Technical Publication
WRE # 371

January, 1999

Frequency and Spatial Analyses for Monthly Rainfall in Central and South Florida

By

Alaa Ali, Wossenu Abtew,
Stuart Van Horn & Nagendra Khanal

Hydrologic Reporting Unit
Resource Assessment Division
Water Resources Evaluation Department
South Florida Water Management District
3301 Gun Club Road
West Palm Beach, FL 33406

ACKNOWLEDGEMENTS

The authors wish to thank Daniel Downey, Hosung Ahn, Hedy Marshall, Linda Lindstrom, Ashie Akpoji, and Geoff Shaughnessy for reviewing this publication and making valuable comments. The authors extend their thanks to Diane Smith for preparing the Thiessen polygon figures.

EXECUTIVE SUMMMARY

Rainfall represents the most important component of the water budget in Central and South Florida. Maps of rainfall volume for several durations and return periods are needed to aid in the design and operation of water management structures, flood control, consumptive use estimation, water supply planning, and total water resources management. Consequently, it is of the interest of South Florida Water Management District to maintain up-to date and most accurate rainfall frequency data and spatial maps in Central and South Florida. The objective of this study was to update and extend existing rainfall frequency analyses using the most recent data and to generate isopluvial maps applying rigorous geostatistical analysis.

Comprehensive frequency analysis and spatial characterization for rainfall in Central and South Florida have been presented. In this study, average monthly rainfall and monthly rainfall with different frequencies for dry and wet conditions were estimated at gaged and ungaged locations. The frequencies of interest were 5, 10, 20, 50, and 100 years. A prescribed procedure for selecting the "best" representative data, temporally and spatially, was adopted. Continuous uninterrupted time series of monthly rainfall were selected at 145 sites with records of 25 years or more. Frequency analysis was performed at 10 representative sites to identify the best-fit model for rainfall frequency over Central and South Florida. The model's parameters were then estimated at the 145 sites over the study area and, subsequently, rainfall estimates for various return periods were computed. These estimates were used for subsequent geostatistical analysis. In this analysis, experimental variograms (a measure of data pair spatial similarity) were constructed and exponential variogram models were fitted for each month and each return period. Using the variogram models and estimated rainfall data, maps were constructed using Ordinary Kriging (a basic geostatistical tool) for monthly rainfall averages, January rainfall estimates for various return periods, and July estimates for various return periods. Maps for the estimation error variance for average rainfall were also generated.

Estimated Thiessen weighted average annual rainfall over Central and South Florida was about 52.0 inches. May is the dry-to-wet transition month with about 4.5 inches of monthly average rainfall, while October is the wet-to-dry transition month with almost the same amount of monthly average rainfall. Monthly average rainfall during June through September is above 7.0 inches with the highest rainfall in June above 8.0 inches. The dry season months are November through April with average monthly rainfall below 3.0 inches. December is the driest month in the year with monthly average rainfall below 2.0 inches. Nearly two thirds of the annual rainfall is accumulated in the wet season. Annual average rainfall is maximum, above 60.0 inches, in many areas along the east coast and is minimum, below 45.0 inches, in many areas over Lake Okeechobee and Central Florida.

The point frequency analysis conducted at 10 representative stations has shown that the 2 parameter Gamma probability density function is the best model for monthly rainfall frequency over Central and South Florida. Experimental and theoretical variograms computed for the rainfall estimates show that the existing rain gage network is less capable of resolving rainfall variation in the wet season than the dry season. Rainfall maps show a changing pattern between the wet and the dry seasons. Average rainfall is higher along the east coast area in the dry

season, and it is higher along the west coast area in the wet season. This reflects the changing nature of the rainfall storm type between seasons. May exhibits a significant increase of rainfall throughout the entire area compared to the preceding four months indicating the transition from dry to wet conditions. October rainfall exhibits a significant drop in the western area and a unique pattern throughout the entire area reflecting the transition from the wet season to the dry season. Spatial maps for various return periods at a given month have similar patterns with some offsets. The appendices included in this report contain more results pertaining to rainfall frequency and spatial distribution in Central and South Florida.

TABLE OF CONTENTS

ACKNOWLEDGEMENTS i

EXECUTIVE SUMMMARY ii

TABLE OF CONTENTS iv

LIST OF TABLES vi

LIST OF FIGURES vii

INTRODUCTION 1

BACKGROUND 2

RAINFALL DATA SELECTION 5

Gage Network 5

Gage Selection 6

Data Extraction 6

Thiessen Polygons 8

Data Statistics 8

FREQUENCY ANALYSIS OF MONTHLY RAINFALL 14

Distribution Selection 14

Frequency Analysis Application 18

Results 18

RAINFALL SPATIAL CHARACTERIZATION 19

Variogram Analysis 19

Experimental Variogram 19

Variogram Fitting 22

Discussion 23

Kriging Estimator 23

Spatial Mapping 24

Results 24

CONCLUSIONS 27

REFERENCES 29

APPENDIX A: Selected Rainfall Stations for the Study 76

APPENDIX B: Thiessen Polygon Representation of Monthly Average Rainfall Over 145 Stations 83

APPENDIX C: Cumulative Monthly Rainfall. 96

APPENDIX D: Frequency Tables 107

APPENDIX E: Monthly Variograms for Various Return Periods 168

APPENDIX F: Model Parameters of Variogram Presented in Appendix E 181

LIST OF TABLES

Table 1. Lumped statistics for raw monthly rainfall data at all sites 10

Table 2. Cumulative average monthly rainfall and associated percentages at ten selected stations 12

Table 3. Shape (α), scale (β) and parameters for each month for the ten sample stations 15

Table 4. Monthly rainfall statistics, χ^2 test of fitness and α and β (parameters for Belle Glade station) 15

Table 5. Exponential variogram parameters for 12 months 23

LIST OF FIGURES

Figure 1. General layout for the study area within Central and South Florida and rainfall gage locations 7

Figure 2. Number of stations versus number of years of rainfall records. 8

Figure 3. Thiessen polygons for rainfall gages within Central and South Florida area including the Florida keys 9

Figure 4. Histogram plots for raw monthly rainfall data used in this study 11

Figure 5. Thiessen weighted average of monthly rainfall within Central and South Florida 12

Figure 6. Thiessen polygon representation for annual average rainfall over 145 stations 13

Figure 7a. Gamma distribution fittings for January through June at one sample station (Belle Glade) 16

Figure 7b. Gamma distribution fittings for July through December at one sample station (Belle Glade) 17

Figure 8. Number of station pairs with separation distance (lag). 20

Figure 9. Semi-variograms for monthly average rainfall data in Central and South Florida 21

Figure 10. Schematic plot for the exponential variogram model 22

Figure 11a. January average rainfall (inches) within Central and South Florida 32

Figure 11b. February average rainfall (inches) within Central and South Florida 33

Figure 11c. March average rainfall (inches) within Central and South Florida 34

Figure 11d. April average rainfall (inches) within Central and South Florida. 35

Figure 11e. May average rainfall (inches) within Central and South Florida 36

Figure 11f. June average rainfall (inches) within Central and South Florida 37

Figure 11g. July average rainfall (inches) within Central and South Florida. 38

Figure 11h. August average rainfall (inches) within Central and South Florida 39

Figure 11i. September average rainfall (inches) within Central and South Florida 40

Figure 11j. October average rainfall (inches) within Central and South Florida 41

Figure 11k. November average rainfall (inches) within Central and South Florida 42

Figure 11l. December average rainfall (inches) within Central and South Florida 43

Figure 12a. Estimation variance (inch^2) for January average rainfall within Central and South Florida 44

Figure 12b. Estimation variance (inch^2) for February average rainfall within Central and South Florida 45

Figure 12c. Estimation variance (inch^2) for March average rainfall within Central and South Florida 46

Figure 12d. Estimation variance (inch^2) for April average rainfall within Central and South Florida 47

Figure 12e. Estimation variance (inch^2) for May average rainfall within Central and South Florida 48

Figure 12f. Estimation variance (inch^2) for June average rainfall within Central and South Florida 49

Figure 12g. Estimation variance (inch^2) for July average rainfall within Central and South Florida 50

Figure 12h. Estimation variance (inch^2) for August average rainfall within Central and South Florida 51

Figure 12i. Estimation variance (inch^2) for September average rainfall within Central and South Florida 52

Figure 12j. Estimation variance (inch^2) for October average rainfall within Central and South Florida 53

Figure 12k. Estimation variance (inch^2) for November average rainfall within Central and South Florida 54

Figure 12l. Estimation variance (inch^2) for December average rainfall within Central and South Florida 55

Figure 13a. January rainfall (inches) for 100 year dry return period within Central and South Florida 56

Figure 13b. January rainfall (inches) for 50 year dry return period within Central and South Florida 57

Figure 13c. January rainfall (inches) for 20 year dry return period within Central and South Florida 58

Figure 13d. January rainfall (inches) for 10 year dry return period within Central and South Florida 59

Figure 13e. January rainfall (inches) for 5 year dry return period within Central and South Florida 60

Figure 13f. January rainfall (inches) for 5 year wet return period within Central and South Florida 61

Figure 13g. January rainfall (inches) for 10 year wet return period within Central and South Florida 62

Figure 13h. January rainfall (inches) for 20 year wet return period within Central and South Florida 63

Figure 13i. January rainfall (inches) for 50 year wet return period within Central and South Florida 64

Figure 13j. January rainfall (inches) for 100 year wet return period within Central and South Florida 65

Figure 14a. July rainfall (inches) for 100 year dry return period within Central and South Florida 66

Figure 14b. July rainfall (inches) for 50 year dry return period within Central and South Florida 67

Figure 14c. July rainfall (inches) for 20 year dry return period within Central and South Florida 68

Figure 14d. July rainfall (inches) for 10 year dry return period within Central and South Florida 69

Figure 14e. July rainfall (inches) for 5 year dry return period within Central and South Florida 70

Figure 14f. July rainfall (inches) for 5 year wet return period within Central and South Florida 71

Figure 14g. July rainfall (inches) for 10 year wet return period within Central and South Florida 72

Figure 14h. July rainfall (inches) for 20 year wet return period within Central and South Florida 73

Figure 14i. July rainfall (inches) for 50 year wet return period within Central and South Florida 74

Figure 14j. July rainfall (inches) for 100 year wet return period within Central and South Florida 75

INTRODUCTION

The cumulative rainfall depth over a given period of time (e.g., storm event duration) occurring with a given frequency (storm event return period) is an essential variable for water resources planning and management, flood prediction and control, and many other hydrologic applications. This variable is usually evaluated for various durations and various frequencies using point or regional frequency analysis. Point frequency analysis deals with a single time series representing a single location, while regional frequency analysis deals with a combined time series from several locations representing an entire basin. Regional frequency analysis provides better information when a lumped basin-wide representation is desired (e.g., rainfall volume over the entire basin for a given duration and frequency). However, point frequency analysis is needed if spatial mapping of rainfall frequency estimates over the entire basin is of interest. Point frequency analysis is conducted to obtain rainfall frequency estimates at the gaged locations, while spatial mapping is used to infer rainfall frequency estimates at ungaged locations.

Rainfall frequency analysis and rainfall maps pertaining to Central and South Florida have been used as references for many hydrologic applications (e.g., MacVicar, 1981; Sculley, 1986 and Trimble, 1990). Periodic updating of these studies is very important when additional data and/or new technology becomes available. The objective of this study is to update and extend existing rainfall frequency analyses using the most recent data and to generate isopluvial maps applying rigorous geostatistical analysis.

In this study, comprehensive rainfall analyses on the temporal and spatial scales are presented. The characteristics of monthly rainfall frequency are updated using the most recent available data. A temporal frequency distribution model is fitted at each site for every month and is used to estimate monthly rainfall depth for various frequencies (return periods). For each month, and each return period, rainfall estimates are used for a spatial representation of rainfall frequency over Central and South Florida. This representation utilizes variogram analysis to assess the spatial structure of rainfall frequency estimates, and Ordinary Kriging for subsequent mapping. Monthly rainfall estimates at the gaged locations are presented in tabular formats. Monthly variograms and maps of average rainfall and rainfall estimates for several return periods are presented. Maps of average rainfall estimation variance are also provided.

The major sections comprising this report are: 1) Background 2) Data used for this study, 3) Rainfall frequency analysis, and 4) Rainfall spatial characterization, and 5) a discussion of the findings of this study.

BACKGROUND

The South Florida Water Management District, (SFWMD), area covers South Florida and part of Central Florida (henceforth called Central and South Florida). The area, in general, has a low relief topography and semi-tropical climate. It is surrounded by the Gulf of Mexico on the west and by the Atlantic Ocean on the east. It is a high water table area with patches of lakes and extensive wetland systems. The heaviest rains in Central and South Florida are produced by convective systems with cooler (dry) season having an extratropical nature and the warm (wet) season having a tropical origin (Rosenthal, 1994). The region has high rainfall with 52 inches of areal average annual rainfall and relatively low annual variation with a standard deviation of 12 inches.

Rainfall represents the most important component of the water budget in Central and South Florida. Maps of rainfall volume for several durations and return periods are needed to aid in the design and operation of water management structures, flood control, consumptive use estimation, water supply planning, and total water resources management. The construction of these maps requires an understanding of rainfall temporal frequency and spatial distributions. Rainfall frequency studies pertaining to the Central and South Florida area have been reported in the literature. An earlier regional rainfall analysis study has produced isopluvial maps for two to ten-day precipitation for return periods of 2 to 100 years (Miller, 1964). The isopluvial maps for the durations and frequencies presented by that study indicate that the area of Central and South Florida is relatively wetter than the rest of continental United States. A generalized rainfall-frequency study was conducted for Central and South Florida by the U.S. Army Corps of Engineers for the purpose of developing flood-frequency curves. This study presented isopluvial maps for maximum 1-day rainfall for return periods of 2, 5, 10, 20, 50 and 100 years. It also presented isopluvials for maximum 1 month, 2-month, 4-month, 6 month and annual rainfall for return periods of 2, 5, 10, 25, 50 and 100 years (U.S. Army Corps of Engineers, 1953).

In a recent study conducted for the SFWMD, MacVicar (1981) developed isopluvial maps for Central and South Florida area for durations of 1-day, 2-day, 3-day, 5 day for return periods of 2, 5, 10, 25, 50 and 100 years. Also additional isopluvial maps were produced for the dry season (November through April), wet season (May through October) and annual rainfall for the same return periods. In all cases, the Fisher Tippett Type I statistical distribution (is also referred to as Gumbel distribution) was used for frequency analysis. Sculley (1986), using rainfall data available through 1985, produced areal rainfall tabular and graphic representations of rainfall frequencies for twelve water management basins for the dry season (November through May), wet season (June through October) and annual rainfall. Normal and Log-normal distributions were used depending on test of fitness for each duration and each basin. The SFWMD areal annual rainfall frequency was fitted with a Log-normal distribution and magnitudes for dry and wet extremes for 2, 5, 10, 25, 50, 100 and 200 years were presented. Based on 71 years of annual rainfall, the SFWMD wide average areal rainfall was reported as 53 inches with a range of 39 to 77 inches. Trimble (1990), applying the two-parameter Gumbel distribution produced isopluvials for a one-day rainfall for return periods of 3, 5, 10, 25, and 100 years; and for a three-day rainfall for return periods of 10, 25 and 100 years. Although these studies provided isopluvial maps, the main focus was the rainfall frequency analysis with a limited emphasis on the spatial analysis across the study area.

The analysis of rainfall spatial variability is as important as the analysis of the rainfall frequency distribution for mapping storm event rainfall depth. While the latter is essential in estimating the rainfall depth locally, the former is essential for characterizing such an estimation at unsampled locations. In general, spatial rainfall analyses are important for flood forecast, hydrometeorological network design, missing data estimation and many other hydrologic applications. Spatial analyses in hydrology have received extensive research interests since the turn of this century. Thiessen (1911) proposed an areal average estimator commonly used in many hydrologic applications. This scheme provides a discrete, rather than continuous, representation of the hydrologic process. Also, this representation does not reflect the spatial structure of the process since this scheme depends only on the network density and configuration. The first attempt to represent the process on a continuum, and to quantify the spatial structure statistically, was made by Drozdov and Sephelevskii (1946). This attempt was extended and formally defined as "optimal interpolation" by Gandin (1965) and Belousov et. al. (1971). This technique minimizes the estimation variance and uses the covariance function to describe the spatial variation of the process. The use of this function requires that the variance be bounded and the domain over which the process is defined to be significantly greater than the correlation length of the process.

Matheron (1971) developed a new theory for regionalized variables leading to the development of the Kriging method. This method provides some treatment for the shortcoming of the "optimal interpolation" method. Kriging uses variogram, which is another measure of the spatial structure rather than the covariance function. Unlike the covariance function, the use of the variogram is independent of the variance indefiniteness problem. However, Ordinary Kriging suffers some drawbacks related to its basic assumptions such as stationarity, normality, and variogram model identification. Numerous studies have been conducted to address these concerns, and to improve and expand the existing methodologies. Reviews of the strengths and weaknesses of Kriging are offered by Yakowitz and Szidarovsky (1985), Journel (1989), and Isaaks and Sirvastava (1989).

Other spatial interpolation methods for hydrologic data have been reported in the literature. Examples of these techniques are polynomial interpolation (Belousov et. al., 1971), inverse distance interpolation (Delfiner and Delhomme, 1975), multiquadric interpolation (Hardy, 1971), thin plate spline surface fitting (Hutchinson, 1995), empirical orthogonal functions (Holmström, 1963), and adaptive kernel estimation (Ali, 1998). The suitability of an interpolation technique to a given study depends on the area, the hydrologic process, data network, data values, and many other variables. A good performance of a technique in one study does not guarantee the same level of success in a different study. Various comparative analyses of rainfall interpolation techniques have also been reported. Creutin and Obled (1982) provided an excellent objective comparison between interpolation techniques. In their study, they used a generalized cross validation and log transformation of data. The optimal interpolation was found to give the best estimate. Tabios and Salas (1985) compared the performance of Thiessen polygons, polynomial surfaces, optimal interpolation and Kriging at five selected rainfall sites. They found that the optimal interpolation method and Kriging provided the best performance. Kriging was also found by Lebel et. al. (1987) to give the best estimate among other techniques for areal rainfall estimation.

Geostatistical studies using Kriging for spatial characterization of maximum rainfall depth in Central and South Florida have been reported. These studies mostly use Kriging as a tool for spatial characterization. Wanielista et. al. (1996) used Ordinary Kriging to develop storm event maps for 1, 2, 3, 4, 7, and 10 day durations for return periods of 2, 5, 10, 25, 50 and 100 years. Commercial software was used in the analysis and basic steps such as experimental variogram computation and model fitting were not presented. Also, a measure for the adequacy of fit of Kriging (e.g., estimation error variance maps) was not available.

Relevant studies with a stronger geostatistical emphasis were also reported. These studies used one or more statistical techniques to address the stochastic spatial structure of raw rainfall data within Central and South Florida. Abtew et al. (1993) used six spatial models for monthly rainfall data in comparative analysis. They concluded that optimal interpolation and Kriging are the most appropriate methods for monthly rainfall data characterization in this area.

In a recent study, Van Lent and Tracy (1994) conducted a geostatistical analysis for rainfall to investigate the adequacy of the rain gauge network in Central and South Florida. In this study, they conducted spatial characterization for annual, seasonal, monthly, and daily rainfall measurements. They used exponential variogram models for annual and seasonal rainfall. The range parameter of the variogram models was interpreted as the total correlation length, whereas, it is only one-third of that length. This explains why their interpreted correlation length is clearly and significantly lower than that observed in the variogram plots in that study. Also, the computed variograms for monthly and daily records exhibited no spatial coherence indicating some concerns regarding the computation method of such variograms. The monthly variograms exhibited significant nugget effect and the daily variograms are pure nuggets. The nugget effect is due to variability that the network density can not resolve. The estimation error variance (monthly, and daily if estimated) may have been high due to the nugget effect, or may have been due to the way variogram was computed. The authors suggested an increase of one order of magnitude for rainfall gages to reduce monthly estimation variance. In their study, they concluded that the annual and seasonal rainfall is isotropic and stationary. Concerns about this study were provided by Moss (1996). He pointed out that a discrepancy existed between the annual variogram plot and the associated equation. Also, he concluded that the residuals were not stationary and were not normally distributed. This is clearly expected given the monthly variograms computed. Also, Moss (1996) concluded that there was no significant temporal trend of rainfall for the purpose of Kriging analyses.

In a similar study to assess the evaporation and rain gage network, Zhao and Chin (1995) conducted a spatial analysis for monthly rainfall and evaporation. The experimental monthly variograms exhibited strong spatial coherence and the exponential model appeared to be a reasonable fit. An experimental variogram was computed as the average of all historical realizations of variograms. Such a computation requires testing for the assumption of second order stationarity for each realization and may not warrant the ergodicity assumption. Furthermore, their interpretation for the variogram range (correlation scale) was similar to that reported by Van Lent and Tracy (1994). Therefore, any conclusion based on this interpretation should be re-evaluated. For example, they identified 82 circles of radius 30 km (half the minimum range) where additional stations are potentially desired. The number of additional stations should be significantly reduced if the minimum range was interpreted accurately.

Our discussion thus far suggests that a study that combines rainfall frequency analysis with a thorough geostatistical characterization is not available in the area of Central and South Florida. The current investigation is an attempt to provide such a study for a 1-month duration event using the most recent available data. Temporal variation of monthly rainfall at each site was modeled with two-parameter gamma distribution. In addition to its average, monthly rainfall at each site for dry and wet return periods of 5, 10, 20, 50, and 100 years were estimated. Variogram analysis and spatial mapping using Ordinary Kriging for monthly rainfall of each return period were performed. The analyses of different rainfall durations are deferred to another study.

RAINFALL DATA SELECTION

Gage Network

The SFWMD collects precipitation data from a network of recording and non-recording precipitation gages throughout its 16-county water management area, encompassing 18,000 square miles. In addition to the SFWMD precipitation gages, Federal, State, and Local government agencies also maintain gages throughout the SFWMD's region. For instance, the National Oceanic and Atmospheric Administration (NOAA) maintains a network of gages primarily located at airports and cities. The U.S. Geological Survey (USGS) and the U.S. Army Corp of Engineers (COE) collect precipitation data from gages located at remote data collection platforms and water control structures throughout the Central and Southern Florida Flood Control Project. A precipitation gage network is also maintained by the U.S. National Park Service in the Everglades National Park (ENP) located in the southern region of Florida. The Florida Forestry Service (FS) maintains gages at many of the Forest Service tower locations.

The SFWMD acquires precipitation data from these government agencies (Cooperators) through various efforts, including contract and cost-sharing agreements. At the present time, the SFWMD utilizes an ORACLE relational database management system (DBHYDRO) to store hydrologic data, including rainfall.

In order to select the appropriate records for this report, a number of steps were followed. These steps included a comprehensive review of the available precipitation records on DBHYDRO, the identification of duplicate records, and the selection of gage records with an appropriate record length and a minimum amount of missing data. In addition, precipitation records were tested through a correlation analysis to identify if any records were unsuitable based on a poor correlation with other gage records. The selected gages are then assigned weights according to the Thiessen Method for subsequent computations.

A review of the rainfall records retained on DBHYDRO indicates there are over 1,200 precipitation gage records listed. A majority of the gages listed are distinct sites. However, there are a number of gages having a duplicate listing for the same site. Each listing for a precipitation record has a unique alphanumeric number referred to as a dbkey. In order to explain the data assimilation phase, it is necessary to further discuss the duplicate listings encountered on DBHYDRO.

Duplicate listings of gages often exist due to changes in rainfall gage equipment or a change in the agency collecting the precipitation records at a particular site. Therefore, rainfall gage listings on DBHYDRO may reflect separate periods of record associated with a gage location based on these changes.

Gage Selection

The rainfall gage listings retained on DBHYDRO represent records of various frequencies and statistic types. Rainfall records encountered included, daily rainfall sum, monthly rainfall sum, and random interval rainfall. Also, there are over 100 stations associated with the operational gage network utilized by the Operation and Maintenance Department (OMD) for real time operation of the SFWMD's water management and flood control system.

The first pass at choosing gage records involved selecting any gage listing which was a daily sum record and was not associated with the OMD network. This reduced the number of records from over 1,200 to 931. The next step was to identify gage records with missing data. If missing data (daily rainfall amount) accounted for more than five percent (5%) of the days in any year for a particular gage, the rainfall records for that gage and for that year were excluded from the analysis. No attempts were made to estimate missing daily rainfall. This step reduced the number of gages from 931 to 777.

The remaining 777 gages had varying periods of record from 1 to 86 years, with the earliest record starting in 1900. A minimum record length of 25 years was chosen as a cutoff, and if a gage record had at least 25 years of record (after 5% missing test) then it would be retained for analysis (Markovic, 1965). Rainfall sites with multiple gages listed, having varying periods of record, were not combined to extend the record for a particular site. However, if there were two or more gages having at least 25 years record, these were retained independently for further analysis. This screening process reduced the number of gages from 777 to 172. Out of the 172 gages, 18 were duplicate listings.

Data Extraction

The extraction of the precipitation data from DBHYDRO for the 172 gage records and creation of a master data file was accomplished using a SQL query language script. These data were subjected to a correlation analysis. The result of the correlation analysis was used to evaluate data quality. In cases where more than one record exists at a site, correlation analysis was performed between the common periods of record. If the correlation coefficient, ρ, is greater than 0.95, the record with the longest period of record was retained for this study. However, if ρ is less than 0.95, further correlation analysis of each record was performed with the common period of record from the nearest available gage. The record with the highest inter-station correlation was selected for this study. Based on all criteria discussed above, a final set of 145 gage records were selected for this study and are presented in Figure 1 and Appendix A. Figure 2 shows a plot of the number of stations versus the number of years of records.

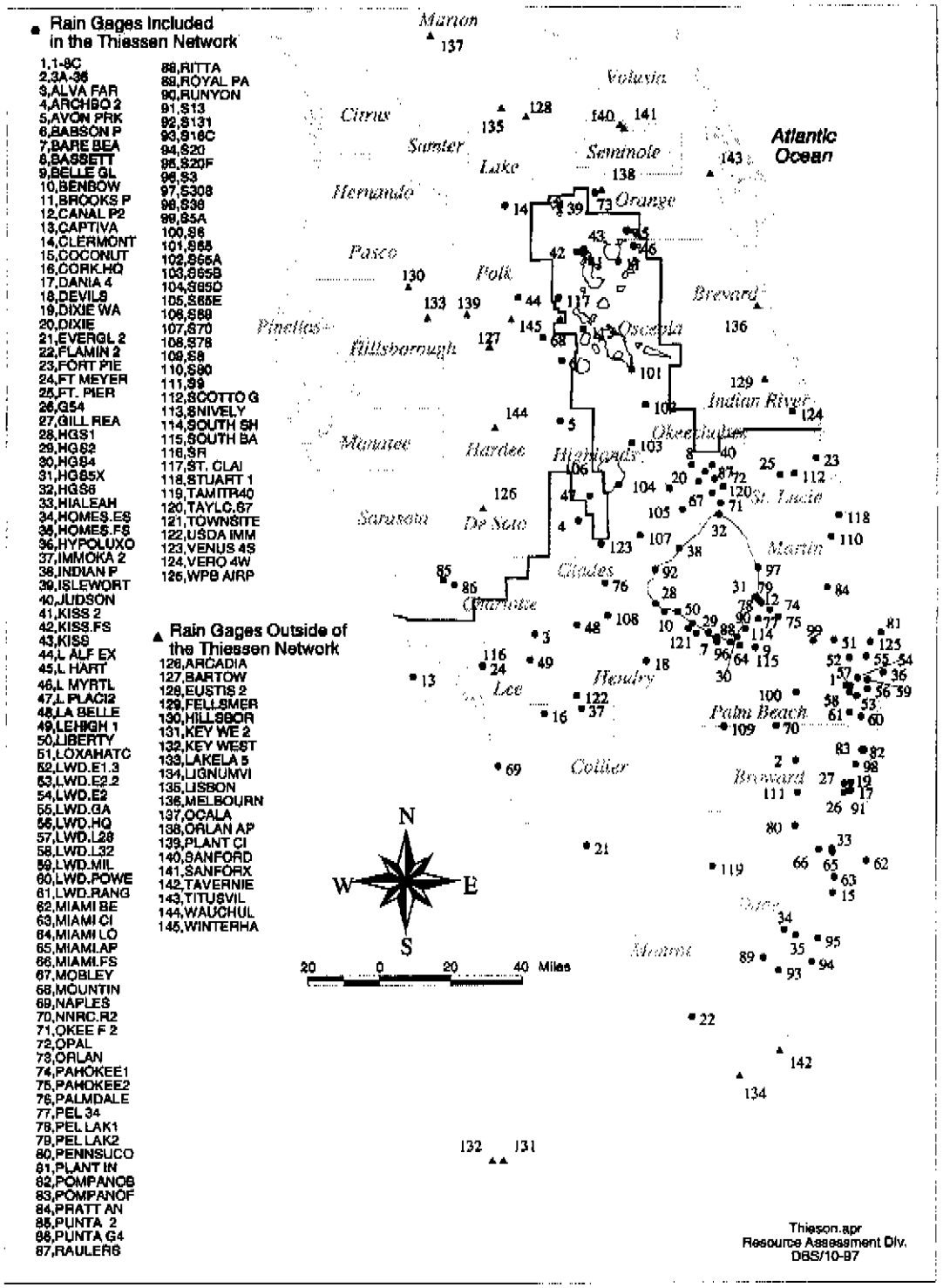

Figure 1. General layout for the study area within Central and South Florida and rainfall gage locations.

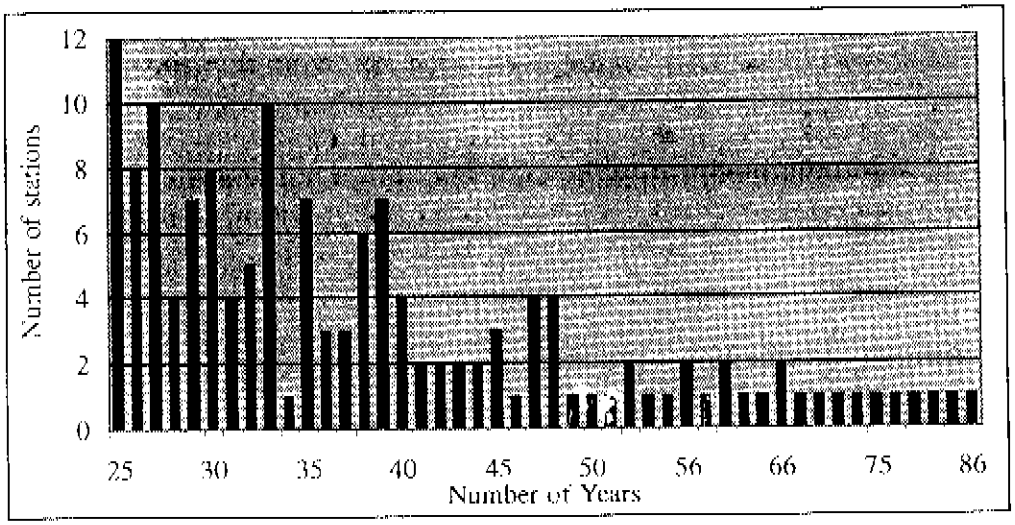

Figure 2. Number of stations versus number of years of rainfall records.

Thiessen Polygons

Computing the Thiessen weights for the 145 gage records listed in Appendix A was performed with a Geographic Information System (GIS) (Arc/Info version 7.0, ESRI, Redlands, CA). A point coverage containing information on state plane x y spatial coordinates and the gage names were created. Then, using the Thiessen command within the GIS, a polygon coverage was created from the point coverage. The Thiessen command created polygons around each gage, which are known as Thiessen polygons. Figure 3 shows the resulting Thiessen polygons for the 145 gage records.

In order to compute the actual Thiessen weights for each gage that contributes to the SFWMD rainfall, the polygon coverage was superimposed on the SFWMD area. The resulting Thiessen network identified 125 gages with non-zero contributions (weights) to the SFWMD rainfall, and 20 gages with no contribution (zero weights). The Thiessen polygons are presented in Figure 3 and the associated weights listed along with the gage record information in Appendix A. The inclusion of the Florida Keys did not cause any significant changes to these weights.

Data Statistics

There are 145 monthly rainfall data sets used in this study. The basic statistics for these data are presented in Table 1, and a histogram presentation for each month and all sites is provided in Figure 4. There is a high dispersion for all monthly data. The standard deviation, σ, is relatively high compared to the arithmetic average, μ. The coefficient of variation, σ/μ, for the dry months is significantly lower than the wet months. The degree of skewness is high in the dry months and relatively low in the wet months. In the dry months, the mode is significantly lower than the average (positive skewness). The Kurtosis values indicate that the dry months are Leptokurtic (Kurtosis > 3) and the wet months are Platykurtic (Kurtosis < 3). Note that these statistics reflect both the spatial and temporal variations.

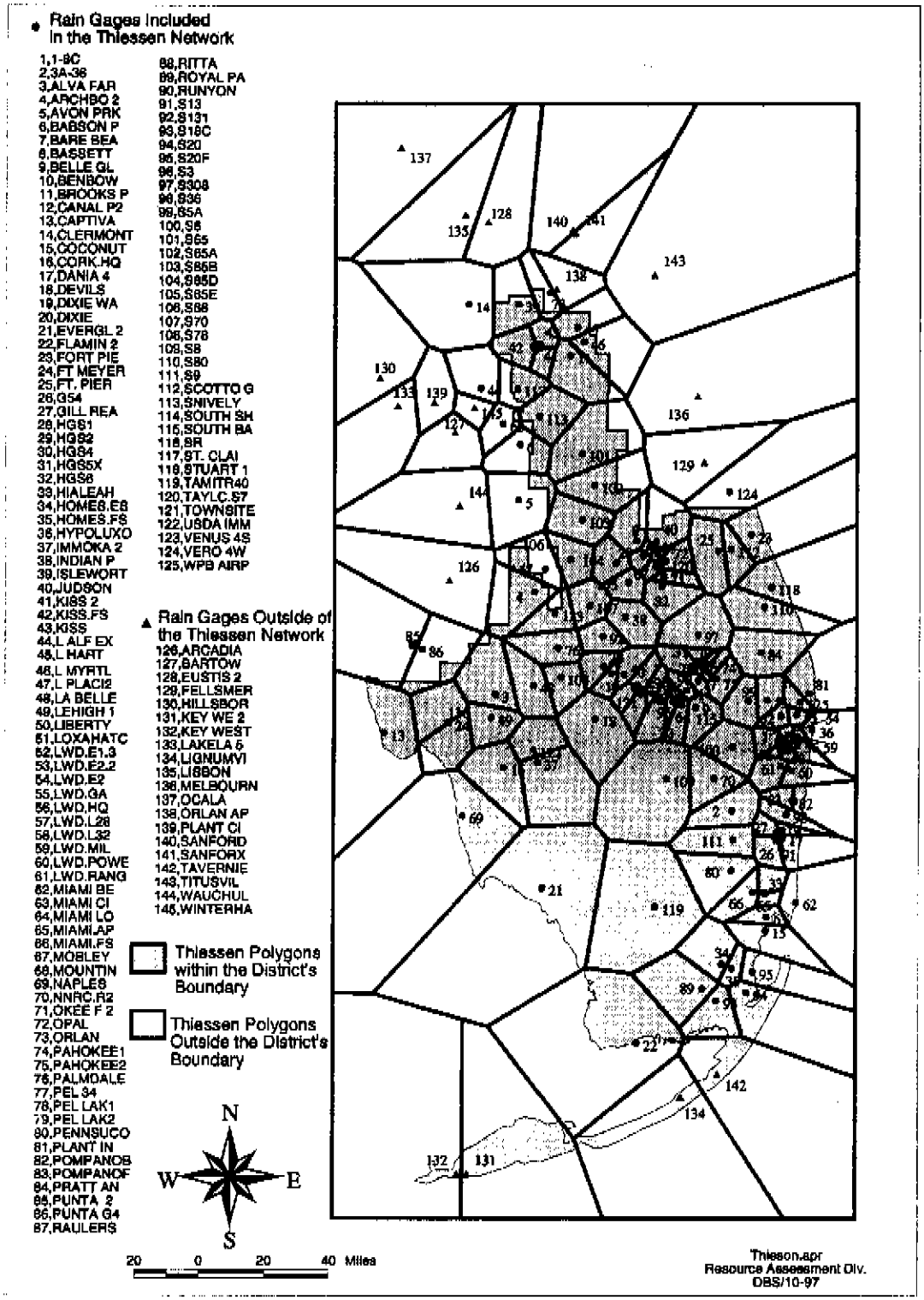

Figure 3. Thiessen polygons for rainfall gages within Central and South Florida including the Florida Keys.

