21
4700082/1	2	19	3	22.66	22.66	22.66	21.93	22.66	21.93	21.93
4700082/2	2	17	3	22.66	22.66	22.66	21.93	22.66	21.93	21.93
4700082/3	2	18	1	22.66	22.66	22.66	21.93	22.66	21.93	21.93

TABLE B-3: 1989 Monthly Public Water Supply Pumpage Reports

PUBLIC WATER SUPPLY REPORTS 1989 - PUMPAGE IN MILLION GALLONS PER MONTH															
SFWMD PERMIT #	LAY	ROW	COL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
4300130	3	30	41	0.00	0.00	1.40	1.13	1.05	0.00	1.13	0.00	0.00	0.00	0.00	0.00
4300328	3	32	42	2.79	3.96	0.00	3.53	2.86	2.57	3.64	3.02	0.00	2.88	5.34	0.00
4300067	2	36	43	0.00	0.00	0.00	0.00	4.68	2.01	2.01	1.30	0.00	0.00	0.00	0.00
5600085	2	16	31	10.35	8.40	13.29	11.78	12.48	14.11	12.80	13.52	13.66	12.93	13.75	15.59
5600300	2	24	39	0.30	0.30	0.30	0.30	0.29	0.26	0.25	0.45	0.22	0.25	0.42	0.50
*456-1954	2	26	39	1.00	1.00	1.00	1.00	1.92	1.57	1.78	1.67	1.45	1.66	1.73	1.73
*456-5007	2	27	40	1.00	1.00	1.00	1.00	4.31	4.00	4.01	2.67	1.96	1.07	1.38	1.62
*456-4001	2	26	40	—	—	—	—	0.66	0.51	0.60	0.66	0.56	0.85	0.84	0.86
4300362-1	2	10	34	3.38	3.36	3.78	0.00	2.60	3.15	3.12	2.79	3.12	2.90	2.75	2.81
6100089-1	2	1	28	41.46	41.46	41.46	41.46	41.46	41.46	41.46	41.46	41.46	41.46	41.46	41.46
6100089-2	2	1	27	41.46	41.46	41.46	41.46	41.46	41.46	41.46	41.46	41.46	41.46	41.46	41.46
6100089-3	2	2	28	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00
6100089-4	2	2	28	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45
61-00093	2	3	24	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86
61-00099	2	4	22	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
61-00129	2	3	28	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40
61-00514	2	4	22	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90

* : FDER permit number.

TABLE B-4: 1990 Monthly Public Water Supply Pumpage Reports

PUBLIC WATER SUPPLY REPORTS 1990 - PUMPAGE IN MILLION GALLONS PER MONTH															
SFWMD PERMIT #	LAY	ROW	COL	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
4300130	3	30	41	1.31	1.31	1.43	1.34	9.90	7.69	7.47	0.86	-	-	-	-
4300030	2	34	43	1.77	1.70	2.10	1.58	1.38	1.19	1.27	-	-	-	-	-
4300030	2	35	43	1.77	1.70	2.10	1.58	2.86	1.19	1.27	-	-	-	-	-
4300328	2	32	42	2.79	3.96	5.46	4.37	3.22	2.57	3.64	3.02	0.00	2.88	5.34	0.00
4300067	2	36	43	0.00	0.00	0.00	0.90	1.00	0.80	0.50	0.00	0.00	0.00	0.00	0.00
5600085	2	16	31	10.35	8.33	13.29	11.78	12.48	14.11	12.80	-	-	-	-	-
5600300	2	24	39	0.45	0.48	0.44	0.44	0.40	0.41	0.40	0.47	0.40	0.40	0.40	0.45
* 456-1954	2	26	39	2.21	2.45	2.63	1.96	1.47	1.47	1.68	1.62	1.26	1.70	1.83	2.43
* 456-5007	2	27	40	1.52	1.69	1.23	1.23	0.77	0.77	0.92	0.76	0.46	0.92	1.00	1.98
* 456-4001	2	26	40	1.19	1.07	1.27	1.14	0.84	0.65	0.70	0.78	0.79	1.24	1.03	1.07
4300362-1	2	10	34	3.67	3.84	4.33	3.90	3.65	3.15	3.12	-	-	-	-	-
6100089-1	2	1	28	41.46	41.46	41.46	41.46	41.46	41.46	41.46	41.46	-	-	-	-
6100089-2	2	1	27	41.46	41.46	41.46	41.46	41.46	41.46	41.46	41.46	-	-	-	-
6100089-3	2	2	28	38.00	38.00	38.00	38.00	38.00	38.00	38.00	38.00	-	-	-	-
6100089-4	2	2	28	3.45	3.45	3.45	3.45	3.45	3.45	3.45	3.45	-	-	-	-
6100093	2	3	24	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86	4.86
6100099	2	4	22	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
6100129	2	3	28	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40
6100514	2	4	22	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90	2.90

* : FDER permit number.

APPENDIX C
WATER USE PERMIT INFORMATION

APPENDIX C

INTRODUCTION

This appendix contains information on individual water use permits issued by the Water Use Division, Regulation Department, South Florida Water Management District. The one exception is the Indian River water use permits which were issued by the St. John's River Water Management District. The information on these spreadsheets was used to compile well withdrawal data used in this model.

Permits issued through January 1991 are included in this appendix. The information is organized into five spreadsheets. The five sections are organized by county. They are listed in the following order: St. Lucie, Martin, Okeechobee, Indian River and Osceola counties.

**APPENDIX C
WATER USE DATA
LIST OF SPREADSHEETS BY COUNTY**

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Osceola County	241

Key to the Codes

AN.ALL. = Annual Permitted Allocation
ALL.UNT. = Annual Allocation Units
 01 = MGD
 02 = MGM
 03 = MGY
 04 = AC-FT
MAXMO = Maximum Monthly Permitted Allocation
 01 = MGD
 02 = MGM
 03 = AC-FT
CO = County Code (from permit number)
DATE ISS = Date Permit Issued (mo/yr)
USE TYPE = AG,IND,GLF,PWS,COM,REC
SRC = Source (SW,GW, BOTH)
NO.WLS. = Number of ACTIVE permitted wells
SWPMPS = Number of Surface Water Pumps

DEVNO. = Development Number (for projected uses only)
AQ. = Aquifer
 01 = Water Table
 02 = Surficial (Semi-confined)
 03 = Lower Tamiami
 04 = Sandstone
 05 = mid-Hawthorn
 06 = lower Hawthorn
 07 = Suwannee
 08 = Floridan
 09 = Biscayne
CROP TYPE = Blaney-Criddle Code
 11 = Alfalfa
 12 = Avacado
 13 = Citrus
 14 = Grapes
 15 = Turf
 16 = Sugar Beet
 20 = Pasture
 51 = Dry Beans
 52 = Green Beans
 53 = Grain Corn
 54 = Silage Corn
 55 = Sweet Corn
 56 = Melons
 57 = Peas
 58 = Potato
 59 = Soybeans
 60 = Tomato
 61 = Small Vegetables
 5 or 70 = Nursery
RAINST = Rain Station Code Number
 1 = NAPLES
 2 = FT. MYERS
 3 = WEST PALM BEACH
 4 = STUART
 5 = FT. LAUDERDALE
 6 = KISSIMMEE
 7 = MELBOURNE
 8 = ORLANDO
 9 = TITUSVILLE
 10 = FELLSMERE
 11 = FT. PIERCE
 12 = OKEECHOBEE
 13 = AVON PARK
 14 = MOORE HAVEN
 15 = LABELLE
 16 = BELLE GLADE
 17 = LOXAHATCHEE
 18 = JUPITER
 21 = TAMIAMI 4
 22 = HOMESTEAD
 23 = POMPANO BEACH
 24 = INDIANTOWN
 25 = HYPOLUXO
 26 = BIG CYPRESS
 27 = EVERGLADES
 28 = HIALEAH
 29 = LAKE PLACID
 30 = MERRIT ISLAND
 31 = VERO BEACH

Key to the Codes (Continued)

LOS = Level of Service (leave blank)

STS = Status

- 01 = Existing
- 02 = Proposed
- 03 = Stand By/Backup
- 04 = To Be Plugged

DPTH CODE = Datum for Elevations

- 01 = NGVD
- 02 = Land Surface

EMPINT = Depth to Pump Intake (Wells Only)

PUMP TYPE

- 01 = Centrifical (suction)
- 02 = Lift (turbine, jet, submersible)
- 03 = Unknown

PUMP CAP. = Capacity in GPM (SW & GW Facilities)

- 01 = Unknown

MTR? = Is use Metered by Volume or Power
Consumption and Reported to the District?

- Y = Yes
- N = No

YPLNR = North Planar Coordinate

XPLNR = East Planar Coordinate

**St. Lucie County
Water Use Spreadsheets**

St. Lucie County

WATER USE SPREADSHEET ST. LUCIE COUNTY FLA.

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AN ALL.	ALL MAX UMT NO.	NO. UTS CO	DATE USE	SRCH. SW	ISS. TYPE	WLS. PMP5	OWNER	CD	PERMIT NO.	DEV NO.	AQTYPE	SOIL TYPE	ST	IRR ACRES	IRR EFF
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LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NUMBER	QUAD. NO.	WELL NO.	STSDIA.	CD	TD	CD	INT	TYP	CAP.	MTR?	XPLNR	YPLNR	SRC	AD	COMMENTS
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Surface water pumps assigned equifer code 5 for convenience of programming

5600001	615	03	171	02	56	12/74	REC.	BOT	5	3	SAVANNAH RECREATION AREA	56	02	15	.4	11	640	0.50
5600001-1	073	01	2.00	02	7	7	02	75	M	723910	1110607	GM	02	Cap. estimated				
5600001-2	073	01	2.00	02	7	7	02	75	M	723816	1111212	GM	02	"				
5600001-3	073	01	2.00	02	7	7	02	75	M	723042	1111617	GM	02	"				
5600001-4	073	04	6.00	02	7	7	FLO	250	M	723635	1111413	GM	08	PLUGGED, WAS POT. RUN WELL				
5600001-5	073	04	6.00	02	7	7	FLO	250	M	723038	1112425	GM	08	PLUGGED				
5600001-1P	073	02	14.00	01				10000	Y	705100	1139994	SW	5	THREE SW PUMPS ROUTE WATER				
5600001-2P	073	01	14.00	01			2.7	01	7500	M	703922	1123629	SW	5	FROM C-25 THROUGH FEEDER			
5600001-3P	073	01	24.00	01			10.50	01	17000	M	719794	1121990	SW	5	CANALS TO REC. AREA			
5600004	156.38	03	57.56	02	56	9/87	AG	BOT	1	2	Alberta Hayes	56	8	13	1.5	11	200	0.50
5600004-1	083	01	6.00	02	1000	6	non	250	M	672609	1088025	GM	08	Cap estim.				
5600004-A	083	01	36.00	01	SURF.			C-2403	10,000	M	673940	1090321	SW	5	C-24			
5600004-B	083	01	24.00	01	SURF.			C-2403	10,000	M	675909	1087043	SW	5	C-24 CANAL SOURCE			
5600005	40	03	0.65	01	56	2/85	IND.	BOT	4	1	TROPICANA PRODUCTS, INC.	56	2					
5600005-W1	072	01	6.00	02	87	78	65	02	100	Y	697616	1106731	GM	02	FRUIT PROCESSING PLANT			
5600005-W2	072	01	6.00	02	87	78	65	02	100	Y	697485	1106946	GM	02				
5600005-W3	072	01	6.00	02	87	78	65	02	100	Y	697429	1107258	GM	02				
5600005-W4	072	01	6.00	02	76	46	65	02	150	Y	696650	1107081	GM	02				
5600005-C	072	04	36.00	02	SURF			POND	M	698074	1106925	SW	5	S.M.emrg.fire ONSITE PONDS				
5600006	846.82	03	311.68	02	56	2/88	AG	BOT	2	3	UNITED GROVES, INC.	56	08	13	1.5	11	1083	.5
5600006-1	071	01	12.00	02	1100	180		1835	M	651692	1143232	GM	08					
5600006-2	071	01	10.00	02	1100	180		1700	M	651759	1147303	GM	08	CASING DEPTH APPROX. 180' S.M.				
5600006-1	071	01	24.00	02				18,000	SW	653656	1140568	SW	5	FROM C-25 CANAL				
5600006-2	071	01	24.00	02				18,000	SW	653656	1140568	SW	5	C-25				
5600006-3	071	01	24.00	02				8,000	SW	656022	1146298	SW	5	C-25				
5600008	69.45	03	25.56	02	56	12/87	AG	BOT	3	1	GEORGE HAMNER, SR.	56	08	13	.8	11	151	.85
5600008-1	072	01	6.00	02	845	400	01	310	M	674379	1139227	GM	08	SURF. WATER FROM C-44 M.ST. LUCIE RIVER				
5600008-2	072	01	6.00	02	812	400	01	316	M	674304	1137926	GM	08	WATER CONTROL DIST.				

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AM.	ALL.	UNT NO.	MAX MO.	DATE	USE	SRCNO.	SV	CO	PERMIT NO.	DEV NO.	AGTYPE	SOIL TYPE	RAIN ST	IRR ACRES	IRR EFF

LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NUMBER	QUAD.	WELL	DEPTH	PMP	PUM	AG BOT	1/80	56	1/80	AG BOT	11	1	EVANS PROPERTIES, INC.	AG	COMMENTS
5600025	376.39	03	138-53	02	56	1/80	AG BOT	11	1	EVANS PROPERTIES, INC.	AG	COMMENTS				
		082 01	4.00	02	840	225		50	M	656171	1090575	GM	0			
		082 02	12	02	800	320		1200	N	656141	1089135	GM	0			
		082 02	12	02	800	320		1200	N	656190	1087216	GM	0			
		082 02	12	02	800	320		1200	N	656170	1086144	GM	0			
		082 02	12	02	800	320		1200	N	656159	1084849	GM	0			
		082 02	12	02	800	320		1200	N	656211	1083451	GM	0			
		082 02	12	02	800	320		1200	N	656099	1082109	GM	0			
		082 02	12	02	800	320		1200	N	653708	1086180	GM	0			
		082 02	12	02	800	320		1200	N	653766	1084691	GM	0			
		082 02	12	02	800	320		1200	N	653824	1083401	GM	0			
		082 02	12	02	800	320		1200	N	653804	1082108	GM	0			
		082 01						30,000	M	657674	1091959	SM	0			

PERMIT NO.	FACILITY NUMBER	QUAD.	WELL	DEPTH	PMP	PUM	AG BOT	11	1	EVANS PROPERTIES, INC.	AG	COMMENTS	
5600026	231.8	03	85-32	02	56	11/87	AG BOT	2	6	ORANGE-CO OF FLA., INC.	AG	COMMENTS	
		094 01	10	02	1300	360		1100	M	648309	1047263	GM	0
		094 01	10	02	1300	360		1100	M	647948	1050891	GM	0
		094 01	30					20,000	M	647258	1044499	SM	5
		094 02	10					2,000	M	647569	1044722	SM	5
		094 01	4.00					800	M	649278	1046822	SM	5
		094 01	4.00					1,000	M	649145	1049335	SM	5
		094 01	25					800	M	649110	1052275	SM	5
		094 01	25					800	M	649060	1054624	SM	5

PERMIT NO.	FACILITY NUMBER	QUAD.	WELL	DEPTH	PMP	PUM	AG BOT	56	1/80	AG BOT	08	13	.8	12	818.3	.85
5600027	10,972	03	2671	02	56	2/89	AG	37	6	ADAMS RANCH, INC.	AG	COMMENTS				
		071 01	12	02	1000			1200	M	645861	1129567	GM	0			
		071 01	12	02				1200	M	644775	1127662	GM	0			
		070 01	8.00	02				200	M	619097	1130903	GM	0			
		071 01	8.00	02				200	M	624971	1129685	GM	0			
		071 01	6.00	02				150	M	624971	1129685	GM	0			
		071 01	6.00	02				200	M	631771	1131445	GM	0			
		071 01	10	02	1100			1900	M	631728	1130159	GM	0			
		071 01	8.00	02				200	M	629186	1131097	GM	0			
		071 01	8.00	02				300	M	634396	1130694	GM	0			
		071 01	8.00	02				300	M	635520	1139789	GM	0			
		071 01	10	02				1900	M	634962	1127903	GM	0			

Account No.	Code	Rate	Unit	Quantity	Value	Notes
5600027-12	071 01	8.00	02	1200		
5600027-13	071 01	8.00	02			
5600027-14	070 01	12	02	800		
5600027-15	071 01	8.00	02			
5600027-16	071 01	6.00	02			
5600027-17	071 01	6.00	02			
5600027-18	071 01	8.00	02			
5600027-19	071 01	8.00	02			
5600027-20	071 01	6.00	02			
5600027-21	071 01	10	02			
5600027-22	071 01	8.00	02			
5600027-23	071 01	8.00	02			
5600027-24	071 01	10	02			
5600027-25	070 01	6.00	02	800		
5600027-26	070 01	6.00	02	800		
5600027-27	070 01	6.00	02	800		
5600027-28	070 01	6.00	02	800		
5600027-29	070 01	6.00	02	800		
5600027-30	070 01	6.00	02	800		
5600027-31	070 01	6.00	02	800		
5600027-32	070 01	6.00	02	800		
5600027-33	071 01	6.00	02	800		
5600027-34	071 01	6.00	02	800		
5600027-35	071 01	6.00	02	800		
5600027-36	071 01	6.00	02	800		
5600027-37	071 01	8.00	02			
5600027-P1	071 01			02 12,000 M		
5600027-P2	071 01			02 30,000 M		
5600027-P3	071 01			02 20,000 M		
5600027-P4	071 01	36		02 30,000 M		
5600027-P5	071 01	36		02 2402 12,000 M		
5600027-P6	071 02			02 23,000 M		
5600030	59.3	51.8	02	56 10/87	AG SU	0 1
5600030-P		24.00				12,000 M
5600031	439	47	02	56 10/78	AG BOT	2 1
5600031-1	072 01	6.00	02			200 M
5600031-2	072 01	8.00	02			712 M
5600031-3	072 01	12.00				3,000 M
5600032	33.5	6.00	02	56 10/78	AG BOT	1 1
5600032-1	071 01			900		100 M
5600032-1S	071 01					400 M
5600033	435.6	36.30	02	56 1/88	AG GW	3 0
5600033-1	070 01	6.00	02	800		40
5600033-2	070 01	8.00	02	1100		350
5600033-3	070 01	10.00	02	100	80 80 02	450

5 CANAL, PUMP P-6 LOC. IS GUESS

5 BODY C-23 CANAL S.W. ONLY

5 C-25 CANAL SURFACE WATER BODY

8 PERMIT SAYS 400GPM APPLIC. HAS 75+- GPM

BERNARD EGAN

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AM.	ALL.	ALL MAX.	MO.	DATE USE	SRCMO.	SN	UNT.	MO.	UTS	CD	ISS.	TYPE	MLS.	PPMS	OWNER	CO	PERMIT NO.	DEV NO.	ADTYPE	TYPE	ST	RAIN	IRR	ACRES	EFF
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LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NUMBER	QUAD.	WELL NO.	STDA.	CD	TO	CD	INT	TYP	CAP.	NTR?	XPLMR	YPLMR	SRC	AG	COMMENTS
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5600034	5600034-1	25.76	03	08.00	02	56	12/87	AG	GM	3	0	JOHN T. MOOSE						08	13	1.5	11	56	.85		
	5600034-2		083 01	6.00	02	1300	300	M		250	M	686398.	1078432	GM	08	Cap. Estimated.									
	5600034-3		083 01	6.00	02	1260	300	M		400	M	687906.	1080110	GM	08										
			083 01	6.00	02	90	80	80	02			687287.	1078741	GM	02										
5600035	901.97		02	901.97	02	56	7/87	AG	80T	15	10	GREEN WATER MANAGEMENT, INC.						08	13	1.5	11	56	.85		
	5600035-1		060 01	8.00	02	920	230			920	M	634600	1155200	GM	08										
	5600035-2		060 01	8.00	02	900	230			900	M	634000	1156800	GM	08										
	5600035-3		060 01	8.00	02	900	230			900	M	632400	1158200	GM	08										
	5600035-4		060 01	8.00	02	880	240			950	M	630700	1159600	GM	08										
	5600035-5		060 01	8.00	02	900	230			900	M	629800	1162600	GM	08										
	5600035-6		060 01	8.00	02	960	230			900	M	634600	1159200	GM	08										
	5600035-7		060 01	8.00	02	920	230			500	M	632400	1162400	GM	08										
	5600035-8		060 01	8.00	02	960	250			950	M	631600	1164600	GM	08										
	5600035-9		060 01	8.00	02	900	230			950	M	635000	1164000	GM	08										
	5600035-10		060 01	8.00	02	900	230			400	M	636100	1166000	GM	08										
	5600035-11		060 01	8.00	02	900	230			900	M	633800	1166800	GM	08										
	5600035-12		060 01	8.00	02	900	240			900	M	629800	1166800	GM	08										
	5600035-13		060 01	8.00	02	940	230			850	M	632400	1170000	GM	08										
	5600035-14		060 01	8.00	02	960	230			950	M	632200	1172000	GM	08										
	5600035-15		060 02	8.00	02	940	230			900	Y	634000	1161400	GM	08										
	5600035-101		060 01	36.00						25000	M	636000	1151400	SW	5										
	5600035-102		060 01	20.00						02	10000	M	631200	1157600	SW	5									
	5600035-103		060 01	24.00						02	15000	M	630600	1158000	SW	5									
	5600035-104		060 01	20.00						02	10000	M	630800	1159200	SW	5									
	5600035-105		060 01	36.00						02	25000	M	627800	1172000	SW	5									
	5600035-106		060 01	24.00						02	15000	M	627800	1172000	SW	5									
	5600035-1P		060 02	16.00						02	7200	M	632750	1159250	SW	5									
	5600035-2P		060 02	16.00						02	7200	M	629625	1157750	SW	5									
	5600035-3P		060 02	12.00						02	5200	M	632750	1161500	SW	5									
	5600035-4P		060 02	12.00						02	5200	M	630875	1163750	SW	5									
5600036	508.25		3	187	02	56	5/88	AG	80T	2	3	MABEL CORP						56	5600036	08	13	.8	4	1105	.85
	5600036-1		095 01	12.00	02	1280	365	FLOW.01		1100	M	665915.	1046855	GM	08										
	5600036-2		095 01	12.00	02	1220	327	FLOW.01		1100	M	665847.	1052110	GM	08										
	5600036-A		095 01	36.00				FLOW.02		28000	M	665946.	1044714	SW	5										

5600036-A	095 01	36.00	02	28000 M	665946. 1044714 SW 5		08	13	1.5	11	69	.5
5600036-A	095 01	24.00	02	10000 M	665946. 1044714 SW 5							
5600037	53.95	53.95 02	56	6/87	AG BOT	ERNEST DUNN						
5600037-1	083 01	5.00 02	250 M			667102. 1094162 GM 08						
5600037-2	083 01	5.00 02	250 M			667118. 1093546 GM 08						
5600037-3	083 01	5.00 02	250 M			667081. 1092941 GM 08						
5600037-4	083 01	22.00			BOX PUM	670330. 1092183 SW 5						
5600038	134	.528 01	56	4/86	bot	GENERAL DEVLPT. CORP						
	04											
5600039	02.79	30.47 02	56	7/87	AG BOT	BARNETT GREEN, JR.						
5600039-1	071 01	10.00 02	920	250		641889. 1134640 GM 08						
5600039-A	071 01	24.00			C-2502	10,000 M						
5600040	1401.98	516 02	56	9/87	AG BOT	ALLAPATTAH OPERATING CO.						
5600040-1	082 01	12.00 02	1240	340	FLOW	644681 1076194 GM 08						
5600040-2	082 01	12.00 02	1240	340		647263 1075459 GM 08						
5600040-3	082 01	12.00 02	1240	340		647180 1080767 GM 08						
5600040-4	082 01	12.00 02	1240	340		644597 1070736 GM 08						
5600040-5	082 01	12.00 02	1240	340		647257 1068024 GM 08						
5600040-6	082 01	12.00 02	1240	340		644655 1068085 GM 08						
5600040-1	082 02	12.00 02	1300	400		649868 1075968 GM 08						
5600040-2	082 02	12.00 02	1300	400		649737 1070952 GM 08						
5600040-3	082 02	12.00 02	1300	400		642093 1070627 GM 08						
5600040-4	082 02	12.00 02	1300	400		642001. 1066577 GM 08						
5600040-1	082 01	12.00 02				644475. 1076231 SW 5						
5600040-2	082 01	12.00 02				25000 M						
5600040-3	082 01	12.00 02				645808. 1076305 SW 5						
5600040-4	082 01	12.00 02				646093. 1076306 SW 5						
5600040-5	082 01	36.00			HYDRA	646823. 1076254 SW 5						
5600040-9	082 01	36.00			FLOW	642701. 1076206 SW 5						
5600040-5	082 01	28.00				645326. 1076300 SW 5						
5600041	450.22	138.77 02	56	11/87	AG BOT	RU-MAR, INC.						
5600041-1	094 01	8.00 02	1030	374	FLOW	646424. 1048431 GM 08						
5600041-P	094 01	46.00			C-2302	28000 M						
5600042	342.81	59.02 02	56	9/87	AG GW	JACQUELYN CARLTON						
5600042-1	082 01	6.00 02	900	200	FLOW	633790. 1089380 GM 08						
5600043	1091	244.45 02	56	9/76	AG GW	EMERALD RANCH, INC.						
5600043-1	70 01	8.00 02	1200	400	FLOW	617977 1146511 GM 08						
5600043-2	71 01	8.00 02	1200	400	FLOW	622467 1150563 GM 08						
5600043-3	70 01	8.00 02	1200	400	FLOW	620854 1148034 GM 08						
5600043-4	70 01	6.00 02	800	300	FLOW	617708 1145702 GM 08						
5600043-5	70 01	6.00 02	800	300	FLOW	621222 1145309 GM 08						
5600043-6	70 01	8.00 02	1200	400	FLOW	620605 1140864 GM 08						
5600043-7	70 01	6.00 02	800	300	FLOW	617460 1138431 GM 08						
5600043-8	70 01	6.00 02	800	300	FLOW	615571 1137416 GM 08						
5600043-9	70 01	8.00 02	1200	400	FLOW	621151 1138947 GM 08						
5600043-10	71 01	8.00 02	1200	400	FLOW	623583 1138954 GM 08						

DEWATERING-MINING OP.

GENERAL DEVLPT. CORP

GERMANY
CANAL SOURCE
FOR SURFACE WATER

Cap. estimated
C-23

WELL USED ONLY TO WATER 32 HEAD CATTLE

Cap. estimated

5600060	469.15	03	172.67 02	56	7/88	AG BOT	2 4	JOHN H. BIRDSALL	08	13	1.5	11	1020	.85	
5600060-1		071 01	10.00 02	900	275	FLOW	1300 M	644324, 1134518 GM 08							
5600060-2		071 01	6.00	800	275		1300 M	644310, 1134145 GM 08							
5600060-3		071 01	36.00				15000 M	646764, 1136714 SU 5							
5600060-4		071 01	36.00				10000 M	646698, 1139286 SU 5							
5600060-5		071 01	36.00				15000 M	646751, 1141793 SU 5							
5600060-6		071 01	36.00				32000 M	644322, 1145053 SU 5							
5600062	237.7	03	87.49 02	56	10/87	AG BOT	4 1	SEXTON GROVE SERVICE, INC							
5600062-1		082 01	6.00 02	890	275	FLOW	250 M	640645, 1081050 GM 08		08	13	3.6	11	320	.5
5600062-2		082 01	5.00 02	815	270	FLOW	250 M	640667, 1079701 GM 08							
5600062-3		082 01	5.00 02	850	265	FLOW	250 M	640374, 1077729 GM 08							
5600062-4		082 01	8.00 02	975	285	FLOW	575 M	640877, 1077040 GM 08							
5600062-5		082 01	24.00			P.T.O.	20000 M	640723, 1076500 SU 5							
5600063	82.1	03	32.22 02	56	1/88	AG SU	0 1	BERNARD EGAN							
5600063-1		083 01	24.00			CON	9000 M	671233, 1091745 SU 5		08	13	1.5	11	105	.5
5600064	31.28	03	11.51 02	56	8/87	AG SU	0 1	BERTA C. HAYES GROVE							
5600064-A		083 01	24.00			COUCH	10000 M	673867, 1089268 SU 5		08	13	.8	4	600	.85
5600065	275.97	03	101.57 02	56	11/87	AG BOT	3 1	ROBERT BADENHOP CORP.							
5600065-1		095 01	6.00 02	950	445	FLOW	200	671452, 1051917 GM 08		08	13	.8	4	600	.85
5600065-2		095 01	6.00 02	950	445		200	671463, 1049482 GM 08							
5600065-3		095 01	6.00 02	950	445		200	672548, 1049228 GM 08							
5600065-PUMP		095 01	22.00				16000	673597, 1044583 SU 5							
5600066	1260	03 104	8.00 02	56	3/77	AG GM	4 0	RU-MAR, INC.							
5600066-1		081 02	8.00 02			FLOW	600	617229 1093697 GM 08		08	20	.8	11	3300	.5
5600066-2		081 02	8.00 02			FLOW	600	619312 1090674 GM 08							
5600066-3		081 02	8.00 02			FLOW	600	619327 1085524 GM 08							
5600066-4		081 02	8.00 02			FLOW	600	619342 1080576 GM 08							
5600067	221.7	03	74.83 02	56	1/88	AG BOT	1 1	GOLDEN GROVES							
5600067-1		082 01	10.00 02				850	638610, 1082970 GM 08		08	13	1.5	11	260	.5
5600067-2		082 01	36.00				18000	636687, 1082986 SU 5		08	13	1.5	11	40	.85
5600068	62.09	03	22.85 02	56	3/77	AG GM	3 0	EDSALL GROVES, INC.							
5600068-1		082 01	8.00 02	1500	325	FLOW	1300	640518, 1092897 GM 08		08	13	1.5	11	135	.85
5600068-2		082 01	8.00 02	1500	331	FLOW	1300	640513, 1094210 GM 08							
5600068-3		082 01	5.00 02	900	340	FLOW	175	639404, 1094758 GM 08							
5600069	1533.43	03	309.67 02	56	3/77	AG GM	7 0	STARK, WILLIAM D.							
5600069-1		083 01	8.00 02	1000		FLOW	650	665335 1083767 GM 08		08	20	.8	11	1620	.5
5600069-2		083 01	4.00 02	450		FLOW	90	667155 1079836 GM 08							
5600069-3		083 01	8.00 02	1000		FLOW	760	664450 1079522 GM 08							
5600069-4		082 01	4.00 02	450		FLOW	15	660837 1080219 GM 08							
5600069-5		082 01	8.00 02	1000		FLOW	610	661458 1076746 GM 08							
5600069-6		082 01	4.00 02	450		FLOW	20	660743 1075027 GM 08							
5600069-7		082 01	8.00 02	1000		FLOW	813	661383 1073009 GM 08							

C-25

Cap. estimated

C-23

C-24

C-23

Cap. estimated

C-23

5600075-C 375.3 03 658978. 1160144 GM 08 4 PUMPS FOR DRAINAGE ONLY (ONEWAY), " " 02 13 .8 11 288 .5
 5600076 082 01 150.13 02 55 N/A 01 6 2 McINTIHR FARMS, INC. (GROVE #3) 02 13 .8 11 288 .75

5600076-1	082 01	6.00 02 55	56 11/88	AG BOT	6 2	659320. 1082197 GM 02						
5600076-2	082 01	6.00 02 55	N/A	01	280 M	659292. 1083533 GM 02						
5600076-3	082 01	6.00 02 55	N/A	01	280 M	659290. 1086905 GM 02						
5600076-4	082 01	6.00 02 55	N/A	01	280 M	659260. 1086172 GM 02						
5600076-5	082 01	6.00 02 55	N/A	01	280 M	659175. 1088785 GM 02						
5600076-6	082 02	12.00 02 1400	400	01	2000 M	658986. 1081626 GM 02						
5600076-1	082 01	36.00			21000 M	658024. 1092032 SW 5						C-24
5600076-2	082 01	36.00			21000 M	660277. 1092048 SW 5						C-24

5600077	1282.35	03	471.98 02 56	4/77	AG BOT	2 9	ALLAPATTAH WATER MANAGEMENT						
5600077-1	082 01	8.00 02 1500	340	FLOW	575 M	651256 1062096 GM 08	Cap est.						
5600077-12	082 01	5.00 02 ?	?	FLOW	250 M	642504 1060762 GM 08	"						
5600077-35	082 01	01			14 01	27000 M	651080 1060487 SW 5						
5600077-58	082 01	01			16 01	10000 M	649004 1060479 SW 5						
5600077-65	082 01	01			14 01	26000 M	648643 1060478 SW 5						
5600077-88	082 01	01			14 01	15000 M	647199 1060473 SW 5						
5600077-105	082 01	01			14 01	15000 M	644582 1060463 SW 5						
5600077-135	082 01	01			14 01	15000 M	641964 1060454 SW 5						
5600077-155	082 01	01			14 01	15000 M	639076 1060444 SW 5						
5600077-165	082 01	01			14 01	10000 M	636820 1060437 SW 5						
5600077-175	082 01	01			14 01	15000 M	636808 1063971 SW 5						

5600078	250.21	03	92.09 02 56	5/87	AG BOT	2 1	S. N. KNIGHT & SONS, INC. (JO-GROVE)						
5600078-1	082 01	12.00 02 1330	300	FLOW	1600 M	649384. 1079067 GM 08							
5600078-2	082 01	10.00 02 1330	300	FLOW	1200 M	647474. 1079121 GM 08							
5600078-1	082 01	24.00			18000 M	649792. 1076671 SW 5							C-23

5600079	758.5	03	279.02 02 56	7/87	AG BOT	5 5	BRAD-RICH GROVES, INC.						
5600079-1	082 01	5.00 02 800	400	FLOW	250 M	650057. 1065549 GM 08	Cap. estimated						
5600079-2	082 01	12.00 02 1285	300		1100 M	652222. 1069442 GM 08	"						
5600079-3	082 01	12.00 02 1330	305		1100 M	650138. 1072498 GM 08	"						
5600079-4	082 01	12.00 02 1300	360		1100 M	652332. 1076092 GM 08	"						
5600079-5	082 01	5.00 02 800	300		250 M	650191. 1079540 GM 08	"						
5600079-1	082 01	23.00			10000 M	652221. 1070228 SW 5							C-23
5600079-2	082 01	28.00			15500 M	650552. 1070990 SW 5							C-23
5600079-3	082 01	28.00			15500 M	650360. 1079047 SW 5							C-23
5600079-4	082 01	23.00			10000 M	650282. 1076174 SW 5							C-23
5600079-5	082 01	28.00			15500 M	650259. 1078551 SW 5							C-23

5600080	137.99	03	50.79 02 3/88	AG BOTH	4 1	MYERS GROVES, INC. (CITRUS GROVE)							
5600080-1	082 01	8.00 02 1000	300		1000 M	637876. 1077023 GM 08							
5600080-2	082 01	8.00 02 1000	300		1000 M	636971. 1079221 GM 08							
5600080-3	082 01	8.00 02 1000	300		1000 M	638196. 1081583 GM 08							
5600080-4	082 01	12.00 02 1000	300		2500 M	637850. 1079110 GM 08							
5600080-5	082 01	30.00			10000 M	636872. 1079073 SW 5							C-23

5600082	1591.9	03	270.52 02 56	2/88	AG BOT	13 0	D. L. SCOTT/MESCOTT GROVES, INC.						
5600082			192.06 02										

5600075-C	375.3	03	658978. 1160144 GM 08 4 PUMPS FOR DRAINAGE ONLY (ONEWAY), " " 02 13 .8 11 288 .5					
5600076	082 01	150.13 02 55	N/A	01	6 2	McINTIHR FARMS, INC. (GROVE #3)	02 13 .8 11 288 .75	
5600077	1282.35	03	471.98 02 56	4/77	AG BOT	2 9	ALLAPATTAH WATER MANAGEMENT	
5600078	250.21	03	92.09 02 56	5/87	AG BOT	2 1	S. N. KNIGHT & SONS, INC. (JO-GROVE)	
5600079	758.5	03	279.02 02 56	7/87	AG BOT	5 5	BRAD-RICH GROVES, INC.	
5600080	137.99	03	50.79 02 3/88	AG BOTH	4 1	MYERS GROVES, INC. (CITRUS GROVE)		
5600082	1591.9	03	270.52 02 56	2/88	AG BOT	13 0	D. L. SCOTT/MESCOTT GROVES, INC.	

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AN.	ALL.	MAX.	MO.	DATE	USE	SRCMO.	SU	CD	PERMIT NO.	DEV MO.	AGTYPE	TYPE	ST	IRR	IRR
		UNT	NO.	UTS	CO	ISS.	TYPE	MLS.	PHPS	OWNER					ACRES	EFF

LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NUMBER	QUAD.	WELL	DPTH	CD	INT	TYP	CAP.	MTR?	XPLMR	YPLMR	SRC	AG	COMMENTS
		NO.	STSDIA.		TD									

5600082-1	070 01	6.00	02	M/A	M/A	FLOW				121 M	609822.	1128749	GM	08			
5600082-2	070 01	6.00	02	M/A	M/A	FLOW				121 M	612271.	1120658	GM	08			
5600082-3	070 01	6.00	02	M/A	M/A	FLOW				121 M	614194.	1118795	GM	08			
5600082-4	070 01	4.00	02	M/A	M/A	FLOW				53 M	616815.	1118795	GM	08			
5600082-5	070 01	4.00	02	M/A	M/A	FLOW				53 M	615946.	1121142	GM	08			
5600082-6	070 01	6.00	02	M/A	M/A	FLOW				121 M	616127.	1129552	GM	08			
5600082-7	070 01	4.00	02	M/A	M/A	FLOW				53 M	616541.	1123761	GM	08			
5600082-8	070 01	6.00	02	M/A	M/A	FLOW				53 M	612470.	1126198	GM	08			
5600082-9	070 01	4.00	02	M/A	M/A	FLOW				121 M	616390.	1120149	GM	08			
5600082-10	070 01	6.00	02	M/A	M/A	FLOW				121 M	614084.	1120872	GM	08			
5600082-11	070 01	6.00	02	M/A	M/A	FLOW				121 M	612689.	1123363	GM	08			
5600082-12	070 01	4.00	02	M/A	M/A	FLOW				53 M	614762.	1126445	GM	08			
5600082-13	070 01	12.00	02	M/A	M/A	FLOW				53 M	612749.	1122639	GM	08			
5600083	638.45	03	122.23	02	56	--	AG	GM		4 0	B.E. ALDERMAN RANCH, INC						
5600083-1	070 01	6.00	02	UNK.	UNK.	FLOW				250 M	602108.	1144557	GM	08	Cap.	est.	
5600083-2	070 01	6.00	02	UNK.	UNK.	FLOW				250 M	599219.	1150113	GM	08	"	"	
5600083-3	059 01	6.00	02	UNK.	UNK.	FLOW				250 M	599887.	1153764	GM	08	"	"	
5600083-4	059 01	6.00	02	UNK.	UNK.	FLOW				250 M	595727.	1154275	GM	08	"	"	
5600084	943.5	03	169.3	02	56	6/77	AG	BOT		16 6	STRAZULLA BROTHERS, INC.						
5600084-1	061 01	6.00	02	740	440	FLOW				100 M	670754.	1167199	GM	08			
5600084-2	061 01	4.00	02	750	450	FLOW				60 M	671298.	1166394	GM	08			
5600084-3	061 01	6.00	02	750	450	FLOW				60 M	671219.	1163667	GM	08			
5600084-4	061 01	6.00	02	800	440	0 01				140 M	671057.	1159627	GM	08			
5600084-5	061 01	6.00	02	800	440	FLOW				200 M	666750.	1149463	GM	08			
5600084-6	061 01	6.00	02	800	440	FLOW				200 M	666756.	1154661	GM	08			
5600084-7	061 01	6.00	02	800	440	FLOW				100 M	665032.	1157885	GM	08			
5600084-8	061 03	5.00	02	700	500	FLOW				90 M	667272.	1160520	GM	08			
5600084-9	061 03	8.00	02	900	900	FLOW				200 M	667431.	1165368	GM	08			
5600084-10	061 03	8.00	02	900	900	FLOW				150 M	666889.	1165870	GM	08			
5600084-11	061 03	5.00	02	700	500	FLOW				60 M	662650.	1167872	GM	08			
5600084-12	061 03	6.00	02	700	500	FLOW				200 M	660935.	1171978	GM	08			
5600084-13	061 01	12.00	02	850	500	FLOW				1100 M	660935.	1171978	GM	08			
5600084-14	060 01	6.00	02	700	500	FLOW											
5600084-PH1	7 02																

YARD IRRIGATION ONLY.

FROM HERE DOWN PLUMAR, Cap & Loc. estimated

56000085-P42	7 02	12.00 02	850	500 FLOW	1100 M	660935	1171978 GM	08	COORDINATES SUPPLIED ON PERMIT, ""
56000084-P43	7 02	12.00 02	850	500 FLOW	1100 M	660935	1171978 GM	08	NOT PLOTTED DIRECTLY ON MAP, ""
56000084-P44	7 02	12.00 02	850	500 FLOW	1100 M	660935	1171978 GM	08	Loc & cap, estimated
56000084-1S1	7 02	01		20 01	3000	660935	1171978 SM	5	FROM ONSITE RESERVOIR #1
56000084-1S2	7 02	01		20 01	3000	660935	1171978 SM	5	"
56000084-1S3	7 02	01		20 01	3000	660935	1171978 SM	5	All supplied coords. Plotted
56000084-1S4	7 02	01		20 01	3000	660935	1171978 SM	5	WRONG! locations COPIED FROM ABOVE FACILITIES.
56000084-1S5	7 02	01		20 01	3000	660935	1171978 SM	5	"
56000084-1S6	7 02	01		20 01	3000	660935	1171978 SM	5	"
56000085	4544	17.18 01	56	11/85 PMS GM	43 0	FT. PIERCE UTILITIES	AUTHORITY		
56000085-W1	073 01	10.00 02	92	45 N/A 02	350 Y	710326	1130034 GM 02		PMS
56000085-W2	073 01	10.00 02	114	49 N/A 02	350 Y	710377	1130487 GM 02		
56000085-W3	073 01	10.00 02	114	59 N/A 02	350 Y	710366	1131064 GM 02		
56000085-W4	073 01	10.00 02	110	56 N/A 02	350 Y	710305	1131503 GM 02		
56000085-W5	073 01	10.00 02	113	65	350 Y	710333	1132120 GM 02		
56000085-W6	073 01	10.00 02	113	65 N/A 02	350 Y	710348	1132809 GM 02		
56000085-W7	073 01	10.00 02	113	72 N/A 02	350 Y	710326	1130034 GM 02		
56000085-W8A	073 04	----	02	---	350 Y	710271	1133130 GM 02		
56000085-W9	073 01	10.00 02	129	70 N/A 02	350 Y	710456	1133477 GM 02		
56000085-W10	073 01	10.00 02	114	68 N/A 02	350 Y	710247	1133970 GM 02		
56000085-W11	073 01	10.00 02	100	54 N/A 02	350 Y	710276	1134770 GM 02		
56000085-W12	073 01	10.00 02	106	54 N/A 02	350 Y	710251	1135148 GM 02		
56000085-W13	073 01	10.00 02	110	60 N/A 02	350 Y	710281	1136112 GM 02		
56000085-W14	073 01	10.00 02	101	57 N/A 02	350 Y	710295	1136384 GM 02		
56000085-W15	073 01	16.00 02	105	53 N/A 02	700 Y	710159	1137073 GM 02		
56000085-W16	073 01	16.00 02	105	52 N/A 02	700 Y	711634	1139771 GM 02		
56000085-W17	073 01	16.00 02	105	52 N/A 02	700 Y	711231	1139756 GM 02		
56000085-W18	073 01	16.00 02	110	65 N/A 02	700 Y	710795	1139790 GM 02		
56000085-W19	073 01	16.00 02	110	62 N/A 02	550 Y	710339	1139801 GM 02		
56000085-W20	073 01	10.00 02	110	55 N/A 02	350 Y	709929	1139786 GM 02		
56000085-W21	073 01	10.00 02	110	50 N/A 02	350 Y	709427	1139795 GM 02		
56000085-W22	073 01	10.00 02	114	49 N/A 02	350 Y	708935	1139796 GM 02		
56000085-W23	073 01	10.00 02	111	61 N/A 02	350 Y	710409	1129266 GM 02		
56000085-W24	073 01	12.00 02	97	60 N/A 02	300 Y	710024	1129822 GM 02		
56000085-W25	073 01	16.00 02	105	65 N/A 02	200 Y	710841	1125864 GM 02		
56000085-W26	073 01	16.00 02	105	65 N/A 02	200 Y	711368	1125859 GM 02		
56000085-W27	073 01	16.00 02	105	65 N/A 02	300 Y	711963	1125922 GM 02		
56000085-W28	073 01	16.00 02	105	65 N/A 02	600 Y	712193	1125049 GM 02		
56000085-W29	073 01	16.00 02	105	65 N/A 02	325 Y	713593	1125917 GM 02		
56000085-W30	073 01	16.00 02	105	65 N/A 02	200 Y	713299	1125300 GM 02		
56000085-W31	073 01	16.00 02	105	65 N/A 02	400 Y	713301	1124832 GM 02		
56000085-W32	073 01	16.00 02	105	65 N/A 02	300 Y	713233	1124318 GM 02		
56000085-W33	073 01	16.00 02	105	65 N/A 02	450 Y	713837	1124348 GM 02		
56000085-W34	073 01	16.00 02	105	65 N/A 02	325 Y	714211	1124360 GM 02		
56000085-W35	073 01	16.00 02	105	65 N/A 02	500 Y	714775	1124404 GM 02		
56000085-W36	073 01	16.00 02	105	65 50 02	350 Y	712050	1125420 GM 02		
56000085-W37	073 02	10.00 02	105	65 50 02	350 Y	714067	1125617 GM 02		
56000085-W38	073 01	10.00 02	105	70 50 02	350 Y	714418	1125622 GM 02		
56000085-W39	073 01	10.00 02	105	70 50 02	350 Y	709538	1130542 GM 02		
56000085-W40	073 01	10.00 02	105	70 50 02	350 Y	709820	1130567 GM 02		

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5600090-1	72 01	8.00 02 924	150 FLOWING	575 M	674333. 1169938	GM 08 CAP. ESTIMATED
5600090-2	61 01	4.00 02 700	150 FLOWING	100 M	675740. 1169927	GM 08 "
5600090-3	61 01	8.00 02 1100	150 FLOWING	575 M	677658. 1169891	GM 08 "
5600090-4	61 01	8.00 02 1100	150 FLOWING	575 M	674148. 1167174	GM 08 "
5600090-5	61 01	8.00 02 700	150 FLOWING	575 M	675752. 1167192	GM 08 "
5600090-6	61 01	8.00 02 1004	150 FLOWING	575 M	676923. 1167133	GM 08 "
5600090-7	61 01	8.00 02 1100	150 FLOWING	575 M	678225. 1167120	GM 08 "
5600090-8	61 01	8.00 02 1166	150 FLOWING	575 M	673762. 1164159	GM 08 "
5600090-9	61 01	8.00 02 700	150 FLOWING	575 M	676004. 1164544	GM 08 "
5600090-10	61 01	8.00 02 700	150 FLOWING	575 M	677519. 1164582	GM 08 "
5600090-11	61 01	8.00 02 700	150 FLOWING	575 M	673878. 1161823	GM 08 "
5600090-12	61 01	6.00 02 700	150 FLOWING	250 M	675314. 1161828	GM 08 "
5600090-13	61 01	8.00 02 1120	150 FLOWING	575 M	675849. 1161340	GM 08 "
5600090-1	72 01	72.00 ----	----	35000	671123. 1140756	SN 5 C25, SURF. PUMP NOT ON PROP BOUNDS, SHARING

5600091	2872.13	03	605 02 56 9/77	AG BOT	18 1	ALCO GROVES, INC.
5600091			260			
5600091			2285			

5600091-1	061 01	4.00 02 1000	?	150 M	671966 1157713	GM 08
5600091-2	061 01	6.00 02 1000	?	350 M	673404 1157719	GM 08
5600091-3	061 01	6.00 02 1000	?	350 M	672245 1155492	GM 08
5600091-4	061 01	6.00 02 1000	?	350 M	675308 1155303	GM 08
5600091-5	061 01	6.00 02 1000	?	350 M	677289 1155211	GM 08
5600091-6	061 01	6.00 02 1000	?	350 M	675594 1151669	GM 08
5600091-7	072 01	6.00 02 1000	?	350 M	673597 1150757	GM 08
5600091-8	072 01	6.00 02 1000	?	350 M	676506 1148846	GM 08
5600091-9	072 01	6.00 02 1000	?	350 M	671931 1144686	GM 08
5600091-10	072 01	6.00 02 1000	?	350 M	674824 1142275	GM 08
5600091-11	072 01	12.00 02 1050	350	1000 M	677041 1150040	GM 08
5600091-12	072 01	12.00 02 1050	350	1000 M	677054 1147233	GM 08
5600091-13	072 01	12.00 02 1050	350	1000 M	677695 1144913	GM 08
5600091-14	061 01	12.00 02 1000	?	1000 M	676471 1156823	GM 08
5600091-15	061 01	12.00 02 1000	?	1000 M	676484 1153996	GM 08
5600091-16	061 01	12.00 02 1000	?	1000 M	676764 1151675	GM 08
5600091-17	072 01	12.00 02 1000	?	1000 M	676415 1149249	GM 08
5600091-18	072 01	12.00 02 1000	?	1000 M	676518 1146119	GM 08
5600091-19	072 01	72.00 01	14 02	35000 M	670868 1140442	SN 5 WITHDRAWALS FROM C-25

5600092	185.04	03	149 02 56 9/77	AG GM	7 0	MARNEZ GROVES
5600092			149 02			

5600092-1	061 01	16.00 02 1300	320	1500 M	682078. 1151395	GM 08 CAP. ESTIMATED
5600092-2	061 01	16.00 02 1100	320	1500 M	679051 1152345	GM 08 "
5600092-3	061 01	5.00 02 1100	300	FLO	679016. 1151381	GM 08 "
5600092-4	061 01	5.00 02 1100	300	FLO	680187. 1151386	GM 08 "
5600092-5	061 01	12.00 02 980	320	FLO	683699. 1151402	GM 08 "
5600092-6	061 02	5.00 02 1000	300	FLO	679366. 1153457	GM 08 "
5600092-7	061 02	5.00 02 1000	300	FLO	681082. 1153457	GM 08 ONE 12,000 GPM PUMP NO FUTURE ACCESS TO WATER
5600093	658	04	108 02 56 9/77	AG BOT	4 1	BERNARD A. EGAN (COLONIAL GROVES)
5600093-6	61 01	14.00 02 N/A	N/A	2000 M	679102. 1158007	GM 08
5600093-10	61 01	14.00 02 N/A	N/A	2000 M	679044. 1155099	GM 08
5600093-8	61 01	6.00 02 N/A	N/A	400 M	680213. 1156040	GM 08

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AN. ALL.	ALL MAX. UNIT NO.	MO. UTS CO	DATE ISS.	USE SRCNO.	SU	CO PERMIT NO.	DEV NO.	AGTYPE	ST	IRR ACRES	IRR EFF

LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY QUAD.	WELL NO.	DPIN	PMP INT	PUM TYP	AG BOT	400 M	35000 M	SR	AO	COMMENTS

5600093-9	61 01	6.00	02	N/A	N/A	7/87	400 M	35000 M	5	5	C-25, PUMP SHARED BY 3 PROPERTIES, LOC. IS GUESS
5600093-1	61 01	6.00	02	N/A	N/A	7/87	400 M	35000 M	5	5	C-25, PUMP SHARED BY 3 PROPERTIES, LOC. IS GUESS
5600096	1573.2	03	579.03	02	56	7/87	21 6				08 13 1.5 11 2012 .5
5600096-1	72 01	8.00	02	1000	400	FLO	575				ORANGE-CD. OF FLORIDA, INC.
5600096-2	72 01	8.00	02	1000	400	FLO	575				Capacities estimated
5600096-3	72 01	8.00	02	1000	400	FLO	575				"
5600096-4	72 01	8.00	02	1000	400	FLO	575				"
5600096-5	72 01	10.00	02	1000	660	FLO	850				"
5600096-6	72 01	10.00	02	1000	660	FLO	850				"
5600096-7	72 01	10.00	02	1000	660	FLO	850				"
5600096-8	72 01	10.00	02	1000	660	FLO	850				"
5600096-9	72 01	10.00	02	1000	660	FLO	850				"
5600096-10	72 01	10.00	02	1000	660	FLO	850				"
5600096-11	72 01	10.00	02	1000	660	FLO	850				"
5600096-12	72 01	10.00	02	1000	660	FLO	850				"
5600096-13	71 01	10.00	02	1000	660	FLO	850				"
5600096-14	71 01	10.00	02	1000	660	FLO	850				"
5600096-15	71 01	10.00	02	1000	660	FLO	850				"
5600096-16	71 01	10.00	02	1000	660	FLO	850				"
5600096-17	71 01	10.00	02	1000	660	FLO	850				"
5600096-18	71 01	10.00	02	1000	660	FLO	850				"
5600096-19	71 01	10.00	02	1000	660	FLO	850				"
5600096-20	71 01	10.00	02	1000	660	FLO	850				"
5600096-21	72 01	6.00	02	600	300	FLO	250				"
5600096-1	72 01	42.00	02	25,000	8,000	FLO	25,000				C-25
5600096-2	72 01	20.00	02	8,000	8,000	FLO	8,000				C-25
5600096-3	72 01	42.00	02	25,000	8,000	FLO	25,000				C-25
5600096-4	71 01	24.00	02	10,000	10,000	FLO	10,000				C-25
5600096-5	71 01	42.00	02	25,000	8,000	FLO	25,000				C-25
5600096-6	72 01	20.00	02	8,000	8,000	FLO	8,000				C-25
5600097	142.0	03	0.50	01	56	10/77	PMS	3	0		SPANISH LAKES MOBILE HOME PARK
5600097-1	84 01	8.00	02	80	60	02	220 Y				1004664 GM 02
5600097-2	84 01	8.00	02	80	60	02	220 Y				1005831 GM 02
5600097-3	84 01	8.00	02	80	60	02	220 Y				724460, 1004436 GM 02

ORIGINAL WELL PLUGGED, REPLACED BY:R-2 WELL

5600098	595.14	03	111.75 02	56	9/77	AG GW	13 0	GRAMMA RANCH (PALE & SOMS)	08 13	1.5	11	640 .5
5600098-7	059 01	03	35.55 02	1200	400	FLOW	500 N	612874 1160082 GW 08 This permit has been	08 13	1.5	11	210 .85
5600098-10	059 01		6.00 02		FLOW	300 M	300 M	610432 1171937 GW 08 modified, a smaller acreage is				
5600098-11	059 01		6.00 02		FLOW	300 M	300 M	610354 1167695 GW 08 permitted with less alloc.				
5600098-12	059 01		6.00 02		FLOW	250 M	250 M	614129 1169624 GW 08 The R.C. spreadsheet doesn't				
5600098-13	059 01		6.00 02		FLOW	612 M	612 M	613418 1166391 GW 08 reflect this yet				
5600098-13a	059 01		8.00 02	1200	400	FLOW	780 M	611877 1170022 GW 08				
5600098-14	059 01		8.00 02	1200	400	FLOW	915 M	611873 1163968 GW 08				
5600098-14a	059 01		8.00 02	1200	400	FLOW	318 M	612336 1166893 GW 08				
5600098-15	059 01		6.00 02				60 M	613230 1161648 GW 08				
5600098-16	059 01		6.00 02				350 M	611071 1161037 GW 08				
5600098-18	059 01		6.00 02				290 M	612792 1157356 GW 08				
5600098-19	059 01		8.00 02	1200	400		700 M	611836 1159373 GW 08				
5600098-20	059 01		6.00 02				290 M	612623 1153209 GW 08				
5600099	43.6	03	4.52 02	56	11/77	AG GW	2 0	D.B. PALMER				
5600099-1	72 03		4.00 02		---	FLOWING	100 M	691371. 1145437 GW 02 Cap. estimated	08 13	.8	11	26 .5
5600099-2	72 04		4.00 02		---	FLOWING	100 M	691184. 1145128 GW 02 WELL 2 PLUGGED ALREADY. NOT MAPPED ON QUAD, Cap est.				
5600099-3	72 01		10.00 02		---	FLOWING	1300 M	691683. 1144657 GW 02 Soil type is guess				
5600099-4	72 01		3.00 02		---	FLOWING	115 M	691683. 1144657 GW 02 WELL 99-4 LOC. IS A GUESS				
5600100	265.12	03	1.37 01	56	11/87	GLF	4 7	TOLLMAN-HUNDLEY SPB, Club Med. 56				
5600100-P11	84 01		8.00 02	100	60	N/A 02	200 M	725321. 1061391 GW 02	02 15	.8	4	234 .75
5600100-P12	84 02		8.00 02	100	60	N/A 02	300 M	726664. 1064745 GW 02				
5600100-P13	84 02		8.00 02	100	60	N/A 02	300 M	726277. 1062020 GW 02				
5600100-P14	84 02		8.00 02	100	60	N/A 02	300 M	724148. 1061544 GW 02				
5600100-PS#1	84 01		N/A				800 M	722692. 1064362 SW 99 ON SITE LAKES, LAKE MANAKA, Cap. is guess				
5600100-PS#1	84 01		N/A				800 M	722856. 1064496 SW 99 LAKE MANAKA Cap is guess				
5600100-PS#2	84 01		N/A				800 M	726572. 1062973 SW 99 LAKE WESTMORELAND, ""				
5600100-PS#3	84 01		N/A				800 M	726674. 1062866 SW 99 LAKE WESTMORELAND, ""				
5600100-PS#3	84 01		8.00				800 M	724593. 1061517 SW 99 LAKE SAKURA, ""				
5600100-PS#3	84 01		8.00				800 M	724593. 1061517 SW 99 LAKE SAKURA, ""				
5600100-PS#3	84 01		6.00				800 M	724593. 1061517 SW 99 LAKE SAKURA, ""				
5600101M	57.54	03	9.79 02	56	3/89	GLF BOT	1 1	INDIAN PINES GOLF CLUB(CMU PROP., INC. 56				
5600101-1	61 01		8.00 02	900	340	FLOWING	500 M	700673. 1164274 GW 08	08 15	.8	11	50.4 .75
5600101-1	61 01		4.00			POND	800 M	700603. 1164019 SW 99 ON SITE LAKE				
5600102M	5767	03	15.00 01	56	2/88	MIN	0 3	FLORIDA ROCK INDUSTRIES INC.				
5600102-1	82 01		24.00				12000 M	656202. 1060596 SW 99 PUMPS MOVE OVERTIME				
5600102-2	82 01		24.00				12000 M	655842. 1060559 SW 99 TOWARD ACTIVE MINTING				
5600102-3	94 01		18.00					654207. 1058623 SW 99 COCH 6000				
5600103M	665.37	03	32.33 02	56	9/87	AG	1 2	GULFSTREAM GROVES (STRAZZULLA BROTNS. C 56				
5600103M								56				
5600103M								56				
5600103-1	71 01		8.00 02	1200	80	FLOWING	800 M	655951. 1147325 GW 08	08 13	1.5	11	168.5 .75
5600103-A	71 01		24.00				10000 M	656108. 1147434 SW 99	08 13	1.5	11	574.5 .85
5600103-B	71 01		24.00				9000 M	646994. 1148653 SW 99	08 13	1.5	11	601 .75
5600104M	26.1	04	3.46 02	56		AG GW	1 0	LARRY McIVER GROVES				
5600104M								56				
5600104M								56				

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AM.	ALL.	ALL	MAX	NO.	DATE	USE	SRCNO.	SU	CO	ISS.	TYPE	WLS.	PHPS	OWNER	CO	PERMIT	NO.	DEV	NO.	ARTYPE	TYPE	ST	RAIN	IRR	ACRES	EFF
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LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY	QUAD.	WELL	OPTN	PHS	PUM	PUMP	NO.	MO.	STSDIA.	COO	TD	CO	INT	TYP	CAP.	MTR?	XPLNR	YPLNR	SRC	AG	COMMENTS								
5600104-1	26.59	03	9.78	02	56	12/77	AG BOT	1	1	WARNER GROVES, INC.																				
5600105-1	61 01	61 01	5.00	02	800	300	FLOW	200	M	688651.	1151526	GM	08																	
5600105-P1	61 01	61 01	24.00	01				7.75	1	6000	M																			
5600106W	1288	03	4.74	02	56	3/89	AG GM	1	0	SEMIWOLE GROVES																				
5600106-6	72 01	72 01	6.00	02	800	300	---	01	500	M	690041.	1141796	GM	08																
5600107W	61.48	03	10.16	02	56	--	AG GM	4	0	MCIVER, LARRY L.																				
5600107M			12.47	02																										
5600107-1	72 01	72 01	4.00	02	7	7	7	01	80	M	692823.	1149626	GM	08																
5600107-2	72 01	72 01	5.00	02					150	M	692807.	1148718	GM	08																
5600107-3	72 01	72 01	6.00	02					200	M	693434.	1149529	GM	08																
5600107-4	72 01	72 01	6.00	02					200	M	694154.	1149533	GM	08																
5600111W	2921	03	23.02	02	56	7/87	AG BOT	1	1	COCA-COLA FOODS (CLOUD GROVE)																				
5600111M																														
5600111W																														
5600111-A	60 01	60 01	10.00	02	785	285	FLOWING	850	M	645871.	1159199	GM	08	Cap. is guess																
5600111-B	71 01	71 01	23.00	---	---	---	---	---	1000	M	641566.	1146515	SU	99																
5600112M	72	04	6.92	02	56	2/78	AG GM	1	0	CLEORA & LINN NELSON																				
5600112-1	61 01	61 01	4.00	M/A	M/A	M/A	FLOWING	200	M	687057.	1153080	GM	08																	
5600113W	32.84	03	12.09	02	56	12/78	AG BOT	1	1	MARNEZ GROVES																				
5600113-1	61 01	61 01	5.00	02	800	300	FLOW	300	M	687555.	1154954	GM	08																	
5600113-2	61 01	61 01	24.00	01				10.201	10000	M	687559.	1153945	SU	99																
5600114W	4.6	02	4.60	02	56	3/89	AG GM	2	0	CHRIST M. RUSSOS																				
5600114-1	61 01	61 01	4.00	02	800	150	---	01	100	M	689331.	1166777	GM	08																
5600114-2	61 01	61 01	4.00	02	800	150	---	01	100	M	688828.	1166461	GM	08																
5600116W	3524.16	03	1297.09	02	56	6/89	AG BOT	29	2	EVANS PROPERTIES (BLUEF																				
5600116-1	082 01	6	02	1200	M/A	FLOMFLO	200	MO	629865.	1075448	GM	08																		
5600116-2	082 01	8	02	1200	340	FLOMFLO	1100	MO	628394.	1070721	GM	08																		