Table 1. Lumped statistics for raw monthly rainfall data at all sites.

Month	Rainfall Measurements				
	Arithmetic average	Standard Deviation.	Coefficient. of Variation.	Skewness	Kurtosis
January	2.20	2.05	0.93	1.69	3.92
February	2.36	1.85	0.78	1.52	3.72
March	2.94	2.56	0.87	1.79	4.85
April	2.58	2.32	0.90	1.71	4.98
May	4.66	3.13	0.67	1.11	1.72
June	7.85	4.18	0.53	0.94	1.14
July	6.98	3.19	0.46	0.58	0.44
August	7.03	3.18	0.45	0.91	1.78
September	7.23	3.78	0.52	1.09	1.81
October	4.72	3.82	0.81	1.63	4.36
November	2.30	2.36	1.03	2.41	9.27
December	1.90	1.80	0.95	1.86	5.12

The Thiessen weighted SFWMD areal average rainfall for these data was computed for each month. Figure 5 shows plots for these values and the corresponding cumulative values with and without the Florida Keys. It is clear that dry season monthly rainfall is less than 3 inches and wet season monthly rainfall is more than 4 inches. The slopes of the cumulative value curves increase around May reflecting the beginning of the wet season, and decrease around October reflecting the beginning of the dry season. Almost two-thirds of the annual rainfall is accumulated in the wet season. The District-wide Thiessen weighted annual average for these data is 51.8 inches when the Florida Keys are considered and 52.3 inches when the Florida Keys are dropped. The Keys' annual rainfall average is approximately 40 inches.

The Thiessen polygon representation of annual average rainfall data is depicted in Figure 6. Annual rainfall is maximum along the east coast and it is minimum over Lake Okeechobee and Central Florida. Spatial representations of average historical monthly data using Thiessen polygon method are provided in Appendix B for each month. Wet season monthly rainfall is maximum along the west coast, while the dry season monthly rainfall is maximum along the east coast. Even though it is a good visualization tool, Thiessen polygon method only depends on the data network density and configuration and does not relate to the spatial structure of the process.

Cumulative monthly rainfall values, and the corresponding percentages of station annual and District-wide weighted average annual rainfall are presented for the 145 stations for each month in Appendix C. Results are presented in Table 2 for ten select stations representing the entire region. The stations are Orlando Airport (OR), Kissimmee. River (KR), Avon Park. (AP), Ft. Pierce (FP), Belle Glade (BG), WBP Airport (WP), Ft. Myers (FM), Key West (KW), Miami Airport. (MI), and Tamiami Trail. (TT). Information on these stations is shown in Figure 1 and Appendix A.

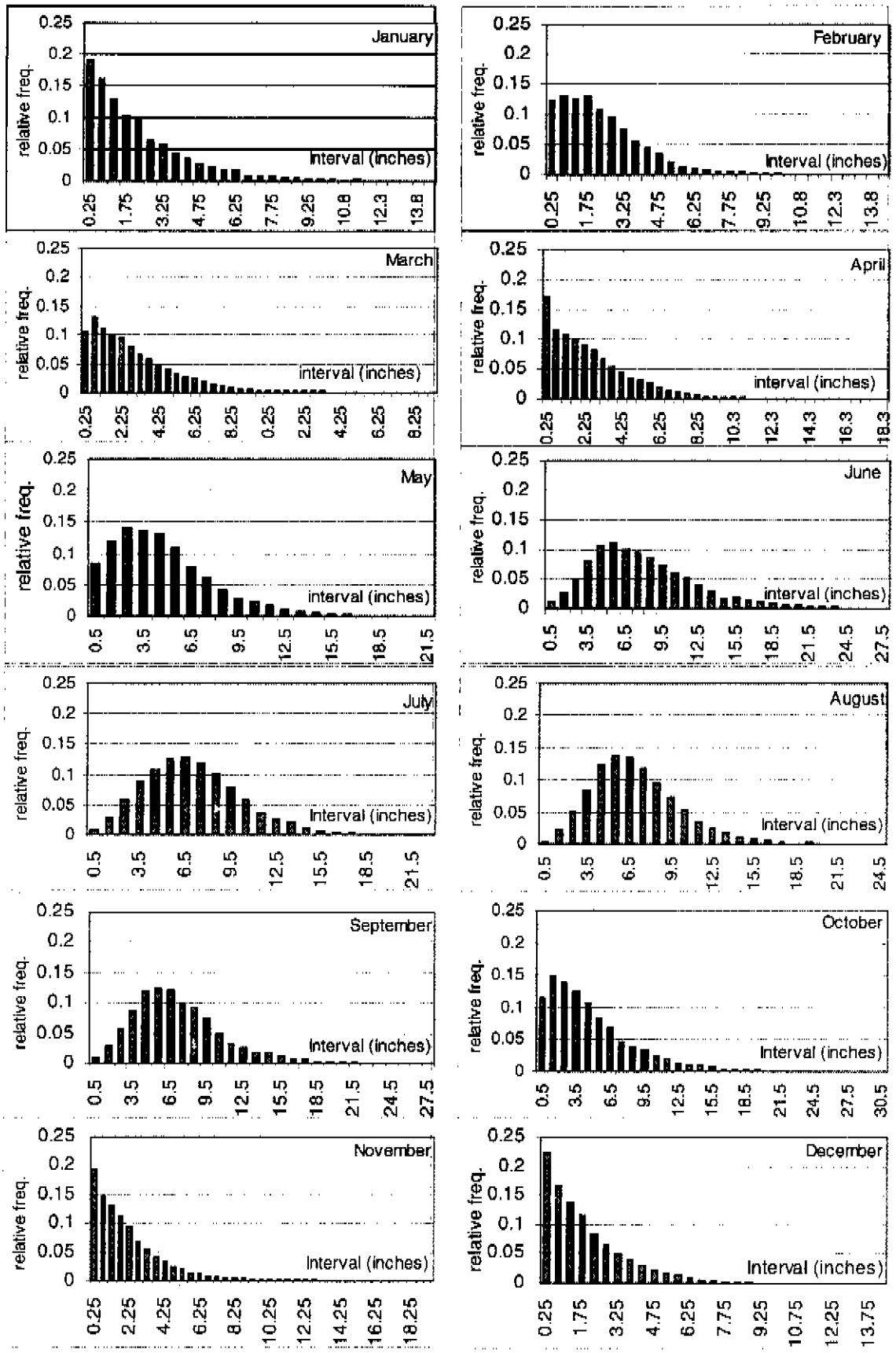

Figure 4. Histogram plots for raw monthly rainfall data used in this study.

Table 2. Cumulative average monthly rainfall and associated percentages at ten selected stations.

Station	Dbkey	a[1]	b[2]	c[3]	a	b	c	a	b	c	a	b	c
		January			February			March			April		
AP	06136	2.19	4.20	4.20	4.68	8.90	9.00	7.43	14.10	14.30	10.07	19.20	19.40
BG	06207	2.22	4.00	4.30	4.13	7.40	7.90	7.09	12.70	13.60	9.95	17.90	19.10
FM	06193	1.82	3.40	3.50	3.90	7.30	7.50	6.52	12.20	12.50	8.53	16.00	16.40
FP	06015	2.21	4.20	4.30	4.85	9.10	9.30	7.99	15.00	15.40	10.38	19.50	20.00
KR	06146	2.02	4.00	3.90	4.36	8.70	8.40	7.50	14.90	14.40	10.44	20.70	20.10
MI	06174	2.00	3.40	3.80	4.07	7.00	7.80	6.54	11.20	12.60	9.79	16.80	18.80
OR	06218	2.32	4.40	4.50	4.78	9.00	9.20	8.10	15.20	15.60	11.05	20.80	21.30
TT	06166	1.61	3.00	3.10	3.07	5.70	5.90	4.92	9.20	9.50	7.44	13.90	14.30
WP	06182	2.76	4.50	5.30	5.30	8.70	10.20	8.65	14.10	16.60	12.20	19.90	23.50
KW	06162	1.63	4.20	3.10	3.39	8.80	6.50	5.00	12.90	9.60	6.96	18.00	13.40
		May			June			July			August		
AP	06136	14.48	27.50	27.80	22.75	43.30	43.80	30.96	58.90	59.50	38.34	72.90	73.70
BG	06207	14.73	26.50	28.30	23.34	41.90	44.90	31.22	56.10	60.00	39.20	70.40	75.40
FM	06193	13.39	23.20	23.80	21.53	40.40	41.40	30.24	56.70	58.20	38.45	72.10	74.00
FP	06015	15.17	28.50	29.20	22.19	41.70	42.70	29.39	55.20	56.50	36.71	68.90	70.60
KR	06146	14.55	28.90	28.00	21.90	43.40	42.10	29.80	59.10	57.30	36.46	72.30	70.10
MI	06174	15.68	26.90	30.10	24.58	42.20	47.30	30.62	52.60	58.90	38.30	65.70	73.70
OR	06218	15.69	29.50	30.20	23.45	44.10	45.10	31.17	58.60	59.90	38.06	71.60	73.20
TT	06166	12.78	23.90	24.60	22.01	41.10	42.30	30.08	56.20	57.80	37.46	70.00	72.00
WP	06182	17.88	29.20	34.40	25.79	42.10	49.60	32.23	52.60	62.00	38.93	63.50	74.90
KW	06162	10.06	26.00	19.30	14.53	37.60	27.90	18.06	46.70	34.70	22.32	57.70	42.90
		September			October			November			December		
AP	06136	45.60	86.80	87.70	49.21	93.60	94.60	50.93	96.90	97.90	52.56	100.00	101.10
BG	06207	47.25	84.80	90.90	51.72	92.90	99.50	53.96	96.90	103.80	55.69	100.00	107.10
FM	06193	46.60	87.40	89.60	50.44	94.60	97.00	51.90	97.30	99.80	53.34	100.00	102.60
FP	06015	43.42	81.50	83.50	48.49	91.00	93.20	51.39	96.50	98.80	53.26	100.00	102.40
KR	06146	42.97	85.20	82.60	46.51	92.30	89.40	48.33	95.90	92.90	50.41	100.00	96.90
MI	06174	46.45	79.70	89.30	53.28	91.50	102.50	56.41	96.80	108.50	58.26	100.00	112.00
OR	06218	45.23	85.10	87.00	49.12	92.40	94.50	50.73	95.40	97.60	53.16	100.00	102.20
TT	06166	45.46	84.90	87.40	50.33	94.00	96.80	52.33	97.80	100.60	53.53	100.00	102.90
WP	06182	47.76	77.90	91.80	54.85	89.40	105.50	58.78	95.90	113.00	61.32	100.00	117.90
KW	06162	28.59	73.90	55.00	34.71	89.70	66.70	36.93	95.50	71.00	38.68	100.00	71.40

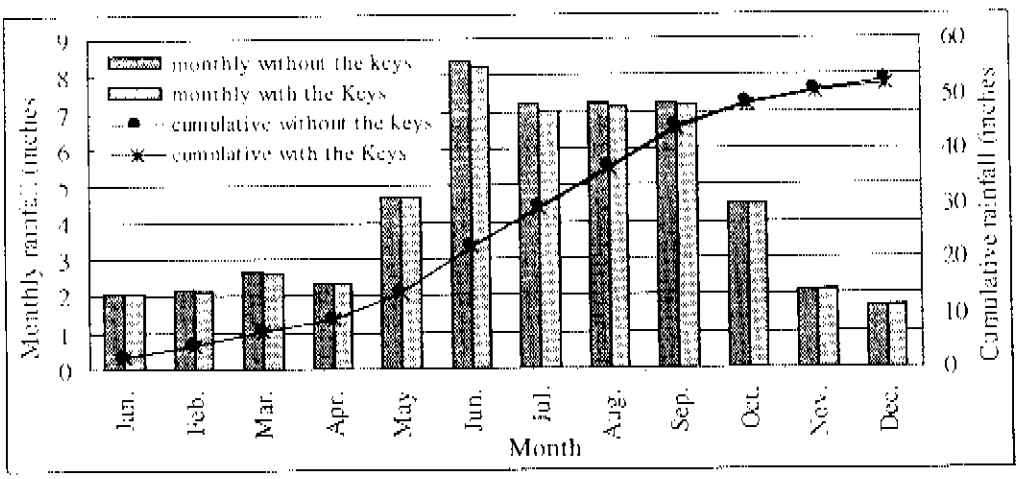

Figure 5. Thiessen weighted average of monthly rainfall within Central and South Florida.

[1] Site cumulative average monthly rainfall

[2] a/annual average rainfall at the same station * 100

[3] a/SFWMD-wide Thiessen weighted annual average rainfall (52 inch) * 100.

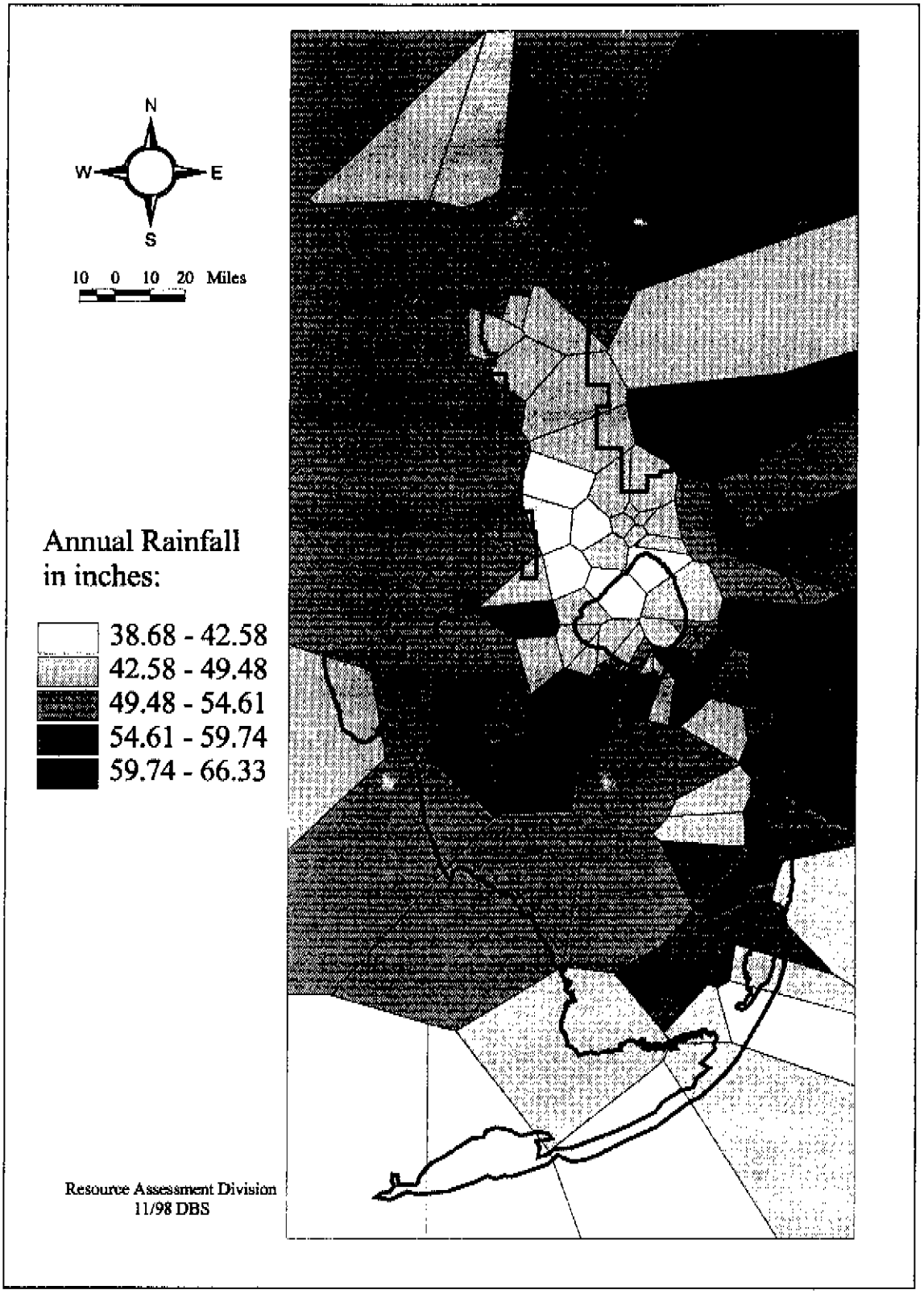

Figure 6. Thiessen polygon representation for annual average rainfall over 145 stations.

FREQUENCY ANALYSIS OF MONTHLY RAINFALL

Distribution Selection

A frequency analysis of monthly rainfall for Central and South Florida requires the selection of the best-fit probability distribution for each month's rainfall. The selection approach of a probability distribution (model) was to test the goodness of fit of the major and commonly applied statistical distributions on a sample of ten stations, listed earlier, that are fairly distributed over the study area (Central and South Florida). The parameters of the best-fit probability distribution are then identified at every station throughout SFWMD area. The candidate distributions were Normal, Log Normal (2-parameter), Log Normal (3-parameter), Gamma (2-parameter), Gamma (3-parameter), Weibull and Log Pearson Type III.

For each month and for each station, each of the probability distributions were fitted, and both tabular and computed Chi-square (χ^2) were generated using Frequency analysis program by Ahn (1990) (program developed to select parameters for various probability distributions suited for frequency analysis, SFWMD, 1990). The commercially available statistical package STATGRAPHICS version 6.0 was used to develop the Gamma distribution fitting. Based on the most number of acceptances or the least number of rejections at the 5% significant level, Gamma (2-parameter) distribution was found to best characterize monthly rainfall distribution in Central and South Florida. The 2-parameter Gamma distribution (Haan, 1977) is expressed through the following equation:

$$f(P) = \frac{\beta^{\alpha} P^{\alpha - 1} e^{-\beta P}}{\Gamma(\alpha)} \qquad 1$$

where f(P) is the probability density function of P (rainfall amount), α is a shape parameter, β is a scale parameter, and $\Gamma(\alpha)$ is the gamma function of α. These parameters vary from month to month. Estimations of α and β in STATGRAPHICS is based on the method of Maximum Likelihood (Greenwood and Durand, 1960).

$$\alpha = \frac{0.5000876 + 0.1648852Y - 0.0544274Y^2}{Y} \qquad 2$$

$$Y = \ln\left(\frac{\bar{X}}{G}\right) \qquad 3$$

where $\bar{X}$ is the arithmetic mean and G is the geometric mean for non-zero monthly rainfall historical data for each month. Zero monthly rainfall values were substituted with 0.01 inches.

$$\beta = \frac{\alpha}{\bar{X}} \qquad 4$$

The scale (β) and shape (α) parameters for each sample station are shown in Table 3. The Gamma (2-parameter) distribution was the best fit in 95% of the cases (114 month-stations out of 120). Gamma distribution fittings for each month for one sample station (Belle Glade) with 69 years of record, are shown in Figures 7a and 7b. Monthly statistics for each monthly, χ^2 test of fitness, α and β parameters for gamma distribution for this station are shown in Table 4.

Table 3. Shape (α) and scale (β) parameters for each month for the ten sample stations

Month	STATION																			
	AP		BG		FP		KR		TT		WP		MI		KW		OR		FM	
	α	β	α	β	α	β	α	β	α	β	α	β	α	β	α	β	α	β	α	β
Jan	1.21	0.550	1.02	0.463	2.42	1.098	1.31	0.650	1.73	1.080	1.16	0.421	1.39	0.730	0.89	0.549	1.89	0.813	1.11	0.613
Feb	2.33	0.935	1.65	0.877	1.83	0.694	1.54	0.662	1.50	1.031	1.91	0.752	1.83	0.971	1.42	0.813	1.95	0.794	1.56	0.746
Mar	2.00	0.730	1.17	0.394	1.54	0.493	1.68	0.541	1.27	0.690	1.24	0.372	1.46	0.709	1.23	0.763	1.64	0.495	0.83	0.321
Apr	2.02	0.763	1.78	0.625	1.81	0.495	2.37	0.806	1.51	0.602	0.98	0.279	0.76	0.218	0.59	0.300	1.78	0.606	1.14	0.575
May	2.68	0.610	3.47	0.730	2.07	0.433	2.45	0.599	2.23	0.417	2.31	0.408	1.99	0.321	1.14	0.369	2.77	0.599	2.40	0.621
June	5.76	0.694	3.46	0.401	3.95	0.561	3.66	0.500	4.09	0.444	3.66	0.463	3.18	0.363	1.90	0.426	4.95	0.641	5.06	0.555
July	5.17	0.633	6.09	0.775	8.87	1.235	6.21	0.787	4.79	0.595	3.62	0.565	4.66	0.714	2.45	0.709	7.23	0.935	8.25	0.952
Aug	5.13	0.699	6.24	0.781	4.45	0.610	4.46	0.671	9.26	1.250	4.15	0.621	4.40	0.629	2.96	0.694	4.48	0.654	6.66	0.813
Sept	4.35	0.599	4.71	0.585	4.12	0.614	3.75	0.578	4.70	0.588	3.91	0.444	3.50	0.407	4.70	0.752	3.80	0.532	4.62	0.568
Oct	1.86	0.516	1.85	0.417	2.16	0.427	1.23	0.351	1.76	0.363	2.80	0.397	2.34	0.345	2.05	0.337	1.70	0.302	1.30	0.341
Nov	1.41	0.826	0.87	0.394	2.28	0.787	0.95	0.524	1.32	0.662	1.24	0.317	1.32	0.483	0.49	0.222	1.20	0.746	1.12	0.769
Dec	1.09	0.671	0.96	0.556	1.04	0.562	1.07	0.512	1.41	1.180	1.27	0.500	1.40	0.758	0.93	0.532	1.51	0.621	1.01	0.709

Table 4. Monthly rainfall statistics, χ^2 test of fitness and α and β (parameters for Belle Glade station)

Month	Mean	Std	χ^2 (table)	χ^2 (computed)	α	β
Jan	2.22	2.18	14.1	3.0	1.02	0.463
Feb	1.90	1.47	14.1	10.3	1.85	0.877
Mar	2.97	2.73	14.1	7.4	1.17	0.394
Apr	2.86	2.12	14.1	8.5	1.78	0.625
May	4.78	2.55	14.1	4.2	3.47	0.730
June	8.61	4.59	14.1	7.7	3.46	0.401
July	7.88	3.17	14.1	5.1	6.09	0.775
Aug	7.98	3.17	14.1	5.3	6.24	0.781
Sept	8.05	3.68	14.1	1.9	4.71	0.585
Oct	4.47	3.25	14.1	9.1	1.85	0.417
Nov	2.24	2.37	14.1	4.5	0.87	0.394
Dec	1.74	1.76	14.1	2.2	0.96	0.556

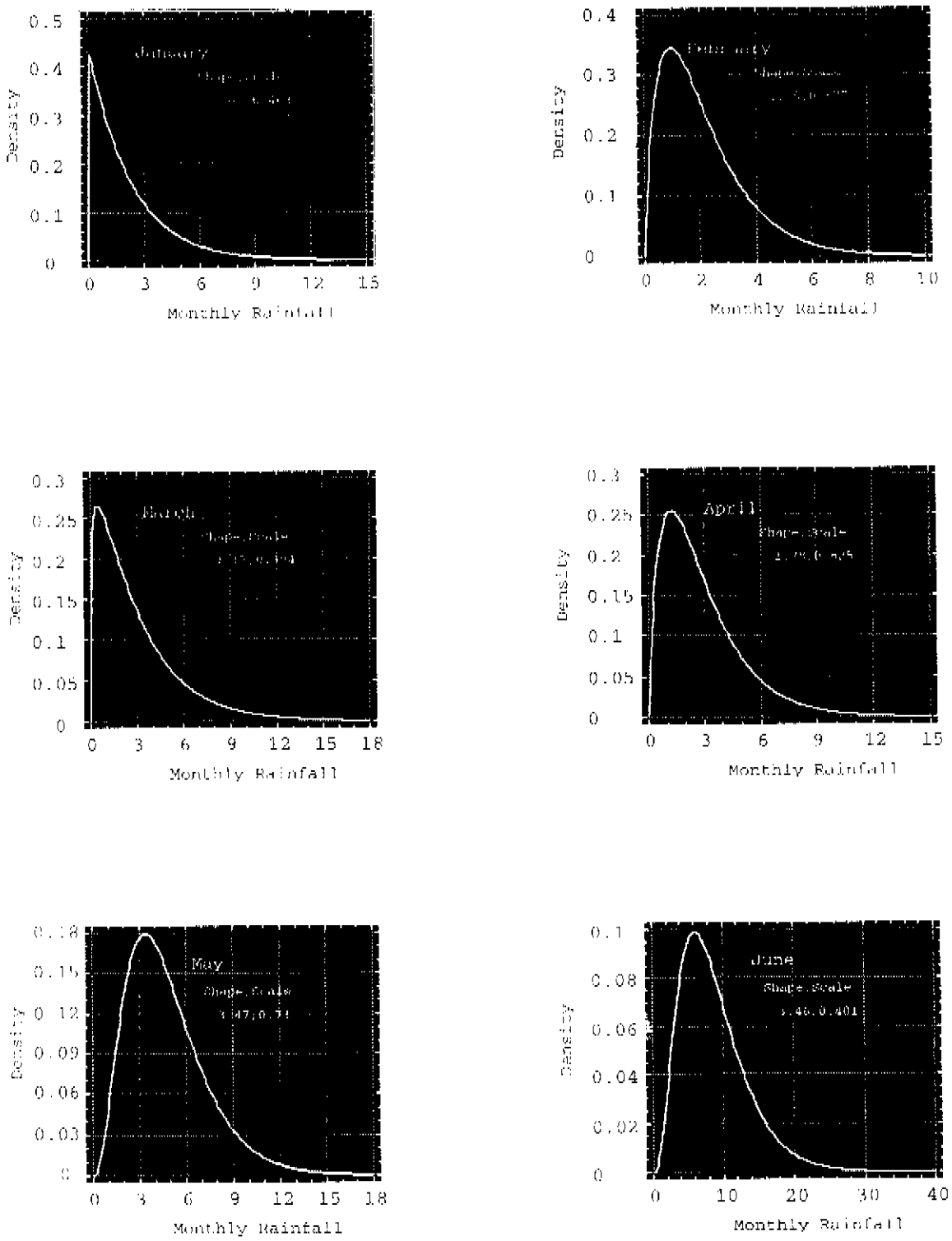

Figure 7a. Gamma distribution fittings for January through June at one sample station (Belle Glade)

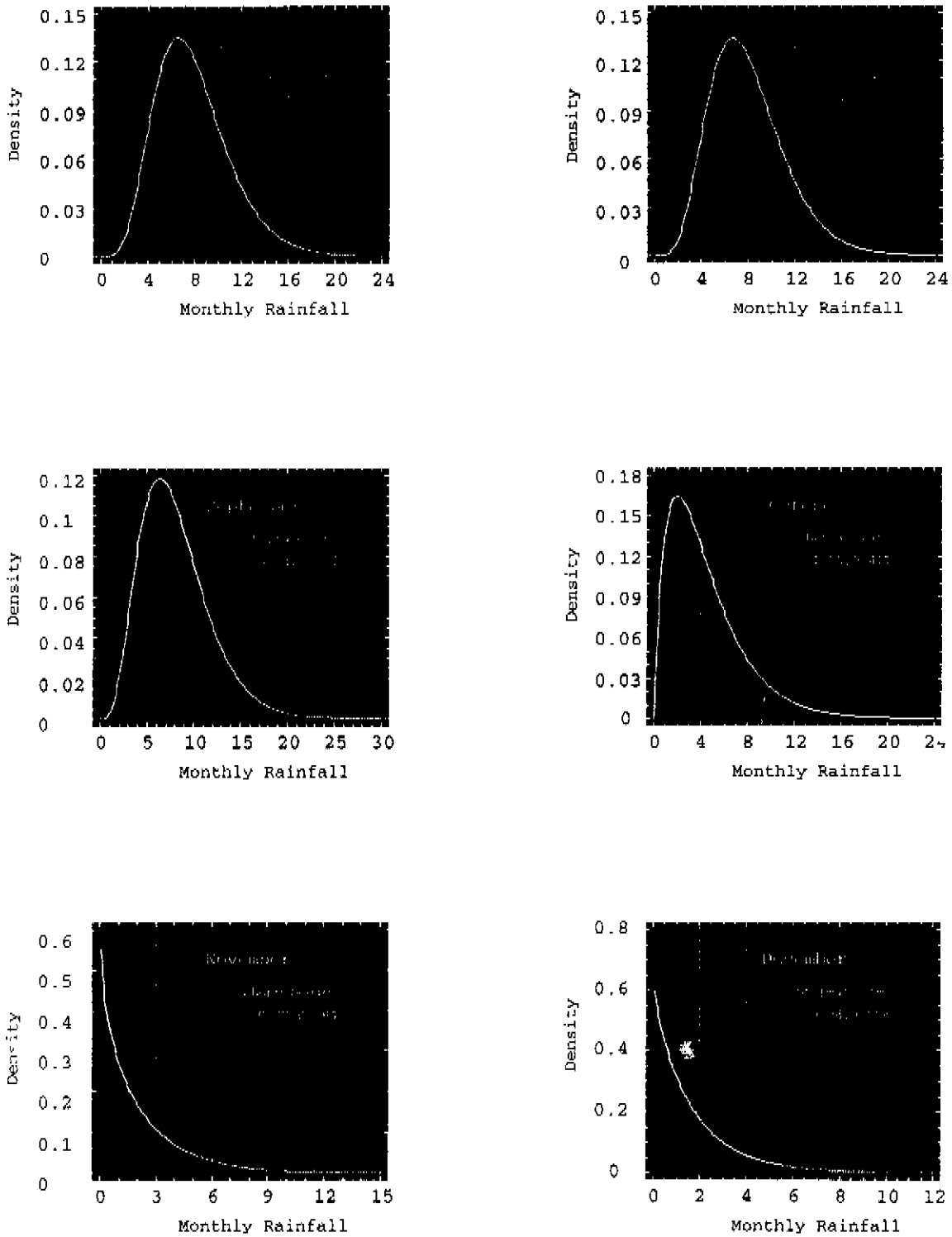

Figure 7b. Gamma distribution fittings for July through December at one sample station (Belle Glade)

Frequency Analysis Application

The 2-parameter Gamma distribution was selected to fit all data sets (145 stations for each month) used in this study. For each data set, Equations 2, 3, and 4 were used to identify the two parameters α and β. Given equation 1, the following integral equations are solved for the value "p" for a given return period "n":

$$\frac{1}{n} = \int_0^p f(P)dP \text{, for dry return period} \qquad 5$$

$$\frac{1}{n} = \int_p^\infty f(P)dP \text{, for wet return period} \qquad 6$$

Results

The final output of this analysis for each site is a set of "estimated" monthly rainfall for five dry return periods (100, 50, 20, 10, and 5 years); five wet return periods (100, 50, 20, 10, and 5 years); and historical monthly average. Appendix D presents these results for each month and site. These data provide useful information about the wet and dry conditions at a given site for a given return period. For a given month, and a given return period, there is a set of 145 monthly rainfall estimates available for a subsequent spatial analysis. This analysis provides point rainfall maps for various return periods. These maps are used for rainfall frequency estimation at ungaged locations. The construction of these maps is the focus of the next section.

RAINFALL SPATIAL CHARACTERIZATION

The characterization of rainfall spatial variability is of great interest to water resources planners, regulators, and decision makers. Such studies have direct applications in missing data estimation, water budget analyses, extreme events forecasting, (e.g. flood), hydrometeorologic network design, and many other hydrologic modeling studies.

In the preceding section, rainfall frequency analysis was performed over 145 stations within Central and South Florida. For a given return period and a given month, historical rainfall data (monthly sum) were used to provide a set of rainfall estimates over these stations for each month. Each set of these estimates, for the purpose of this study, is considered as a realization of a stochastic process. The goal in this section is to use this realization to spatially characterize the process on a lattice using a traditional geostatistical tool (Kriging). To achieve this goal, the analysis is divided into two stages: 1) variogram analysis and 2) mapping.

Variogram Analysis

Variogram analysis is an essential tool in the classic geostatistics. The purpose of this analysis is to: 1) identify the spatial structure of a stochastic process by computing an "experimental" variogram, and 2) fit the "best" variogram model for subsequent Kriging mapping. Variogram analysis assumes a second order stationarity of the underlying stochastic process (random function). That is, the first moment of this process (mean) is constant, and the second moment (two-point covariance or variogram) is dependent on the relative locations, rather than the locations, of the data points. While there is no advantage of using variogram over covariance, the latter can not be defined if the underlying function has unbounded variance. Furthermore, the covariance is difficult to define if the domain, over which the random function is defined, is not sufficiently larger than the correlation length (called "range" in the geostatistical literature). The reader is referred to (Journel and Huijbregts (1978) and Isaaks and Sirvastava (1989)) for more details on variogram analysis.

Experimental Variogram

The experimental variogram is an inverse measure of the two-point covariance function for a stationary stochastic process. For a given separation distance "h", it is defined as the half of the expected value of the squared difference between a pair of measurements with separation distance "h". Given a set of observations from a stochastic process, a two-point experimental variogram at separation distance h is expressed as:

$$\gamma(h) = \frac{1}{2} E\left[\varepsilon(h)^2\right] = \frac{1}{2} E\left[\left(z(x_1) - z(x_2)\right)^2\right] \qquad 7$$

Where:

x_1, x_2 are the pair locations.
$h=x_1-x_2$= Separation distance (lag).

The value of $\gamma(h)$ in Equation 7 represents the ensemble (population) value. In reality, only one realization of this ensemble is available through a few observations (measurements). Assuming ergodicity, i.e., the properties of this realization are the same as the ensemble, an estimate for $\gamma(h)$ can be computed by taking the expectation over this realization only. This is

accomplished by dividing the domain into N intervals. Each interval "j" is defined by a separation distance value "h_j" and a tolerance $|\delta h|$. The expectation is taken over all pairs of observations with separation distance h falling within $h_j - \delta h \leq |h| \leq h_j + \delta h$. Given N_j pairs of observations within this interval, equation 7 can be expressed as follows:

$$\gamma(h_j) = \frac{1}{2N_j} \sum_{i=1}^{i=N_j} (z(x_1) - z(x_2))^2, \; h_j \quad \delta h \leq |x_1 - x_2| \leq h_j + \delta h \qquad 8$$

Central and South Florida monthly rainfall is not temporally (seasonally) stationary (i.e. its spatial structure may vary from month to another) and, hence, variograms must be computed for each month. Assuming isotropy (Van Lent, and Tracy 1994), Equation 8 was applied to "estimated" rainfall average, and rainfall values for ten return periods (5, 10, 20, 50, and 100 years for both dry and wet conditions). The smallest separation distance is 2,500 feet and the tolerance was 2,500 feet. The relationship between the separation distance and the associated number of pair-measurements is shown in Figure 8. It is noticed that there are at least 40 pairs of stations with separation distance ranging between 20 miles and 140 miles. Fewer pairs are observed outside this range. Fewer pairs indicate a less reliable estimate for the variogram particularly at larger separation distances.

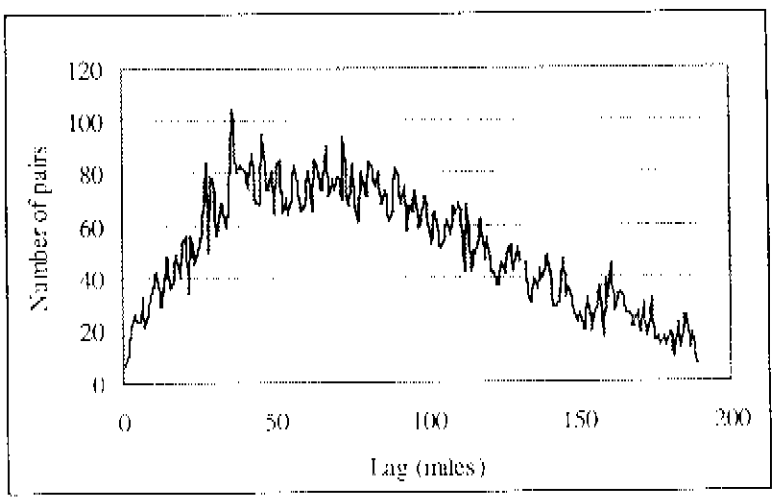

Figure 8. Number of station pairs with separation distance (lag).