5600116-3	082 01 8	02 1200	360 FLOWFLO	1000	MO 633702.	1070960	GM 08
5600116-4	082 01 6	N/A/A	N/A FLOWFLO	180	MO 631422.	1073021	GM 08
5600116-5	082 01 6	N/A/A	N/A FLOWFLO	75	MO 634648.	1070060	GM 08
5600116-6A	082 01 10	02 800	367 FLOWFLO	1500	MO 632948.	1067715	GM 08
5600116-7	094 01 6	N/A/A	N/A FLOWFLO	700	MO 633513.	1065212	GM 08
5600116-8	094 01 8	02 1250	395 FLOWFLO	1000	MO 635329.	1062743	GM 08
5600116-9	094 01 6	N/A/A	N/A FLOWFLO	180	MO 628107.	1063558	GM 08
5600116-10	094 01 12	02 960	620 FLOWFLO	1100	MO 621762.	1069374	GM 08
5600116-11	082 01 12	02 920	611 FLOWFLO	1100	MO 636010.	1045177	GM 08
5600116-12	082 01 6	N/A/A	N/A FLOWFLO	180	MO 630692.	1071769	GM 08
5600116-13	082 01 16	02 1430	406 FLOWFLO	1500	MO 637625.	1034666	GM 08
5600116-14	082 01 10	02 1114	370 FLOWFLO	800	MO 626902.	1066754	GM 08
5600116-15	082 01 10	02 1114	380 FLOWFLO	700	MO 629950.	1066857	GM 08
5600116-16	082 01 10	02 1120	380 FLOWFLO	700	MO 628920.	1060815	GM 08
5600116-17	094 01 10	02 1135	380 FLOWFLO	800	MO 633761.	1056287	GM 08
5600116-18	094 01 10	02 1100	395 FLOWFLO	800	MO 629935.	1058559	GM 08
5600116-19	094 01 10	02 1100	360 FLOWFLO	800	MO 633875.	1058449	GM 08
5600116-20	094 01 10	02 1050	480 FLOWFLO	800	MO 634201.	1051266	GM 08
5600116-21	094 01 10	02 1100	350 FLOWFLO	800	MO 635370.	1042719	GM 08
5600116-22	082 01 10	02 1100	350 FLOWFLO	800	MO 624671.	1066219	GM 08
5600116-23	082 01 10	02 1100	350 FLOWFLO	800	MO 632487.	1061719	GM 08
5600116-24	082 01 10	02 1100	350 FLOWFLO	800	MO 629784.	1064726	GM 08
5600116-25	082 02 10	02 1100	350 FLOWFLO	800	MO 634843.	1034751	GM 08
5600116-26	082 02 10	02 1100	350 FLOWFLO	800	MO 635801.	1033867	GM 08
5600116-27	082 02 10	02 1100	350 FLOWFLO	800	MO 634847.	1032881	GM 08
5600116-28	082 02 10	02 1100	350 FLOWFLO	800	MO 634904.	1031357	GM 08
5600116-29	082 02 10	02 1100	350 FLOWFLO	800	MO 631922.	1068385	GM 08
5600116-P1	082 01	---	---	5000	MO 636427.	1073943	SM 99
5600116-P2	082 01	---	---	5000	MO 636467.	1061873	SM 99
5600118-1	083 01	03 299.99 02 56	3/89 AG 80T	19	4 E.C. LUMSFORD	56	5600118S/A
5600118-2	083 01	8.00 02 900	250 FLOWFLO	305	MO 679433.	1093533	GM 08
5600118-4	083 01	8.00 02 900	250 FLOWFLO	305	MO 682910.	1094667	GM 08
5600118-6	083 01	8.00 02 900	250 FLOWFLO	305	MO 685131.	1103913	GM 08
5600118-7	083 01	8.00 02 100	---	300	MO 685639.	1102536	GM 02
5600118-9	083 01	10.00 02 100	---	300	MO 684690.	1097725	GM 02
5600118-10	083 01	4.00 02 80	90 FLOWFLO	300	MO 684198.	1097638	GM 02
5600118-5	083 01	8.00 02 900	---	350	MO 680566.	1097051	GM 02
5600118-8	083 01	4.00 02 900	---	120	MO 681976.	1099896	GM 08
5600118-16	083 01	8.00 02 900	300 FLOWFLO	305	MO 684105.	1101854	GM 08
5600118-17	083 01	4.00 02 900	300 FLOWFLO	150	MO 693973.	1103510	GM 08
5600118-11A	083 01	4.00 02 57	300 FLOWFLO	305	MO 684078.	1104956	GM 08
5600118-11B	083 01	4.00 02 57	---	150	MO 684100.	1102575	GM 02
5600118-12A	083 01	4.00 02 57	---	220	MO 684271.	1102811	GM 02
5600118-12B	083 01	4.00 02 57	---	220	MO 684271.	1102811	GM 02
5600118-13A	083 01	4.00 02 57	---	140	MO 681939.	1099415	GM 02
5600118-13B	083 01	4.00 02 57	---	140	MO 682116.	1099422	GM 02
5600118-14	083 01	8.00 02 80	---	550	MO 690996.	1100023	GM 02
5600118-15	083 01	8.00 02 80	---	200	MO 682026.	1098163	GM 02
5600118-18	083 01	---	---	10000	MO 691496.	1100355	SM 99
5600118-20	083 01	---	---	10000	MO 681940.	1098885	SM 99

Cap is estimate

Cap is GUESS, 2-MAY
Cap is GUESS, 2-MAY

5600118U 1028.32 08 61 .8 11 1180 .50

LOC. IS GUESS
LOC. IS GUESS

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LIME 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

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PERMIT NO.	AN.	ALL.	MAX.	NO.	DATE	USE	SRCNO.	SW	CO	PERMIT NO.	DEV NO.	ARTYPE	ST	IRR	IRR
	UNT	MO.	UTS	CD	ISS.	TYPE	WLS.	PMP5	OWNER					ACRES	EFF

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LIME 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

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PERMIT NO.	FACILITY	QUAD.	WELL	DPH	PMP	PUM	PUMP	CD	INT	TY	CAP.	MIR?	YPLMR	SRC	AG	COMMENTS	CO	PERMIT NO.	DEV NO.	ARTYPE	ST	IRR	IRR	
	NUMBER	NO.	STSDJA.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.
5600119A	455.35	03	167.6 02	56	10/87	AG	80T	3	5	R.D.	GROVE ENTERP. INC.													
5600119-B	060 01	060 01	8.00 02	1000	300	FLOWFLO	575	NO	661712.	1152476	GM 08	Cap est.												
5600119-E	060 01	060 01	8.00 02	1000	300	FLOWFLO	575	NO	658502.	1158654	GM 08	160 ACRE	ONSITE,	Cap est.										
5600119-P1	060 01	060 01	8.00 02	1000	300	FLOWFLO	575	NO	658502.	1157797	GM 08	RESERVOIR,												
5600119-P2	060 01	060 01	---	---	---	---	---	27000	NO	656602.	1151345	SM 99												
5600119-P3	060 01	060 01	---	---	---	---	---	27000	NO	661775.	1151299	SM 99	C-25	SOURCE	FILLS	DITCH								
5600119-P4	060 01	060 01	---	---	---	---	---	5500	NO	661690.	1154326	SM 99	ADJACENT	TO	MINUTE	MAID	CANAL							
5600119-P5	060 01	060 01	---	---	---	---	---	27000	NO	661660.	1154742	SM 99												
			---	---	---	---	---	36000	NO	656563.	1156636	SM 99	PUMPS	2,3,4,5	(DISCHARGE	ONLY)								
5600120W			18.4 02	56	---	---	---	5	0	MINTON,	E.G.													
5600120-1	062 01	062 01	4.00 02	---	---	---	---	95	M	703600	1153900	GM 08	Permit	expired	waiting									
5600120-2	062 01	062 01	5.00 02	---	---	---	---	105	M	702900	1157000	GM 08	on	renewal	letter	response.								
5600120-3	061 01	061 01	2.00 02	85	85	---	---	75	M	699950	1157500	GM 02												
5600120-4	062 01	062 01	2.00 02	85	85	---	---	75	M	705300	1157050	GM 02												
5600120-5	062 01	062 01	2.00 02	85	85	---	---	75	M	705400	1157050	GM 02												
5600122W	86.8	04	13.8 02	56	4/78	AG	80T	*1	1	M.R.	FARINA													
5600122-1	072 01	072 01	2.00 02	160	150	PUMP--	---	150	NO	689578.	1140713	GM 02	*3	FLOWING	FLORIDAN									
5600122-2	072 01	072 01	---	---	---	---	---	1500	NO	689418.	1140522	SM 99	WELLS	ON	ADJACENT	PROP.								
5600123W	38.4	03	23.3 02	56	4/78	AG	80T	8	2	LAMBETH	CITRUS	PROD. INC.												
5600123-1	061 01	061 01	6.00 02	900	---	---	---	400	NO	683029.	1166957	GM 08												
5600123-2	061 01	061 01	4.00 02	---	---	---	---	100	NO	683217.	1166048	GM 08												
5600123-3	061 01	061 01	4.00 02	---	---	---	---	85	NO	683434.	1166089	GM 08												
5600123-4	061 01	061 01	4.00 02	---	---	---	---	125	NO	683706.	1166016	GM 08												
5600123-5	061 01	061 01	4.00 02	---	---	---	---	85	NO	683988.	1166027	GM 08												
5600123-6	061 01	061 01	4.00 02	---	---	---	---	80	NO	682194.	1166109	GM 08												
5600123-7	061 01	061 01	4.00 02	---	---	---	---	80	NO	682415.	1166360	GM 08												
5600123-8	061 01	061 01	4.00 02	---	---	---	---	85	NO	682208.	1166866	GM 08												
5600123-P1	061 01	061 01	---	---	---	---	---	10000	NO	681768.	1167338	SM 99	FT.	PIERCE	FMS.	D.D.								
5600123-P2	061 01	061 01	---	---	---	---	---	6000	NO	684190.	1166971	SM 99	FT.	PIERCE	FMS.	D.D.								

5600124W	50.2	03	14.8 02	56	4/78	AG GW	2 1	LILLIAM DUGAN	56	08	13	.8	11	75	.50
	5600124-1	061 01	6.00 02	900	---	FLOMFO	352	NO 689016. 1156054	GW 08						
	5600124-2	061 01	4.00 02	---	---	FLOMFO	60	NO 688999. 1155854	GW 08						
	5600124-P1	061 01	---	---	---	FLOM---	6000	NO 689183. 1154121	SN 99 DISCHARGE ONLY						
5600125W	31.28	03	11.51 02	56	6/89	AG GW	3 0	JIM G. RUSSAKIS (GROVES)	56	08	13	.8	11	40	.50
	5600125-1	061 01	4.00 02	700	---	FLOMFO	300	NO 687487. 1166606	GW 08						
	5600125-2	061 01	5.00 02	700	---	FLOMFO	400	NO 688073. 1166393	GW 08						
	5600125-3	061 01	6.00 02	700	---	FLOMFO	600	NO 688048. 1165921	GW 08						
5600126W	26.8	03	7.91 02	56	4/78	AG GW	1 0	LUEKEN-SHAW GROVES	56	08	13	.8	11	40	.50
	5600126-1	072 01	6.00 02	800	---	FLOMFO	450	NO 694124. 1110105	GW 08						
5600127W	52.3	03	15.4 02	56	4/78	AG GW	3 0	LEVERETT-SHAW GROVES	56	08	13	.8	11	78	.50
	5600127-1	072 01	4.00 02	800	---	FLOMFO	150	NO 694704. 1112937	GW 08						
	5600127-2	072 01	5.00 02	800	---	FLOMFO	250	NO 694571. 1112279	GW 08						
	5600127-3	072 01	3.00 02	800	---	FLOMFO	75	NO 694238. 1113441	GW 08						
5600128W	17.7	03	3.39 02	56	2/89	AG SN	0 1	BENSON O. YOUNT	56	99	20	.8	11	17.7	.50
	5600128-P1	061 01	---	---	---	POR	600	NO 692082. 1157126	SN 99 FT. PIERCE FMS. D.D. CANAL						
5600129W	89.14	03	32.81 02	56	10/87	AG GW	5 0	W.C. GARNES JR. (PINK & WATSON GRVS.)	56	08	13	1.5	11	114	.50
	5600129-1	071 01	4.00 02	580	210	FLOMFO	100	--- 662039. 1126264	GW 08 Cap. estimated						
	5600129-2	071 01	5.00 02	610	225	FLOMFO	250	--- 662186. 1125633	GW 08						
	5600129-3	071 01	5.00 02	610	230	FLOMFO	250	--- 660465. 1124878	GW 08						
	5600129-4	071 01	4.00 02	590	215	FLOMFO	100	--- 661048. 1124875	GW 08						
	5600129-5	071 01	6.00 02	685	245	FLOMFO	250	--- 662053. 1124808	GW 08						
5600130W	683.4	03	251.53 02	56	10/87	AG BOT	35 1	W.C. GRAVES JR. (MCARTY GROVES)	56	08	13	1.5	11	874	.50
	5600130-1	071 01	5.00 02	650	290	FLOMFO	250	--- 656478. 1115649	GW 08 Capacity Estimated						
	5600130-2	071 01	5.00 02	600	295	FLOMFO	250	--- 657008. 1115609	GW 08						
	5600130-3	071 01	5.00 02	610	295	FLOMFO	250	--- 657882. 1115594	GW 08						
	5600130-4	071 01	5.00 02	675	290	FLOMFO	250	--- 657911. 1114982	GW 08						
	5600130-5	071 01	5.00 02	550	290	FLOMFO	250	--- 656909. 1113910	GW 08						
	5600130-6	071 01	5.00 02	625	300	FLOMFO	250	--- 656083. 1112852	GW 08						
	5600130-7	071 01	5.00 02	685	310	FLOMFO	250	--- 655115. 1113374	GW 08						
	5600130-8	071 01	8.00 02	960	350	FLOMFO	575	--- 652969. 1113261	GW 08						
	5600130-9	071 01	5.00 02	710	305	FLOMFO	250	--- 652969. 1113261	GW 08 LOC. IS GUESS, **						
	5600130-10	071 01	6.00 02	690	295	FLOMFO	250	--- 652479. 1112296	GW 08						
	5600130-11	071 01	5.00 02	685	310	FLOMFO	250	--- 653569. 1112273	GW 08						
	5600130-12	071 01	5.00 02	590	285	FLOMFO	250	--- 652405. 1111465	GW 08						
	5600130-13	071 01	6.00 02	700	315	FLOMFO	250	--- 653740. 1111534	GW 08						
	5600130-14	071 01	5.00 02	675	295	FLOMFO	250	--- 655105. 1111561	GW 08						
	5600130-15	071 01	5.00 02	625	310	FLOMFO	250	--- 656067. 1112079	GW 08						
	5600130-16	071 01	5.00 02	635	310	FLOMFO	250	--- 656954. 1112110	GW 08						
	5600130-17	071 01	5.00 02	650	325	FLOMFO	250	--- 657618. 1112136	GW 08						
	5600130-18	071 01	6.00 02	720	350	FLOMFO	250	--- 656875. 1111527	GW 08						
	5600130-19	071 01	6.00 02	725	330	FLOMFO	250	--- 659127. 1110279	GW 08						
	5600130-20	071 01	4.00 02	525	300	FLOMFO	100	--- 658404. 1110128	GW 08						
	5600130-21	071 01	4.00 02	530	300	FLOMFO	100	--- 660197. 1109558	GW 08						
	5600130-22	071 01	5.00 02	610	325	FLOMFO	250	--- 658974. 1109375	GW 08						
	5600130-23	071 01	5.00 02	560	295	FLOMFO	250	--- 657802. 1108907	GW 08						

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AM.	ALL	MAX	NO.	DATE	USE	SIC	NO.	SN	CD	PERMIT	NO.	DEV	NO.	MO.	AG	TYPE	ST	RAIN	IRR	IRR
	ALL.	UNT	NO.	UTS	ISS.	TYPE	CLS.	PHYS	OWNER												

LINE 2 HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NUMBER	QUAD.	WELL NO.	DPTH	CD	INT	TYP	CAP.	MTR7	XPLNR	YPLNR	SRC	AG	COMMENTS
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5600130-24	071 01	6.00	02	810	320	FLOWFLO	250	---	651694.	1108447	GM	08	"	"				
5600130-25	071 01	5.00	02	785	325	FLOWFLO	250	---	650811.	1108456	GM	08	"	"				
5600130-26	071 01	6.00	02	830	340	FLOWFLO	250	---	652199.	1109467	GM	08	"	"				
5600130-27	071 01	6.00	02	835	335	FLOWFLO	250	---	649895.	1109406	GM	08	"	"				
5600130-28	071 01	8.00	02	990	360	FLOWFLO	575	---	649819.	1110336	GM	08	"	"				
5600130-29	071 01	6.00	02	840	325	FLOWFLO	250	---	651064.	1110666	GM	08	"	"				
5600130-30	071 01	6.00	02	825	330	FLOWFLO	250	---	651180.	1111121	GM	08	"	"				
5600130-31	071 01	8.00	02	925	310	FLOWFLO	575	---	649835.	1111687	GM	08	"	"				
5600130-32	071 01	8.00	02	900	315	FLOWFLO	575	---	651664.	1111720	GM	08	"	"				
5600130-33	071 01	5.00	02	650	320	FLOWFLO	250	---	650922.	1112292	GM	08	"	"				
5600130-34	071 01	4.00	02	535	270	FLOWFLO	100	---	649815.	1112954	GM	08	"	"				
5600130-35	071 01	6.00	02	875	335	FLOWFLO	250	---	652392.	1113307	GM	08	"	"				
5600130-P1	071 01	---	---	---	---	16.3	6000	NO	651027.	1113408	SM	99	C-70,P10					
5600131W	6.7	03	5.00	02	56	11/78	AG	GM	2	0	MILDRED W. ROCK	56	08	13	1.5	11	10	.50
5600131-1	072 01	3.00	02	1025	400	FLOWFLO	125	NO	692183.	1136930	GM	08	PRIVATE WATER SUPPLY ONLY					
5600131-2	072 01	4.00	02	920	300	FLOWFLO	75	NO	692203.	1136691	GM	08						
5600132W	59.43	03	21.87	02	56	10/87	AG	BOT	4	1	W.C. GRAVES, JR. (STEIN 3)	56	08	13	1.5	11	76	.50
5600132-1	083 01	5.00	02	705	295	FLOWFLO	100	NO	665877.	1094360	GM	08	Estimated Cap.					
5600132-2	083 01	4.00	02	625	275	FLOWFLO	250	NO	666346.	1094368	GM	08	"					
5600132-3	083 01	5.00	02	725	285	FLOWFLO	250	NO	666667.	1093439	GM	08	"					
5600132-4	083 01	5.00	02	725	265	FLOWFLO	250	NO	665895.	1092686	GM	08	"					
5600132-P1	083 01	---	---	---	---	13.5	10000	NO	668315.	1093484	SM	99	C-107,2-way					
5600133W	118.85	03	43.74	02	56	10/87	AG	GM	6	0	W.C. GRAVES, (SLOTT GROVE)	56	08	13	1.5	11	152	.50
5600133-1	083 01	6.00	02	785	290	FLOW---	250	NO	670673.	1103684	GM	08	Cap. estimated					
5600133-2	083 01	5.00	02	770	290	FLOW---	250	NO	669681.	1103694	GM	08	"					
5600133-3	083 01	6.00	02	610	285	FLOW---	250	NO	668951.	1103693	GM	08	"					
5600133-4	083 01	4.00	02	500	275	FLOW---	100	NO	668935.	1102930	GM	08	"					
5600133-5	083 01	6.00	02	625	290	FLOW---	250	NO	668521.	1102613	GM	08	"					
5600133-6	083 01	6.00	02	625	290	FLOW---	250	NO	669635.	1102116	GM	08	"					
5600134W	50.2	03	14.8	02	56	6/78	AG	GM	5	0	W.C. GRAVES, JR.	56	08	13	1.5	11	75	.50
5600134-1	072 01	4.00	---	N/A	N/A	FLOWFLO	100	NO	669741.	1123983	GM	08						
5600134-2	072 01	5.00	---	N/A	N/A	FLOWFLO	165	NO	669513.	1123608	GM	08						

Account	Code	QTY	UNIT	DATE	DESCRIPTION	AMOUNT	DATE	UNIT	DESCRIPTION	AMOUNT
5600134-3	072 01	3.00	--	W/A	N/A FLOWFLO	75	MO 669131.	1123141	GM 08	
5600134-4	072 01	5.00	--	W/A	N/A FLOWFLO	300	MO 669692.	1122715	GM 08	
5600134-5	072 03	4.00	--	W/A	N/A	---	MO 669516.	1124071	GM 08	
5600135W	13.2 03	6.13	02	56	6/78	3	1	WATMAN JOHANSON		
5600135-1	072 01	4.00	02	700	M/A FLOWFLO	70	MO 702279.	1125279	GM 08	PRIVATE M. SUPPLY ONLY
5600135-2	072 01	3.00	02	700	M/A FLOWFLO	70	MO 702224.	1124847	GM 08	
5600135-3	073 01	3.00	02	700	M/A FLOWFLO	70	MO 703082.	1124410	GM 08	
5600135-P1	072 01	---	---	---	---	3000	MO 702577.	1124243	SM 99	
5600136W	59.43 03	21.87	02	56	10/87	2	1	M.C. GRAVES JR. (STEIN 2)		
5600136-1	083 01	5.00	02	800	305 FLOWFLO	250	MO 665590.	1099519	GM 08	Cap. estimated
5600136-2	083 01	6.00	02	785	295 FLOWFLO	250	MO 664542.	1099494	GM 08	"
5600136-P1	083 01	---	---	---	---	10000	MO 663286.	1099577	SM 99	"INOPERABLE"
5600137W	207.99 03	76.55	02	56	10/87	7	0	BERNARD EGAN		
5600137-1	083 01	8.00	02	975	280 FLOWFLO	575	MO 678377.	1094193	GM 08	Cap. estimated
5600137-2	083 01	5.00	02	610	275 FLOWFLO	250	MO 675452.	1093751	GM 08	"
5600137-3	083 01	6.00	02	610	275 FLOWFLO	250	MO 675240.	1093640	GM 08	"
5600137-4	083 01	5.00	02	715	290 FLOWFLO	250	MO 677856.	1093576	GM 08	"
5600137-5	083 01	6.00	02	760	295 FLOWFLO	250	MO 678895.	1093434	GM 08	"
5600137-6	083 01	5.00	02	760	295 FLOWFLO	250	MO 674860.	1092451	GM 08	"
5600137-7	083 01	6.00	02	695	270 FLOWFLO	250	MO 677431.	1092444	GM 08	"
5600138W	207.99 03	76.55	02	56	10/87	7	2	M. C. GRAVES JR. (STEIN 1)		
5600138-1	072 01	6.00	02	730	285 FLOWFLO	250	MO 669918.	1109497	GM 08	Cap. estimated
5600138-2	072 01	6.00	02	765	290 FLOWFLO	250	MO 669723.	1108815	GM 08	"
5600138-3	072 01	8.00	02	910	275 FLOWFLO	250	MO 668149.	1108799	GM 08	"
5600138-4	072 01	5.00	02	830	295 FLOWFLO	250	MO 666894.	1108808	GM 08	"
5600138-5	072 01	5.00	02	725	280 FLOWFLO	250	MO 666648.	1108286	GM 08	"
5600138-6	072 01	6.00	02	810	295 FLOWFLO	250	MO 664252.	1108339	GM 08	"
5600138-7	072 01	5.00	02	785	275 FLOWFLO	250	MO 663580.	1108816	GM 08	"
5600138-P1	072 01	---	---	---	---	6000	N 669575.	1110620	SM 99	
5600138-P2	072 01	---	---	---	---	6000	N 669647.	1108233	SM 99	
5600139W	118.85 03	43.74	02	56	10/87	5	0	M. C. GRAVES (MANGER GROVE)		
5600139-1	071 01	5.00	02	675	205 FLOWFLO	250	MO 653546.	1118621	GM 08	Cap. estimated
5600139-2	071 01	5.00	02	680	210 FLOWFLO	250	MO 654750.	1118235	GM 08	"
5600139-3	071 01	6.00	02	695	200 FLOWFLO	250	MO 653648.	1117427	GM 08	"
5600139-4	071 01	5.00	02	585	213 FLOWFLO	250	MO 653621.	1116315	GM 08	"
5600139-5	071 01	8.00	02	960	230 FLOWFLO	575	MO 652439.	1116390	GM 08	"
5600140W	118.85 03	43.74	02	56	10/87	5	1	M. C. GRAVES JR. (STEIN #40)		
5600140-1	082 01	4.02	560	195	FLOW	100	N 660617.	1094674	GM 08	Cap. estimated
5600140-2	082 01	6.02	635	205	FLOW	250	N 651832.	1094672	GM 08	"
5600140-3	082 01	6.02	710	220	FLOW	250	N 660529.	1093462	GM 08	"
5600140-4	082 01	6.02	725	240	FLOW	250	N 661773.	1093540	GM 08	"
5600140-5	082 01	6.02	705	235	FLOW	250	N 662403.	1092424	GM 08	"
5600140-P1	082 01	---	---	---	---	10,000	661625.	1094767	SM 99	C-78 SOURCE
5600141W	4.15 03	9.82	02	56	6/78	1	0	R. E. H. BOURDIAS		
5600141-1	083 01	3.02	80	50-60	M/A	250	N 702410	1101405	GM 02	

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	ALL.	ALL.	MAX.	NO.	DATE	USE	SRCNO.	SU	CD	PERMIT	DEV.	MO.	AGTYPE	TYPE	ST	IRR	ACRES	EFF
MO.	UNT.	MO.	ISS.	TYPE	WLS.	PHPS	OWNER			NO.	NO.							

LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NUMBER	QUAD. NO.	WELL NO.	DPTH	PMP	PUMP	CD	INT	TYP	CAP.	MTR?	YPLMR	SRC	AQ	COMMENTS
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5600142U	1555	03	5-97 01	56	3/88	PMS	GM	21	0	GENERAL DEV. UTIL. (PORT ST. LUCIE)	56	02			
5600142-1	084 01	084 01	8.00 02	95	60	N/A	02	600	Y	713106, 1081354	GM	02			
5600142-2	084 01	084 01	8.00 02	103	45	N/A	02	200	Y	713813, 1082268	GM	02			
5600142-3	084 01	084 01	8.00 02	90	45	N/A	02	400	Y	713071, 1082096	GM	02			
5600142-4	084 03	084 01	8.00 02	114	79	N/A	02	125	Y	710737, 1083850	GM	02			
5600142-5	084 01	084 01	8.00 02	111	76	N/A	02	275	Y	709995, 1085133	GM	02			
5600142-6	084 01	084 01	8.00 02	111	69.5	68	02	265	Y	709500, 1086889	GM	02			
5600142-7	084 01	084 01	8.00 02	111	75	68	02	200	Y	709570, 1087756	GM	02			
5600142-8	084 01	084 01	8.00 02	110	65	65	02	320	Y	710903, 1085147	GM	02			
5600142-9	084 01	084 01	8.00 02	110	70	63	02	320	Y	710855, 1085866	GM	02			
5600142-10	084 01	084 01	8.00 02	111	70	70	02	180	Y	710814, 1086900	GM	02			
5600142-11	084 01	084 01	8.00 02	111	71	69	02	255	Y	710598, 1087728	GM	02			
5600142-12	084 01	084 01	8.00 02	95.5	71	N/A	02	190	Y	708517, 1085159	GM	02			
5600142-13	084 01	084 01	8.00 02	100	54.5	N/A	02	300	Y	710046, 1080336	GM	02			
5600142-14	084 01	084 01	8.00 02	99.5	60	N/A	02	300	Y	709116, 1079166	GM	02			
5600142-15	084 01	084 01	8.00 02	90	64.5	N/A	02	300	Y	709778, 1078168	GM	02			
5600142-16	084 01	084 01	8.00 02	110	55	N/A	02	300	Y	714658, 1079946	GM	02			
5600142-17	084 01	084 01	8.00 02	95	50	N/A	02	100	Y	713893, 1078676	GM	02			
5600142-18	084 03	084 01	8.00 02	95	60	N/A	02	275	Y	703634, 1084438	GM	02			
5600142-19	084 01	084 01	8.00 02	105	57	N/A	02	350	Y	703319, 1085331	GM	02			
5600142-20	084 01	084 01	8.00 02	90	45	N/A	02	200	Y	706154, 1088953	GM	02			
5600142-21	084 02	084 02	8.00 02	90	41.5	N/A	02	200	Y	710191, 1086882	GM	02			
5600142-22	084 02	084 02	8.00 02	90	41.5	N/A	02	200	Y	710191, 1086882	GM	02			

5600144W	10.4	03	3-29 02	56	6/78	AG	GM	2	0	D. & L. BRUNO	56	08	13	.8	11	19	.50
5600144-1	072 01	072 01	4.00 02	800	---	FLOWFLO		150	M	663536, 1135880	GM	08					
5600144-2	072 01	072 01	6.00 02	1000	---	FLOWFLO		400	M	664156, 1135892	GM	08					

5600146W	15	03	4-78 02	56	6/78	AG	GM	2	1	CLENERZI GROVE	56	08	13	.8	11	27.5	.50
5600146-1	072 01	072 01	4.00 02	---	---	FLOWFLO		125	M	696433, 1136029	GM	08					
5600146-2	072 01	072 01	6.00 02	---	---	FLOWFLO		400	M	696106, 1135308	GM	08					
5600146-P1	072 01	072 01	---	---	---	---	---	6,000	M	695174, 1134926	SU	99					

5600147W	181.68	03	66-87 02	56	7/87	AG	BOT	4	1	ORANGE CO. OF FLORIDA	56	08	13	1.5	11	395	.85
5600147-1	072 01	072 01	8 02	700	300	FLOWFLO		575	M	666777, 1136918	GM	08					
5600147-2	072 01	072 01	8 02	700	300	FLOWFLO		575	M	666824, 1137439	GM	08					
5600147-3	072 01	072 01	8 02	700	300	FLOWFLO		575	M	666808, 1136164	GM	08					

Well ID	Flow Rate	Flow Type	Flow Date	Flow Duration	Flow Volume	Flow Location	Flow Notes	Flow Meter	Flow Accuracy	Flow Status
5600147-4	8.02	700	300	FLOWFLO	575	M 666805, 1134892	GM 08			
5600147-P1	14.302	12000				N 665549 1140767	SU 99			
5600149-1	19.6	02 56	6/78	AG BOT	3	1 EGAN FICKETT CO.				
5600149-2	4.00	1000		FLOWFLO	100	666659, 1126565	GM 08	PERMIT EXPIRED 10/87, Cap estimated		18 .50
5600149-3	5.00	02 1000		FLOWFLO	250	667057, 1126969	GM 08	3 WELLS=TOTAL FLOW @ 550 GPM, "		
5600149-P1	5.00	02 1000		FLOWFLO	250	667456, 1127928	SU 99	Cap estimated		
5600150-1	94.59	02 56	8/89	AG GM	20 0	COCA COLA FOODS				
5600150-2	6.00	02 550		FLOWFLO	220	M 684837, 1125617	GM 08	ALSO PUMPED FOR DRIP IRRIG. SYS.		493 .75
5600150-3	6.00	02 550		FLOWFLO	250	M 686410, 1125582	GM 08	FREEZE PROT. ONLY		
5600150-4	6.00	02 550		FLOWFLO	250	M 687279, 1125558	GM 08	FREEZE PROT. ONLY		
5600150-5	6.00	02 550		FLOWFLO	250	M 688174, 1125619	GM 08	FREEZE PROT. ONLY		
5600150-6	6.00	02 550		FLOWFLO	250	M 688738, 1125625	GM 08	ALSO PUMPED FOR DRIP SYS		
5600150-7	6.00	02 550		FLOWFLO	250	M 688738, 1125625	GM 08	ALSO PUMPED FOR DRIP SYS, LOC GUESS		
5600150-8	6.00	02 550		FLOWFLO	250	M 684745, 1124042	GM 08	FREEZE PROT. ONLY, LOC. GUESS		
5600150-9	6.00	02 550		FLOWFLO	250	M 685880, 1124054	GM 08	ALSO PUMPED FOR DRIP SYS.		
5600150-10	6.00	02 550		FLOWFLO	250	M 687765, 1124040	GM 08	ALSO PUMPED FOR DRIP SYS.		
5600150-11	6.00	02 550		FLOWFLO	220	M 688099, 1124030	GM 08	ALSO PUMPED FOR DRIP SYS.		
5600150-12	6.00	02 550		FLOWFLO	160	M 684623, 1122929	GM 08	ALSO PUMPED FOR DRIP SYS.		
5600150-13	6.00	02 550		FLOWFLO	250	M 685711, 1122896	GM 08	ALSO PUMPED FOR DRIP SYS.		
5600150-14	6.00	02 550		FLOWFLO	250	M 686944, 1122916	GM 08	ALSO PUMPED FOR DRIP SYS.		
5600150-15	6.00	02 550		FLOWFLO	250	M 686944, 1122916	GM 08	FREEZE PROT. ONLY		
5600150-16	6.00	02 550		FLOWFLO	250	M 689045, 1122897	GM 08	FREEZE PROT. ONLY		
5600150-17	6.00	02 550		FLOWFLO	250	M 684653, 1121591	GM 08	ALSO PUMPED FOR DRIP SYS.		
5600150-18	6.00	02 550		FLOWFLO	100	M 686082, 1121636	GM 08	ALSO PUMPED FOR DRIP SYS.		
5600150-19	6.00	02 550		FLOWFLO	250	M 687296, 1121656	GM 08	FREEZE PROT. ONLY, LOC IS GUESS		
5600150-20	4.00	02 550		FLOWFLO	40	M 688227, 1121655	GM 08	FREEZE PROT. ONLY, cap estimated		
5600150-21	4.00	02 550		FLOWFLO	175	M 688227, 1121655	GM 08	DOMESTIC USE ONLY, cap estimated		
5600150-22	6.00	02 550		FLOWFLO	100	M 688931, 1121643	GM 08	LOC. IS GUESS		
5600150-23	6.00	02 550		FLOWFLO	250	M 686000, 1125582	GM 08			
5600150-24	4.00	02 550		FLOWFLO	175	M 687243, 1124286	GM 08	DOMESTIC USE ONLY		
5600150-25	4.00	02 550		FLOWFLO	175	M 701778, 1125830	GM 08			
5600150-26	4.00	02 550		FLOWFLO	175	M 701778, 1125830	GM 08	LOC. IS GUESS		
5600151-1	3.55	02 56	7/78	AG GM	2	J. WOOD & N. BOURIAS				
5600151-2	4.00	02 1000	600	FLOWFLO	130	M 691961, 1118822	GM 08			18 .50
5600151-P1	5.00	02 1000	600	FLOWFLO	210	M 692255, 1118454	GM 08			
5600152-1	20.15	02 56	10/87	AG BOT	2	R. DAVIDSON & J. FOULER(OKEE, EIGHTY)				
5600152-2	4.00	02 860	320	FLOW...	100	M 681955, 1128024	GM 08	Cap estimated		70 .50
5600152-P1	6.00	02 820	300	FLOW...	250	M 662237, 1128128	GM 08	"		
5600153-1	30.22	02 56	7/89	AG GM	3 0	MARY VAN DER LURT				
5600153-2	6.00	02 800	FLOW	FLOW150	250	M 701778, 1125830	GM 08	Cap estimated for flow wells		105 .50
5600153-3	4.00	02 500	FLOW	FLOW175	100	M 701834, 1126144	GM 08	WOOD PLUGGED		
5600153-P1	4.00	02 300	FLOW	FLOW100	100	M 701473, 1127410	GM 08			
5600154	6.77	02 03	5/89	AG BOT	2	MAYNE CARLTON (N.C. GROVES)				
5600154M	18.4	03	6.77	02	2	MAYNE CARLTON (N.C. GROVES)				40 .85

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AM.	ALL.	ALL UNIT	MAX NO.	NO. UTS	CD	DATE ISS.	USE TYPE	SRC.	SW.	PHPS	OWNER	CD	PERMIT NO.	DEV NO.	AGTYPE	RAIN ST	IRR ACRES	IRR EFF
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LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NUMBER	QUAN. NO.	WELL NO.	DPTH	CD	INT TYP	PUMP CAP.	NTR?	XPLNR	YPLNR	SRC	AG	COMMENTS
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5600154-1	083 01	6.00	M/A	---	---	FLOWFLO	175	---	675633.	110090	GM	08	
5600154-2	083 01	6.00	M/A	---	---	FLOWFLO	305	---	675651.	1099010	GM	08	
5600154-P1	083 01	---	---	---	---	---	200	---	682885.	1102517	SM	99	C-89
5600155W	172.02	63.31	02	56	6/89	AG	GM	14	0	FIRST AN. BANK & TRUST			56
5600155-1	073 01	2.00	02	1000	50	FLOWFLO	50	---	703452.	1132054	GM	08	Cap estimated
5600155-2	073 01	4.00	02	100	100	---	01	---	704381.	1131467	GM	02	"
5600155-3	073 01	4.00	02	1000	100	FLOWFLO	350	---	704071.	1130665	GM	08	"
5600155-4	073 01	3.00	02	1000	75	FLOWFLO	300	---	704343.	1130870	GM	08	"
5600155-5	073 01	4.00	02	1000	100	FLOWFLO	200	---	704440.	1130368	GM	08	"
5600155-6	073 01	4.00	02	1000	100	FLOWFLO	160	---	704518.	1129010	GM	08	"
5600155-7	073 02	8.00	02	1000	500	FLOWFLO	500	---	704676.	1128347	GM	08	"
5600155-8	073 02	8.00	02	1000	500	FLOWFLO	500	---	703726.	1127507	GM	08	"
5600155-9	073 02	8.00	02	1000	500	FLOWFLO	500	---	703807.	1128179	GM	08	"
5600155-10	073 02	8.00	02	1000	500	FLOWFLO	500	---	703784.	1129347	GM	08	"
5600155-11	072 02	8.00	02	1000	500	FLOWFLO	500	---	702551.	1127961	GM	08	"
5600155-12	072 02	8.00	02	1000	500	FLOWFLO	500	---	702549.	1129357	GM	08	"
5600155-13	072 02	8.00	02	1000	500	FLOWFLO	500	---	702579.	1130166	GM	08	"
5600155-14	072 02	8.00	02	1000	500	FLOWFLO	500	---	702575.	1131425	GM	08	"

5600156W	202.38	74.49	02	56	4/88	AG	GM	6	2	TEN MILE CREEK GROVES-UNIT 2			56
5600156-1	071 02	08	02	900	300	FLOWFLO	300	---	660193.	1135218	GM	08	
5600156-2	071 02	08	02	900	300	FLOWFLO	500	---	661628.	1136116	GM	08	
5600156-3	071 02	08	02	900	300	FLOWFLO	300	---	660205.	1136115	GM	08	
5600156-4	071 02	08	02	900	250	FLOWFLO	375	---	658896.	1136102	GM	08	
5600156-5	071 02	08	02	900	300	FLOWFLO	550	---	658906.	1137228	GM	08	
5600156-6	071 02	08	02	900	300	FLOWFLO	400	---	661606.	1137238	GM	08	
5600156-P1	071 02	---	---	---	---	---	14	---	8000	660279.	1134944	SM	99
5600156-P2	072 02	---	---	---	---	---	20000	---	662896.	1136065	SM	99	AXIAL, C-57

5600157W	82.1	03	30.22	02	56	2/89	AG	GM	4	2	DUNN CITRUS PARTNERSHIP		56
5600157-1	072 02	4.00	02	731	255	FLOWFLO	80	---	665403.	1131766	GM	08	
5600157-2	072 02	5.00	02	665	280	FLOWFLO	75	---	665046.	1130499	GM	08	
5600157-3	072 02	5.00	02	---	---	FLOWFLO	75	---	664455.	1129870	GM	08	
5600157-4	072 02	8.00	02	470	320	FLOWFLO	600	---	663469.	1129955	GM	08	
5600157-P1	072 02	---	---	---	---	---	10	---	8000	665527.	1131253	SM	99

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LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

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PERMIT NO.	AM.	ALL.	ALL UNIT	MAX MO.	DATE USE SRCNO.	SV	CO	ISS.	TYPE	M.S.	PMPS	OWNER	CO	PERMIT NO.	DEV NO.	AGTYPE	TYPE	SI	IRR	IRR	ACRES	EFF
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LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

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PERMIT NO.	FACILITY NUMBER	QUAD. NO.	WELL NO.	DPTH	PMP PUM PUMP	CD	TD	INT	TYP	CAP.	MIR?	XPLMR	YPLMR	SRC	AG	COMMENTS
5600165-11	072 01	6.00	---	---	---	---	---	---	FLOW	450	---	687553.	1116533	GW	08	
5600165-12	072 04	4.00	---	---	---	---	---	---	---	180	---	691038.	1118699	GW	08	*PLUGGED, Cap estimated
5600165-13	072 01	4.00	---	---	---	---	---	---	FLOW	120	---	687549.	1116992	GW	08	
5600165-14	072 01	6.00	---	---	---	---	---	---	FLOW	350	---	687877.	1114067	GW	08	
5600165-15	072 01	4.00	---	---	---	---	---	---	FLOW	200	---	687896.	1113021	GW	08	
5600165-16	072 01	4.00	---	---	---	---	---	---	---	120	---	687583.	1113100	GW	08	Cap. estimated
5600165-17	072 01	6.00	---	---	---	---	---	---	---	450	---	688173.	1112864	GW	08	
5600165-18	072 01	4.00	---	---	---	---	---	---	---	150	---	687543.	1111262	GW	08	
5600165-19	072 01	6.00	---	---	---	---	---	---	FLOW	1000	---	688718.	1111847	GW	08	
5600165-20	072 03	4.00	---	---	---	---	---	---	---	120	---	689240.	1111641	GW	08	Cap est.
5600165-21	072 01	3.00	---	---	---	---	---	---	---	150	---	688481.	1111545	GW	08	
5600165-22	072 03	4.00	---	---	---	---	---	---	FLOW	120	---	688807.	1112679	GW	08	Cap est.
5600165-23	072 01	4.00	---	---	---	---	---	---	---	80	---	688760.	1113414	GW	08	
5600165-24	072 03	4.00	---	---	---	---	---	---	---	120	---	689102.	1114324	GW	08	Cap est.
5600165-25	072 03	4.00	---	---	---	---	---	---	FLOW	120	---	689814.	1115649	GW	08	
5600165-26	072 01	6.00	---	---	---	---	---	---	FLOW	1000	---	690936.	1116022	GW	08	
5600165-27	072 01	6.00	---	---	---	---	---	---	---	400	---	690181.	1114891	GW	08	
5600165-28	072 01	5.00	---	---	---	---	---	---	---	325	---	689716.	1113612	GW	08	
5600165-29	072 01	5.00	---	---	---	---	---	---	---	250	---	690959.	1113622	GW	08	
5600165-30	072 01	6.00	---	---	---	---	---	---	---	400	---	690207.	1112196	GW	08	
5600165-31	072 01	4.00	---	---	---	---	---	---	---	150	---	690273.	1110946	GW	08	
5600165-32	072 01	6.00	---	---	---	---	---	---	---	225	---	691506.	1110957	GW	08	
5600165-33	072 01	6.00	---	---	---	---	---	---	---	500	---	691012.	1111812	GW	08	
5600165-34	072 01	6.00	---	---	---	---	---	---	---	1000	---	691485.	1112183	GW	08	
5600165-35	072 01	4.00	---	---	---	---	---	---	---	120	---	691497.	1113376	GW	08	
5600165-36	072 01	6.00	---	---	---	---	---	---	---	350	---	691609.	1114778	GW	08	
5600165-37	072 01	4.00	---	---	---	---	---	---	---	350	---	690967.	1114812	GW	08	
5600165-38	072 03	5.00	---	---	---	---	---	---	---	300	---	691517.	1116339	GW	08	Cap est.
5600165-39	072 01	4.00	---	---	---	---	---	---	---	200	---	691646.	1118292	GW	08	Cap est.
5600165-40	072 03	5.00	---	---	---	---	---	---	---	300	---	691308.	1118463	GW	08	Cap est.
5600165-41	072 01	6.00	---	---	---	---	---	---	---	400	---	685089.	1115328	GW	08	
5600165-42	072 01	4.00	---	---	---	---	---	---	---	140	---	686638.	1115174	GW	08	
5600165-43	072 01	6.00	---	---	---	---	---	---	---	1000	---	687561.	1117978	GW	08	
5600165-44	072 01	6.00	---	---	---	---	---	---	---	350	---	687539.	1117805	GW	08	
5600165-P1	072 01	---	---	---	---	---	---	---	---	12000	---	689575.	1115393	SM	99	

5600166W	59.43	03	21.87 02	56	7/87	AG BOT	1	1 LYNCH, KUMP & STATTEL(CASSEN'S GROVE)	56	08 13	.8	11	76	.50
5600166-1	072 01	03	8.00 02	800	100	FLOM FLO	700	672209. 1130767 GJ 08	56	08 13	.8	11	76	.50
5600166-2	072 01	03	10000				10000	673408. 1130772 SW 99 C-54, Cap est.						
5600167W	14.07	03	5.18 02	56	1/89	AG GW	150	W. STATTEL(CASSEN'S GROVE)	56	08 13	08	11	18	.50
5600167-1	073 01	03	4.00 02	1200	400	FLOM FLO	150	703994. 1126480 GJ 08	56	08 13	08	11	18	.50
5600168W	179.38	03	66.02 02	56	4/89	AG BOT	3	1 W.E. REUTER (SNARROCK GROVES)	56	08 13	.8	11	390	.85
5600168-1	072 01	03	8.00 02	300	250	FLOM FLO	780	680290. 1121626 GJ 08	56	08 13	.8	11	390	.85
5600168-2	072 03	03	5.00 02	300	250		250	679564. 1119353 GJ 08 Cap est.						
5600168-3	072 01	03	8.00 02	300	250	FLOM FLO	780	680973. 1118546 GJ 08						
5600168-P1	072 01	03	01				18000	678931. 1121511 SW 99						
5600169W	49.67	03	18.28 02	56	3/89	AG BOT	2	1 EDSELL GROVE#6	56	08 13	1.5	11	80	.85
5600169-1	061 01	03	6.00 02	750	294	FLOM FLO	300	682334. 1168945 GJ 08	56	08 13	1.5	11	80	.85
5600169-2	061 01	03	6.00 02	750	294	FLOM FLO	400	683666. 1168912 GJ 08						
5600169-P1	061 01	03	01				7000	684184. 1168342 SW 99						
5600170W	32.6	03	16.00 02	56	3/78	AG BOT	1	2 W.C. GROVES	56	08 13	.8	11	9	.50
5600170-1	061 01	03	12.00				900	693576. 1156095 GJ 08	56	08 13	.8	11	9	.50
5600170-P1	061 01	03	01				6000	692316. 1157414 SW 99						
5600170-P2	061 01	03	01				6000	694756. 1156699 SW 99						
5600171W	6.03	03	3.00 02	56	3/78	AG BOT	1	1 C.D. HOWARD	56	08 13	.8	11	9	.50
5600171-1	072 01	03	5.00 02	850	160	FLOM FLO	100	699786. 1141006 GJ 08	56	08 13	.8	11	9	.50
5600171-P1	072 01	03	01				700	698832. 1140959 SW 99						
5600172W	48.3	03	27.8 02	56	3/78	ag bot	4	2 C.FAINSETT JR.	56	08 13	1.5	11	160	.50
5600172-1	061 01	03	6.00 02	1000	250	FLOM FLO	300	681767. 1161503 GJ 08	56	08 13	1.5	11	160	.50
5600172-2	061 01	03	6.00 02	1000	250	FLOM FLO	300	681814. 1160388 GJ 08						
5600172-3	061 01	03	6.00 02	1000	250	FLOM FLO	300	682941. 1161497 GJ 08						
5600172-4	061 01	03	6.00 02	1000	250	FLOM FLO	300	683601. 1160368 GJ 08						
5600172-P1	061 01	03	01				10000	684076. 1160261 SW 99						
5600172-P2	061 01	03	01				8000	681711. 1160214 SW 99						
5600173W	20.7	03	7.62 02	56	4/89	AG GW	2	0 GATES & GATES	56	08 13	1.5	11	45	.85
5600173-1	072 01	03	4.00 02	800	150		100	692749. 1146315 GJ 08 Cap est.	56	08 13	1.5	11	45	.85
5600173-2	072 01	03	4.00 02	800	150		100	692830. 1144956 GJ 08 Cap est.						
5600174W	18.4	03	6.77 02	56	5/89	AG BOT	1	1 ESTATE OF PIPPEN(WHITE GROVE)	56	08 13	1.5	11	40	.85
5600174-1	061 01	03	6.00 02	800	300	FLOM FLO	250	681194. 1166109 GJ 08	56	08 13	1.5	11	40	.85
5600174-P1	061 01	03	01				10000	680959. 1166863 SW 99						
5600175W	13.8	03	5.08 02	56	3/89	AG GW	1	0 EDSELL GROVE #1	56	08 13	1.5	11	30	.85
5600175-1	061 01	03	6.00 02	1200	268	FLOM FLO	800	686629. 1167300 GJ 08	56	08 13	1.5	11	30	.85
5600176W	91.9	03	33.8 02	3/78	AGR bot	8	0	SEXTON, CHARLES R SR	56	08 13	.8	11	200	.85
5600176-1	61 1	03	6 02	750	250	4	400	689057 1167810 GJ 08	56	08 13	.8	11	200	.85
5600176-2	61 1	03	5 02	650	250	4	250	689566 1168165 GJ 08						
5600176-3	61 1	03	4 02	650	250	4	100	689023 1169995 GJ 08						
5600176-4	61 1	03	5 02	700	260	4	250	688319 1170675 GJ 08						
5600176-5	61 1	03	5 02	700	260	4	250	688250 1170948 GJ 08						

5600183-8	61	1	8	02	800	250	4	600	684151 1170484 GM	08	08	13	1.5	11	35	.85	
5600184M	36.1	03	20.9	02	31678	AGR	GM	6	0	KASOLL GROVES, INC.	08	08	13	1.5	11	85	.50
5600184-1	72	1	6	02	1000	400	4	360	692757 1148099 GM	08							
5600184-2	72	1	4	02	1000	400	4	125	694187 1147939 GM	08							
5600184-3	72	1	6	02	1000	400	4	200	694101 1147011 GM	08							
5600184-4	72	4	6	02	1000	400	4	50	694271 1146755 GM	08							
5600184-5	72	1	6	02	1000	400	4	220	694702 1146582 GM	08							
5600184-6	72	1	4	02	1000	400	4	200	694186 1145719 GM	08							
5600185M	54.7	03	20.1	02	31678	AGR	GM	6	0	D. L. SCOTTO COMPANY	08	08	13	1.5	11	70	.50
5600185-1	72	1	4	02	742	340	4	175	689195 1146256 GM	08							
5600185-2	72	1	4	02	814	330	4	184	688218 1146443 GM	08							
5600185-3	72	1	5	02	772	327	4	124	688335 1145910 GM	08							
5600185-4	72	1	5	02	891	316	4	245	688670 1145001 GM	08							
5600185-5	72	1	5	02			4	200	688556 1144846 GM	08							
5600185-6	72	1	5	02			4	200	688550 1144478 GM	08							
5600186M	9.2	03	3.3	02	31678	AGR	bot	1	1	PLATTS GROVES, INC.	08	08	13	0.8	11	19	.85
5600186-1	61	1	6	02	1000	350	4	250	686064 1153847 GM	08							
5600186-1S	61	1	02				13	1	686054 1154795 SM	99							
5600187M	13.7	03	6.9	02	31678	AGR	GM	1	0	HARDWICK GROVES	08	08	13	0.8	11	35	.50
5600187-1	61	1	5	02			4	100	693025 1151487 GM	08							
5600187-1P	61	1	5	02			1	400	692200 1150883 SM	99							
5600188M	29.7	03	10.9	02	31678	AGR	bot	2	1	PLATTS GROVES, INC.	08	08	13	1.5	11	36	.50
5600188-1	72	1	4	02	800	300	4	100	689490 1148886 GM	08							
5600188-2	72	1	4	02	700	250	4	80	690035 1148420 GM	08							
5600188-1S	72	1	02				9	1	689459 1148677 SM	99							
5600189M	31.2	03	11.51	02	31678	AGR	bot	3	1	SEXTON, CHARLES R	08	08	13	1.5	11	40	.50
5600189-1	72	1	4	02	650	250	4	100	688187 1148045 GM	08							
5600189-2	72	1	6	02	650	250	4	300	688419 1147617 GM	08							
5600189-3	72	1	4	02	650	250	4	100	688451 1147071 GM	08							
5600189-1S	72	1	02				3	3000	689178 1147534 SM	99							
5600190M	23.4	03	8.6	02	31678	AGR	4	207	686060 1171230 GM	08	08	13	1.5	11	30	.50	
5600191M	36.8	03	13.5	02	31678	AGR	bot	4	2	D. L. SCOTTO & COMPANY, INC.	08	08	13	1.5	11	80	.85
5600191-1	61	1	8	02	987	286	4	478	691014 1154651 GM	08							
5600191-2	61	1	4	02	823	114	4	209	691008 1155430 GM	08							
5600191-3	61	1	5	02	903	296	4	352	690081 1154954 GM	08							
5600191-4	61	1	4	02			4	200	690346 1154970 GM	08							
5600191-1S	61	1	02				3	10000	689991 1155688 SM	99							
5600191-2S	61	1	02				3	10000	691855 1155512 SM	99							
5600192M	18.4	03	6.7	02	31678	AGR	GM	2	0	SUPANK, HAROLD	08	08	13	0.8	11	40	.85
5600192-1	61	1	4	02			4	160	684058 1154842 GM	08							
5600192-2	61	1	10	02	1000	380	4	1000	683019 1154362 GM	08							

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AN. ALL.	ALL. UNT.	MAX. NO.	MO. CO.	ISS. TYPE	M.S. OWNER	CD	PERMIT NO.	DEV. MO.	AGTYPE	TYPE	ST	IRR ACRES	EFF

LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NUMBER	QUAD. NO.	WELL NO.	STSDIA.	COO. TO	CD	INT. TYP.	CAP.	MTR?	NPLMR	YPLMR	SRC	AG	COMMENTS

5600193M	44.2	03	16.2	02	31678	AGR	9M	4	5	1	ZERN, ALLEN & JUDY	GM	08	08	13	1.5	11	96.1	.85	
5600193-1	61	1	5	02	750			4	160		684550	1171329	GM	08						
5600193-2	61	1	5	02	750			4	200		684948	1171185	GM	08						
5600193-3	61	1	5	02	750			4	200		684534	1169662	GM	08						
5600193-4	61	1	5	02	750			4	200		685574	1169709	GM	08						
5600193-5	61	2	12	02	950	400		4	1800		684977	1170828	GM	08						
5600193-1S	61	1	02					3	12000		684508	1170774	SM	99						
5600194M	26.2	03	9.6	02	31678	AGR	9M	4	5	0	JOHNSON, S.J AND P.A.	GM	08	08	13	0.8	11	57	.85	
5600194-1	72	1	5	02				4	150		689726	1147696	GM	08						
5600194-2	72	1	4	02				4	100		690157	1147654	GM	08						
5600194-3	72	1	5	02				4	200		690412	1147366	GM	08						
5600194-4	72	1	6	02				4	150		689960	1146942	GM	08						
5600194-5	72	1	5	02				4	200		690372	1146230	GM	08						
5600195M	20.3	03	7.4	02	31678	AGR	9M	4	3	3	STONE, JR - CHARLES	GM	08	08	13	1.5	11	26	.50	
5600195-1	72	1	4	02				4	50		699999	1141807	GM	08						
5600195-2	72	1	4	02				4	50		700055	1142377	GM	08						
5600195-3	72	1	4	02				4	100		700065	1142602	GM	08						
5600195-1S	72	1	02					3	3500		700465	1142602	SM	99						
5600195-1C	72	4	02								688968	1142787	SM	99						
5600195-2C	72	4	02								700072	1142803	SM	99						
5600196M	5.4	03	17.4	02	31678	AGR	9M	4	1	0	FOREST ACRES, INC	GM	08	08	13	0.8	11	10	.50	
5600196M	61	1	4	02				4	150		685767	1171532	GM	08						
5600197M	34.5	03	12.7	02	31678	AGR	9M	4	4	0	SEXTON, CHARLES R.	GM	08	08	13	0.8	11	75	.85	
5600197-1	72	1	6	02	650	225		4	400		688218	1143135	GM	08						
5600197-2	72	1	4	02	450	200		4	75		688656	1143620	GM	08						
5600197-3	72	1	6	02	650	225		4	400		689326	1143697	GM	08						
5600197-4	72	1	6	02	650	225		4	400		689219	1141620	GM	08						
5600198M	30.3	03	17.4	02	31678	AGR	9M	4	4	1	BOURN, W.D. - PACKING CO.	GM	08	08	13	1.5	11	100	.50	
5600198-1	72	1	6	02				4	350		691044	1140631	GM	08						
5600198-2	72	1	6	02				4	350		692656	1142659	GM	08						
5600198-3	72	1	4	02				4	90		693106	1142661	GM	08						

Account No.	Sub-Account	Area	Code	Value	Unit	Rate	Category	Notes	Start	End	Rate	Value
5600198-4	72 1	4 02	1	4 02	1	3000	08 HOUSE ONLY	694647. 1140648 GM	08	13	0.8	11
5600198-6	72 1	02	1	02	1	3000	99 PORTABLE PUMP FROM C-25 CANAL	692215. 1140637 SM	08	13	0.8	11
5600199A	101.6	03	37.49	02	6	1	1 PLATTS GROVES, INC		08	13	0.8	11
5600199-1	72 1	6 02	1000	350	4	300		698062 1147055 GM	08	13	0.8	11
5600199-2	72 1	4 02	750	300	4	150		697955 1147416 GM	08	13	0.8	11
5600199-3	72 1	6 02	1100	350	4	250		699374 1148743 GM	08	13	0.8	11
5600199-4	72 1	5 02	800	325	4	175		698171 1149200 GM	08	13	0.8	11
5600199-5	72 1	4 02	700	300	4	100		698057 1148882 GM	08	13	0.8	11
5600199-6	72 1	5 02	800	300	4	150		698219 1150264 GM	08	13	0.8	11
5600199-1S	72 1	02			1	800		698519 1150264 SM	99	13	0.8	11
5600200M	36.8	03	13.54	02	7	1	Internal ditch, Location est.		08	13	0.8	11
5600200-1	61 1	6 02	800	150	4	260		LELLY, KENNETH	08	13	0.8	11
5600200-2	61 1	4 02	800	150	4	100		688035. 1167781 GM	08	13	0.8	11
5600200-3	61 1	4 02	800	150	4	100		687584. 1167880 GM	08	13	0.8	11
5600200-4	61 1	4 02	800	150	4	100		688038. 1167175 GM	08	13	0.8	11
5600200-5	61 1	4 02	800	150	4	100		688219. 1166974 GM	08	13	0.8	11
5600200-6	61 1	4 02	800	150	4	100		689297. 1167282 GM	08	13	0.8	11
5600200-P1	61 1	02			18**	1	584	690198. 1167085 GM	08	13	0.8	11
5600201U	24.1	03	13.9	02	2	0	FROM INTERNAL DITCH		08	13	1.5	11
5600201-1	61 1	6 02	1000		4	175		MATTHEWS, E W	08	13	1.5	11
5600201-2	61 1	8 02	1000		4	305		683175 1162595 GM	08	13	1.5	11
5600202	32.9	03	18.9	02	2	2	2 CUSTON AGRICULTURAL ERV		08	13	1.5	11
5600202-1	61 1	6 02			4	240		680522 1160086 GM	08	13	1.5	11
5600202-2	61 1	4 02			4	240		680474 1158745 GM	08	13	1.5	11
5600202-1S	61 1	02			3	10000		680959 1158862 SM	99	13	1.5	11
5600202-2S	61 1	02			3	10000		681443 1161410 SM	99	13	1.5	11
5600203M	14.8	03	5.4	02	3	0	PIPPIN, ESTATE OF		08	13	1.5	11
5600203-1	61 1	12 02	1000	300	4	800		679807 1163703 GM	08	13	1.5	11
5600203-2	61 1	5 02	900	300	4	100		679783 1163397 GM	08	13	1.5	11
5600203-3	61 1	4 02	700	300	4	75		680285 1163503 GM	08	13	1.5	11
5600204M	36.7	03	13.5	02	1	0	DUENSING GROVES, INC		08	13	0.8	11
5600204-1	61 1	8 02	1150	300	4	450		694258 1157956 GM	08	13	0.8	11
5600205M	31.2	03	11.5	02	1	1	PLAIT GROVES, INC.		08	13	0.8	11
5600205-1	61 1	6 02	900	350	4	250		690319 1153573 GM	08	13	0.8	11
5600205-1S	61 1	1			10	3	3000	689739 1153012 SM	99	13	0.8	11
5600206M	20.7	03	7.62	02	3	1	PLATT GROVES, INC.		08	13	0.8	11
5600206-1	72 3	6 02	1000	350	4	250		691221 1146589 GM	08	13	0.8	11
5600206-2	72 3	4 02	800	300	4	100		691659 1146568 GM	08	13	0.8	11
5600206-3	72 3	4 02	600	300	4	75		691036 1147772 GM	08	13	0.8	11
5600206-1S	72 1	1			11	1	150	691945 1147494 SM	99	13	0.8	11
5600207M	8.2	03	3	02	1	1	NORTHERN TRUST BANK OF FLORIDA		08	13	0.8	11