Figure 9 depicts the results of the experimental variograms for average monthly rainfall from January through December. It is clear that the wet months exhibit higher semi variogram values for the same separation distance compared to that of the dry months indicating a higher magnitude of spatial variability with higher rainfall. This is consistent with the general characteristics of dry season and wet season rainfall types (Rosenthal, 1994). Some variograms exhibit weak stationarity and indefinite variance beyond 150-mile separation distance. This could be due to lack of pairs at high separation distance values (see Figure 8) or that this distance may be too large to sustain the same characteristics of the hydrologic process (i.e., spatial trend). In general, variograms exhibit stationarity and a pronounced spatial structure for all months. Variograms for each month are presented in Appendix E for 5 dry return periods and 5 wet return periods.

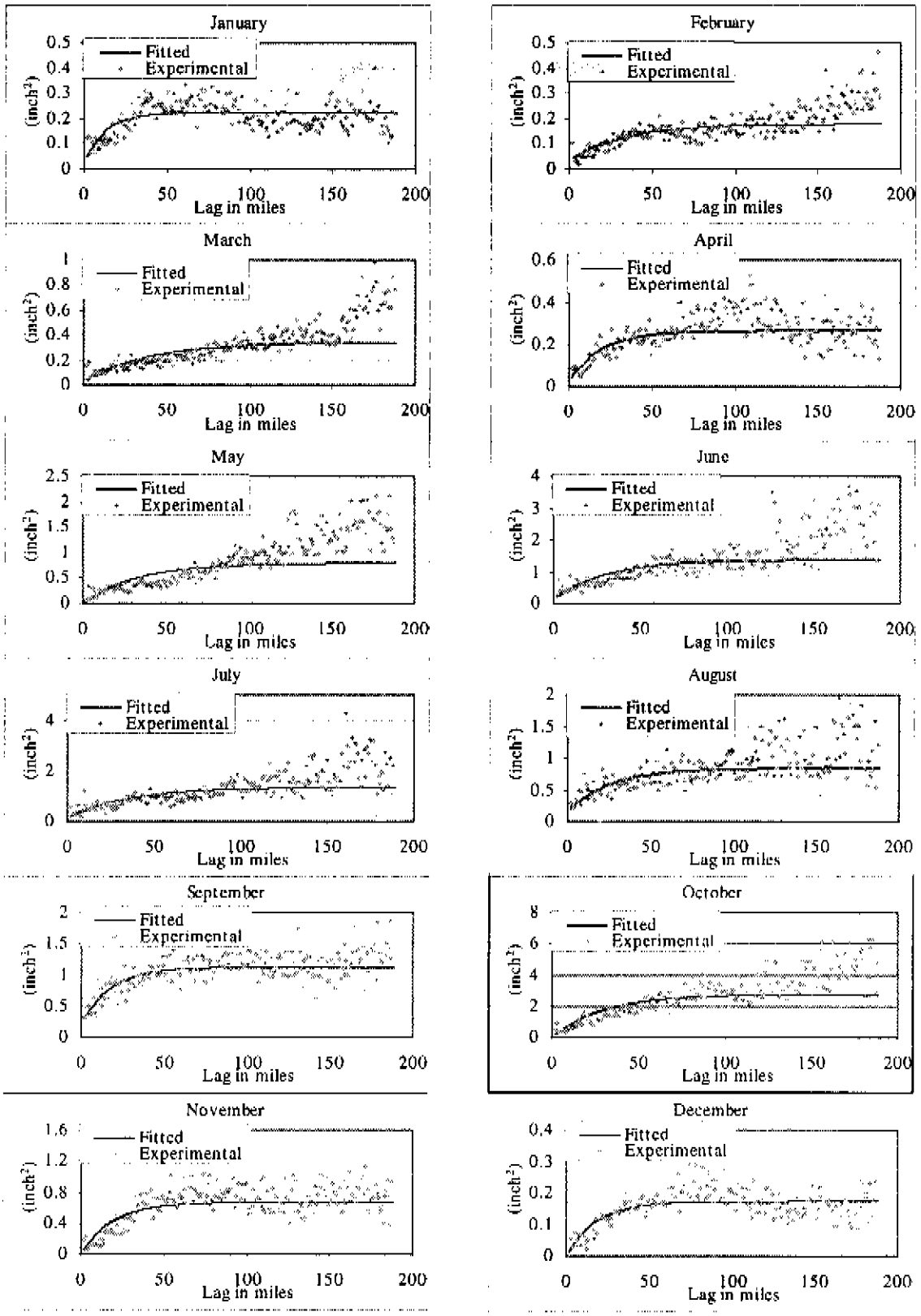

Figure 9. Semi-variograms for monthly average rainfall data in Central and South Florida.

Variogram Fitting.

While the experimental variogram is important for characterizing the spatial structure, it can not be directly used for Kriging mapping, because it may exhibit non-stationarity and variance indefiniteness. To overcome this problem, a "best" theoretical model is fitted to the experimental variogram manually or statistically. As discussed earlier, many rainfall analysis studies select exponential models for variogram fitting. In this study, exponential variograms appear to be appropriate for most months. Although some variograms exhibit some departure from the exponential models beyond a distance of 150 miles, the exponential model was selected for all variograms in this study. A schematic plot of this model is presented in Figure 10, and the theoretical form is expressed in Equation 9.

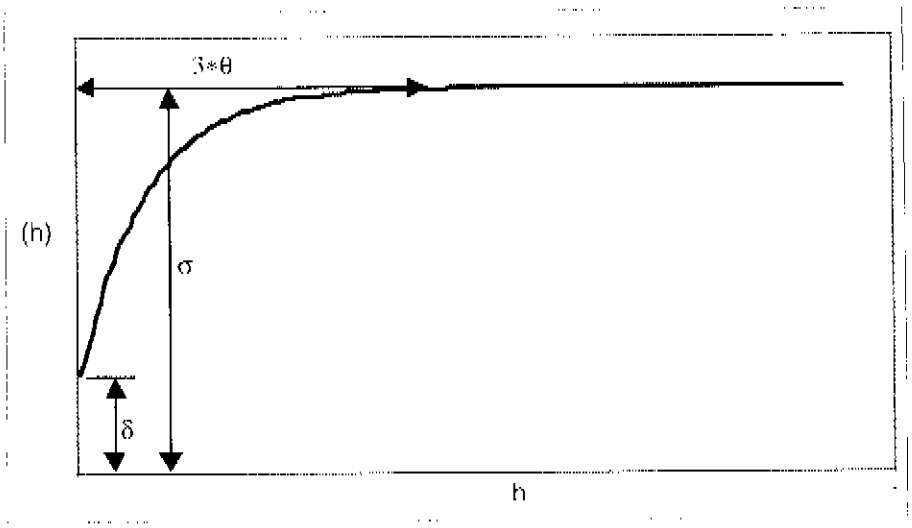

Figure 10. Schematic plot for the exponential variogram model.

$$\gamma(h) = \delta + \omega * \left(1 - e^{-\frac{3h}{\theta}}\right), \omega = \sigma - \delta \qquad 9$$

Where:
δ = Nugget (error due to lack of measurements at a resolution smaller than the network density).
σ = Sill (model variance), and
θ = One-third of range (the practical range is the separation distance "h" that corresponds to 95% of the sill value and it is the distance beyond which data pairs are not correlated).

By estimating the three parameters, the model in Equation 9 is fitted to the experimental variogram. In this study, the least squared error criterion was used to select these parameters of the variogram for average rainfall and the 10 return periods for each month. Monthly average rainfall variogram models are presented in Figure 9, and the associated parameters are presented in Table 5. The model parameters are presented in Appendix F for the 10 return periods.

Table 5. Exponential variogram parameters for 12 months.

Month	Sill (inches^2)	Nugget (inches^2)	Nugget/Sill	Range (miles)
January	0.225	0.027	0.12	39.77
February	0.177	0.035	0.20	99.43
March	0.343	0.022	0.06	113.6
April	0.266	0.027	0.10	59.66
May	0.794	0	0.00	96.59
June	1.375	0.134	0.10	90.91
Jul	1.358	0.15	0.11	105.1
August	0.842	0.171	0.20	79.55
September	1.116	0.223	0.20	53.98
October	2.734	0	0.00	88.07
November	0.665	0	0.00	56.82
December	0.172	0	0.00	53.98

Discussions

The variogram analysis indicates a specific spatial structure of rainfall average for the 12 months (Figure 9). The nugget effect is relatively small compared to the sill of most variograms. It ranges from 0 to 20% of the sill value indicating a reasonable data network in resolving rainfall spatial variability. All variograms exhibit some correlation length with strong stationarity where the sill is relatively constant, or weak stationarity where the sill fluctuates or approaches asymptotic value relatively slowly. The wet season exhibits weak stationarity (except September) with large correlation length, while the dry season exhibits strong stationarity with shorter correlation length (except March). For a given month, the spatial structure is generally similar for all return periods except that the range tends to be high for dry return periods, while the sill tends to be high for wet return periods (see appendix E). January wet return period variograms exhibit a "Hole effect", where the variogram decreases and then increases with the increase of separation distance.

Kriging Estimator

As mentioned earlier, variogram computation is an essential step to perform spatial interpolation using Kriging. The mathematical formulation of Kriging estimator is briefly discussed here. Given a group of observations $Z(x_i)$ of a stochastic process, an estimate of Z at an unsampled location, x_0, is expressed as:

$$\hat{Z}(x_0) = \sum_{i=1}^{n} \omega_{i0} * Z(x_i) \qquad 10$$

To obtain an unbiased estimate for $Z(x_0)$, the sum of the weight ω is constrained to 1, then:

$$\sum_{i=1}^{n} \omega_{i0} = 1 \qquad 11$$

Where "n" is the number of observations, and (ω_i, i=1, ..., n) are prescribed weights.

Given the estimation bias, $E[\hat{Z}(x_0) - Z(x_0)]$, and the estimation variance, $E[\hat{Z}(x_0) - Z(x_0)]^2$, the weight function ω can be defined according to one of the following two criteria:

1) Setting the estimation bias to zero, and minimizing the estimation variance,
2) Optimizing the trade-off between the estimation bias and estimation variance.

Kriging method uses the first criterion to select the set of weights ω_i.(i=1, ..n). This criterion is written in equation form as:

$$E[\varepsilon] = 0, \qquad 12$$

$$E[\varepsilon^2] = \text{minimum}, \qquad 13$$

where

$$\varepsilon = \hat{Z}(x_0) - Z(x_0).$$

By substituting the value of $\hat{Z}(x_0)$ from Equation 10, Equation 13 is minimized (differentiated with respect to weights) to provide the following Kriging system of equations:

$$\sum_{j=1}^{n} \omega_{io} * \left(\gamma(h_{ij}) - \sigma^2\right) = \gamma(h_{0i}) - \sigma^2, \; i = 1, \ldots\ldots n, \qquad 14$$

Where $\gamma(h_{ij})$ is the variogram as a function of the separation distance between location i and location j, and σ^2 is the variance of Z.

Equations 13 and 14 are combined to provide an estimate for the minimum estimation variance as:

$$\hat{\sigma}_e^2 = \sigma^2 - \sum_{i=1}^{n} \omega_{io} * \left(\gamma(h_{ij}) - \sigma^2\right) \qquad 15$$

By considering the constraint in equation 11, Equations 12 and 13 are re-written as follows:

$$\sum_{i=1}^{n} \omega_{io} * \gamma(h_{ij}) = \gamma(h_{0i}), \; i = 1, \ldots n \qquad 16$$

$$\hat{\sigma}_e^2 = \sum_{i=1}^{n} \omega_{io} * \gamma(h_{ij}) \qquad 17$$

Spatial Mapping

Using Equation 16 and the variogram models fitted in the previous section, Kriging was applied to the data described earlier. The sets of data used are: 1) estimated average rainfall over 145 stations for all 12 months, 2) estimated rainfall for the ten return periods over the 145 stations for the month of January, and 3) estimated rainfall for the ten return periods over the 145 stations for the month of July. Equation 17 is used to evaluate the estimation error variance for the first data set. Kriging Module in ARC/VIEW package was used to carry out this task. Presentation of these applications proceeds.

Results

Figures 11a to 11l show the spatially interpolated average rainfall using Kriging. Dry season months (November, December, January, February, March, and April) show rainfall values below 4.0 inches, while the wet season months show average monthly rainfall values above 4.0 inches. October shows rainfall values below 4 inches in the western part of SFWMD area and values above 4.0 inches in the eastern part of SFWMD area. Average rainfall is higher along the east

coast in the dry season months and higher along the west coast in the wet season months. The spatial range of average rainfall is 1.0 inch or less in the dry season, and 2.0 inches or less in the wet season. This range is exceptionally high during October (5.0 inches). December is the driest month, while June is the wettest month of the year. More details about the average rainfall for each month follows.

January average rainfall is less than 2.25 inches over most of South and Central Florida. It is higher than 2.5 inches at some areas in Martin and Palm Beach counties. Except for these areas, there is a 0.25-0.50 inch increase in February average rainfall resulting in more spatial homogeneity in this month. March average rainfall is significantly higher than the preceding two months. It spatially varies from 2.0 inch (Southern area) to 3.5 inches (Northern area). April average rainfall is lower than March's but still higher than February's and January's. April average rainfall exhibits spatial homogeneity with a range of 1.0 inch throughout the entire region. May reflects the beginning of the wet season with a significant change of the average rainfall spatial pattern. Also, there is a minimum of 2-inch increase in average rainfall compared to the preceding month. Maximum average rainfall location changes from the east coast to the south-eastern area (6 inches). It decreases northward to 4.0 inches in the northern area. Another significant change in average rainfall pattern is observed in June (the wettest month of the year). A maximum rainfall of 10 inches is observed in the western area. It decreases southeastward and northeastward with a spatial range of 2.5 inches.

Average rainfall in July, August, and September exhibits similar characteristics to those of June with a 1.0 to 2.0 inch drop occurring mostly in the western region with spatial range of 2.0 inches. Note, also, that the average rainfall in September along the west coast is no longer higher than along the east coast. In October, rainfall is significantly higher along the east coast than along the west coast, reflecting a significant break in rainfall, and indicating the beginning of the dry season. In this month, average rainfall exhibits a steep inland gradient (3-inch drop / 25 miles). Rainfall is 7.0 to 8.0 inches along the east coast (wet conditions), and below 4.0 inches along the west coast (dry conditions). October represents the month with highest spatial average rainfall variation between the two coasts, and it represents a transition between the wet and the dry seasons. The dryness observed along the west coast in October is extended to cover the east coast in November. Average rainfall ranges between 2.0 and 4.0 inches during this month with high values observed along the east coast. December average rainfall exhibits 0.5-inch drop from November values throughout the entire region.

The corresponding estimation variance maps are depicted in Figures 12a to 12l. The estimation variance values are generally higher in the wet season months than those in the dry season months. High values of estimation variances are observed in two areas for any given maps: the southwestern zone where data are sparse and the boundary zones due to the boundary effect.

Figures 13a to 13l depict January rainfall for the dry return periods 100, 50, 20, 10, 5 years, and the wet return periods 5, 10, 20, 50, 100 years. Rainfall estimates for all dry return periods range between 0 and 0.9 inch with values in the western part lower than the eastern part of Central and South Florida. Rainfall estimates at a site for dry return periods are so low (close to zero) that they are difficult to differentiate. In rainfall frequency analysis, zero rainfall was given an artificial value of 0.01 inch for computational convenience. Therefore, an estimation bias is

expected at such low rainfall estimates. Given a relatively high estimation error variance (notice the high nugget effect in the corresponding variograms in Appendix E), such low rainfall values may not be reliable estimates. The estimates for the wet return periods have similar spatial patterns and they range between 3.5-5.0, 4.5-6.5, 7.0-9.0, 8.0-10.0, 9.0-12.0 inches for the 5, 10, 20, 50, and 100 year return periods respectively. Rainfall in this group is higher in the eastern area than in the western area. Such a pattern is reversed in the July rainfall estimates (Figures 14a to 14l). For the dry and wet return periods, July rainfall estimates are higher in the western area than in the eastern area of SFWMD. These values range between 2.50-1.25, 3.00-1.50, 3.50-2.00, 4.25-2.50, 5.50-3.50 inches for the 100, 50, 20, 10, and 5 dry return period respectively. For the 5, 10, 20, 50, and 100 year wet return period, they range between 11.00-8.50, 13.00-10.00, 15.00-13.00,17.00-15.00, 18.00-16.00 respectively.

CONCLUSION

Comprehensive frequency analysis and spatial characterization for rainfall in Central and South Florida have been presented. The objective of this study was to estimate average monthly rainfall and monthly rainfall with different frequencies for dry and wet conditions at gaged and ungaged locations. The frequencies of interest were 5, 10, 20, 50, and 100 years. A prescribed procedure for selecting the "best" representative data, temporally and spatially, was adopted. Continuous uninterrupted time series of monthly rainfall were selected at 145 sites with records of 25 years or more. Frequency analysis was performed at 10 representative sites to identify the best-fit model for rainfall frequency over Central and South Florida. The model's parameters were then estimated at the 145 sites over the study area and, subsequently, rainfall estimates for various return periods were computed. These estimates were used for subsequent geostatistical analysis. In this analysis, experimental variograms were constructed and exponential variogram models were fitted for each month and each return period. Using the variogram models and estimated rainfall data, maps were constructed using Ordinary Kriging for monthly rainfall averages, January rainfall estimates for various return periods, and July estimates for various return periods. Maps for the estimation error variance for average rainfall were also generated.

Tables and figures provided detailed information on the temporal and spatial characterization of monthly rainfall over Central and South Florida. Appendix A provides concise information about the stations used for this study with gage ID # and database key (dbkey) as unique identifiers. Appendix B provides a visual description for monthly average rainfall data using Thiessen polygon representation. Even though this representation does not recognize the spatial structure of the rainfall process, it is a useful visualization tool for rainfall data over Central and South Florida. Appendix C provides, for each site, cumulative average rainfall from the first day of the year up to the end of each month. The corresponding cumulative percentages of the site annual rainfall, and the global annual rainfall are also presented. Appendix D represents the frequency analysis results : the145 stations. For each station, it provides the Cartesian coordinates, and rainfall estimates for the average and for 5, 10, 20, 50, and 100 year return periods of the wet and dry conditions. Appendix E depicts the experimental and theoretical variograms computed for the 10 return periods for each month. The parameters of the theoretical variograms are presented in Appendix F.

Global weighted monthly average rainfall is higher than 4.0 inches for wet conditions and below 3.0 inches for dry conditions. Nearly two-thirds of the annual rainfall is accumulated in the wet season. The point frequency analysis conducted at 10 representative stations has shown that the 2-parameter Gamma probability density function is the best model for monthly rainfall frequency over Central and South Florida. Rainfall frequency estimates near zero may be biased due to forcing zero rainfall values to 0.01 inch. Experimental and theoretical variograms computed for the rainfall estimates show spatial coherence with a strong or weak stationarity. Wet season variograms exhibited higher nugget effects than dry season ones. This indicates that the existing rain gage network is less capable of resolving rainfall variation in the wet season than the dry season. Rainfall maps show a changing pattern between the wet and the dry seasons. Average rainfall is higher along the east coast area in the dry season and it is higher along the west coast area in the wet season. This reflects the changing nature of the rainfall storm type between seasons. October rainfall exhibits a unique pattern reflecting the transition from the wet season to the dry season. May exhibits a significant increase of rainfall compared

to the preceding four months. Spatial maps for various return periods at a given month have similar patterns with some offsets.

Point rainfall frequency analysis conducted in this report was useful in providing rainfall data estimates that were used for monthly rainfall spatial mapping over Central and South Florida for various return periods. These maps can be used to infer rainfall estimates at ungaged locations for a given return period or to infer the return period corresponding to a given rainfall measurement or estimate. These maps, however, can not be used to assess rainfall volume over a given area, particularly for high return period events, since a simultaneous occurrence of rainfall with the same frequency at all gages within such an area is not guaranteed. Regional frequency analysis can only provide an average estimate for this volume provided that enough data are available within that area. Therefore, rainfall volume may not be easily estimated over an area without, or with not enough, data. Ideally, a frequency analysis that considers the joint probability density function of all gaged locations is to be implemented.

Rainfall statistics used in this study represent the average behavior of the process and may not characterize rainfall spikes (extreme events). Also, spatial interpolation methods usually introduce some smoothing to the estimation process and, hence, are not capable of capturing extreme events at unsampled locations. Extreme events can be captured, with some degree of confidence, using a stochastic model. In a stochastic model, rainfall data can be generated "randomly" such that the spatial and temporal structure of the rainfall process is honored. The generation of different realizations with the same structure provides several rainfall estimates at any location for a given return period. The highest and lowest values can then be identified.

In addition to measurement errors, rainfall estimates of this study are subject to such other error types as errors due to frequency analysis estimation, errors due to mapping to a regular grid, and errors due to isopluvial generation. While the estimation error due to mapping to a regular grid was quantified, the other estimation errors are yet to be quantified.

REFERENCES

Abtew, W., J. Obeysekera, and G. Shih. 1993. Spatial analysis for monthly rainfall in South Florida. Water Resources Bulletin, 29(2): 179-188, 1993.

Ali, A. 1998. Nonparamteric Spatial Rainfall Characterization Using Adaptive Kernel Estimator. Spatial Interpolation Comparison 97, The Journal of Geographic Information and Decision Analysis. (in press).

Belousov, S. L., L. S. Gandin, and S. A. Mashkovich. 1971. Computing and Processing of Meteorological data. Israel Program for Scientific Translations. Jerusalem, 242 pp.

Creutin, J., and C. Obled. 1982. Objective Analyses and Mapping Techniques for Rainfall Fields: An Objective Comparison. Water Resources Research, 18, 2., 413-431.

Delfiner, P., and J. P. Delhomme. 1975. Optimum Interpolation by Kriging. In: Display and Analysis of Spatial Data, J. C. David (Editor). NATO, ASI, John Wiley and Sons, pp. 96-114.

Drozdov, D. A., and A. A. Sephelevskii. 1946. The Theory of Interpolation in Stochastic Field of Meteorological Elements and its Application to Meteorological Maps and Network Regionalization Problems. Trudy NIU GUGMS 1(18).

Gandin, L. S. 1965. Objective Analysis of Meteorological Fields. Israel Program for Scientific Translations. Jerusalem, 242 pp.

Greenwood, J. A., and D. Durand. 1960. Aids for Fitting the Gamma Distribution by Maximum Likelihood. Technometrics 2(1): 55-65.

Haan, C. 1977. Statistical methods in hydrology. The Iowa State University Press, Ames, Iowa, 378 pp.

Hardy, R. 1971. Multiquadric Equations of Topography and other Irregular Surfaces. Journal of Geophysical Research. 76: 1905-1915.

Holmström, I. 1963. On a method for parametric representation of the state of the atmosphere, Tellus, 15(2), 127-149.

Hutchinson, M. 1995. Interpolating Mean Rainfall Using Thin Plate Smoothing Splines. International Journal of Geographical Information Systems 9: 385-403.

Isaaks, E. H., and R. M. Sirvastava. 1989. Applied Geostatistics, Oxford University Press, New York.

Journel, A. G. 1989. Fundamentals of Geostatistics in Five Lessons, American Geophysical Union, 40 pp.

Journel, A. G and J. Huijbregts. 1978. Mining Geostatistics, Academic press, London, New York, San Fransisco, 600 pp.

Lebel, T., G. Bastin, , C. Obled, and D. Creutin. 1987. On the accuracy of areal rainfall estimation: a case study. Water Resources Research, 23, 2123-2134.

MacVicar, T. K. 1981. Frequency Analysis of Rainfall Maximums for Central and South Florida. Technical Publication #81-3. South Florida Water Management District. West Palm Beach, FL.

Markovic, R. D. 1965. Probability function of Best Fit to Distribution of annual precipitation and run off. Hydrology papers, Colorado State University, Fort Collins, Colorado, No. 8.

Matheron, G., 1971. The Theory of Regionalized Variables and its Applications. Cahiers du Centre de Morphologie Mathematique, Ecole des Mines, Fountainbleau, France, 211pp.

Miller, J.F. 1964. Two- to Ten-Day Precipitation for Return Periods of 2 to 100 Years in the Contiguous United States. Technical Paper No. 49. U.S. Department of Commerce, Weather Bureau.

Moss, M. 1996. Testing the Adequacy of a Kriging Model of the SFWMD Rain Gage Network. Bayeswater, Inc., Tucson, AZ.

Rosenthal, S.L. 1994. Statistical Aspects of the Precipitation Regimes at Miami International Airport (MIA) and Palm Beach International Airport (PBI): 1961-1990. NOAA Technical Memorandum ERL AOML-80.

Sculley, S.P. 1986. Frequency Analysis of SFWMD Rainfall. Technical Publication 86-6. South Florida Water Management District. West Palm Beach, FL.

Tabios III, G. and J. Salas. 1985. A comparative analysis of techniques for spatial interpolation of precipitation. Water Resources Bulletin, 21, 3, 365-380.

Thiessen, A. H. 1911. Precipitation Averages for Large Areas. Monthly Weather Review 39(7): 1082-1084.

Trimble, P. 1990. Frequency Analysis of One and Three-Day Rainfall Maxima for Central and Southern Florida. Technical Memorandum. South Florida Water Management District. West Palm Beach, FL.

U.S. Army Corps of Engineers. 1953. Central and Southern Florida Project for Flood Control and Other Purposes. Part VI. General Studies and Reports. Section 6 - Design Memorandum. Rainfall Frequency Estimates. Corps of Engineers, U.S. Army. Office of the District Engineer, Jacksonville, FL.

Van Lent, T. J., and J. C. Tracy. 1994. Assessment of the Rain Gage Networks in the South Florida Water Management District. A report submitted to National Park Service under contract CA4250-4-9015.

Wanielista, M., R. Eaglin, and L. Eaglin. 1996. Isopluval Contour Curves for Long Duration Storms in Florida, Florida Department of Transportation, WPI #0510680.

Yakowitz, S. J., and F. Szidarovsky. 1985. A comparison of Kriging with nonparametric regression method. Journal of Multivariate Anaysis, v. 16, no 1., pp. 21-53.

Zhao, S., and D. A. Chin. 1995. Assessment of the Evaporation and Rain Gage Networks in the South Florida Water Management District. Technical report No. CEN-95-4.

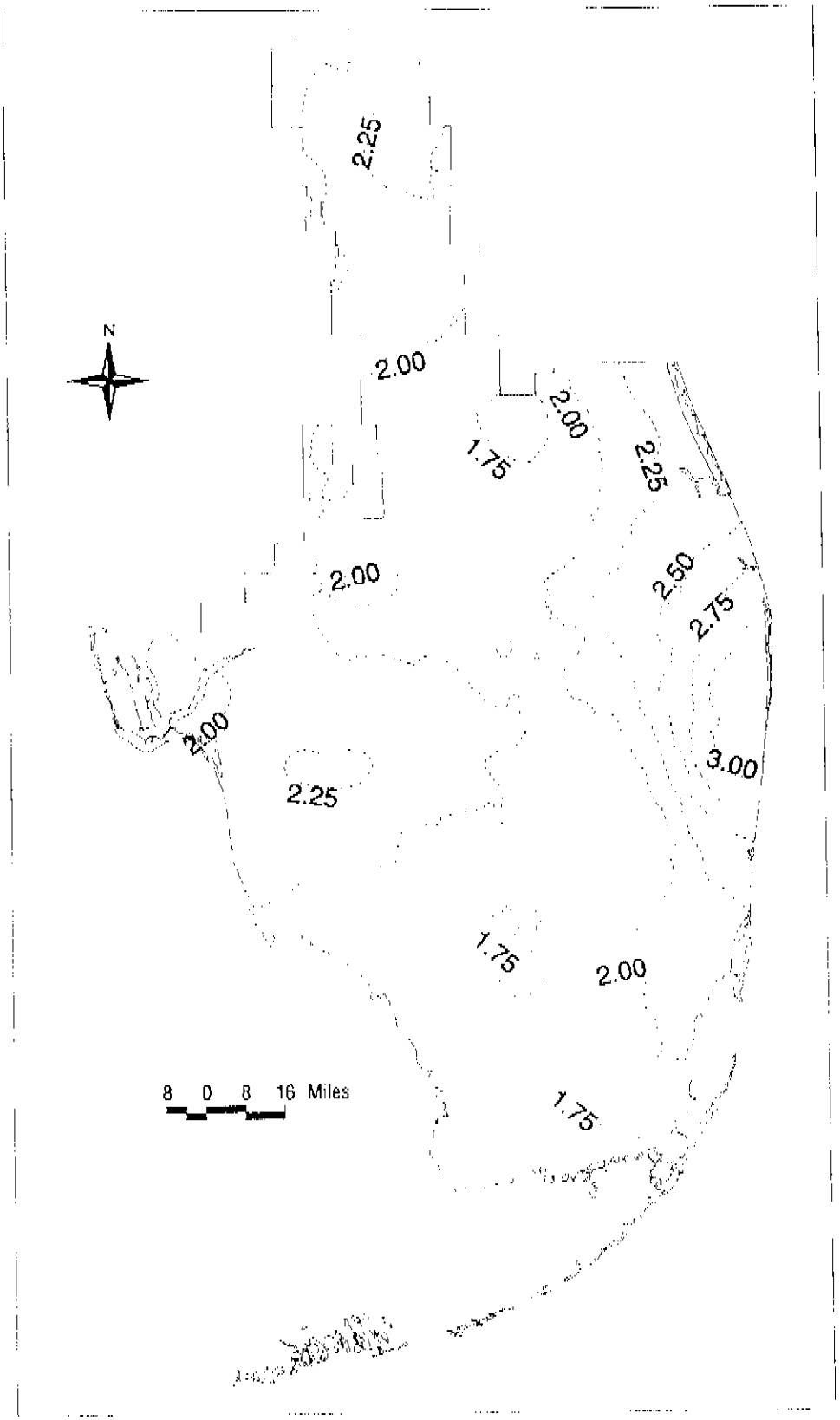

Figure 11a. January average rainfall (inches) within Central and South Florida.

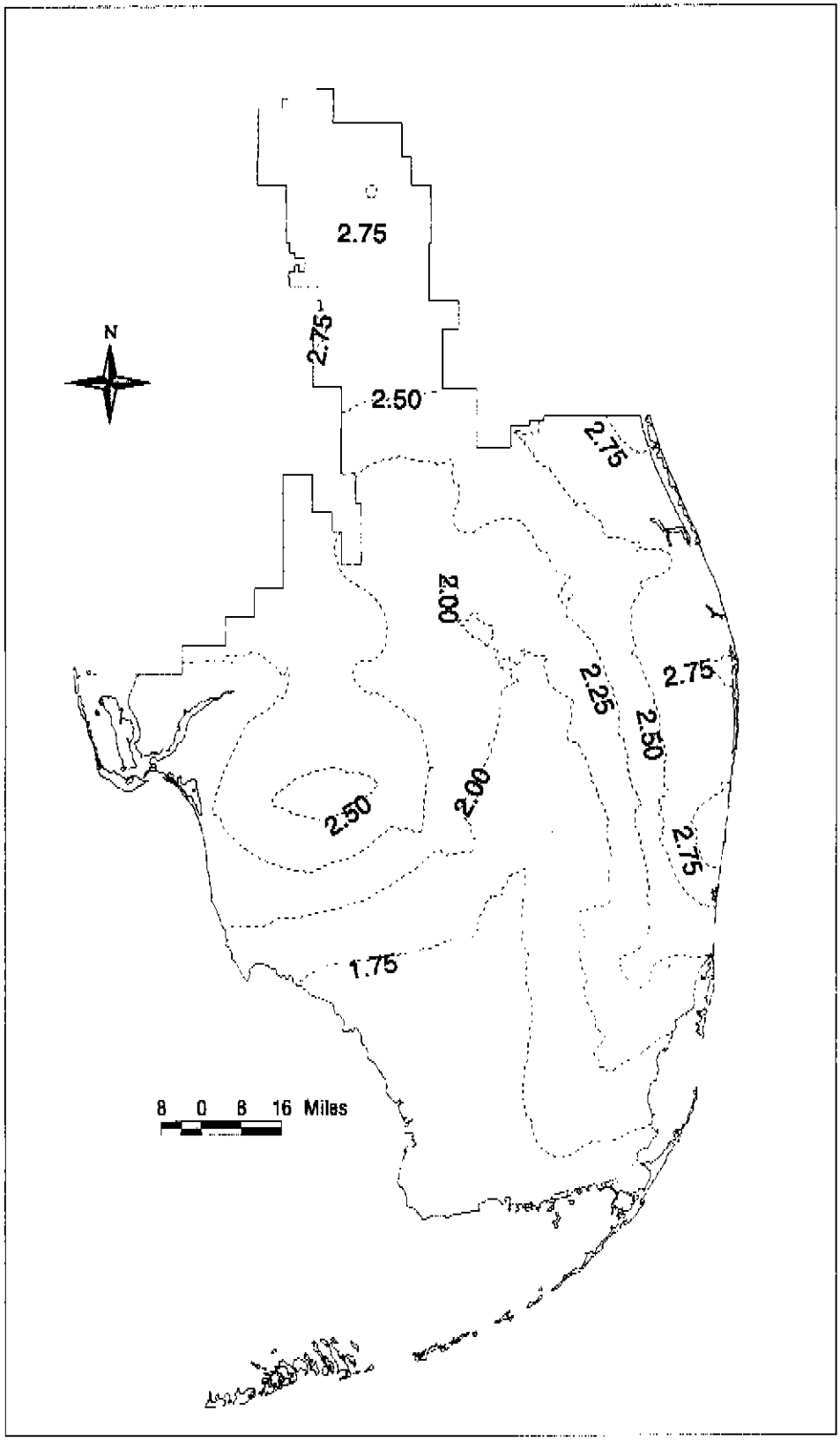

Figure 11b. February average rainfall (inches) within Central and South Florida.

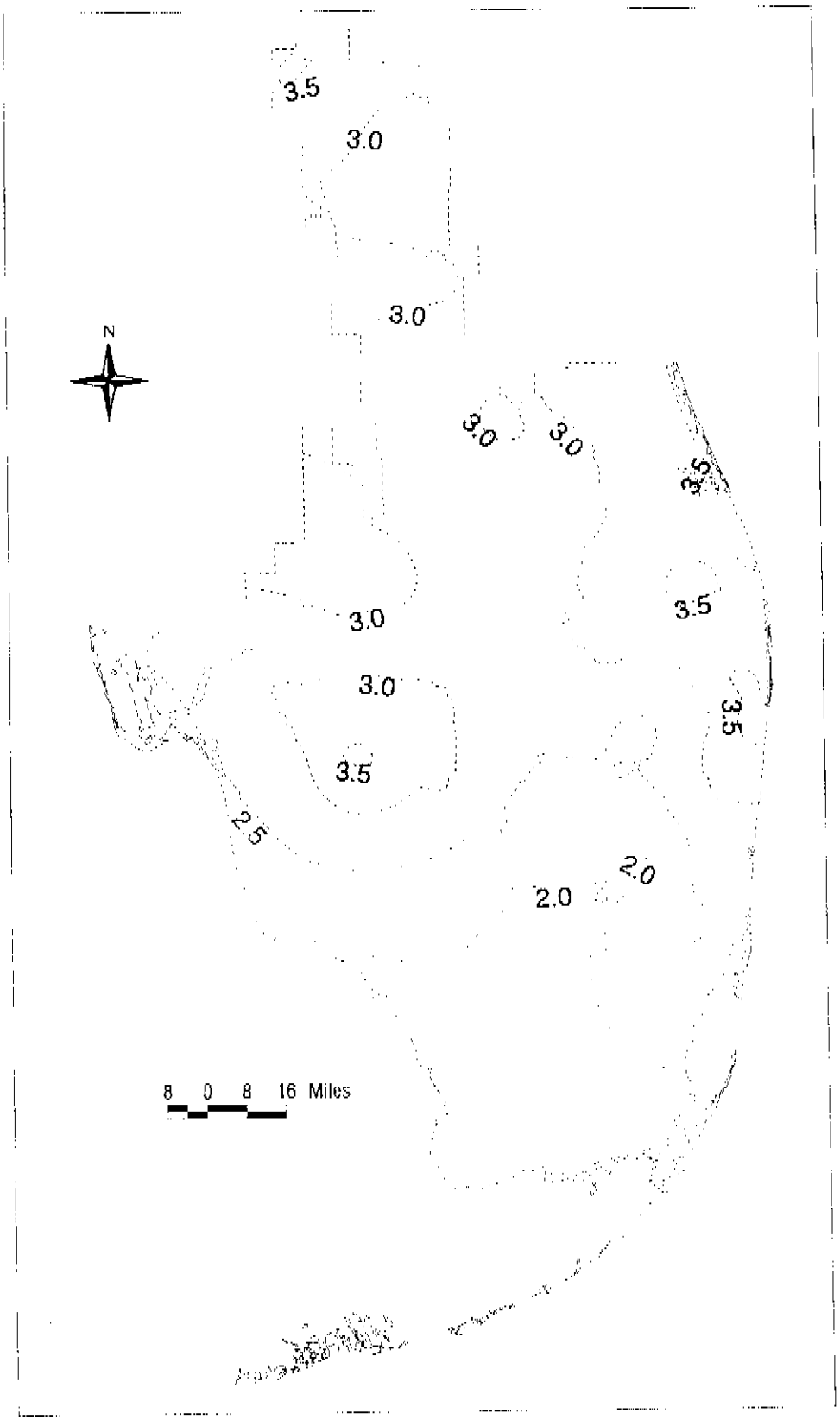

Figure 11c. March average rainfall (inches) within Central and South Florida.