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AN. ALL.	ALL UNIT NO.	MAX. UTS NO.	DATE CO ISS.	USE TYPE	SRC. VLS.	SM OWNER	CO PERMIT NO.	DEV NO.	AGTYPE	SOIL TYPE	RAIN ST	IRR ACRES	IRR EFF
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LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NO.	QUAD. NO.	WELL NO.	DEPTH TD	PUMP INT CAP.	AGR bot	AGR top	SM	COMMENTS
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5600207-1	72	1	5	02	680	280	4	150	697055 1144876 GA 08
5600207-1S	72	1	1			10	1	10000	697486 1144514 SM 99 C-3
5600208-1	61	1	6	02	790	140	4	150	680420 1170666 GA 08
5600208-2	61	1	6	02	790	140	4	150	681230 1169389 GA 08
5600208-3	61	1	6	02	900	240	4	300	680214 1170844 GA 08
5600208-4	61	1	5	02	800	140	4	150	680253 1172997 GA 08
5600208-5	61	1	5	02	800	140	4	150	681592 1172385 GA 08
5600208-6	61	1	5	02	950	140	4	300	682342 1172656 GA 08

5600209-1	72	1	2.8	02	31678	280	4	150	1 HELSETH, HAROLD & BETTY 696521 1145446 GA 08
5600209-1S	72	1	1			10	1	10000	696021 1145446 SM 99 C-3 /also listed, LOC. IS GUESS

5600210-1	61	1	110.8	02	31678	AGR bot	13	3	UNITED GROVES 685285 1166760 GA 08 Cap estimated
5600210-2	61	1	4	02		5	100		686349 1166791 GA 08 "
5600210-3	61	1	8	02		4	100		685972 1164855 GA 08 "
5600210-4	61	1	4	02		4	575		686364 1163932 GA 08 "
5600210-5	61	1	4	02		4	100		685090 1162636 GA 08 "
5600210-6	61	1	4	02		4	100		686730 1162234 GA 08 "
5600210-7	61	1	4	02		4	100		686768 1165977 GA 08 "
5600210-8	61	1	4	02		3	100		685648 1161304 GA 08 "
5600210-9	61	1	4	02		4	100		684585 1160562 GA 08 "
5600210-10	61	1	4	02		4	100		686567 1159776 GA 08 "
5600210-11	61	1	4	02		4	100		684817 1159127 GA 08 "
5600210-12	61	1	4	02		3	100		684817 1166052 GA 08 "
5600210-13	61	1	4	02		4	100		686465 1165141 GA 08 "
5600210-1S	61	1				1	8000		684634 1165269 SM 99 Ft.Pierce Farms DD
5600210-2S	61	1				1	8000		684625 1162185 SM 99 Ft.Pierce Farms DD
5600210-3S	61	1				1	12000		684668 1161321 SM 99 Ft.Pierce Farms DD

5600211-1	61	1	30.2	02	31678	AGR bot	3	1	CASSINS GROVE SERVICE 690350 1151929 GA 08 for Spray Tanks
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5600212W	58.6	03	21.5	02	31678	AGR	bot	6	1	690032 1151576 GW	08	for Spray Tanks	08	13	0.8	11	75	.50	
5600212W	16.1	03	5.9	02					3	691760 1151595 GW	08		08	13	0.8	11	35	.85	
5600211-2		61	1	5	02				3	691560 1151895 SW	99	24", 2 WAY PUMP MAIN CANAL #1							
5600211-3		61	1	4	02				3	1 GATES, PHILIP C									
5600211-1S		61	1	24	02				1	C-1									
5600212W	58.6	03	21.5	02	31678	AGR	bot	6	1	696555 1141758 GW	08								
5600212W	16.1	03	5.9	02						697301 1141916 GW	08								
5600212-2		72	1	4	02	800	150	4	150	697666 1142464 GW	08								
5600212-3		72	1	5	02	800	250	4	250	698604 1142042 GW	08								
5600212-4		72	1	4	02	800	150	4	150	698477 1141382 GW	08								
5600212-5		72	1	5	02	800	200	4	250	697682 1141356 GW	08								
5600212-6		72	1	6	02	900	200	4	385	698242 1142794 SW	08								
5600212-S		72	2	02				3	8000	C-1									
5600213W	26.7	03	7.9	02	31678	AGR	GW		3	0	CASSINS GROVE SERVICE								
5600213-1		72	1	5	02			4	170	689836 1144804 GW	08								
5600213-2		72	1	4	02			4	100	689901 1145275 GW	08								
5600213-3		72	1	5	02			4	170	690355 1144756 GW	08								
5600214W	55.1	03	20.3	02	31678	AGR	bot	12	1	GATES, P.C. & C.B., JR.									
5600214-1		61	1	5	02	800	150	4	150	696558 1151810 GW	08	Check permit boundary	08	13	0.8	11	225	.85	
5600214-2		72	1	5	02	800	150	4	275	697277 1151037 GW	08	on over-lays-they							
5600214-3		72	1	4	02	800	150	4	200	695400 1150726 GW	08	added 80 acres-sec 25							
5600214-4		72	1	4	02	800	150	4	181	696512 1150662 GW	08								
5600214-5		72	1	5	02	800	150	4	295	697203 1150631 GW	08								
5600214-6		72	1	4	02	800	150	4	160	696069 1150366 GW	08								
5600214-7		72	1	5	02	800	150	4	250	695324 1150108 GW	08								
5600214-8		72	1	4	02	800	150	4	181	695673 1150094 GW	08								
5600214-9		72	1	4	02	800	150	4	160	696597 1150113 GW	08								
5600214-10		72	1	5	02	800	150	4	295	697167 1150056 GW	08								
5600214-11		72	1	5	02	800	150	4	250	696373 1148830 GW	08								
5600214-12		72	1	5	02	800	150	4	250	697023 1148807 GW	08								
5600214-1S		72	2	02				3	8000	697023 1148807 SW	99	C-3, LOC. IS GUESS							
5600215W	60.8	03	22.3	02	31678	AGR	GW		4	0	CASSENS GROVE SERVICE, INC.								
5600215-1		61	1	8	02	1200	200	4	610	679559 1160068 GW	08								
5600215-2		61	1	8	02	1200	200	4	610	678330 1160105 GW	08								
5600215-3		61	1	6	02	1200	200	4	250	679300 1161200 GW	08	for Spray Tanks, LOC IS GUESS							
5600215-4		61	1	4	02	1200	200	4	100	680546 1161781 GW	08								
5600216W	20.2	03	7.45	02	31678	AGR	GW		3	0	RUSSAKIS, JIM G								
5600216-1		61	1	4	02	700	340	4	75	690050 1156438 GW	08	J.L. PLOTTED							
5600216-2		61	1	4	02	700	340	4	75	689791 1157138 GW	08	acreage sold							
5600216-3		61	1	4	02	700	340	4	75	690200 1157188 GW	08	WATER SURVEY 850 MG/L							
5600217W	7.6	03	2.7	02	31678	AGR	GW		2	0	HELSETH, HAROLD & BETTY								
5600217-1		72	1	4	02	960	300	4	75	693256 1145005 GW	08								
5600217-2		72	1	6	02	960	250	4	150	692859 1144974 GW	08								
5600218W	36.4	03	11.6	02	31678	AGR	GW		2	0	HARDWICK GROVES								
5600218-1		61	1	6	02			4	150	695832 1158129 GW	08	Well broken open							
5600218-2		61	1	6	02			4	200	696800 1158071 GW	08								

5600221-8S	1	02		3	3000	689252 1152510 SW 99	Canals 1.7,16,18, 12"PORTABLE					
5600221-9S	1	02		3	3000	689252 1152510 SW 99	12" PORTABLE PUMP					
5600221-10S	1	02		3	3000	689252 1152510 SW 99	12" PORTABLE PUMP					
5600222W	6.9	03	2.5 02		1 0	31678 AGR 9W			08	13	0.8	11
5600222W	72	1	6 02	800	350	4	PLATTS GROVE, IMC					
5600223W	9.2	03	3.3 02		1 0	31678 AGR 9W						
5600223-1	72	1	5 02	980	300	4	695511 1149238 GW 08					
5600224W	16.1	03	5.9 02		1 0	31678 AGR 9W						
5600224-1	72	1	6 02	900	200	4	HELSETH, HAROLD & BETTY					
5600225W	43	03	12.9 02		1 0	31678 AGR bot						
5600225-1	72	1	6 02	1100	350	4	695716 1147448 GW 08					
5600226W	21.8	03	6.9 02		2 0	31678 AGR 9W						
5600226-1	61	1	6 02	900	4	4	GATES PHILIP C - JR & SR					
5600226-2	61	1	6 02	900	4	4	695561 1143268 GW 08					
5600227W	16.5	03	6 02		2 2	31678 AGR bot						
5600227-1	72	1	4 02	600	300	4	695561 1143268 GW 08					
5600227-2	72	1	4 02	700	325	4	PLATTS GROVES, INC.					
5600227-1S	1	02	4 02	700	325	4	697134 1145708 GW 08	Used when canal				
5600227-1C	1	02	02		1	180	696850 1146047 GW 08	is low				
5600228W	13.8	03	5 02		2 1	31678 AGR bot						
5600228-1	72	1	4 02	800	350	4	696350 1146047 SW 99	Internal Canal, LOC. IS GUESS				
5600228-2	72	1	4 02	700	300	4	1	PLATTS GROVES, INC.				
5600228-1S	72	1	4 02	700	300	4	697167 1143123 GW 08					
5600230W	10.9	03	3.48 02		2 0	31678 AGR 9W						
5600230-1	61	1	4 02		205	4	697194 1143320 SW 99	C-1,C-3(drainage?)				
5600230-2	61	1	5 02		205	4	VINSON, AUGUSTA					
5600231W	43.6	03	12.8 02		1 0	31678 AGR 9W						
5600231-1	61	1	6 02	1000	4	4	680075 1165506 GW 08	Combined well				
5600232W	48.8	03	14.4 02		3 0	31678 AGR 9W						
5600232-1	61	1	5 02	900	225	4	680050 1164374 GW 08	capacity				
5600232-2	61	1	5 02	900	225	4	1	HAMILTON, DAVID A				
5600232-3	61	1	4 02	900	225	4	67953 1162915 GW 08					
5600233W	41.4	03	15.2 02		4 2	31678 AGR bot						
5600233-2	61	1	8 02	900	150	4	2	KUJA, STEPHANIE A.				
5600233-3	61	1	4 02	700	150	4	69015 1153941 GW 08					
5600233-4	61	1	4 02	700	150	4	691079 1152345 GW 08					
5600233-5	61	1	4 02	700	150	4	691937 1153013 GW 08					
5600233-1S	61	1	4 02	700	150	4	693073 1152677 GW 08					
5600233-2S	61	1	02		3	10000	692187 1153507 SW 99					
5600235W	10.2	03	5.9 02		3	5000	692401 1152369 SW 99					
									08	13	1.5	11
												34 .50

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AN.	ALL.	ALL MAX. UNITS	MO.	DATE	USE	SRCNO.	SM	OWNER	CD	PERMIT NO.	DEV NO.	AGTYPE	ST	IRR	ACRES	EFF

LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NUMBER	QUAD.	WELL	DEPTH	PMP	PUMP	CD	INT	TYP	CAP.	NTR7	YPLNR	SRC	AG	COMMENTS
		NO.	STSDIA.												

5600237M		21	03	16.4	02	91478	AGR	6W	1	0		ORANGE AVE LAND TRUS				
5600237M																
5600238M		26.2	03	9.6	02	91478	AGR	bot	2	1		DUNN, HOWARD W				
5600238-1		72	1	4	02	343	100	4	100			686042	1117047	GM	08	
5600238-2		72	1	4	02	709	140	4	140			685454	1116750	GM	08	
5600238-1S		72	1		02			1	500			685453	1116960	SM	99	on site pond
5600239M		17	03	6.2	02	91478	AGR	6W	1	0		DUNN, HOWARD W				
5600239-1		72	1	8	02	943	320	4	410			692338	1128343	GM	08	
5600240M		22.3	03	12.9	02	91478	AGR	BOT	1	0		A + B GROVE				
5600240-1		71	1	10	02	970	320	4	960			647915	1131298	GM	08	
5600240-P1		71	1		02				10000			648575	1129318	SM	99	BOX PUMP FROM NSLRMPD CANAL
5600242M		43.2	03	15.9	02	91478	AGR	bot	3	1		DUNN, EARNEST R				
5600242-1		72	1	4	02	756	100	4	105			694014	1128748	GM	08	
5600242-2		72	1	4	02	789	134	4	200			694241	1127790	GM	08	
5600242-3		72	1	6	02	838	133	4	290			692855	1127881	GM	08	
5600242-1S		72	1		1			17.	250			693978	1127002	SM	99	on site pond
5600243M		49.8	03	18.3	02	91478	AGR	6W	5	0		CHILDS, RL-SR & WA				
5600243-1		73	1	4	02	800	350	4	148			706499	1121558	GM	08	
5600243-2		73	1	4	02	800	350	4	200			707733	1120902	GM	08	
5600243-3		73	1	4	02	800	350	4	200			707216	1120206	GM	08	
5600243-4		73	1	6	02	800	350	4	400			705332	1120748	GM	08	
5600243-5		73	1	4	02	800	350	4	148			704578	1120670	GM	08	
5600244M		12.8	03	4.22	02	91478	AGR	6W	1	0		JONES, EDDIE M				

08	13	0.8	11	34	.50
08	13	0.8	11	40	.50
08	13	1.5	11	57.0	.85
08	13	0.8	11	37.0	.85
08	13	1.5	11	74.0	.85
08	13	0.8	11	94.0	.85
08	13	0.8	11	20.0	.85
08	13	0.8	11	52.0	.50
08	20	0.8	11	15.0	.50

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AM. ALL.	ALL MAX. UMT NO.	NO. UTS CO	DATE ISS.	USE SRCNO.	SU	PPMS	OWNER	CO	PERMIT NO.	DEV NO.	AGTYPE	SOIL TYPE	RAIN ST	IRR ACRES	IRR EFF
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LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NO.	QUAD. NO.	WELL NO.	DEPTH	PMP PUM PUMP	CD	INT TYP	CAP.	MTR?	NPLNR	YPLNR	SRC	AC	COMMENTS
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5600253-5	71	1	8 02	900	240	4	100			647378	1128204	GM	08							
5600253-6	71	1	8 02	900	240	4	100			647511	1125350	GM	08							
5600253-7	71	1	6 02	900	240	4	100			648547	1125377	GM	08							
5600253-8	71	1	8 02	900	240	4	100			649880	1125337	GM	08							
5600253-9	71	1	8 02	900	240	4	100			651233	1125365	GM	08							
5600253-10	71	1	8 02	900	240	4	100			652305	1125392	GM	08							
5600253-1S		1			14	3	12000			652305	1125392	SU	99	C-24, Location is guess.						
5600255M	16.6	03	6.1 02	121478	AGRboth	1	1			HESTER, R.J. & LIMBLOOM, G.			56		08	13	1.5	11	36	.85
5600255-1	71	1	6 02		4	410				656702	1128018	GM	08							
5600255-1S	71	1			13'	1	12000			657717	1127030	SU	99	C-65						
5600257M	18.4	03	6.8 02	11879	AGR GW	2	0			HESTER, R.J. & LIMBLOOM, G.			56		08	13	1.5	11	40	.85
5600257-1	72	1	5 02	814	316	4	249			664056	1130907	GM	08							
5600257-2	72	1	4 02	800	300	4	75			663581	1138746	GM	08							
5600259M	33.1	03	12.2 02	121478	AGRboth	3	1			OLDCHESTER CORPORATION			56		08	13	1.5	11	72	.85
5600259-1	71	1	4 02	850	315	4	75			655670	1129356	GM	08							
5600259-2	71	1	4 02	880	294	4	75			655565	1128224	GM	08							
5600259-3	71	1	6 02	960	336	4	180			655934	1128261	GM	08							
5600259-1S	71	1			16	1	10000			655277	1129307	SU	99	C-64						
5600260M	35	03	12.9 02	11879	AGR GW	3	0			ROSENTHAL, JAMIC			56		08	13	0.8	11	76	.85
5600260-1	71	1	6 02	800	340	4	100			651289	1118407	GM	08	Capacity estimated						
5600260-2	71	1	5 02	700	340	4	100			651323	1117805	GM	08							
5600260-3	71	1	6 02	800	340	4	100			650114	1117801	GM	08							
5600262M	19.5	03	7.2 02	31579	AGRboth	2	1			BRITT, M.V. & M. H.			56		08	13	1.5	11	37	.75
5600262-1	83	1	4 02	800	4	128				667053	1100486	GM	08							
5600262-2	83	1	6 02	800	4	225				667586	1101360	GM	08							
5600262-1S	83	2			2	10000				668082	1100885	SU	99	C-85						
5600264M	27.8	03	10.2 02	11879	AGRboth	8	1			ROSENTHAL, J.M. & TURVIN, L.A.			56		08	13	1.5	11	36	.50
5600264-1	71	1	6 02	700	340	4	300			658070	1126954	GM	08							
5600264-2	71	1	5 02	650	360	4	250			658725	1126928	GM	08							
5600264-3	71	1	5 02	650	360	4	250			658441	1126538	GM	08							

5600264-4	71	1	5	02	650	360	4	250	659809	1126799	GM	08							
5600264-5	71	1	5	02	650	360	4	250	660658	1126271	GM	08							
5600264-6	71	1	5	02	650	360	4	250	658444	1125390	GM	08							
5600264-7	71	1	4	02	500	320	4	150	659098	1125395	GM	08							
5600264-8	71	1	8	02	1000	360	4	300	658644	1124374	GM	08							
5600264-1S	71	1	02				3	8000	658903	1129285	SU	99							
5600265M																			
5600265-1	71	03	17.3	02	11879	AGRboth	1		1	EDSALL-DUNNETT GROVES									
5600265-1S	72	1	6	02	900	300	4	270	661540	1132288	GM	08							
		1	15	1	10000				662680	1132710	SU	99							
5600266M																			
5600266-1	71	03	6.6	02	31579	AGRboth	1	550	2	PLATTS, NORMAN & BARBARA									
5600266-1C	71	4	5	02	800	300	4	550	660707	1113331	GM	08							
5600266-2C	71	4	1			18			660694	1113588	SU	99							
		4	1			18			660688	1112881	SU	99							
5600267M																			
5600267-1	71	03	5.6	02	110879	AGRBOTH	2	2	2	MAYBURY MANAGEMENT									
5600267-2	71	3	4	02	1000	4	260		661778	1131795	GM	08							
5600267-1S	71	1	6	02	1000	4	261		661778	1131295	GM	08							
5600267-2S	71	3	02			7500			662070	1130877	SU	99							
		3	02			7500			662109	1131350	SU	99							
5600269M																			
5600269-1	71	03	6.7	02	21579	AGR GM	1	0	1	A-ONE CITRUS, INC.									
		1	5	02	1000	360	4	150	655933	1138391	GM	08							
5600270M																			
5600270-1	72	03	24	02	21579	AGRboth	1	2	2	FLA CITRUS PROPERTIES									
5600270-1S	72	1	5	02	1000	4	315		662993	1117451	GM	08							
5600270-1C	71	4	02			14	3	12700	663019	1117214	SU	99							
		4	1			14													
5600271M																			
5600271-1	72	03	6.1	02	21579	AGRboth	1	1	1	MORRIS, JR., KENNETH A									
5600271-1S	72	2	6	02	800	160	4	350	663596	1120046	GM	08							
		2	02			3	4000		663047	1119441	SU	99							
5600272M																			
5600272-1	71	03	47.6	02	21579	AGR GM	1	0	1	EVANS PROPERTIES, INC.									
		1	8	02	881	287	4	575	660354	1120135	GM	08							
5600276M																			
5600276-1	82	03	22.6	02	31579	AGR	2	2	2	MONTOYA, ALBERTO & JOEAM									
5600276-2	82	1	8	1	1000	360	4	500	647419	1099046	GM	08							
5600276-3S	82	1	8	1	1000	360	1	500	649397	1100770	GM	08							
5600276-4S	82	1	1			10	2	12000	652283	1100377	SU	99							
		1	1			10	2	12000	647415	1100157	SU	99							
5600277M																			
5600277-1	71	03	47.2	02	31579	AGRboth	7	1	1	ROSENTHAL, J.M. & HELMAM, L.M.									
5600277-2	71	1	6	1	850	360	1	300	647062	1122775	GM	08							
5600277-3	71	1	6	1	850	360	4	275	647333	1122675	GM	08							
5600277-4	71	1	6	1	850	360	4	275	648165	1122577	GM	08							
5600277-5	71	1	6	1	850	360	4	300	648595	1122579	GM	08							
5600277-6	71	1	6	1	850	360	4	300	649226	1122581	GM	08							
5600277-7	71	1	8	1	1000	400	4	600	649947	1122584	GM	08							
5600277-1S	71	1	4	1	550	200	4	120	651207	1122891	GM	08							
		1	3	8000					651385	1123498	SU	99							

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LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AN.	ALL	MAX	NO.	DATE	USE	SRC	NO.	SU	CD	PERMIT	NO.	DEV	NO.	AG	TYPE	SF	IRR	ACRES	EFF
		UNT	NO.	UTS	CO	ISS.	TYPE	M.L.S.	PHPS	OWNER										

LINE 2 HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY	QUAD.	WELL	DPTH	PHS	PUR	PUMP	CD	INT	TYP	CAP.	MTR	MPLR	YPLR	SRC	AG	COMMENTS
	NUMBER	NO.	STSDIA.	TO	CD	INT	TYP	CAP.	MTR	MPLR	YPLR	SRC	AG	COMMENTS			

5600278W	207.6	03	1	5	1	600	315	4	210	6	1	MCARTINR	FARMS, INC	664259.	1104261	GM	08	08	13	1.5	11	266	.50	
5600278-2	83	1	5	1	600	318	4	210	664626.	1102748	GM	08	664993.	1101235	GM	08	663538.	1104258	GM	08	663544.	1102946	GM	08
5600278-3	83	1	5	1	600	287	4	210	663370.	1101228	GM	08	662912.	1102943	SU	99	Header Canal							
5600278-4	83	1	5	1	600	323	4	210																
5600278-5	83	1	5	1	600	275	4	210																
5600278-6	83	1	5	1	600	308	4	210																
5600278-1S	83	1	1	1			11	1	25000															
5600279W	164.2	03	1	60.4	02	71979	AGR	GM	3	2	0	DL	SCOTTO + COMPANY	715106	1096745	GM	08	08	13	1.5	11	210	.50	
5600279-1	83	1	4	1			4	270	667236.	1103971	GM	08	665888.	1102753	GM	08	667247.	1102545	GM	08	668324.	1102359	SU	99
5600279-2	83	1	4	1			4	257																
5600279-3	83	1	4	1			4	213																
5600279-1S	83	1	1	1			3	10000																
5600279-2S	83	1	1	1			3	10000																
5600280W	26.8	03	1	7.9	02	41979	AGR	GM	3	2	0	DL	SCOTTO + COMPANY	715106	1096745	GM	08	08	13	0.8	11	40	.50	
5600280-1	84	1	6	02			3	200																
5600280-2	84	1	5	02			3	175																
5600281W	111	03	1	40.9	02	41979	AGR	GM	6	2	0	EVAMS	PROPERTIES, INC.	665400	1092660	GM	08	08	13	1.5	11	142	.50	
5600281-1	83	1	4	02			4	100																
5600281-2	83	1	4	02			4	100																
5600281-3	83	1	4	02			4	100																
5600281-4	83	1	4	02			4	100																
5600281-5	83	1	4	02			4	100																
5600281-6	83	1	4	02			4	100																
5600281-7	83	1	4	02			4	100																
5600281-1S	83	1	1	02			3	8000																
5600281-2S	83	1	1	02			3	10000																
5600282W	10	03	1	3	02	41979	AGR	GM	1	0	0	GREENE,	I	717661	1097963	GM	08	08	13	0.8	11	15	.50	
5600282-1	84	1	4	02			4	100																
5600283W	6	03	1	3	02	41979	AGR	GM	3	1	0	BACKTEL	GROVES #1	716875	1105760	GM	08	08	13	0.8	11	9	.50	
5600283-1	84	1	4	02			3	150																

Location is guess.
C-24
C-24

5600284W	8	03	3 02	41979	AGR	9W	1 0	FT PIERCE GROWERS AS	56	08	13	0.8	11	12	.5
5600284-1	84	1	4 02	900		4	75	719052 1097300 GM 08							
5600285W	17.3	03	5.1 02	41979	AGR	9W	1 0	ROBINSON, H S	56	08	13	0.8	11	26	.50
5600285-1	84	1	4 02	850		4	150	713601 1100919 GM 08							
5600286W	20.7	03	02	41979	AGR	9W	3 0	ROBINSON, R D	56	8,1	13	0.8	11	45	.85
5600286-1	84	1	4 02	850		4	100	716997 1100797 GM 08							
5600286-2	84	1	4 02	850		4	100	716831 1100310 GM 08							
5600286-3	84	1	3 02	60		1	151.6	716831 1100310 GM 02							
								Location is guess							
5600287W	10.7	03	5.38 02	41979	AGR	9W	2 0	MOSUCHIMSKY, J	56	8,1	13	0.8	11	16	.50
5600287-1	84	1	4 02	875		4	100	706817 1104546 GM 08							
5600287-2	84	1	3 02	45		3	70	706838 1103808 GM 02							
5600288W	4.37	03	1.61 02	41979	AGR	9W	2 0	ROBINSON, R D	56	8,1	13	0.8	11	10	.85
5600288-1	84	1	4 02	800		4	100	716861 1097963 GM 08							
5600288-2	84	1	3 02	60		1	151.6	716821 1098219 GM 02							
5600289W	12.1	03	3.56 02	41979	AGR	9W	1 0	MARTIN, D E	56	08	13	0.8	11	18	.85
5600289-1	84	1	4 02			4	232	715361 1095339 GM 08							
5600295W	18.8	03	6.92 02	91379	AGR	9W	3 0	BAKER, J H	56	08	13	0.8	11	35	.50
5600295-1	84	1	4 02	800		4	150	709968 1105745 GM 08							
5600295-2	73	1	4 02	800		4	50	710660 1106873 GM 08							
5600295-3	73	1	4 02	800		4	150	710462 1106519 GM 08							
5600296W	23.4	03	8.6 02	91379	AGR	both	1	HOEFFNER, JOHN A.	56	08	15	0.8	11	23	.50
5600296-1	72	1	4 02	800		4	125	701391 1135924 GM 08							
5600296-1S	72	1	1			10	3000	700922 1135258 SM 99							
								NSLR/MD							
5600297W	17.4	03	6.4 02	91379	AGR	both	2	VACHON, OVIDE	56	08	13	0.8	11	38	.85
5600297-1	83	3	6 02	800		4	150	676120 1094970 GM 08							
5600297-2	83	3	4 02	600		4	130	675156 1095979 GM 08							
5600297-1S	83	1	02			3	280	675066 1094936 SM 99							
5600297-2S	83	1	02			3	4000	675347 1094865 SM 99							
5600299W	105.69	03	38.9 02	91379	AGR	9W	5 0	RAINBOW GROVES, INC	56	08	13	0.8	11	500	.50
5600299-1	83	1	6 02	800		4	200	666909 1070305 GM 08							
5600299-2	83	1	6 02	800		4	200	665502 1069422 GM 08							
5600299-3	83	1	6 02	800		4	200	666172 1068708 GM 08							
5600299-4	83	1	6 02	800		4	200	666145 1066406 GM 08							
5600299-5	83	1	6 02	750		4	100	664901 1075074 GM 08							
5600300W	58.4	03	02	91379	PHS	9W	1 0	SOTOLMIED, T.	56	08	13	0.8	4	100	.50
5600300-1	85	1	5 02	1000		4	200	756771 1070966 GM 08							
5600301W	78.2	03	28.8 02	50880	AGR		7 0	MCCARTY, SR., J.M. AMD	56	8,1	20	0.8	4	78.2	.50
5600301-1	82	1	6 02	750		4	200	654388 1068678 GM 08							
5600301-2	82	1	6 02	750		4	200	659343 1070515 GM 08							
5600301-3	82	1	8 02	1200		4	600	660896 1065674 GM 08							

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AN. ALL.	ALL MAX. UNIT NO.	NO. UTS	CO ISS.	DATE	USE SRCNO.	SM	PHPS OWNER	CD	PERMIT NO.	DEV NO.	ADTYPE	SOIL TYPE	RAIN ST	IRR ACRES	IRR EFF
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LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NO.	STSDIA.	QUAD.	WELL NO.	DEPTH	CD	INT TYP	PUMP	SRV	AO	COMMENTS						
5600302M	29.7	03	10.9	02	41080	AGR	1	0	MCCARTY, SR., JOHN M. AND	56	08	13	1.5	11	38	.50	
5600302M	77.9	1	17.5	02	200	4	200	666838.	1091044	GM	08	20	1.5	11	100	.50	
5600305M	17.2	03	6.3	02	101179	AGR	GM	2	0	DEARHARD GROVES, INC.	56	08	13	1.5	11	37	.85
5600305-1	71	1	6.02	1000	315-57	4	250	655665	1131236	GM	08						
5600305-2	71	1	6.02	1000	315-57	4	250	655584	1130091	GM	08						
5600306M	62.3	03	22.9	02	101179	AGR	GM	3	0	HALL, JAMES & DEBBIE	56	08	13	0.8	11	136	.85
5600306-1	71	1	6.02	1008	260	4	300	651167	1117487	GM	08						
5600306-2	71	1	6.02	1030	262	4	280	650956	1115696	GM	08						
5600306-3	71	1	8.02	1000	260	4	450	648691	1115689	GM	08						
5600307M	54.7	03	20.1	02	101179	AGR	GM	1	2	VAN DER LUGT, C.A. & JUDITH	56	08	13	1.5	11	70	.50
5600307-1	71	1	4.02	800	400	4	660711	1128861	GM	08							
5600307-1S	71	1	1	1	1200	7	3	659666	1129215	SM	99						
5600307-2S	71	1	1	1	900	9	3	661296	1129224	SM	99						
5600308M	16.1	03	5.9	02	101179	AGR	GM	1	0	MOSKINS, P.R. & S.P.	56	08	13	1.5	11	35	.85
5600308-1	71	1	8	1000	250	4	575	657496	1129699	GM	08						
5600309M	53.2	03	19.6	02	101179	AGR	GM	1	0	PARRISH, JR., J.J.	56	08	13	1.5	11	68	.50
5600309-1	71	1	6	800	345	4	150	656431	1123063	GM	08						
5600311M	29.4	03	10.8	02	101179	AGR	GM	1	1	BELAIR GROVES, INC.	56	08	13	0.8	11	64	.85
5600311-1	71	1	4.02	860	280	4	125	653149	1130662	GM	08						
5600311-1S	71	1	1	1	10000	14	1	652708	1131793	SM	99						
5600311-1C	71	04	1	1	18	0	1	652708	1131793	SM	99						
5600312M	7.4	03	2.7	02	101179	AGR	GM	1	0	DAVES, MAXINE B.	56	08	13	1.5	11	16	.85
5600312-1	71	1	6.02	1000	300	4	250	654915	1130800	GM	08						

5600313W	170.2	03	62.6 02	101179 AGRboth	5 6	GATES, SR., PHILIP C. &	56	08	13	0.8	11	218 .50
5600313-1 71	1	1	6 02 1100	150 4	400	655384 1121281 GM 08						
5600313-2 71	1	1	6 02 1100	150 4	350	656746 1121076 GM 08						
5600313-3 71	1	1	8 02 1250	150 4	670	656551 1119088 GM 08						
5600313-4 71	1	1	8 02 1000	150 4	450	654513 1119713 GM 08						
5600313-5 71	1	1	6 02 1000	150 4	175	653116 1119693 GM 08						
5600313-1S 71	1	1	02	5000		655917 1121540 SW 99	C-67868					
5600313-2S 71	1	1	02	8000		656149 1119083 SW 99	C-67868					
5600313-1C 71	4	4	02			656149 1119083 SW 99	Screw gate, Location is guess.					
5600313-2C 71	4	4	02			656600 1121638 SW 99	Screw gate					
5600313-3C 71	4	4	02			657343 1121624 SW 99	Screw gate					
5600313-4C 71	4	4	02			657343 1121624 SW 99	Screw gate, Location is guess.					
5600314W	62.1	03	22.8 02	101179 AGRboth	1 1	1 WESTER, III, R.J. & LIMBLOOM	56	08	13	1.5	11	135 .85
5600314-1 72	1	1	5 02	745 270	161	664813 1135984 GM 08						
5600314-1S 72	1	1	1	13' 1 12000		664116 1134911 SW 99	C-62					
5600315W	18.88	03	6.95 02	101179 AGR 9W	1 0	C + M GROVES	56	08	13	1.5	11	40 .50
5600315-1 72	1	1	6 02	4 250		664278 1123389 GM 08	EXPIRED, CAP IS ESTIM.					
5600316W	193.2	03	71.1 02	11080 AGRboth	2 1	1 WESTER, ROBERT J.	56	08	13	0.8	11	420 .85
5600316-1 83	1	1	6 02	4 175		675356 1090337 GM 08						
5600316-2 83	1	1	6 02	4 350		679075 1090007 GM 08						
5600316-1S 83	1	1	02	1 12000		674741 1089796 SW 99	C-24					
5600317W	42.93	03	15.8 02	110879 AGR 9W	1 1	1 STONE, JR., C	56	08	13	0.8	11	80 .50
5600317-1 71	1	1	4 02	4 100		653194 1121687 GM 08	EXPIRED					
5600317-1S 71	1	1	24 02	4 15000		654549 1120885 SW 99	AS OF 10/87					
5600318W	34.3	03	12.6 02	41488 AGR 9W	1 0	5 FIVE STAR GROVES, INC.	56	08	13	0.8	11	75 .85
5600318-1 71	1	1	6 02 1100	250 4	225	651290 1133347 GM 08						
5600319W	117.3	03	43.2 02	110879 AGRboth	2 2	2 HATFIELD, MILTON H. - TRUSTEE	56	08	13	1.5	11	150 .50
5600319-1 71	1	1	4 02 600	100 4	50	658048 1134407 GM 08						
5600319-2 71	1	1	4 02 600	100 4	100	659281 1134639 GM 08						
5600319-1S 71	1	1	02	3 5000		658014 1132391 SW 99	C-63					
5600319-2S 71	1	1	02	3 10000		659789 1132404 SW 99	30HP, 24" diam					
5600320W	118.19	03	43.5 02	110879 AGR 9W	2 0	1 STIPPCAN GROVES, INC	56	08	13	0.8	11	220 .50
5600320-1 71	1	1	6 02 900	150 4	250	653841 1128641 GM 08	EXPIRED					
5600320-2 71	1	1	6 02 900	150 4	250	653832 1127629 GM 08						
5600321W	17.5	03	6.4 02	110879 AGR 9W	1 0	1 SIMON, F.A.; SIMON, R.L. &	56	08	13	1.5	11	38 .85
5600321-1 71	1	1	4 02 600	100 4	200	654957 1137500 GM 08						
5600322W	73.2	03	26.9 02	110879 AGRboth	1 2	2 STRIETER GROVES	56	08	13	1.5	11	94 .50
5600322-1 71	1	1	6 02 1000	300 4	225	661778 1131795 GM 08						
5600322-1S 71	1	1	1	13 3 7500		662070 1130877 SW 99	C-59					
5600322-2S 71	1	1	1	9 3 5000		662109 1131350 SW 99	C-59					
5600323W	289.3	03	106.5 02	110879 AGRboth	11 3	3 SCOTTO & CO., INC., D L	56	08	13	1.5	11	370 .50
5600323-1 72	1	1	8 02 1000	200 4	600	664124 1124282 GM 08						

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AN. ALL.	ALL. UNF. NO.	MAX. NO.	UTS. CO. NO.	ISS. DATE	CO. USE	SRCH. NO.	SW. PMP. OWNER	CO. PERMIT NO.	DEV. NO.	AG. TYPE	ST. ACRES	IRR. EFF.
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LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NUMBER	QUAD. NO.	WELL NO.	DPTH	CD	INT. CAP.	PMP. PUM. CAP.	AGR. TYPE	YPLNR	SAC	AG. COMMENTS
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5600323-3	72	1	5	02	1000	200	4	145	662966	1126186	GM 08
5600323-4	72	1	5	02	1000	200	4	145	665418	1126050	GM 08
5600323-5	72	1	8	02	1000	200	4	600	664179	1126472	GM 08
5600323-6	72	3	5	02	1000	200	4	145	664346	1127212	GM 08
5600323-7	72	1	8	02	1000	200	4	600	664027	1129159	GM 08
5600323-8	72	3	6	02	1000	200	4	250	664324	1129093	GM 08
5600323-9	72	3	6	02	1000	200	4	250	666851	1129048	GM 08
5600323-10	72	1	8	02	1000	200	4	600	667131	1129258	GM 08
5600323-11	72	3	4	02	1000	200	4	100	667712	1128709	GM 08
5600323-12	72	3	5	02	1000	200	4	145	664108	1127406	GM 08
5600323-20S72		1	1			12	3	10000	663046	1126738	SW 99
5600323-21S72		1	1			12	3	10000	665389	1126730	SW 99
5600323-30S72		1	1			12	3	10000	665647	1126241	SW 99

5600324	50.8	03	18.7	02	110879	AGRboth	2	1	SPTKE, PETER D.		
5600324-1	72	1	6	02	1050	4	4	250	667665	112247	GM 08
5600324-2	72	1	6	02		4	4	250	666349	112201	GM 08
5600324-1S	72	1	6	02		2	20000		666947	1113282	SW 99

5600325	214.9	03	79.1	02	110879	AGR	9	0	SHAWKEY, DR.		
5600325-1	71	1	6	02	500	4	4	300	657196	1117348	GM 08
5600325-2	71	1	6	02	500	4	4	300	656568	1117250	GM 08
5600325-3	71	1	6	02	500	4	4	350	655375	1117407	GM 08
5600325-4	71	1	6	02	600	4	4	350	656354	1114884	GM 08
5600325-5	71	1	6	02	600	4	4	400	655290	1114853	GM 08
5600325-6	71	1	6	02	900	4	4	400	654026	1114809	GM 08
5600325-7	71	1	6	02	900	4	4	400	653267	1116060	GM 08
5600325-8	71	1	6	02	900	4	4	400	653390	1113904	GM 08
5600325-9	71	1	6	02	900	4	4	400	652749	1114918	GM 08

5600326	60.2	03	22.2	02	110879	AGRboth	3	1	WEAVER, MONTIE H		
5600326-1	72	1	6	02	900	4	4	528	665402	1111484	GM 08
5600326-2	72	1	6	02	800	226	4	352	664248	1111147	GM 08
5600326-3	72	3	6	02	900		4	352	664246	1111958	GM 08
5600326-1S	72	1	6	02		2	8000		663125	1111528	SW 99

5600324									56				
5600325									56				
5600326									56				

5600324-1	72	1	6	02	1050	4	4	250	667665	112247	GM 08	Cap. is estim.	
5600324-2	72	1	6	02		4	4	250	666349	112201	GM 08	Cap. is estim.	
5600324-1S	72	1	6	02		2	20000		666947	1113282	SW 99	C-71	
5600325-1	71	1	6	02	500	4	4	300	657196	1117348	GM 08	EXPIRED	

5600324									56				
5600325									56				
5600326									56				

5600327W	46	03	16.9 02	110879	AGRboth	2 1	ORR, SR., DR. ALVA, D.	56	08 13 0.8 11	100 .85
	5600327-1 71	1	6 02 900		4	250	648536 1116448 GM 08 Cap. is estim.			
	5600327-2 71	1	8 02 900		4	575	647986 1115033 GM 08 Cap. is estim.			
	5600327-1C 71	04	02				648439 1116748 SU 99 USLRWD,Culvert			
5600328W	6.95	03	6.9 02	110879	AGR GW	2 0	ROBINSON, JR., H K	56	08 13 1.5 11	40 .50
	5600328-1 72	4	5 02		4	200	663613 1123809 GM 08 EXPIRED			
	5600328-2 72	4	5 02		4	200	664741 1123745 GM 08			
5600329W	7.04	03	2.6 02	110879	AGR GW	0 1	DUM, JR. W	56	08 13 1.5 11	9 .50
	5600329-1 72	1	02		2	20000	666807 1116039 SU 99 C-71			
5600331W	1596.1	03	305.6 02	110879	AGRboth	3 4	CARLTON, MARY E	56	08 20 0.8 11	1600 .50
	5600331-1 82	1	6 02 1000		4	50	648342 1093503 GM 08			
	5600331-2 82	1	4 02 1000		4	50	652811 1095147 GM 08			
	5600331-3 82	1	6 02 1000		4	50	655101 1096013 GM 08			
	5600331-1S 82	1	1		14	3 18000	647377 1097367 SU 99 C-24			
	5600331-2S 82	1	1		17	3 18000	651462 1092501 SU 99 C-24			
	5600331-1C	4	1		14		651462 1092501 SU 99 C-24,Location is guess.,culvert			
	5600331-2C	4	1		17		651462 1092501 SU 99 C-24,Location is guess.,culvert			
5600333W	62.5	03	23 02	31380	AGRboth.	1	SCHUMANN GROVES, INC.	56	08 13 1.5 11	80 .50
	5600333-1 71	1	6 02 800		4	250	657429 1137677 GM 08 Cap is estim.			
	5600333-1S 71	1	1		3	2 10000	657093 1140089 SU 99 C-61			
	5600333-2S 71	1	1		3	2 16000	656678 1137675 SU 99 C-61			
5600335W	28.9	03	10.6 02	31380	AGRboth	1	SCHUMANN GROVES, INC.	56	08 13 1.5 11	37 .50
	5600335-1 71	1	6 02 800		4	250	656561 1129600 GM 08 Cap. is estim.			
	5600335-1S 71	1	1		3	2 10000	656966 1129609 SU 99 C-64			
5600336W	62.5	03	23 02	31380	AGRboth	1	SCHUMANN GROVES, INC.	56	08 13 1.5 11	80 .50
	5600336-1 71	1	6 02 800		4	250	653084 1138022 GM 08 Cap is estim.			
	5600336-1S 71	1	1		3	2 10000	652571 1137719 SU 99 C-61			
	5600336-2S 71	1	1		3	2 10000	653603 1137594 SU 99 C-61			
	5600336-3S 71	1	1		3	2 10000	653154 1140062 SU 99 NSLRWD			
5600337W	31.3	03	11.5 02	31380	AGRboth	2	SCHUMANN GROVES, INC.	56	05 13 1.5 11	40 .50
	5600337-1 71	1	6 02 800		4	250	653368 1139550 GM 08 Cap. is estim.			
	5600337-2 71	1	6 02 800		4	250	655554 1137704 GM 08 Cap. is estim.			
	5600337-1S	1	1		3	2 10000	655754 1137704 SU 99 NSLRWD,Loc. is guess			
5600340W	115	03	42.3 02	41080	AGRboth	3	PALM INDIAN, INC	56	08 13 1.5 11	250 .85
	5600340-1 72	1	8 02 1000		4	575	677600 1111659 GM 08 Cap. is est.			
	5600340-2 72	1	6 02 1000		4	250	677613 1110346 GM 08 "			
	5600340-3 72	1	6 02 1000		4	250	677646 1109057 GM 08 "			
	5600340-1S 72	1	1		10	3 10000	677628 1112727 SU 99 10micreek			
5600342W	39	03	02	41080	PMS GW	2 0	BRYN MAWR CAMP RESORTS, INC.	54		
	5600342-2 62	2	5 1 1000		4	250	722002 1162199 GM 08 PROPOSED IN 1980			
	5600342-1 62	1	4 1 880		4	60	721921 1163441 GM 08 4"pvc LIMER			
5600343W	466.4	03	171.7 02	50880	AGRboth	22 5	BIRDSELL, JOHN	56	08 13 1.5 11	1014 .85

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LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT AM. ALL MAX NO. DATE USE SRCHO. SU CROP SOIL RAIN IRR IRR
 NO. ALL. UMT MO. UTS CD ISS. TYPE WLS. PMP5 OWNER CO PERMIT NO. DEV NO. AGTYPE TYPE ST ACRES EFF

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LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT FACILITY QUAD. WELL DPTH PMP PUM PUMP SRC AQ COMMENTS

NO. NUMBER NO. STSDIA. COD TO CD INT TYP CAP. NTR? YPLNR YPLNR SRC AQ COMMENTS

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PERMIT NO.	FACILITY NUMBER	QUAD. NO.	WELL STSDIA.	COD	TO	CD	INT TYP	CAP.	NTR?	YPLNR	YPLNR	SRC	AQ	COMMENTS
5600343-1	71	3	6 02	900	4	270	660190	1115923	GM	08				
5600343-2	71	1	6 02	900	4	270	660237	1114935	GM	08				
5600343-3	71	3	6 02	900	4	270	661929	1114274	GM	08				
5600343-4	71	1	6 02	900	4	270	659923	1113634	GM	08				
5600343-5	71	3	6 02	900	4	270	662194	1112917	GM	08				
5600343-6	71	3	6 02	900	4	270	661953	1111367	GM	08				
5600343-7	71	3	4 02	900	4	110	661271	1111389	GM	08				
5600343-8	71	3	6 02	900	4	270	659285	1112014	GM	08				
5600343-9	71	3	6 02	900	4	270	658425	1112429	GM	08				
5600343-10	71	3	6 02	900	4	270	658378	1112007	GM	08				
5600343-11	71	3	6 02	900	4	450	658180	1111063	GM	08				
5600343-12	71	1	5 02	900	4	185	662053	1110050	GM	08				
5600343-13	71	3	5 02	900	4	185	660817	1110087	GM	08				
5600343-14	71	3	4 02	900	4	110	661973	1108777	GM	08				
5600343-15	71	1	5 02	900	4	185	661193	1108972	GM	08				
5600343-16	71	1	5 02	900	4	185	662007	1106677	GM	08				
5600343-17	71	1	6 02	900	4	270	657683	1110656	GM	08				
5600343-18	71	3	6 02	900	4	270	655386	1110702	GM	08				
5600343-19	71	3	6 02	900	4	270	654965	1110664	GM	08				
5600343-20	71	3	6 02	900	4	270	656478	1109424	GM	08				
5600343-21	71	1	6 02	900	4	270	653031	1109814	GM	08				
5600343-22	71	1	10 02	900	4	1200	655297	1108409	GM	08				
5600343-18	71	1	02		8000		662322	1107397	SM	99				M StLucie-C
5600343-28	71	1	02		6000		662324	1109051	SM	99				M StLucie-C
5600343-38	71	1	02		8000		660369	1113691	SM	99				M StLucie-C
5600343-48	71	1	02		9000		659804	1116042	SM	99				M StLucie-C
5600343-58	71	1	02		6000		653877	1109228	SM	99				M StLucie-C

PERMIT NO.	FACILITY NUMBER	QUAD. NO.	WELL STSDIA.	COD	TO	CD	INT TYP	CAP.	NTR?	YPLNR	YPLNR	SRC	AQ	COMMENTS
5600344W	38.2	03	6.08	02	50880	AGRboth	2	0	AMERICAN BELTER, INC					56
5600344-1	72	1	4 02		150		663084	1133897	GM	08				EXPIRED
5600344-2	72	1	02		10000		662939	1134565	GM	08				M StLucie-C
5600345W	29.7	03	10.9	02	50880	AGRboth	2	1	CASSENS GROVE SERVICE					56
5600345-1	72	1	5 02	700	100	4	300	664576	1122577	GM	08			Cap. 1s est.
5600345-2	72	1	4 02	700	100	4	250	663819	1122423	GM	08			"
5600345-18	72	1	02		3	4000	665549	1122283	SM	99				C-57

5600346W	21.9	03	3.48 02	50880	AGR	9W	1	0	DILLIN BROTHERS CTR	56	06	13	1.5	11	20	.50
5600346-1	72	1	5 02	900		4	250		666191 1122247 GM 08	EXPIRED						
5600347W	34.5	03	12.7 02	50880	AGR	9W	1	0	SLOMIN, RALPH & ROBERTA	56	08	13	0.8	11	75	.85
5600347-1	71	1	6 02	600		4	250		650459 1133457 GM 08	Cap. is est.						
5600348W	39.6	03	14.6 02	50880	AGRboth	4	850	1	WINGFIELD, INC	56	08	13	0.8	11	86	.85
5600348-1	72	1	8 02	980		300	6500	1	674319 1126108 GM 08							
5600348-1S	72	1	1			6.	2	6500	673750 1124972 SM 99	C-54						
5600348-1C		04	1			6.	6500	6500	673750 1124972 SM 99	Ditch-54, Location is guess, cap. is guess						
5600349W	218.2	03	30.2 02	50880	AGR	9W	5	0	EVANS PROPERTIES, INC.	56	08	13	1.5	11	279	.50
5600349-1	71	1	6 02	860		4	200	4	662068 1122979 GM 08							
5600349-2	71	1	4 02	860		4	150	4	660964 1122944 GM 08							
5600349-3	71	1	4 02	860		4	100	4	659080 1122111 GM 08							
5600349-4	71	1	5 02	860		4	150	4	658667 1123073 GM 08							
5600349-5	71	1	5 02	860		4	100	4	658055 1122514 GM 08							
5600350W	33.1	03	12.2 02	50880	AGRboth	4	4	1	KIRCHHOFF, WILLIAM - TRUSTEE	56	08	13	0.8	11	72	.85
5600350-1	72	1	5 02	900		4	150	4	670706 1106474 GM 08	Cap. is est.						
5600350-2	72	1	6 02	900		4	250	4	669312 1106027 GM 08							
5600350-3	72	1	4 02	900		4	100	4	668995 1106502 GM 08							
5600350-4		1	5 02	900		4	150	4	668400 1106000 GM 08							
5600350-1S	72	1	02			1	450	1	667425 1105977 SM 99	C-85						
5600351W	13.9	2	13.9 2	50880	AGRBOTH	3	1	3	CARE, R F & HARVEST	56	08	13	0.8	11	40	0.5
5600351-1	71	1	8 2	850		450	M	450	650074. 1136822 GM 08	EXPIRED						
5600351-2	71	1	6 2	850		450	M	450	650076. 1136318 GM 08	NEW PERMIT NOT IN FILE						
5600351-3	71	1	8 2	850		450	M	450	650079. 1135811 GM 08	WORKED OFF PLD PERMIT 1980						
5600351-4S	71	1	2			1	10000	M	650072. 1137428 SU 99	CANAL 61, 2 WAY PUMP						
5600352W	40.6	3	14.9 2	50880	AGR	9W	1	0	CASSENS GROVE SERVICE	56	08	13	1.5	11	52	0.5
5600352-1	72	1	10 2	1000		200	4	650	679673 1114794 GM 08							
5600353W	113.4	3	41.7 2		AGR	SM	3	10000	TRUST, "J"	56	06	13	0.8	11	160	0.5
5600353-S	72	1	2						670212 1134953 SM 99	C-62						
5600354W	258.9	3	95.3 2	50880	AGRboth	3	3	6	DL SCOTTO & CO., INC.	56	08	13	1.5	11	360	0.5
5600354-1	83	1	8 2	876		4	425	4	680166 1101594 GM 08							
5600354-2	83	1	7 2	392		4	368	4	680400 1102919 GM 08							
5600354-3	83	1	8 2	412		4	200	4	678247 1103453 GM 08							
5600354-1S	83	1	2			3	12000		679005 1102743 SU 99	C-90						
5600354-2S	83	1	2			3	3000		681315 1104135 SU 99	C-91						
5600354-3S	83	1	2			3	6000		676983 1103514 SM 99	11miCreek						
5600354-4S	83	1	2			3	3000		677672 1104384 SM 99	C-91						
5600354-5S	83	1	2			3	3000		678787 1103022 SM 99	C-91						
5600354-6S	83	1	2			3	3000		678834 1104547 SM 99	C-91						
5600355W	95.6	3	35.2 2	50880	AGRboth	4	2	4	HAMILTON, IREZ	56	08	13	1.5	11	122	0.5
5600355-1	72	1	10 2	980		4	850	4	664275 1139814 GM 08	Cap. is est.						
5600355-2	72	1	6 2	800		4	250	4	664983 1139503 GM 08							
5600355-3	72	1	6 2	800		4	250	4	663602 1139605 GM 08							

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AN. ALL.	ALL UNT.	MAX NO.	NO. UTS	CD	ISS.	DATE	USE	SRCNO.	SN	OWNER	CD	PERMIT NO.	DEV NO.	AGTYPE	TYPE	ST	IRR	IRR
																		ACRES	EFF

LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NUMBER	QUAD. NO.	WELL NO.	DPTH	CD	TINT	YPLNR	SRC	AG	COMMENTS	56	08	13	1.5	11	832	0.85		
5600357W	382.7	3	140.9	2	6	2	1000	61280	AGRboth	3	3	4	250	664223	1139212	GM	08		
	5600357-1	71	1	8	2	1	1000	61280	AGR	4	1100	10	10000	664233	1140099	SU	99		
	5600357-2	71	1	6	2	1	12000	61280	AGR	4	225	15	12000	665342	1139237	SU	99	C-25	
	5600357-3	71	1	10	2	1		61280	AGR	4	1200			664117	1139504	SU	99	C-57	
	5600357-1S	71	1	1	2	2		61280	AGR	3	25000			664117	1139504	SU	99	C-25, culvert	
	5600357-2S	71	1	2	2	2		61280	AGR	3	6000			664117	1139504	SU	99	C-25, Location is Guess., culvert	
	5600357-3S	71	1	2	2	2		61280	AGR	3	25000			664117	1139504	SU	99	C-25, Location is Guess., culvert	
5600358W	33.3	3	12.26	2	61280	AGR	SW	0	2	BROWN, R.L.	56	08	13	1.5	11	52	0.75		
	5600358-1	72	1	2	3	3000		61280	AGR	3	3000			665695	1131373	SU	99	C-57	
	5600358-2	72	1	2	3	3000		61280	AGR	3	3000			665765	1130078	SU	99	C-57	
5600359W	17	3	6.26	2	61280	AGR	GM	2	0	BROWN GROVES, INC	56	08	13	1.5	11	36	0.5		
	5600359-1	72	3	5	2	1000		61280	AGR	100	100			682511	1106438	GM	08		
	5600359-2	83	1	6	2	1000		61280	AGR	150	150			682555	1105652	GM	08		
5600360W	25.9	3	9.56	2	61280	AGR	both	2	0	JOHNSON, A	56	08	13	1.5	11	55	0.5		
	5600360-1	72	1	4	2	700		61280	AGR	4	100			697092	1136431	GM	08		
	5600360-2	72	1	4	2	500		61280	AGR	4	45			696564	1137226	GM	08		
5600363W	125.1	3	46	2	71080	AGR	both	0	1	CHICAGO CITRUS INVESTORS	56	08	13	0.8	11	160	0.5		
	5600363-1S	82	1	1	15	3	15000	71080	AGR	15	3	15000		659164	1095068	SU	99	C-78	
5600365W	9.2	3	3.39	2	71080	AGR	GM	2	0	BAILLEY, CODY LEE	56	08	13	1.5	11	20	0.85		
	5600365-1	83	1	4	1	26		71080	AGR	2	350			677465	1097596	GM	02		
	5600365-2	83	1	4	2	600		71080	AGR	4	150			677282	1098143	GM	08		
5600366W	150.3	3	55.3	2	71080	AGR	both	8	2	NINTO GROVES	56	08	13	1.5	11	192	0.5		
	5600366-1	72	1	5	2	500		71080	AGR	4	250			676945	1106005	GM	08	Cap. is estim.	
	5600366-2	72	1	5	2	500		71080	AGR	3	250			677592	1106547	GM	08		

5600366-3	72	1	5	2	500	300	4	250	674881 1105994 GM 08 "											
5600366-4	72	1	6	2	500	300	4	250	674860 1106660 GM 08 "											
5600366-5	72	1	3	2	500	300	4	250	677071 1107495 GM 08 "											
5600366-6	72	1	5	2	500	300	3	75	676224 1106931 GM 08 "											
5600366-7	72	1	4	2	500	300	4	100	675373 1107471 GM 08 "											
5600366-8	72	1	5	2	500	300	4	250	676473 1107431 GM 08 "											
5600366-1S	72	1	2	2	500	300	3	25000	674489 1108047 SM 99	C-83										
5600366-2S		1	2	2	500	300	3	25000	674489 1108047 SM 99	C-83, Location is Guess.										
5600366-1C		4	2	2			3	25000	674489 1108047 SM 99	C-83, Location is Guess.										
5600367M																				
5600367-1	83	3	19.5	2	71080	AGRboth	2	2	2 BECKER HOLDING CORPORATION	56										
5600367-2	83	1	6	2	4	300	4	300	668677 1097664 GM 08 PERMIT states Floriden use											
5600367-1S	83	1	4	2	1	125	1	6000	669366 1097134 GM 08											
5600367-2S	83	1	2	2	1	950	1	950	668453 1096900 SM 99	C-85										
5600368M																				
5600368-1	82	2	7.51	2	71080	AGRboth	1	1	1 STONE, JR., C	56										
5600368-1S	82	1	4	2	600	4	100	650903 1101666 GM 08												
5600369M																				
5600369-1	82	3	19.9	2	71080	AGR SM	4	1650	0 CULVERHOUSE, JOHN B	56										
5600369-2	82	3	10	2	1300	360	4	600	653853 1101249 GM 08											
5600369-3	82	1	8	2	1100	360	4	600	653317 1100329 GM 08											
5600369-4	82	3	10	2	1300	440	4	1250	653012 1100345 GM 08											
5600370M																				
5600370-1	83	3	60.4	2	71080	AGRboth	10	3	3 SCOTTO & COMPANY, D.L.	56										
5600370-2	83	1	8	2	1000	2-300	4	384	672266 1099954 GM 08											
5600370-3	83	1	5	2	1000	2-300	4	286	670991 1099915 GM 08											
5600370-4	83	1	4	2	800	2-300	4	213	671101 1098977 GM 08											
5600370-5	83	1	5	2	1000	2-300	4	236	672256 1098935 GM 08											
5600370-6	83	1	5	2	1000	2-300	4	334	672835 1098658 GM 08											
5600370-7	83	1	6	2	1000	2-300	4	176	673312 1098724 GM 08											
5600370-8	83	1	8	2	1000	2-300	4	603	672806 1098088 GM 08											
5600370-9	83	3	6	2	1000	2-300	4	339	673218 1097561 GM 08											
5600370-10	83	1	4	2	800	2-300	4	213	673463 1098204 GM 08	Cap. is guess.										
5600370-1S		1	5	2	1000	2-300	4	160	674251 1099295 GM 08											
5600370-2S		1	1	1			3	6000	674551 1099295 SM 99	C-85, Location is guess.										
5600370-3S		1	2	2			13	3	6000	674551 1099295 SM 99	C-88									
5600372M																				
5600372-1	83	3	3	2	71080	AGRboth	1	1	1 VACHON, OVIDE	56										
5600372-1S	83	1	6	2	900	4	150	673866 1097175 GM 08												
5600373M																				
5600373-1	83	3	3.09	2	71080	AGR SM	4	223	1 JOHNSTON, D	56										
5600374M																				
5600374-1S	72	2	3.62	2	71080	AGR SM	0	2	2 HOFFNER, B	56										
5600374-2S	72	1	2	2			3	3500	701648 1134794 SM 99											
5600374-2S	72	1	2	2			3	3500	702165 1134814 SM 99											

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AM. ALL.	ALL UNT.	MAX MO.	DATE USE	SRC NO.	SM	PHPS	OWNER	CO	PERMIT NO.	DEV NO.	ADTYPE	TYPE	ST	ACRES	IRR EFF
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LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NUMBER	QUAD. NO.	WELL NO.	DEPTH	PTH	PUR	PUMP	CD	INT	TYP	CAP.	MTR?	MPLNR	YPLNR	SRC	AO	COMMENTS
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5600378W	8.28	3	3	2	71080	AGR	GM	4	300								0	NAVAJO GROVES, INC	56	08	13	0.8	11	18	0.85		
5600378-1	72	1	6	2	800													685565	1107817	GM	08	08	13	1.5	11	427	0.5
5600380W	333.8	3	122.8	2	81480	AGRboth												5	EVANS PROPERTIES, INC.	56	08	13	0.8	11	142	0.5	
5600380-1	72	1	4	2	700													646154	1120269	GM	08	08	13	0.8	11	142	0.5
5600380-2	72	1	4	2	700													666460	115250	GM	08	08	13	0.8	11	142	0.5
5600380-3	72	1	4	2	700													666289	1114454	GM	08	08	13	0.8	11	142	0.5
5600380-1S	72	1	2	2	700													665748	1120828	SM	99	99	13	0.8	11	142	0.5
5600380-2S	72	1	2	2	700													667071	1116258	SM	99	99	13	0.8	11	142	0.5
5600380-3S	72	1	2	2	700													665584	1115906	SM	99	99	13	0.8	11	142	0.5
5600380-4S	72	1	2	2	700													663142	1114769	SM	99	99	13	0.8	11	142	0.5
5600380-5S	72	1	2	2	700													665675	1113739	SM	99	99	13	0.8	11	142	0.5
5600381W	111	3	40.8	2	81480	AGRboth												2	EVANS PROPERTIES, INC.	56	08	13	0.8	11	142	0.5	
5600381-1	83	3	4	2	700													668485	1094707	GM	08	08	13	0.8	11	142	0.5
5600381-2	83	3	4	2	700													669528	1094656	GM	08	08	13	0.8	11	142	0.5
5600381-3	83	1	4	2	700													669494	1094440	GM	08	08	13	0.8	11	142	0.5
5600381-4	83	3	4	2	700													669492	1093942	GM	08	08	13	0.8	11	142	0.5
5600381-5	83	1	4	2	700													669486	1093722	GM	08	08	13	0.8	11	142	0.5
5600381-1S	83	1	4	2	700													670491	1094578	SM	99	99	13	0.8	11	142	0.5
5600381-2S	83	1	4	2	700													668515	1093668	SM	99	99	13	0.8	11	142	0.5
5600383W	110.1	3	40.5	2	91180	AGRboth												5	EVANS PROPERTIES, INC.	56	08	13	0.8	11	142	0.5	
5600383-1	82	4	4	2	700													658939	1094775	GM	08	08	13	0.8	11	142	0.5
5600383-2	82	1	4	2	700													659216	1094675	GM	08	08	13	0.8	11	142	0.5
5600383-3	82	1	6	2	700													659224	1092359	GM	08	08	13	0.8	11	142	0.5
5600383-4	82	4	4	2	700													658959	1092319	GM	08	08	13	0.8	11	142	0.5
5600383-5	82	2	10	2	1000													658959	1092319	GM	08	08	13	0.8	11	142	0.5
5600383-1S	82	4	2	2	700													659746	1092376	SM	99	99	13	0.8	11	142	0.5
5600383-2S	82	1	2	2	700													659987	1094728	SM	99	99	13	0.8	11	142	0.5
5600386W	390.06	3	143.9	2	11581	AGRboth												3	PIE, R./GERMANY HAWKROCK GROVES	56	08	13	0.8	11	500	0.5	
5600386-1	82	1	8	2	1200													644694	1079447	GM	08	08	13	0.8	11	500	0.5
5600386-2	82	1	12	2	1200													642616	1080954	GM	08	08	13	0.8	11	500	0.5
5600386-3	82	1	12	2	1200													642257	1079741	GM	08	08	13	0.8	11	500	0.5
5600386-4	82	2	12	2	1200													644783	1079851	GM	08	08	13	0.8	11	500	0.5

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AN. ALL.	ALL UNIT	MAX NO.	NO. UTS	CO ISS.	DATE TYPE	USE WLS.	SU	PHPS OWNER	CO PERMIT NO.	DEV NO.	ARTYPE	RAIN ST	IRR ACRES	IRR EFF
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LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NUMBER	QUAD. NO.	WELL STS01A.	DPTH COO	TYP CAP.	MTR?	YPLMR	SNC	AG COMMENTS
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5600417-7	72	1	2.00	2	90	2	12	691454	1124438	GU	02				
5600417-8	72	1	2.00	2	90	2	12	691190	1124368	GU	02				
5600417-9	72	1	2.00	2	90	2	12	691139	1124709	GU	02				
5600417-10	72	1	2.00	2	90	2	12	689903	1126535	GU	02				
5600417-15	72	1	2.00	2	90	2	1000	691147	1124187	SU	99				
5600417-25	72	1	2.00	2	1700	1	1700	694157	1126702	SU	99				
5600417-35	72	1	2.00	2	2000	1	2000	692888	1126721	SU	99				

5600418	76.10	3	12.60	2	10782	AGRbot	5	1	BURNAC PRODUCE, INC			02	20	1.5	11	86	0.75
5600418												02	61	1.5	11	22	.5

5600418-1	83	1	6.00	2	70	35	40	2	666855	1100068	GU	02					
5600418-2	83	1	6.00	2	70	35	3	100	666801	1099643	GU	02					
5600418-3	83	5	6.00	2	760	300	4	100	665686	1101193	GU	08					
5600418-4	83	5	6.00	2	760	300	4	100	666573	1098843	GU	08					
5600418-5	83	5	6.00	2	760	300	4	100	667972	1098991	GU	08					
5600418-15	83	1	6.00	2	2	3	2000		667972	1098991	SU	99					

5600421	13.90	3	5.16	2	21182	AGRbot	1	1	KLASSEN, VIC			02	61	0.8	11	5	0.5
5600421												02	20	0.8	11	5	0.5

5600421-1	84	1	2.00	2	84	3	100	722159	1090838	GU	02						
5600421-15	84	1	2.00	2	84	3	500	722132	1091135	SU	99						

5600428	2305.30	3	848.50	2	31182	AGRbot	10	4	DUDA, A. & SONS, INC.			08	13	0.8	24	5012	0.85
5600428												08	15	0.8	24	2000	0.5
5600428-16	95	1	16.00	2	373	363	4	1500	690122	1057809	GU	08					
5600428-19	83	1	16.00	2	935	480	4	1500	684808	1069803	GU	08					
5600428-21	83	1	4.00	2	365	352	4	100	681155	1071728	GU	08					
5600428-22	83	1	5.00	2	695	350	4	250	681632	1071814	GU	08					
5600428-23	83	1	4.00	2	733	355	4	100	672053	1074978	GU	08					
5600428-24	83	5	4.00	2	395	367	4	100	674087	1081346	GU	08					
5600428-25	83	1	5.00	2	395	367	4	250	679152	1074929	GU	08					
5600428-26	83	5	5.00	2	557	469	4	250	679424	1078713	GU	08					
5600428-27	83	5	5.00	2	557	469	4	250	679815	1079040	GU	08					
5600428-18	83	1	4.00	2	1	14	3	30000	684666	1060754	GU	08					
5600428-75	83	2	4.00	2	1	14	3	30000	683240	1075441	SU	99					
5600428-75	83	2	4.00	2	1	14	3	30000	685248	1077117	SU	99					

Capacities estimated.

C-24
C-24

5600429	625.50	3	230.20	2	41582	AGROW	5	0	MAYACA LAND CORPORATION	56 5600429W	02	13	0.8	12	1200	0.75
5600428-PC14	83	2	1	1	14	3	18000	685248	1077117	SU 99	C-23, Loc. guess					
5600428-PC16	83	2	1	1	14	3	18000	685248	1077117	SU 99	C-23, Loc. guess					
5600428-PC13	83	1	1	1	8		18000	693890	1044686	SU 99	C-24, loc. estim., cap. estim.					
5600428-14AC	83	1	1	1	14		18000	693890	1044686	SU 99	C-24, cap. est.					
5600428-16C	83	4	1	1	12		18000	690054	1044625	SU 99	C-24, cap. est.					
5600429-1	93	1	8.00	2	240	2	180	605958	1058627	GM 02	PERMITTED FLORIDAM : WRONG					
5600429-2	93	1	8.00	2	220	2	180	600406	1059637	GM 02	PROB. SURFICIAL WELLS					
5600429-3	93	1	8.00	2	220	2	180	600304	1058734	GM 02	THIS PERMIT ALL WRONG, FAC. CAP. TOO HIGH.					
5600429-4	93	1	8.00	2	220	2	180	608302	1059643	GM 02	NOT FLORIDAM, MID-HAMTHORN, MAX MO. TOO HIGH					
5600429-5	93	3	10.00	2	1300	2	7	607491	1059237	GM 02	CAPPED, USE IN FUTURE					
5600430	42.10	3	16.00	2	41582	AGROW	3	0	BOUDEN, R K	56 5600430M	2,8	13	1.5	11	175	0.85
5600430-1	59	1	10.00	2	800	4	1000	616100	1165099	GM 08	EXPIRED					
5600430-2	59	1	8.00	2	100	3	350	615100	1166995	GM 02						
5600430-3	59	1	8.00	2	100	3	350	615053	1169378	GM 02						
5600432	63.40	3	23.40	2	41582	AGROW	9	0	SCOTT, L.W.	56 5600432M	2,8	13	1.5	11	574	0.85
5600432-1	59	2	10.00	2	800	4	1000	616246	1158069	GM 08	EXPIRED					
5600432-2	59	2	10.00	2	800	4	1000	616252	1155645	GM 08						
5600432-3	59	2	8.00	2	100	3	350	616148	1161915	GM 02						
5600432-4	59	2	8.00	2	100	3	350	616339	1160506	GM 02						
5600432-5	59	2	8.00	2	100	3	350	616221	1159283	GM 02						
5600432-6	59	2	8.00	2	100	3	350	616140	1157243	GM 02						
5600432-7	59	2	8.00	2	100	3	350	616255	1154772	GM 02						
5600432-8	59	2	8.00	2	100	3	350	616268	1153614	GM 02						
5600432-9	59	2	8.00	2	100	3	350	616244	1151987	GM 02						
5600433	16.26	3	6.00	2	41582	AGR	3	0	MCDEMID, H C	56 5600433M	2,8	13	1.5	11	148	0.85
5600433-1	59	2	10.00	2	800	4	1000	616263	1164151	GM 08	EXPIRED					
5600433-2	59	2	8.00	2	100	3	350	615170	1162532	GM 02						
5600433-3	59	2	8.00	2	100	3	350	616959	1162750	GM 02						
5600437	143.70	3	52.90	2	61082	AGROW	1	1	TRIPLE C RANCH	56 5600437M	08	13	0.8	11	313	0.85
5600437-1	82	1	8.00	2	4	300	4	633074	1083665	GM 08						
5600437-1S	82	1	8.00	2	17	3	4000	636196	1082056	SU 99	C-23					
5600437-2C	82	4	8.00	2	17	17		636028	1082088	SU 99	Culvert					
5600437-5C	82	4	8.00	2	17	17		635855	1081839	SU 99	Culvert					
5600437-PC51C	82	4	8.00	2	17	17		636398	1081800	SU 99	Culvert					
5600439	91.90	3	33.00	2	61082	AGROW	2	1	HELSETH GROVE SERVICE, INC.	56 5600439M	08	13	0.8	4	200	0.85
5600439-1	94	1	8.00	2	1300	4	750	649500	1048162	GM 08						
5600439-2	94	1	8.00	2	1300	4	750	649509	1045437	GM 08						
5600439-4S	94	1	8.00	2	17	1	16000	651229	1044533	SU 99	C-23					
5600440	117.30	3	43.20	2	61082	AGROW	2	1	PLATTS GROVES, INC	56 5600440M	08	13	0.8	12	150	0.5
5600440-1	94	1	8.00	2	1500	4	600	649486	1051898	GM 08	Cap. estim.					
5600440-2	94	1	8.00	2	1500	4	600	649493	1050181	GM 08						
5600440-1S	94	1	8.00	2	10	3	10000	651204	1051197	SU 99	C-23-McCartyc					
5600440-1C	94	4	8.00	2	10	3	10000	651206	1050793	SU 99	C-23-McCartyc					

5600472-1	70	1	6.00	2	1000	300	4	400	612792.	1132662	GM	08	Pumpage reports required.					
5600472-2	70	1	6.00	2	1000	300	4	400	614765.	1135596	GM	08	"					
5600472-3	70	1	6.00	2	1000	300	4	400	614747.	1141957	GM	08	"					
5600472-1S	70	1	6.00	1	1	2200	2200	2200	612604.	1135186	SM	99	"					
5600472-2S	70	1	6.00	1	1	2200	2200	2200	612589.	1140840	SM	99	"					
5600473	4304.40	3	1584.20	2	20984	Agribot	31	1	ORANGE AVE CITRUS GROWERS ASSN	56	5600473M	08	13	1.5	11	9358	0.85	
5600473-1	59	1	10.00	2	1020	240	4	850	616221	1164439	GM	08	Cap. estimated					
5600473-3	59	1	10.00	2	1020	240	4	850	616206	1159147	GM	08	"					
5600473-4	59	1	10.00	2	1020	240	4	850	618934	1160718	GM	08	"					
5600473-5	59	1	10.00	2	1140	244	4	850	618729	1154514	GM	08	"					
5600473-6	60	1	10.00	2	1080	246	4	850	621916	1155257	GM	08	"					
5600473-7	59	1	10.00	2	1050	270	4	850	616284	1154163	GM	08	"					
5600473-8	60	1	10.00	2	1050	450	4	850	629343	1152465	GM	08	"					
5600473-9	60	1	10.00	2	1040	240	4	850	629373	1155723	GM	08	"					
5600473-10	71	1	10.00	2	1040	250	4	850	626038	1144487	GM	08	"					
5600473-11	71	1	10.00	2	1040	260	4	850	626863	1141480	GM	08	"					
5600473-12	71	1	10.00	2	1030	230	4	850	632312	1141258	GM	08	"					
5600473-13	60	1	10.00	2	1020	255	4	850	632516	1153345	GM	08	"					
5600473-14	71	1	10.00	2	1030	245	4	850	631785	1134805	GM	08	"					
5600473-16	71	1	10.00	2	1100	280	4	850	636164	1135187	GM	08	"					
5600473-17	71	1	8.00	2	1120	260	4	575	635081	1146104	GM	08	"					
5600473-18	71	1	10.00	2	907	407	4	850	638224	1139268	GM	08	"					
5600473-19	71	1	8.00	2	950	204	4	575	629727	1135662	GM	08	"					
5600473-20	71	1	10.00	2	1020	240	4	850	639380	1135328	GM	08	"					
5600473-21	71	1	6.00	2	950	230	4	250	629013	1138029	GM	08	"					
5600473-22	71	1	6.00	2	950	230	4	250	629100	1136969	GM	08	"					
5600473-23	71	1	6.00	2	950	230	4	250	629035	1135873	GM	08	"					
5600473-24	59	1	12.00	2	1020	240	4	1100	616896	1151704	GM	08	"					
5600473-25	59	1	10.00	2	1020	270	4	850	617027	1153432	GM	08	"					
5600473-26	59	1	10.00	2	1020	260	4	850	616165	1156610	GM	08	"					
5600473-27	59	1	10.00	2	1020	240	4	850	616333	1161888	GM	08	"					
5600473-28	60	1	8.00	2	1040	270	4	575	624101	1152766	GM	08	"					
5600473-29	71	1	10.00	2	1020	250	4	850	629197	1132661	GM	08	"					
5600473-30	71	1	10.00	2	1020	250	4	850	629229	1134323	GM	08	"					
5600473-31	71	1	10.00	2	1020	240	4	850	632033	1137909	GM	08	"					
5600473-32	71	1	10.00	2	1020	240	4	850	631808	1146404	GM	08	"					
5600473-33	71	1	10.00	2	1030	250	4	850	632753	1149952	GM	08	"					
5600473-1S	60	1	10.00	1	1	16	1	20000	635237	1151432	SM	99	Turmpike Canal, C-25					
5600475	312.70	3	115.10	2	20984	AGR	2	2	2	ONECHOWEE LAND CORP.	56	5600475M	08	13	1.5	11	400	0.5
5600475-1	72	1	6.00	2	7	7	4	240	680699.	1137655	GM	08	"					
5600475-2	72	1	4.00	2	7	7	4	55	678356.	1137847	GM	08	"					
5600475-1S	72	1	4.00	1	1	5	1	20000	678796.	1140070	SM	99	PERMIT BY NSLWD, C-25					
5600475-1S	72	1	1	1	1	11	1	20000	678279.	1134918	SM	99	USED FOR DRAINAGE					
5600477	12.10	3	6.00	2	31584	LAMPA	1	0	WALTON COURT PROPERTY OWNERS	56	5600477M	02	15	0.8	4	11	0.75	
5600477-1	84	2	6.00	1	100	80	12	200	733542	1078946	GM	02	"					
5600482	8.90	3	3.30	2	61484	AGROW	1	0	ROSE, FRIEDHELM	56	5600482M	08	13	0.8	11	19	0.85	
5600482-1	72	1	6.00	2	1230	640	4	425	696452	1125244	GM	08	"					

5600554	92.00	3	33.90	2	00	91285	AGRM	10	0	IGLEHART, P.C. + BYRD, W.R.	56	5600554W	02	13	0.8	12	200	0.85
5600554-1		93	10.00	2	80			3	1000	GM 02 From surficial aquifer								
5600554-2		93	10.00	2	80			3	1000	GM 02 Grove not built as of 2/89								
5600554-3		93	10.00	2	80			3	1000	GM 02 Well locations to be determined.								
5600554-4		93	10.00	2	80			3	1000	GM 02								
5600554-5		93	10.00	2	80			3	1000	GM 02								
5600554-6		93	10.00	2	80			3	1000	GM 02								
5600554-7		93	10.00	2	80			3	1000	GM 02								
5600554-8		93	10.00	2	80			3	1000	GM 02								
5600554-9		93	10.00	2	80			3	1000	GM 02								
5600554-10		93	10.00	2	80			3	1000	GM 02								
5600558	1320.50	3	486.00	2	111485	AGRBOT	2	1	1	1 METROPOLITAN LIFE INSURANCE CO	56	5600558W	08	13	0.8	4	2871	0.85
5600558-17		95	5.00	2	7		4	250	679332 1050143 GM 08	Formerly covered under, Cap. est.								
5600558-20		83	5.00	2	7		4	250	688761 1061784 GM 08	permit 56004-28W, Cap. estimated.								
5600558-PC20		95		1			12	3	18000	683629 1044559 SU 99	C-23							
5600560	74.52	3	27.50	2	111485	AGR	0	2	BERNARD A. EGAN	56	5600560W							
5600560-83-P1		83		1			18.2	15000	675300. 1073812 SU 99	PEACOCK CANAL								
5600560-83-P2		83		1			17.2	15000	677553. 1074428 SU 99	" "								
5600561	128.30	3	47.34	2	111485	AGR	0	2	BERNARD A. EGAN	56	5600561W							
5600561-82-P1		83		1			12.2	15000	682046. 1078487 SU 99	C-24, LINE SHAFT PUMPS								
5600561-82-P2		83		1			11.2	15000	684201. 1080819 SU 99	" "								
5600562	132.00	3	48.70	2	111485	AGR	0	3	BERNARD A. EGAN	56	5600562W							
5600562-81-P1		83		1			14.2	15000	677505. 1085434 SU 99	C-24, LINE SHAFT PUMPS								
5600562-81-P2		83		1			14.2	15000	678592. 1084328 SU 99	" "								
5600562-81-P3		83		1			N/A	2	15000	679043. 1083825 SU 99	" "							
5600563	1260.00	3		1	111485	MINSM	0	3	FLA AGGREGATES INTERGROUP, INC.	5600563W								
5600563-1S		95		1			4400	666716 1045964 SU 99	Sec.36 on permit									
5600563-2S		95		1			2500	666937 1045951 SU 99	" "									
5600563-3S		95		2			3	5000	666937 1045951 SU 99	Loc. guess								
5600563-1C		95		4			1	14	C-23									
5600564	197.00	3	27.40	2	121285	DENSM	0	1	GENERAL DEVELOPMENT CORPORATIO	56	5600564W							
5600564-1S		1		1			1	1800	Construction dewatering									
5600568	74.50	3	27.40	2	121285	AGRBOT	20	2	EVANS PROPERTIES, INC.	56	5600568W							
5600568-1		82	4.00	2	200		4	150	654308 1103007 GM 08									
5600568-2		82	5.00	2	980		4	100	651258 1102915 GM 08									
5600568-3		82	4.00	2	270		4	150	654238 1104143 GM 08									
5600568-4		82	5.00	2	270		4	100	652832 1105180 GM 08									
5600568-5		82	4.00	2	270		4	100	653198 1105093 GM 08									
5600568-6		82	5.00	2	1025		4	200	651110 1105278 GM 08									
5600568-7		71	5.00	2	860		4	100	650747 1105978 GM 08									
5600568-8		71	5.00	2	860		4	75	649494 1106039 GM 08									
5600568-9		71	5.00	2	860		4	150	648953 1106841 GM 08									

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AN. ALL.	ALL UNIT NO.	MAX NO.	NO. UTS	CO ISS.	DATE USE	SRCMO. SM	PHPS OWNER	CD	PERMIT NO.	DEV NO.	AGTYPE	TYPE	ST	RAIN	IRR	ACRES	EFF
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LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NUMBER	QUAD. NO.	WELL NO.	DPTH	CD	TD	CD	INT TYP	CAP.	MTR?	NPLNR	YPLNR	SRC	AO	COMMENTS
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5600568-10	71	1	5.00	2	860	270	4	100	650021	1106984	GM	08						
5600568-11	71	1	5.00	2	860	270	4	90	651804	1106921	GM	08						
5600568-12	71	1	5.00	2	860	270	4	90	653904	1106678	GM	08						
5600568-13	71	1	4.00	2	860	270	4	90	657299	1106058	GM	08						
5600568-14	71	1	4.00	2	860	280	4	90	655548	1106040	GM	08						
5600568-15	71	1	4.00	2	860	280	4	90	654642	1106977	GM	08						
5600568-16	82	1	4.00	2	930	385	4	85	648476	1103384	GM	08						
5600568-17	82	1	5.00	2	972	385	4	125	649003	1105151	GM	08						
5600568-18	82	1	4.00	2	1050	292	4	100	656422	1103733	GM	08						
5600568-19	82	1	5.00	2	930	292	4	150	656548	1105290	GM	08						
5600568-20	71	1	5.00	2	800	280	4	100	640937	1106104	GM	08						
5600568-1S	71	1	5.00	1	1	14	1	30000	647799	1105990	SM	99						
5600568-1C	71	4	1	1	10	10			647615	1105765	SM	99						
5600572	16.60	3	6.10	2	10986	AGRGM	2	0	MCALLISTER, DONALD H									
5600572-1	61	1	5.00	2	700	180	4	210	680516	1167447	GM	08						
5600572-2	61	1	10.00	2	1000	363	4	1000	681564	1167414	GM	08						
5600574	64.80	3	23.80	2	21386	AGRbot	4	2	EDENTON CO. NV & VT JERKINS									
5600574-1	71	1	6.00	2	900	250	4	300	655860	1121801	GM	08						
5600574-2	71	1	6.00	2	900	250	4	400	655438	1122193	GM	08						
5600574-3	71	1	4.00	2	900	250	4	75	652772	1122197	GM	08						
5600574-4	71	1	8.00	2	1080	259	4	900	653937	1121827	GM	08						
5600574-1S	71	1	1	1	1	15	1	1800	654102	1121824	SM	99						
5600574-2S	71	1	1	1	1	15	1	1800	656057	1121745	SM	99						
5600579	244.00	3	10.00	2	61286	INDGM	4	0	TREESHEET PRODUCTS COMPANY, IN									
5600579-1	73	1	10.00	1	70	60	50	2	712295	1114725	GM	02						
5600579-2	73	1	10.00	1	70	60	55	2	712520	1114621	GM	02						
5600579-3	73	1	6.00	1	70	60	55	2	712601	1114260	GM	02						
5600579-4	73	1	10.00	1	70	60	40	2	712224	1114167	GM	02						
5600580	1280.00	3	2	2	61286	MINGM	0	1	ADAMS RANCH, INC.									
5600580-1	2	2			UMD	3	7000											
5600581	130.70	3	48.10	2	71086	AGRbot	2	1	CAMPBELL, JR., CHARLES M.									

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO. ALL. AM. ALL. MO. DATE USE SRCNO. SW
 UNIT MO. UTS CD ISS. TYPE M.L.S. P.M.P.S. OWNER
 CD PERMIT NO. DEV NO. AOTYPE TYPE ST ACRES IRR IRR

LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO. FACILITY NO. QUAD. WELL DPTH P.M.P. PUM PUMP
 NO. STSDIA. COD TD CD INT TYP CAP. MTR? XPLNR YPLNR SRC AQ COMMENTS

PERMIT NO.	FACILITY NO.	QUAD.	WELL	DPTH	P.M.P.	PUM	PUMP	NO.	STSDIA.	COD	TD	CD	INT	TYP	CAP.	MTR?	XPLNR	YPLNR	SRC	AQ	COMMENTS	CD	PERMIT NO.	DEV NO.	AOTYPE	TYPE	ST	ACRES	IRR	IRR					
5600589	233.00	3	85.80	2	71086	AGRbot	4	2	O.L.C., INC.													56	5600589A	08	13	1.5	11	298	0.5						
5600589-1	71	1	6.00	2	900	250	4	170	658479	1118777	GW	08																							
5600589-2	71	1	6.00	2	900	250	4	170	658459	1117516	GW	08																							
5600589-3	71	1	6.00	2	900	250	4	170	661415	1118295	GW	08																							
5600589-4	71	1	6.00	2	900	250	4	170	661955	1117827	GW	08																							
5600589-1S	71	1	1	1	13.1	10000	13.1	10000	658038	1118719	SW	99																							
5600589-2S	71	1	1	1	13.1	10000	13.1	10000	661864	1118746	SW	99																							
5600590	179.80	3	66.20	2	71086	AGRbot	7	1	EGAM, FICKETT & COMPANY														56	5600590U	08	13	1.5	11	230	0.5					
5600590-1	83	1	5.00	2	1000	250	4	200	668115	1097087	GW	08																							
5600590-2	83	1	5.00	2	1000	250	4	200	665966	1096205	GW	08																							
5600590-3	83	1	4.00	2	900	250	4	125	666900	1096362	GW	08																							
5600590-4	83	1	5.00	2	1000	250	4	175	665049	1094953	GW	08																							
5600590-5	83	1	4.00	2	950	250	4	125	666354	1094988	GW	08																							
5600590-6	83	1	4.00	2	900	250	4	125	666912	1094963	GW	08																							
5600590-7	83	1	4.00	2	950	300	4	125	667578	1097786	GW	08																							
5600590-1S	83	1	1	1	14.1	25000	14.1	25000	668097	1097412	SW	99																							
5600591	174.40	3	64.20	2	71086	AGRbot	5	1	CAMPBELL, JR., CHARLES H &														56	5600591U	08	13	1.5	11	223	0.5					
5600591-1	83	1	4.00	2	900	200	4	100	663517	1098120	GW	08																							
5600591-2	83	1	5.00	2	1000	230	4	200	665154	1097355	GW	08																							
5600591-3	83	1	5.00	2	1000	230	4	200	663048	1096008	GW	08																							
5600591-4	83	1	6.00	2	1100	250	4	200	665117	1096040	GW	08																							
5600591-5	83	1	4.00	2	900	200	4	125	663715	1094953	GW	08																							
5600591-1S	83	1	1	1	13.1	25000	13.1	25000	663098	1096555	SW	99																							
5600596	391.00	3	143.90	2	91186	AGRbot	4	6	GREENE, JR., B.E.														56	5600596U	08	13	1.5	11	850	0.85					
5600596-1	60	2	10.00	2	900	300	4	1000	GW	08	NOT INSTALLED YET																								
5600596-2	60	2	10.00	2	900	300	4	1000	GW	08	AS OF 1-90																								
5600596-3	60	2	10.00	2	900	300	4	1000	GW	08	AS OF 1-90																								
5600596-4	60	2	10.00	2	900	300	4	1000	GW	08	AS OF 1-90																								
5600596-1S	60	2	1	1	18.1	600	18.1	600	SW	99	On site ditch																								
5600596-2S	60	2	1	1	18.1	600	18.1	600	SW	99	NOT INSTALLED YET																								
5600596-3S	60	2	1	1	18.1	600	18.1	600	SW	99	AS OF 1-90																								
5600596-4S	60	2	1	1	18.1	600	18.1	600	SW	99	AS OF 1-90																								
5600596-5S	60	2	1	1	18.1	600	18.1	600	SW	99	AS OF 1-90																								

Well ID	Acres	Depth	Start Date	Days	Flow	Company	Notes	Flow	Days	Flow	
5600598-6S	60	2	1	18	1	600					
5600613	68.50	3	11.20	2	31287	LANSU	0	2	THOMAS J WHITE DEV CORPORATION	56 5600613W	
5600613-1S	83	1	11.60	1	15	1	250	690127. 1086703 SW 99	1-95 Borrow C	15 0.8 11	
5600613-2S	83	1	11.60	1	16	1	250	693822. 1087427 SW 99	On-site Lake	20 0.8 11	
5600614	289.00	3	1.20	1	31287	PMSGM	12	0	ST LUCIE WEST UTILITIES, INC	56 5600614W	
5600614-1	83	1	8.00	2	75	42	45	2	175	Y 698282. 1083208 GM 02	Wells 1-6 have
5600614-2	83	1	8.00	2	65	46	45	2	175	Y 698622. 1083310 GM 02	well completion reports
5600614-3	83	1	8.00	2	70	41	45	2	175	Y 698982. 1083514 GM 02	In file.
5600614-4	83	1	8.00	2	68	42	45	2	175	Y 699342. 1083718 GM 02	
5600614-5	83	1	8.00	2	65	40	45	2	175	Y 698624. 1083008 GM 02	
5600614-6	83	1	8.00	2	60	40	45	2	175	Y 698894. 1083110 GM 02	
5600614-7	83	2	8.00	2	70	30	45	2	175	Y 699714. 1081397 GM 02	The rest of wells have
5600614-8	83	2	8.00	2	70	30	45	2	175	Y 700533. 1079988 GM 02	no completion reports
5600614-9	83	2	8.00	2	70	30	45	2	175	Y 701613. 1080397 GM 02	and are assumed here
5600614-10	83	2	8.00	2	70	30	45	2	175	Y 701981. 1078985 GM 02	non existing.
5600614-11	83	2	8.00	2	70	30	45	2	175	Y 701887. 1079792 GM 02	
5600614-12	83	2	8.00	2	70	30	45	2	175	Y 702868. 1082120 GM 02	Well 12 not on site map
5600620	22.30	3	3.80	2	51487	LAMGM	3	0	MAX AMBACH & SONS COMPANY	56 5600620W	
5600620-1	73	1	8.00	1	100	70	3	2	200	714426 1126164 GM 02	
5600620-2	73	1	8.00	1	90	60	3	2	200	713514 1126367 GM 02	
5600620-3	73	2	8.00	1	100	70	3	2	200	713983 1126910 GM 02	
5600621	67.40	3	0.00	2	51487	GOLSU	3	1300	SAVANNA CLUB CORP.	56 5600621W	
5600621-P1	84	1	0.00	1						730320 1085000 SW 99	ON SITE LAKES, 3 PUMPS IN SERIES.
5600622	17.10	3	6.30	2	51487	ACRGM	2	1	LINDSEY, RALPH J - PARTNER	56 5600622W	
5600622-1	83	4	6.00	2	800	340	4	250	675005 1098589 GM 08	Cap. estim.	
5600622-2	83	4	5.00	2	800	340	4	250	676176 1098584 GM 08		
5600622-1S	83	2	0.00	1	14	3	758			676176 1098584 SW 99	Loc. estimated.
5600624	6.21	3	4.00	2	61187	PMSGM	5	0	LAKE MANOR PROPERTIES, INC.	56 5600624W	
5600624-1	85	2	4.00	2	110	105	2	100	747142 1066651 GM 02		
5600624-2	85	2	4.00	2	110	105	2	100	747249 1066436 GM 02		
5600624-1E	85	1	2.00	2	27	2	2	50	747442 1066651 GM 02	Existing wells will be abandoned, Cap. estim.	
5600624-2E	85	1	2.00	2	27	2	2	50	747462 1066651 GM 02	upon completion of	
5600624-3E	85	1	2.00	2	27	2	2	50	747482 1066651 GM 02	proposed wells	
5600627	92.20	3	8.00	2	70987	PMSGM	5	0	WYTHE BUILDING CORPORATION	56 5600627W	
5600627-1	61	1	8.00	2	95	68	2	150	673428 1168715 GM 02		
5600627-2	61	1	8.00	2	83	79	2	150	670644 1169599 GM 02		
5600627-3	61	1	8.00	2	80	65	2	150	673444 1164080 GM 02		
5600627-4	61	1	8.00	2	80	65	2	150	672337 1168471 GM 02		
5600628	34.50	3	12.70	2	70987	ACRGM	1	1	SUM COAST GROVE, INC.	56 5600628W	
5600628-1	72	4	6.00	2	840	300	4	220	677610 1116437 GM 08		
5600630	13.80	3	5.10	2	81387	ACRGM	1	0	SPYKE, PETER D	56 5600630W	
5600630-1	72	4	5.00	2	800	250	1	300	674040 1112481 GM 08		

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AM. ALL.	ALL UMT.	MAX NO.	NO. UTS	CO ISS.	DATE TYPE	USE WLS.	SRC. PMP'S	SRWO. OWNER	SV	CO PERMIT NO.	DEV NO.	AGTYPE	TYPE ST	CROP SOIL RAIN	IRR	IRR
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LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NUMBER	QUAD. NO.	WELL NO.	DPTN	COO TO	CD	INT TYP	PMP PUM	AGR	91087	AGR	4	0 MICIVER, L.L. & WEILL, R.Y.	56	5600633W	2,8	13	.8	11	100	0.85	
5600633	46.00	82 1	6.00	2	60	2	1100	3	25	3	100	100	650309. 1081214 GM	02	TO BE REPLACED BY B'WELL, CAP EST.							
		82 2	12.00	2	1100	2	1100	4	400	4	1100	1100	657679. 1080808 GM	08	FOR FREEZE PROTECTION ONLY, ""							
		82 3	12.00	2	1100	2	1100	4	400	4	1100	1100	657592. 1080000 GM	08	FOR FREEZE PROTECTION ONLY, ""							
		82 4	8.00	2	75	2	75	3	45	3	200	200	659031. 1081217 GM	02	TO REPLACE EXISTING 6' WELL, ""							
5600637	432.70	83 2	73.60	2	70	2	91087	14	30	14	14	14	0 ST LUCIE WEST UTILITIES, INC.	56	5600637W	02	15	0.8	11	379	0.75	
		83 3	8.00	1	70	1	30	45	30	45	30	30	698371 1082937 GM	02	Proposed wells							
		83 4	8.00	1	70	1	30	45	30	45	30	30	697587 1082628 GM	02	to be replaced by							
		83 5	8.00	1	70	1	30	45	30	45	30	30	696263 1082709 GM	02	by reclaimed water system							
		83 6	8.00	1	70	1	30	45	30	45	30	30	699769 1081890 GM	02								
		83 7	8.00	1	70	1	30	45	30	45	30	30	700583 1081879 GM	02								
		83 8	8.00	1	70	1	30	45	30	45	30	30	701786 1082632 GM	02								
		83 9	8.00	1	70	1	30	45	30	45	30	30	696871 1080118 GM	02								
		83 10	8.00	1	70	1	30	45	30	45	30	30	696760 1079134 GM	02								
		83 11	8.00	1	70	1	30	45	30	45	30	30	697559 1078998 GM	02								
		83 12	8.00	1	70	1	30	45	30	45	30	30	700238 1082519 GM	02								
		83 13	8.00	1	70	1	30	45	30	45	30	30	701386 1083155 GM	02								
		83 14	8.00	1	70	1	30	45	30	45	30	30	701025 1083807 GM	02								
		83 15	8.00	1	70	1	30	45	30	45	30	30	695887 1079518 GM	02								
		83 16	8.00	1	70	1	30	45	30	45	30	30	696552 1078311 GM	02								
5600639	25.20	71 1	4.20	2	900	2	100887	1	400	1	10000	1	2 PIKE, RICHARD S	56	5600639W	08	13	0.8	11	88	0.5	
		71 2	12.00	1	900	1	400	4	400	4	10000	10000	640660 1136339 GM	08	Frost Protection REW well							
		71 3											640567 1134973 SW	99	Internal							
		71 4											640516 1136073 SW	99	C-62, culvert							
5600640	229.90	71 1	84.60	2	700	2	100887	1	400	1	15000	1	2 BROTHERS FOUR	56	5600640W	08	13	1.5	11	294	0.5	
		71 2	8.00	2	700	2	400	4	400	4	300	300	643720 1120148 GM	08								
		71 3											644832 1119771 SW	99	C-24							
		71 4											SW		C-24, Culvert							
5600641	570.80	82 1	210.10	2	1000	2	100887	3	600	3	850	3	2 CAMPBELL, CHARLES	56	5600641W	08	13	0.8	11	730	0.5	
		82 2	8.00	2	1000	2	600	4	600	4	575	575	638863 1095958 GM	08	Cap. est.							
		82 3	8.00	2	900	2	340	4	340	4	100	100	639062 1100060 GM	08	"							
		82 4	4.00	2	760	2	200	4	200	4	100	100	640181 1097693 GM	08	"							

5600641-1S	82	1	1	14	3	25000	630889	1092394	SM	99	C-23							
5600641-2S	82	1	1	14	3	25000	638900	1092591	SM	99	C-23							
5600644	56.30	3	0.15	111287	LTVGH	2	0	RAY WELLET, INC				56	5600644M	02				700
5600644-1	81	1	4.00	2	70	50	1	605706	1078714	GM	02	Deiry farm						
5600644-2	81	1	4.00	2	70	50	2	605406	1078665	GM	02							
5600646	20.20	3	7.40	2	121087	AGROW	1	0	CONTOUR LAND CORPORATION				56	5600646M	08	13	0.8	11
5600646-1	82	2	10.00	2	1000	400	4	655118	1100916	GM	08	Cap. est.						64
5600647	25.00	3	9.20	2	121087	AGROW	0	2	LIER GROVES, INC.				56	5600647M	13	1.5	11	32
5600647-1S	71	1	1	14	1	12000	14	655308	1129659	SM	99	C-64						
5600647-1C	71	4	1	14								C-64, Culvert						
5600649	56.30	3	20.70	2	10788	AGROW	1	1	DUNN BROTHERS, INC.				56	5600649M	08	13	1.5	11
5600649-1	83	1	6.00	2	900	270	4	669337	1098786	GM	08							72
5600649-1S	83	1	1	13	3	7500		668413	1098408	SM	99	C-85						
5600650	13.30	3	4.90	2	10788	AGROW	1	0	DUNN BROTHERS, INC.				56	5600650M	08	13	1.5	12
5600650-1	72	1	8.00	2	800	240	4	678146	1106025	GM	08	Cap. est.						17
5600651	26.60	3	9.80	2	10788	AGROW	1	1	DUNN BROTHERS, INC.				56	5600651M	08	13	1.5	12
5600651-1	71	1	6.00	2	940	300	4	649273	1129603	GM	08							34
5600651-1S	71	1	1	11	3	8000		649675	1129548	SM	99	C-64						
5600652	88.80	3	32.70	2	10788	AGROW	1	0	BELAIR GROVES JOINT VENTURE				56	5600652M	08	13	0.8	11
5600652-1	71	1	10.00	2	1026	298	4	647600	1139182	GM	08	Cap. est.						193
5600658	144.00	3	2	2	10788	AGROW	0	1	M ST LUCIE RIVER V.C. DISTRICT				56	5600658M				42900
5600658-1	71	1	1	1	50000			673306	1140526	SM	99	Freeze protection use only. Alloc.estim.2 events/yr						
5600662	105.60	3	36.80	2	31088	AGROW	3	1	ST. LUCIE CORPORATION				56	5600662M	08	13	1.5	11
5600662-1	71	1	6.00	2	880	260	4	657973	1129889	GM	08	Cap. estim.						135
5600662-2	71	1	4.00	2	800	260	4	658874	1129595	GM	08	"						
5600662-3	71	1	6.00	2	870	260	4	659014	1130996	GM	08	"						
5600662-1S	71	1	1	11	3	10000		661009	1129878	SM	99	C-64						
5600663	8.30	3	3.00	2	31088	AGROW	1	0	DUNN, EARNEST				56	5600663M	08	13	1.5	11
5600663-1M	83	1	4.00	2	800	260	4	677562	1098899	GM	08							18
5600665	39.10	3	14.40	2	31088	AGROW	1	1	REBS, INC.				56	5600665M	08	13	1.5	11
5600665-1	83	1	5.00	2	800	240	4	682853	1104037	GM	08	Cap. est.						50
5600665-1S	83	1	1	10	3	5000		681391	1103830	SM	99	C-85						
5600666	25.00	3	9.20	2	31088	AGROW	1	1	GYP 87 LIMITED				56	5600666M	08	13	0.8	11
5600666-1	83	1	4.00	2	300	300	4	681122	1143817	GM	08							32
5600666-1S	83	1	1	10000				680581	1143816	SM	99	CANAL 14, 2WAY PUMP						
5600667	28.90	3	10.70	2	31088	AGROW	1	1	GOTTARDO, VIRGIL				56	5600667M	08	13	1.5	11
5600667-1	83	1	6.00	2	820	240	4	669672	1099871	GM	08	Cap. est.						37
5600667-1S	83	1	1	11	3	8000		648320	1099860	SM	99	C-85						

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AM. ALL.	ALL. UNIT	MAX. NO.	MO. UTS	CD	DATE	USE	SRCNO.	SU	PHPS	OMMER	CD	PERMIT NO.	DEV NO.	AGTYPE	SOIL TYPE	RAIN ST	IRR ACRES	IRR EFF
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LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NUMBER	QUAD.	WELL NO.	STSDIA.	CD	TO	CD	INT TYP	CAP.	MTR?	XPLNR	YPLNR	SFC	AG	COMMENTS
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5600668	185.40	70 1	3	68.20	2	31088	AGRbot	10	5	W LINE CITRUS GROWERS ASSN	56	5600668M	2,8	13	1.5	12	403	0.85	
		70 2	1	5.00	2	600	4	50	607400	1143803	GM	08							
		70 2	2	12.00	2	900	350	4	1200	607446	1144755	GM	08						
		70 2	2	10.00	2	100	50	2	200	607175	1144565	GM	02						
		70 2	2	10.00	2	100	50	2	200	608499	1144552	GM	02						
		70 2	2	10.00	2	100	50	2	200	607108	1142140	GM	02						
		70 2	2	10.00	2	100	50	2	200	608666	1142124	GM	02						
		70 2	2	10.00	2	100	50	2	200	607225	1139884	GM	02						
		70 2	2	10.00	2	100	50	2	200	608582	1139840	GM	02						
		70 2	2	10.00	2	100	50	2	200	607140	1137993	GM	02						
		70 2	2	10.00	2	100	50	2	200	608938	1138095	GM	02						
		70 2	2	10.00	2	100	50	2	200	607343	1142450	SM	99						
		70 2	1		1		20	1	600										
		70 2	1		1		20	1	600										
		70 2	1		1		20	1	600										
		70 2	1		1		20	1	600										
		70 2	1		1		20	1	600										
		70 2	1		1		20	1	600										
5600669	19.80	72 1	3	7.30	2	31088	AGRbot	3	1	HAYNES, CHRISTINE	56	5600669M	08	13	0.8	11	32	0.5	
		72 1	1	5.00	2	920	300	4	325	695996	1145398	GM	08						
		72 1	2	6.00	2	960	320	4	520	695158	1145143	GM	08						
		72 1	1	3.00	2	840	280	4	105	695135	1144521	GM	08						
		72 1	1		1		10	1	10000	695135	1144521	SM	99						
5600676	118.70	72 1	3	43.70	2	61688	AGraw	0	1	POPPELL, L. BALPH	56	5600676M	13	0.8	11	152	0.5		
		72 1	1		1		3	10000		668352	1140082	SM	99						
		72 4	1		1														
5600682	10.50	84 2	3	1.60	2	100588	LAMBot	1	1	K. NOVAMIAN AT THE PARK ST	56	5600682M	02	15	.8	4	9	0.75	
		84 2	2	8.00	1	126	107	45	250	721290	1066195	GM	02						
		84 2	1		1		-2.	2	200	721391	1066192	SM	99						
5600683	1343.50	70 1	3	494.50	2	100688	AGRbot	13	9	CRITTERDEN, E.M. LANGLEY, A.E.	56	5600683M	08	13	1.5	11	2921	0.85	
		70 1	1	8.00	2	1200	400	4	900	617906	1146477	GM	08						
		70 1	1	8.00	2	1200	400	4	900	617606	1144677	GM	08						
		71 1	1	8.00	2	1200	400	4	900	622356	1150456	GM	08						
		70 1	1	6.00	2	800	300	4	400	617746	1145657	GM	08						

5600683-5	70	1	6.00	2	800	300	4	400	620575	1133345	GM	08							
5600683-6	70	1	8.00	2	1200	400	4	900	620612	1140852	GM	08							
5600683-7	70	1	6.00	2	800	300	4	400	617467	1130361	GM	08							
5600683-8	70	1	6.00	2	800	300	4	400	615534	1137310	GM	08							
5600683-13	70	1	8.00	2	1200	400	4	900	616187	1134074	GM	08							
5600683-14	70	1	8.00	2	1200	400	4	900	618010	1133161	GM	08							
5600683-15	71	1	8.00	2	800	300	4	600	623624	1143743	GM	08							
5600683-16	70	1	8.00	2	800	300	4	600	615919	1143707	GM	08							
5600683-17	70	1	6.00	2	800	300	4	400	615498	1141553	GM	08							
5600683-18	70	2	1	1			19	2	620832	1134671	SU	99	Internal canals						
5600683-2S	71	2	1	1			19	2	622575	1137468	SU	99	Internal canals						
5600683-3S	70	2	1	1			19	2	620732	1148050	SU	99	Internal canals						
5600683-4S	71	2	1	1			19	2	622244	1144963	SU	99	Internal canals, Loc. guessed						
5600683-5S	71	2	1	1			19	2	621225	1139001	SU	99	Internal canals						
5600683-6S	70	2	1	1			19	2	623506	1130695	SU	99	Internal canals						
5600683-7S	71	2	1	1			19	2	623506	1130695	SU	99	Internal canals, Loc. guessed						
5600683-8S	71	2	1	1			19	2	623506	1130695	SU	99	Internal canals, Loc. guessed						
5600683-9S	71	2	1	1			19	2	623506	1130695	SU	99	Internal canals, Loc. guessed						
5600685	358.80	2	358.80	2	100488	AGribot	6	7	GAZAYERLI, DR. M. H.										
5600685-1	70	1	5.00	2	1000	300	4	300	611673	1146291	GM	08							
5600685-2	70	2	12.00	2	1500	350	4	800	610969	1140129	GM	08							
5600685-3	70	1	5.00	2	1000	300	4	300	610342	1138916	GM	08							
5600685-4	70	1	6.00	2	1000	300	4	400	610179	1132654	GM	08							
5600685-5	70	2	12.00	2	1500	350	4	800	610969	1140331	GM	08							
5600685-6	70	2	12.00	2	1500	350	4	800	611075	1134374	GM	08							
5600685-AS	70	2	1	1			20	1	611075	1134374	SU	99	MOT ON SITE MAP, Loc. Guessed						
5600685-BS	70	1	1	1			20	1	611075	1134374	SU	99	CANNOT MAP, Loc. estim.						
5600685-CS	70	2	1	1			20	1	611075	1134374	SU	99	"						
5600685-DS	70	2	1	1			20	1	611075	1134374	SU	99	"						
5600685-P1S	70	1	1	1			16	1	609872	1146185	SU	99							
5600685-P2S	70	2	1	1			16	1	609872	1146185	SU	99							
5600685-P3S	70	2	1	1			16	1	609872	1146185	SU	99							
5600685-1C	70	2	1	1			22	22											
5600685-2C	70	2	1	1			22	22											
5600690	55.60	3	20.40	2	12088	AGR	6	3	INTERSTATE CITRUS PART, LTD										
5600690-1	72	2	12.00	2	1000	500	4	1000	689244	1142335	GM	08	PROPOSED						
5600690-2	72	2	12.00	2	1000	500	4	1000	687432	1142634	GM	08							
5600690-3	72	2	12.00	2	1000	500	4	1000	687436	1141826	GM	08							
5600690-4	72	2	12.00	2	1000	500	4	1000	686719	1141015	GM	08							
5600690-5	72	1	4.00	2	900	450	4	350	686895	1141824	GM	08	EXISTING						
5600690-A	72	2	1	1					686893	1142227	SU	99							
5600690-B	72	2	1	1					686900	1140814	SU	99							
5600690-C	72	2	1	1					688332	1142840	SU	99							
5600719	105.50	3	38.80	3	30989	AGRbot	1	1	BECKER HOLDING CORPORATION										
5600719-1	72	1	6.00	1			4	300	664659	1105089	GM	08							
5600719-1S	72	1					1	10000	663156	1107212	SU		Header Canal						
5600721	0.30	83	2.00	2	21489	PMSW	3	25	0 NEW LIGHT ELECTRIC										
5600721-1	83	2	2.00	2	60	50	3	25	691766	1064394	GM	02	G.P.						

06 13 .8 11 780 0.85

08 15 0.8 11 121 0.85

08 13 1.5 11 135 0.5

08 13 1.5 11 135 0.5

02

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AM. ALL.	ALL UNIT	MAX MO.	DATE	USE	SRC	SW	CO	ISS.	TYPE	WLS.	PHPS	OWNER	CO	PERMIT NO.	DEV NO.	AGTYPE	TYPE	ST	IRR	IRR
																				ACRES	EFF

LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY	QUAD.	WELL	DEPTH	PUMP	PLUM	PUMP	CD	INT	TYP	CAP.	NTR?	XPLNR	YPLNR	SRC	AG	COMMENTS	56	PERMIT NO.	DEV NO.	AGTYPE	TYPE	ST	IRR	IRR	
		NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.									
5600722	5600722-1	0.70	84	2	4.00	60	50	3	21489	PMSGM	1	0	MIDWAY MANORS, INC.	706481	1103819	GM	02	56	5600722M		02					
5600723	5600723-1	32.20	72	1	6.00	75	75	45	21489	ABRGM	1	0	KUTA, GEORGE S.	693200	1150683	GM	02	56	5600723M		02	13	1.5	11	7	0.85
5600727	5600727-1	0.50	84	2	2.00	46	32	32	22489	PMSGM	1	0	MERCEDES HOMES, INC.	719627	1069079	GM	02	56	5600727M		02	15				
5600731	5600731-1	13.10	83	1	6.00	25	5	24	41389	INDGM	2	0	ENKOW COMPANY USA	724493	1064273	GM	02	56	5600731M		02					2
5600739	5600739-1	0.30	83	2	6.00	1	30	5	29	2	10		724638	1064266	GM	02		56	5600739M		02					
5600738	5600738-1	9.90	61	1	5.00	750	210	4	41389	ABRGM	1	0	ROCHESTER, HERBERT	699716	1152131	GM	08	56	5600738M		08	60	1.5	11	15	0.5
5600740	5600740-1	0.20	84	2	2.00	60	50	3	40689	PMSGM	1	0	M. J. FERRITER CONSTRUCTION	691766	1064394	GM	02	56	5600740M		02					
5600747	5600747-1	9.20	61	1	4.00	800	300	4	51189	ABRGM	2	0	PIPPIN HUBERT PIPPIN, ESTATE	679402	1163119	GM	08	56	5600747M		08	13	1.5	11	20	0.85
5600748	5600748-1	919.00	3	338	20	51189	AGRbot	4	6	CRITTERDON, E.M., COOK, R.N. &	10	6						56	5600748M		08	13	1.5	11	1998	0.85
	5600748-2	59	1	6.00	4	250	605445	1170539	GM	08	Cap. est.															
	5600748-3	59	1	8.00	4	575	604945	1167750	GM	08																
	5600748-4	59	1	8.00	4	575	608550	1167902	GM	08																
	5600748-5	59	1	6.00	4	250	604069	1166465	GM	08																
	5600748-6	59	1	6.00	4	250	604066	1163256	GM	08																
	5600748-7	59	1	8.00	4	575	605153	1162604	GM	08																
	5600748-8	59	1	8.00	4	575	604703	1159106	GM	08																
	5600748-9	59	1	8.00	4	575	604339	1156920	GM	08																
	5600748-20	59	1	6.00	4	250	610832	1152979	GM	08																

5600748-1S	2					610632 1152979 SU	99	Reservoir & Canal,	Loc. estimated					
5600748-2S	2					610632 1152979 SU	99	Reservoir & Canal,	Loc. estimated					
5600748-3S	2					610632 1152979 SU	99	Reservoir & Canal,	Loc. estimated					
5600748-4S	2					610632 1152979 SU	99	Reservoir & Canal,	Loc. estimated					
5600748-5S	2					610632 1152979 SU	99	Reservoir & Canal,	Loc. estimated					
5600748-6S	2					610632 1152979 SU	99	Reservoir & Canal,	Loc. estimated					
5600749	18.40	3	6.70			1 ESTATE OF PIPPIN IMBERT PIPPIN	56	5600749W		08	13	0.8	11	40 0.85
5600749-1	71	1	6.00			653133 1123527 GM	08							
5600749-1S	71	1				652646 1124020 SU	99	FPFDD Canal						
5600750	41.40	3	15.20			1 KIRCHHAM, KENNETH	56	5600750W		08	13	1.5	11	80 0.5
5600750-1	72	1	6.00			690857 1149731 GM	08							
5600750-1S	72	1				691966 1149658 SU	99	FPFDD Canal						
5600751	0.63					0 VIVIAN, JOHN C.	56	5600751W		02				
5600751-1	73	1	4.00			714807 1143881 GM	02	G.P.						
5600753	423.10	3	155.70			13 VERO PRODUCERS, INC.	30	5600753W		08	13	0.8	12	920 0.85
5600753-1	82	2	12.00			623420 1085489 GM	08							
5600753-2	82	2	12.00			623372 1084774 GM	08							
5600753-3	82	2	12.00			622490 1090099 GM	08							
5600753-4	82	2	12.00			623702 1089888 GM	08							
5600753-5	82	2	12.00			623756 1091441 GM	08							
5600753-6	82	2	12.00			623400 1082218 GM	08							
5600753-7	82	2	12.00			623463 1091232 GM	08							
5600753-8	82	2	12.00			623158 1083502 GM	08							
5600753-9	82	2	12.00			623701 1090919 GM	08							
5600753-10	82	2	12.00			623080 1084224 GM	08							
5600753-11	82	2	12.00			623163 1090746 GM	08							
5600753-12	82	2	12.00			623075 1084890 GM	08							
5600753-13	82	2	12.00			623701 1090454 GM	08							
5600753-14	82	2	12.00			623330 1086412 GM	08							
5600753-15	82	2	12.00			622492 1088678 GM	08							
5600753-16	82	2	12.00			622530 1087057 GM	08							
5600753-17	82	2	12.00			623397 1081568 GM	08							
5600753-18	82	2	12.00			622561 1087956 GM	08							
5600753-19	82	2	12.00			623419 1083322 GM	08							
5600753-20	82	2	12.00			623047 1082334 GM	08							
5600753-21	82	2	12.00			623294 1089056 GM	08							
5600753-22	82	2	12.00			623106 1082884 GM	08							
5600753-23	82	2	12.00			623691 1009442 GM	08							
5600753-24	82	2	12.00			623165 1086584 GM	08							
5600753-25	82	2	12.00			622479 1089360 GM	08							
5600753-26	82	2	12.00			623519 1091621 GM	08							
5600753-27	82	2	12.00			623056 1081820 GM	08							
5600753-28	82	2	12.00			623122 1085621 GM	08							
5600753-29	82	2	12.00			623313 1084052 GM	08							
5600753-30	82	2	12.00			623739 1091939 GM	08							
5600753-1S	82	2				623736 1091248 SU	99	On site ditches						
5600753-2S	82	2				623134 1083185 SU	99							
5600753-3S	82	2				623150 1091203 SU	99							

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AN. ALL.	ALL. MAX. UNT. NO.	DATE ISS.	CO. TYPE	WLS.	PHPS	OWNER	CD	PERMIT NO.	DEV. NO.	AR. TYPE	ST.	IRR. ACRES	IRR. EFF.
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LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NUMBER	QUAND. NO.	STSDIA.	WELL DPTH	CD	INT. TYP.	CAP.	MTR?	XPLNR	YPLNR	SRC	AQ	COMMENTS	CD	PERMIT NO.	DEV. NO.	AR. TYPE	ST.	IRR. ACRES	IRR. EFF.	
5600753-4S	82	2	1	17	2	2000			622273	1090062	SW	99									
5600753-5S	82	2	1	17	2	2000			623343	1088679	SW	99									
5600753-6S	82	2	1	17	2	2000			623345	1084518	SW	99									
5600753-7S	82	2	1	17	2	2000			623106	1082029	SW	99									
5600753-8S	82	2	1	17	2	2000			623080	1084577	SW	99									
5600753-9S	82	2	1	17	2	2000			623431	1083145	SW	99									
5600753-10S	82	2	1	17	2	2000			623330	1084223	SW	99									
5600753-11S	82	2	1	17	2	2000			623397	1081985	SW	99									
5600753-12S	82	2	1	17	2	2000			622513	1087723	SW	99									
5600753-13S	82	2	1	17	2	2000			623073	1086255	SW	99									
5600758	4.60	1	2.00	80	70	1	75	50989	PMSGM	1	0	INDIAN RIVER ACADEMY		56	5600758						
													699326. 1123403 GM 02								
5600759	0.21	84	1	2.00	90	80	1	50989	PMSGM	1	0	JAMES, GERALD		56	5600759						
													711497. 1105188 GM 02								
5600760	0.04	73	1	2.00	60	50	20	51089	PMSGM	1	0	YOUNGDANIEL DICKSON CONSTRUC.		56	5600760						
													709476. 1129918 GM 02								
5600763	1.10	84	1	2.00	52689	LANSW	3	25	61589	MINGM	0	1	DAILY, THOMAS V., AS BISHOP		56	5600763		15		7	
													734612. 1068153 SW 99								
5600765	525.60	3	2	1	61589	MINGM	-16	2	61589	MINGM	0	1	STRAZZOLA BROTHER COMPANY, INC		56	5600765					1800
													SW 99								
5600768	13.80	72	1	6.00	60789	PMSGM	2	0	60789	PMSGM	2	0	J.C. STAMLEY & ASSOC., INC.		56	5600768					
													684557 1141282 GM 02								
													684351 1141501 GM 02								
5600768	0.60	72	1	2.00	60789	LANGM	1	0	60789	LANGM	1	0	EVANS, GARY		56	5600768					
													698774. 1107446 GM 02								
5600770	0.50	61	1	2.00	61489	PMSGM	1	0	61489	PMSGM	1	0	LAKENWOOD PARK UNITED METHODIST		56	5600770					
													697701 1163070 GM 02								
5600771	99.30	3	31.70	71389	AGRGM	9	0	71389	AGRGM	9	0	LYKES BROTHERS, INC.		56	5600771		2,8	13	0.8	11	80 0.85

5600771 13 0.8 11 80 0.5

5600771-21	61	1	5.00	750	250	4	120	681840	1163282	GM	06	
5600771-22	61	1	5.00	735	250	4	120	682231	1164050	GM	08	Cap. estimated
5600771-23	61	1	5.00	735	250	4	120	681881	1164230	GM	08	"
5600771-24	61	1	5.00	800	250	4	120	682342	1163275	GM	08	"
5600771-25	61	1	5.00	750	250	4	120	682832	1163317	GM	08	"
5600771-26	61	1	8.00	1200	250	4	375	682802	1163811	GM	08	"
5600771-27	61	1	5.00	800	250	4	120	682404	1164312	GM	08	"
5600771-28	61	1	5.00	800	250	4	120	682829	1164341	GM	08	"
5600771-29	61	1	5.00	700	250	4	90	680904	1163131	GM	08	"

5600777	0.40	83	2	2.00	60	50	25	0	CARTWRIGHT, JOHN & OLGA			56	5600777M	02	0
5600777-1								690018	1064750	GM	02				

5600779	5.70	84	2	6.00	90	60	2	120	0	CITY OF PORT ST. LUCIE		56	5600779M	02	15	5
5600779-1								704741	1082712	GM	02	Old well to be abandoned				

5600783	0.20	72	2	2.00	66	60	1	10	0	L. N. DUNN SONS, INC.		56	5600783M	02		
5600783-1								664773	1130785	GM	02					

5600784	0.80	73	2	2.00	53	48	3	40	0	GEN ELECTRIC MFG. CO. INC.		56	5600784M	02	15	2
5600784-1								709927	1167807	GM	02	Old well to be abandoned				

5600785	92.20	3	33.90	91089	AGRboot	7	3	INGLENHART STEWART & PHILLIP				56	5600785M	08		201
5600785-1	81	2	12.00	1200	650	4	800	615772	1074743	GM	08					
5600785-2	81	2	12.00	1200	650	4	800	616366	1075278	GM	08					
5600785-3	81	2	12.00	1200	650	4	800	615359	1074070	GM	08					
5600785-4	81	2	12.00	1200	650	4	800	616036	1074352	GM	08					
5600785-5	81	2	12.00	1200	650	4	800	616429	1074387	GM	08					
5600785-6	81	2	12.00	1200	650	4	800	616720	1074626	GM	08					
5600785-7	81	2	12.00	1200	650	4	800	615332	1073496	GM	08					
5600785-1S	81	2	12.00	1200	650	2	2000	615766	1074924	SU	99	On site canals				
5600785-2S	81	2	12.00	1200	650	2	2000	616092	1075356	SU	99	On site canals				
5600785-3S	81	2	12.00	1200	650	2	2000	615346	1074295	SU	99	On site canals				

5600788	133.50	3	39.30	91089	AGRboot	4	1	COCA-COLA FOODS				56	5600788M	08	13	1.5	11	205	0.75
5600788-1	72	1	5.00	800	4	250	662555	1137563	GM	08									
5600788-2	71	1	5.00	800	4	300	661774	1138990	GM	08									
5600788-3	71	1	5.00	800	350	4	125	659406	1138522	GM	08								
5600788-4	71	2	8.00	800	350	4	400	659695	1138543	GM	08								
5600788-1S	72	1	1	1	20	1	8200	662662	1138795	SU	99	Header Canal							

5600789	22.10	3	6.50	91089	AGRboot	2	0	COCA-COLA FOODS				56	5600789M	08	13	1.5	11	34	0.75
5600789-1	72	1	5.00	550	4	160	698322	1136179	GM	08									
5600789-2	72	1	5.00	550	4	220	698607	1136707	GM	08									

5600794	1.40	84	1	2.00	63	63	2	14	0	SUN CONST BUILDERS, G.C.		56	5600794M	02					
5600794-1								718587	1094622	GM	02	G.P.							
5600794-2	84	1	2.00	65	65	20	2	14	718405	1094823	GM	02							

5600795	0.20	84	2	2.00	60	50	3	15	0	BEVELS, PAUL		56	5600795M	02						
5600795-1								704320	1088309	GM	02	G.P.								