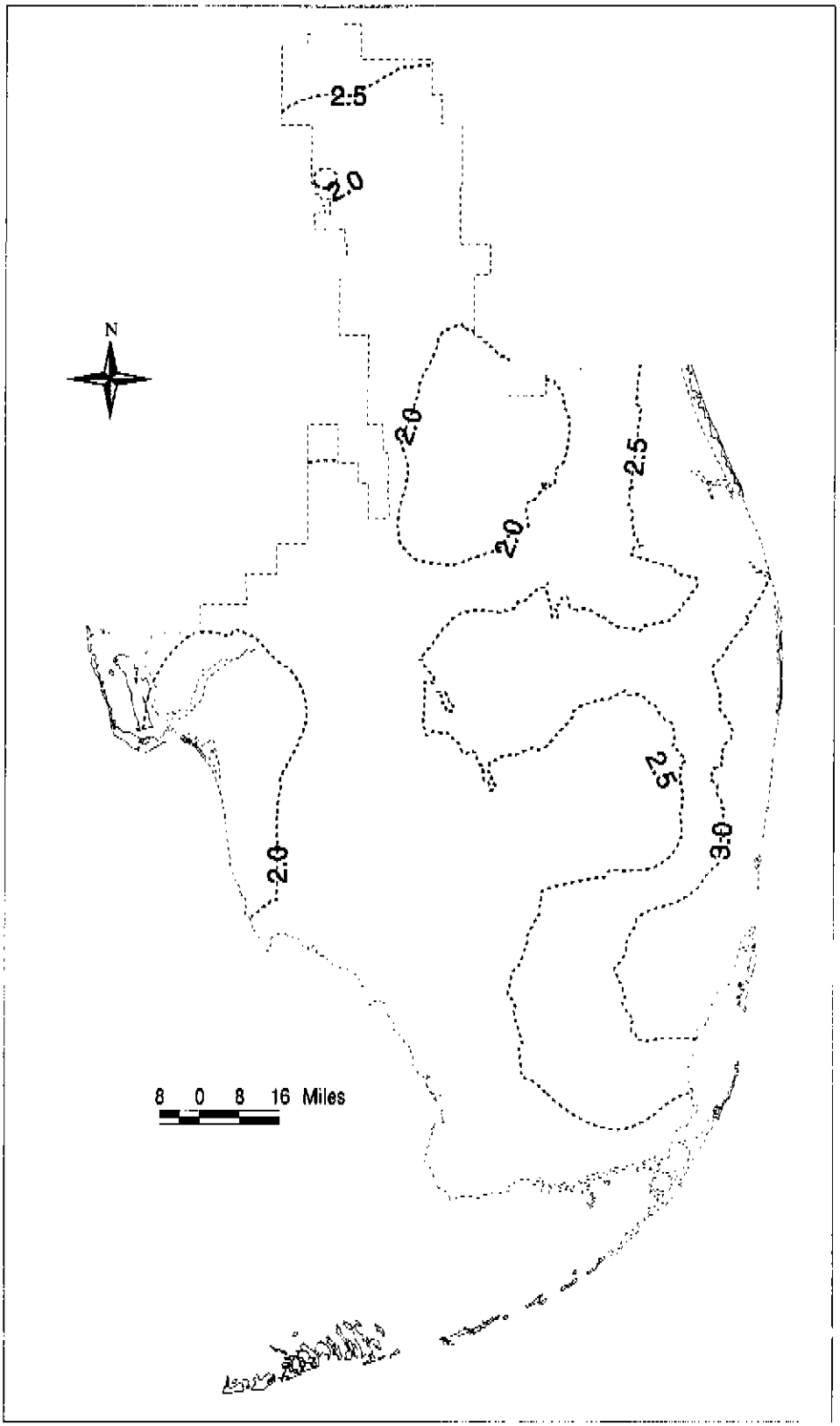

Figure 11d. April average rainfall (inches) within Central and South Florida.

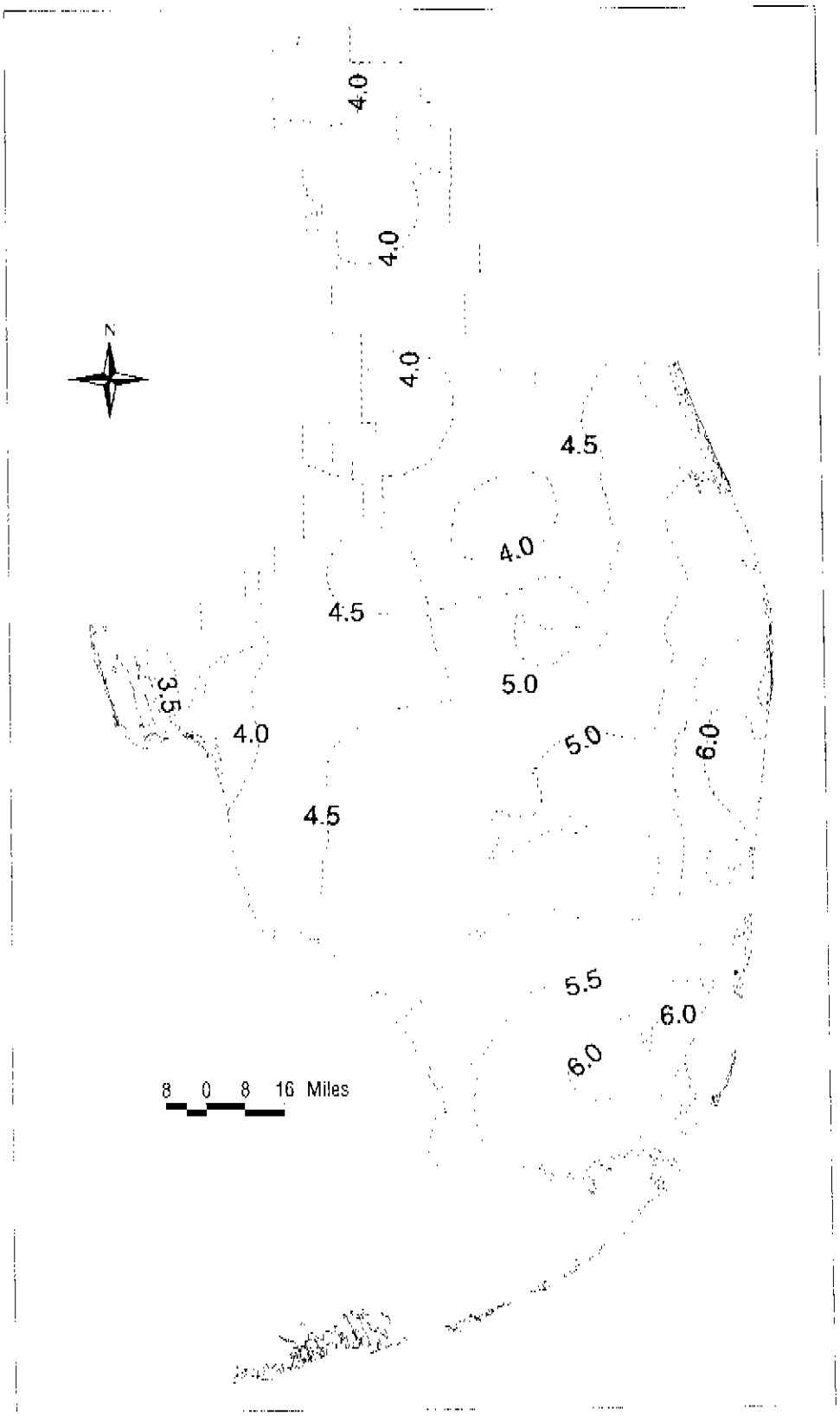

Figure 11c. May average rainfall (inches) within Central and South Florida.

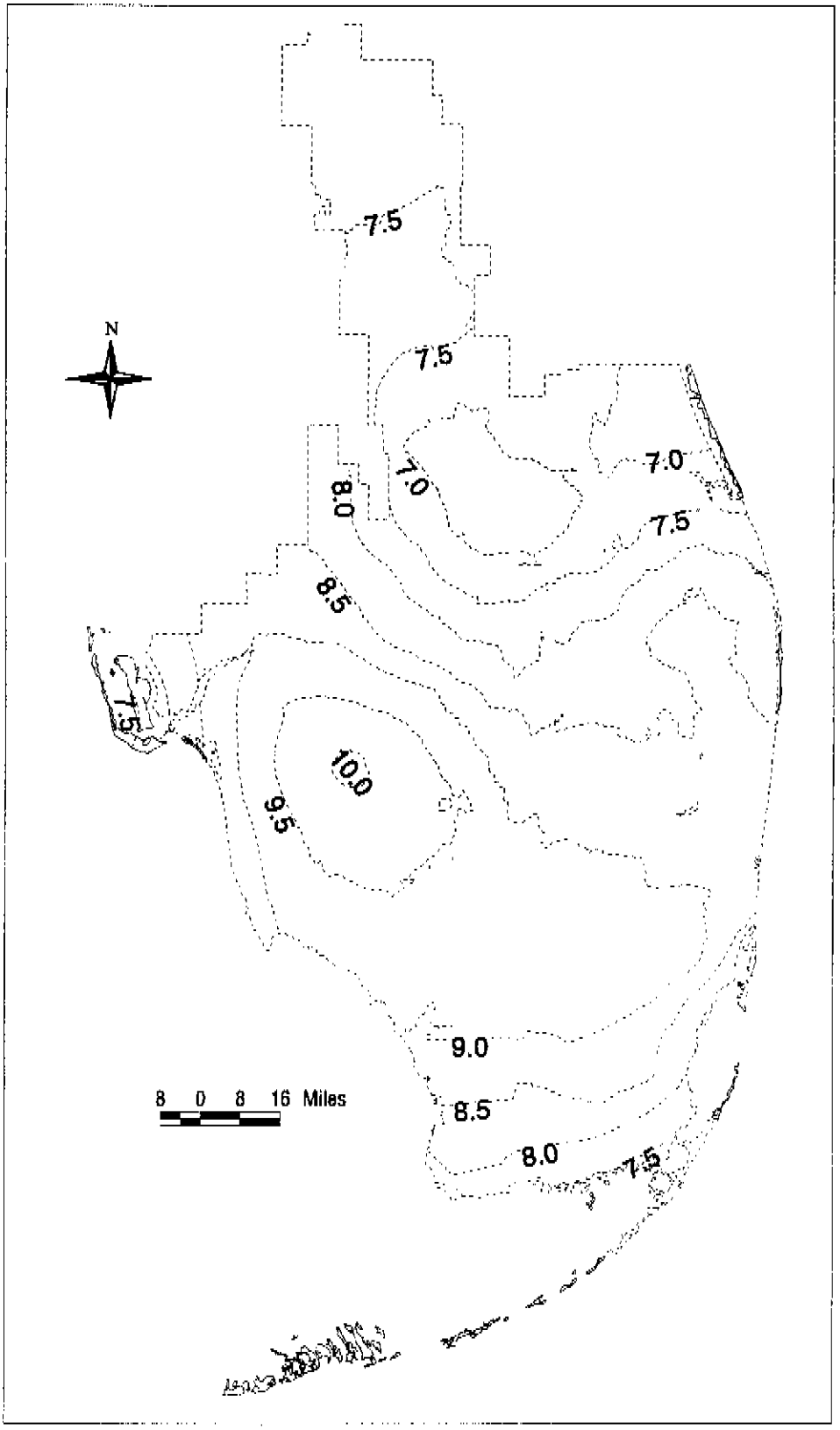

Figure 11f. June average rainfall (inches) within Central and South Florida.

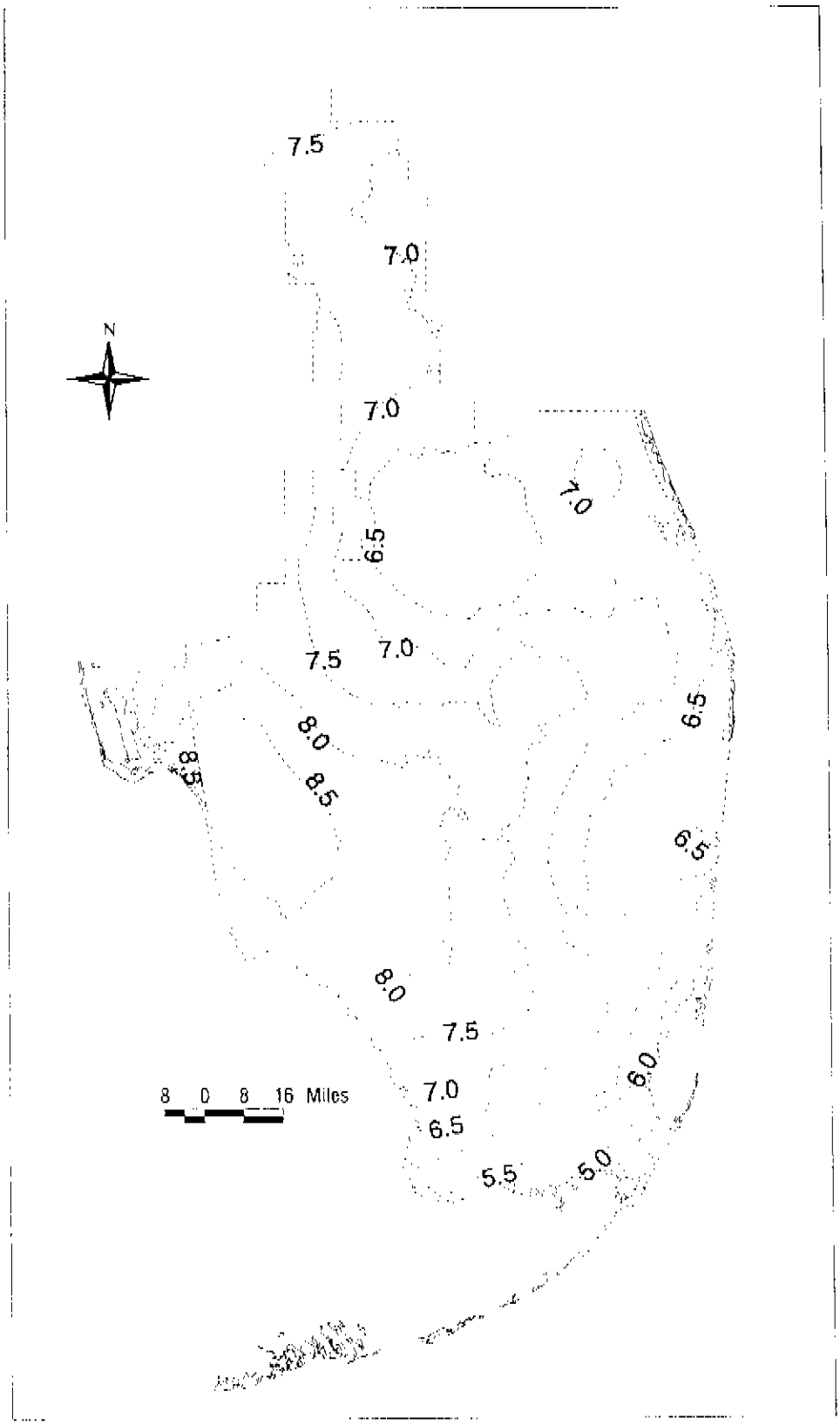

Figure 11g. July average rainfall (inches) within Central and South Florida.

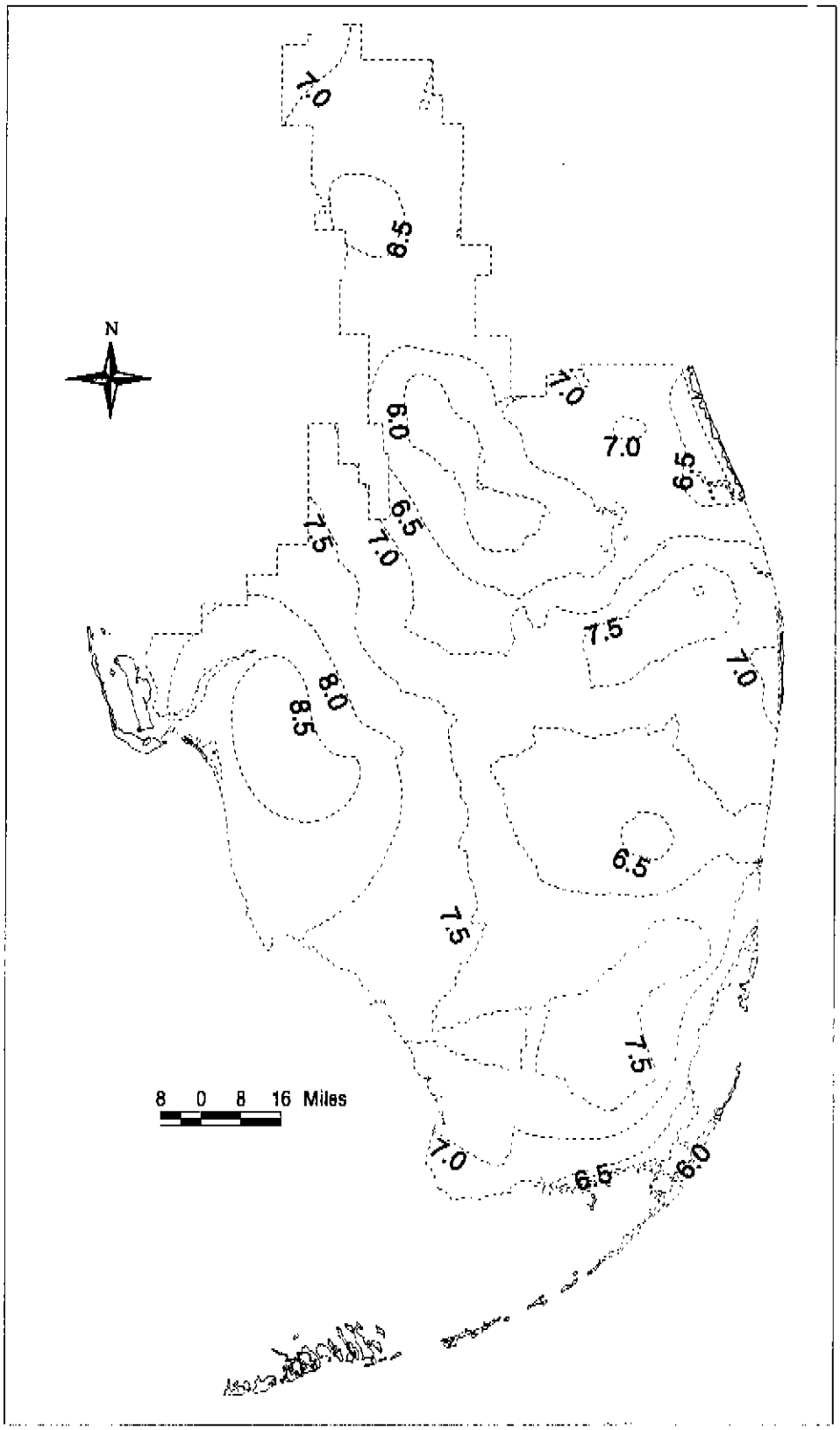

Figure 11h. August average rainfall (inches) within Central and South Florida.

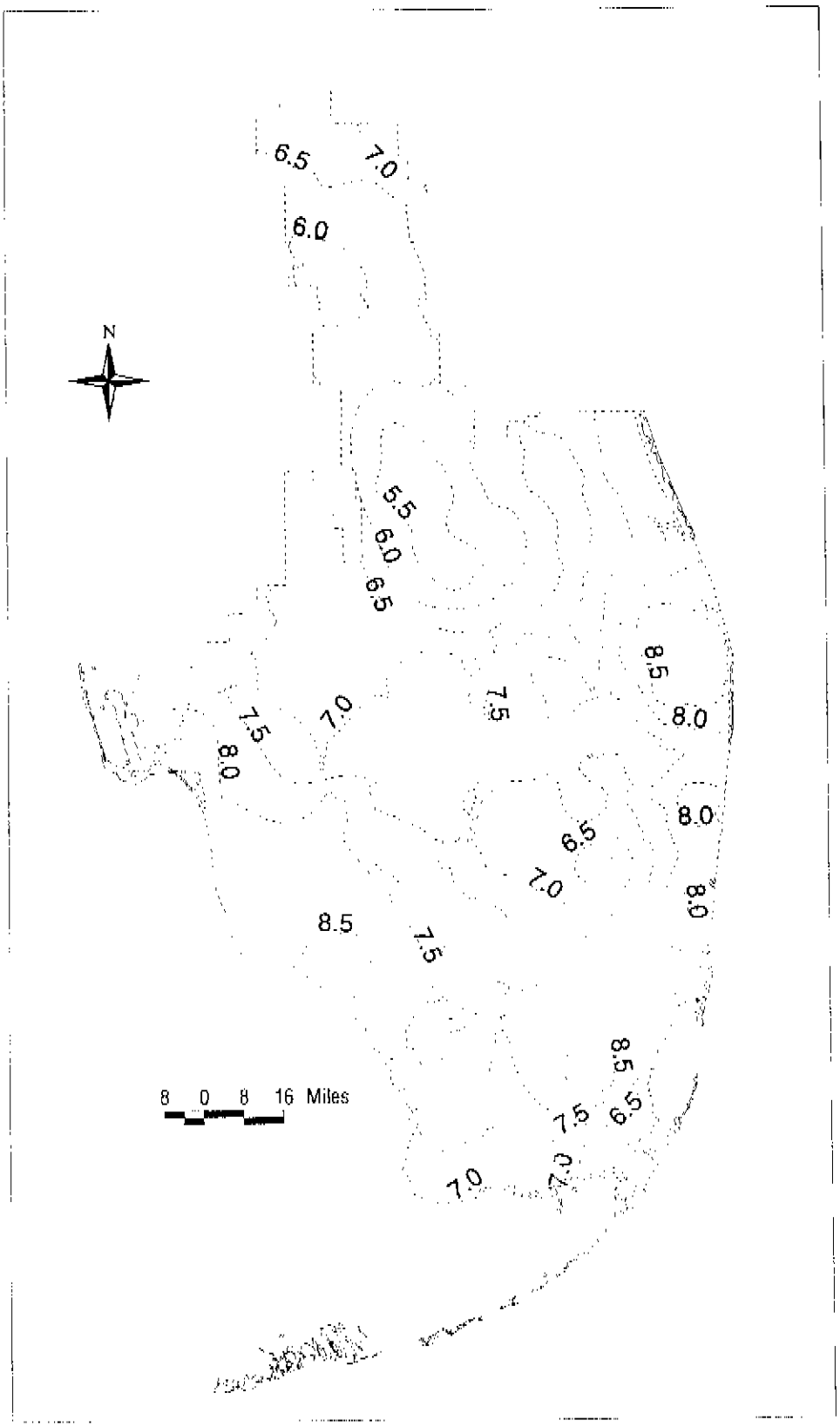

Figure 11i. September average rainfall (inches) within Central and South Florida.

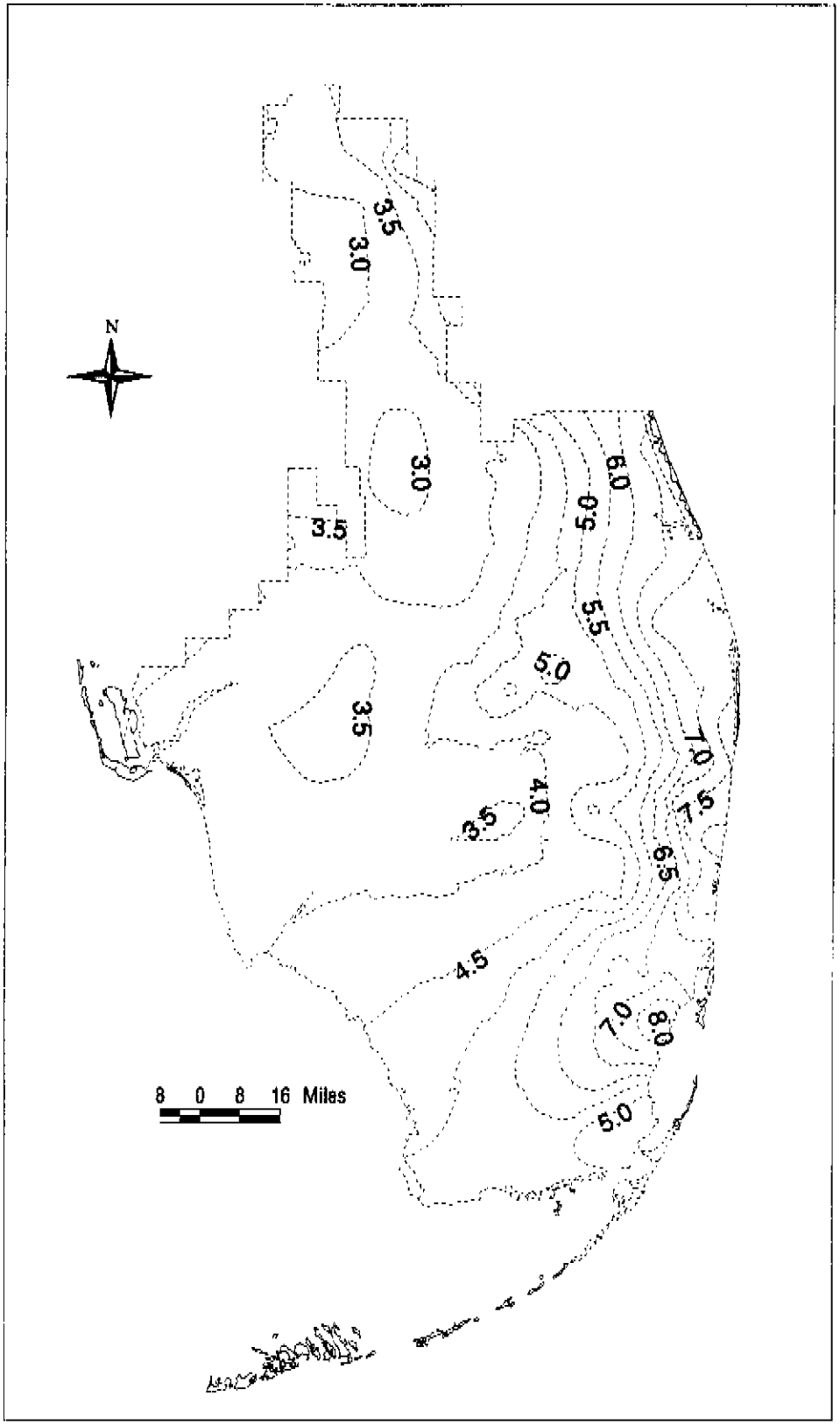

Figure 11j. October average rainfall (inches) within Central and South Florida.

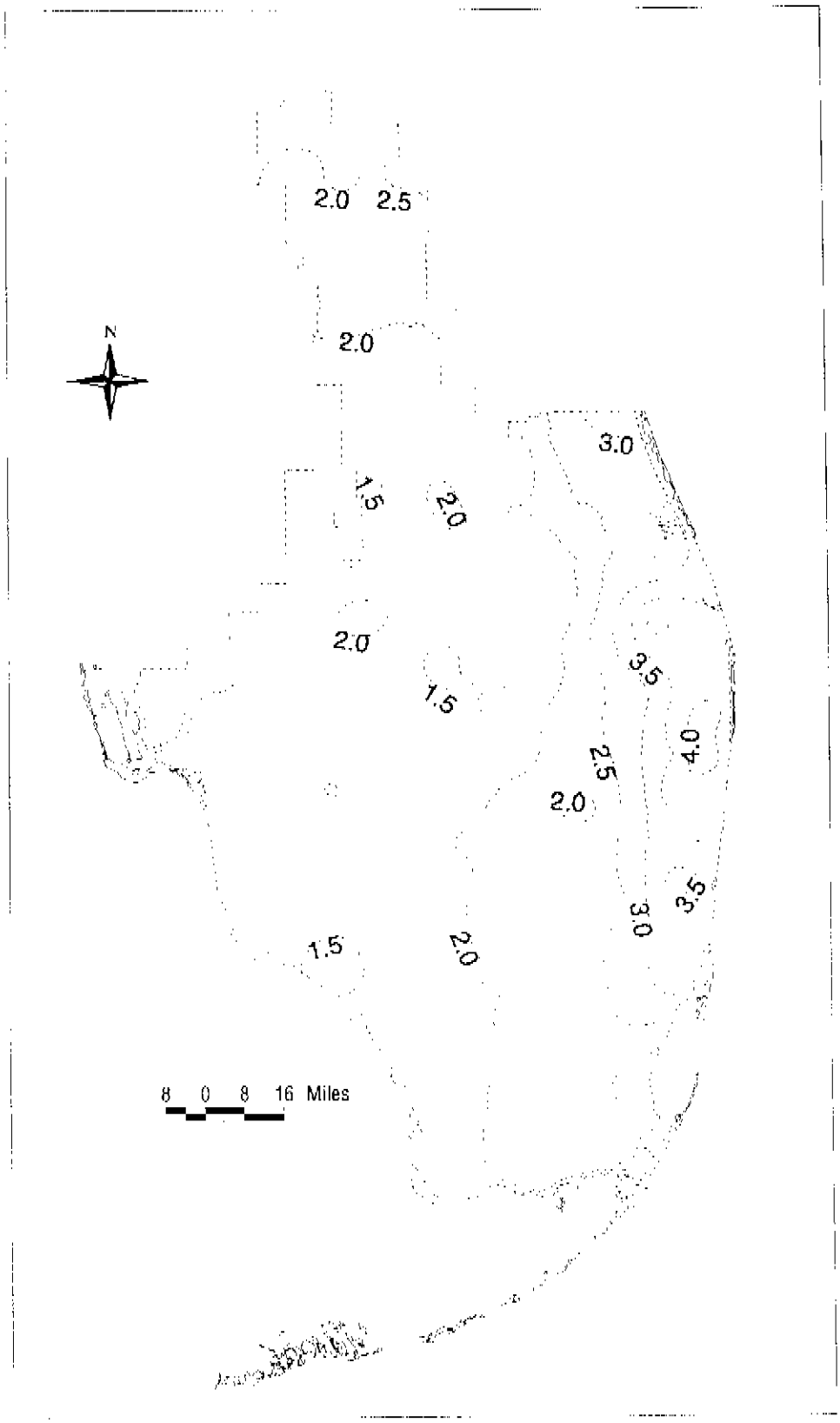

Figure 11k. November average rainfall (inches) within Central and South Florida.

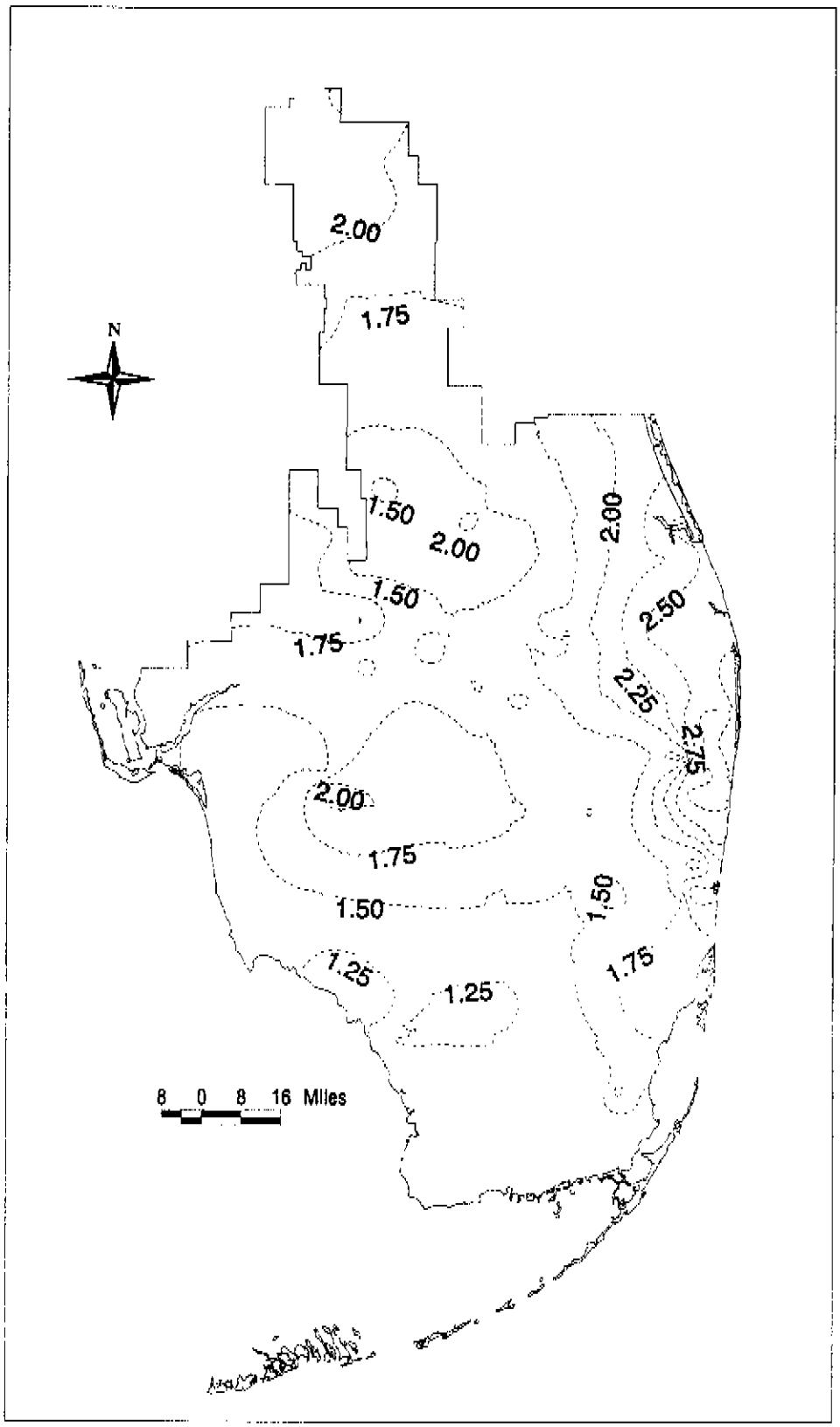

Figure 111. December average rainfall (inches) within Central and South Florida.