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AN.	ALL.	UNT.	MAX.	MO.	DATE	USE	SRCNO.	SU	OWNER	CO	PERMIT	NO.	DEV	NO.	MO.	AGTYPE	TYPE	ST	RAIN	IRR	ACRES	EFF

LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY	QUAD.	WELL	DPTH	PHS	PUM	PUMP	CD	INT	TYP	CAP.	MTR?	MPLNR	YPLNR	SRC	NO	COMMENTS

5600796	0.36	72 1	4.00	120	80	1	50	2	0	ORANGE-CO OF FLORIDA, INC.	56	5600796W	02											
5600796-2		72 2	8.00	95	95	2	100			668803 1134044 GM 02 669056 1134046 GM 02														
5600797	3.65	84 2	4.00	105	85	1	30			0 CITY OF PORT ST. LUCIE	56	5600797W	02	15										9
5600797-2		84 2	2.00	95	85	1	30			706072. 1072846 GM 02 705891. 1073047 GM 02														
5600798	0.07	84 1	2.00	95	85	1	30			0 CITY OF PORT ST. LUCIE	56	5600798W	02											
5600804	0.78	84 1	2.00	53.5	48	5.	3			706095 1072713 GM 02														
5600805	0.22	73 2	2.00	90	80	80	1	10		0 SUMRISE FORD COMPANY	56	5600805W	02	15										1
5600806	0.49	84 1	2.00	60	50	20	1	100		82589 1111519 GM 02	56	5600806W	02	15										0
5600814	0.91	61 2	2.00	90	80	LAN	1	15		0 HIGH TIDE SALES, -DOW MOOD	56	5600814W	02	15										1
5600815	0.04	73 2	2.00	70	63	3	10			705515. 1111519 GM 02	56	5600815W	02	15										0
5600816	9.63	83 2	2.00	70	60	3	20			0 AMERICAN TIRE & MUFFLER, INC.	56	5600816W	02	15	0.8	4								9
5600829		73 2	2.00	69	59	2	18			0 CROSS, MAX 695182. 1160444 GM 02	56	5600829W	02											
		83 2	2.00	70	60	3	20			0 HCV, INC.														
		83 2	2.00	70	60	3	20			0 SCHOOL BOARD/ST. LUCIE COUNTY	56	5600816W	02	15	0.8	4								9
										701342. 1080496 GM 02 701338. 1081304 GM 02														.75
										02 WELL COORDS. ARE APPROX.														
										0 MOVW RADIO STATION	56	5600829W	02											
										707071 1127971 GM 02														

Martin County
Water Use Spreadsheets

Martin County

Martin County Water Use Spreadsheets

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AN.	ALL.	MAX NO.	DATE	USE	SRC.	NO.	SW	UMT.	NO.	UTS.	CD	ISS.	TYPE	WLS.	PMP5	OWNER	CD	PERMIT NO.	DEV NO.	AG	TYPETYPE	ST	IRR	IRR	ACRES	EFF
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LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY	QUAD	WELL	DPFH	PMP	PUMP	NO.	STS	DIA.	CODE	TD	CD	INT	TYPE	CAP.	MTR?	YPLMR	SRC	AG.	COMMENTS
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Surface water pumps given equifer code of 5
Floridan Aquifer System Wells ONLY

4300028	28.52	03	10.00	02	1300	280	43	5/87	AG	GW	1000	1	0	BYRON GRANT/GRANT CITRUS GROVE	43	28	06	13	0.0	24	62	0.85					
4300030	577.8	03	10.00	02	1500	43	10/88	LSC	GW	95	4	0	SAILFISH POINT, INC.	43	30	06	15	0.4	4	458	.85						
4300030-1	97 01	97 01	10.00	02	1000	640	Y	769798	1033166	GM	08	08	FLOWS CONTINUOUSLY. CHL:500PPM, GOLF COURSE. MOD. MODE 34,43														
4300030-2	97 01	97 01	6.00	02	912	300	Y	769998	1033166	GM	08	08	FLOWS CONTINUOUSLY. CHL:500PPM, GOLF COURSE. MOD. MODE 34,43														
4300030-3	97 01	97 01	6.00	02	1140	315	Y	770972	1035672	GM	08	08	WELLS 3,7,8,9 METERED AS ONE GOES TO POA SYSTEM. MODE 35,43														
4300030-4	97 01	97 01	10.00	02	965	1200	Y	769866	1034058	GM	08	08	GOLF COURSE, FLOWS CONTINUOUSLY. MOD. MODE 34,43														
4300030-5	97 01	97 01	10.00	02	1150	500	Y	769866	1034258	GM	08	08	GOLF COURSE, FLOWS CONTINUOUSLY. MOD. MODE 34,43														
4300030-6	97 01	97 01	10.00	02	1150	500	Y	772310	1031856	GM	08	08	FOR POTABLE R.O. PLANT. MODE 35,43														
4300030-7	97 01	97 01	10.00	02	1150	500	Y	772310	1031856	GM	08	08	WELLS 3,7,8,9 METERED AS ONE GOES TO POA SYSTEM. MODE 35,43														
4300030-8	97 01	97 01	10.00	02	1200	750	Y	770147	1033360	GM	08	08	WELLS 3,7,8,9 METERED AS ONE GOES TO POA SYSTEM. MODE 35,43														
4300030-9	97 01	97 01	10.00	02	1200	750	Y	770147	1033360	GM	08	08	WELLS 3,7,8,9 METERED AS ONE GOES TO POA SYSTEM. MODE 35,43														
4300031	229.85	03	6.00	02	115	107	14	01	03	8/87	GLF	BOTH	5	1	MARTIN CO. GOLF & C.C.	43	31	02	15	0.4	4	182	0.75				
4300031-1	97 01	97 01	6.00	02	125	117	16	01	20	Y	754382	1036460	GM	02	02												
4300031-2	97 01	97 01	6.00	02	90	60	02	400	Y	755081	1035097	GM	02	02													
4300031-3	97 01	97 01	6.00	02	60	60	02	200	Y	757376	1035414	GM	02	02													
4300031-4	97 01	97 01	3.00	02	40	40	02	200	Y	757275	1034150	GM	02	02													
4300031-5	97 01	97 01	3.00	02	40	40	02	200	Y	757757	1034527	GM	02	02													
4300031-6	97 01	97 01	3.00	02	40	40	02	200	Y	757759	1034298	GM	02	02													
4300031-7	97 01	97 01	8.00	02	1025	610	Y	755039	1033110	GM	08	08	640	Y	755039	1033110	GM	08	08	Flow well locked closed 4/90 high salt. 15 days/mo. prev.							
4300031-SM1	97 02	97 02	8.00	02	1025	610	Y	755000	1033000	SM	5	5	1000	Y	755000	1033000	SM	5	5	Location estimated							
4300062	5432.01	03	6.00	02	960	220	43	11/87	AG	BOTH	2	1	R. V. CARLTON	43	62	08	13	1.5	24	680	0.50						
4300062	94 01	94 01	6.00	02	960	220	250	649821	1032668	GM	08	08															
4300062-1	94 01	94 01	6.00	02	960	220	250	657544	1033336	GM	08	08															
4300062-2	94 01	94 01	30.00				10000	642000	1044300	SU	5	5	C-23														
4300062-SM3	94 01	94 01	42.00				30000	647600	1044300	SU	5	5	Locations estimated														
4300062-SM4	94 01	94 01	24.00				10000	657700	1044300	SU	5	5	Locations estimated														
4300062-SM5	94 01	94 01	24.00				10000	657700	1044300	SU	5	5	Locations estimated														

Account No.	Sub-Account	Rate	Category	Code	Start Date	End Date	Usage	Unit	Description	Rate	Usage	Total						
4300062-SM6	94 01	24.00	10000	662400	1044300	SM	5											
4300067	50.1	8.00	02	180 Y	768350	1024800	GM	02	3 MILES GRANT C.C.									
4300067-SW1	97 01		43	320 Y	642000	1044300	SM	5	MIX WATER W/FLORIDAN WELL	67	02	15	0.4	4	88	0.75		
4300067-SW2	97 01		43	320 Y	647600	1044300	SM	5	SEWAGE EFFLUENT POND, Loc. est.									
4300067-SW3	97 01		43	80 Y	662400	1044300	SM	5	SEWAGE EFFLUENT POND, Loc. est.									
4300067-	97 02		43	80 Y	768700	1024150	GM	08	EMERG. BACKUP TO FILL POND									
4300071	57.49	8.00	02	1150	43	10/87	AG	GM	01	0 JOSEPH D. FARISH, JR.	43	71	08	13	0.8	24	125	0.85
4300082	11.35	6.00	02	945	43	10/88	LNSCGM			0 RIVER CLUB OF MARTIN CO.	43	82	08	15	0.4	4	9	0.75
4300093	14.699, 23	5.00	02	1300	43	3/88	AG	BOTH		2 ALLAPATAM PROP. PARTNERSHIP	43	93	02	20	0.8	24	15780	0.50
4300093-1	108 01	2.00	02	65	100 M	667718	1013071	GM	08	NO VALVE, EST. CAP.								
4300093-2	95 01	2.00	02	65	40 M	677912	1042219	GM	02	EST. CAP.								
4300093-3	95 01	2.00	02	65	40 M	678099	1042026	GM	02	EST. CAP.								
4300093-4	95 01	6.00	02	1300	25 M	677906	1040467	GM	08	NO VALVE								
4300093-5	95 01	2.00	02	65	20 M	681831	1041252	GM	08	NO VALVE								
4300093-6	95 01	2.00	02	65	40 M	687625	1042717	GM	02	CAP. EST.								
4300093-7	95 01	2.00	02	65	40 M	670730	1036799	GM	02	CAP. EST.								
4300093-8	95 01	2.00	02	65	40 M	677215	1038646	GM	02	CAP. EST.								
4300093-9	95 01	2.00	02	65	25 M	677535	1038567	GM	08	NO VALVE								
4300093-10	95 01	2.00	02	65	40 M	685803	1035621	GM	02	CAP. EST.								
4300093-11	95 01	2.00	02	65	50 M	673630	1030783	GM	08	MS VALVE								
4300093-12	95 01	2.00	02	65	65 M	669990	1029507	GM	02	CAP. EST.								
4300093-13	95 01	2.00	02	65	65 M	674250	1028767	GM	02	CAP. EST.								
4300093-14	95 01	2.00	02	65	65 M	662801	1027855	GM	02	CAP. EST.								
4300093-15	95 01	2.00	02	65	65 M	664245	1023086	GM	02	CAP. EST.								
4300093-16	95 01	2.00	02	65	65 M	671657	1025690	GM	02	CAP. EST.								
4300093-17	95 01	2.00	02	65	10 M	674257	1028122	GM	08	NO VALVE								
4300093-18	94 01	4.00	02	65	65 M	682095	1028071	GM	02	CAP. EST.								
4300093-19	94 01	4.00	02	65	40 M	683849	1027312	GM	02	CAP. EST.								
4300093-20	94 01	2.00	02	65	40 M	684279	1027371	GM	02	CAP. EST.								
4300093-21	94 01	2.00	02	65	25 M	678977	1021698	GM	02	CAP. EST.								
4300093-22	94 01	2.00	02	65	65 M	657427	1027834	GM	02	CAP. EST.								
4300093-23	94 01	2.00	02	65	25 M	653737	1025853	GM	02	CAP. EST.								
4300093-24	94 01	2.00	02	65	25 M	655095	1025879	GM	02	CAP. EST.								
4300093-25	94 01	3.00	02	65	25 M	655951	1025854	GM	02	CAP. EST.								
4300093-26	94 01	2.00	02	65	25 M	657243	1024579	GM	02	CAP. EST.								
4300093-27	94 01	2.00	02	65	35 M	659962	1027826	GM	02	CAP. EST.								
4300093-28	94 01	2.00	02	65	35 M	661180	1027000	GM	02	CAP. EST.								
4300093-29	94 01	2.00	02	65	35 M	659957	1026259	GM	02	CAP. EST.								
4300093-30	94 01	2.00	02	65	100 M	661766	1025170	GM	08	MS VALVE, CAP. EST.								
4300093-31	94 01	2.00	02	65	35 M	657674	1024710	GM	02	CAP. EST.								
4300093-32	94 01	2.00	02	65	35 M	660410	1024448	GM	02	CAP. EST.								
4300093-33	94 01	2.00	02	65	35 M	660323	1023187	GM	02	CAP. EST.								
4300093-34	94 01	2.00	02	65	35 M	651658	1016538	GM	02	CAP. EST.								
4300093-35	94 01	2.00	02	65	35 M	653680	1017189	GM	02	CAP. EST.								
4300093-35	94 01	2.00	02	65	35 M	655581	1016645	GM	02	CAP. EST.								

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AN.	ALL.	MAX MO.	DATE USE SRC.	MO.	SW	CD	PERMIT NO.	DEV NO.	AG	TYPETYPE	ST	IRR	IRR
			UNT.	CO	ISS.	TYPE	M.S.	OWNER					ACRES	EFF

LINE 2* HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NUMBER	QUAD NO.	WELL STA.	DPTH DIA.	PMP CODE	AG	BOTH	CD	JNT	YPLNR	SRC	AO.	COMMENTS
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4300093-SM1	95 01																
4300093-SM2	95 01																
4300117	1690.5	03															
4300117-1	108 01		10.00	02	1340	390	43	5/87	AG	BOTH	5	2	CAULKINS INDIANTOWN GROVES	43			
4300117-2	108 01		10.00	02	1320	400					775	Y	688736 980951 GW	08	FLOWS	775	GPM
4300117-3	108 01		10.00	02	1280	400					675	Y	699991 1000740 GW	08	FLOWS	675	GPM
4300117-4	108 01		10.00	02	1250	400					840	Y	700016 996753 GW	08	FLOWS	840	GPM
4300117-5	108 01		10.00	02	1250	400					800	Y	699945 991254 GW	08	FLOWS	800	GPM
4300117-SM1	108 01		10.00	02	1250	400					800	Y	699994 986103 GW	08	FLOWS	800	GPM
4300117-SM2	108 01		10.00	02	1250	400					20000	Y	700000 984000 SW	5	C-44, Loc. estim.		
											20000	Y	700000 984000 SW	5	C-44, Loc. estim.		
4300122	3099.97	03															
4300122-1-1	108 01		10.00	02	1340	390	43	9/88	AG	BOTH	10	4	CAULKINS LAND (VENTURES 1 & 11)	43			
4300122-1-1	107 01		10.00	02	1340	400					850	Y	668300 970000 GW	08	FLOWS	850	GPM
4300122-1-2	124 01		10.00	02	1320	400					1450	Y	657596 972662 GW	08	FLOWS	1450	GPM
4300122-1-3	124 01		10.00	02	1340	400					800	Y	668160 966268 GW	08	FLOWS	800	GPM
4300122-1-4	124 01		10.00	02	1250	400					850	Y	668073 962196 GW	08	FLOWS	850	GPM
4300122-1-5	107 01		10.00	02	1250	400					1250	Y	668047 958226 GW	08	FLOWS	1250	GPM
4300122-1-2	123 01		10.00	02	1340	400					1400	Y	666340 991159 GW	08	FLOWS	1400	GPM
4300122-1-3	123 01		10.00	02	1320	400					975	Y	657398 969328 GW	08	FLOWS	975	GPM
4300122-1-4	123 01		10.00	02	1320	400					1050	Y	657536 964115 GW	08	FLOWS	1050	GPM
4300122-1-5	123 01		10.00	02	1320	400					1275	Y	657499 960191 GW	08	FLOWS	1275	GPM
4300122-SM1	108 01		10.00	02	1320	400					20000	Y	657699 960191 SW	5	C-44, Loc. estim.		
4300122-SM2	108 01		10.00	02	1320	400					20000	Y	657699 960191 SW	5	C-44, Loc. estim.		
4300122-SM3	107 01		10.00	02	1320	400					25000	Y	657699 960191 SW	5	C-44, Loc. estim.		
4300122-SM4	107 01		10.00	02	1320	400					25000	Y	657699 960191 SW	5	C-44, Loc. estim.		
4300130	32.2	03															
4300130-2	97 01		8.00	02	1000	700	43	4/79	LSC	GW	1	0	JOES POINT VENTURE	43			
											500		760785 1057260 GW	08	EST. FLOW	500	GPM
4300140	5.91	03															
4300140-1	127 01		8.00	02	1000		43	8/89	GLF	BOTH	4	4	TURTLE CREEK CLUB	43			
4300140-4	127 01		8.00	02	1000						300	Y	787161 961327 GW	08			
4300140-5	126 01		2.00	02	500						300	Y	785472 962099 GW	08			
4300140-6	126 01		2.00	02	500						40	Y	784679 962388 GW	08			
											40	Y	784370 962284 GW	08			

4300140-SW1	01	4300159	49.21	03	43 11/87 AG GW	1	0 SULLIVAN & HUFFMAN	43	159	08	13	0.8	24	107	0.85
4300140-SW2	01	4300159-1	107 01		10.00 02 1496 400	720	654848 991489 GW	08	FLWS 720 GPM						
4300140-SW3	01	4300172	73.59	03	43 4/87 AG GW	1	O T & T ENTERPRISES	43	172	08	13	0.8	24	160	0.85
4300140-SW4	01	4300172-1	107 01		8.00 02 1210 393	800	647291 983206 GW	08	FLWS 800 GPM						
4300190	03	4300190	47.34	03	43 5/89 AG BOTH	11	1 NEIL E. MACMILLAN	43	190	13	1.5	24	102	0.85	
4300190-1	94 01	4300190-1	94 01		2.00 02 154 149	40	634365 1021516 GW	02	WINDMILL						
4300190-2	94 01	4300190-2	94 01		2.00 02 94 89	40	633875 1020722 GW	02	WINDMILL						
4300190-3	94 01	4300190-3	94 01		2.00 02 18 13	40	633625 1018770 GW	02	WINDMILL						
4300190-4	94 01	4300190-4	94 01		2.00 02 30 27	10	634465 1017960 GW	02	HAND PUMP						
4300190-5	94 01	4300190-5	94 01		2.00 02 30 25	10	634017 1015619 GW	02	HAND PUMP						
4300190-7	94 01	4300190-7	94 01		2.00 02 70 65	40	635099 1018576 GW	02	WINDMILL						
4300190-9	94 01	4300190-9	94 01		8.00 02 1200 400	300	633356 1019746 GW	08	FLWS 300 GPM						
4300190-10	94 01	4300190-10	94 01		8.00 02 1100 400	250	634997 1022210 GW	08	FLWS 250 GPM						
4300190-6	107 01	4300190-6	107 01		2.00 125 120	50	633793 1013707 GW	02	WINDMILL						
4300190-8	107 01	4300190-8	107 01		2.00 86 81		633425 1013170 GW	02							
4300190-11	107 01	4300190-11	107 01		10.00 1170 400	500	634673 1013575 GW	08	FLWS 500 GPM						
4300190-12	107 02	4300190-12	107 02		10.00 1150 450	500	634513 1011903 GW	08	FLOW						
4300190-SW1	107 01	4300190-SW1	107 01			1000	634673 1013575 SW	5	DITCH, Loc. estim.						
4300190-SW2	107 02	4300190-SW2	107 02			1225	634513 1011903 SW	5	DITCH, Loc. estim.						
4300217	12 03	4300217	12 03		43 8/87 AG GW	1	O CAULKINS INDIANTOWN CITRUS(WASTEWATER)	43	217	08	13	0.8	24	148	0.85
4300260	89.84 03	4300260	89.84 03		10.00 02 1600 451	200 N	661857 991852 GW	08	FLWS 200 GPM (USING RECLAIMED WATER FROM CITRUS PROCESSING PLANT-WO ALL						
4300260-SW1	108 01	4300260-SW1	108 01		43 4/89 GLF BOTH	1	3 INDIANWOOD ASSOC., INC.	43	260	08	15	0.8	24	86	0.75
4300260-SW2	108 01	4300260-SW2	108 01		8.00 02 1300 400	500 Y	671400 982900 GW	08	installed 8/89. run 20 days/mo.						
4300260-SW3	108 01	4300260-SW3	108 01			400 Y	671600 982900 SW	5	OM-SITE LAKES, Loc. estim.						
4300321	50.46 03	4300321	50.46 03		43 11/87 AG SW	0	2 KARST, INC.	43	321	13	3.6	24	110	0.85	
4300321-SW1	108 02	4300321-SW1	108 02			286	SW	5	TROUP-INDIANTOWN CANAL						
4300321-SW2	108 02	4300321-SW2	108 02			286	SW	5	TROUP-INDIANTOWN CANAL						
4300329	35.51 03	4300329	35.51 03		43 2/89 GLF GW	1	0 RADNOR PLANTATION	43	329	08	15	0.4	4	70	0.75
4300329-IR2	97 03	4300329-IR2	97 03		8.00 02 1025 590	420 Y	765343 1047272 GW	08	CAP. EST.						
4300329-PW3	97 01	4300329-PW3	97 01		8.00 02 1025 315 124 01	420 Y	765520 1046870 GW	08	6" PVC LINER 0'-685'						
4300360	1487.49 03	4300360	1487.49 03		43 4/87 AG BOTH	4	2 INDIAN RIVER CITRUS INV.	43	360	08	13	0.8	24	3234	0.85
4300360-W4	109 01	4300360-W4	109 01		10.00 02 1250 393	1020 Y	708054 1000956 GW	08	FLWS 1020 GPM						
4300360-W3	109 01	4300360-W3	109 01		10.00 02 1150 380	980 Y	708075 997055 GW	08	FLWS 980 GPM						
4300360-W1	109 01	4300360-W1	109 01		10.00 02 1100 420	950 Y	708114 990408 GW	08	FLWS 950 GPM						
4300360-W2	109 03	4300360-W2	109 03		10.00 02 1200 400	1000 Y	708152 994456 GW	08	EST. FLOW 1000 GPM						
4300360-SW1	109 01	4300360-SW1	109 01		30.00	20000	708054 1000956 SW	5	C-44, Loc. estim.						
4300360-SW2	109 01	4300360-SW2	109 01		36.00	25000	708152 994456 SW	5	C-44, Loc. estim.						

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LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

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PERMIT NO.	AM.	ALL.	UNT.	MO.	UTS.	CD	ISS.	TYPE	U.S.	PMPs	DAMER	CD	PERMIT NO.	DEV NO.	AD	TYPETYPE	ST	ACRES	IRR	EFF
									DATE	USE SRC. NO.	SU									

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LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

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PERMIT NO.	FACILITY NUMBER	QUAD NO.	WELL NO.	STIS DIA.	CODE	TD	CD	TNT	TYPE	CAP.	MTR?	XPLNR	YPLNR	SRC	AD.	COMMENTS			
4300362	50	03	43	12/86	IND	GM	2	0	CAULKINS INDIANTOWN CITRUS CO.	43	362	08	13	0.8	24	86	0.85		
4300362-1	107	01	8.00	02	175	129	90	02	60 Y	659016	986105	GM	02	WATER REUSED ON ADJ GROVE (43-00217)					
4300362-2	107	01	8.00	02	175	129	90	02	60 Y	659142	985920	GM	02						
4300362-3	107	01	10.00	02	1000	400			300	658307	985614	GM	08	EST. FLOW 300 GPM					
4300485	86.31	03	43	2/89	LAW	GM	2	0	RADNOR/PLANT (INDIAN REV. PLANT.)	43	485	08	15	0.4	4	70	0.75		
4300485-IR-1	97	01	8.00	02	1010	590	01	420 Y	766436	1047258	GM	08	CAP. EST.						
4300485-IR-4	97	01	8.00	02	1025	590	01	420 Y	765565	1046494	GM	08	CAP. EST.						
4300501	15.27	03	43	5/89	AG	GM	1	0	FENNEL 43 ACRE GROVE	43	501	08	13	0.8	24	33	0.85		
4300501-1	107	02	6.00	02	1000	400			310	652093	992717	GM	08	EST. FLOW 310 GPM					
4300503	11.29	03	43	5/89	AG	GM	1	0	FENNEL 35 ACRE GROVE	43	503	08	13	0.0	24	35	0.85		
4300503-1	107	02	6.00	02	1000	400			290	655658	997137	GM	08	EST. FLOW 310 GPM					

**Okeechobee County
Water Use Spreadsheets**

Okeechobee County

Okeechobee County Water Use Spreadsheets

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AN.	ALL.	UNT. NO.	MAX. NO.	DATE USE SRC. NO.	SU	ISS. TYPE	M.S.	PHPS	OWNER	CD	PERMIT NO.	DEV. NO.	AO	TYPE	ST	IRR	IRR	EFF
																	ACRES		

LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NO.	QJNO.	WELL NO.	STSDIA.	CD	TD	CD	INT	TYPE	CAP.	MTR?	XPLWR	YPLWR	SRC	AO	COMMENTS

Only FAS wells included here.

4700005	482.08	03	83.17	02	47	3/76	AG	GU	4	0	M	CROSS RANCH, INC.	8	NO	NATURAL FLOW HERE	08	20	.8	12	450	.5				
4700005-1	80	03	8	02	1200	160	02	600	MO	568857.	1105192	GU	8												
4700005-2	80	03	8	02	1200	160	02	600	MO	570037.	1102517	GU	8												
4700005-3	80	03	8	02	1200	160	02	600	MO	571711.	1100389	GU	8												
4700005-4	80	03	8	02	1200	160	02	600	MO	570010.	1098631	GU	8												
4700014	1780	04	13.5	02	47	9/76	AG	GU	1	M	MURPHY WHITE DAI	08													
4700014-1	92	01	8	02	1000		GM	312	M	574724.	1054479	GU	08												
4700022	278.1	03	102.74	02	47	12/76	AG	BOTH	1	2	M-J RANCH	850	M	581339.	1154522	GU	8	2	CULVERTS ALSO, cap.estim.	08	13	1.5	11	357	0.50
4700022-1	59	01	10.00	02	1000	260																			
4700023	1668.45	03	257.1	02	47	12/76	AG	GU	9		CHARLES T. SCOTT RANCH, INC.	8													
4700023-1	59	01	8	02	1000	60																			
4700023-2	59	01	8	02	1000	60																			
4700023-3	59	01	8	02	1000	60																			
4700023-4	59	01	8	02	1000	60																			
4700023-5	70	01	8	02	1000	60																			
4700023-6	70	01	8	02	1000	60																			
4700023-7	70	01	8	02	1000	60																			
4700023-8	70	01	8	02	1000	60																			
4700023-9	70	01	8	02	1000	60																			
4700023-10	70	01	8	02	1000																				
4700023-11	70	02	8	02	1000																				
4700036	171.23	03	24.67	02	47	4/77	AG	GU	1	0	G BAR E RANCH	600	M												
4700036-1	80	01	6.00	02	1000	200																			
4700039	241.04	03	41.58	02	47	1/77	AG	GU	4	0	EMILIO DAIRY, INC	514	M	596959.	1046633	GU	08								
4700039-1	93	01	8.00	02	1300	700																			
4700039-2	93	01	8.00	02	1300	700																			
4700039-3	93	01	8.00	02	1300	700																			
4700039-8	93	01	6.00	02	150	100																			

08 LOCATIONS TENTATIVE
08 PROPOSED- AS OF LAST REVIEW DATE FEB.-/88.

4700051-21FW	59 02	8.00 02	1000 250	575 Y	390205. 1167905 GW	08	08	13	0.8	12	360	.5
4700051-25FW	59 02	8.00 02	1000 250	575 Y	590335. 1165426 GW	08	08					
4700051-29FW	59 02	8.00 02	1000 250	575 Y	590355. 1162728 GW	08	08					
4700051-33FW	59 02	8.00 02	1000 250	575 Y	590426. 1160157 GW	08	08					
4700051-38FW	59 02	8.00 02	1000 250	575 Y	590415. 1156983 GW	08	08					
4700051-160W	59 02	8.00 02	1000 250	575 Y	595761. 1171318 GW	08	08					
4700051-210W	59 02	8.00 02	1000 250	575 Y	595848. 1167930 GW	08	08					
4700051-250W	59 02	8.00 02	1000 250	575 Y	595778. 1165492 GW	08	08					
4700051-290W	59 02	8.00 02	1000 250	575 Y	595870. 1162849 GW	08	08					
4700051-330W	59 02	8.00 02	1000 250	575 Y	595676. 1169018 GW	08	08					
4700051-380W	59 02	8.00 02	1000 250	575 Y	595639. 1156739 GW	08	08					
4700051-168W	59 02	8.00 02	1000 250	575 Y	601054. 1170745 GW	08	08					
4700051-218W	59 02	8.00 02	1000 250	575 Y	601184. 1167845 GW	08	08					
4700051-258W	59 02	8.00 02	1000 250	575 Y	600989. 1165418 GW	08	08					
4700051-298W	59 02	8.00 02	1000 250	575 Y	600941. 1162776 GW	08	08					
4700051-338W	59 02	8.00 02	1000 250	575 Y	601049. 1160406 GW	08	08					
4700051-388W	59 02	8.00 02	1000 250	575 Y	601062. 1156828 GW	08	08					
4700055	654	02	47 2/77 AG	BOTH	2	2	08	13	0.8	12	360	.5
4700055-1	59 02	6.00 02	900	500 M	581439. 1160561 GW	08	08					
4700055-2	59 02	8.00 02	1000	800 M	581412. 1157735 GW	08	08					
4700055-1	59 02	8.00 02	1000	2WAY 5000 M	581612. 1157735 SW	5	08	20	.8	12	2931	.5
4700055-2	59 02	8.00 02	1000	2WAY 5000 M	581612. 1157735 SW	5	08	13	.8	12	357	.5
							08	13	.8	12	347	.85
4700059	37.0	03	47 2/79 PWS GW	2	0	08	08	20	.8	12	640	.5
4700059-15-60	80 01	12.00 02	750 600 30 02	200 M	558917. 1079423 GW	08	08					
4700059-15-6S	80 01	12.00 02	500 100 30 02	90 M	559294. 1079903 GW	08	08					
4700060	525.6	03	43-20 02	47 2/79 AG GW	1	0	08	20	.8	12	2931	.5
4700060-1	57 01	12.00 02	1000	?	7	1000 M	08	13	.8	12	357	.5
4700068	3578.68	03	443 02	47 2/82 AG	BOTH	13	08	13	.8	12	347	.85
4700068-1	80 01	6.00 02	600 450	200 M	561484. 1087821 GW	08	08					
4700068-12	80 01	6.00 02	1200 500	100 M	562780. 1084285 GW	08	08					
4700068-13	80 01	6.00 02	990 500	300 M	562796. 1083623 GW	08	08					
4700068-2	80 01	6.00 02	1078 500	300 M	567468. 1080338 GW	08	08					
4700068-3	80 01	8.00 02	998 440	150 M	569890. 1083044 GW	08	08					
4700068-4	80 01	8.00 02	1100 500	500 M	570969. 1087272 GW	08	08					
4700068-5	80 01	8.00 02	1100 500	500 M	569105. 1079123 GW	08	08					
4700068-14	80 01	8.00 02	940 440	450 M	570982. 1079890 GW	08	08					
4700068-15	80 01	8.00 02	990 500	450 M	572869. 1078283 GW	08	08					
4700068-16	80 01	8.00 02	990 500	500 M	571974. 1076592 GW	08	08					
4700068-17	80 01	8.00 02	990 500	500 M	572331. 1075239 GW	08	08					
4700068-18	80 01	8.00 02	990 500	450 M	570051. 1077560 GW	08	08					
4700068-20	80 01	8.00 02	905 554 120 02	800 M	571002. 1076894 GW	08	08					
4700068-22	80 01	10.00 02	900 548 120 02	1200 M	570206. 1081989 GW	08	08					
4700081	582.19	03	83-86 02	47 6/83 AG	BOTH	2	08	15	.8	12	510	.75
4700081-1W	80 02	10.00 02	800 400 -38 01	750 M	573548. 1097408 GW	08	08					
4700081-1W2	80 02	10.00 02	800 400 -38 01	750 M	579143. 1094368 GW	08	08					

**Indian River County
Water Use Spreadsheets**

Indian River County

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AM.	ALL.	MAX.	NO.	DATE	USE	SRC.	NO.	SW	CO	PERMIT	NO.	DEV.	NO.	IRR	ACRES	EFF
NO.	UNIT	NO.	UJS.	CD	ISS.	TYPE	WLS.	OWNER									

LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY	QUAND.	WELL	DEPTH	PMP	CD	INT	TYPE	CAP.	MTR7	ROM	COLUMN	SRC	AQ.	COMMENTS	S	T	R
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Appendix 6

Indian River Water Use Spreadsheets

6100004	93.0	03	01	10.00	02	1100	61	5/77	AG	GM	1	0	FRED W. TUERK TRUST	4	16	GM	08	11/33/37	08	13	0.8	31	320	0.50
6100006	39.6	03	01	8.00	02	1000	61	5/77	AG	GM	1	0	WILLIAM AKINS	4	17	GM	08	12/33/37	08	13	0.8	31	93	0.50
6100007	312.0	03	01	10.00	02	1000	61	6/81	AG	GM	3	0	ADAMS RANCH INC.	4	4	GM	08	7-13, 17-20, 24, 28-30/33/34, 35	08	13	0.4	31	1200	0.50
6100008	5.1	03	01	4.00	02	700	61	5/77	AG	GM	2	0	WILLIAM E. HARRIS	5	26	GM	08	7-13, 17-20, 24, 28-30/33/34, 35	08	13	0.8	31	20	0.50
6100009	11.8	03	01	6.00	02	1000	61	5/77	AG	GM	1	0	JACKSON BROTHERS GROVES	5	24	GM	08	16/33/39	08	13	0.8	31	40	0.50
6100011	13.3	03	01	5.00	02	1000	61	5/77	AG	GM	3	0	RUTH HALLSTROM	7	30	GM	08	16/33/39	08	13	0.8	31	40	0.50
6100021	11.9	03	01	10.00	02	1000	61	5/77	AG	GM	1	0	J. L. MULLIS	7	24	GM	08	30, 31/33/40	08	13	0.4	31	55	0.75
6100024	11.9	03	01	6.00	02	900	61	5/77	AG	GM	5	0	PERCY M. OR RUBY THORNTON	6	27	GM	08	30, 31/33/40	08	13	0.8	31	40	0.50
6100025	11.9	03	01	6.00	02	900	61	5/77	AG	GM	5	0	PERCY M. OR RUBY THORNTON	6	27	GM	08	30, 31/33/40	08	13	0.8	31	38	0.50

6100025-2	01	6.00	02	900	200	6	27	GM	08	22/33/39	08	13	0.4	31	30	0.50
6100025-3	01	6.00	02	900	250	6	27	GM	08	22/33/39						
6100025-4	01	6.00	02	---	125	6	27	GM	08	22/33/39						
6100025-5	01	6.00	02	---	125	6	27	GM	08	22/33/39						
6100029	11.2															
6100029-1	03	4.00	02	700	4											
6100029-2	01	4.00	02	700	100	3	26	GM	08	04/33/39						
6100029-3	01	4.00	02	700	100	3	26	GM	08	04/33/39						
6100029-4	01	4.00	02	700	75	3	26	GM	08	04/33/39						
6100032	12.2															
6100032-1	03	4.00	02	61 6/77 AG GM	2											
6100032-2	61 01	4.00	02	61 6/77 AG GM	100	3	29	GM	08	00/33/39						
6100033	6.1															
6100033-1	03	4.00	02	61 6/77 AG GM	2											
6100033-2	61 01	4.00	02	61 6/77 AG GM	100	8	2	GM	08	33/33/35						
6100034	23.6															
6100034-1	03	10.00	02	61 6/77 AG GM	1											
6100034-P	01 01				960	3	19	GM	08	05/33/38						
6100034-P1	60 01				10000	3	19	SM	99							
6100038	23.6															
6100038-P1	60 01															
6100039	11.8															
6100039-P1	60 01															
6100040	10.3															
6100040-P1	60 01															
6100041	6.2															
6100041-1	61 01	4.00	02	61 6/77 AG GM	3											
6100041-2	61 01	4.00	02	61 6/77 AG GM	100	7	26	GM	08	28/33/39						
6100041-3	61 01	4.00	02	61 6/77 AG GM	100	7	26	GM	08	28/33/39						
6100042	15.3															
6100042-1	61 01	4.00	02	61 6/77 AG GM	2											
6100042-2	61 01	4.00	02	61 6/77 AG GM	300	4	24	GM	08	07/33/39						
6100043	24.6															
6100043-1	61 01	8.00	02	61 6/77 AG GM	4											
6100043-2	61 01	8.00	02	61 6/77 AG GM	575	6	26	GM	08	21/33/39						
6100043-3	61 01	8.00	02	61 6/77 AG GM	575	6	26	GM	08	21/33/39						
6100043-4	61 01	8.00	02	61 6/77 AG GM	575	6	26	GM	08	21/33/39						
6100044	10.8															
6100044-P1	61 01															
6100044-P1	61 01															
6100045	245.9															
6100045-1	61 01	4.00	02	61 6/77 AG GM	4											
6100045-1	61 01	4.00	02	1000	159	5	23	GM	08	14/33/38						
6100045-1	61 01	4.00	02	1000	159	5	23	GM	08	13/33/38						

6100073	479.7	03	61 6/77	AG	GM	2	900	10.00	02	968	11, 12, 13, 14/33/37	08	13	0.8	31	1280	0.50
6100073-1		60 01					900	10.00	02	1050	11, 12, 13, 14/33/37						
6100073-2		60 01					900	10.00	02	1050	11, 12, 13, 14/33/37						
6100076	7.1	03	61 6/77	AG	GM	1	300	5.00	02		16/33/38	08	13	0.8	31	18	0.50
6100076-1		60 01					300	5.00	02		16/33/38						
6100077	42.1	03	11/85	AG	GM	3	200	10.00	02	1000	31/33/39	08	13	0.8	31	190	0.50
6100077-1		61 01					200	10.00	02	1000	31/33/39						
6100077-2		61 01					200	10.00	02	1000	31/33/39						
6100077-3		61 01					200	10.00	02	1000	31/33/39						
6100078	41.0	03	61 6/77	AG	GM	3	750	10.00	02	1000	04, 05/33/38	08	13	0.8	31	120	0.50
6100078-1		01					750	10.00	02	1000	04, 05/33/38						
6100078-2		01					300	10.00	02	1000	04, 05/33/38						
6100078-3		01					400	10.00	02	1000	04, 05/33/38						
6100079	15.0	03	61 6/77	AG	GM	3	125	4.00	02		12/33/38	08	13	0.8	31	40	0.50
6100079-1		61 01					125	4.00	02		12/33/38						
6100079-2		61 01					100	4.00	02		12/33/38						
6100079-3		61 01					100	4.00	02		12/33/38						
6100082	13.1	03	61 6/77	AG	GM	4	230	5.00	02	400	05, 06/33/39	08	13	0.8	31	35	0.50
6100082-1		01					230	5.00	02	400	05, 06/33/39						
6100082-2		01					135	5.00	02	400	05, 06/33/39						
6100082-3		01					135	5.00	02	400	05, 06/33/39						
6100082-4		01					135	5.00	02	400	05, 06/33/39						
6100083	95.7	03	61 5/88	AG	GM	5	250	6.00	02	300	23 33 38	08	13	0.8	31	185	0.85
6100083-A		60 01					250	6.00	02	300	23 33 38						
6100083-B		60 01					100	4.00	02	300	23 33 38						
6100083-C		60 01					250	6.00	02	300	23 33 38						
6100083-D		60 01					100	4.00	02	300	23 33 38						
6100083-E		60 02					400	10.00	02	750	23 33 38						
6100083-F		60 02					400	8.00	02	750	23 33 38						
6100085	45.8	03	61 6/77	AG	GM	2	75	4.00	02	300	09/33/37	08	13	0.8	31	100	0.50
6100085-1		59 01					75	4.00	02	300	09/33/37						
6100085-2		59 01					305	4.00	02	300	09/33/37						
6100086	29.2	03	61 7/78	AG	GM	2	360	6.00	02	500	26, 27/33/37	08	13	0.8	31	200	0.50
6100086-1		60 01					360	6.00	02	500	26, 27/33/37						
6100086-2		60 01					360	6.00	02	500	26, 27/33/37						
6100089	3980.0	03	6/89	PWS	GM			12.00	02	112		13					
6100089-A		01						12.00	02	112							
6100089-B		01						10.00	02	80							
6100089-C		01						10.00	02	80							
6100089-D		01						10.00	02	80							
6100089-E		01						10.00	02	570							
6100089-F		01						10.00	02	82							
6100089-G		01						12.00	02	112							

6100094	101.2	03	61 1/80	AG BOTH	2	CURTIS MUSCROVE JR.	08	13	0.8	31	80	0.50
6100094-1		01	6.00	02	610	4	21	GM	08			
6100094-2		01	6.00	02	610	4	21	GM	08			
6100095	54.8	03	61 4/80	CON GM	2	TROPIC VILLAS NORTH	08					
610095-1		61 01	8.00	02	125	4	23	GM	08	POTABLE WATER USE	12/33/39	
610095-2		61 01	8.00	02	125	4	23	GM	08	.15 MCD	12/33/39	
6100096	308.0	03	8/85	AG GM	5	LYKES CITRUS MANAGEMENT DIV.	08	13	0.8	31	1352	0.85
6100096-2			8.00	02	698	3	18	GM	08			
6100096-3			8.00	02	815	3	19	GM	08			
6100096-4			8.00	02	605	4	18	GM	08			
6100096-5			8.00	02	657	4	19	GM	08			
6100096-6			8.00	02	1027	4	18	GM	08			
6100097	60.4	03	61 8/85	AG GM	1	LYKES CITRUS MANAGEMENT DIV.	08	13	0.8	31	265	.85
6100097-1		60	8.00	02	750	6	19	GM	08			
6100098	50.7	03	61 7/85	IND BOTH	4	OCEAN SPARY CRANBERRIES	BOTH	13	0.8	31	80	
6100098-A		61 01	02	1250	800	7	23	GM	08	1.074MCD		
6100098-B		61 01	02	1250	800	7	23	GM	08			
6100098-C		61 01	02	53	55	7	23	GM	02			
6100098-D		61 01	02	53	140	7	23	GM	02			
6100099	120.5	03	61 12/81	PMS GM	3	FLA. ATLANTIC ASSOCIATES	08					
6100099-1		61 01	8.00	02	700	4	22	GM	08	.1 MCD	11/33/38	
6100099-2		61 01	8.00	02	700	4	22	GM	08		11/33/38	
6100099-3		61 02	8.00	02	700	4	22	GM	08		11/33/38	
6100100	216.6	03	61 9/80	AG GM	1	1 S. M. S. GROVES	08	13	0.8	31	480	.85
6100100-1		60 01	10.00	02	800	6	25	GM	08			
6100100-2		60 02	10.00	02	800	6	25	GM	08			
6100101	152.0	03	61 1/86	AG GM	3	BELAIRE GROVES JOINT VENTURE	08	13	0.8	31	1760	.85
6100101-1		60 01	14.00	02	800	5	19	GM	08			
6100101-2		60 01	14.00	02	800	6	20	GM	08			
6100101-3		60 01	14.00	02	800	6	19	GM	08			
6100105	137.0	03	61 11/85	AG GM	1	BELAIRE GROVES JOINT VENTURE	08	13	0.8	31	300	.85
6100105-1		60 01	8.00	02	1104	5	17	GM	08			
6100106	1551.0	03	61 6/81	PMS GM	2	INDIAN RIVER COUNTY	08					
6100106-1		61 02	12.00	02	1200	6	28	GM	08			
6100106-2		61 02	12.00	02	1200	6	28	GM	08			
6100107	97.8	03	61 6/81	AG GM	2	PACKERS OF INDIAN RIVER INC.	08	13	0.8	31	200	0.85
6100107-1		02	10.00	02	500	3	17	GM	08			
6100107-2		02	10.00	02	500	3	17	GM	08			
6100108	118.3	03	61 10/86	AG GM	2	INDIAN RIVER CITRUS MGT. INC.	08	13	0.8	31	200	0.85
6100108-1		60 01	6.00	02	250	7	16	GM	08	EST. CAP.		
6100108-2		60 01	6.00	02	250	7	16	GM	08			

6100123	142.4	03	01	61	12/88	AG BOTH	4	500	VERO BEACH COUNTRY CLUB	08	15	0.4	31	130	0.75
6100123-1		01					500		2 29 GM 08 EST.CAP.						
6100123-2		01					500		2 29 GM 08 "						
6100123-3		01					500		3 29 GM 08 "						
6100123-4		01					500		3 29 GM 08 "						
6100123-5		01					10000		3 29 SW 99 "						
6100124				61	11/81				AQUATIC FISHERIES						
6100125	40.0	03	01	61	2/86	AG GM	4	800	INTERNATIONAL CITRUS CORP.	08	13	0.8	31	320	0.85
6100125-1		01					800		6 15 GM 08						
6100125-2		01					800		6 15 GM 08						
6100125-3		01					800		6 15 GM 08 EST.CAP						
6100125-4		01					800		6 15 GM 08 "						
6100127	182.5	03	01	5/87	1MD	GM	1		HERCULES INC.	08				50	
6100127-1		61					42.00	02	65 GM 02						
6100128	121.0	03	01	61	6/85	PMS GM	3	150	GENERAL DEVELOPMENT UTILITIES	02				962	
6100128-1		01					6.00	02	125 GM 02						
6100128-2		01					6.00	02	125 GM 02						
6100128-3		01					6.00	02	125 8 30 GM 02					31, 32, 35, 36/33/39, 40	
6100129	28.8	03	01	61	12/81	MD GM	4	500	CITY OF VERO BEACH POWER PLANT	08					
6100129-1		01					8.00	02	800 3 28 GM 08 .079 MGD					02/33/39	
6100129-2		01					8.00	02	800 3 28 GM 08					02/33/39	
6100129-3		01					8.00	02	950 3 28 GM 08					02/33/39	
6100129-4		01					8.00	02	1000 3 28 GM 08					02/33/39	
6100131	42.4	03	01	61	12/81	AG BOTH	2	100	H. W. MUCK	08	13	0.8	31	40	0.50
6100131-1		61					4.00	02	5 25 GM 08 EST.CAP					17/33/39	
6100131-2		61					4.00	02	5 25 GM 08 "					17/33/39	
6100132	36.0	03	01	61	2/86	AG GM	4	310	CARMEN D. RUBIO	08	13	0.8	31	70	0.85
6100132-1		01					10.00	02	900 8 25 GM 08 EST.CAP					32/33/39	
6100132-2		01					10.00	02	900 8 25 GM 08						
6100132-3		01					10.00	02	900 8 25 GM 08 EST.CAP						
6100132-4		01					10.00	02	900 8 25 GM 08 "						
6100137	56768.0	03	01	61	1/82	1MD BOTH	2	1500	CITY OF VERO BEACH POWER PLANT	99					
6100137-1		01					10.00	02	1200 GM 08 2.6 MGD					06/33/40	
6100137-2		01					10.00	02	1200 GM 08 PUMPS FORM I.R.LAG.06/33/40						
6100137	20.0	03	01	61	8/89	1MD BOTH	2	22000	CITY OF VERO BEACH	08	13				
6100137-1		01					02		SW 99					32/33/39	
6100137-2		01					02		SW 99						
6100137-3		01					02		SW 99						
6100138	38.9	03	01	61	6/86	AG GM	3	500	VIRLYN GROVES INC.	08	20	0.4	31	240	0.50
6100138-1		01					02		8 28 GM 08 CAP.EST.						
6100138-1		01					02		8 28 GM 08 "						
6100138-1		01					02		8 28 GM 08 "						

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT AN. ALL. MAX. MO. DATE USE SRC. NO. SV. CROP SOIL RAIN IRR IRR
 NO. ALL. UMT MO. UTS. CD ISS. TYPE WLS. PMP'S OWNER CO PERMIT NO. DEV NO. AQ TYPE TYPE ST ACRES EFF

LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT FACILITY QUAD. WELL DPTH PMP PUMP PUMP
 NO. STSDIA. NO. STSDIA. CODE TD CD INT TYPE CAP. MTR? ROW COLUMN SRC AQ. COMMENTS S / T / R

PERMIT NO.	FACILITY NO.	QUAD. NO.	WELL NO.	DPTH	PMP	PUMP	PUMP	TYPE	CAP.	MTR?	ROW	COLUMN	SRC	AQ.	COMMENTS	S	T	R
6100139	32.4	03	61 2/85	AG	GM	1	2600								EDJTM PRANGE			
6100139-1	61 01	9.00	02	1000											4	14	GM	08
6100140	42.0	03	61 12/85	AG	GM	1	2600								ANAPA CORPORATION			
6100140-1	59 01	12.00	02												4	14	GM	08
6100143	74.5	03	61 3/87	AG	GM	1	2000								BERNARD EDER			
6100143-1	01	10.00	02	900											3	14	GM	08
6100144	41.5	03	61 6/85	AG	GM	1	2000								CHRISTFRIED PROCHNOW			
6100144-1	01	10.00	02	900											4	14	GM	08
6100146	37.9	03	61 5/86	PMS	GM	2	250								CHAMPION HOME COMMUNITIES			
6100146-1	01	6.00	02	100											4	22	GM	02
6100146-2	01	6.00	02	100											4	22	GM	02
6100147	82.0	03	61 5/82	AG	GM	2	250								THOMAS F. BATES			
6100147-1	61 01	5.00	02												6	27	GM	08
6100147-2	61 01	5.00	02												6	27	GM	08
6100148			61 8/85	AG	GM	2	850								FRANK BATES GROVES INC.			
6100148-1	01	10.00													4	17	GM	08
6100148-2	01	10.00													4	17	GM	08
6100150	33.1	03	61 7/85	AG	GM	4	163								BYRON H. BEATY			
6100150-1	61 01	4.00													4	24	GM	08
6100150-2	61 01	4.00													4	24	GM	08
6100150-3	61 01	4.00													4	24	GM	08
6100151	1194.0	03	61 8/85	AG	GM	8	1100								EVANS PROPERTIES INC. ET AL			
6100151-108	59 01	12.00													7	11	GM	08
6100151-109	59 01	12.00													7	11	GM	08
6100151-124	59 01	12.00													7	11	GM	08
6100151-128	59 01	12.00													7	11	GM	08
6100151-129	59 01	12.00													7	11	GM	08

09/33/37
 09/33/37
 04/33/37
 11/33/38
 11/33/38
 22/33/39
 22/33/39
 12/33/37
 12/33/37
 07/33/39
 07/33/39
 07/33/39
 25, 36, 30, 31/33/36, 37
 25, 36, 30, 31/33/36, 37
 25, 36, 30, 31/33/36, 37
 25, 36, 30, 31/33/36, 37
 25, 36, 30, 31/33/36, 37

6100151-14A	59 01	12.00	1100	7	11 GM 08 "	25, 36, 30, 31/33/36, 37	08 13 0.8 31	160 0.50
6100151-14B	59 01	12.00	1100	8	11 GM 08 "	25, 36, 30, 31/33/36, 37		
6100151-14W	59 01	12.00	1100	8	11 GM 08 "	25, 36, 30, 31/33/36, 37		
6100151-15A	59 01	12.00	1100	8	11 GM 08 "	25, 36, 30, 31/33/36, 37		
6100151-15B	59 01	12.00	1100	8	11 GM 08 "	25, 36, 30, 31/33/36, 37		
6100151-15W	59 01	12.00	1100	8	11 GM 08 "	25, 36, 30, 31/33/36, 37		
6100151-2AE	59 01	12.00	1100	8	11 GM 08 "	25, 36, 30, 31/33/36, 37		
6100151-2AW	59 01	12.00	1100	7	12 GM 08 "	25, 36, 30, 31/33/36, 37		
6100151-2BE	59 01	12.00	1100	7	12 GM 08 "	25, 36, 30, 31/33/36, 37		
6100151-4AE	59 01	12.00	1100	7	12 GM 08 "	25, 36, 30, 31/33/36, 37		
6100151-4AW	59 01	12.00	1100	7	12 GM 08 "	25, 36, 30, 31/33/36, 37		
6100151-4BE	59 01	12.00	1100	7	12 GM 08 "	25, 36, 30, 31/33/36, 37		
6100151-6AE	59 01	12.00	1100	7	12 GM 08 "	25, 36, 30, 31/33/36, 37		
6100151-6AW	59 01	12.00	1100	8	12 GM 08 "	25, 36, 30, 31/33/36, 37		
6100151-6BE	59 01	12.00	1100	8	12 GM 08 "	25, 36, 30, 31/33/36, 37		
6100151-8AE	59 01	12.00	1100	8	12 GM 08 "	25, 36, 30, 31/33/36, 37		
6100151-8AW	59 01	12.00	1100	8	12 GM 08 "	25, 36, 30, 31/33/36, 37		
6100161-8BE	59 01	12.00	1100	8	12 GM 08 "	25, 36, 30, 31/33/36, 37		
6100154	161.8							
6100154-1	60 01	8.00	02 900	3	M. ROSENTHAL/R. NEWMAN	22/33/38		
6100154-2	60 01	8.00	02 850	6	21 GM 08	22/33/38		
6100154-3	60 01	8.00	02 850	300	6 21 GM 08	22/33/38		
6100155	151.0							
6100155-1	60 01	6.00	02 800	5	MORMAN ROSENTHAL /ROBERT NEWMAN	26/33/38		
6100155-2	60 01	6.00	02 700	411	7 22 GM 08	26/33/38		
6100155-3	60 01	6.00	02 800	200	7 22 GM 08	26/33/38		
6100155-4	60 01	6.00	02 366	411	7 22 GM 08	26/33/38		
6100155-5	60 01	6.00	02 900	366	7 22 GM 08	26/33/38		
6100157	82.8							
6100157-1	60 01	5.00	61 4/85 AG GM	3	WILLIAM L. NICHOLAS	27/33/38		
6100157-2	60 01	5.00		387	7 21 GM 08	27/33/38		
6100157-3	60 01	5.00		323	7 21 GM 08	27/33/38		
6100158	28.9							
6100158-1	61 01	6.00	02 240	1	M. CASTELLI	29/33/39		
6100162	13.5							
6100162-1	60 01	8.00	02 950	1	MEDI CITRUS INC.	34/33/38		
6100163	60.5							
6100163-1	60 01	6.00	02 800	4	JANICE NEWMAN ROSENTHAL	34/33/38		
6100163-2	60 01	6.00	02 800	300	8 21 GM 08	34/33/38		
6100163-3	60 01	6.00	02 900	600	8 21 GM 08	34/33/38		
6100163-4	60 01	6.00	02 900	600	8 21 GM 08	34/33/38		
6100164	42.2							
6100164-1	60 01	8.00	02	2	L.O. GROVES	03/33/38		
6100164-2	60 01	8.00	02	575	3 21 GM 08 CAP-EST	03/33/38		
				575	3 21 GM 08 "			

6100188-1	60 01	14.00 02	61 7/82	AG	GM	2	5	20	GM	08	16/33/30	08	13	0.8	31	320	0.85
6100188-2	60 01	14.00 02				1500	5	20	GM	08							
6100189	138.2	03				1500	5	20	GM	08							
6100189-1	59 01	12.00 02	61 7/82	AG	GM	2	5	20	GM	08							
6100189-2	59 01	12.00 02				1100	5	15	GM	08	15/33/37						
6100193	21.5	03				1100	5	15	GM	08	15/33/37						
6100193-1	01	4.00 02	61 8/82	AG	GM	2	3	25	GM	08	05/33/39						
6100193-2	01	4.00 02				60	3	25	GM	08	05/33/39						
6100194	46.1	03				350	3	25	GM	08	05/33/39						
6100194-1	61 01	6.00 02	61 8/82	AG	GM	2	7	26	GM	08	28/33/39						
6100194-2	61 01	6.00 02				320	7	26	GM	08	28/33/39						
6100197	73.5	03				100	7	26	GM	08	28/33/39						
6100197-1	01	6.00 02	61 5/86	AG	GM	5	5	20	GM	08	09/33/38						
6100197-2	01	6.00 02				358	4	20	GM	08	09/33/38						
6100197-3	01	6.00 02				358	4	20	GM	08	09/33/38						
6100197-4	01	6.00 02				358	4	20	GM	08	09/33/38						
6100197-5	02	6.00 02				3000	4	20	GM	08	09/33/38						
6100199	27.6	03				3	3	21	GM	08	27/33/38						
6100199-1	60 01	8.00 02	61 3/83	AG	GM	3	7	21	GM	08	27/33/38						
6100199-2	60 01	8.00 02				674	7	21	GM	08	27/33/38						
6100199-3	60 01	8.00 02				479	7	21	GM	08	27/33/38						
6100200	55.3	03				200	7	21	GM	08	27/33/38						
6100200-1	60 01	8.00 02	61 9/82	AG	GM	1	8	22	GM	08	35/33/38						
6100201	16.6	03				3	3	26	GM	08	33/33/39						
6100201-1	61 01	5.00 02	61 9/82	AG	GM	3	8	26	GM	08	33/33/39						
6100201-2	61 01	5.00 02				306	8	26	GM	08	33/33/39						
6100201-3	61 01	5.00 02				286	8	26	GM	08	33/33/39						
6100203	70.6	03				127	8	26	GM	08	33/33/39						
6100203-1	61 01	6.00 02	61 12/85	AG	GM	2	7	24	GM	08	30/33/39						
6100203-2	61 01	6.00 02				239	7	24	GM	08	30/33/39						
6100205	28.0	03				501	7	24	GM	08	30/33/39						
6100205-1	61 02	10.00 02	61 8/85	AG	GM	1	8	25	GM	08	32/33/39						
6100205-2	61 01	10.00 02				1725	8	25	GM	08	32/33/39						
6100206	54.1	03				1	1	27	GM	08	03/33/39						
6100206-1	61 01	10.00 02	61 9/82	AG	GM	1	3	27	GM	08	03/33/39						
6100207	37.7	03				1429	3	30	GM	08	30/33/40						
6100207-1	01	4.00 02	61 3/87	AG	GM	3	7	30	GM	08	30/33/40						
6100207-2	01	4.00 02				100	7	30	GM	08	30/33/40						
6100207-3	01	4.00 02				100	7	30	GM	08	30/33/40						
6100209	44.5	03				1	1	30	GM	08	30/33/40						
6100209-1	61 01	10.00 02	61 5/85	AG	GM	1	8	25	GM	08	EVANS PROPERTIES 48 GROVES						

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AN.	ALL.	ALL MAX. UNT.	MAX. MO.	DATE USE	SRC. NO.	SM	UTS. CD	ISS. TYPE	W.S.	PHPS	OWNER	CD	PERMIT NO.	DEV NO.	AG TYPE	SOIL TYPE	RAIN ST	IRR ACRES	IRR EFF
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LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NO.	QUAD.	WELL NO.	DPTH	PMP PUMP	CODE	TD	CD	INT TYPE	CAP.	MTR?	ROW	COLUMN	SRC.	AG.	COMMENTS	S	T	R
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6100209-1	60	01	8.00	02	575	8	18	GM	08	CAP. EST.						31/33/38						
6100211	13.8	03	5.00	02	250	2	WILLIAM & FRANCES	GRAVES III								29/33/39	08	13	0.8	31	20	0.50
6100211-2	61	01	5.00	02	250	7	25	GM	08	CAP. EST.						29/33/39						
6100214	204.6	03	8.00	02	5	5	ESTATE OF C. RAY	MOGAM								29,31,32/33/39	08	13	0.8	31	310	0.50
6100214-1	61	01	8.00	02	681	7	25	GM	08							29,31,32/33/39						
6100214-2	61	01	8.00	02	471	7	25	GM	08							29,31,32/33/39						
6100214-3	61	01	8.00	02	383	8	24	GM	08							29,31,32/33/39						
6100214-4	61	01	8.00	02	1201	8	25	GM	08							29,31,32/33/39						
6100214-5	61	01	8.00	02	225	8	24	GM	08							29,31,32/33/39						
6100215	9.6	03	3.00	02	1	1	ESTATE OF C. RAY	MOGAM								25/33/38	08	13	0.8	31	40	0.85
6100215-1	61	01	3.00	02	250	7	23	GM	08	CAP. EST.						36,01/32/33/37						
6100216	325.3	03	3.00	02	100	2	DESIRE AND JOHANNA	KROHNOUT								18/33/39	08	13	0.8	31	200	0.50
6100216-1	61	01	3.00	02	600	2	17	GM	08	CAP. EST.						18/33/39						
6100230	144.9	03	4.00	02	14	5	U.C. GRAVES JR.									18/33/39	08	13	0.8	31	210	0.50
6100230-1	61	01	4.00	02	38	5	24	GM	08							18/33/39						
6100230-10	61	01	4.00	02	125	5	24	GM	08							18/33/39						
6100230-11	61	01	8.00	02	305	5	24	GM	08							18/33/39						
6100230-12	61	01	8.00	02	125	5	24	GM	08							18/33/39						
6100230-13	61	01	8.00	02	75	5	24	GM	08							18/33/39						
6100230-14	61	01	4.00	02	125	5	24	GM	08							18/33/39						
6100230-2	61	01	4.00	02	176	5	24	GM	08							18/33/39						
6100230-3	61	01	4.00	02	38	5	24	GM	08							18/33/39						
6100230-4	61	01	4.00	02	38	5	24	GM	08							18/33/39						
6100230-5	61	01	4.00	02	176	5	24	GM	08							18/33/39						
6100230-6	61	01	4.00	02	375	5	24	GM	08							18/33/39						
6100230-7	61	01	4.00	02	625	5	24	GM	08							18/33/39						
6100230-8	61	01	4.00	02	176	5	24	GM	08							18/33/39						
6100230-9	61	01	4.00	02	125	5	24	GM	08							18/33/39						