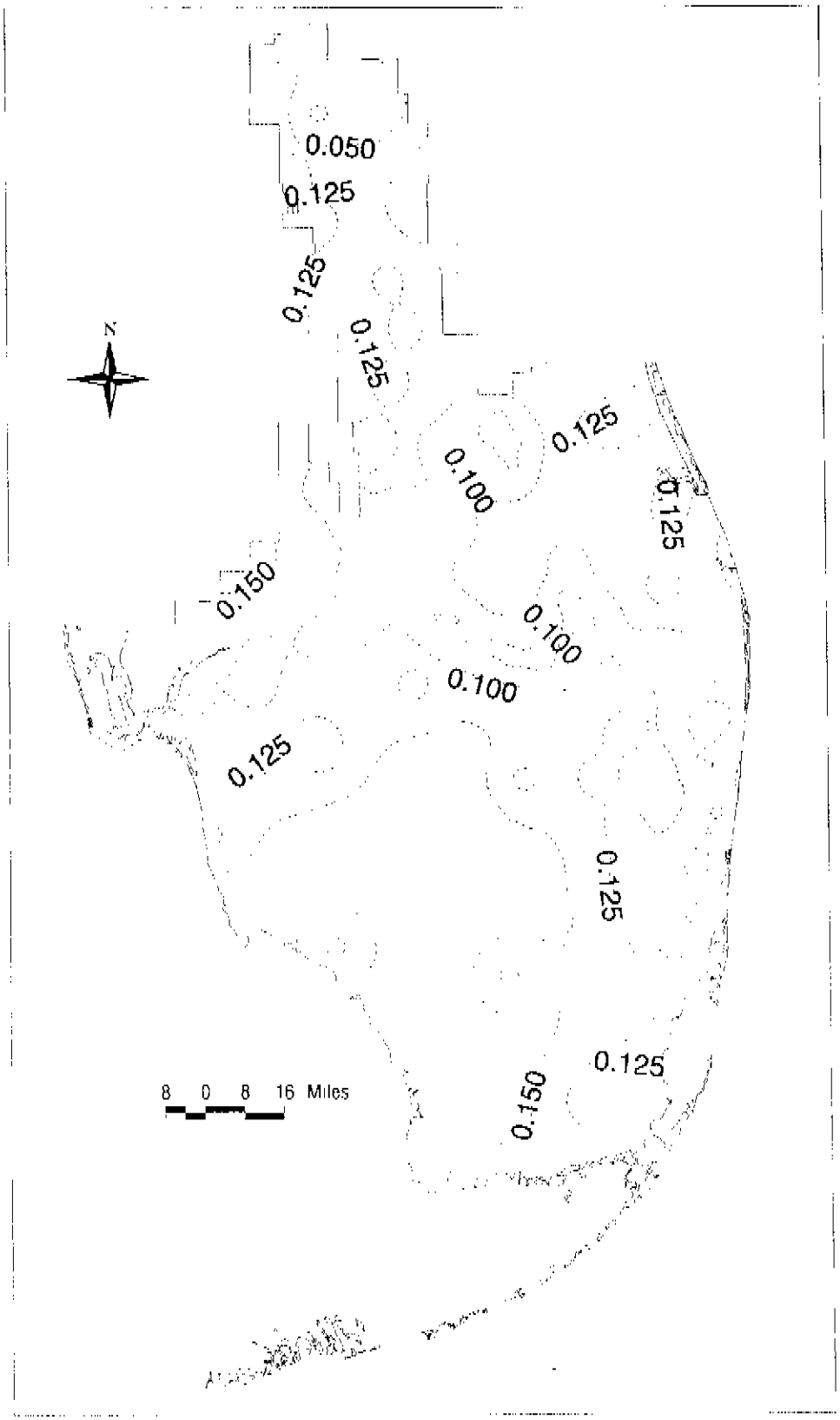

Figure 12a. Estimation variance (inch^2) for January average rainfall within Central and South Florida.

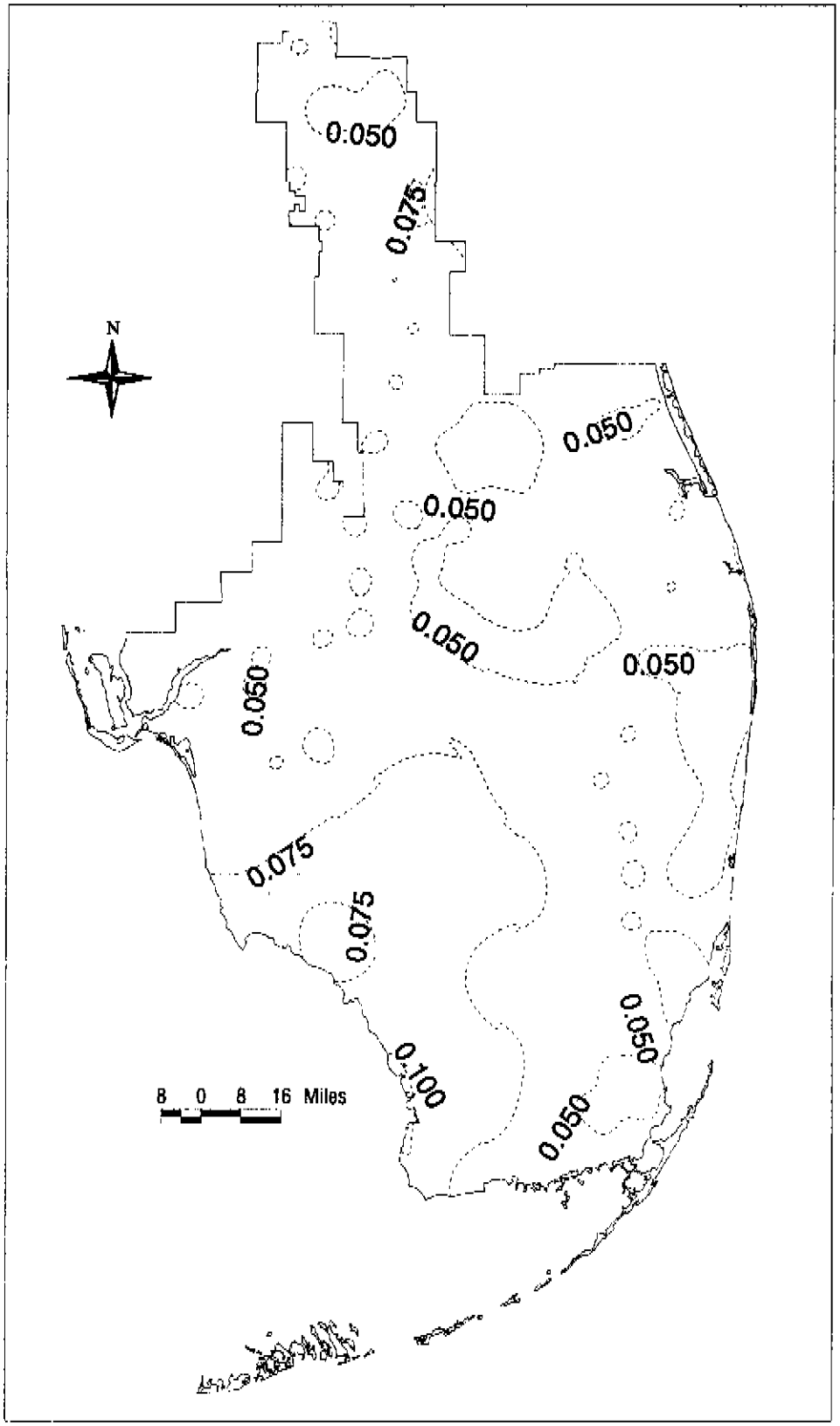

Figure 12b. Estimation variance (inch^2) for February average rainfall within Central and South Florida.

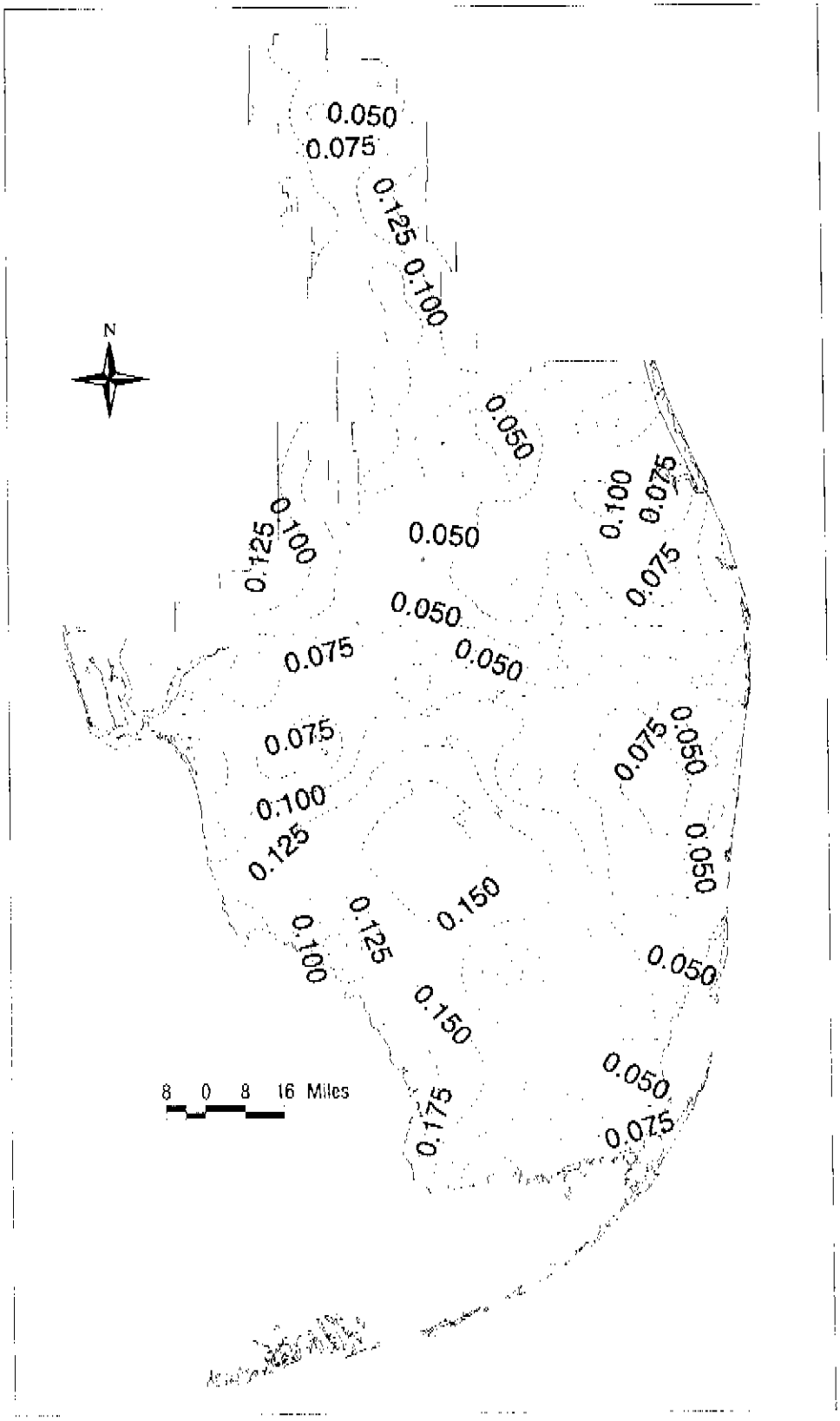

Figure 12c. Estimation variance (inch^2) for March average rainfall within Central and South Florida.

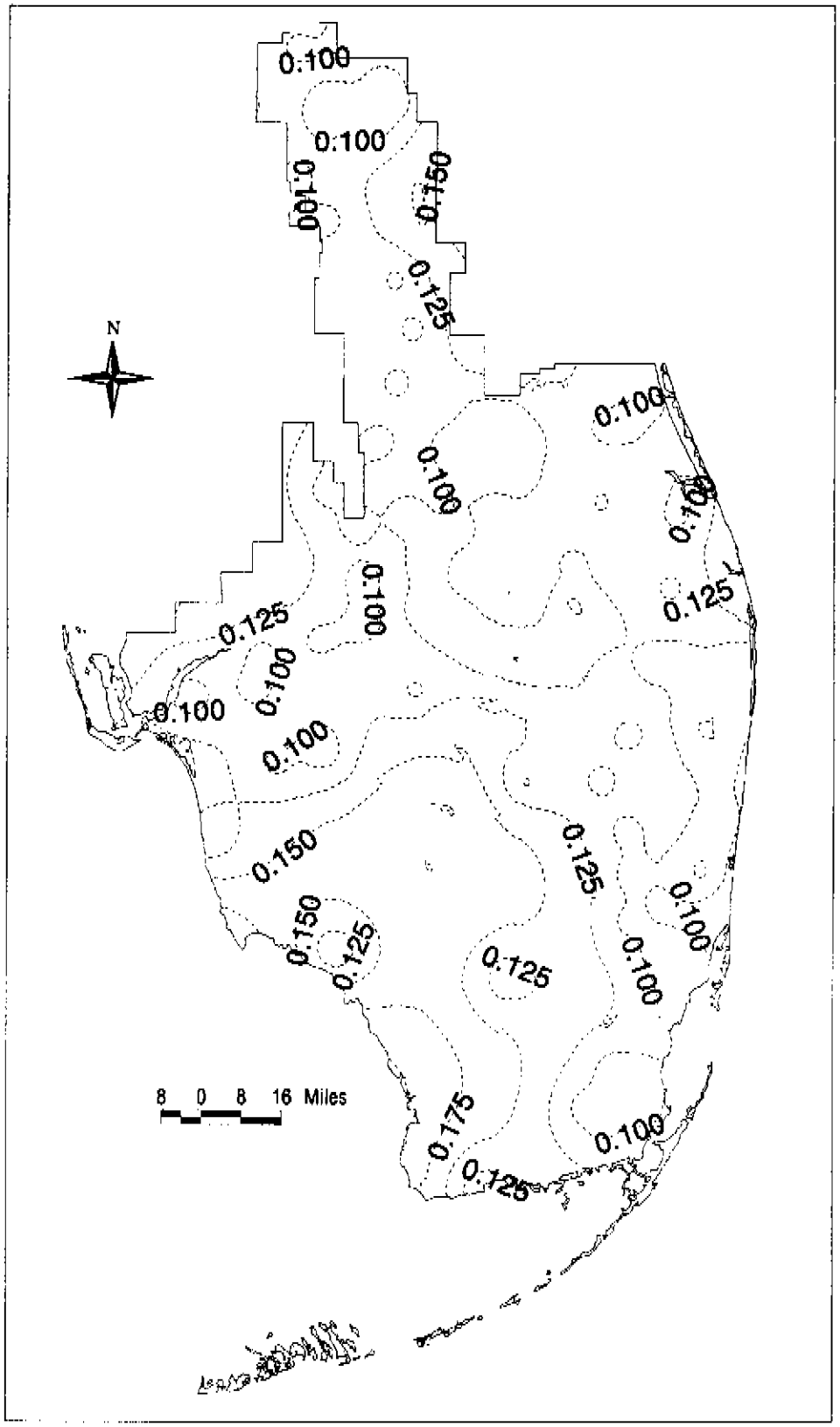

Figure 12d. Estimation variance (inch^2) for April average rainfall within Central and South Florida.

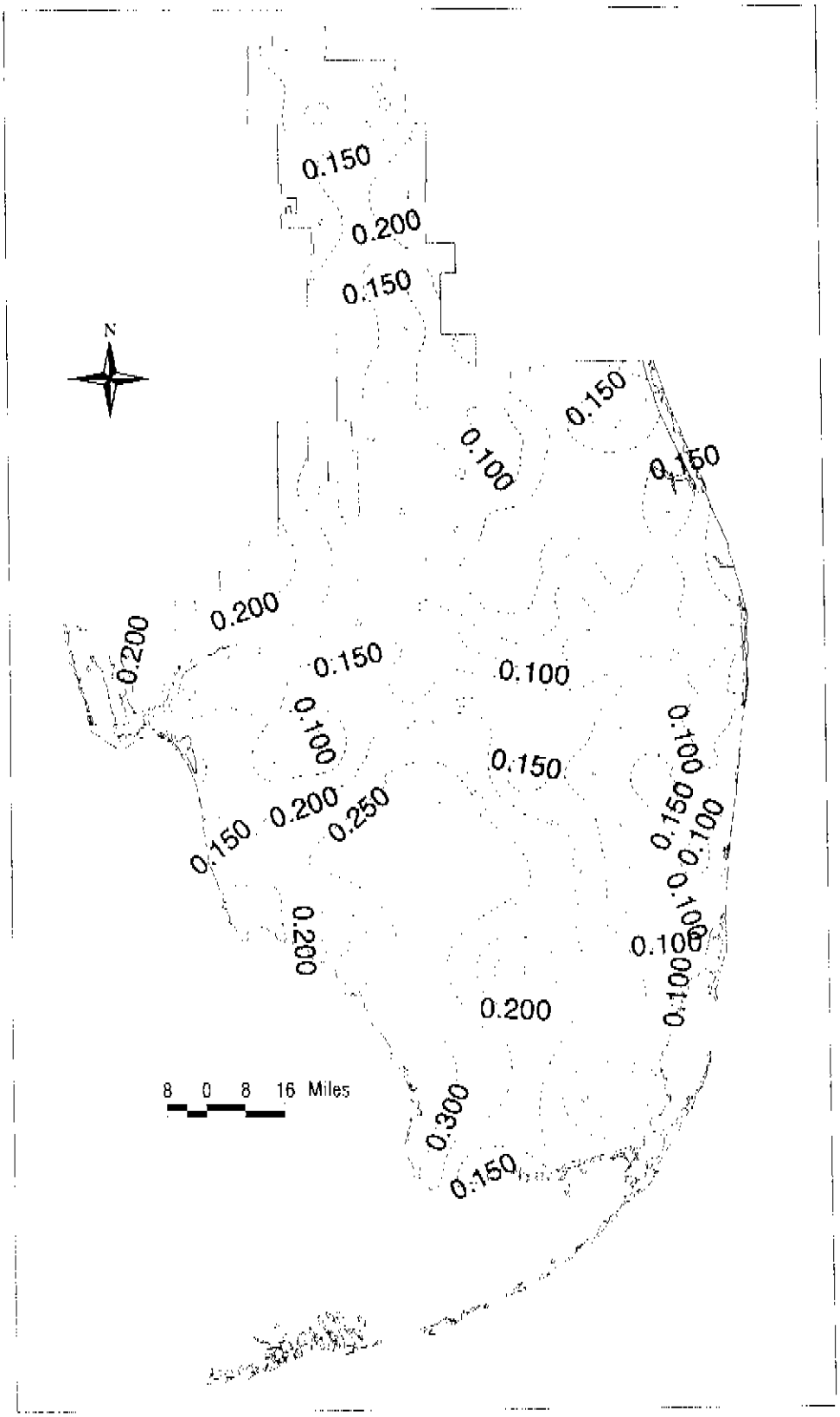

Figure 12e. Estimation variance (inch^2) for May average rainfall within Central and South Florida.

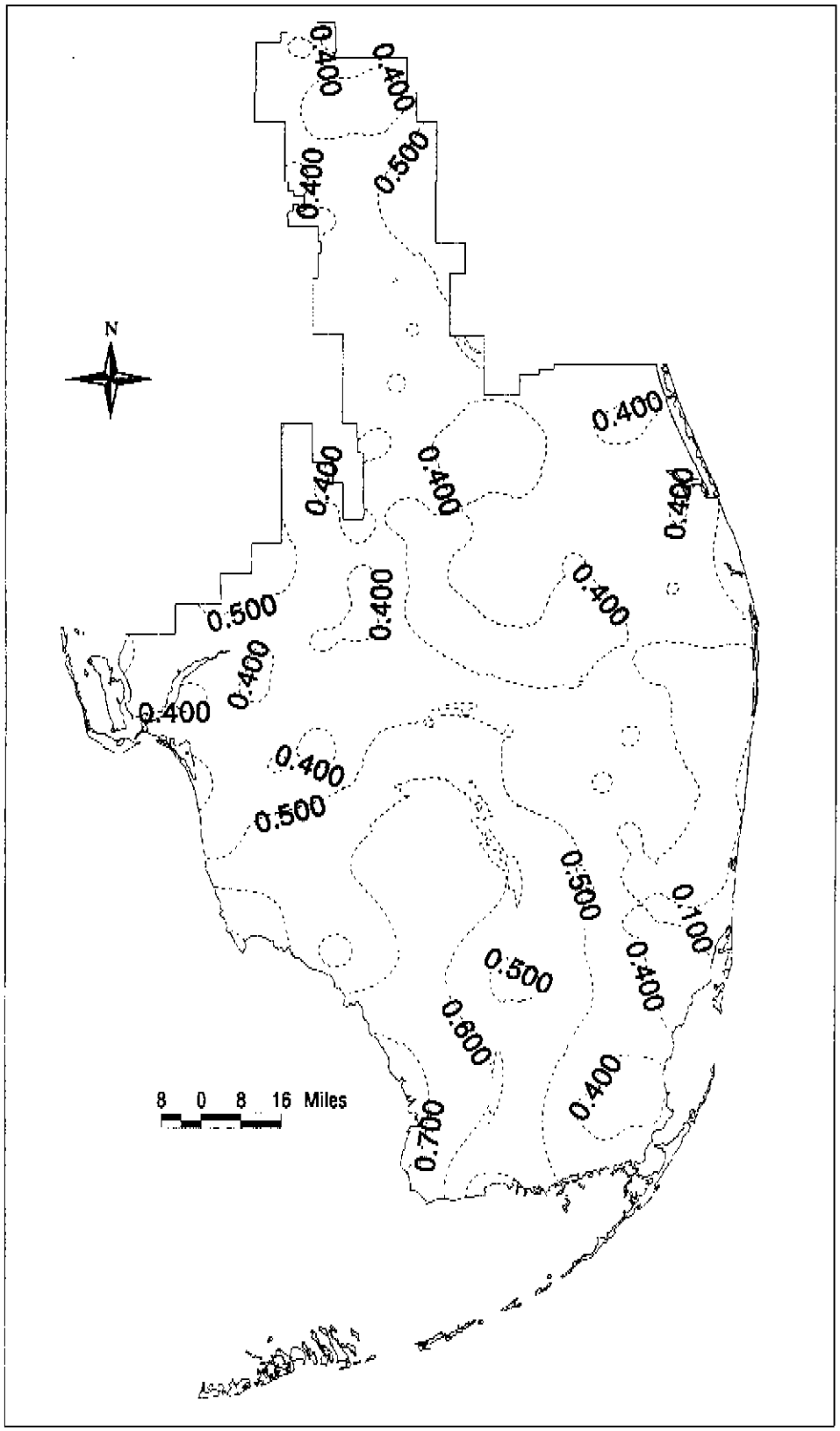

Figure 12f. Estimation variance (inch^2) for June average rainfall within Central and South Florida.

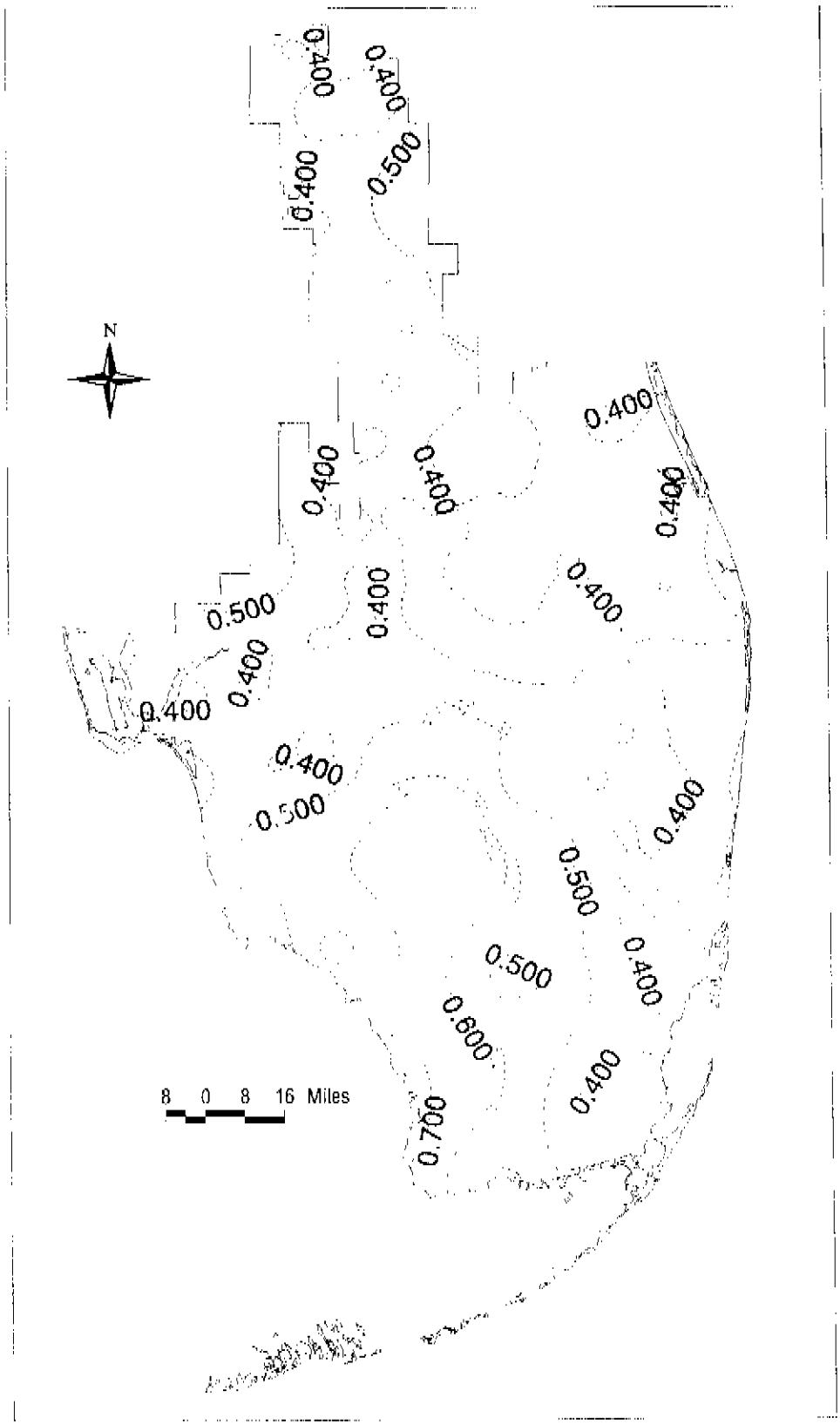

Figure 12g. Estimation variance (inch^2) for July average rainfall within Central and South Florida.

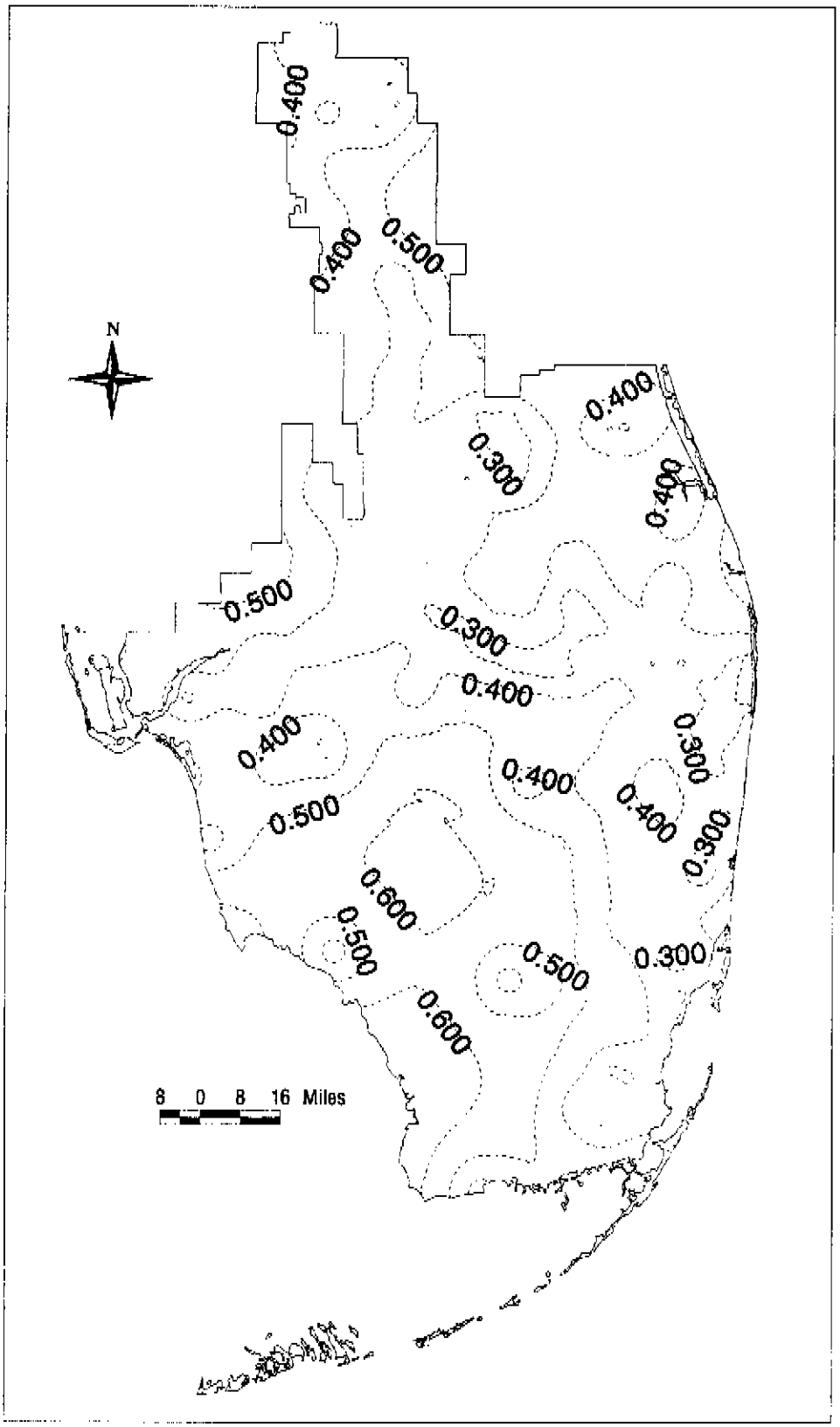

Figure 12h. Estimation variance (inch^2) for August average rainfall within Central and South Florida.

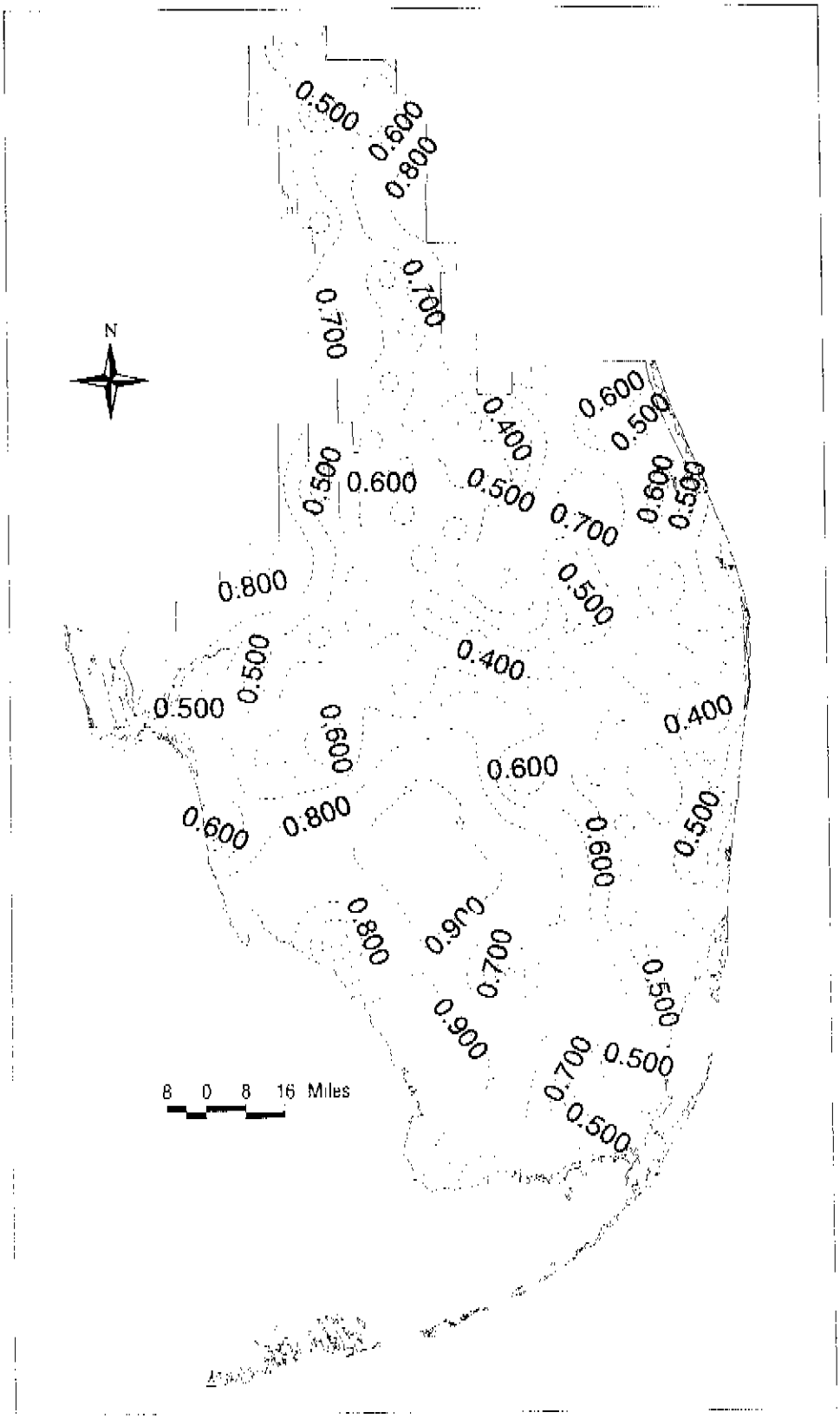

Figure 12i. Estimation variance (inch^2) for September average rainfall within Central and South Florida.

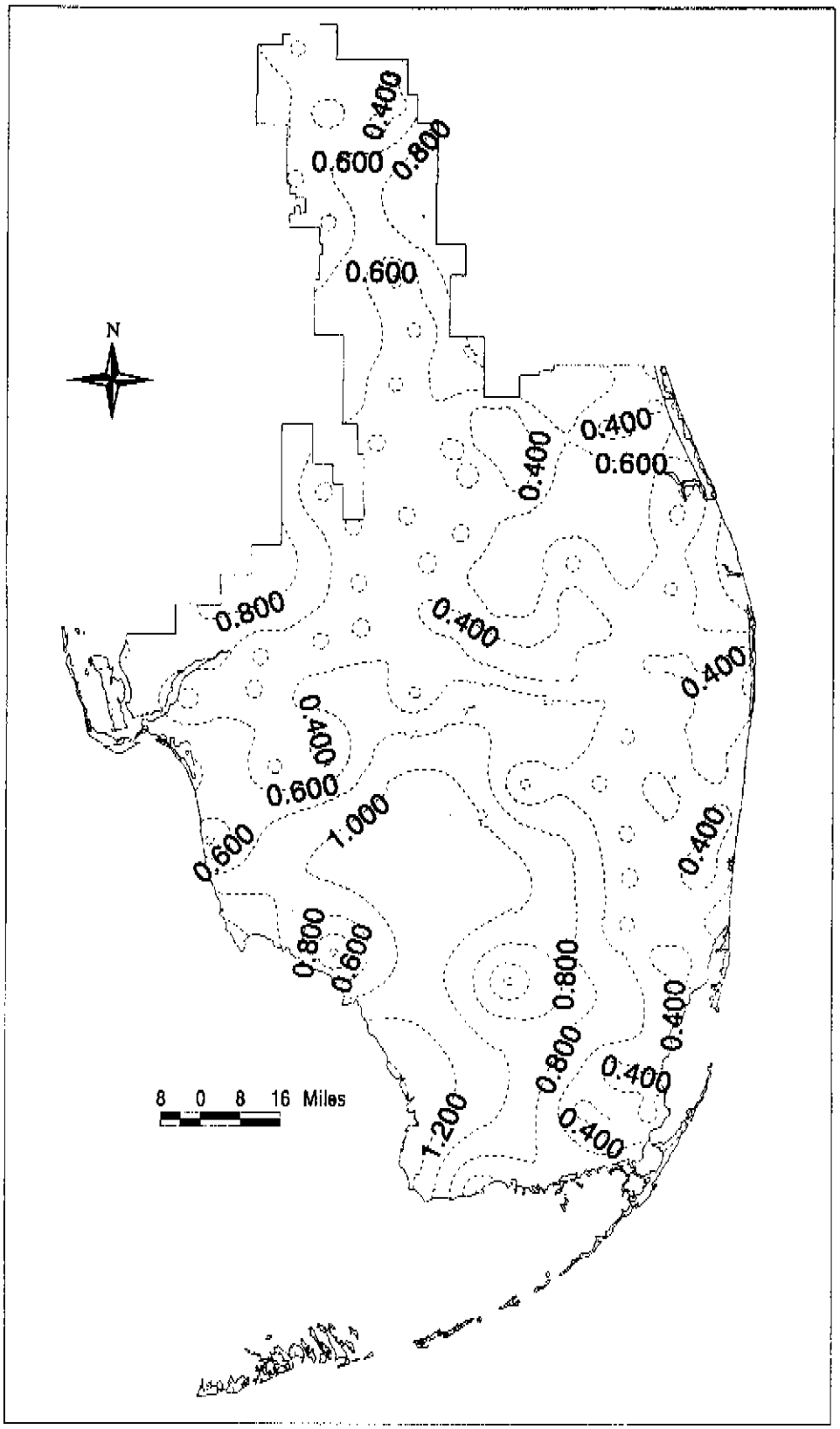

Figure 12j. Estimation variance .(inch^2) for October average rainfall within Central and South Florida.

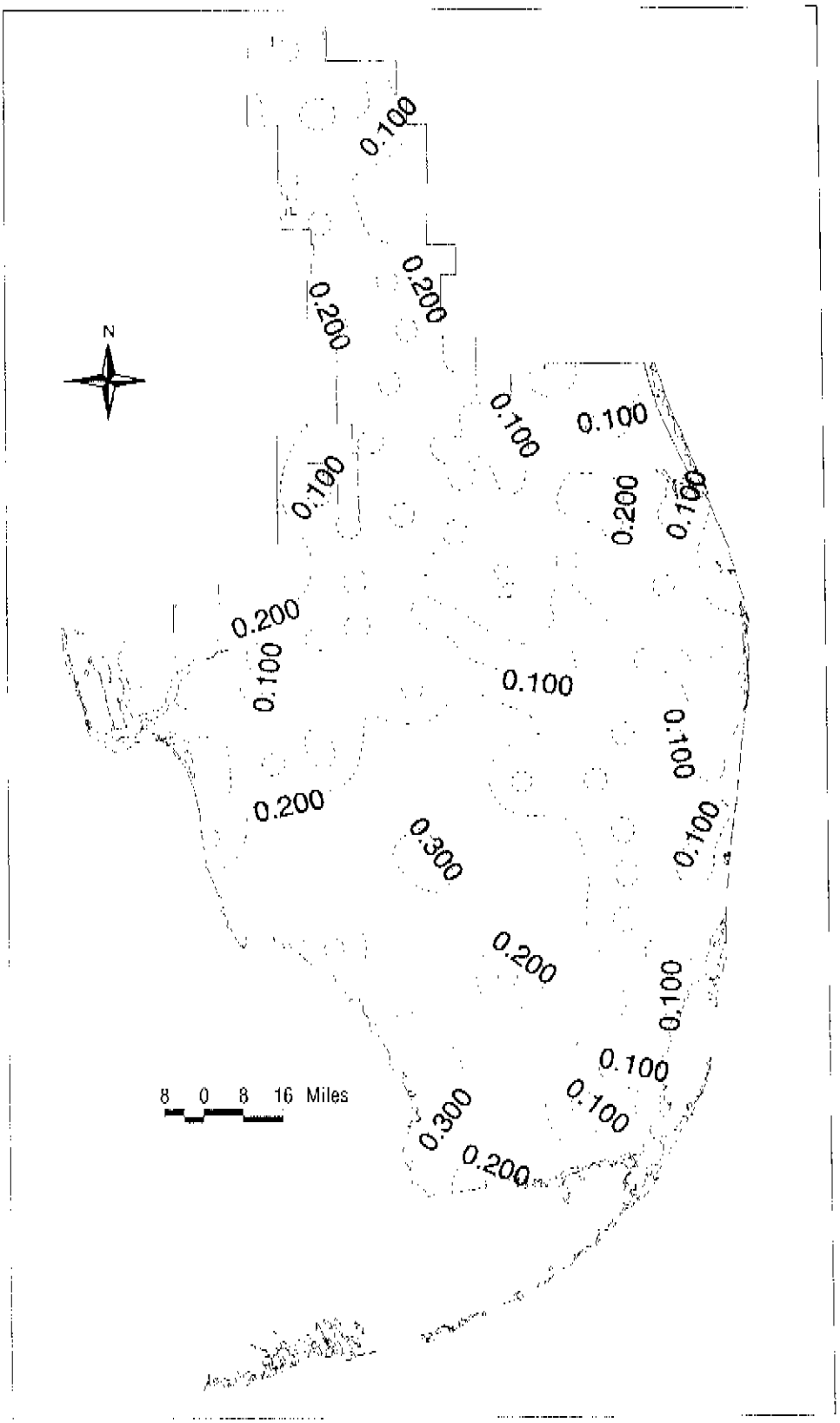

Figure 12k. Estimation variance (inch^2) for November average rainfall within Central and South Florida.

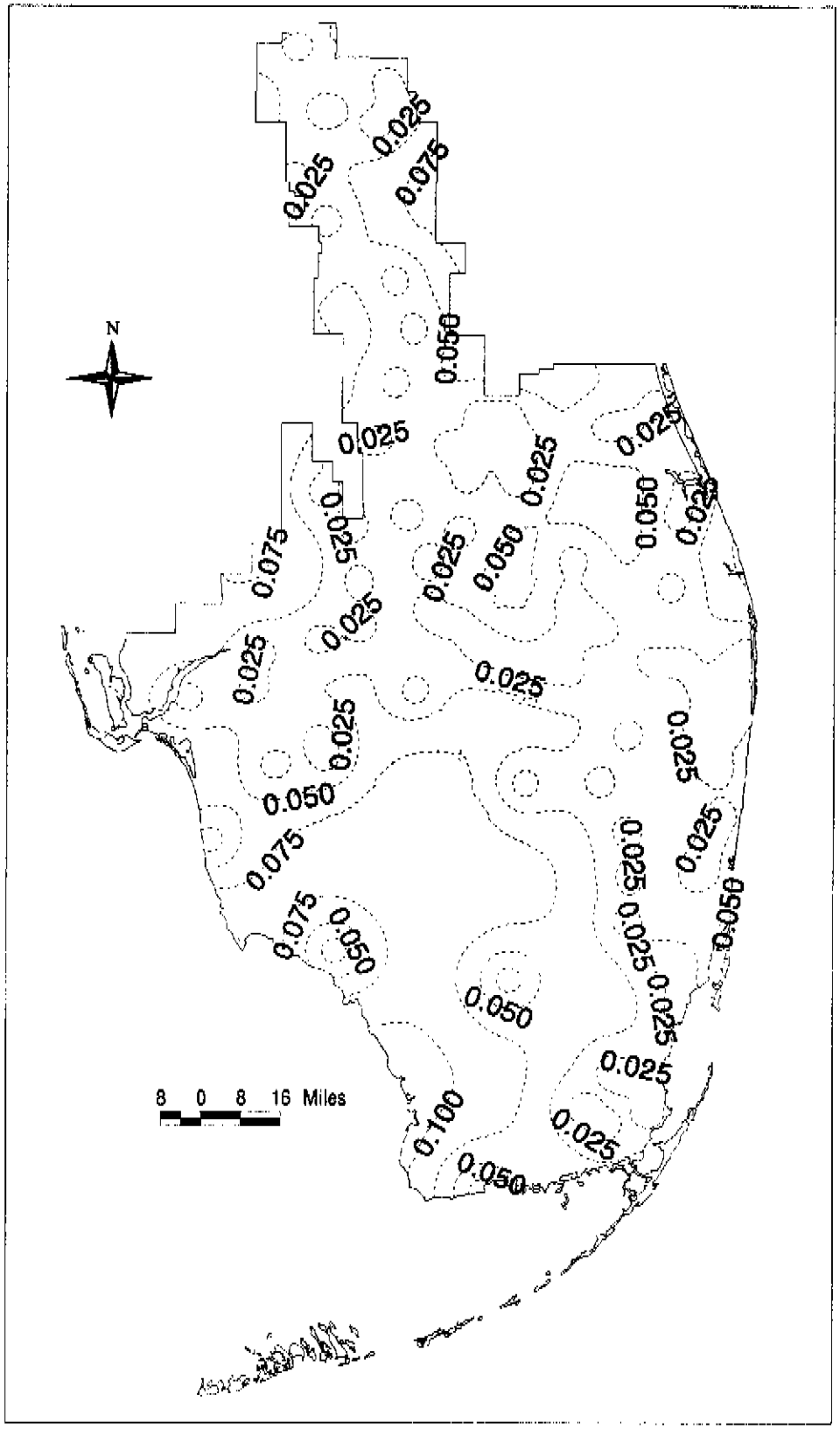

Figure 12l. Estimation variance (inch^2) for December average rainfall within Central and South Florida.

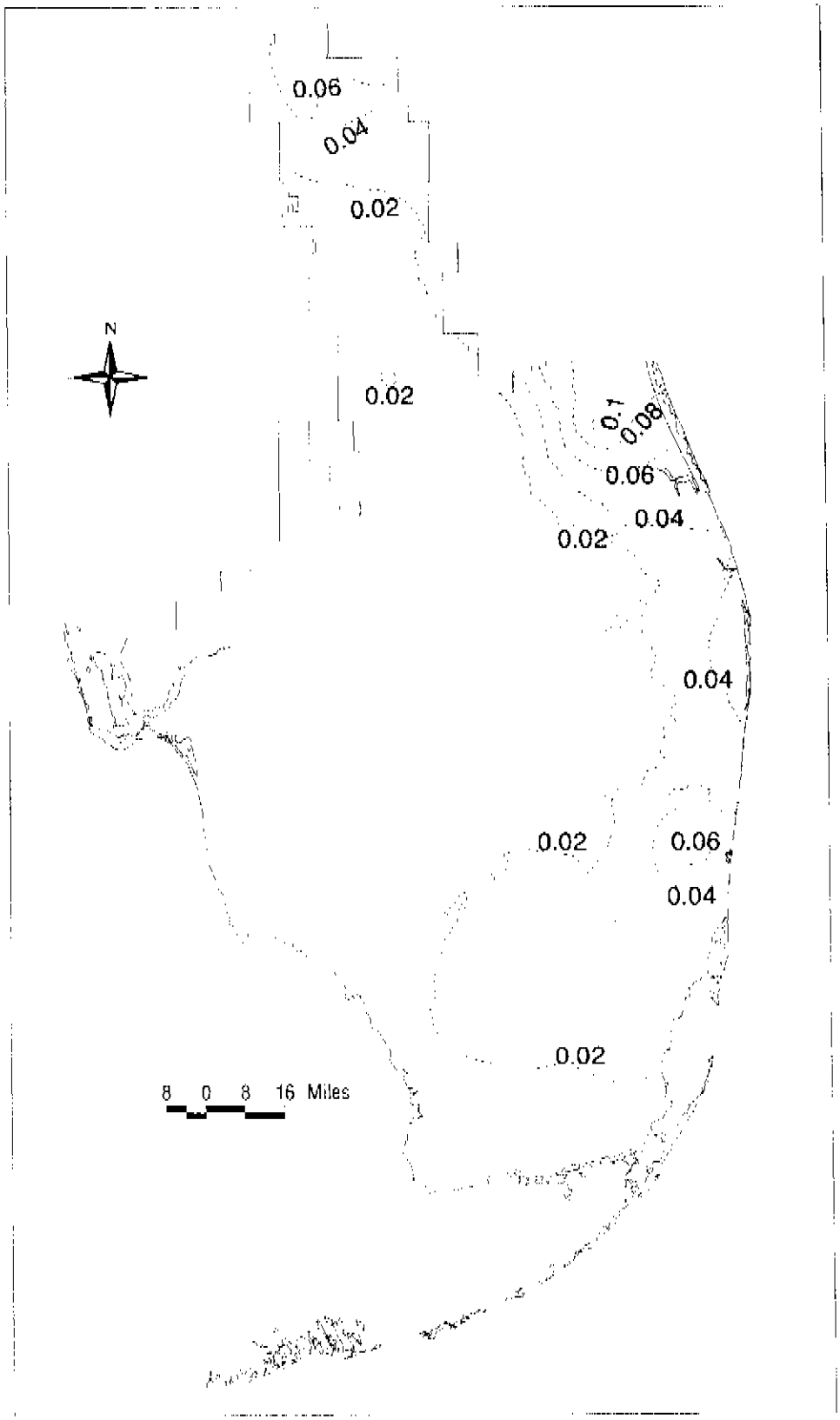

Figure 13a. January rainfall (inches) for 100 year dry return period within Central and South Florida.

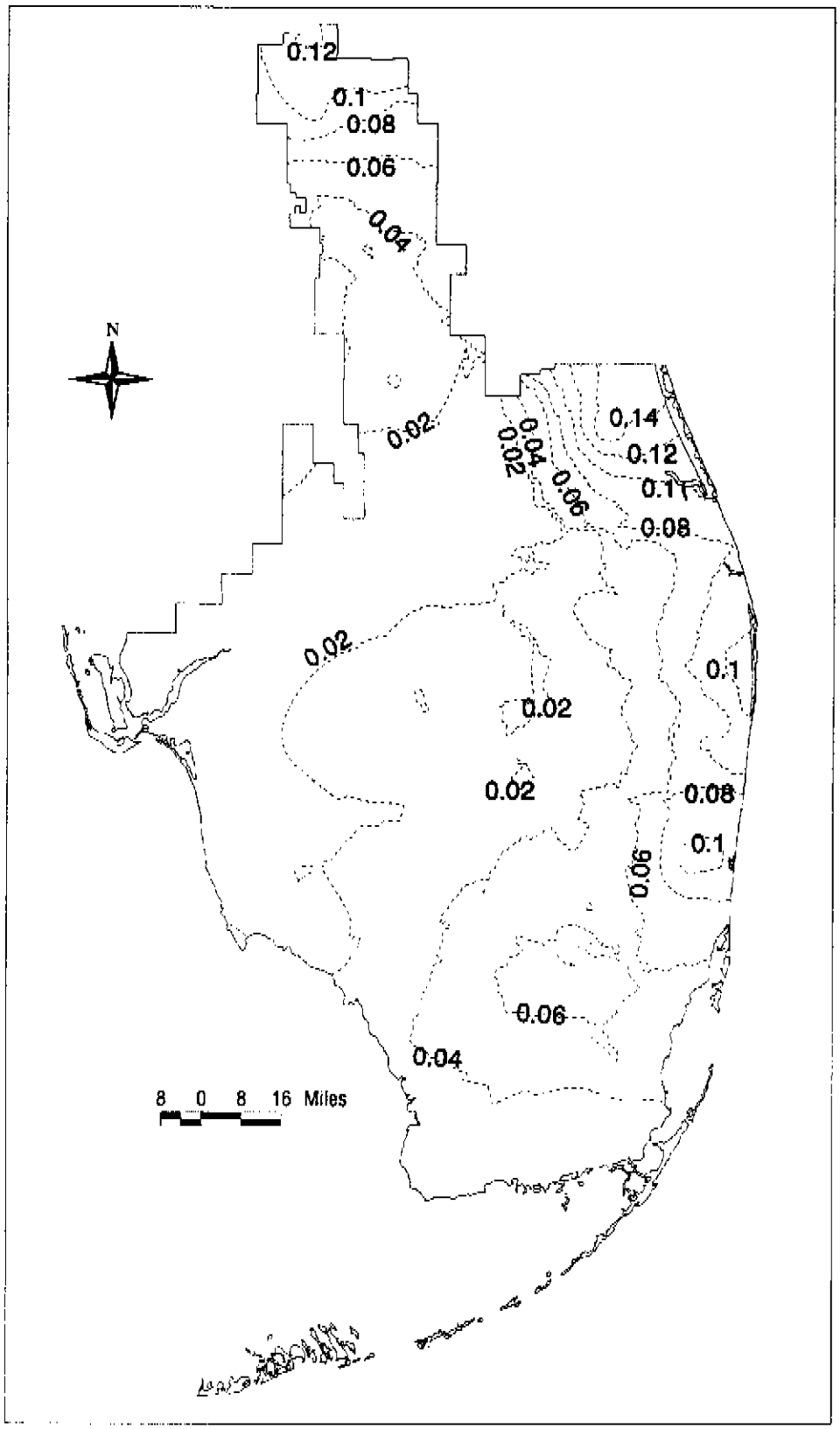

Figure 13b. January rainfall (inches) for 50 year dry return period within Central and South Florida.

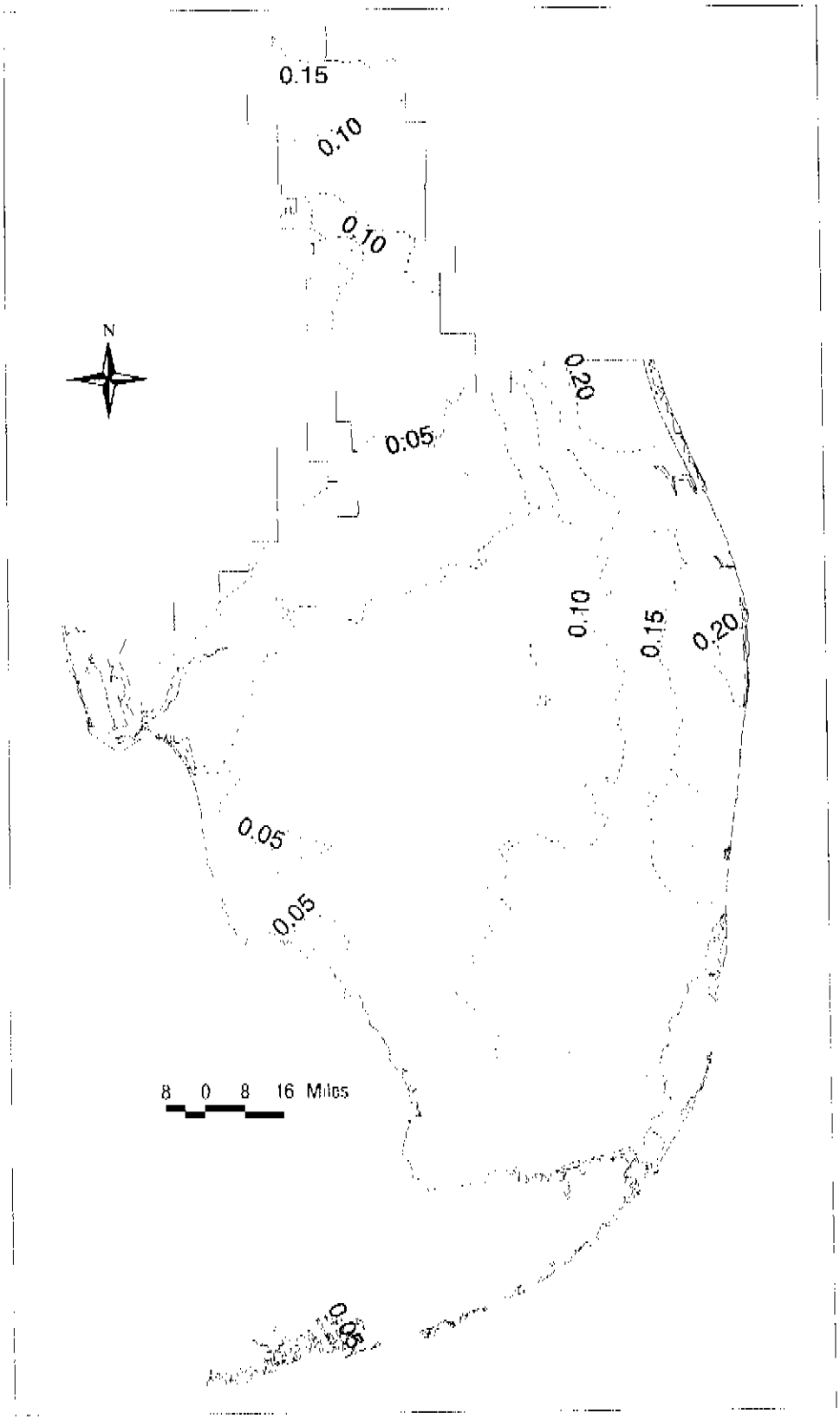

Figure 13c. January rainfall (inches) for 20 year dry return period within Central and South Florida.

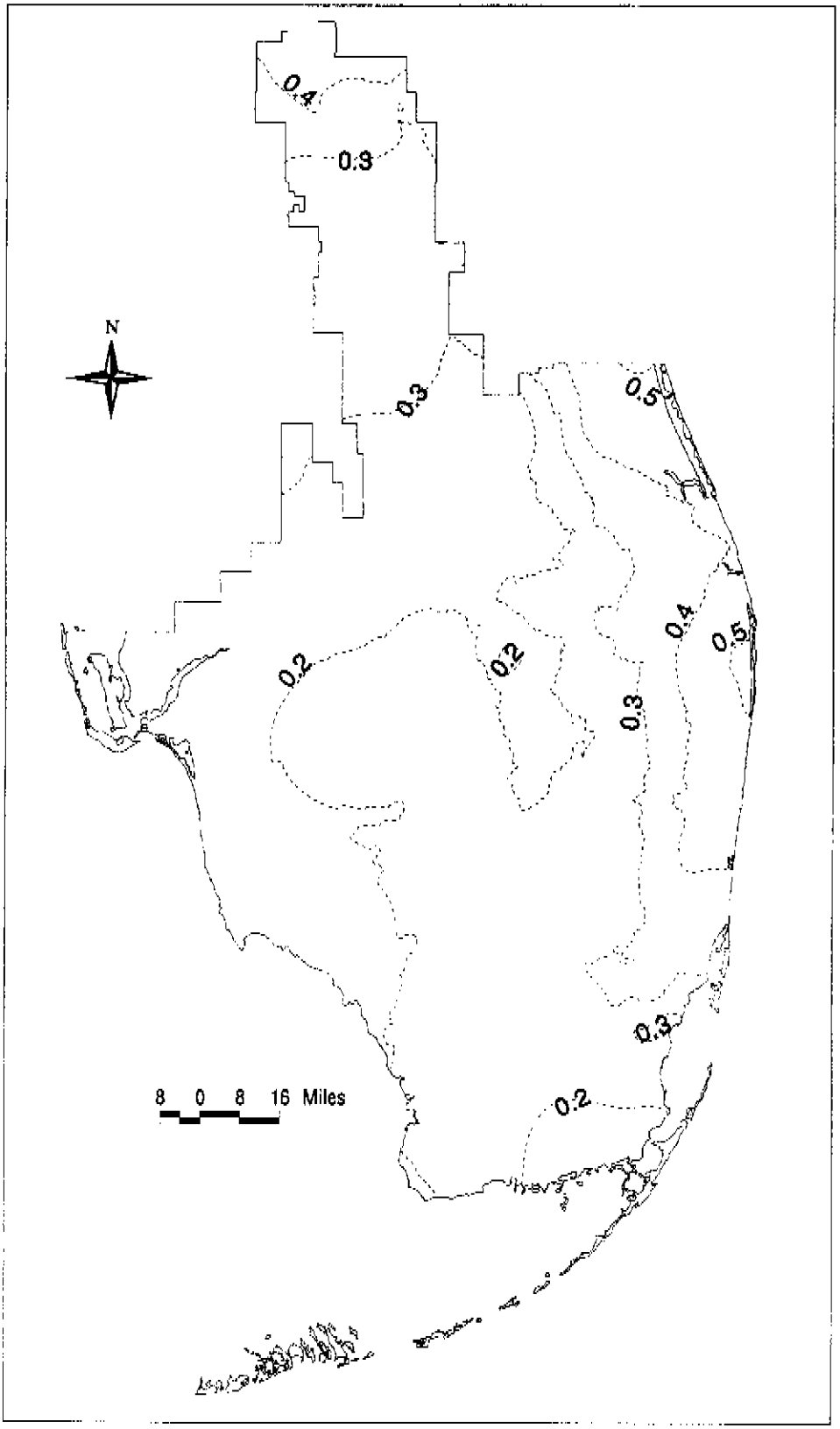

Figure 13d. January rainfall (inches) for 10 year dry return period within Central and South Florida.

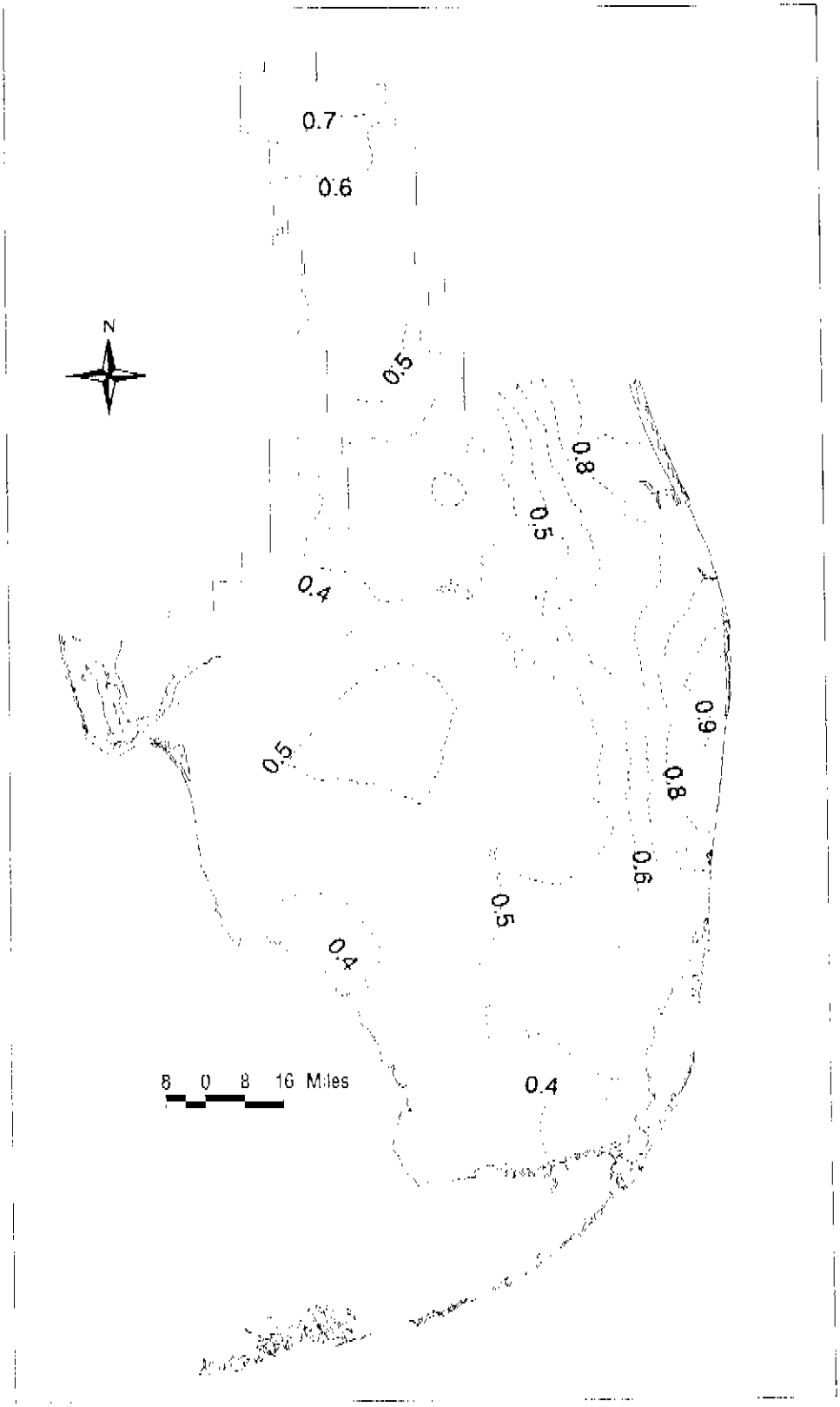

Figure 13e. January rainfall (inches) for 5 year dry return period within Central and South Florida.

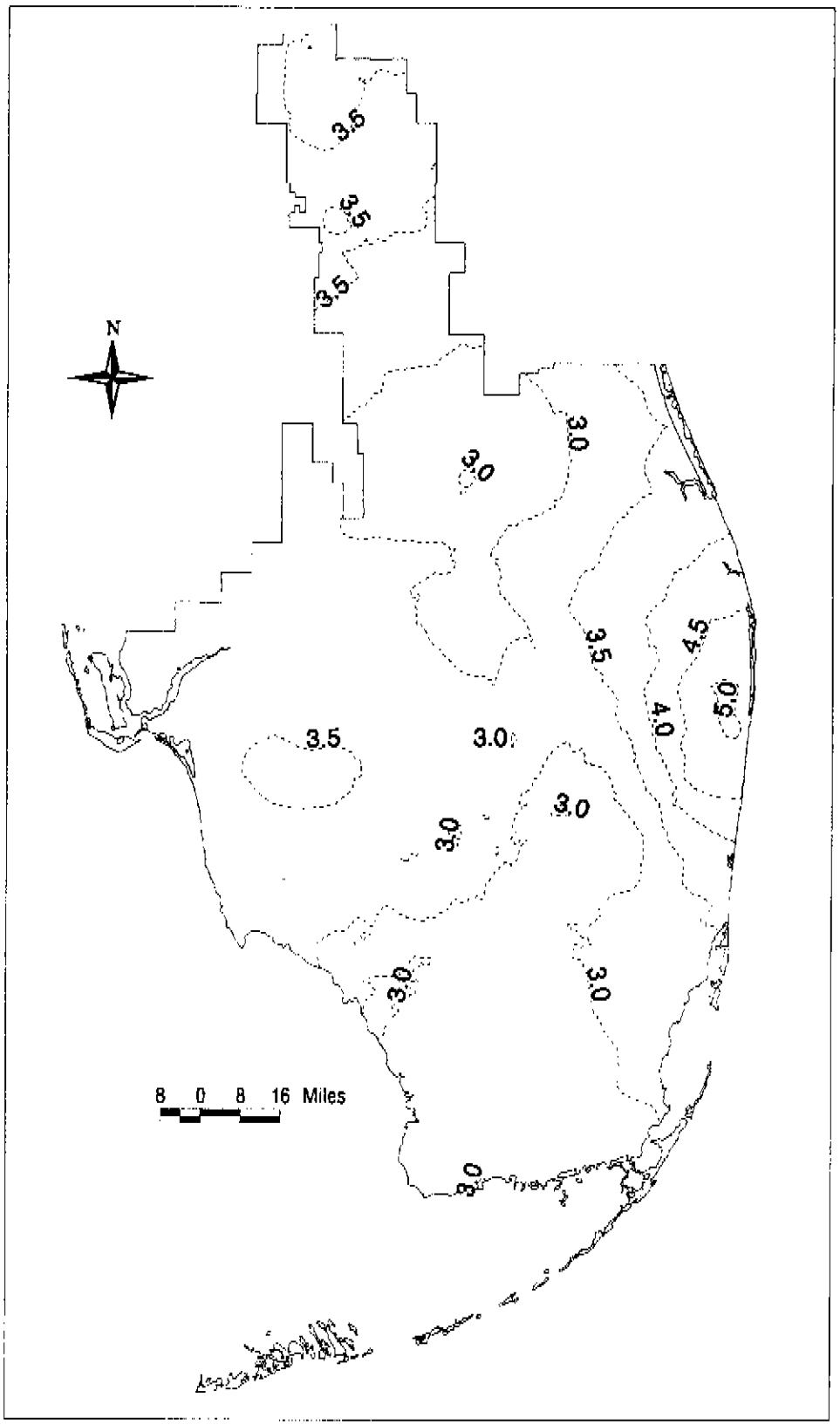

Figure 13f. January rainfall (inches) for 5 year wet return period within Central and South Florida.

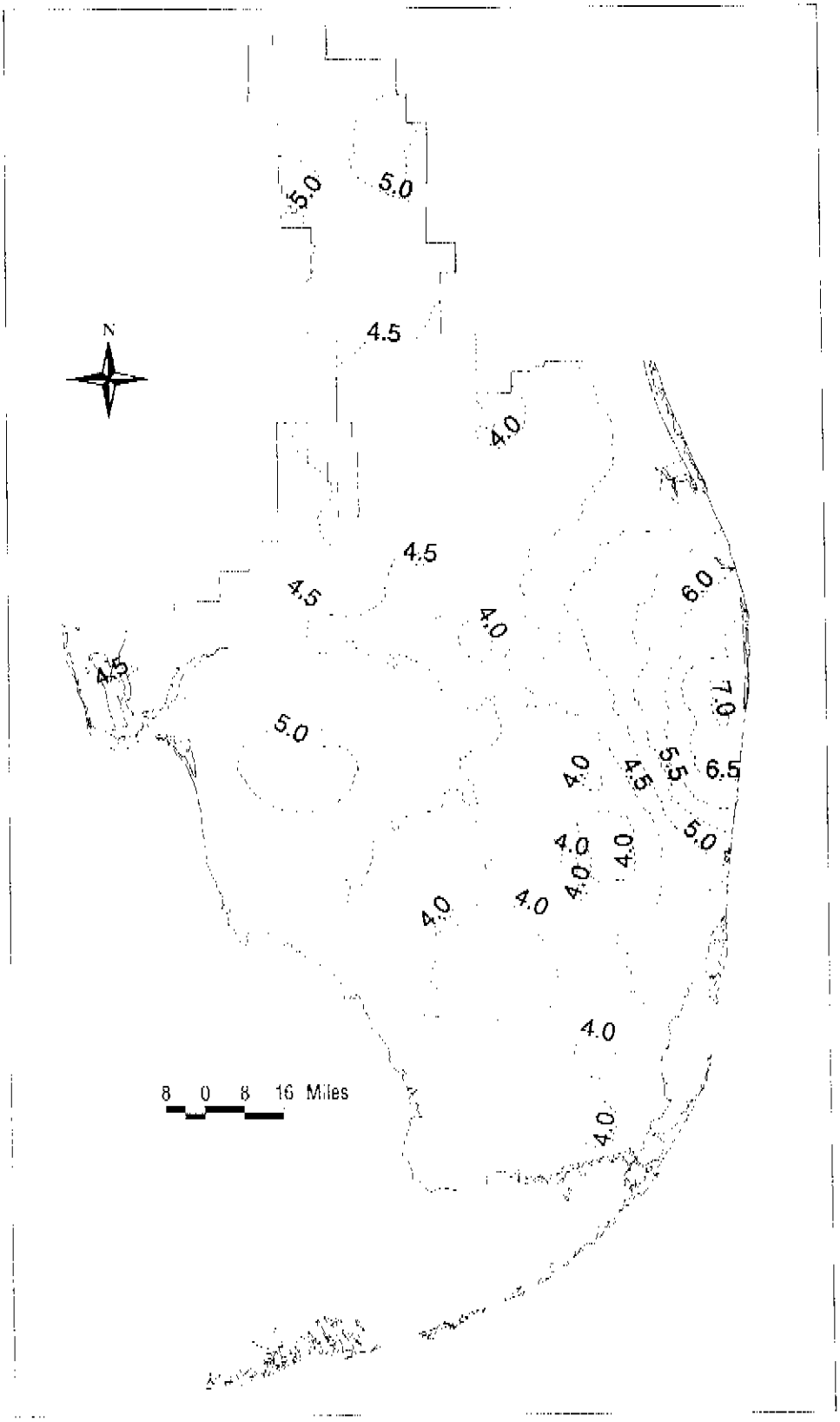

Figure 13g. January rainfall (inches) for 10 year wet return period within Central and South Florida.

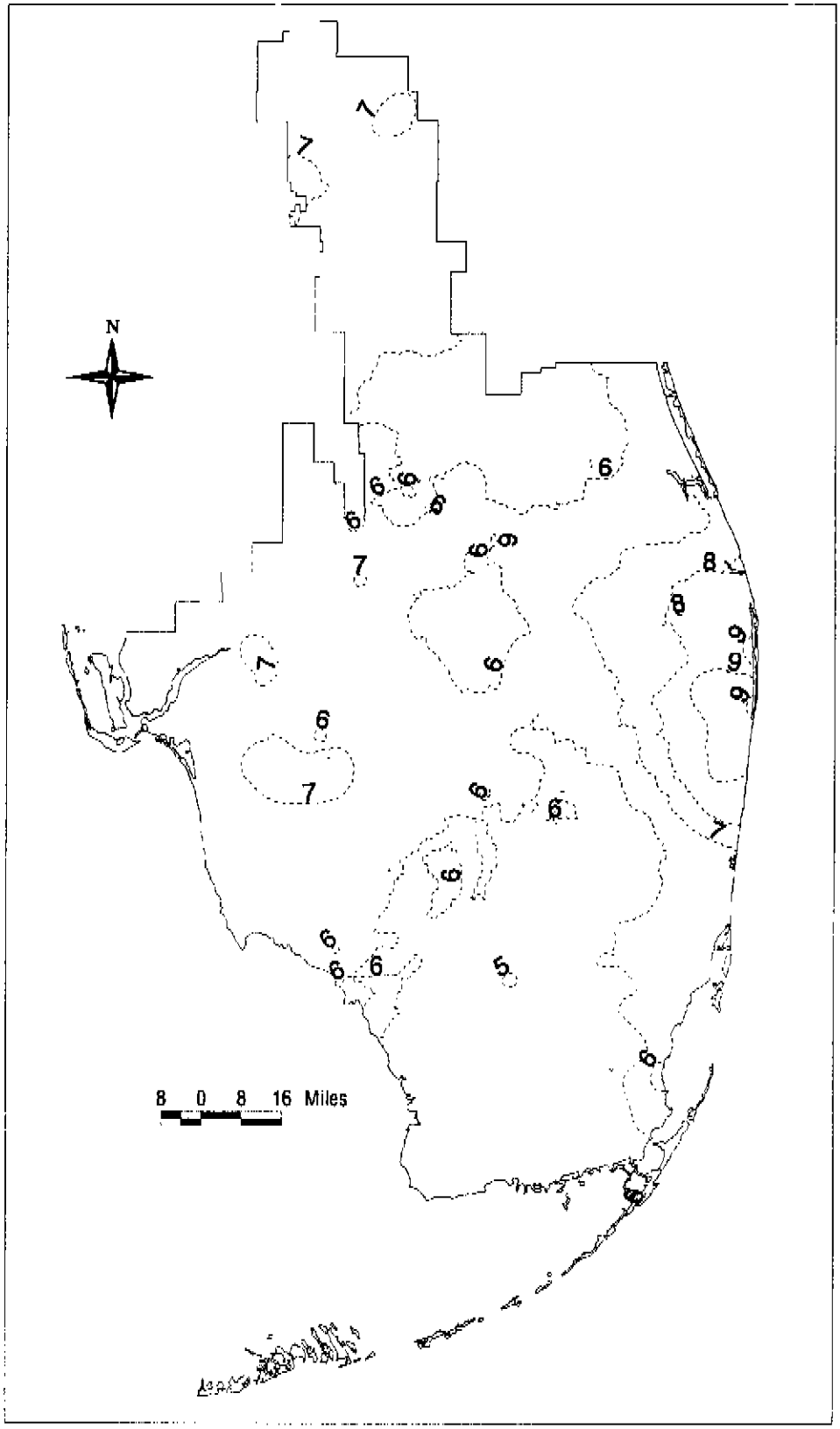

Figure 13h. January rainfall (inches) for 20 year wet return period within Central and South Florida.