6100231	132.5	03	61 6/86	AG	GM	5	FIRST VERO GROVE LTD.	6	26	GM	08	CAP. EST.	21/33/39	08	13	0.8	31	187	0.50
6100231-1		61 01	02			100		0					21/33/39						
6100231-2		61 01	02			100		0					21/33/39						
6100231-3		61 01	02			100		0					21/33/39						
6100231-4		61 01	02			100		0					21/33/39						
6100231-5		61 01	02			100		0					21/33/39						
6100232	56.3	03	61 7/87	AG	GM	6	DAMALD H. MCALLISTER	0	25	GM	08	CAP. EST.	32/33/39	08	13	0.8	31	110	0.85
6100232-1		61 01	02			1000		0					32/33/39						
6100232-2		61 01	02			1000		0					32/33/39						
6100232-3		61 01	02			1000		0					32/33/39						
6100232-4		61 01	02			1000		0					32/33/39						
6100232-5		61 01	02			1000		0					32/33/39						
6100232-6		61 01	02			1000		0					32/33/39						
6100232-7		61 02	950			1500		0					32/33/39						
6100233	10.2	03	61 12/87	AG	GM	5	VERO BEACH, INC.	0	24	GM	08	CAP. EST.	31/33/39	08	13	0.8	31	80	0.85
6100233-1		61 01	02			100		0					31/33/39						
6100233-2		61 01	02			100		0					31/33/39						
6100233-3		61 01	02			100		0					31/33/39						
6100233-4		61 01	02			100		0					31/33/39						
6100233-5		61 01	02			100		0					31/33/39						
6100233-6		61 01	02			2000		0					31/33/39						
6100235	41.4	03	61 2/85	AG	GM	2	EDWIN PRANGE	0	25	GM	08	CAP. EST.	31/33/35	08	13	0.8	31	60	0.50
6100235-1		61 01	850			575		0					31/33/35						
6100235-2		61 01	900			575		0					31/33/35						
6100237	13.8	03	61 3/83	AG	GM	1	R. W. GRAVES	0	22	GM	08		35/33/38	08	13	0.8	31	40	0.85
6100237-1		60 01				674		0					35/33/38						
6100238	33.1	03	61 3/83	AG	GM	2	SIDNEY W. BARNACK JR.	0	25	GM	08	CAP. EST.	32/33/39	08	13	0.8	31	40	0.50
6100238-1		61 01	02			250		0					32/33/39						
6100238-2		61 01	02			250		0					32/33/39						
6100242	33.1	03	61 3/87	AG	GM	2	THOMAS & MARY SUE BARNES	7	25	GM	08	CAP. EST.	29,32/33/39	08	13	0.8	31	40	0.50
6100242-1		61 01	02			250		0					29,32/33/39						
6100242-2		61 01	02			250		0					29,32/33/39						
6100244	13.0	03	61 12/88	AG	GM	1	PERRY LLYOD	0	21	GM	08		34/33/38	08	13	0.8	31	80	0.75
6100244-A		60 01	920			200		0					34/33/38						
6100245	23.0	03	61 12/82	AG	GM	4	ROCKMONT GROVES	5	21	GM	08		15/33/38	08	13	0.8	31	160	0.85
6100245-1		60 01	02			300		5					15/33/38						
6100245-2		60 01	02			150		5					15/33/38						
6100245-3		60 01	02			150		5					15/33/38						
6100245-4		60 01	02			20		5					15/33/38						
6100246	23.0	03	61 12/82	AG	GM	1	ROCKMONT GROVES	4	21	GM	08		10/33/38	08	13	0.8	31	80	0.50
6100246-1		01	1100			750		4					10/33/38						
6100248	0.4	01	2/89	AG	GM	2	CLIFFORD W. BALL							08	13	0.8	31	110	0.50

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AM.	ALL.	MAX. UNIT NO.	MO.	DATE USE SRC. NO.	SH	U.S.	CO	ISS.	TYPE	U.S.	PHPS	OWNER	CD	PERMIT NO.	DEV	MO.	AG	TYPE	ST	IRR	IRR

LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NUMBER	QUAD. NO.	WELL NO.	DPTH	CD	INT	TYPE	CAP.	MTR?	ROW	COLUMN	SRC	AG.	COMMENTS	S	T	R
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6100249	6100248-A	100.0	03	01	02	450	250	6	22	GW	08	CAP.	EST.	23/33/38						
					2/89	AG	1	CLIFFORD W. BALL												
6100251	6100249-A	57.1	03	01	02	800	305	6	24	GW	08			19/33/39	08	13	0.8	31	100	0.50
					61 3/83	GW	1	DR. E. W. AKINS												
6100253	6100251-1	143.9	03	01	02	900	400	4	17	SW	08			12/33/37	08	13	0.8	31	124	0.85
					61 12/85	AG	1	WILLIAM G. ROE												
6100255	6100253-1	26.3	03	01	02	610	4000	6	17	GW	08			24/33/37	08	13	0.8	31	277	0.85
					61 8/85	AG	1	ALEX MACMILLANS JR.												
6100262	6100255-1	10.8	03	01	02	610	50	8	23	GW	08			36/33/38	08	13	0.8	31	76	0.85
					61 2/83	AG	2	R. W. GRAVES												
6100263	6100262-1	19.0	03	01	02	900	429	4	21	GW	08			10/33/38	08	13	0.8	31	40	0.50
					61 5/86	AG	5	CENTRAL GROVES INC.												
6100266	6100262-2	33.1	03	01	02	900	306	3	26	GW	08			10/33/38	08	13	0.8	31	23	0.50
					61 8/85	AG	4	WENSICK GROVES INC.												
6100267	6100263-1	36.4	03	01	02	900	442	7	25	GW	08			04/33/39	08	13	0.8	31	40	0.50
					61 10/85	AG	1	WALLACE A. MOORE JR.												
6100269	6100266-1	12.8	03	01	02	900	575	7	22	GW	08	CAP.	EST	26/33/38	08	13	0.8	31	77	0.50
					61 11/85	AG	7	M. H. PENNEY												
					61 10/85	AG	7													

6100269-1	61 01	8.00	02	300	7	26 GM 08	28/33/39		
6100269-2	61 01	8.00		310	7	26 GM 08	28/33/39		
6100269-3	61 01	8.00		326	7	26 GM 08	28/33/39		
6100269-4	61 01	8.00		309	7	26 GM 08	28/33/39		
6100269-5	61 01	8.00		312	7	26 GM 08	28/33/39		
6100269-6	61 01	8.00		171	7	26 GM 08	28/33/39		
6100269-7	61 01	8.00		165	7	26 GM 08	28/33/39		
6100275	37.6								
6100275-1	61 01	5.00	02	324	8	26 GM 08	33/33/39		08 13 0.8 31 134 0.50
6100275-2	61 01	5.00	02	324	8	26 GM 08	33/33/39		
6100275-3	61 01	5.00	02	159	8	26 GM 08	33/33/39		
6100275-4	61 01	5.00	02	159	8	26 GM 08	33/33/39		
6100275-5	61 01	5.00	02	159	8	26 GM 08	33/33/39		
6100275-6	61 01	5.00	02	422	8	26 GM 08	33/33/39		
6100276	157.7								
6100276	61 10/85 AG GM			6					
	61 2/89 AG GM			3					
	61 10/85 AG GM			6					
6100276-1	61 01	02		250	6	18 GM 08 CAP. EST.	19/33/38		08 13 0.8 31 120 0.85
6100276-2	61 01	02		250	6	18 GM 08 CAP. EST.	19/33/38		08 13 0.8 31 150 0.50
6100276-3	61 01	02		250	6	18 GM 08 CAP. EST.	19/33/38		
6100277	144.9								
6100277-A	61 2/89 AG GM			5					
6100277-B	8.00	02	850	575	3	19 GM 08 CAP. EST.	04 05/33/38		08 13 0.8 31 280 0.85
6100277-C	8.00	02	850	575	3	19 GM 08 "	04 05/33/38		
6100277-D	4.00	02	850	100	3	19 GM 08 "	04 05/33/38		
6100277-E	8.00	02	850	575	3	20 GM 08 "	04 05/33/38		
6100277-F	12.00	02	900	2000	3	20 GM 08	04 05/33/38		
6100277-G	---	---	---	12700	3	20 SW 99 PUMP			
6100278	31.0								
6100278-1	61 01	6.00	02	100	7	26 GM 08	28/33/39		08 13 0.8 31 60 0.85
6100278-2	61 01	6.00	02	150	7	26 GM 08	28/33/39		
6100278-3	61 01	6.00	02	650	7	26 GM 08	28/33/39		
6100280	3.7								
6100280-1	61 11/85 AG GM			1					
	61 7/85 AG GM			250	5	24 GM 08 CAP. EST.	18/33/39		08 13 0.8 31 20 0.50
6100281	51.8								
6100281-1	60 01	6.00		250	8	21 GM 08 CAP. EST.	34/33/38		08 13 0.8 31 80 0.50
6100281-2	60 01	6.00		250	8	21 GM 08 CAP. EST.	34/33/38		
6100283	21.1								
6100283-1	60 01	8.00	02	575	8	16 GM 08 CAP. EST.	35/33/37		08 13 0.8 31 40 0.50
6100284	49.6								
6100284-1	60 01	10.00	02	850	8	17 GM 08 CAP. EST.	36/33/37		08 13 0.8 31 80 0.50
6100285	32.4								
6100285-1	60 01	10.00	02	850	7	17 GM 08 CAP. EST.	25/33/37		08 13 0.8 31 80 0.50

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	ALL. AN.	ALL. UMT.	MAX. NO.	DATE USE	SRC. NO.	SN	CO	PERMIT NO.	DEV. NO.	AO	TYPE	ST	IRR	IRR
													ACRES	EFF

LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NO.	STSDIA.	WELL NO.	DPTH	PMP	PUMP	CD	INT	TYPE	CAP.	MTR?	ROW	COLUMN	SRC	AG.	COMMENTS	S	T	R			
6100287	46.2	03	60 01	10.00	02	1000	61	12/85	AG	GM	2	850	DUNEYSTEIN; GLAZER & CURTIS			32/33/38	08	13	0.8	31	77	0.50
6100298	44.6	03	60 01	6.00	61	3/86	AG	GM	1	314	1	LLOYD KNIGHT (MRS.)			09/33/38	08	13	0.8	31	95	0.85	
6100299	66.2	03	60 01	8.00	02	61	4/87	AG	GM	1	650	7	WILLIAM COBB			27/33/38	08	13	0.8	31	80	0.50
6100300	13.3	03	61 01	6.00	61	1/84	AG	GM	1	173	1	BARNETT GREEN JR.			24/33/38	08	13	0.8	31	80	.85	
6100301	16.4	03	60 01	6.00	61	1/84	AG	GM	1	250	1	GRIFFIN GREENE			31/33/39	08	13	0.8	31	40	.85	
6100307	276.1	03	01	6.00	02	800	61	4/84	AG	GM	1	200	PHILLIP R. HELSETH			30/33/40	08	13	0.4	31	40	.50
6100309	4.44	03	01	6.00	02	960	61	2/84	AG	GM	1	125	ELTON E. RYALL			04/33/38	08	13	0.8	31	29	.85
6100311	25.1	03	61 01	6.00	61	4/86	AG	GM	2	235	2	CHARLES SEXTON			28/33/39	08	13	0.8	31	75	.50	
6100312	16.1	03	60 01	8.00	61	4/86	AG	GM	1	400	1	R.W. GRAVES INC.			28/33/39	08	13	0.8	31	40	.85	
6100315	33.8	03	60 01	8.00	02	600	61	4/84	AG	GM	1	750	COONEY MILES B.			27/33/38	08	13	0.8	31	49	.50
6100316	19.5	03	59 01	12.00	61	8/86	AG	GM	1	2000	1	ALOGEN CORP.			04/33/38	08	13	0.8	31	75	.85	
6100317	20.64	03	61 5/84	AG	GM	1	WILLIAM L. NICHOLAS			09/33/37	08	13	0.8	31	40	.85						

6100317-1	60 01	6.00 02 900	500	4	21 GM 08	10/33/38	08 13 0.8 31	40 .50
6100318	24.98 03	61 5/84 AG GM	1	4	PAYES #83 GROVE	10/33/38	08 13 0.8 31	40 .50
6100318-2	60 01	6.00 02 900	403	4	21 GM 08	10/33/38	08 13 0.8 31	40 .50
6100319	710.4 03	61 7/84 RIM SW	1	8	INDIAN RIVER CO. BREWED	34/33/38	08 15 0.4 31	175 .75
6100321	164 03	61 5/84 GLF BOTM	8	5	VISTA PROPERTIES OF VERO BEACH	18 19/33/40	08 15 0.4 31	175 .75
6100321-10	61 01	4.00 02	205	5	30 GM 08 1/2 G.W., 1/2 S.W.	18 19/33/40	08 15 0.4 31	175 .75
6100321-11	61 01	4.00 02	425	5	30 GM 08	18 19/33/40	08 15 0.4 31	175 .75
6100321-12	61 01	4.00 02	186	5	30 GM 08	18 19/33/40	08 15 0.4 31	175 .75
6100321-13	61 01	4.00 02	205	5	30 GM 08	18 19/33/40	08 15 0.4 31	175 .75
6100321-6	61 01	4.00 02	222	6	30 GM 08	18 19/33/40	08 15 0.4 31	175 .75
6100321-7	61 01	4.00 02	205	6	30 GM 08	18 19/33/40	08 15 0.4 31	175 .75
6100321-8	61 01	4.00 02	212	6	30 GM 08	18 19/33/40	08 15 0.4 31	175 .75
6100321-9	61 01	4.00 02	602	6	30 GM 08	18 19/33/40	08 15 0.4 31	175 .75
6100328	1.4 03	61 6/84 AG GM	1	3	FRANK G. BARATTA	01/33/38	08 13 0.4 31	20 .50
6100328-1	01	6.00 02	1326	3	23 GM 08	01/33/38	08 13 0.4 31	20 .50
6100329	83.74 03	61 11/86 AG GM	2	6	BEN MILL GRIFFIN INC.	20/33/37	08 13 0.8 31	122 .85
6100329-1	59	8.00 02 800	575	6	13 GM 08 MULT ACRE	20/33/37	08 13 0.8 31	122 .85
6100329-2	59	8.00 02 800	575	6	13 GM 08 .2	20/33/37	08 13 0.8 31	122 .85
6100329-2	59 01		2000	6	13 SW 99	20/33/37	08 13 0.8 31	122 .85
6100331	20.7 03	61 11/86 AG GM	1	5	JACKSON BROS. GROVES	18/33/39	08 13 0.8 31	40 .85
6100331-1	61 01	8.00 02	575	5	24 GM 08 CAP-EST.	18/33/39	08 13 0.8 31	40 .85
6100333	68.43 03	61 9/88 GLF BOTM	14	3	VISTA PROPERTIES OF VERO BEACH	06/33/39	08 15 0.8 31	72 .85
6100333-A	01	02	376	3	24 GM 08	06/33/39	08 15 0.8 31	72 .85
6100333-B	04	02	280	3	24 GM 08	06/33/39	08 15 0.8 31	72 .85
6100333-C	01	02	482	3	24 GM 08	06/33/39	08 15 0.8 31	72 .85
6100333-D	01	02	482	3	24 GM 08	06/33/39	08 15 0.8 31	72 .85
6100333-A	01	02	500	3	24 SW 99	06/33/39	08 15 0.8 31	72 .85
6100333-D	01	02	482	3	24 SW 99	06/33/39	08 15 0.8 31	72 .85
6100333-B	01	02	500	3	24 SW 99	06/33/39	08 15 0.8 31	72 .85
6100333-D	01	02	482	3	24 SW 99	06/33/39	08 15 0.8 31	72 .85
6100333-C	01	02	250	3	24 SW 99	06/33/39	08 15 0.8 31	72 .85
6100333-D	01	02	482	3	24 SW 99	06/33/39	08 15 0.8 31	72 .85
6100333-D	01	02	180	3	24 SW 99	06/33/39	08 15 0.8 31	72 .85
6100333-D	01	02	482	3	24 SW 99	06/33/39	08 15 0.8 31	72 .85
6100333-E	01	02	180	3	24 SW 99	06/33/39	08 15 0.8 31	72 .85
6100333-D	01	02	482	3	24 SW 99	06/33/39	08 15 0.8 31	72 .85
6100333-F	01	02	180	3	24 SW 99	06/33/39	08 15 0.8 31	72 .85
6100334	68.38 03	61 8/84 GLF GM	5	5	VISTA PROPERTIES OF VERO BEACH	13, 18/33/39, 40	08 15 0.4 31	70 .75
6100334-1	61 01	3.00 02	93	5	29 GM 08	13, 18/33/39, 40	08 15 0.4 31	70 .75
6100334-2	61 01	3.00 02	212	5	29 GM 08	13, 18/33/39, 40	08 15 0.4 31	70 .75
6100334-3	61 01	3.00 02	186	5	30 GM 08	13, 18/33/39, 40	08 15 0.4 31	70 .75
6100334-4	61 01	3.00 02	186	5	30 GM 08	13, 18/33/39, 40	08 15 0.4 31	70 .75
6100334-5	61 01	3.00 02	186	5	30 GM 08	13, 18/33/39, 40	08 15 0.4 31	70 .75

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AM.	ALL.	MAX	MO.	DATE USE	SRC.	NO.	SM	UTS.	CD	ISS.	TYPE	WLS.	PHPS	OWNER	CD	PERMIT NO.	DEV NO.	AG	TYPE	SOIL	RAIN	IRR	ACRES	EFF
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LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY	QUAND.	WELL	DPTH	PHP	PUMP	NO.	STSDIA.	CODE	TD	CD	INT	TYPE	CAP.	MTR?	ROW	COLUMN	SRC	AG.	COMMENTS	S	T	R			
6100337		15.8	03		61 2/87	AG	GM	1	366							WILLIAM T. BRADY										
			60 01	8.00	02	1000										8	16	GM	08						35/33/37	
6100340		37.2	03		61 12/86	AG	GM	1	575							DICK SIMONETT										
			60 01	8.00												5	21	GM	08	CAP. EST.						15/33/38
6100341		27.1	03		61 3/87	AG	GM	1	785							W.E. ORTH										
			60 01	8.00												8	21	GM	08							34/33/38
6100344		21.4	03		61 3/87	AG	GM	2	250							F.G. BARATTA										
			01	6.00	02											3	24	GM	08	CAP. EST.						06/33/39
			01	6.00	02											3	24	GM	08	"						06/33/39
6100347		2.6	03		61 3/87	AG	GM	2	250							JOHN AMOS										
			61 01	6.00	02											7	24	GM	08	CAP. EST.						30/33/39
			61 01	6.00	02											7	24	GM	08	"						30/33/39
6100351		5.8	03		61 3/87	AG	GM	2	100							THOMAS BARNES										
			61 01	4.00	02											4	27	GM	08	CAP. EST.						10/33/39
			61 01	4.00	02											4	27	GM	08	"						10/33/39
6100358		10.1	03		61 8/85	AG	GM	1	250							J.E. WASHBURN										
			60 01	6.00												5	20	GM	08	CAP. EST.						16/33/38
6100365		14.7	03		61 4/85	AG	GM	2	20							PRISCILLA AMERICANOS										
			61 01	02	760											6	25	GM	08							08/33/39
			61 01	02	760											6	25	GM	08							20/33/39
6100367		253	03		61 5/85	AG	GM	1	600							EVANS PROPERTIES INC.										
			59 01	6.00	02	1100										8	13	GM	08							32 33/33/37
6100368		243.8	03		61 3/85	AG	GM	1	800							EVANS PROPERTIES INC.										
			59 01	8.00	02	1100										7	13	GM	08							29/33/37
6100369		210.7	03		61 3/85	AG	GM	1								E.B. GROVES INC.										
																										08 13 0.8 31 458 .85

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AN.	ALL.	UNT.	NO.	MO.	ISS.	CO.	TYPE	WLS.	PHPS	OWNER	CD	PERMIT NO.	DEV NO.	AG	TYPE	ST	IRR	ACRES	EFF

LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY NUMBER	QUAD.	WELL NO.	DPTH.	PMP	PUMP	CD	INT	TYPE	CAP.	MTR?	ROW	COLUMN	SRC	AG.	COMMENTS	S	T	R
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6100415	6100415-1	5	03	01	6.00	02	61	10/85	AG	GM	250	1	HENRY SCHMACKT	4	24	GM	08	08	07/33/39	08	13	0.8	31	20	.85
6100416	6100416-1	28.2	03	01	8.00	02	61	4/86	GLF	BOTH	4	4	ALOMA INC.	2	26	GM	08	08	33, 03/32, 33/39	08	15	0.4	31	120	.75
	6100416-2		01	8.00	02						575	2		2	26	GM	08	08							
	6100416-3		01	8.00	02						575	2		2	26	GM	08	08							
	6100416-4		01	8.00	02						575	3		3	27	GM	08	08							
6100426	6100426-1	5.7	03	01	6.00	02	61	11/85	AG	GM	250	3	JOHN J. SCHUMANN JR.	7	26	GM	08	08	20/33/39	08	13	0.8	31	30	.50
	6100426-2		01	6.00	02						250	7		7	26	GM	08	08							
	6100426-3		01	6.00	02						250	7		7	26	GM	08	08							
6100427	6100427-1	33.1	03	01	10.00	02	61	11/85	AG	GM	1554	2	DAVID PRANGE	8	1	GM	08	08	32/33/35	08	13	0.8	31	40	.50
	6100427-2		01	10.00	02						245	8		8	1	GM	08	08							
6100429	6100429-1	55.7	03	01	4.00	02	61	11/85	AG	GM	142	4	GLENDALE GROVE CO. INC.	5	26	GM	08	08	16/33/39	08	13	0.8	31	150	.50
	6100429-2		01	4.00	02						211	5		5	26	GM	08	08							
	6100429-3		01	4.00	02						144	5		5	26	GM	08	08							
	6100429-4		01	4.00	02						363	5		5	26	GM	08	08							
6100430	6100430-1	33.6	03	01	4.00	02	61	11/85	AG	GM	137	3	SUN CITRUS CO.	5	26	GM	08	08	16/33/39	08	13	0.8	31	40	.50
	6100430-2		01	4.00	02						442	5		5	26	GM	08	08							
	6100430-3		01	4.00	02						589	5		5	26	GM	08	08							
6100431	6100431-10	82.9	03	02	10.00	02	61	1/86	AG	GM	20	20	FRANK MARMARINO						03, 22, 27, 34/32, 33/35	08	13	0.4	31	160	.85
	6100431-11		02	10.00	02						1000	1000	out bounds												
	6100431-12		02	10.00	02						1000	1000	out bounds												
	6100431-13		02	10.00	02						1000	1000	out bounds												
	6100431-14		02	10.00	02						1000	1000	out bounds												

6100431-15	02	10.00	02	800	1000	1	3	GM	08	03, 22, 27, 34/32, 33/35	08	13	0.8	31	20	.85
6100431-16	02	10.00	02	800	1000	1	3	GM	08	03, 22, 27, 34/32, 33/35						
6100431-17	02	10.00	02	800	1000	1	3	GM	08	03, 22, 27, 34/32, 33/35						
6100431-18	02	10.00	02	800	1000	1	3	GM	08	03, 22, 27, 34/32, 33/35						
6100431-19	02	10.00	02	800	1000	3	3	GM	08	03, 22, 27, 34/32, 33/35						
6100431-2	02	10.00	02	800	1000	3	3	GM	08	03, 22, 27, 34/32, 33/35						
6100431-20	02	10.00	02	800	1000	3	3	GM	08	03, 22, 27, 34/32, 33/35						
6100431-3	02	10.00	02	800	1000	3	3	GM	08	03, 22, 27, 34/32, 33/35						
6100431-4	02	10.00	02	800	1000	3	3	GM	08	03, 22, 27, 34/32, 33/35						
6100431-5	02	10.00	02	800	1000	3	3	GM	08	03, 22, 27, 34/32, 33/35						
6100431-6	02	10.00	02	800	1000	2	3	GM	08	03, 22, 27, 34/32, 33/35						
6100431-7	02	10.00	02	800	1000	2	3	GM	08	03, 22, 27, 34/32, 33/35						
6100431-8	02	10.00	02	800	1000	2	3	GM	08	03, 22, 27, 34/32, 33/35						
6100431-9	02	10.00	02	800	1000	2	3	GM	08	03, 22, 27, 34/32, 33/35						
6100431-1	02	10.00	02	800	1000	2	3	GM	08	03, 22, 27, 34/32, 33/35						
6100433	3.8	03	61	10/85	AG	GM	1	MICHAEL BARATTA			08	13	0.8	31	20	.85
6100433-1		01	6.00	02			147	3	23	GM	08					
6100435	10.8	03	11/85	AG	GM	2		ANNE G. KEEN			08	13	0.8	31	13	.50
6100435-1		01	6.00	02			250	5	26	GM	08					
6100435-2		01	6.00	02			250	5	26	GM	08					
6100436	9.2	03	61	11/85	AG	GM	5	ROBERT W. DEACON			08	13	0.4	31	25	.50
6100436-1		61	2.00	02			75	4	27	GM	08					
6100436-2		61	2.00	02			75	4	27	GM	08					
6100436-3		61	2.00	02			75	5	27	GM	08					
6100436-4		61	2.00	02			75	5	27	GM	08					
6100436-5		61	2.00	02			75	5	27	GM	08					
6100437	10.2	03	61	11/85	AG	GM	1	BUENA VISTA GROVES			08	13	0.8	31	30	.85
6100437-1		61	6.00	02	1070		145	6	26	GM	08					
6100438	16.6	03	61	11/85	AG	GM	2	HOOSHANG HOOSHMAND			08	13	0.8	31	20	.50
6100438-1		01	6.00	02			250	6	26	GM	08					
6100438-2		01	6.00	02			250	6	26	GM	08					
6100439	9.3	03	61	11/85	AG	GM	1	IRAJ HOOSHMAND			08	13	0.8	31	20	.50
6100439-1		01	6.00	02			325	6	26	GM	08					
6100440	16.6	03	61	11/85	AG	GM	1	NEUROLOGICAL ASSOCIATION			08	13	0.8	31	20	.50
6100440-1		01	6.00	02			442	6	26	GM	08					
6100441	2200	03	61	11/85	AG	SU		2 ST. JOHNS WATER CONTROL DIST.			99	13	0.8	31	22800	.50
6100441											99	20	0.8	31	3200	.50
6100446	6.24	03	61	11/85	AG	GM	1	ESTATE OF C. RAY HOGAN			08	35	0.8	31	35	.85
6100446-1		61	6.00	02			330	7	23	GM	08					
6100447	12.7	03	61	11/85	AG	GM	2	C & G GROVES			08	13	0.8	31	70	.50
6100447-1		61	6.00	02			239	7	23	GM	08					

SU 99 ADD'L SECTIONS 11-36

LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

PERMIT NO.	AN.	ALL. UNIT NO.	MAX. UNIT NO.	NO.	DATE USE SRC. NO.	SU	CO	PERMIT NO.	DEV. NO.	AG. TYPE	ST	IRR. ACRES	IRR. EFF.
6100448	17.2	03	01	61	11/85	AG	501	7	23	GW	08	25/33/38	
6100449	12.2	03	01	10	08/85	AG	2	7	23	GW	08	25/33/38	
6100452	4.14	03	01	61	11/85	AG	1	3	25	GW	08	05/33/39	
6100453	7900	03	01	61	11/85	AG	501	7	23	GW	08	25/33/38	
6100454	3740	03	01	61	11/85	AG	501	7	23	GW	08	25/33/38	
6100457	6.1	03	01	61	11/85	AG	530	4	26	GW	08	09/33/39	
6100460	18.5	03	01	61	12/85	AG	600	7	22	GW	08	26/33/38	
6100461	67.8	03	01	61	1/86	AG	623	7	22	GW	08	27/33/38	
6100462	8.6	03	01	61	1/86	AG	575	7	15	GW	08	27/33/37	
6100463	97.0	03	01	61	1/86	AG	575	7	22	GW	08	26/33/38	
6100465	11/85	03	01	61	11/85	AG	2	7	22	GW	08	26/33/38	

LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

PERMIT NO.	FACILITY	NO.	STSDIA.	CODE	TO	CD	INT	TYPE	CAP.	MTR?	ROW	COLUMN	SRC	AG.	COMMENTS	S	T	R
6100448	GUND. WELL	03	01	01	01	01	01	01	01	01								
6100449	GUND. WELL	03	01	01	01	01	01	01	01	01								
6100452	GUND. WELL	03	01	01	01	01	01	01	01	01								
6100453	GUND. WELL	03	01	01	01	01	01	01	01	01								
6100454	GUND. WELL	03	01	01	01	01	01	01	01	01								
6100457	GUND. WELL	03	01	01	01	01	01	01	01	01								
6100460	GUND. WELL	03	01	01	01	01	01	01	01	01								
6100461	GUND. WELL	03	01	01	01	01	01	01	01	01								
6100462	GUND. WELL	03	01	01	01	01	01	01	01	01								
6100463	GUND. WELL	03	01	01	01	01	01	01	01	01								
6100465	GUND. WELL	03	01	01	01	01	01	01	01	01								

6100465-1	61 01	6.00 02	236	8	24 GM 08	31,32/33/39	08	20
6100465-2	61 01	6.00 02	681	8	25 GM 08	31,32/33/39		
6100466	7.67							
6100466-A	03	6.00 02	2		BELAIR PACKING HSE JOINT VT.	02/33/38		
6100466-B	01	8.00 02	150	3	22 GM 08	02/33/38		
6100466-C	02	6.00 02	95	3	22 GM 08	02/33/38		
6100467	45.1							
6100467-1	03	10.00 02	1		LUCY HENDERSON (TRUSTEE)	36/33/37	08	60 .50
6100468	49.7							
6100468-1	03	10.00 02	1043	8	17 GM 08	32/33/38	08	60 .50
6100469	60.4							
6100469-1	03	8.00 02	1227	8	19 GM 08	32/33/38	08	60 .50
6100469-2	01	8.00 02	3		THOMAS & LUCY EDMONDSON	32/33/38		
6100469-3	01	8.00 02	670	8	19 GM 08	32/33/38	08	90 .50
6100470	13.8							
6100470-1	61 01	6.00 02	660	8	19 GM 08	32/33/38	08	40 .50
6100471	23							
6100471-1	03	10.00 02	249	5	24 GM 08	18/33/39	08	38 .50
6100472	46.3							
6100472-1	01	10.00 02	1		ERNEST AND ILSE GLASER	32/33/38	08	77 .50
6100473-2	01	10.00 02	850	8	19 GM 08 CAP. EST.	32/33/38	08	38 .50
6100473-3	01	10.00 02	850	8	19 GM 08 "	32/33/38	08	38 .50
6100473-4	01	10.00 02	850	8	19 GM 08 "	32/33/38	08	38 .50
6100474	16.6							
6100474-3	03	8.00 02	2		EUGENE CURTIS	32/33/38	08	77 .50
6100474-4	01	8.00 02	575	8	19 GM 08 CAP. EST.	32/33/38	08	77 .50
6100475	16.6							
6100475-6	61 01	6.00 02	250	8	26 GM 08 CAP. EST.	33/33/39	08	20 .50
6100476	10.1							
6100476-1	60 01	8.00 02	1		SEXTON GROVE SERVICE	33/33/39	08	320 .50
6100479	10.51							
6100479-1	03	12.00 02	575	5	15 GM 08 CAP. EST.	15/33/37	08	320 .50
6100486	16.5							
6100486-1	03	2.00 02	20	3	29 GM 02	01/33/39	02	
6100486-2	01	2.00 02	1		JOHNSON OIL CO.	04/33/39	08	20 .50
6100486-3	01	2.00 02	6		CENTRAL GROVES CORP.	04/33/39	08	20 .50
6100486-4	01	2.00 02	75	3	26 GM 08	04/33/39	08	20 .50
6100486-5	01	2.00 02	75	3	26 GM 08	04/33/39	08	20 .50
6100486-6	01	2.00 02	75	3	26 GM 08	04/33/39	08	20 .50
6100487	36.4							
6100487-1	03	6.00 02	3		LAKELWOOD VILLAGE ASSOC. LTD.	11/33/38	02	
6100487-2	01	6.00 02	100	4	22 GM 02	11/33/38	02	

6100504-1	01	6.00	02	250	4	24 GM	08	CAP.EST.	07/33/39	08	13	0.8	31	28	.50
6100504-2	01	6.00	02	250	4	24 GM	08	"	07/33/39						
6100504-3	01	6.00	02	250	4	24 GM	08	"	07/33/39						
6100504-4	01	6.00	02	250	4	24 GM	08	"	07/33/39						
6100505	23.1	03	61	4/87	AG	GM	1	THOMAS JONES	15/33/38						
6100505-1	60	01	6.00	02	250	5	21 GM	08	CAP.EST						
6100506	10.3	03	6.00	02	250	1	26 GM	08	CAP.EST	33/33/39					
6100506-1	61	01	6.00	02	250	8	26 GM	08	CAP.EST						
6100510	13.6	03	8.00	02	575	1	21 GM	06	CAP.EST	27/33/38					
6100510-1	60	02	8.00	02	575	7	21 GM	06	CAP.EST						
6100512	14.24	03	61	6/87	PMS	GM	2	STATE OF FLORIDA	36/33/38						
6100513	38.8	03	61	3/87	AG	GM	1	FRANK G. BARATTA	24/33/38						
6100513-1	61	02	8.00	02	600	6	23 GM	08							
6100514	35.8	03	61	6/87	PMS	GM	1	ANGELES CORP.	11/33/38						
6100514-1	61	01	6.00	02	200	4	22 GM	08	.1 MGD	11/33/38					
6100514-2	61	02	6.00	02	200	4	22 GM	08		11/33/38					
6100516	2.1	03	61	6/87	AG	GM	1	MORMAN HENSICK JR.	30/33/39						
6100516-1	61	02	4.00	02	100	7	30 GM	06	CAP.EST	30/33/39					
6100516-2	61	01	4.00	02	100	7	30 GM	06	"	30/33/39					
6100517	5.5	03	61	4/87	CON	GM	1	RINKER MATERIALS CORP.	12/33/39						
6100517-1	61	01	6.00	02	400	4	29 GM	02		12/33/39					
6100517-2	61	01	6.00	02	400	4	29 GM	02		12/33/39					
6100518	52	03	61	5/87	AG	GM	3	LIER GROVES INC.	35/33/38						
6100518-1	60	01	8.00	02	828	8	22 GM	08		35/33/38					
6100518-2	60	01	8.00	02	321	8	22 GM	08		35/33/38					
6100518-3	60	02	8.00	02	828	8	22 GM	08		35/33/38					
6100521	74.5	03	61	9/87	AG	GM	3	GEORGE LAMBETH JR.	02/33/37						
6100521-1	61	01	3.00	02	75	6	15 GM	08	CAP.EST	02/33/37					
6100521-2	61	02	3.00	02	75	6	15 GM	08	"	02/33/37					
6100521-3	61	02	3.00	02	75	6	15 GM	08	"	02/33/37					
6100522	109.9	03	61	9/87	AG	GM	3	DELLERMAN GROVES INC.	01,12/33/37						
6100522-1	61	01	8.00	02	900	3	17 GM	08		01,12/33/37					
6100522-2	61	02	8.00	02	75	3	17 GM	08		01,12/33/37					
6100522-3	61	01	8.00	02	1100	4	17 GM	08		01,12/33/37					
6100522-4	61	02	8.00	02	900	4	17 GM	08		01,12/33/37					
6100528	16.04	03	61	11/88	AG	GM	1	LOUIS PERKINS	34/33/38						
6100528-A	60	01	02	920	200	8	21 GM	08							
6100531	136.6	03	61	4/89	AG	GM	2	GEORGE LAMBETH							

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LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

=====

PERMIT NO.	AM.	ALL	MAX	NO.	DATE	USE	SRC.	NO.	SU	CD	PERMIT	NO.	DEV	NO.	AG	TYPE	ST	IRR	ACRES	EFF	
NO.	ALL	UNT	NO.	UTS.	CO	ISS.	TYPE	U.S.	PMP'S	OWNER	CD	PERMIT	NO.	DEV	NO.	AG	TYPE	ST	IRR	ACRES	EFF

=====

LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

=====

PERMIT NO.	FACILITY NO.	QUAD.	WELL NO.	DEPTH	CD	INT	TYPE	CAP.	NTR?	ROW	COLUMN	SRC	AG.	COMMENTS	S	T	R	
NO.	NUMBER	NO.	STSDJA.	CODE	TD	CD	INT	TYPE	CAP.	NTR?	ROW	COLUMN	SRC	AG.	COMMENTS	S	T	R

6100531-A	59	02	12.00	02	990			3000		5	13	GU	08					17/33/37			
6100531-B	59	02	12.00	02	990			3000				GU	08					17/33/37			
6100536	5-2	03	02	12.00	02	61	7/89	CON	GU	1				SHELL OIL COMPANY							
6100536-A		02	12.00	02				10		3	21	GU	02					03/33/38			02

**Osceola River County
Water Use Spreadsheets**

Osceola County

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LINE 1 HEADINGS (Table 1 - Existing Water Use - Permit Information and Table 2 - Forecasted Agricultural Demand for Each Permit)

=====

PERMIT NO.	AW. ALL.	ALL MAX UNT.	MO. NO.	DATE USE	SRC. NO.	SM	UITS.	CO	ISS. TYPE	M.S.	PHPS	OWNER	CD	PERMIT NO.	DEV NO.	AG TYPE	SOIL	RAIN	IRR	IRR
																		ST	ACRES	EFF

=====

LINE 2+ HEADINGS (Table 1 - Existing Water Use - Facilities Information for Each Permit)

=====

PERMIT NO.	FACILITY NUMBER	QUAD. NO.	WELL NO.	DPTH	CD	INT TYPE	CAP.	MTR?	ROW	COLUMN	SRC	AG.	COMMENTS	S	T	R
------------	-----------------	-----------	----------	------	----	----------	------	------	-----	--------	-----	-----	----------	---	---	---

9300003	65	03	61	6/87	COM	GM	6	65	5	3	GM	02	15/33/35				08					
9300003-10	58	01	8.00	02	85		70	70	5	3	GM	02	15/33/35									
9300003-5	58	01	8.00	02	80		70	70	5	3	GM	02	15/33/35									
9300003-6	58	01	8.00	02	80		70	70	5	3	GM	02	15/33/35									
9300003-7	58	01	8.00	02	80		70	70	5	3	GM	02	15/33/35									
9300003-8	58	02	8.00	02	80		70	70	5	3	GM	02	15/33/35									
9300003-9	58	02	8.00	02	85		65	65	5	3	GM	02	15/33/35									
9300005	1.44	01	93	8/85	AG	GM	1	250	7	2	GM	06	28/33/35				08	13	0.8	31	100	.75
9300005-1	58	01	02																			
9300018	20	03	93	8/87	AG	GM	1	850	8	2	GM	08	28/33/35				08	13	0.8	31	40	.75
9300018-1	58	02	10.00	02	750																	

APPENDIX D

**OBSERVED WATER LEVELS IN THE
UPPER FLORIDAN AQUIFER SYSTEM
USED IN MODEL CALIBRATION
MAY 1989 THROUGH MARCH 1991**

**APPENDIX D
LIST OF TABLES**

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TABLE D-1: 1989 Observed Water Levels from Monitor Well Network

MODEL COORDS			WELL NO.	STATE PLANARS (FEET)		1989 OBSERVED WATER LEVEL							
LAY	ROW	COL		EAST	NORTH	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2	36	22	MF-2	661770	1027509	48.1	48.82				49.08	49.46	48.54
2	32	42	MF-3	766873	1047651	42.54	42.44	42.94	43.94	44.24	44.94	45.79	44.69
2	35	24	MF-9	673406	1031495	47.93	48.54	49.35			49.57	50.18	49.11
2	42	19	MF-23	642188	996134	48.05	47.12	47.76	48.03	48.66	48.85	49.28	48.49
2	36	43	MF-31	768744	1024135	41.75	39.55	41.6	44.75		45.05	44	
2	38	17	MF-33	634439	1016100	46.36	46.78	47.03			47.64	45.87	45.47
2	47	23	MF-35	668237	970484	48.8	49.34	49.64	47.15	47.94	48.74	50.04	49.14
2	42	29	MF-51	699609	992233	49.67	51.02				50.89	50.28	50.04
2	41	29	MF-52	699928	1001121	49.17	49.49				50.05	49.7	48.55
2	34	43	MF-53	770566	1035356	44.01					20.1	44.71	44.46
2	35	43	MF-54	769853	1034038	42.86					42.36	44.86	44.06
2	30	41	MF-55	762663	1056410	41.15	40.65				41.45	31.35	42.05
2	33	10	OKF-3	595533	1039922	43.16	42.63	42.91	43.57		44.12	44.58	43.65
2	22	5	OKF-7	569511	1102271	43.55	44.09	45			45.41	46.11	45.2
2	29	1	OKF-23	547290	1061446	41.2	43.43	42.2			45.43	43.15	42.3
2	31	1	OKF-31	550550	1052261	43.98	43.55	44.86	46.72		45.81	46.47	44.91
2	11	7	OKF-71	583728	1159048	40.47	41.23				41.89	42.66	41.73
2	12	8	OKF-72	585990	1154003	39.65	40.82				40.97	41.7	39.77
2	25	4	OKF-73	562777	1084287	38.82	40.55				41.26	41.88	40.97
2	26	5	OKF-74	569100	1079147	42.61					43.37	43.87	42.86
2	49	48	PBF-1	797130	959197	45.25	44.9	44.9	46	46.9	46.9	48.05	47.35
2	12	26	SLF-3	682529	1151296	37.03	37.34	36.16	38.26		38.33	39.29	37.72
2	14	23	SLF-4	667172	1141333	36.73	37.87				38.46	39.13	38.19
2	10	17	SLF-11	635027	1164842	38.33	39.77				39.94	41.06	39.72
2	24	18	SLF-17	639345	1087204	41.56	42.29				43.37	43.92	41.94
2	17	28	SLF-21	693824	1124690	35	30.69	34.29	33.24	35.88	36.36	36.77	35.81
2	32	24	SLF-23	672337	1049363	47.19	48.38	47.55	48.88		49.07	49.59	48.6
2	20	34	SLF-26	723181	1111916	36.34	36.81				37.13	37.88	
2	20	22	SLF-27	657924	1110699	38.61	35.48	35.14	37.84		39.34	39.7	37.62

TABLE D-1: 1989 Observed Water Levels from Monitor Well Network (Continued)

MODEL COORDS			WELL NO.	STATE PLANARS (FEET)		1989 OBSERVED WATER LEVEL							
LAY	ROW	COL		EAST	NORTH	WATER LEVELS IN FEET OF HEAD/NGVD							
					MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	
2	15	21	SLF-36	657278	1137759	39.03	36.29	37.26	38.45		38.72	39.62	38.42
2	18	22	SLF-40	662479	1121219	37.69	38.1	39.29	38.89	38.71	39.17	40.03	38.77
2	12	34	SLF-46	724567	1154337	25.91	26.41				29.21	26.36	31.91
2	24	39	SLF-47	749646	1088844	34.01	33.86	33.66	32.66	34.66	36.16	37.11	36.26
2	24	22	SLF-50	662956	1092240	39.8	38.54	39.57	39.63	40.62	41.08	41.6	40.47
2	28	26	SLF-61	682099	1066875	46.9	46.73				48.15	46.65	45.52
2	27	24	SLF-62	672318	1075011	41.96	43.64				42.13	45.4	43.4
2	14	16	SLF-63	627530	1144319	37.99	39.27				39.72	40.4	39.32
2	12	15	SLF-64	621462	1155509	38.98	39.97				40.55	41.32	40.06
2	10	14	SLF-65	616214	1164480	38.31	39.2				38.68	40.12	39.62
2	17	19	SLF-66	644611	1127917	36.25	38.32				39.61	40.27	38.5
2	21	13	SLF-67	611696	1105597	41.17	43.06				44.99	44.24	43.02
2	17	10	SLF-68	598300	1127575	41.21	42.53				42.77	43.23	42.81
2	22	26	SLF-69	680591	1101403	43.5	40.57				41.15	41.53	40.38
2	10	28	SLF-70	693278	1163162	25.11	29.05				29.03	30.94	31.85
2	23	33	SLF-71	719118	1096443	38.15	38.92				38.92	39.92	38.86
2	27	16	SLF-60	629924	1071824						44	44.24	43.64
2	7	33	IR-10	716602	1178731	33.13					31.93	32.88	33.13
2	6	28	IR-40	694162	1185281	34.8					33.29	33.92	32.69
2	7	27	IR-312	684383	1179075	35.13					35.23	36.71	35.49
2	2	27	IR-313	684626	1204423	35.03					36.57	37.01	35.85
2	1	1	IR-365	545220	1216241	49.2					50.28	49.79	50.08
2	8	30	IR-368	705010	1175338	34.07					33.68	34.13	33.18
2	7	19	IR-370	643803	1177697						38.01	38.67	36.83
2	3	14	IR-373	620153	1201754	40.73					42.07	42.09	40.83

TABLE D-2: 1990 Observed Water Levels from Monitor Well Network

WELL NAME	1990 OBSERVED WATER LEVELS IN FEET OF HEAD/NGVD											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
MF-2	48.41	48.38	48.69	48.05	46.73	47.58	48.22	None	49.01	48.99	None	48.53
MF-3	44.84	44.64	45.04	44.19	43.86	44.69	45.29	Taken	45.29		Taken	44.89
MF-9	48.94	49.38	48.63		47.45	48.09	48.78		49.38	49.24		48.71
MF-23	47.93	48.17	48.53	48.02	46.73	47.31	48.8		48.76			48.33
MF-31					43.6	44.25	44.85		45.75	45.6		45.35
MF-33	46.87	45.66			45.54	46.67	46.82		46.74			
MF-35	47.49	48.69	48.99	48.34	46.68	47.14	48.61		49.54	49.49		48.99
MF-51	50.1	49.85	50.84	49.55	48.54	49.42	50.29					
MF-52	47.33	49.66			50.22	50.22						49.67
MF-53												44.76
MF-54	43.73	43.56			42.36	43.11	43.86		44.76			43.41
MF-55	40.1	42.05	40.35		37.2	40.7	41		39.7			37.15
OKF-3	43.12	43.41	44	42.81	41.03	41.9	43.22		44.33	44.17		43.72
OKF-7	44.72	45.02	45.54	44.08	41.66	43.43	44.75		45.55	45.76		44.88
OKF-23	42.08	40.88	42.28	40.68	39.97	40.56	41.59		41.5			
OKF-31	44.48	43.94			42.15	43.4	45.7		46.92	46.82		45.2
OKF-71	41.05	41.4	41.84	40.39	37.59	39.35	40.99		42.32	41.57		40.79
OKF-72	41.65	41.91	40.48		37.82	39.56	40.98		42.01	42.01		40.29
OKF-73	40.46	40.65	41.32	40.01	38.25	39.34	40.88		42.1	42.14		41.49
OKF-74	43.27	42.58	43.22	41.66	39.89	41.2	42.98		43.7	43.48		42.83
PBF-1	46.9	47.1	47.15		46.4	46.65	47.35		48	47.7		47.8
SLF-3	37.14	37.65	37.86	36.16	32.6	36.31	37.1		39.05	38.85		36.76
SLF-4	37.56	37.95	38.4	36.93	33.86	36.23	37.4		38.44	38.56		37.59
SLF-11	39.22	39.45	40.03	38.43	34.65	37.5	39.16					39.06
SLF-17	40.87	42.47	42.39	40.94	36.07	41.1	42.4		43.45	43.41		42.65
SLF-21	35.63	35.28	36.09	34.62	28.97	34.45	36.21		37.26	37.52		34.78
SLF-23	48.19	48.2	48.22	47.77	43.46	46.01	46.62					
SLF-26												
SLF-27	38.18	38.25	38.75	37.49	33.3	36.89	38.45		38.97	39.21		37.4

TABLE D-2: 1990 Observed Water Levels from Monitor Well Network (Continued)

WELL NAME	1990 OBSERVED WATER LEVELS IN FEET OF HEAD/NGVD											
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
SLF-36	38.02	38.20	38.86	37.52	35.45	36.6	38.11		39.13	39.14		37.67
SLF-40	38.61	38.69	39.29	37.88	34.83	37.07	38.47		39.56	39.87		38.44
SLF-46	29.21	31.31	25.46	30.11	28.26	30.11						30.91
SLF-47	32.46	32.41	32.81	29.76	31.51	34.16	33.51		34.71	33.31		36.91
SLF-50	40.34	40.48	40.77	39.78	37.28	39.09	40.19		41.17	41.15		40.19
SLF-61	45.47	45.49	45.8	44.97	42.7	44.25	45.02		46.1	46.03		45.4
SLF-62	43.37	43.40	43.56	42.89	40.91	42.29	43.53		44.06	44.16		43.86
SLF-63	38.71	38.92	27.69	37.91	35.7	36.82	38.82		40.06	40		38.47
SLF-64	39.68	40	40.38	39.05	36.71	37.93	40.1		41	41.22		39.48
SLF-65	39.04	39.26	39.77	38.42	31.68	37.29	39.35		40.08	39.99		38.94
SLF-66	38.51	38.39	39.23	37.13	35.25	36.53	38.58		39.73	39.57		37.72
SLF-67	42.94	42.88	43.23	42.06	39.57	41.44	42.73		43.64	43.44		42.19
SLF-68	42.72	42.84	43.12	42.19	39.26	41.22	42.56		43.64			42.55
SLF-69	40.34	40.37	40.66	39.8	36.92	39.09	40.19		41.11	41.15		39.68
SLF-70	31.48	31.78	32.54	30.38	26.01	30.21	32		33.86	33.66		30.63
SLF-71	37.86	38.81	39.31	38.11	37.01	37.91	39.11		40.36	40.21		39.51
SLF-60	43.65	43.44			42.53	43.08	43.85		43.95			
IR-10												
IR-40	32.24	32.48	33.08	31.54	28.95	30.5	31.78		33.35	33.29		32.29
IR-312	33.69	34.23	35.62	33.41	29.04	33.74	34.32		36.11	37.15		33.52
IR-313	34.98	35.75	35.99	34.72	31.74	33.24	34.64		36.42	36.26		35.41
IR-365	49.85	50.29	49.63		48.14	48.69	49.6		51.31	51.37		50.81
IR-368	32.73	33.78	34.53	32.83	29.88	31.23	32.13		33.48	33.53		32.48
IR-370	37.25	37.46	36.29		31.92	35.41	36.71		38.13	38.01		36.6
IR-373	40.23	40.7	41.18	39.68	35.95	37.52	40.13		41.45	41.57		40.55

TABLE D-3: 1991 Observed Water Levels from Monitor Well Network

1991 OBSERVED WATER LEVELS IN FEET OF HEAD/NGVD							
WELL#	JAN	FEB	MAR	WELL#	JAN	FEB	MAR
MF-2	47.86	48.89	48.75	SLF-26			
MF-3	44.24	45.24	45.19	SLF-27	36.12	39.37	38.97
MF-9	48.42	49.83	49.27	SLF-36	36.75	38.94	38.76
MF-23	47.69	48.43	48.45	SLF-40	37.21	39.29	39.17
MF-31	44.7	45.4	45.45	SLF-46	28.56	28.31	31.81
MF-33				SLF-47	32.16	34.21	35.36
MF-35	46.96	47.94	48.49	SLF-50	39.38	40.98	40.72
MF-51				SLF-61	44.65	45.86	
MF-52	47.48	49.94	49.8	SLF-62	43.01	44.23	44.35
MF-53				SLF-63	37.61	39.83	40.10
MF-54	43.41	43.96	44.96	SLF-64	38.52	41.04	40.81
MF-55	40.50	43.6	40.05	SLF-65	37.91	39.79	39.67
OKF-3	42.76	43.94	43.92	SLF-66	36.06	38.93	38.74
OKF-7	44.3	45.46	45.29	SLF-67	41.47	43.60	43.37
OKF-23				SLF-68	42.12	44.46	44.22
OKF-31	43.62	45.38	45.07	SLF-69	39.34	41.23	40.67
OKF-71	39.88	41.88	43.36	SLF-70	29.68	33.82	33.46
OKF-72	42.27	41.97		SLF-71	38.46	40.06	39.56
OKF-73	40.74	42.2	41.91	SLF-60			
OKF-74	42.74	43.98	43.83	IR-10			
PBF-1	46.9	47.75	48.2	IR-40	31.10	33.36	32.98
SLF-3	35.67	38.82	38.4	IR-312	32.60	36.69	35.89
SLF-4	36.52	38.74	38.36	IR-313	34.06	36.30	36.77
SLF-11	37.87			IR-365	50.57	51.02	50.84
SLF-17	39.45	43.43	43.88	IR-368	31.53	33.38	33.13
SLF-21	33.11	36.86	36.9	IR-370	35.71		
SLF-23				IR-373	38.86	41.72	41.38

APPENDIX E

**COMPUTED AND OBSERVED HYDROGRAPHS
REPRESENTING MONITOR WELLS
MAY 1989 THROUGH MARCH 1991**

APPENDIX E

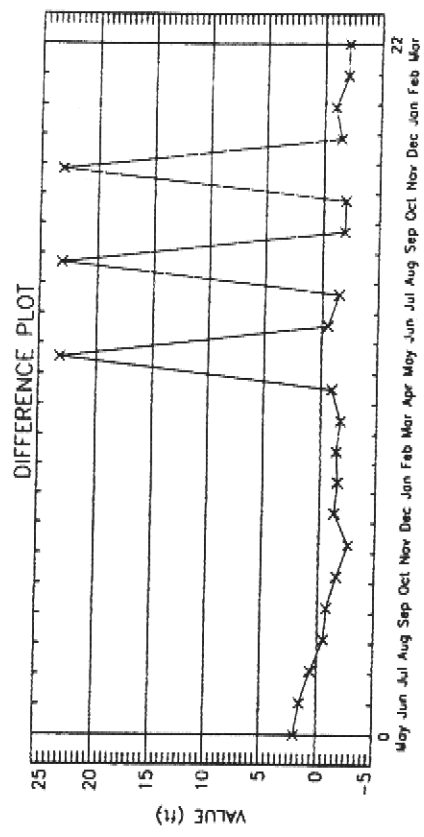
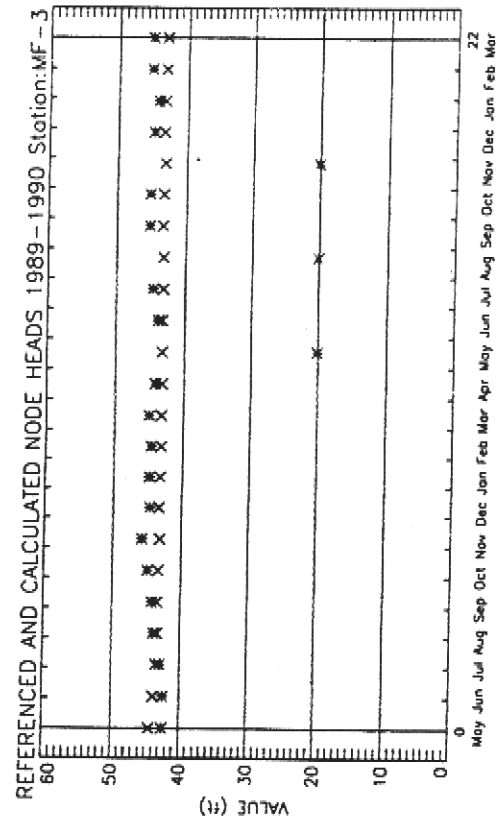
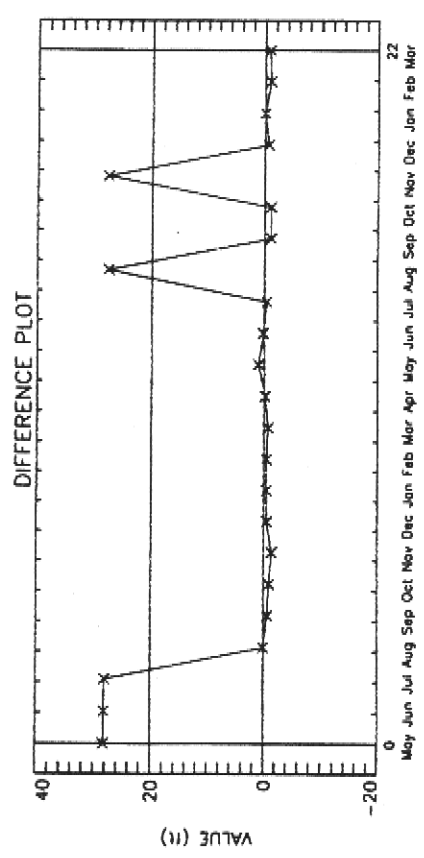
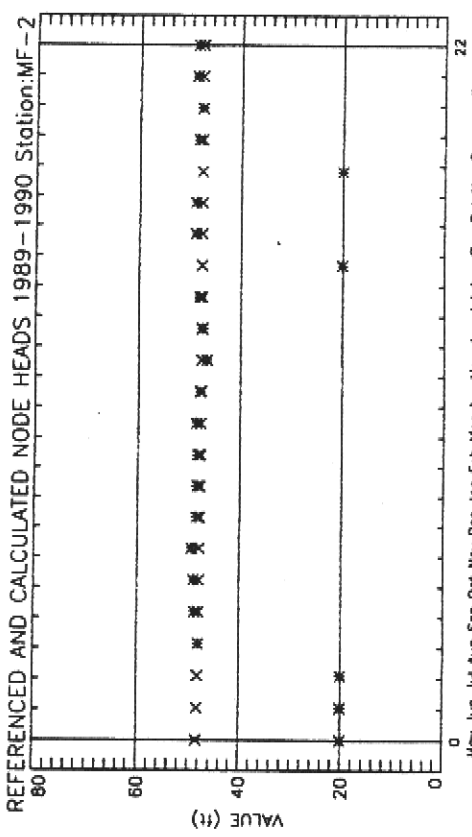
INTRODUCTION

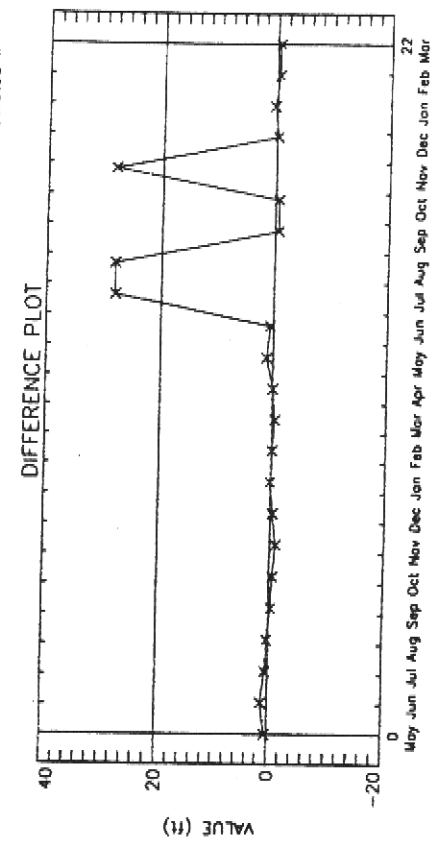
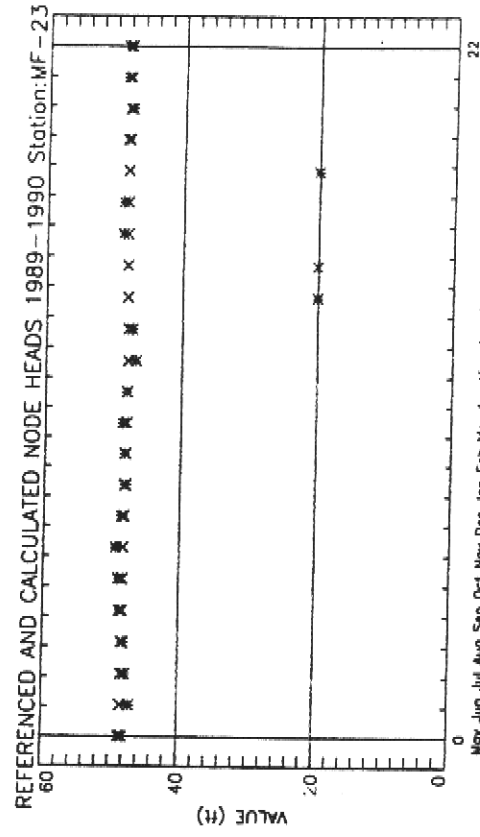
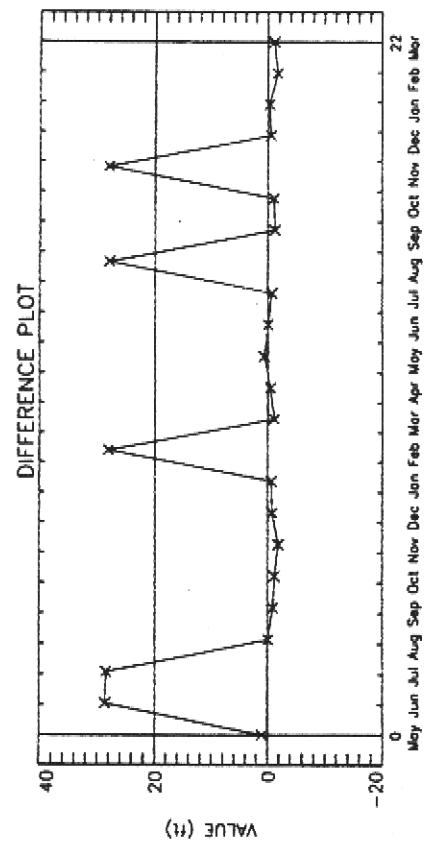
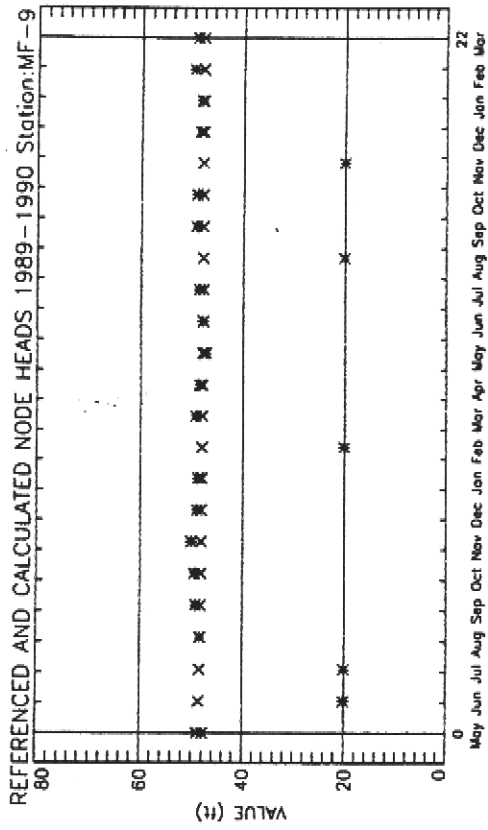
Comparative hydrographs were developed to compare computed and observed monthly water levels. The period of record graphed was May 1989 to March 1991. Some wells did not have a complete record of 23 observed water levels. In these cases, a standard value of +20 feet was assigned the missing month. Therefore, when reading the hydrographs, ignore all observed levels with this value.