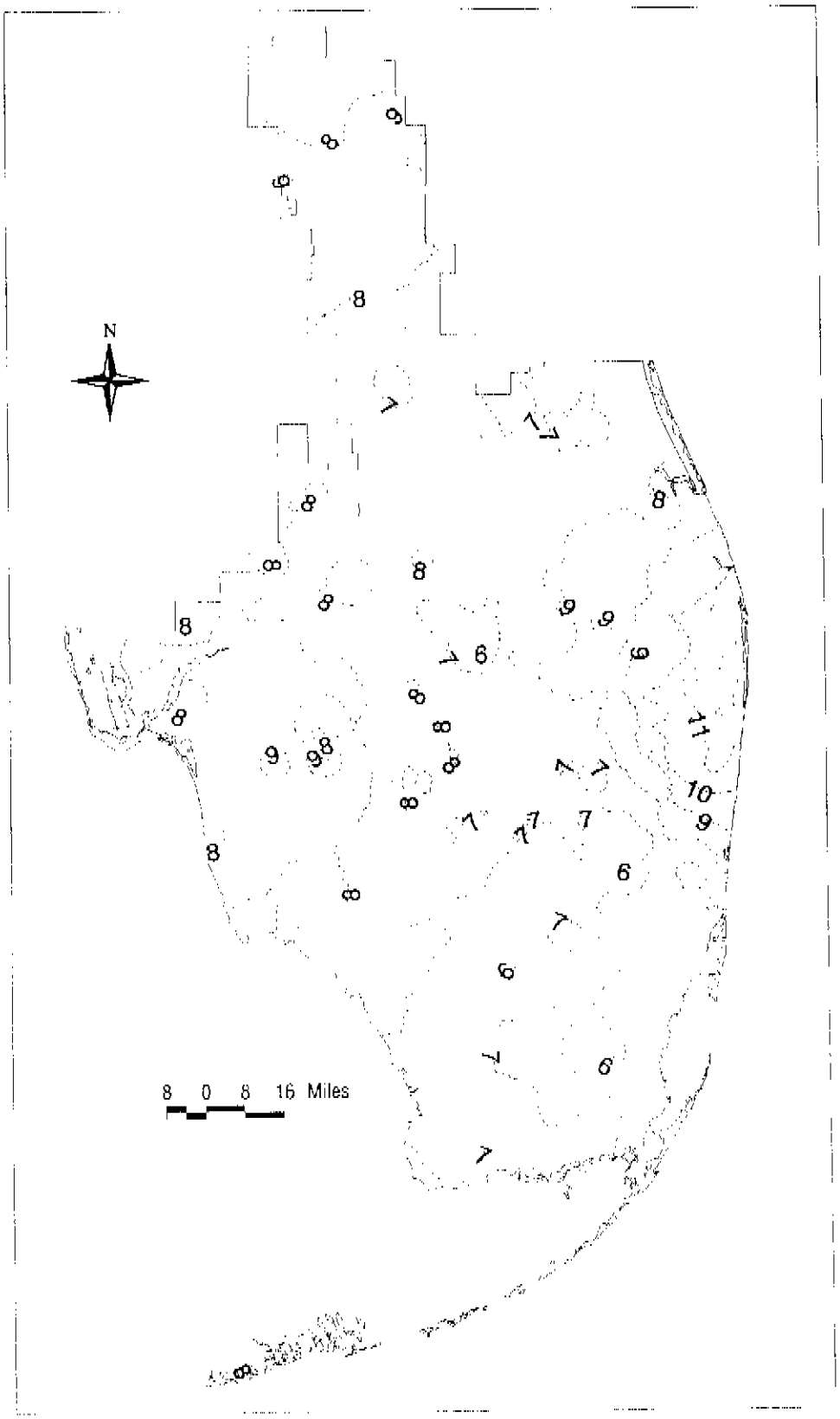

Figure 13i. January rainfall (inches) for 50 year wet return period within Central and South Florida.

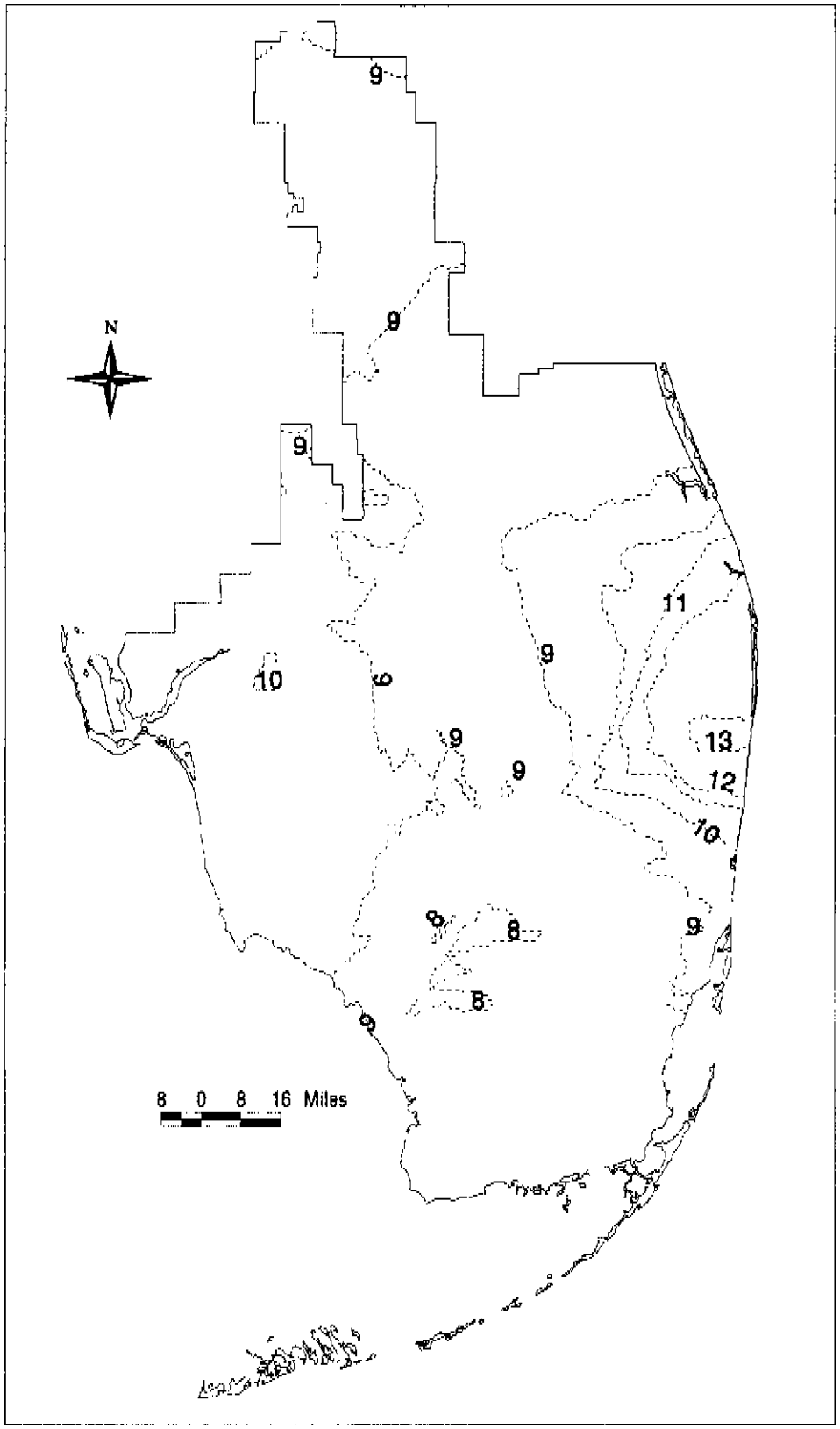

Figure 13j. January rainfall (inches) for 100 year wet return period within Central and South Florida.

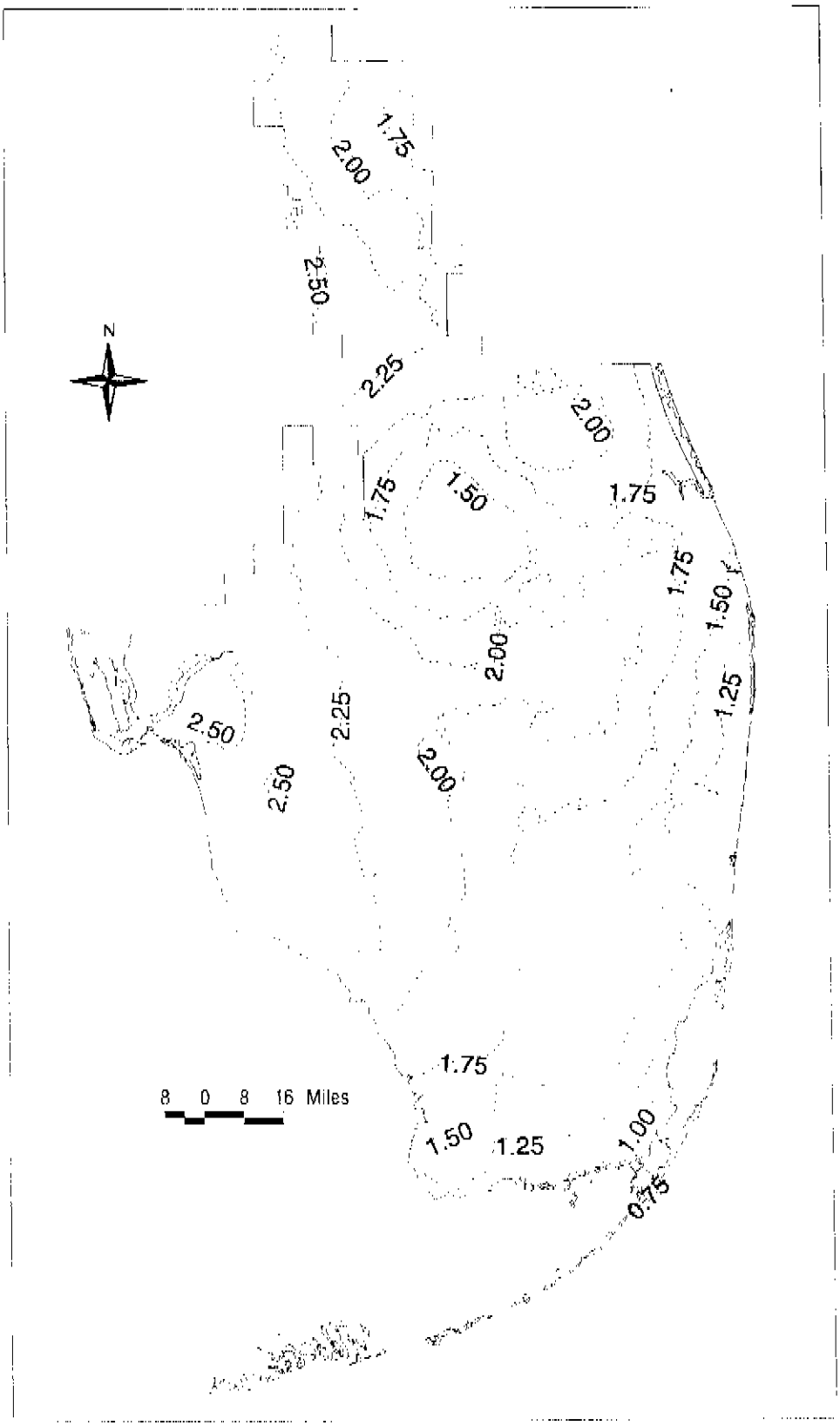

Figure 14a. July rainfall (inches) for 100 year dry return period within Central and South Florida.

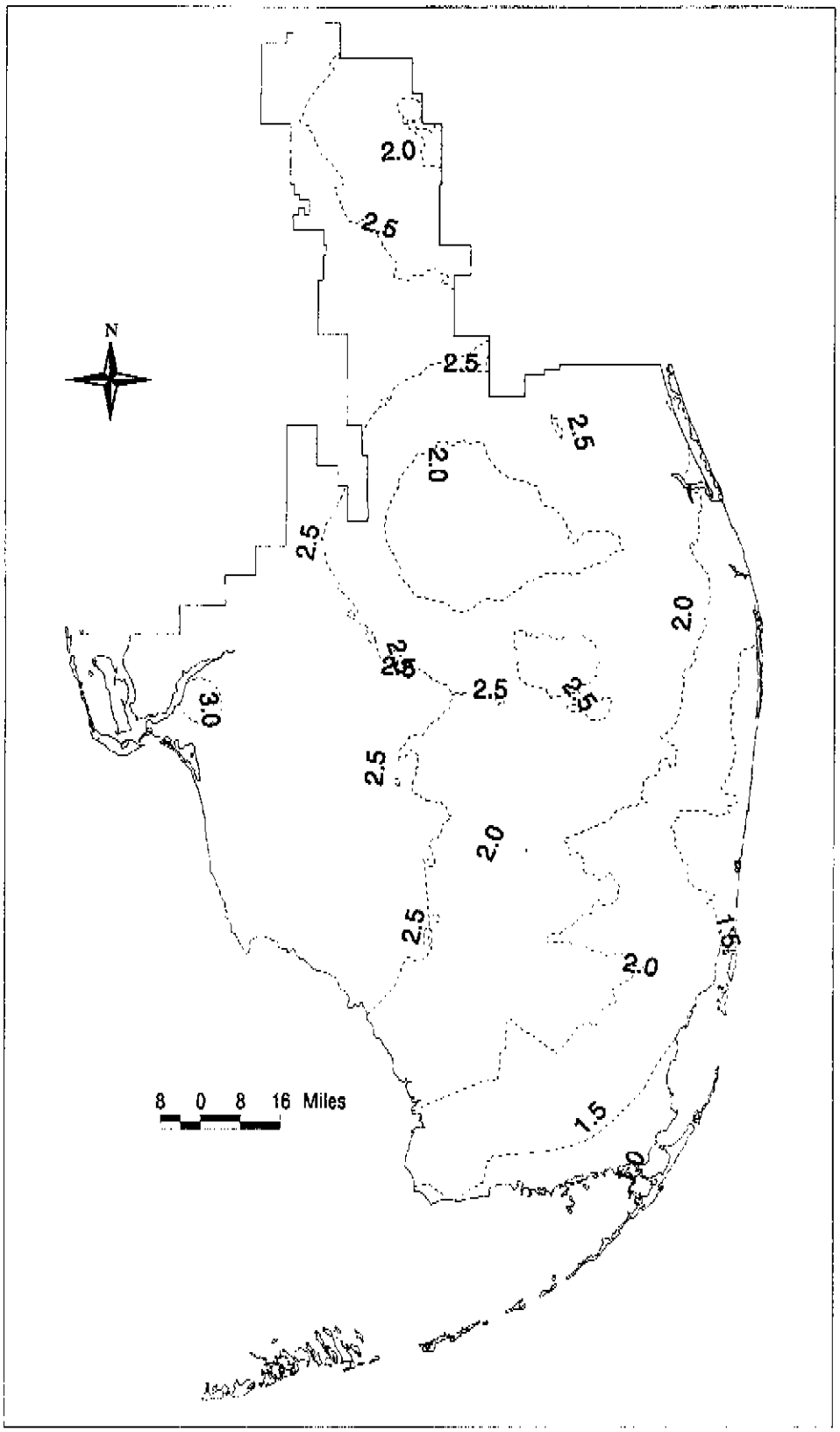

Figure 14b. July rainfall (inches) for 50 year dry return period within Central and South Florida.

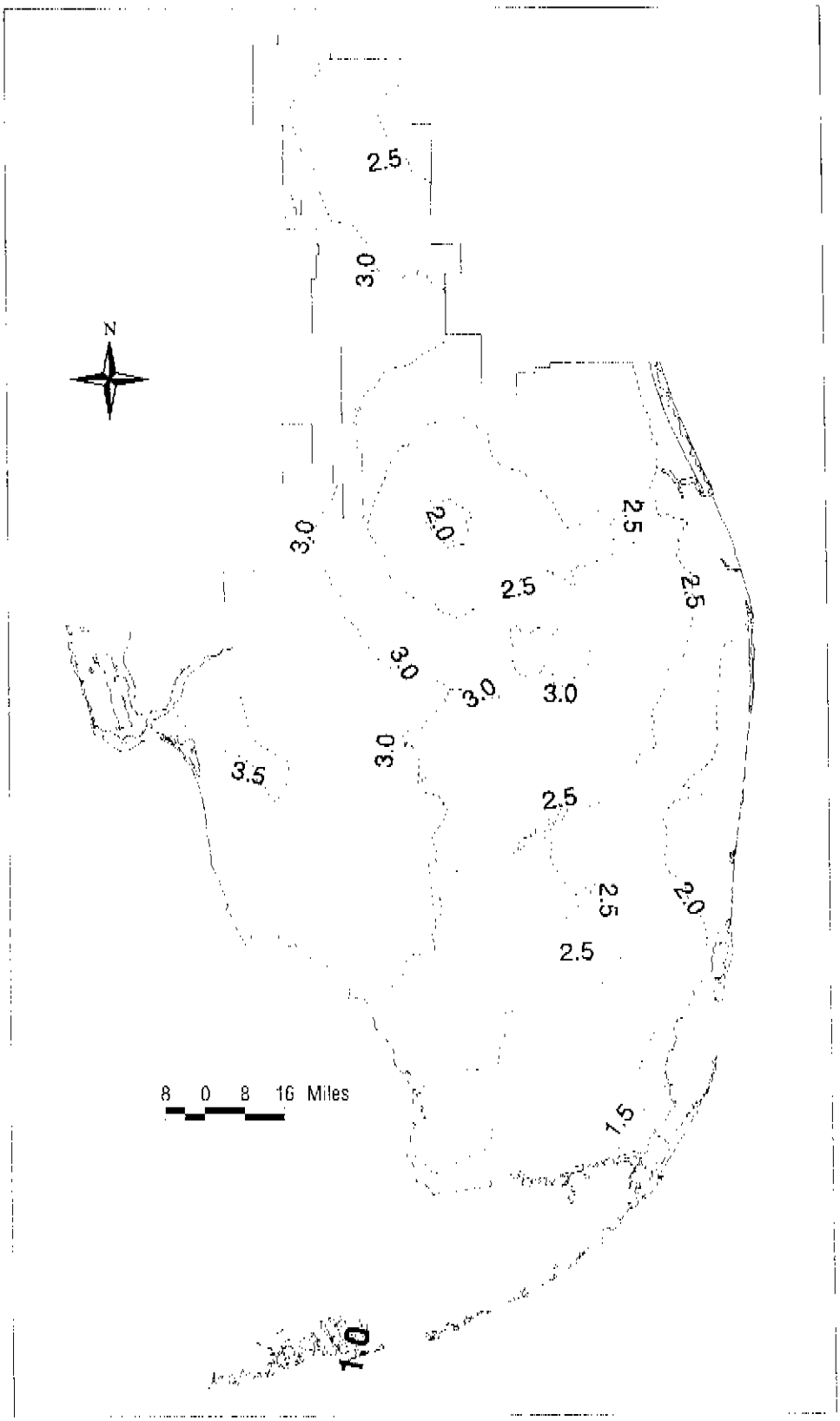

Figure 14c. July rainfall (inches) for 20 year dry return period within Central and South Florida.

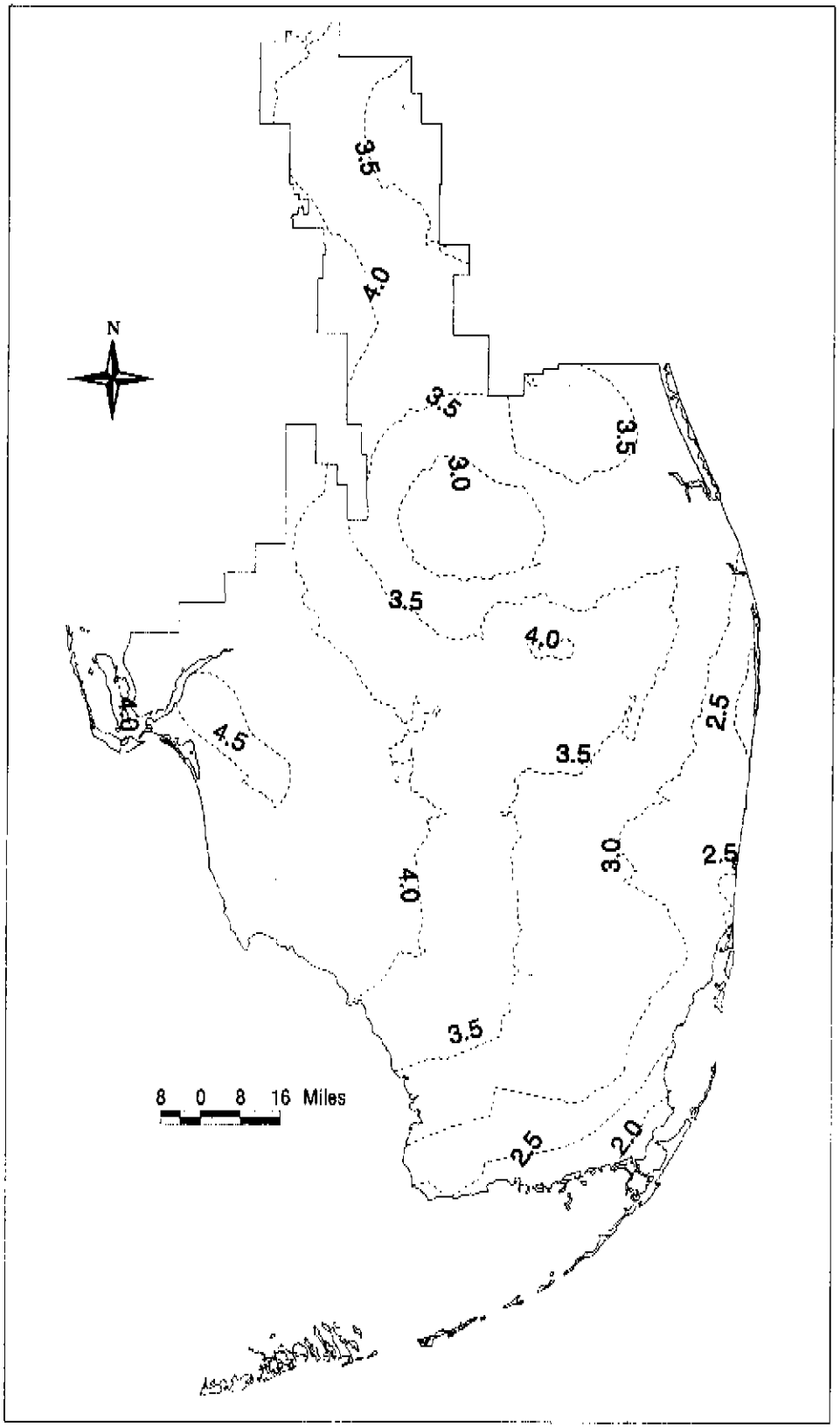

Figure 14d. July rainfall (inches) for 10 year dry return period within Central and South Florida.

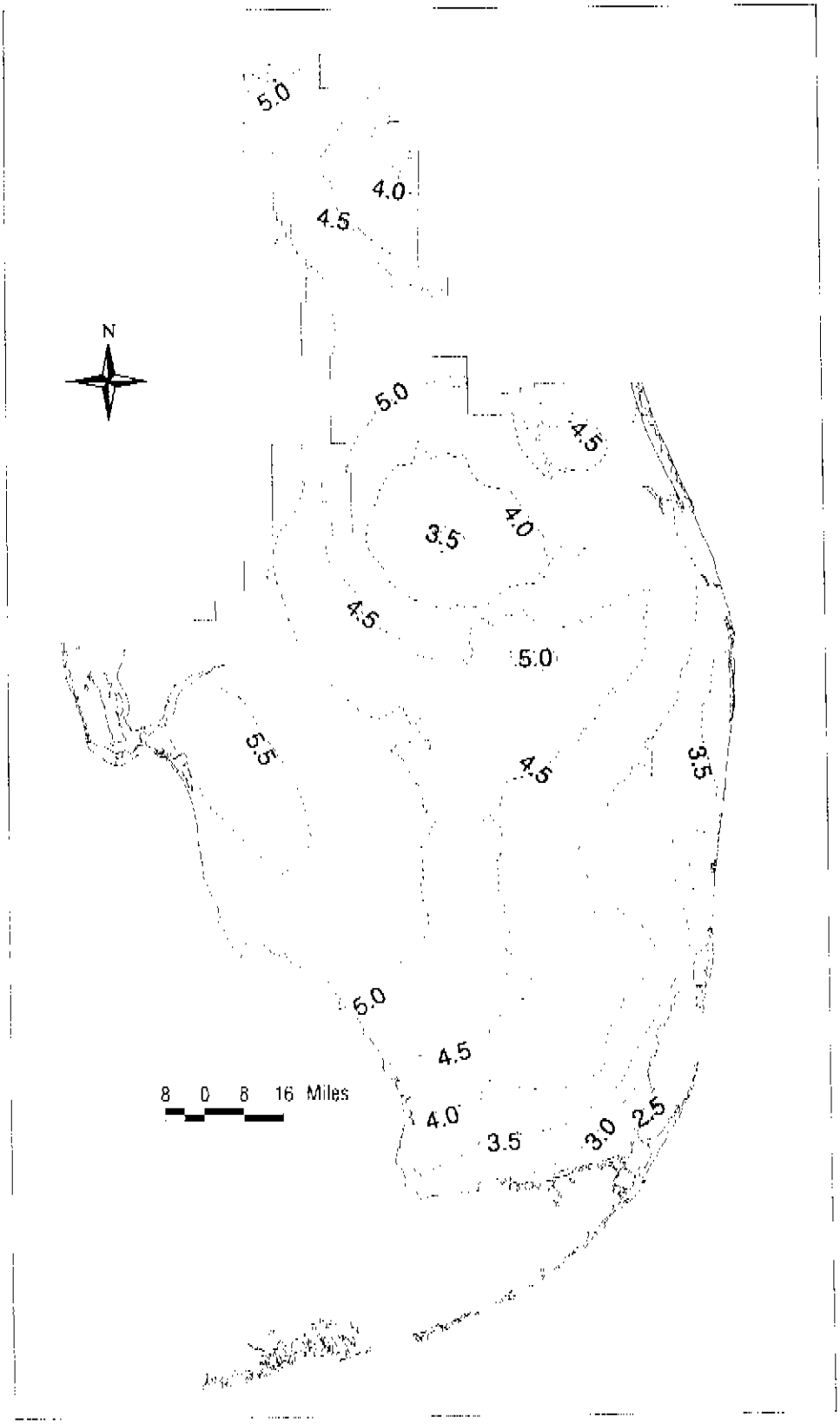

Figure 14e. July rainfall (inches) for 5 year dry return period within Central and South Florida.

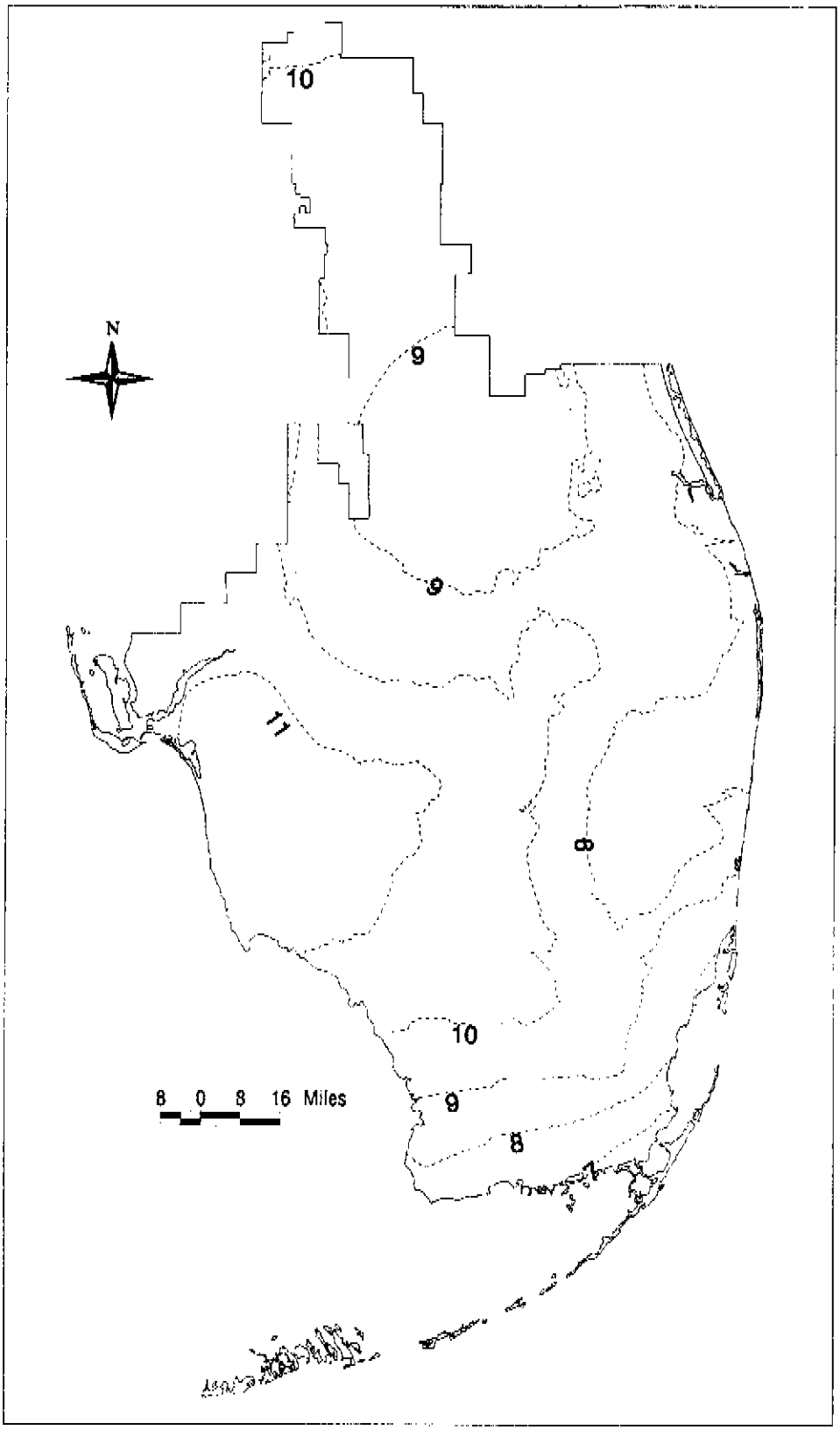

Figure 14f. July rainfall (inches) for 5 year wet return period within Central and South Florida.

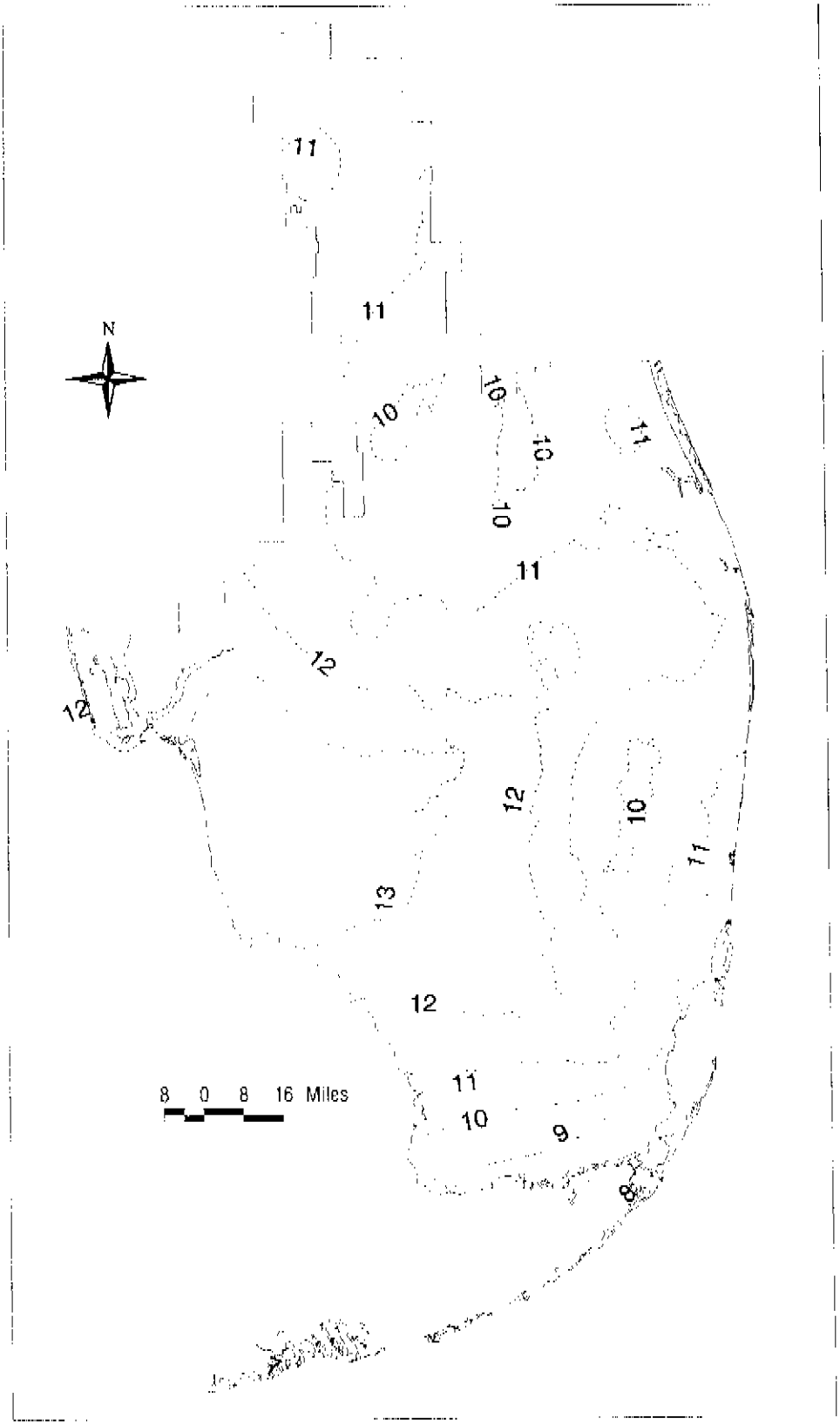

Figure 14g. July rainfall (inches) for 10 year wet return period within Central and South Florida.