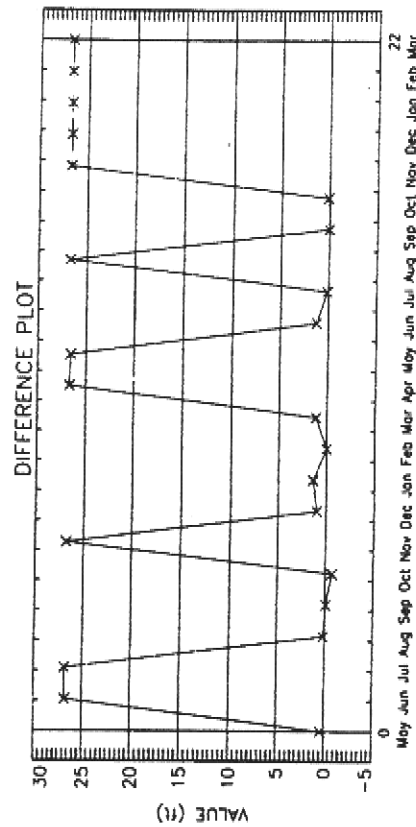
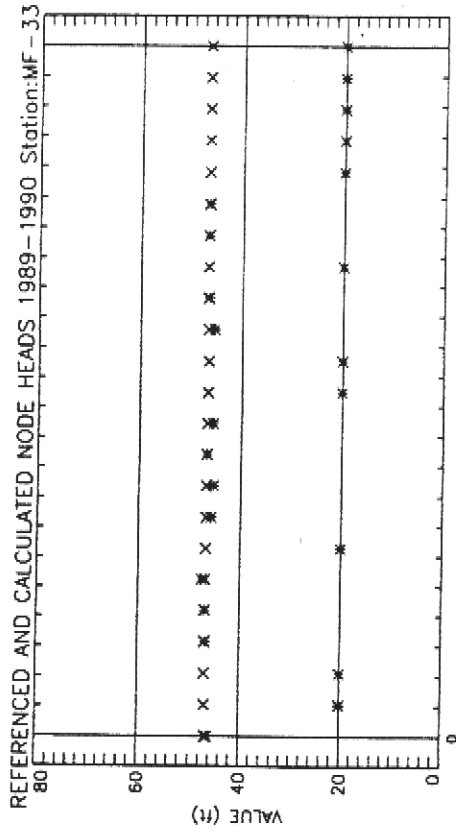
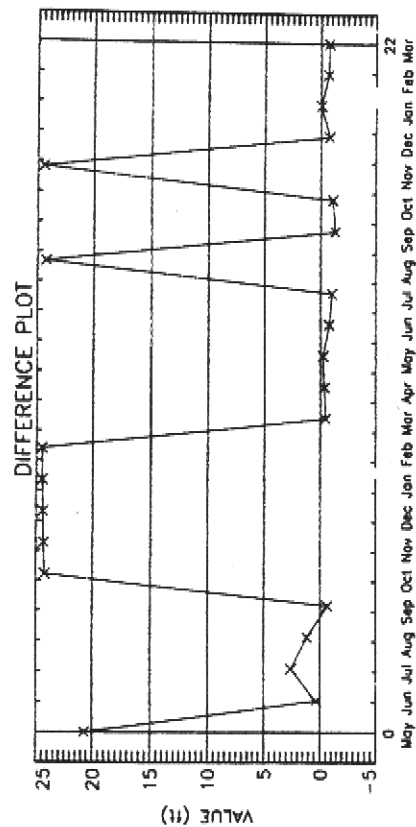
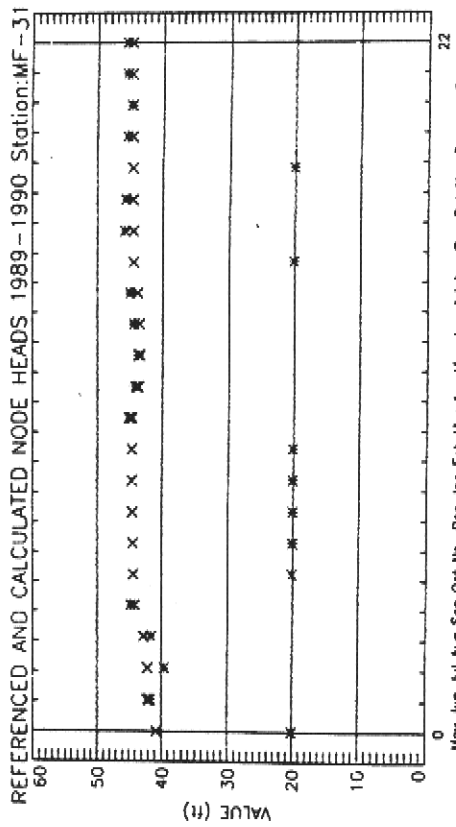
The codes used were:

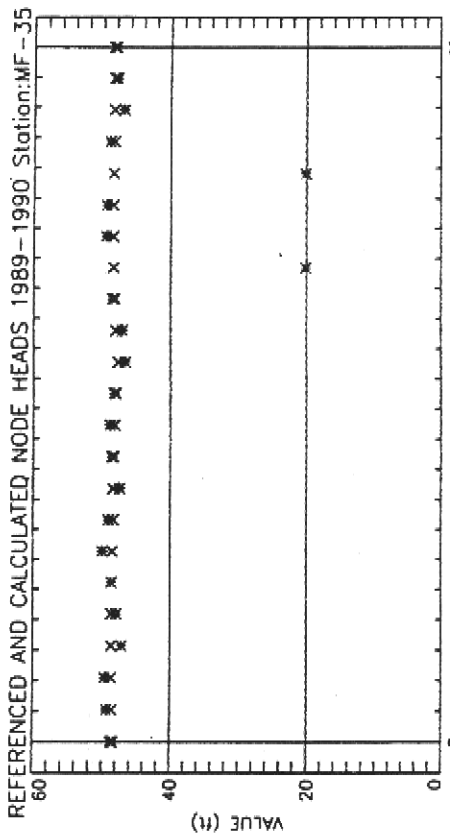
* = Observed water level

X = Computed water level

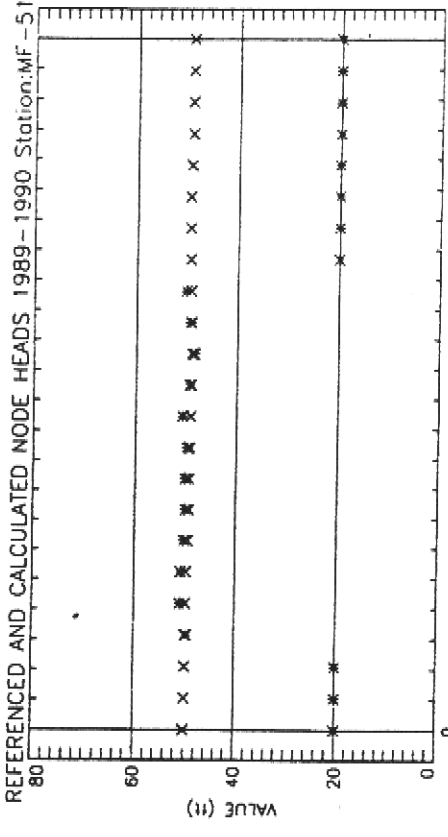
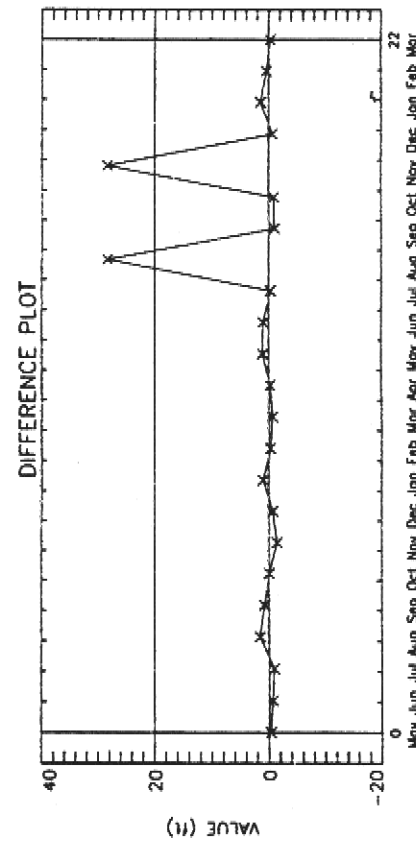




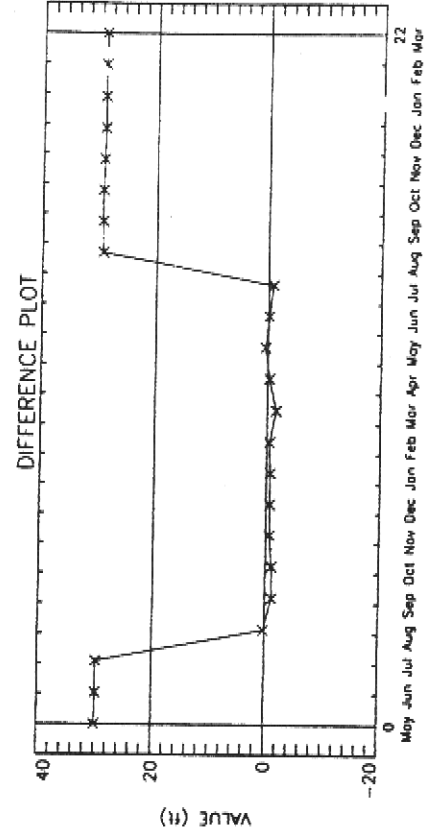




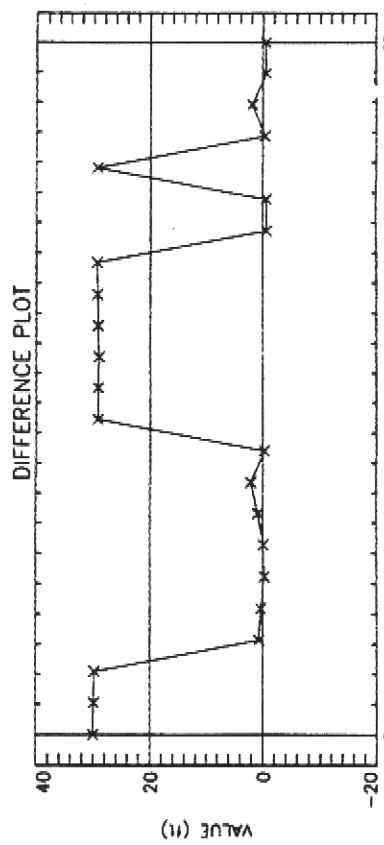
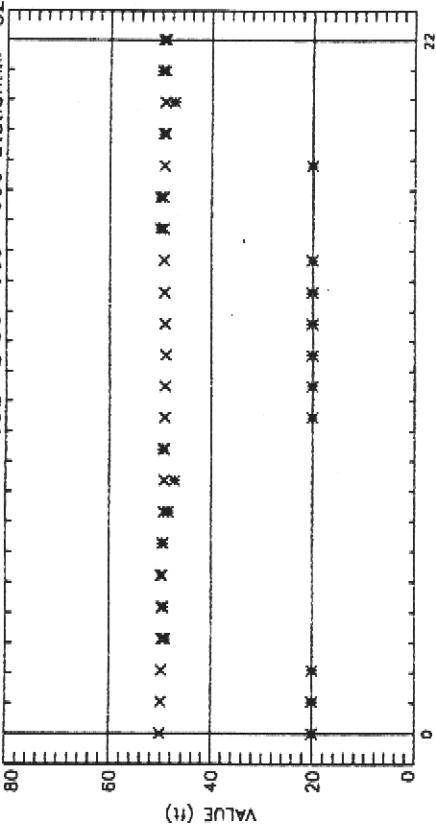
Layer 2 Row 47 Column 23 NOTE: Observed • Calculated x



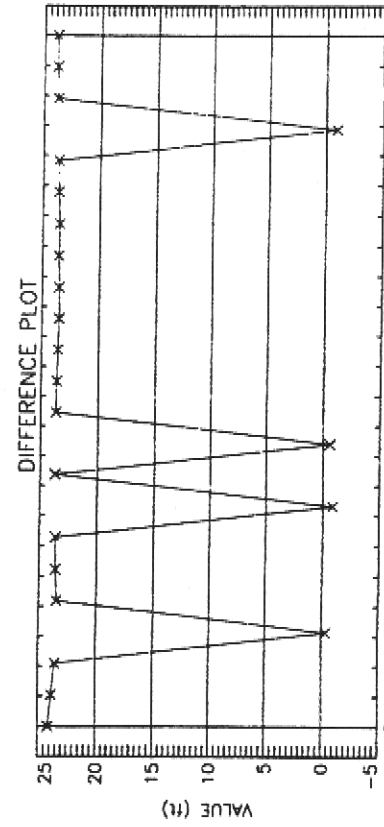
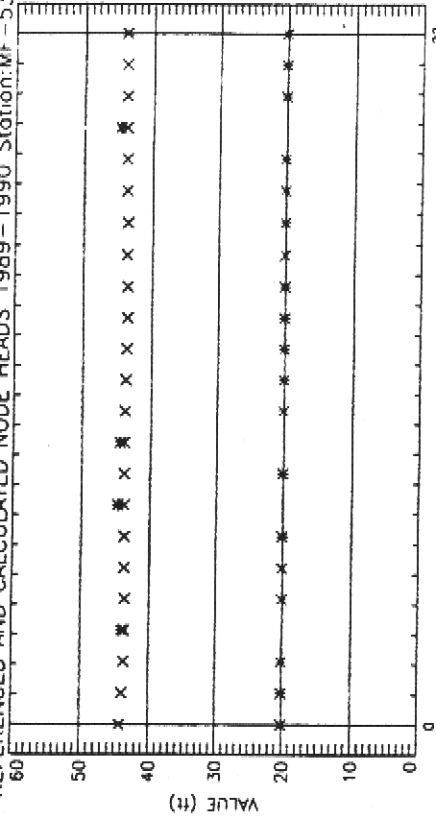
Layer 2 Row 42 Column 29 NOTE: Observed • Calculated x

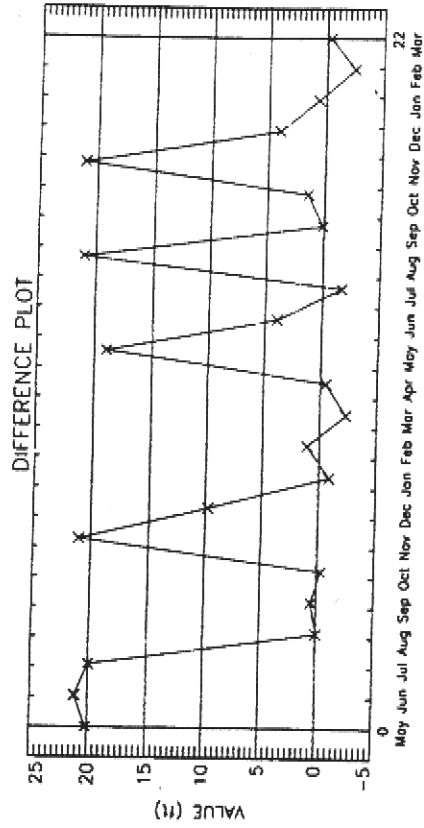
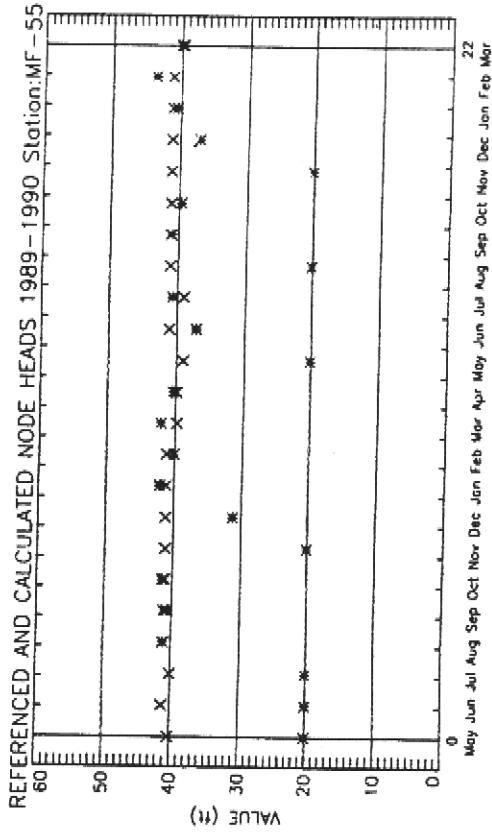
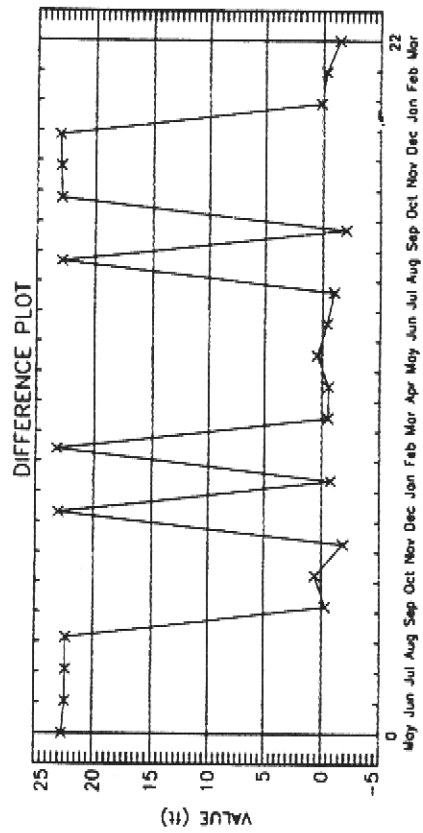
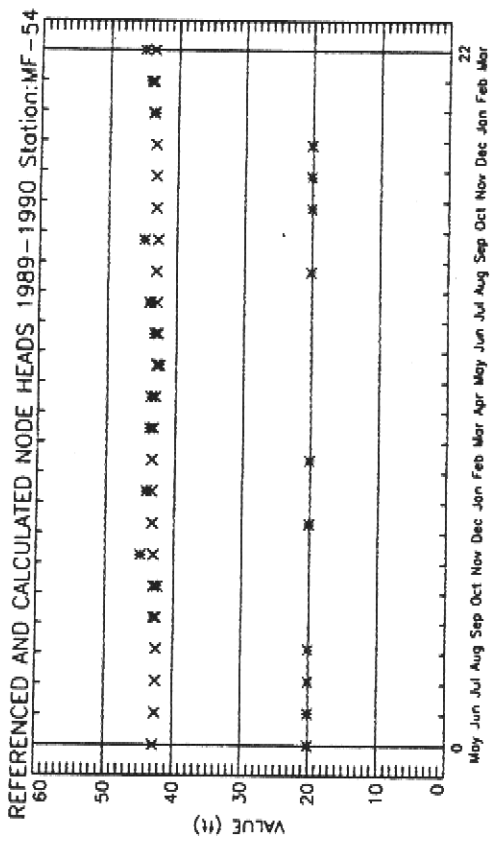


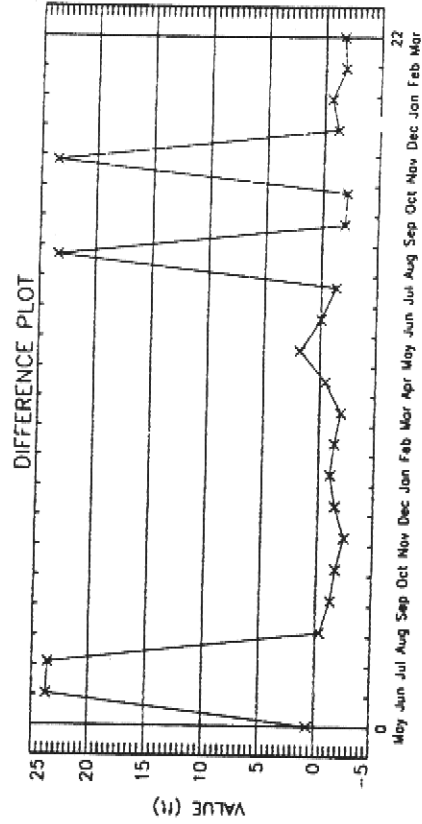
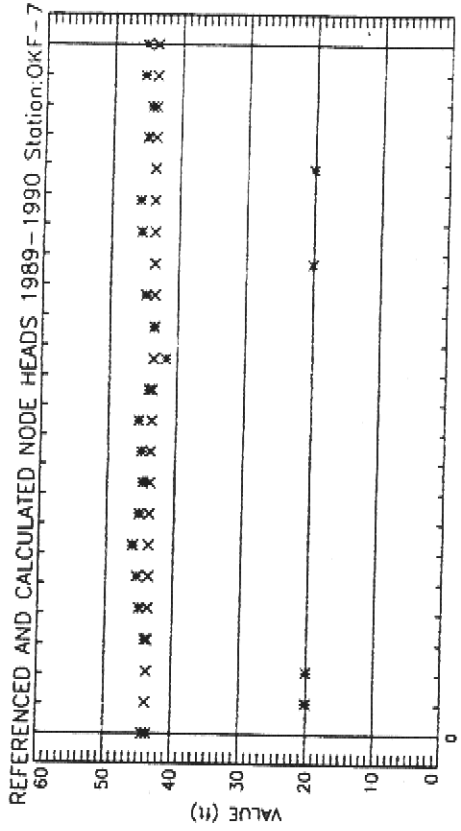
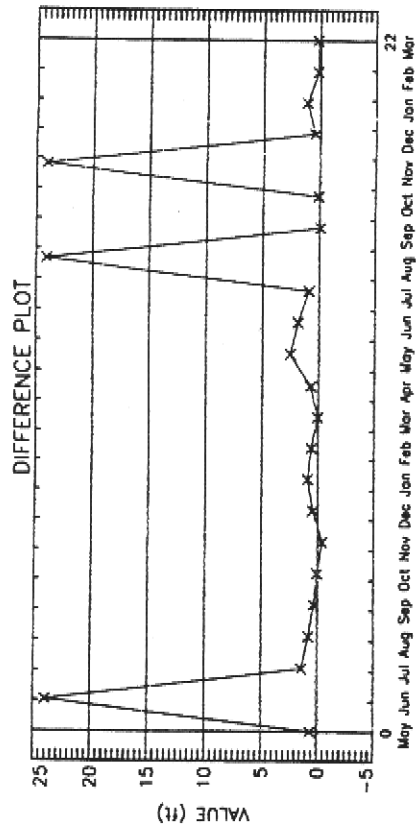
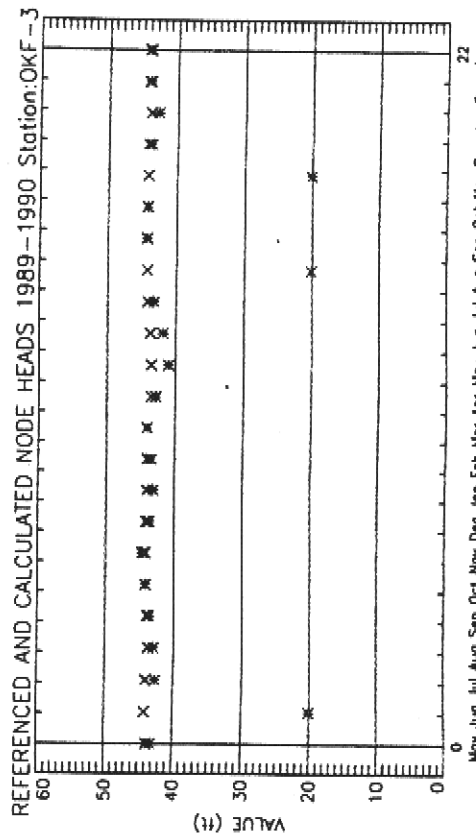
REFERENCED AND CALCULATED NODE HEADS 1989-1990 Station:MF-52



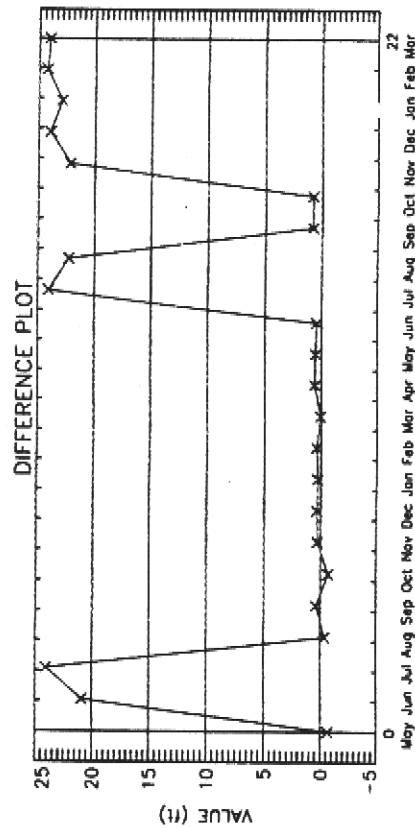
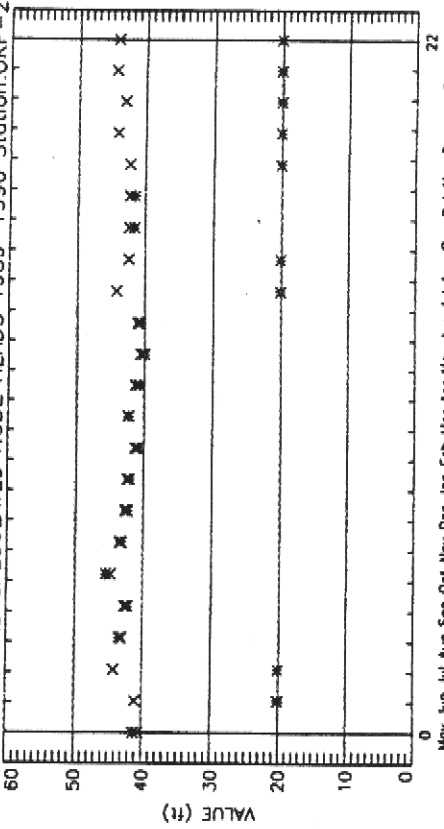
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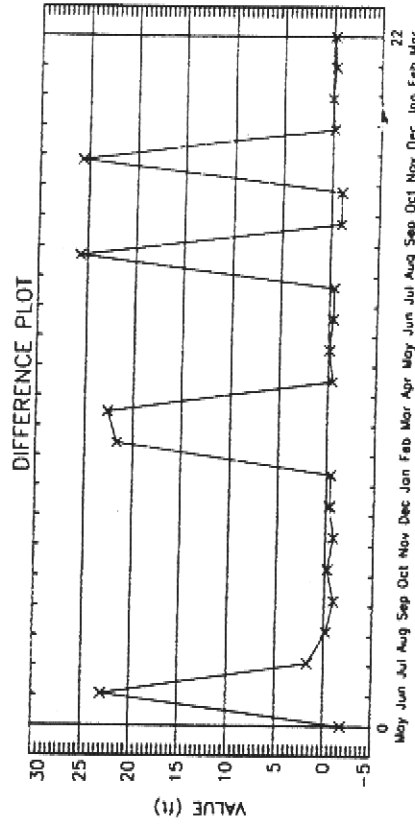
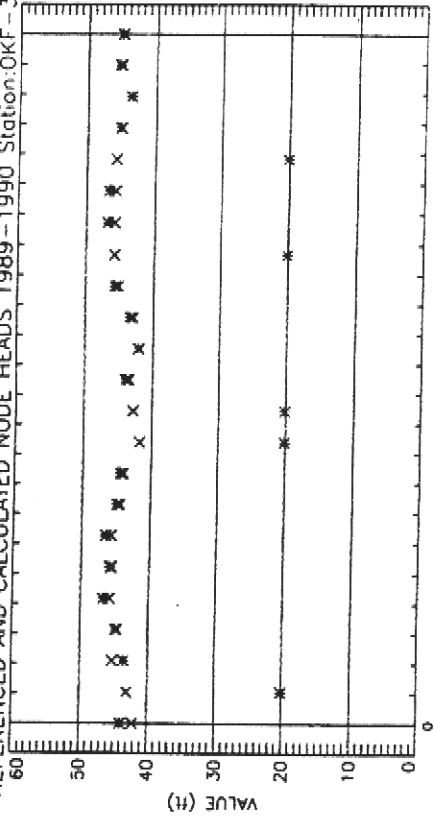




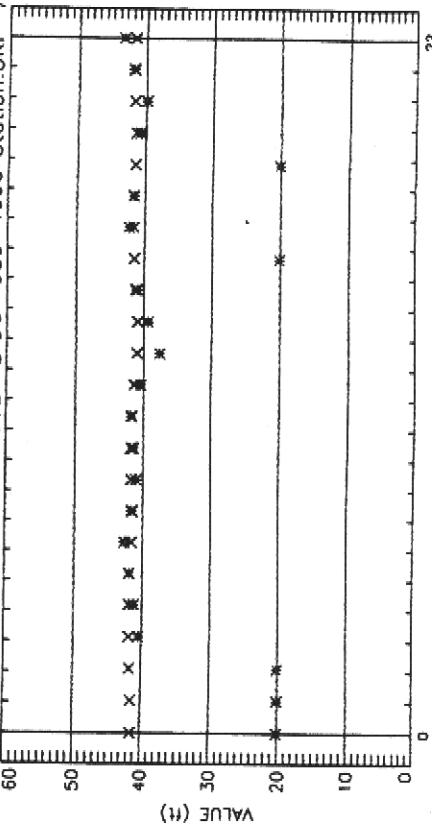
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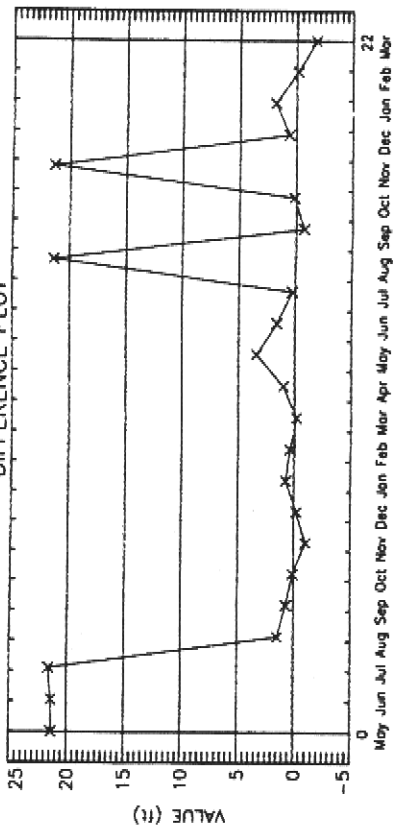
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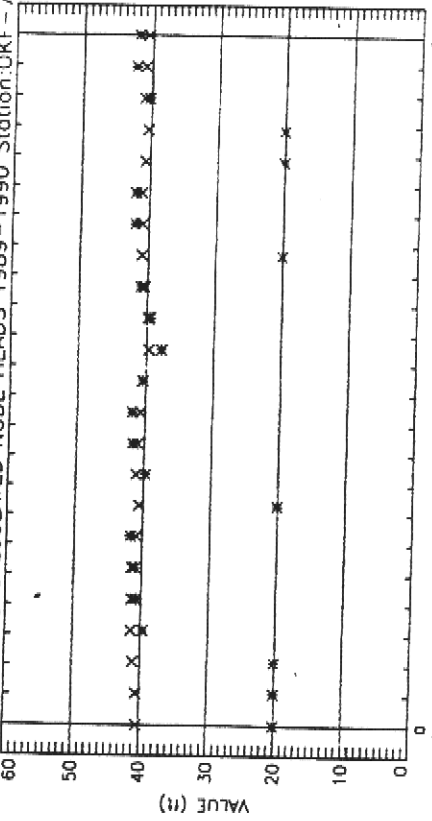
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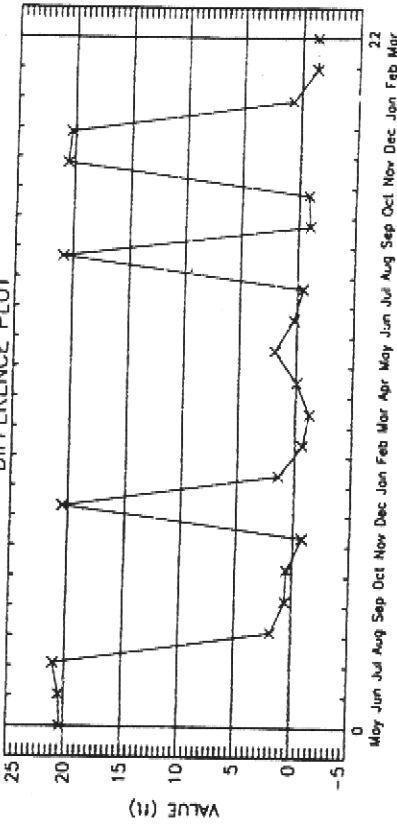
DIFFERENCE PLOT



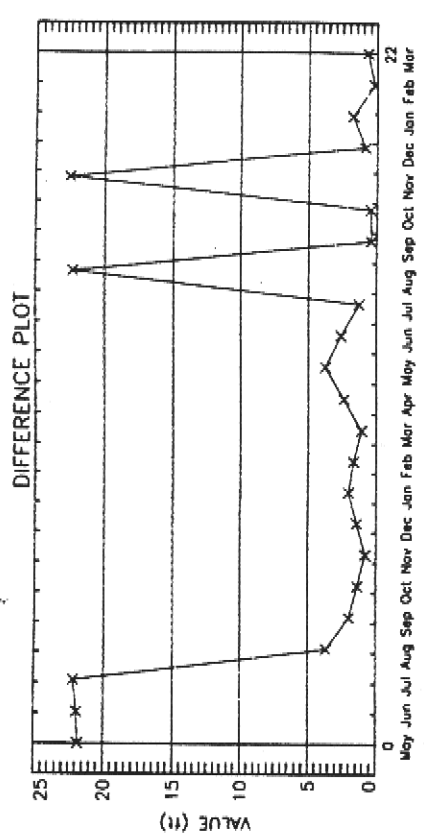
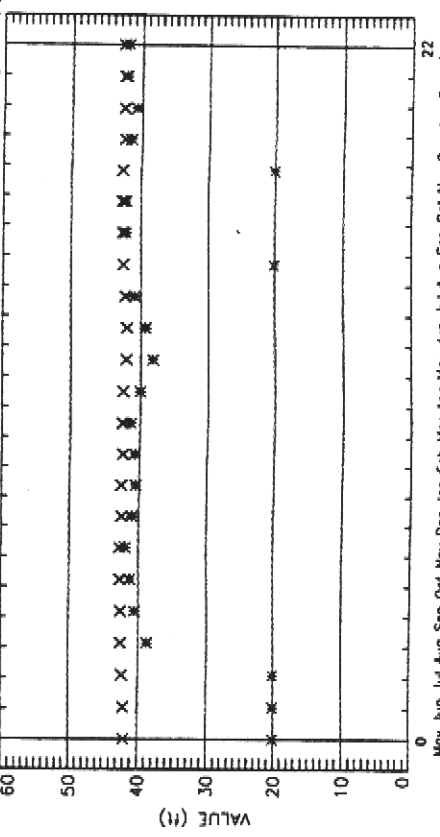
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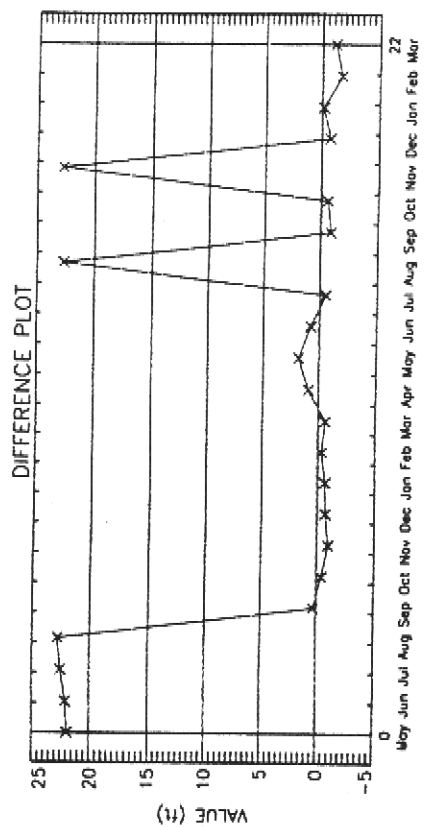
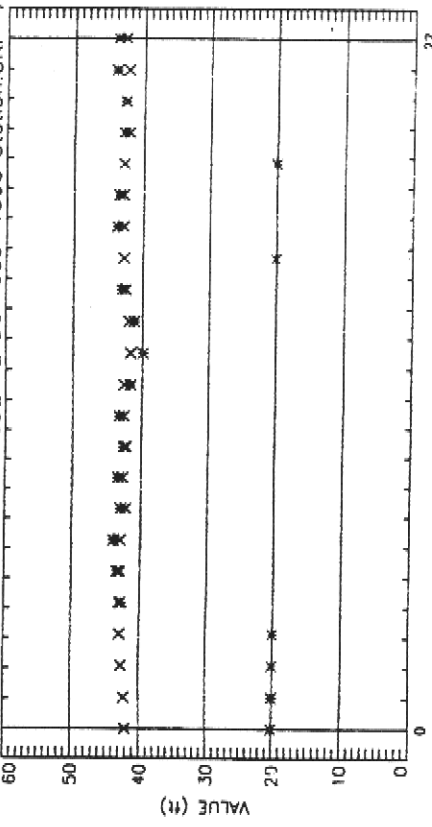
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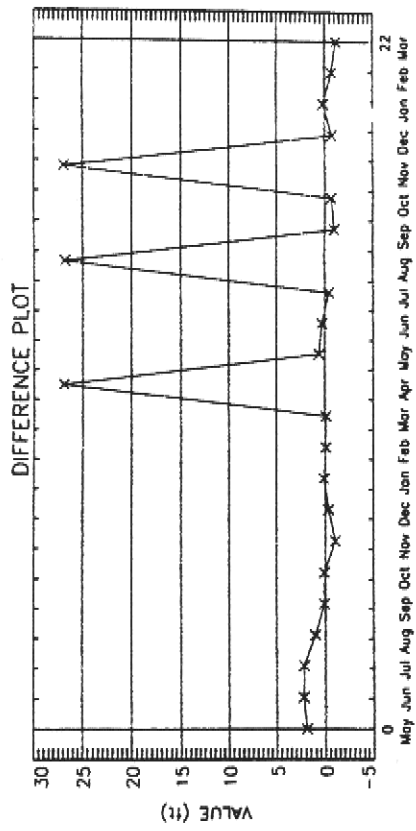
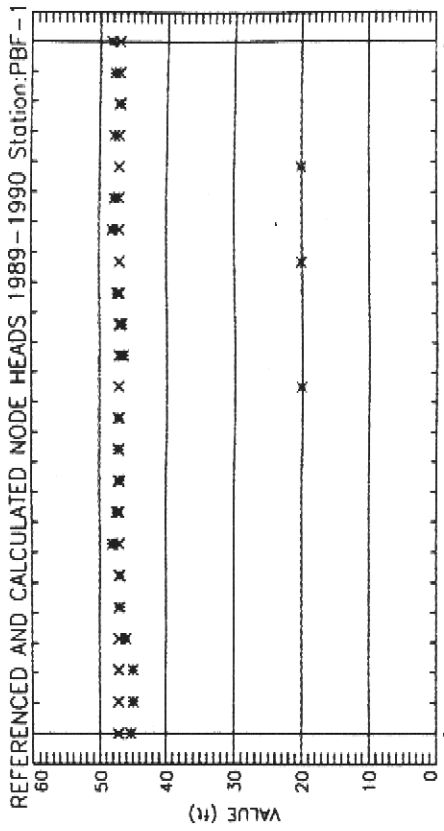


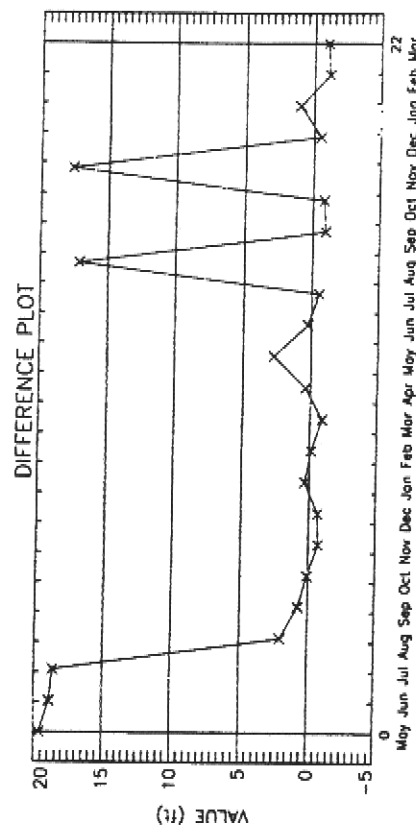
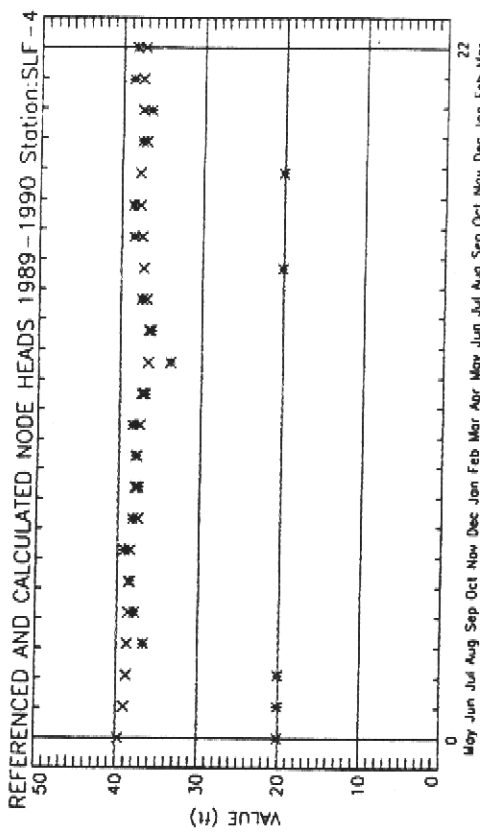
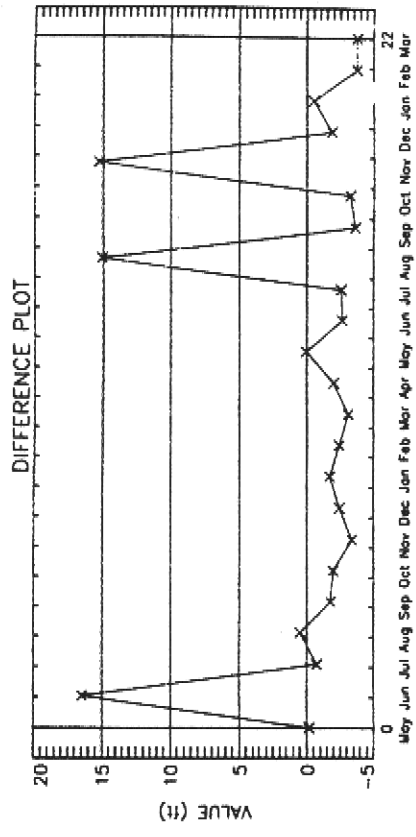
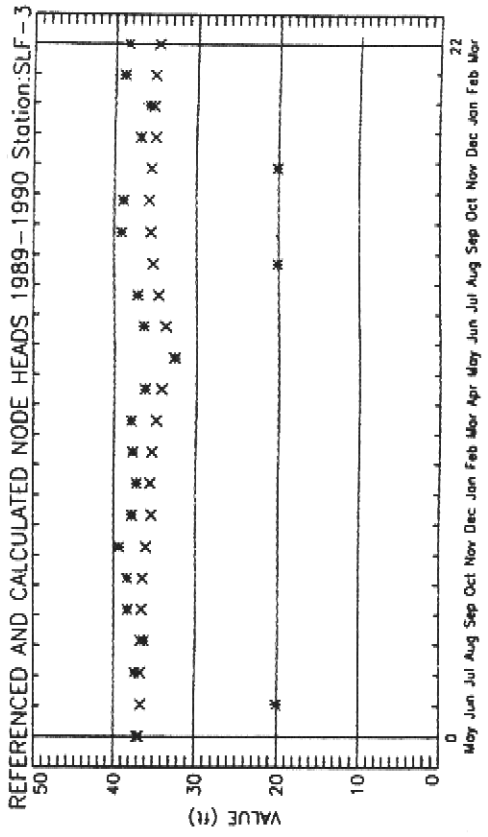
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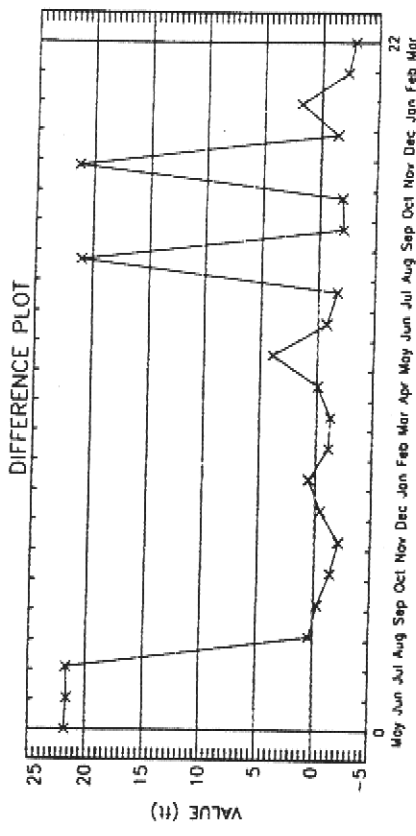
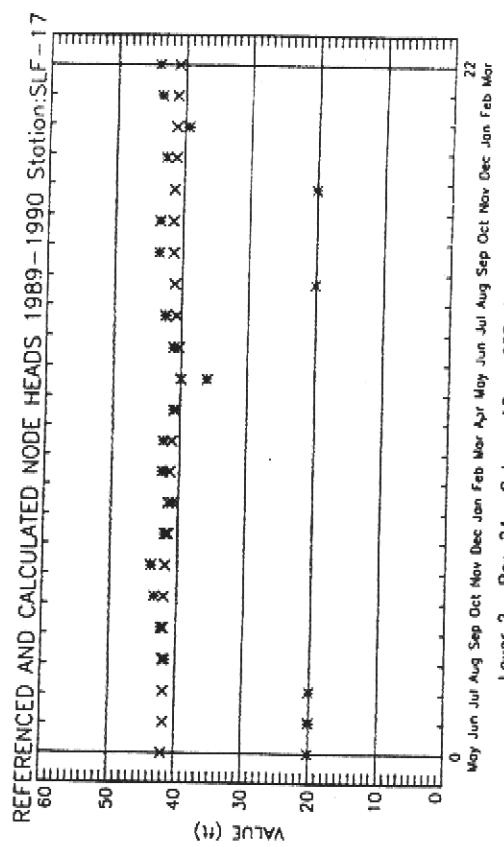
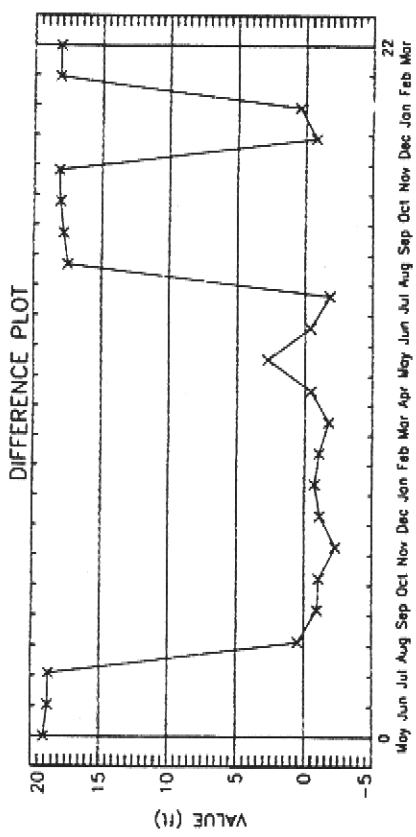
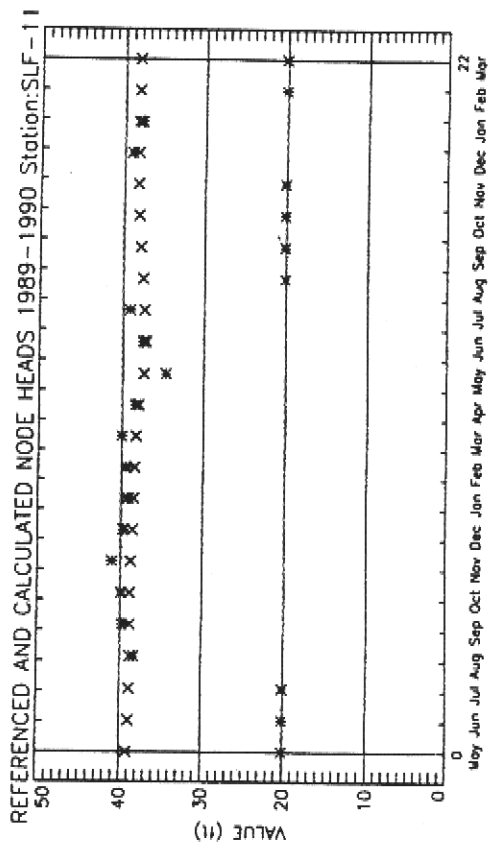


REFERENCED AND CALCULATED NODE HEADS 1989-1990 Station:OKF-74

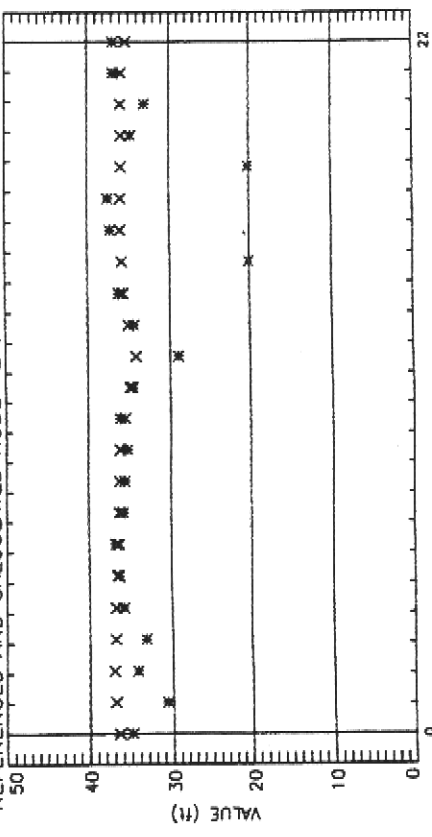




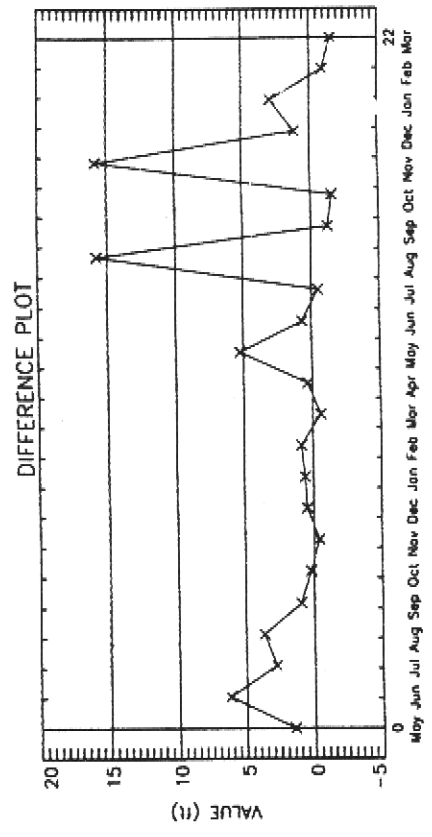




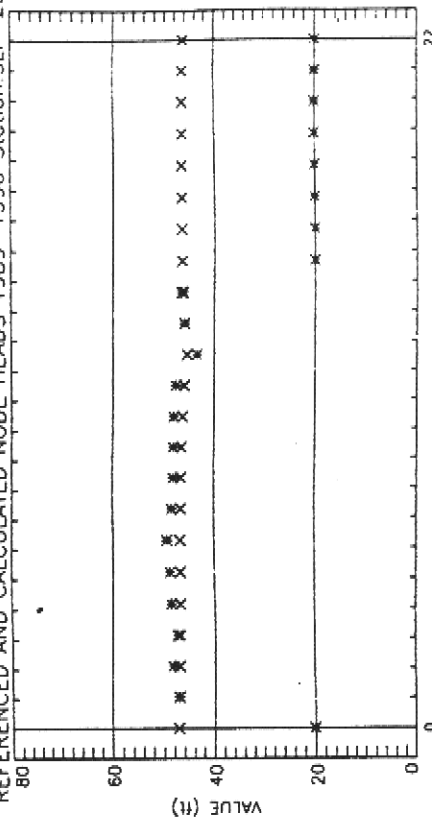
REFERENCED AND CALCULATED NODE HEADS 1989-1990 Station:SLF-21



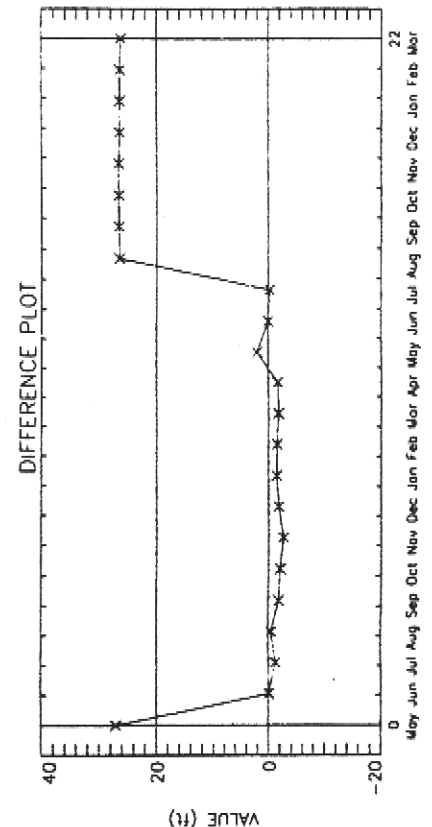
DIFFERENCE PLOT



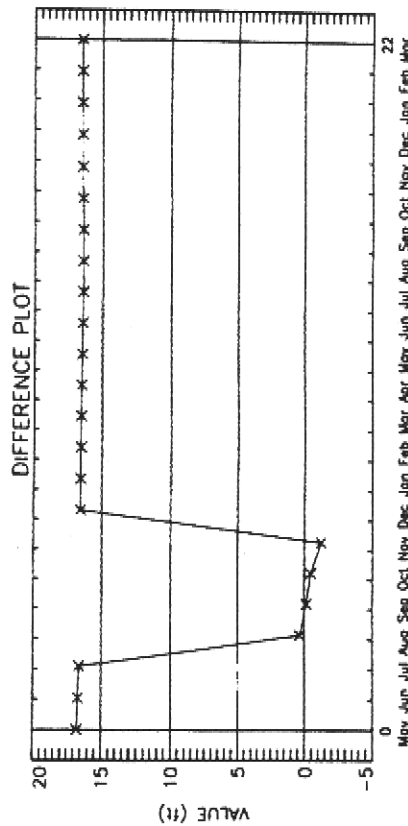
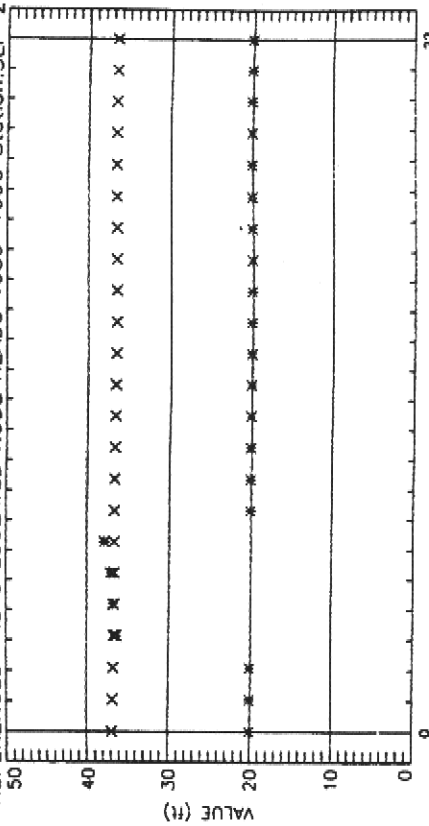
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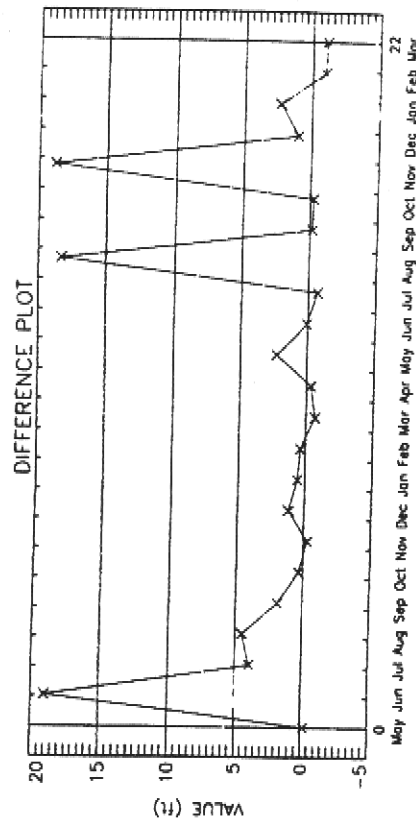
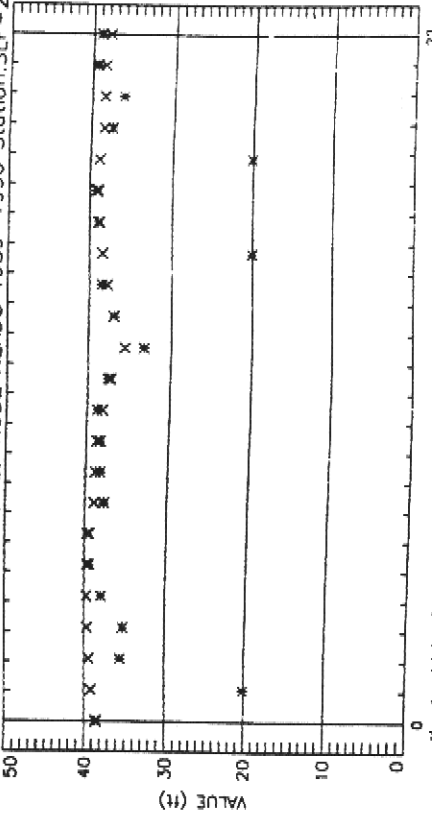
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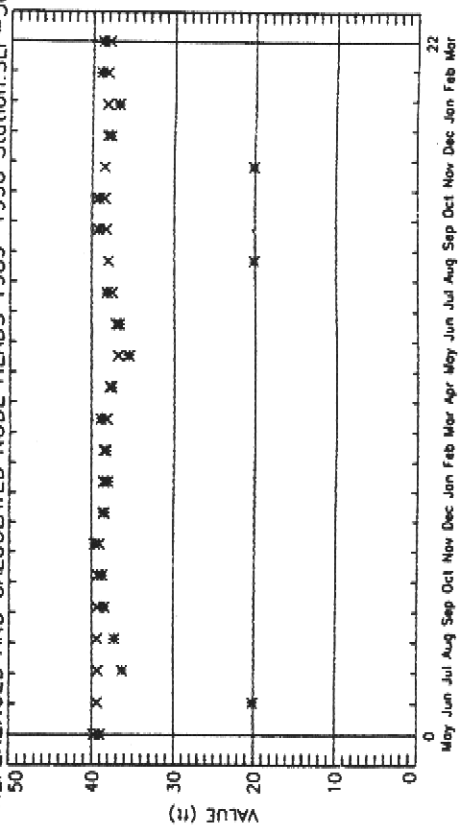
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REFERENCED AND CALCULATED NODE HEADS 1989-1990 Station:SLF-27

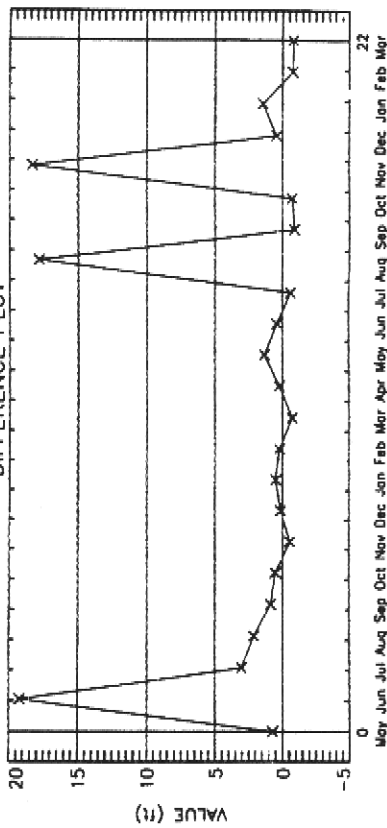


REFERENCED AND CALCULATED NODE HEADS 1989-1990 Station:SLF-36



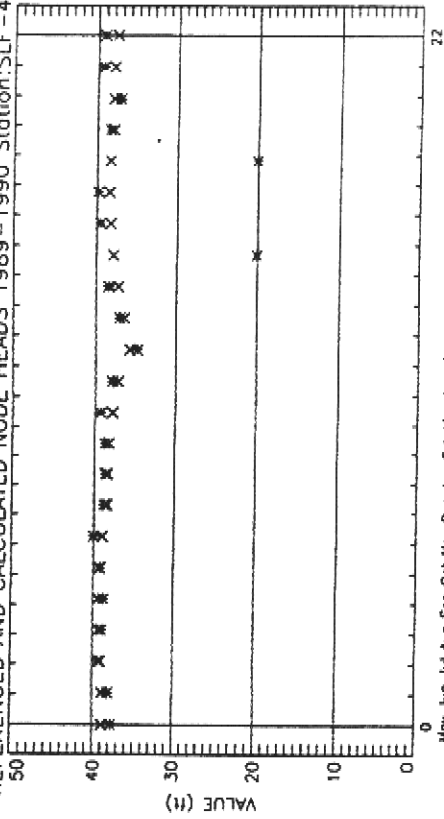
Layer 2 Row 15 Column 21 NOTE: Observed • Calculated x

DIFFERENCE PLOT



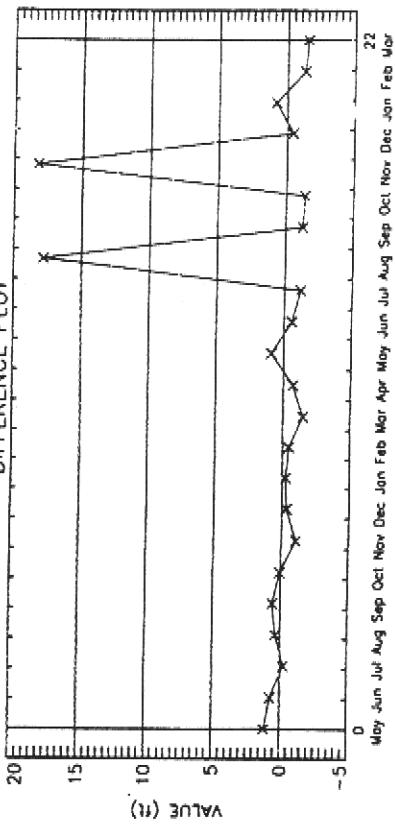
Layer 2 Row 15 Column 21 NOTE: Observed • Calculated x

REFERENCED AND CALCULATED NODE HEADS 1989-1990 Station:SLF-40

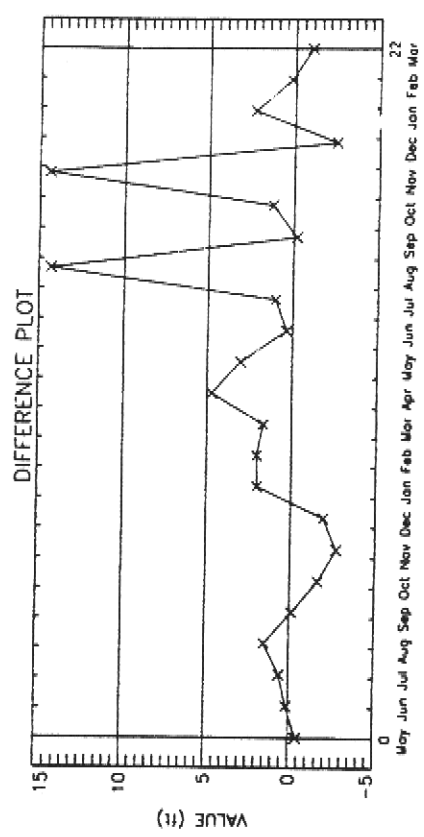
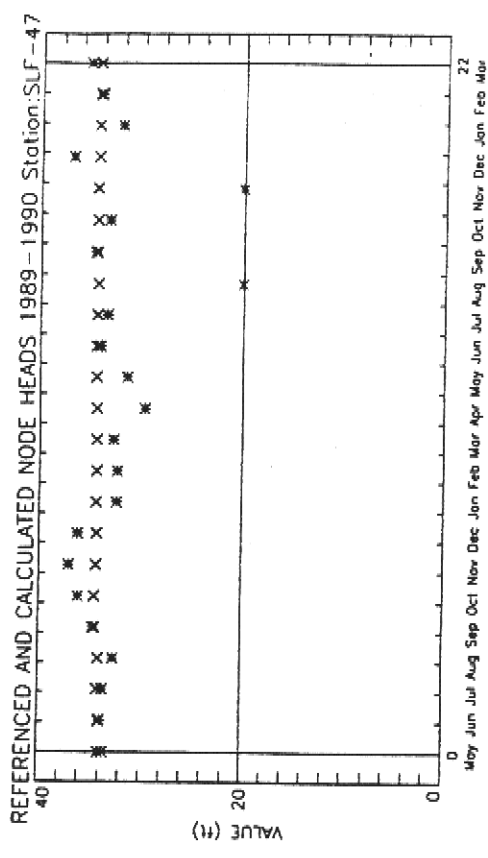
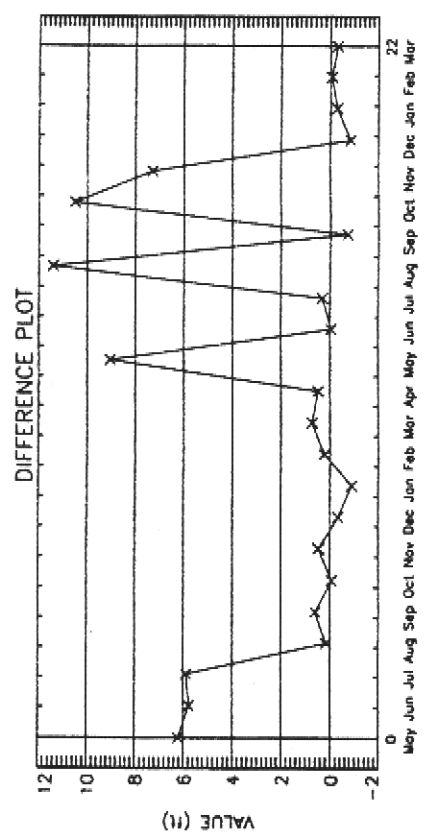
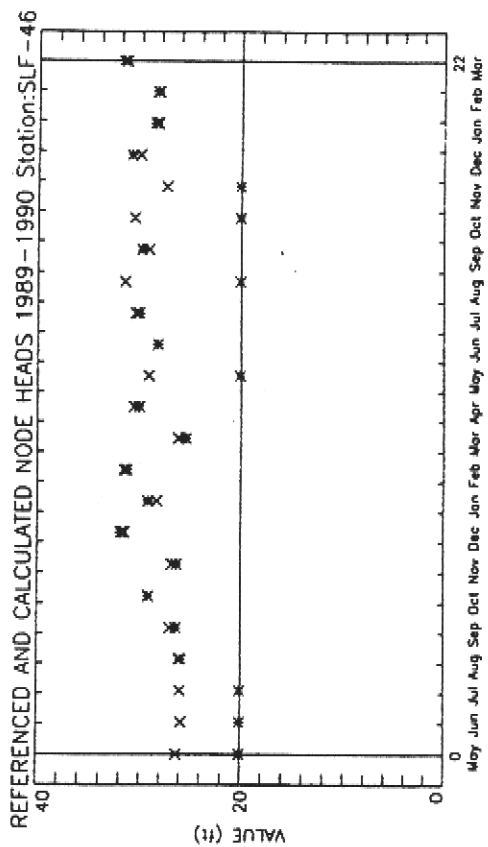


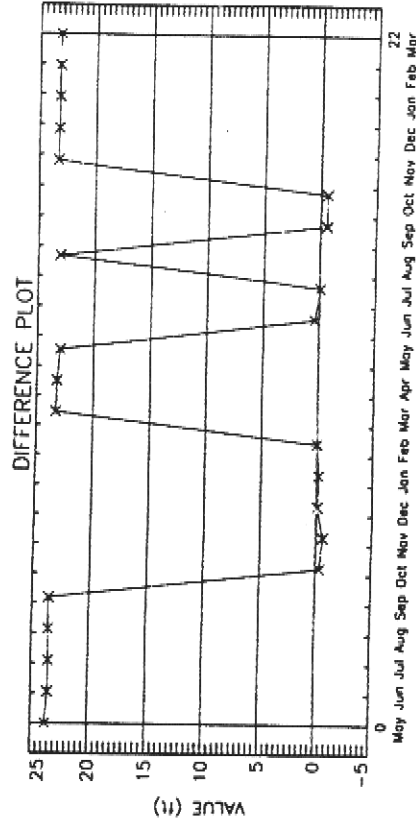
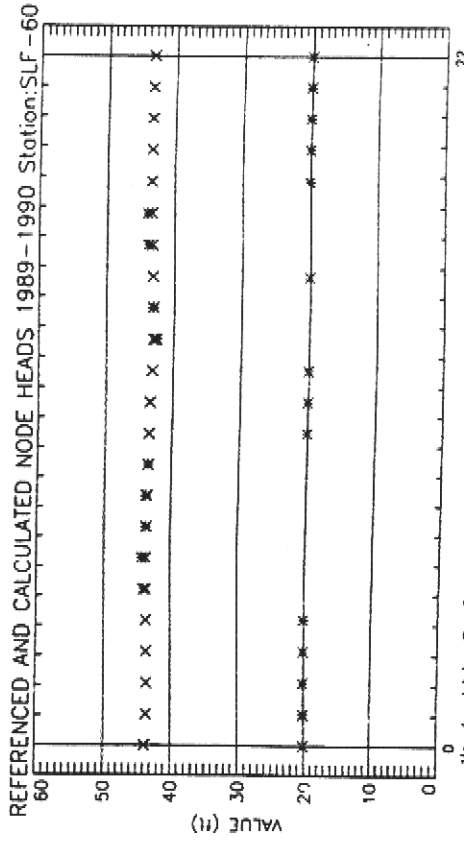
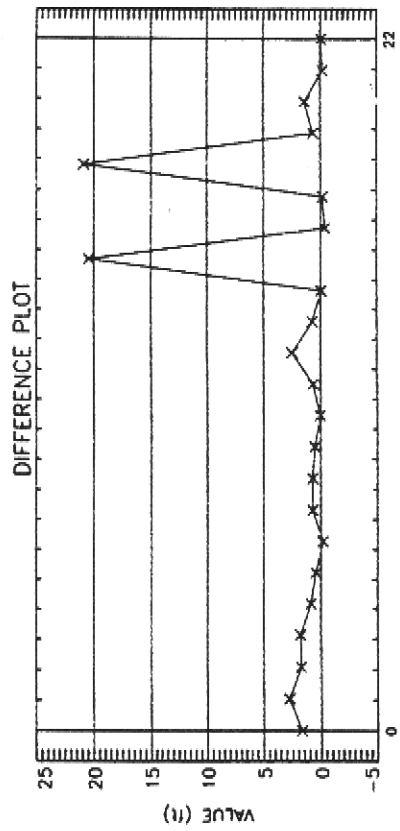
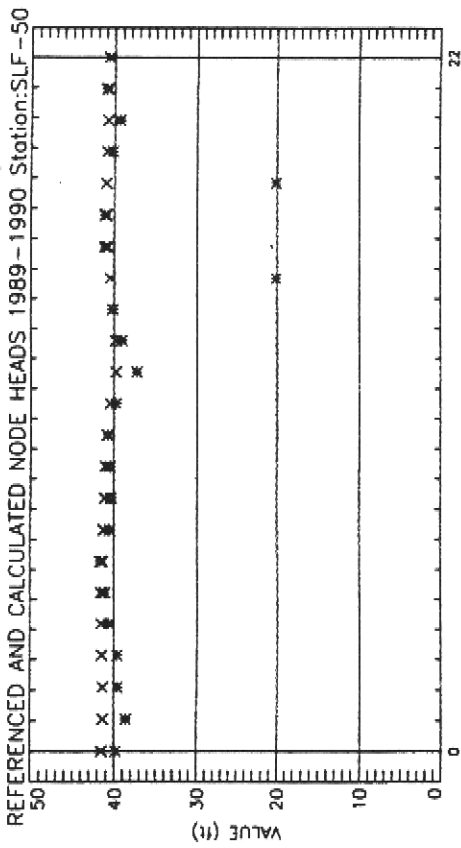
Layer 2 Row 18 Column 22 NOTE: Observed • Calculated x

DIFFERENCE PLOT

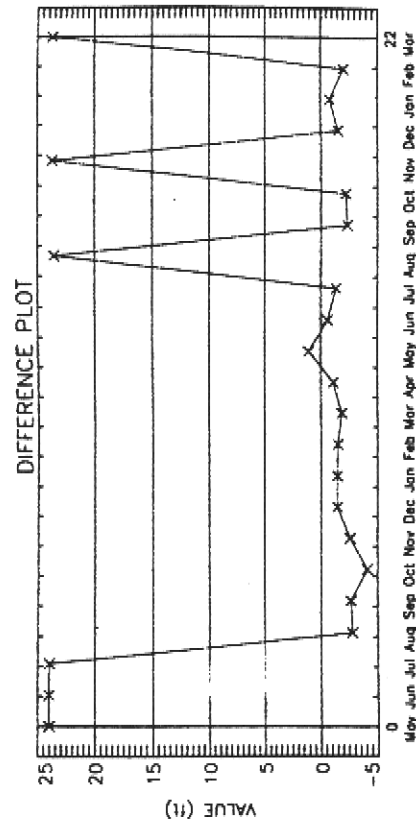
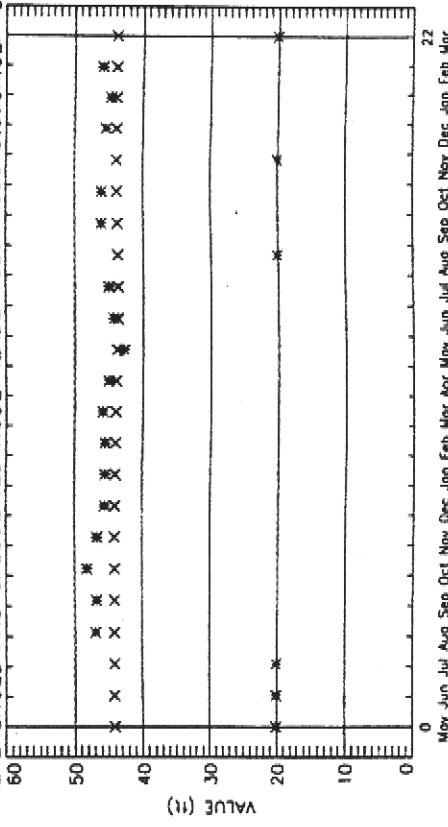


Layer 2 Row 18 Column 22 NOTE: Observed • Calculated x

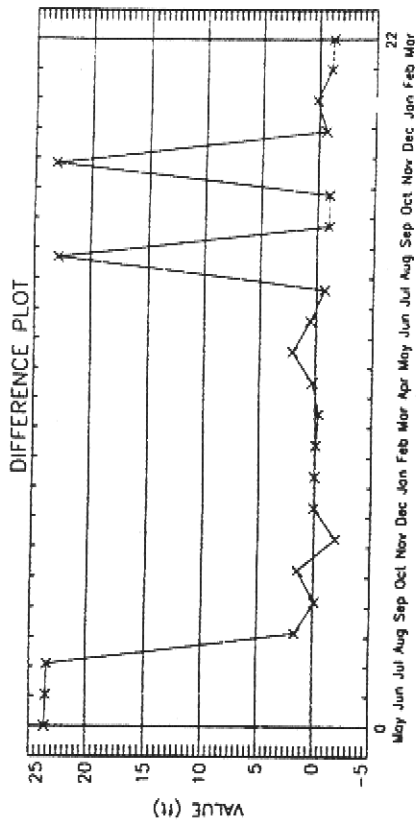
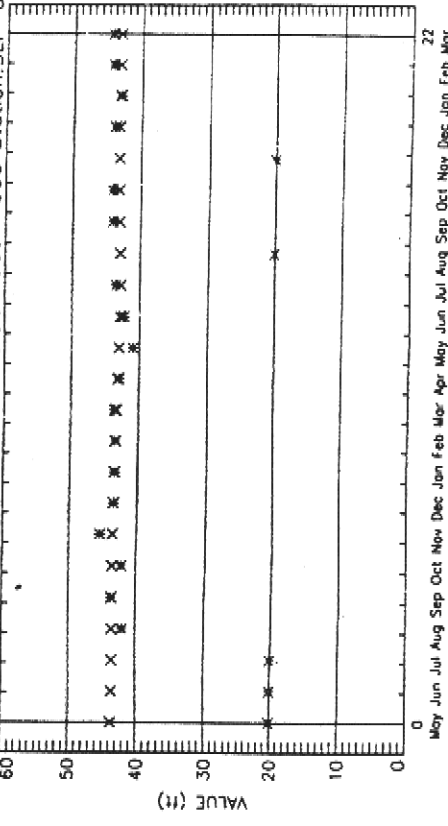




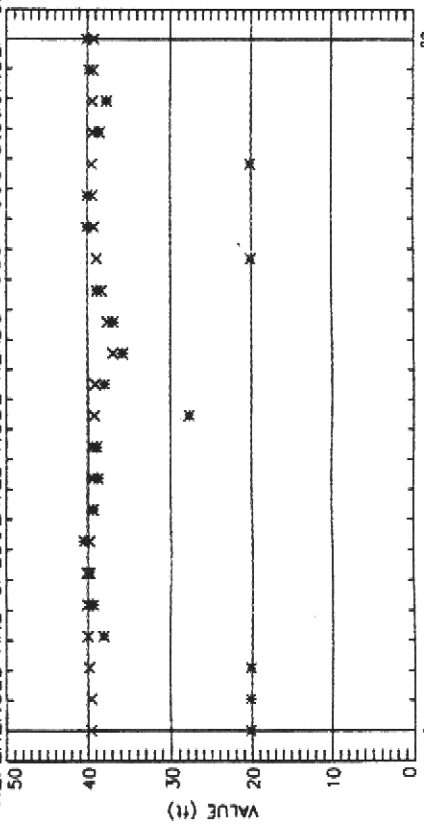
REFERENCED AND CALCULATED NODE HEADS 1989-1990 Station: SLF-61



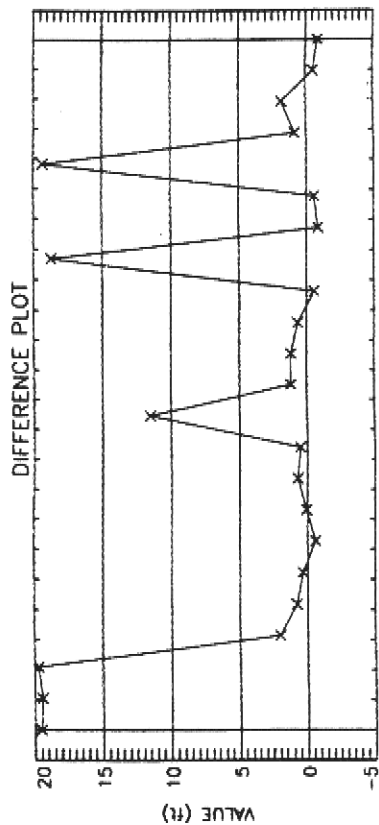
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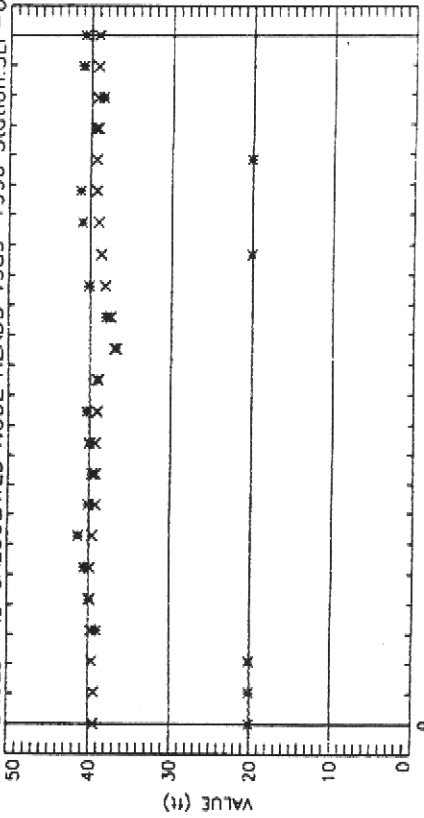
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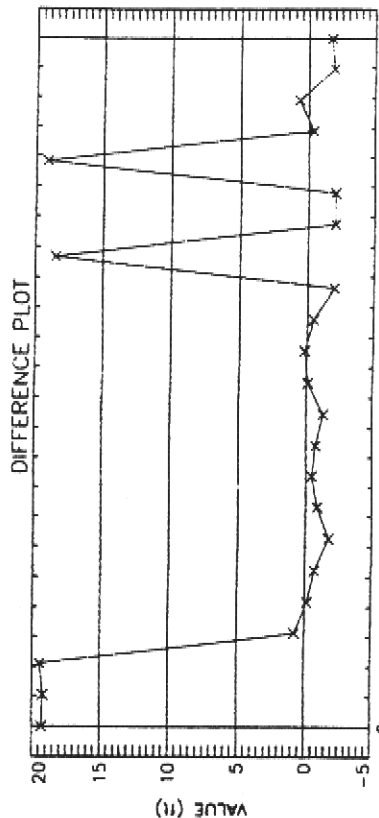
Layer 2 Row 14 Column 16 NOTE: Observed * Calculated x



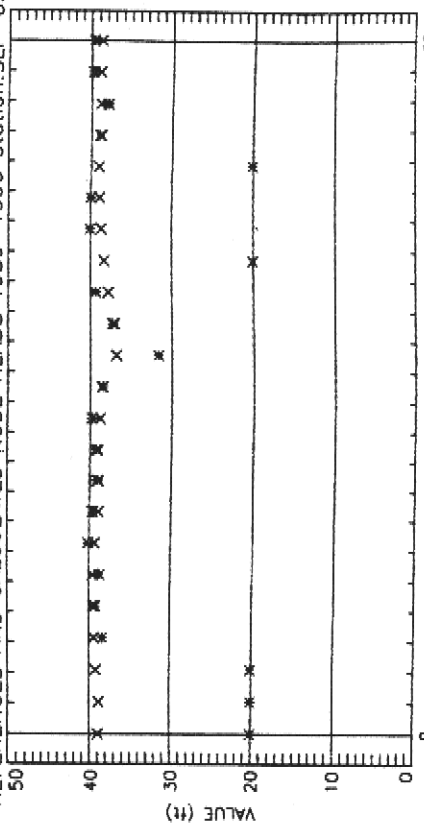
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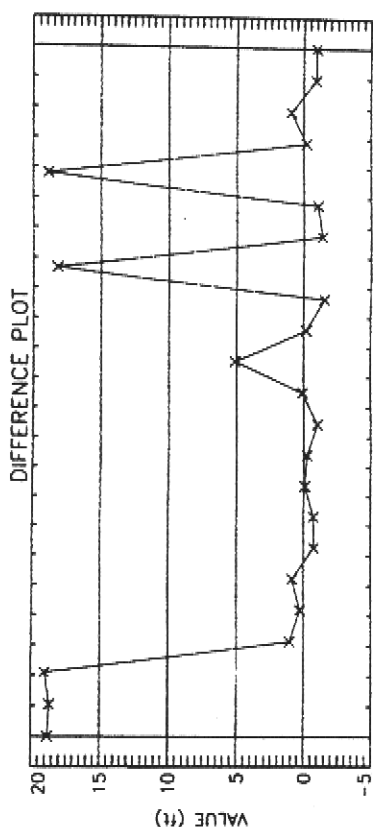
Layer 2 Row 12 Column 15 NOTE: Observed * Calculated x



REFERENCED AND CALCULATED NODE HEADS 1989-1990 Station: SLF-65

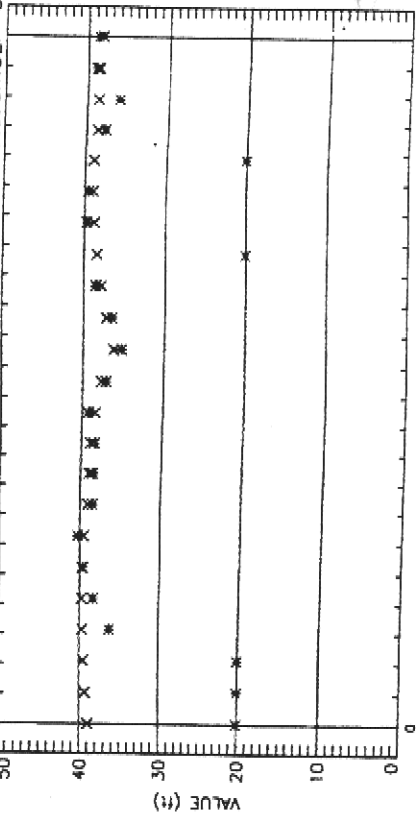


Layer 2 Row 10 Column 14 NOTE: Observed • Calculated x

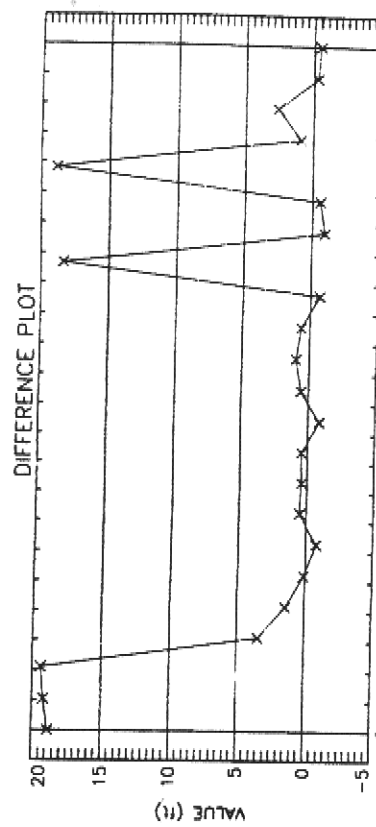


DIFFERENCE PLOT

REFERENCED AND CALCULATED NODE HEADS 1989-1990 Station: SLF-66

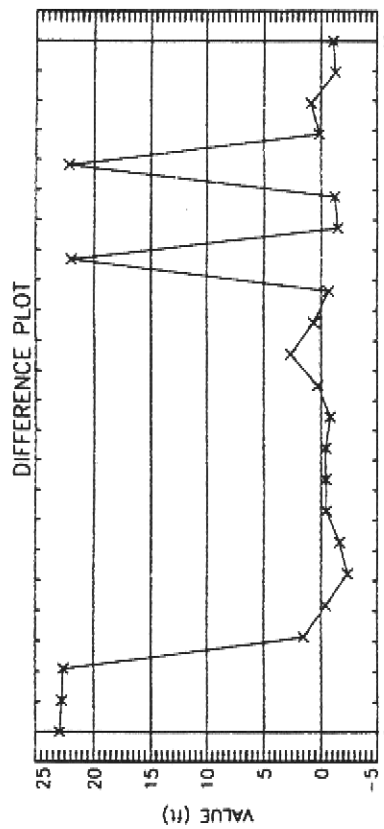
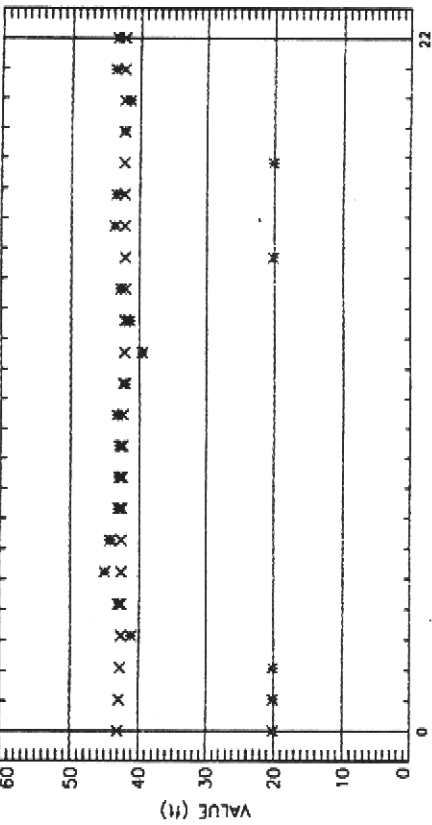


Layer 2 Row 17 Column 19 NOTE: Observed • Calculated x

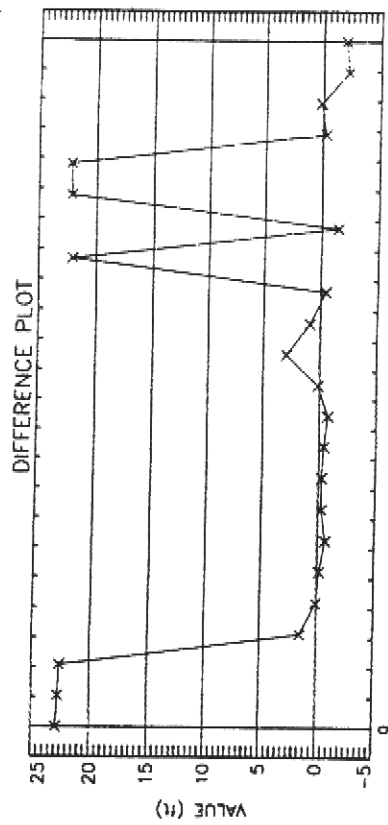
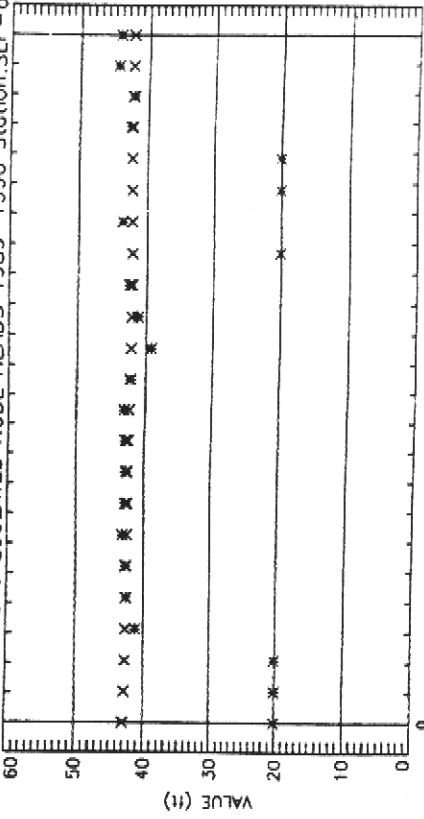


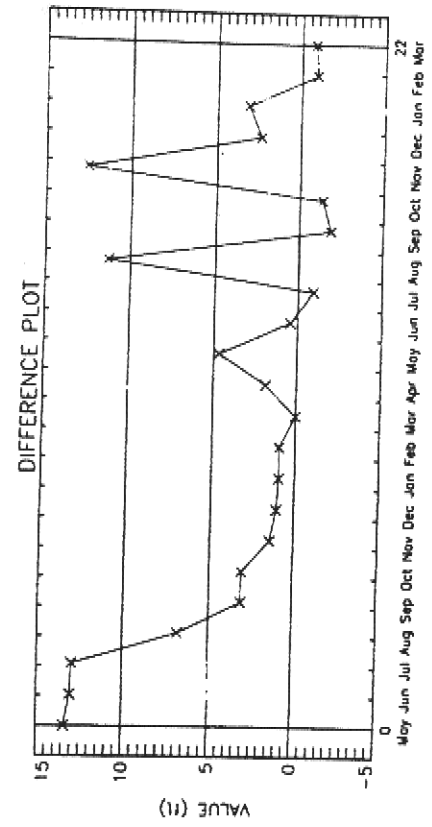
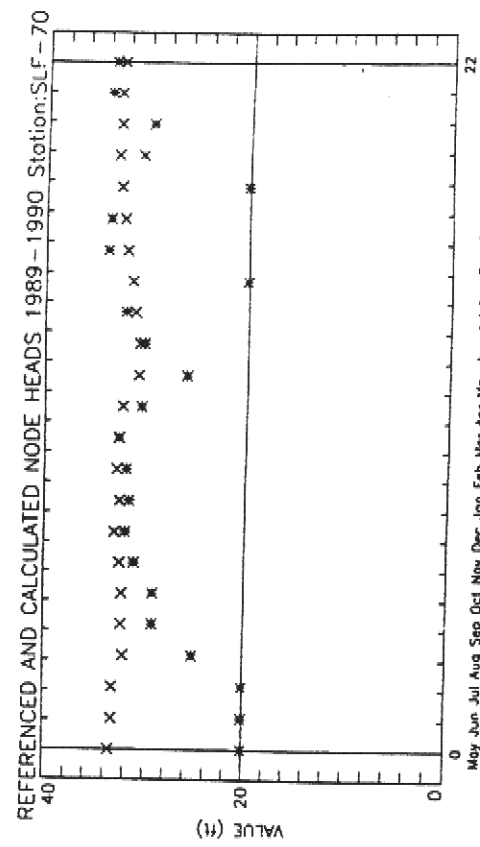
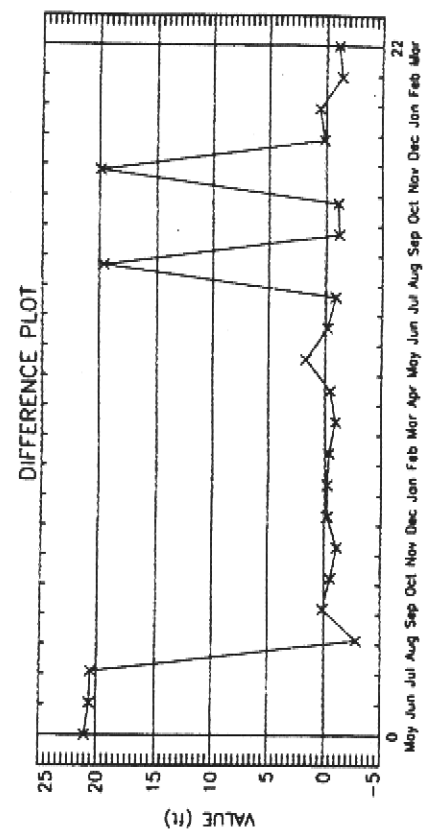
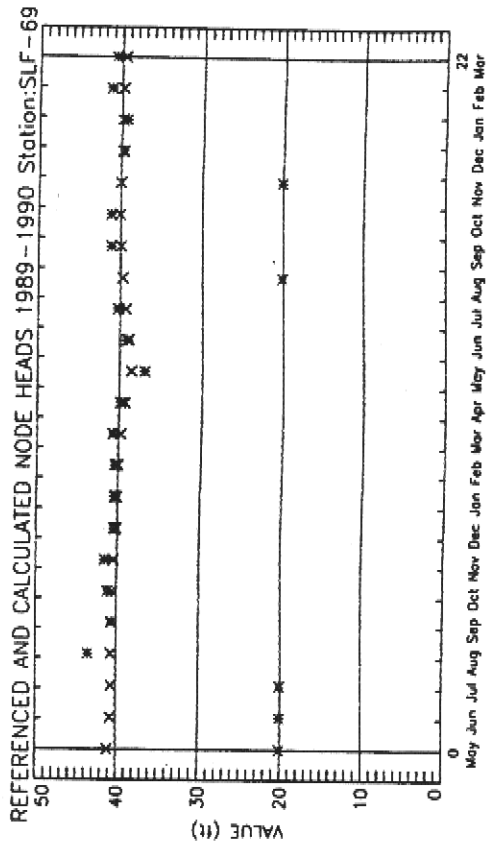
DIFFERENCE PLOT

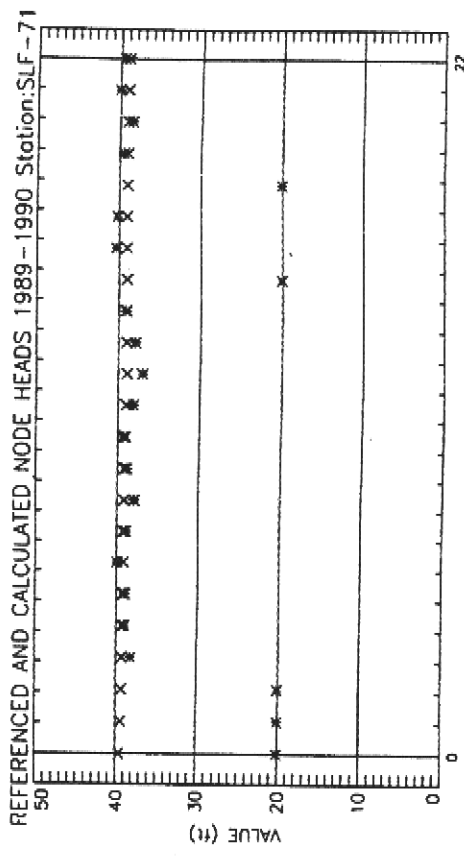
REFERENCED AND CALCULATED NODE HEADS 1989-1990 Station:SLF-67



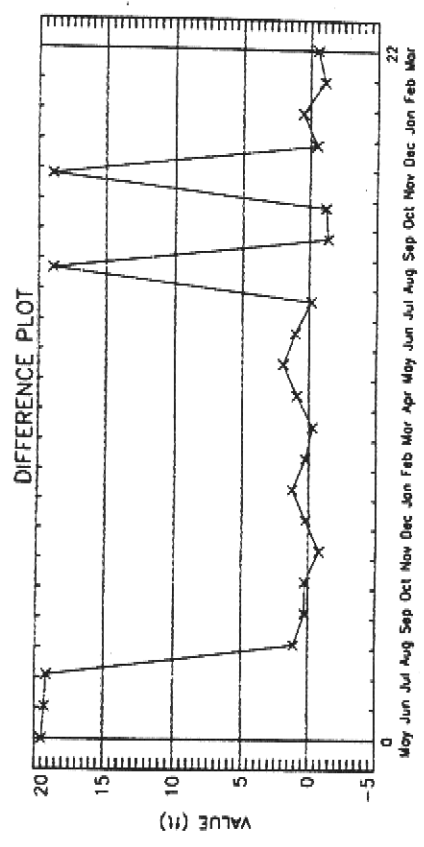
REFERENCED AND CALCULATED NODE HEADS 1989-1990 Station:SLF-68

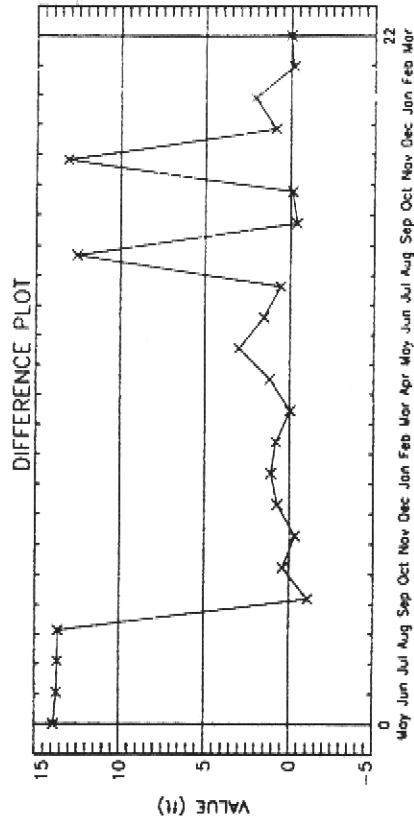
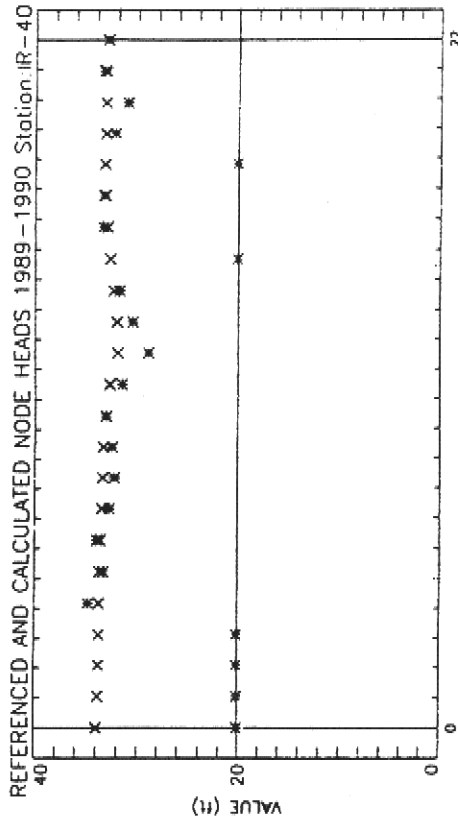
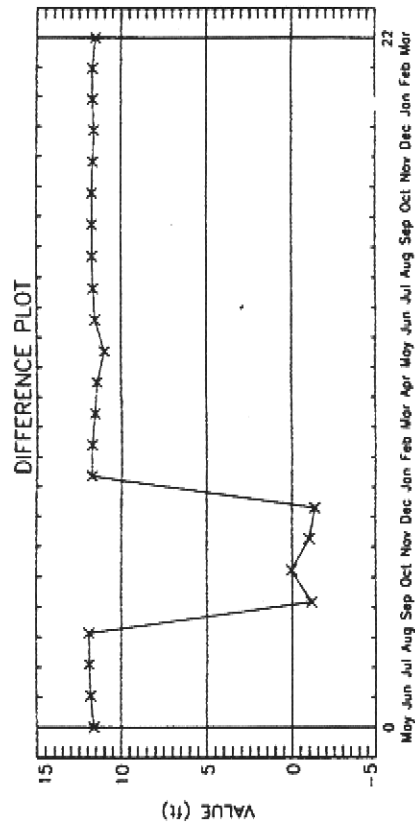
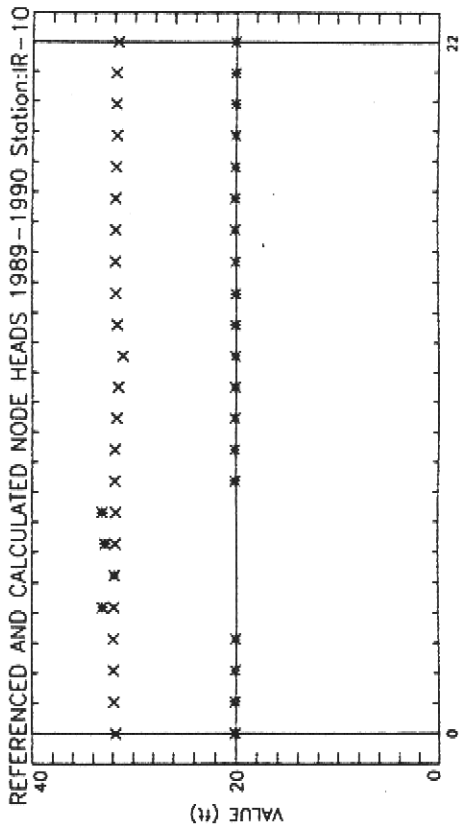




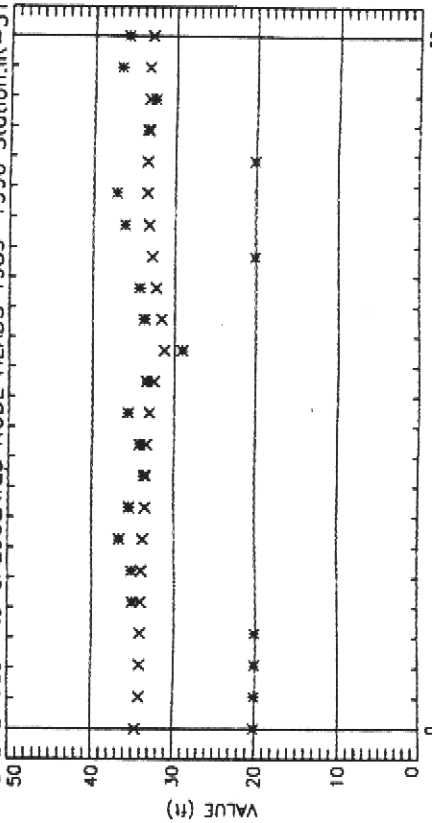


Layer 2 Row 23 Column 33 NOTE: Observed • Calculated x



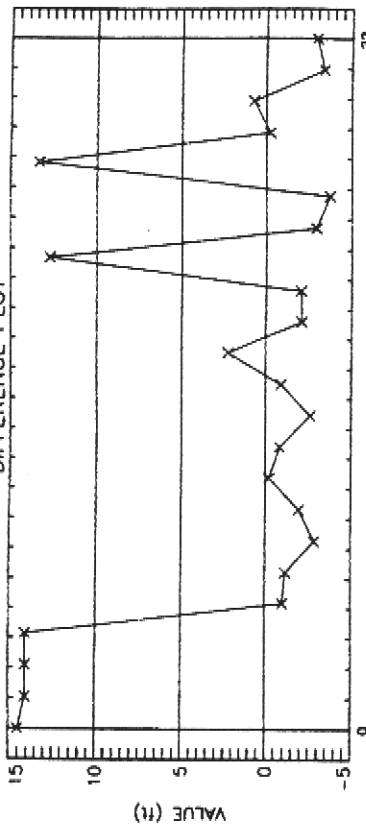


REFERENCED AND CALCULATED NODE HEADS 1989-1990 Station:IR-312



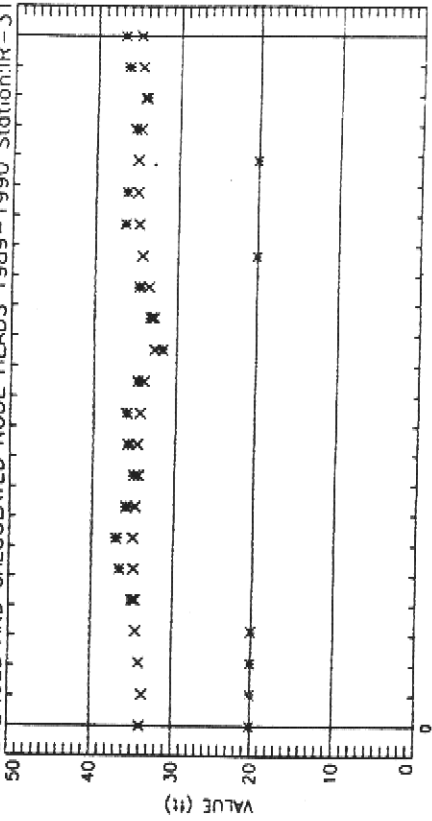
Layer 2 Row 7 Column 27 NOTE: Observed * Calculated x

DIFFERENCE PLOT



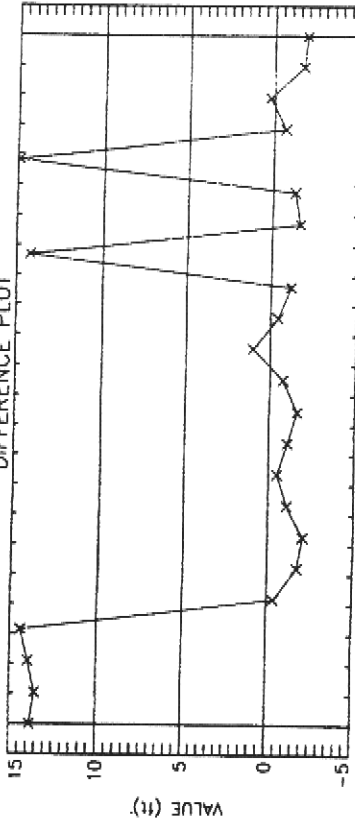
Layer 2 Row 7 Column 27 NOTE: Observed * Calculated x

REFERENCED AND CALCULATED NODE HEADS 1989-1990 Station:IR-313



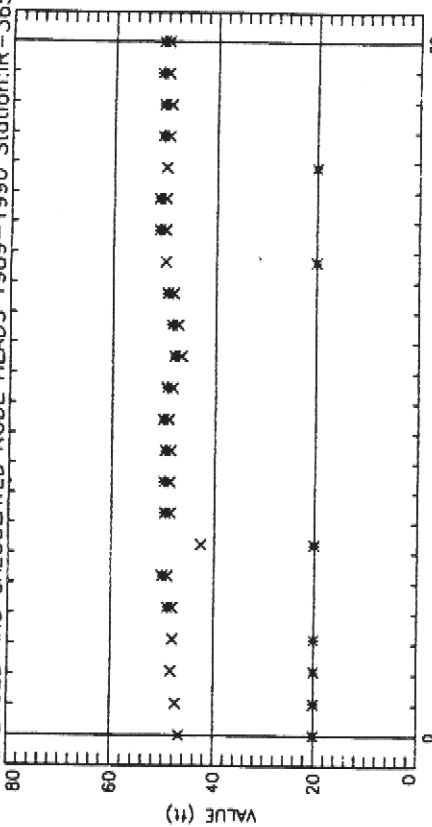
Layer 2 Row 2 Column 27 NOTE: Observed * Calculated x

DIFFERENCE PLOT

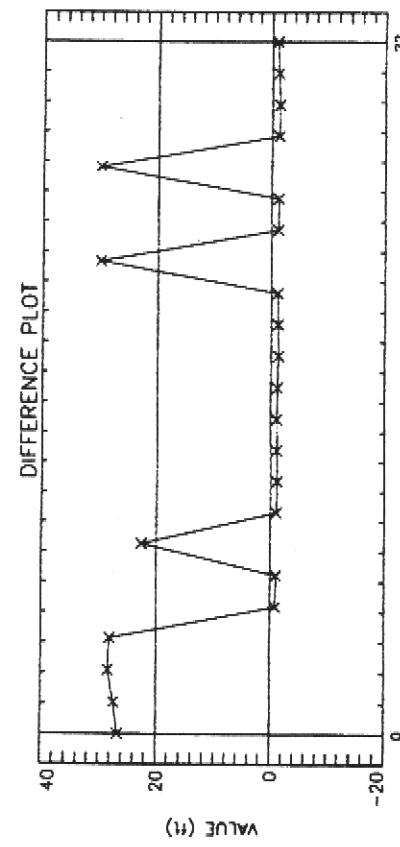


Layer 2 Row 2 Column 27 NOTE: Observed * Calculated x

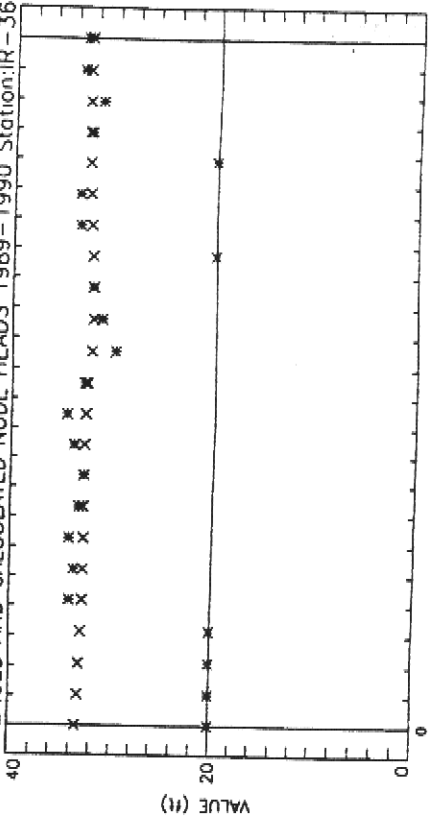
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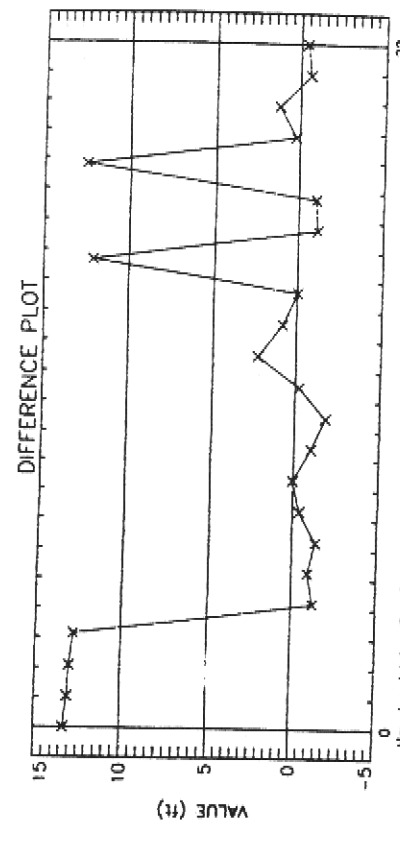
DIFFERENCE PLOT



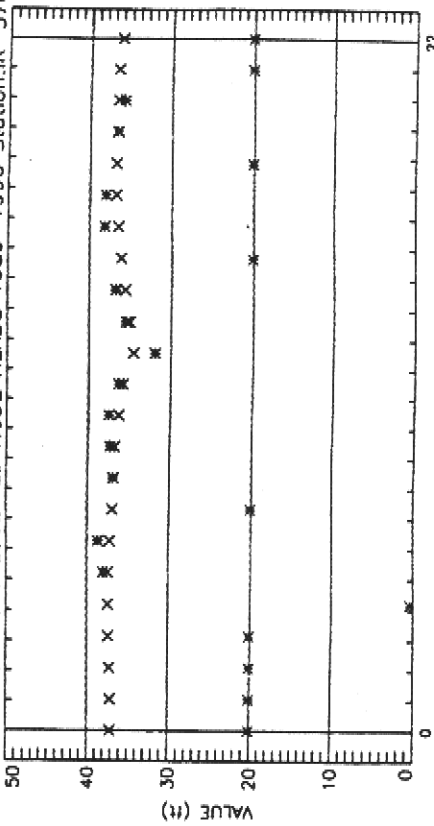
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DIFFERENCE PLOT

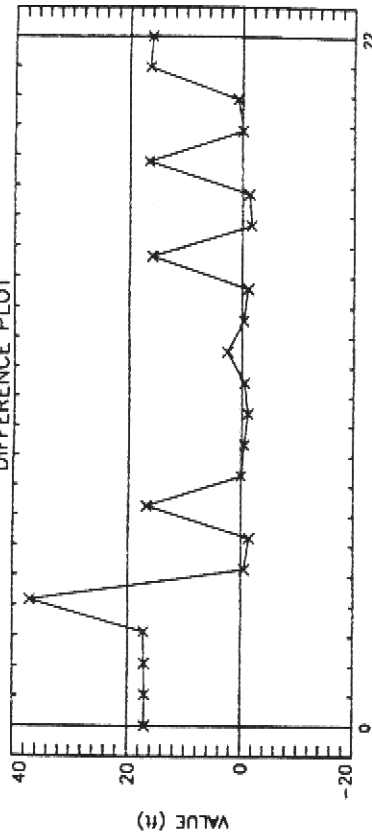


REFERENCED AND CALCULATED NODE HEADS 1989-1990 Station:IR-370



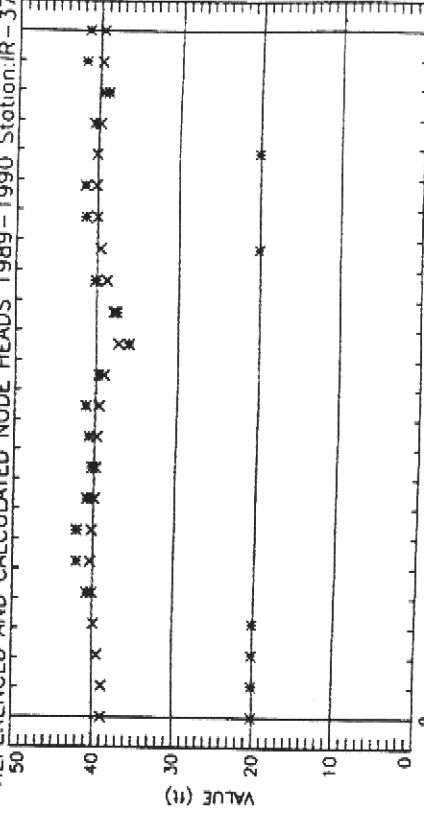
Layer 2 Row 7 Column 19 NOTE: Observed * Calculated x

DIFFERENCE PLOT



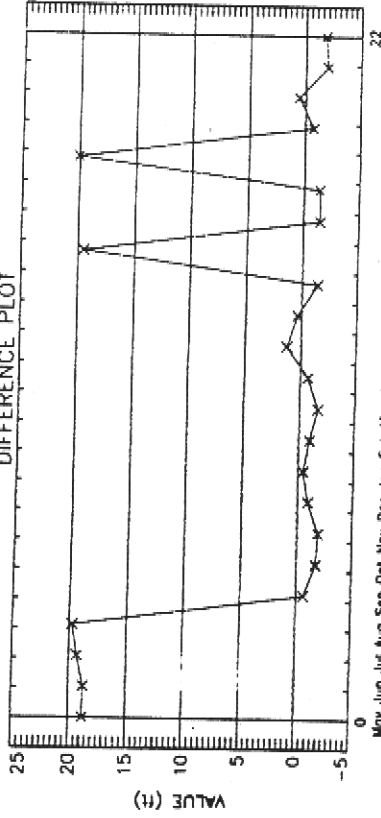
Layer 2 Row 7 Column 19 NOTE: Observed * Calculated x

REFERENCED AND CALCULATED NODE HEADS 1989-1990 Station:IR-373



Layer 2 Row 3 Column 14 NOTE: Observed * Calculated x

DIFFERENCE PLOT



Layer 2 Row 3 Column 14 NOTE: Observed * Calculated x

APPENDIX F
QUESTIONNAIRE RESULTS

APPENDIX F

INTRODUCTION

The following questionnaire was mailed in May 1990 to 360 FAS permittees in the UECPA. The amount returned was 130, a 36 percent return rate. The answers to each question were entered into a software database program named DBASE and the percentage of each type answer was calculated. Answers to Section 2 were used to compute an average number of hours wells were allowed to flow freely for each month in 1989 and 1990. The results are listed in Table 4 of the main report.

QUESTIONNAIRE

SECTION 2 WATER USE HABITS

1) Check each water source used routinely for irrigation.

19% : Surface
31% : Flowing wells
02% : Water Table wells
50% : Combination of Surface and Flowing wells
00% : Other. Please explain below.

2) Check the water source used for frost protection.

14% : Surface
24% : Flowing wells
02% : Water Table wells
60% : Combination of Surface and Flowing wells
00% : Other. Please explain below.

3) Indicate your PRESENT reliance on each of the water sources listed below in percentage during normal yearly irrigation practices (eg. 70% Flowing Wells, 20% Surface Water, 10% Water Table from pumps).

PERCENT	Water Source
<u>44%</u>	FLOWING WELLS (FLORIDAN AQUIFER SYSTEM)
<u>54%</u>	SURFACE WATER BODIES (EG. CANALS, RESERVOIR, ETC.)
<u>02%</u>	WATER TABLE AQUIFER (SHALLOW WELLS LESS THAN 200', PUMPED NOT FLOWING NATURALLY)
<u>00%</u>	OTHER. PLEASE EXPLAIN OTHER WATER SOURCE BELOW.

4) Would you say the purpose of the Floridan wells on your property can be summed up as simply insurance water supply in the event of a drought or a freeze ?

55% Yes 45% No

The following Section 2 was used to estimate the average hours a Floridan Aquifer System well was allowed to flow freely in each month of the calibration period.

SECTION 2 (continued)

3) During an average, typical year for your Flowing wells ONLY (Floridan Aquifer Wells), please check the months they are used. Indicate number of days used in each month, number of hours in each day and the volume of water per month. We are looking for approximate use and seasonal patterns, not exact figures.

<u>CHECK MONTH</u>	<u># DAYS/ MONTH</u>	<u>Average # HOURS each DAY</u>	<u>VOLUME (Gallons) Applied for MONTH</u>
_____ January	_____ Days	_____ Hrs.	Jan. _____
_____ February	_____	_____	Feb. _____
_____ March	_____	_____	March _____
_____ April	_____	_____	April _____
_____ May	_____	_____	May _____
_____ June	_____	_____	June _____
_____ July	_____	_____	July _____
_____ August	_____	_____	Aug. _____
_____ September	_____	_____	Sept. _____
_____ October	_____	_____	Oct. _____
_____ November	_____	_____	Nov. _____
_____ December	_____	_____	Dec. _____

4) During the course of 1989-90, for your Flowing wells only Please check the months they were used. Fill in Days and Hours as above. Here we are asking for 1989 water use, conversely in #2 above we are asking for an average, typical year. The purpose of this question is to compare our water levels from our monitor wells this year with exact water use patterns for the year 1989.

<u>CHECK MONTH</u>	<u># DAYS/ MONTH</u>	<u>Average # HOURS each DAY</u>	<u>VOLUME (Gallons) Applied for MONTH</u>
1989			
_____ January	_____ Days	_____ Hrs.	Jan. _____
_____ February	_____	_____	Feb. _____
_____ March	_____	_____	March _____
_____ April	_____	_____	April _____
_____ May	_____	_____	May _____
_____ June	_____	_____	June _____
_____ July	_____	_____	July _____
_____ August	_____	_____	Aug. _____
_____ September	_____	_____	Sept. _____
_____ October	_____	_____	Oct. _____
_____ November	_____	_____	Nov. _____
_____ December	_____	_____	Dec. _____

1990

_____	January	_____	Days	_____	Hrs.	Jan.	_____
_____	February	_____		_____		Feb.	_____
_____	March	_____		_____		March	_____

Briefly describe how the flowing wells are used for freeze protection. Are the wells opened continuously and for how long before and after a frost warning?

Typical year: _____

The average response was:

57 Hours before a freeze

10 Hours after a freeze

1989: December 24, 1989 and Feb 2, 1990.

**SECTION 3
WATER QUALITY AND QUANTITY**

1) Over the course of time has the quality (saltiness) of water from your flowing wells :

- 02% IMPROVED
- 13% DETERIORATED
- 85% REMAINED THE SAME

How many years have the wells been in use ?

25.5 years

2) Since you have been using the FLOWING WELLS, what have you observed about the flow pressure (water quantity) ?

24% The amount of water naturally flowing now is less than the flow I used to get.

0% I now get more flow than before.

76% I have not observed any change in the amount of flow.

If you checked the first choice above, in your opinion is the decrease of flow attributed to the aging well condition OR is it due to less water pressure currently available in the aquifer.

54% : less pressure in the aquifer system.

46% : Aging, corroded pipe and possible cavings downhole.

3) Over the course of the last few years has your reliance on flowing wells :

- 12% Increased
- 43% Decreased
- 45% Remained the same