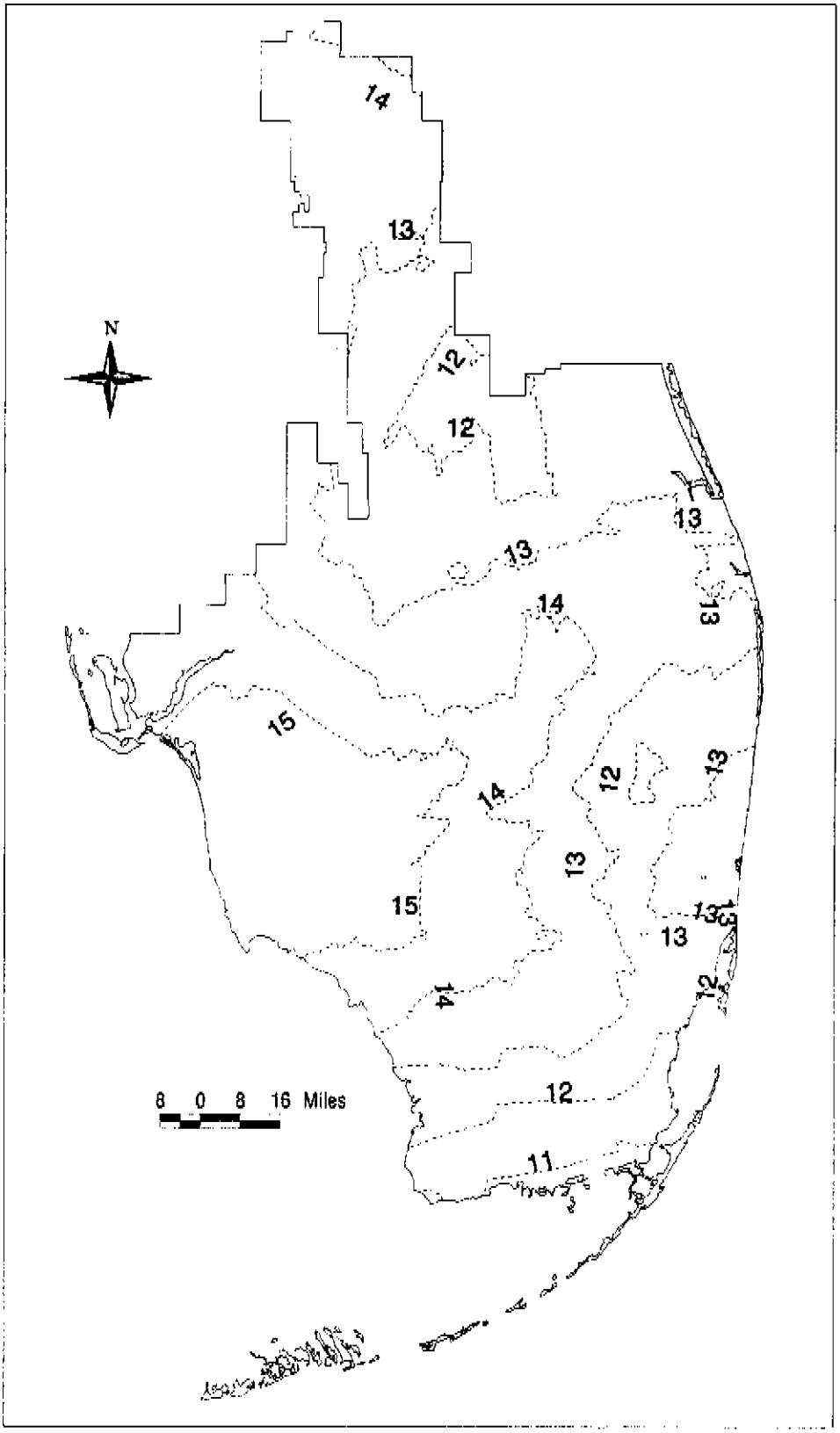

Figure 14h. July rainfall (inches) for 20 year wet return period within Central and South Florida.

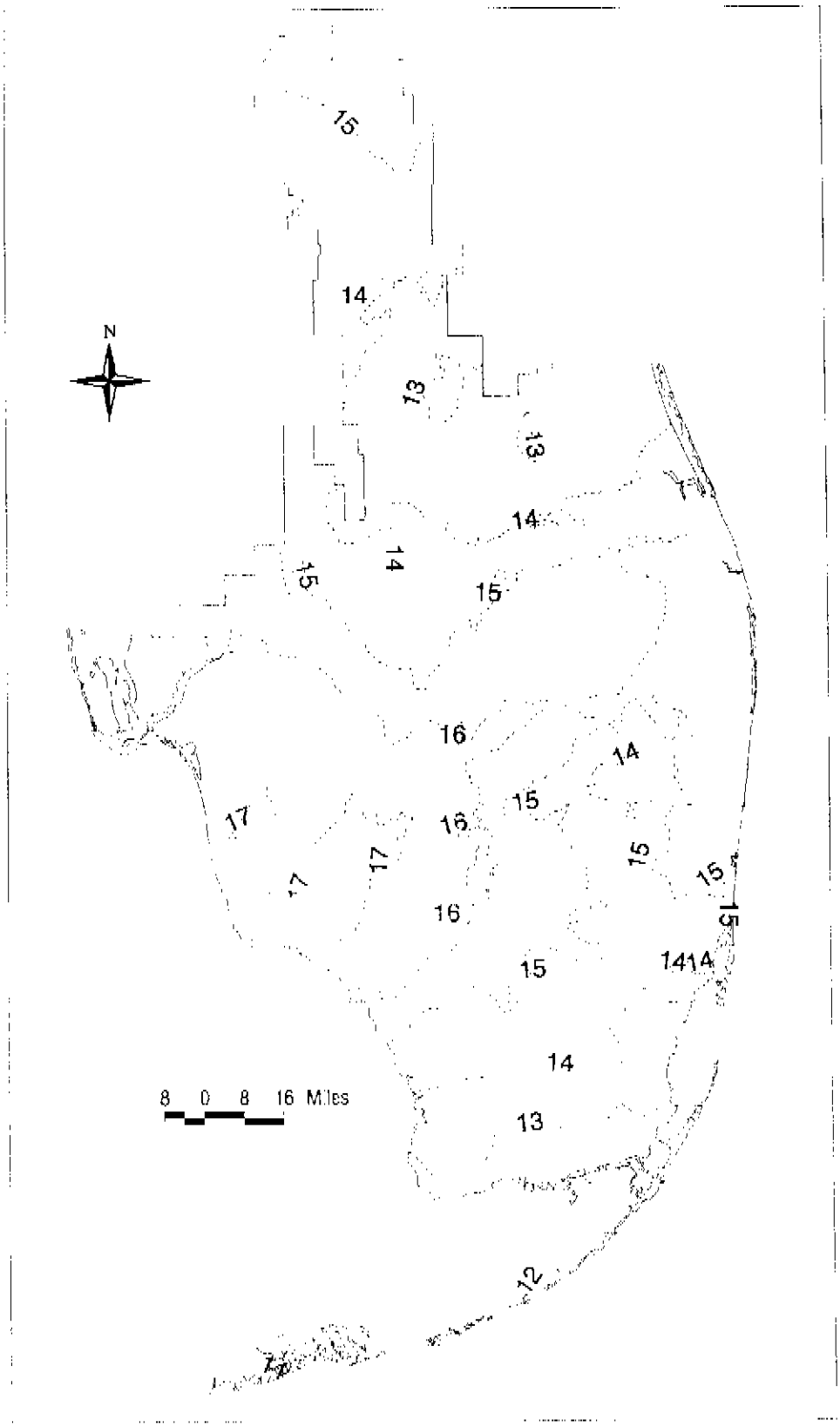

Figure 14i. July rainfall (inches) for 50 year wet return period within Central and South Florida.

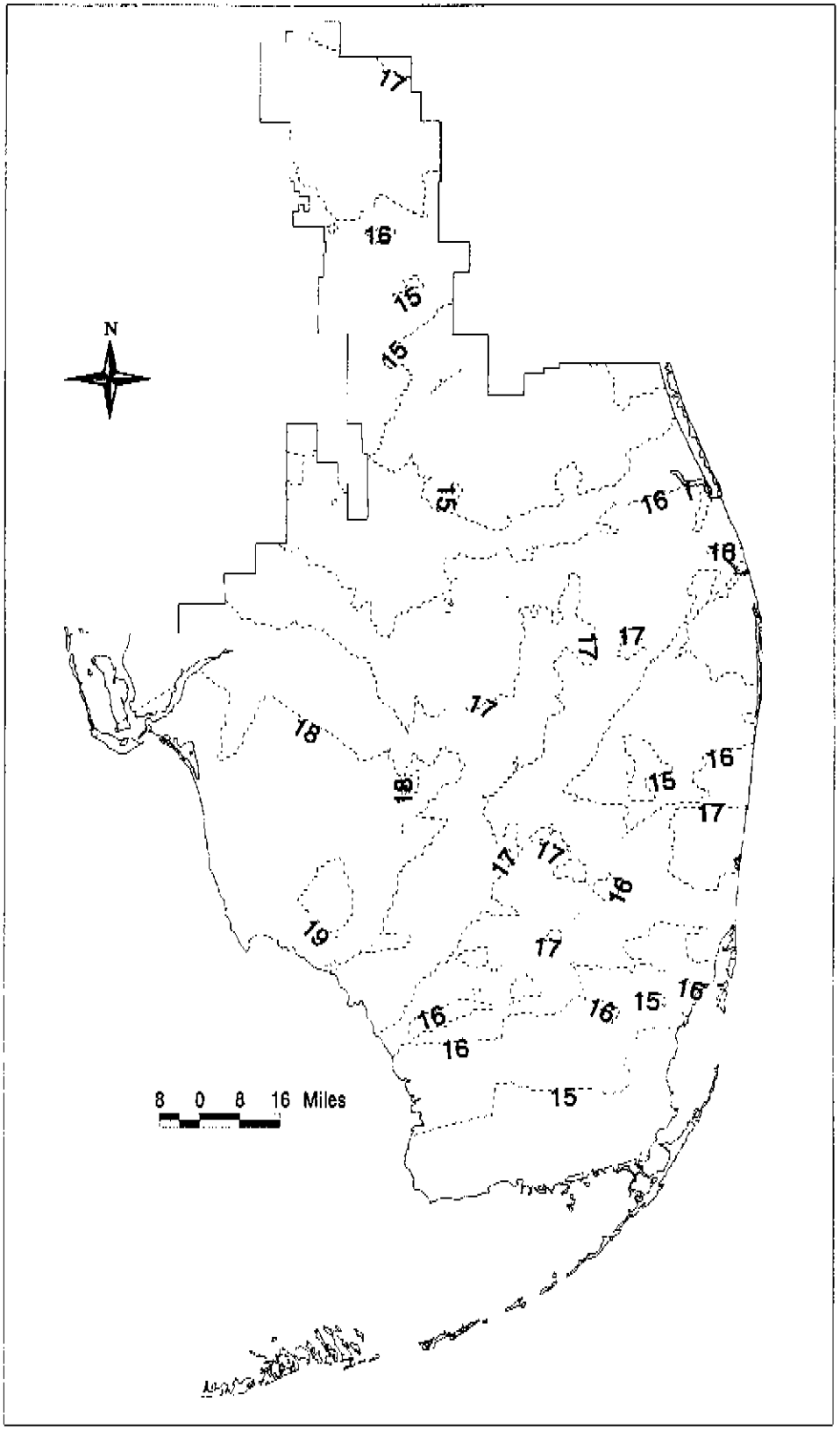

Figure 14j. July rainfall (inches) for 100 year wet return period within Central and South Florida.

APPENDIX A

Selected rainfall stations for the study

Table A1. Information pertaining to the stations selected for this study.

Gage ID #	DBKEY	STATION	ALTERN-ATE ID	AGENCY	THIESSEN WEIGHT	STATION DESCRIPTION	X COORD	Y COORD	LAT	LONG	COUNTY	START DATE	END DATE	YEARS
1	06303	1-8C_R	MRF89	WMD	0.00339433	CAI-8C CORPS STAGE IN LEVEE L-40 NEAR BOAT RAMP	754327	787696	262955	801321	PAL	12/28/59	8/9/93	33
2	05798	3A-36_R	MRF106	WMD	0.01225005	WCA 3-36	680541	675505	261128	802658	BRO	12/31/59	7/21/95	30
3	05922	ALVA FAR_R	MRF250	WMD	0.01769464	ALVA FARMS / YODER BROS.	294334	865035	264244	813748	LEE	1/10/68	7/1/98	27
4	06205	ARCHBO 2_R	MRF6115	NOAA	0.01080751	ARCHBOLD BIOLOGICAL STATION	358851	1035308	271053	812603	HIG	1/1/69	1/31/98	26
5	06136	AVON PRK_R	MRF6013	NOAA	0.00281579	CITY OF AVON PARK	331927	1184254	273527	813108	HIG	1/1/02	1/31/98	75
6	06135	BABSON P_R	MRF6011	NOAA	0.00377482	BABSON PARK	333930	1276041	275036	813050	POL	1/2/51	12/1/92	37
7	05945	BARE BEA_R	MRF279	USSC	0.00364689	BARE BEACH - US SUGAR	532644	866155	264300	805400	HEN	6/21/29	1/14/55	25
8	06047	BASSETT_R	8502	USDA	0.00738256	TAYLOR CREEK - BASSETT 2	525504	1118578	272440	805517	OKE	10/1/55	10/26/92	33
9	06207	BELLE GL_R	MRF6119	NOAA	0.00791269	BELLE GLADE EXPERIMENT STATION	620846	844509	263924	803748	PAL	6/1/24	5/1/98	69
10	06128	BENBOW_R	MRF60	USSC	0.00331504	BENBOW - US SUGAR	484688	899363	264829	810249	GLA	1/1/29	12/31/73	45
11	05813	BROOKS P_R	MRF12	WMD	0.01414951	BROOKS PROPERTY	416025	1423525	281459	811539	OSC	6/1/62	12/30/95	30
12	06157	CANAL P2_R	MRF6042	NOAA	0.00145819	CANAL POINT USDA	621619	921248	265204	803737	PAL	1/1/53	1/31/98	40
13	06186	CAPTIVA_R	MRF6080	NOAA	0.01488526	CAPTIVA	113082	801291	263200	821100	LEE	4/1/39	12/31/67	25
14	06129	CLERMONT_R	MRF6003	NOAA	0.00018511	CLERMONT	249059	1507870	282847	814652	LAK	1/1/01	1/31/98	79
15	06168	COCONUT_R	MRF6058	NOAA	0.00470501	COCONUT GROVE 7S	736091	479102	253900	801700	DAD	7/1/23	4/30/58	32
16	05916	CORK.HQ_R	MRF243	WMD	0.01886777	CORKSCREW SWAMP AT SANCTUARY HEADQUARTERS	309025	745419	262300	813500	COL	11/1/59	4/30/98	35
17	06178	DANIA 4_R	MRF6070	NOAA	0.00326181	DANIA 4 WNW	762622	630699	260400	801200	BRO	5/1/42	9/30/73	25
18	06206	DEVILS_R	MRF6118	NOAA	0.02489932	DEVIL'S GARDEN TOWER (DUPLICATE)	457975	824667	263609	810743	HEN	6/23/56	1/31/98	27
19	05800	DIXIE WA_R	MRF108	WMD	0.00137124	DIXIE WATER PLANT	762545	643219	260604	801200	BRO	4/30/57	6/30/92	25
20	06050	DIXIE_R	8505	USDA	0.00198715	DIXIE 5 DAIRY, TAYLOR CREEK	535800	1093341	272030	805323	OKE	10/1/55	10/26/92	29
21	06161	EVERGL 2_R	MRF6048	NOAA	0.05490322	EVERGLADES	372647	549519	255042	812314	COL	2/1/24	1/31/98	56
22	06210	FLAMIN 2_R	MRF6125	NOAA	0.02966716	FLAMINGO	528210	293638	250829	805453	MON	3/1/62	1/31/98	27
23	06151	FORT PIE_R	MRF6032	NOAA	0.00773955	FORT PIERCE	710834	1128714	272615	802100	STL	1/1/01	1/31/98	86
24	06193	FT MEYER_R	MRF6093	NOAA	0.01013204	FT MEYERS	217472	817624	263450	815152	LEE	1/2/09	9/30/95	80
25	06015	FT. PIER_R	MRF37	WMD	0.01364043	FT. PIERCE FIELD STATION	657594	1102721	272200	803052	STL	1/1/65	6/30/98	30
26	05801	G54_R	MRF109	WMD	0.00277004	G-54 (SEWEL LOCKS) ON NORTH NEW RIVER CANAL	752532	640634	260539	801350	BRO	5/22/57	4/30/98	33
27	05807	GILL REA_R	MRF114	WMD	0.00452899	GILL REALTY	752149	628213	260336	801355	BRO	4/1/57	7/31/98	33

28	06154	HGS1_R	MRF6038	NOAA	0.00551845	HGS-1 HURRICANE GATE ON L. OKEECHOBEE TO CANAL C-43	471467	910780	265022	810515	GLA	4/1/38	1/31/98	72
29	06155	HGS2_R	MRF6039	NOAA	0.00321649	HGS-2 HURRICANE GATE ON LAKE OKEECHOBEE AT CLEWISTON	526650	880690	264524	805506	HEN	2/29/48	1/30/94	42
30	06241	HGS4_R	MRF7040	NOAA	0.00105709	HGS-4 HURR. GATE ON L. OKEECHOBEE AT HILLS. & NNR CANALS	593048	860492	264203	804254	PAL	2/1/42	4/1/91	36
31	06242	HGS5X_R	MRF7041	NOAA	0.00460701	HGS-5 HURR. GATE ON LAKE OKEECHOBEE TO W.P.B. CANAL	619862	919686	265149	803756	PAL	4/1/40	7/26/91	36
32	06073	HGS6_R	MRF47	COE	0.00918758	HGS-6/S-193 HURR. GATE ON TAYLOR CRK. TO L. OKEECHO.	566270	1044407	271225	804746	OKE	1/1/38	12/30/93	55
33	06175	HIALEAH_R	MRF6066	NOAA	0.00396194	HIALEAH	734827	543508	254938	801710	DAD	1/1/41	1/31/98	48
34	06268	HOMES.ES_R	MRF7126	NOAA	0.01320571	HOMSTEAD EXPERIMENT STATION	664918	424260	253030	803000	DAD	1/1/42	7/31/91	34
35	05815	HOMES.FS_R	MRF121	WMD	0.00357540	HOMESTEAD FIELD STATION	651903	416049	252838	802655	DAD	1/27/68	12/31/97	25
36	06180	HYPOLUXO_R	MRF6073	NOAA	0.00132009	HYPOLUXO	810575	806715	263300	800300	PAL	1/1/00	7/31/59	48
37	06082	IMMOKA 2_R	MRF5005	FS	0.02820849	IMMOKALEE TOWER	363617	753789	262425	812500	COL	1/1/63	7/31/98	29
38	06077	INDIAN P_R	MRF50	WMD	0.01111729	INDIAN PRAIRIE CANAL @ SR78 (C. OF E.)	507142	992758	270354	805841	GLA	1/1/56	12/30/93	38
39	06144	ISLEWORT_R	MRF6024	NOAA	0.00806511	ISLEWORTH	330807	1508031	282853	813136	ORA	3/1/16	3/31/83	62
40	06049	JUDSON_R	8534	USDA	0.00613086	TAYLOR CREEK (JUDSON 4) ON WILSON RUCKS FARM	556236	1117700	272431	804936	OKE	10/1/55	10/19/92	33
41	06147	KISS 2_R	MRF6027	NOAA	0.00218885	KISSIMMEE 2	365180	1435686	281658	812508	OSC	9/2/48	1/31/98	28
42	06305	KISS.FS_R	MRF9	WMD	0.00713658	KISSIMMEE FIELD STATION	355624	1438447	281725	812655	OSC	9/9/64	6/30/98	29
43	06146	KISS_R	MRF6026	NOAA	0.00373707	KISSIMMEE	365917	1441945	281800	812500	OSC	1/1/01	2/13/59	43
44	06133	L ALF EX_R	MRF6009	NOAA	0.00005070	LAKE ALFRED - LAKE ALFRED EXPERIMENT STA	268945	1369683	280600	814300	POL	7/2/24	1/31/98	65
45	06145	L HART_R	MRF6025	NOAA	0.00496264	HART LAKE	427930	1470579	282245	811327	ORA	8/1/42	7/31/79	32
46	06278	L MYRTL_R	MRF8	WMD	0.00461053	GW-8 RAIN/WELL LAKE MYRTLE (2A35)	438598	1446710	281849	811127	OSC	6/1/53	1/21/92	27
47	06150	L PLACI2_R	MRF6031	NOAA	0.00350730	LAKE PLACID 2SW	375491	1072312	271700	812300	HIG	3/1/33	12/31/68	26
48	06158	LA BELLE_R	MRF6044	NOAA	0.01347066	LA BELLE	356775	879515	264510	812620	HEN	9/12/29	1/31/98	48
49	05885	LEHIGH 1_R	MRF206	WMD	0.01031614	LEHIGH ACRES 1 (OLD COE OFFICE)	287610	826801	263624	813900	LEE	1/1/60	6/30/90	30
50	06197	LIBERTY_R	MRF61	USSC	0.00523800	LIBERTY POINT - US SUGAR	504893	898250	264818	805906	GLA	1/1/29	12/22/73	45
51	06181	LOXAHATC_R	MRF6074	NOAA	0.00552199	LOXAHATCHEE	737904	856115	264114	801627	PAL	1/1/41	1/31/88	45
52	06290	LWD.E13_R	MRF81	WMD	0.00313076	LAKE WORTH RD. AND E1 (LWDD)	759669	828886	263643	801219	PAL	9/1/55	7/31/98	39

53	06321	LWD.E2.2_R	MRF92	WMD	0.00104025	DELRAY RD. AND E2 (LWDD)	771113	771605	262715	801017	PAL	9/1/55	7/31/98	39
54	06299	LWD.E2_R	MRF85	WMD	0.00113446	BOYNTON RD & E2 (LWDD)	771212	798465	263141	801014	PAL	9/1/55	7/31/98	39
55	06276	LWD.GA_R	MRF78	WMD	0.00192108	GREENACRES (LWDD)	785339	831476	263707	800736	PAL	9/1/55	7/31/98	38
56	06306	LWD.HQ_R	MRF90	WMD	0.00177130	LAKE WORTH D.D. OFFICE (LWDD)	786766	782109	262858	800724	PAL	9/1/55	7/31/98	39
57	06302	LWD.L28_R	MRF88	WMD	0.00035212	LATERAL 28 & RANGELINE (LWDD)	760659	786483	262943	801211	PAL	9/1/55	7/31/98	39
58	06322	LWD.L32_R	MRF93	WMD	0.00112185	LAT.32 AND RANGELINE (LWDD)	759988	777391	262813	801219	PAL	9/1/55	7/31/98	38
59	06298	LWD.MIL_R	MRF84	WMD	0.00100730	BOYNTON RD. AND MILITARY TRAIL (LWDD)	786400	795839	263114	800727	PAL	9/1/55	7/31/98	39
60	05793	LWD.POWE_R	MRF102	WMD	0.00344143	BOCA RATON RD. AND POWERLINE (LWDD)	776953	740544	262207	800915	PAL	9/1/55	7/31/98	39
61	05792	LWD.RANG_R	MRF101	WMD	0.00573127	BOCA RATON RD. AND RANGELINE (LWDD)	760266	747203	262314	801218	PAL	9/1/55	7/31/98	37
62	06172	MIAMI BE_R	MRF6063	NOAA	0.00366010	MIAMI BEACH	786202	526653	254648	800749	DAD	1/27/27	1/31/98	49
63	06249	MIAMI CI_R	MRF7057	NOAA	0.00339816	MIAMI WB CITY	737977	502333	254250	801638	DAD	1/1/01	11/2/83	66
64	06265	MIAMI LO_R	MRF71C	USSC	0.00573500	MIAMI LOCK	563221	853469	264054	804823	PAL	1/1/41	12/31/73	33
65	06174	MIAMI.AP_R	MRF6065	NOAA	0.00180968	MIAMI AIRPORT WSMO AP (NOAA STATION 5663)	735762	539676	254900	801700	DAD	2/29/48	1/31/98	47
66	05810	MIAMI.FS_R	MRF117	WMD	0.00758813	MIAMI FIELD STATION	715639	543206	254936	802040	DAD	1/7/65	6/30/98	27
67	06051	MOBLEY_R	8506	USDA	0.00100150	TAYLOR CREEK (MOBLEY 6) AT LAWRENCE RD.	559601	1097510	272111	804859	OKE	10/1/55	10/27/92	32
68	06134	MOUNTIN_R	MRF6010	NOAA	0.00037312	MOUNTIAN LAKE	305910	1310403	275615	813604	POL	1/5/35	1/31/98	59
69	06160	NAPLES_R	MRF6047	NOAA	0.02199691	NAPLES	240884	667430	261004	814724	COL	3/1/42	1/31/98	48
70	06258	NNRC.R2_R	MRF7086	NOAA	0.01189082	NORTH NEW RIVER CANAL 2	651660	727792	262007	803213	PAL	1/4/41	11/30/81	25
71	06070	OKEE F 2_R	MRF44	WMD	0.00319095	OKEECHOBEE FIELD STATION	569040	1061376	271513	804715	OKE	10/1/60	10/30/94	33
72	06052	OPAL_R	8507	USDA	0.00456669	TAYLOR CREEK - OPAL 7	572876	1086121	271918	804632	OKE	10/1/55	10/27/92	31
73	06218	ORLAN_R	MRF6134	NOAA	0.00197847	ORLANDO	382265	1526726	283200	812200	ORA	1/1/00	4/30/44	36
74	05838	PAHOKEE1_R	MRF137	WMD	0.00220422	PAHOKEE 1	642244	901321	264846	803350	PAL	3/4/57	6/30/98	35
75	05839	PAHOKEE2_R	MRF138	WMD	0.00557682	PAHOKEE 2	654787	890764	264701	803132	PAL	3/2/57	3/31/98	31
76	06093	PALMDALE_R	MRF5022	FS	0.01135286	PALMDALE TOWER	397630	941692	265527	811851	GLA	1/1/63	4/29/98	27
77	06222	PEL 34_R	MRF65	USSC	0.00198656	PELICAN 34 - US SUGAR	624710	887230	264627	803704	PAL	7/24/29	12/22/73	43
78	05837	PEL LAK1_R	MRF135	WMD	0.00044659	PELICAN LAKE DRAINAGE DISTRICT #1	625984	915303	265105	803649	PAL	3/5/57	3/31/98	30
79	06125	PEL LAK2_R	MRF57	WMD	0.00114038	PELICAN LAKE DRAINAGE DISTRICT #2	629618	911781	265030	803609	PAL	3/5/57	3/31/98	33
80	06253	PENNSUCO_R	MRF7067	NOAA	0.01612274	PENNSUCO 5NW	680128	578682	255529	802707	DAD	1/1/41	7/31/91	26
81	05966	PLANT IN_R	MRF301	WPBC	0.00572944	PLANT INTAKE - CITY OF WEST PALM BEACH	806049	866562	264253	800345	PAL	5/6/44	7/31/98	50

82	06179	POMPANOB_R	MRF6071	NOAA	0.00276329	POMPANO BEACH	778640	691382	261400	800900	BRO	1/1/41	1/31/98	46
83	05796	POMPANOF_R	MRF104	WMD	0.00181575	POMPANO FARMERS MARKET	781829	691201	261358	800825	BRO	6/1/57	6/30/98	28
84	06122	PRATT AN_R	MRF54	WMD	0.01723610	PRATT AND WHITNEY	726776	934919	265415	801815	PAL	4/17/57	7/31/98	33
85	06138	PUNTA 2_R	MRF6016	NOAA	0.00100519	PUNTA GORDA	157880	946317	265600	820300	CHA	5/9/14	10/31/65	41
86	06139	PUNTA G4_R	MRF6017	NOAA	0.00425284	PUNTA GORDA 4	174122	939723	265456	820000	CHA	11/1/65	1/31/98	25
87	06048	RAULERS_R	8503	USDA	0.00072074	TAYLOR CREEK - RAULERSON 3	545793	1107892	272254	805132	OKE	10/1/55	10/27/92	30
88	06225	RITTA -_R	MRF68	USSC	0.00254752	RITTA - US SUGAR	550416	866577	264304	805044	PAL	1/1/38	12/31/73	35
89	06202	ROYAL PA_R	MRF6107	NOAA	0.01967571	ROYAL PALM RANGER	633984	382765	252310	803539	DAD	5/1/49	1/31/98	40
90	06224	RUNYON_R	MRF67	USSC	0.00250013	RUNYON - US SUGAR	606168	872235	264359	804029	PAL	1/1/42	12/31/73	31
91	05806	S13_R	MRF112	WMD	0.00026533	SOUTH NEW RIVER CANAL BL S-13 NR DAVIE, FL	759705	630379	260357	801232	BRO	12/31/59	7/23/98	30
92	06120	S131_R	MRF52	WMD	0.00716932	S-131	470598	961466	265844	810525	GLA	6/9/65	2/14/97	29
93	05818	S18C_R	MRF124	WMD	0.00925634	CANAL 111 AT S-18C NEAR FLORIDA CITY, FL	656800	362549	251949	803131	DAD	3/26/67	6/22/98	28
94	05817	S20_R	MRF123	WMD	0.00397996	S-20 SPILLWAY ON CANAL C-107 AT LEVEE L-31E	705827	375929	252200	802236	DAD	5/24/68	4/27/98	26
95	05816	S20F_R	MRF122	WMD	0.00252699	S-20F SPILLWAY ON CANAL C-103 NEAR TIDEWATER	715205	410831	252745	802052	DAD	5/22/68	7/13/98	25
96	06227	S3_R	MRF69	WMD	0.00107644	MIAMI CANAL AT HGS-3 AND S-3 AT LAKE HARBOR, FLA	562849	859627	2641[illegible]	924827	PAL	6/16/67	7/31/98	25
97	06119	S308_R	MRF51	COE	0.01735503	PORT MAYACA LOCK RAINFALL (CORPS OF ENGINEERS)	624298	963865	265906	803[illegible]	MAR	5/1/51	12/30/93	40
98	05797	S36_R	MRF105	WMD	0.00392459	S-36 SPILLWAY ON CANAL C-13 AT U.S. HIGHWAY 441	769437	669375	261023	801043	BRO	12/31/59	7/2/98	31
99	06274	S5A_R	MRF76	WMD	0.00814908	S-5A PUMPS (ONLY) ON W.P.B CANAL AT CONS. AREA 1	706442	854841	264103	802204	PAL	11/1/56	11/20/96	38
100	06324	S6_R	MRF95	WMD	0.01221883	HILLSBORO CANAL AT S-6 NEAR SHAWANO	681288	777584	262819	802645	PAL	1/4/60	1/5/96	35
101	05940	S65_R	MRF27	WMD	0.02168987	S-65 SPILLWAY ON LAKE KISSIMMEE AT CANAL C-38	435555	1261289	274813	811154	OSC	3/5/65	6/30/98	25
102	05981	S65A_R	MRF32	WMD	0.01315918	S-65A SPILLWAY ON CANAL C-38	456495	1208920	273935	810804	POL	6/17/65	7/31/98	27
103	05999	S65B_R	MRF35	WMD	0.01349316	S-65B SPILLWAY & LOCK ON CANAL C-38	436517	1151841	273009	811145	OKE	5/11/65	6/1/95	26
104	06068	S65D_R	MRF43	WMD	0.00728636	S-65D SPILLWAY ON CANAL C-38	492514	1083330	271851	810123	OKE	2/8/65	5/29/95	26
105	06071	S65E_R	MRF45	WMD	0.00576201	S 65E SPILLWAY/LOCK ON C-38 AT LAKE OKEECHOBEE	512067	1051029	271330	805746	OKE	11/24/64	4/30/98	29
106	06066	S68_R	MRF41	WMD	0.00924577	S-68 SPILLWAY ON CANAL C-41A LAKE ISTOKPOGA	417359	1089068	271947	811516	HIG	2/12/65	8/10/98	27
107	06074	S70_R	MRF48	WMD	0.00890141	S-70 SPILLWAY ON CANAL C-41 AT INDIAN RESERVATION	448768	1012376	270706	810927	GLA	6/16/65	3/9/98	29

108	06243	S78_R	MRF7043	NOAA	0.00886813	S-78 SPILLWAY & LOCK ON CALOOSAHATCHEE RIVER ORT A	401134	892714	264722	811811	GLA	4/1/40	7/31/91	38
109	06327	S8_R	MRF98	WMD	0.04581790	S-8 TOTAL FLOW (SPILLWAY + PUMP) ON MIAMI CANAL AT C.A. 3A	573876	726374	261955	804628	PAL	9/28/62	11/3/95	27
110	06237	S80_R	MRF7035	NOAA	0.01439916	S-80 SPILLWAY AND LOCK ON ST.LUCIE CANAL TIDEWAT	732597	1010079	270639	801706	MAR	4/1/40	7/31/91	35
111	05808	S9_R	MRF115	WMD	0.01254893	S-9 PUMP FROM SOUTH NEW RIVER CANAL TO C.A. 3A	683295	628267	260340	802630	BRO	1/4/60	3/7/97	35
112	06031	SCOTTO G_R	MRF39	WMD	0.00657518	SCOTTO GROVES	678230	1105129	272223	802703	STL	10/22/60	4/1/98	25
113	05912	SNIVELY_R	MRF24	WMD	0.01296308	GW-24 RAIN/WELL ON SNIVELY PROPERTY NEAR CANAL C-37	365149	1322578	275817	812504	POL	11/21/66	7/20/98	26
114	06269	SOUTH SH_R	MRF72	USSC	0.00138554	SOUTH SHORE - US SUGAR	583269	852797	264047	804442	PAL	12/7/40	12/31/72	32
115	06271	SOUTH BA_R	MRF73	USSC	0.00394034	SOUTH BAY RAINFALL STATION	597522	847377	263953	804205	PAL	3/4/29	12/31/73	44
116	06263	SR_R	MRF7093	NOAA	0.01252980	FT MEYERS - RECORDING GUAGE	216752	818638	263500	815200	LEE	1/1/48	7/30/91	32
117	05880	ST. CLAI_R	MRF20	WMD	0.00600648	ST. CLAIR RESORT / LAKE MARION (BELFORT)	329485	1369071	280557	813144	POL	2/25/65	9/23/96	28
118	06187	STUART 1_R	MRF6082	NOAA	0.00831830	STUART 1N	743790	1042559	271200	801500	MAR	1/1/36	1/31/98	51
119	06166	TAMITR40_R	MRF6054	NOAA	0.06464824	TAMIAMI TRAIL AT 40 MILE BEND	557637	518472	254536	804930	DAD	1/6/41	1/31/98	47
120	06046	TAYLC.S7_R	8501	USDA	0.00155673	WILLIAMSON DITCH AT S-7, NEAR OKEECHOBEE, FLA.	556384	1076704	271745	804935	OKE	10/1/55	10/27/92	29
121	05820	TOWNSITE_R	MRF125C	USSC	0.00259444	TOWNSITE	521305	874023	264418	805605	HEN	1/1/29	12/31/72	44
122	05915	USDA IMM_R	MRF242	USDA	0.01028243	SOUTH FLORIDA FIELD LAB - USDA IMMOKALEE	356865	773499	262740	812615	COL	10/1/59	2/28/91	26
123	06238	VENUS 4S_R	MRF7036	NOAA	0.00814267	VENUS 4SSW	391538	999565	270500	812000	HIG	7/1/28	10/31/78	33
124	06192	VERO 4W_R	MRF6092	NOAA	0.00302059	VERO BEACH 4W	674849	1198522	273748	802736	IND	5/21/65	1/31/98	30
125	06182	WPB AIRP_R	MRF6075	NOAA	0.00293607	WEST PALM BEACH AIRPORT	790635	853021	264040	800636	PAL	1/1/39	1/31/98	53
126	06399	ARCADIA_R	MRF6015	NOAA	0.00000000	ARCADIA	218370	1054921	271400	815200	DES	7/1/07	1/31/98	63
127	06131	BARTOW_R	MRF6007	NOAA	0.00000000	BARTOW	227513	1297131	275359	815037	POL	1/1/01	1/31/98	85
128	06396	EUSTIS 2_R	MRF6002	NOAA	0.00000000	EUSTIS 2S	281243	1642309	285100	814100	LAK	1/1/01	11/30/58	52
129	06142	FELLSMER_R	MRF6021	NOAA	0.00000000	FELLSMERE 4W	634746	1248050	274600	803500	IND	1/1/14	4/17/79	52
130	06397	HILLSBOR_R	MRF6004	NOAA	0.00000000	HILLSBOROUGH RIVER STATE PARK	105297	1387049	280839	821329	HIL	9/2/43	1/31/98	27
131	06245	KEY WE 2_R	MRF7050	NOAA	0.00000000	KEY WEST WSO AIRPORT	250708	79406	243300	814500	MON	1/1/41	7/31/91	38
132	06162	KEY WEST_R	MRF6049	NOAA	0.00000000	KEY WEST (MIX OF RECORDER AND STD GAN)	234088	79500	243300	814800	MON	1/1/01	2/28/74	62
133	06130	LAKELA 5_R	MRF6006	NOAA	0.00000000	LAKELAND WB CITY	193525	1345960	280200	815700	POL	5/1/15	8/31/95	76
134	06246	LIGNUMVI_R	MRF7052	NOAA	0.00000000	LIGNUMVITAE KEY - RECORDING GUAGE	599437	206020	245400	804200	MON	1/1/42	12/31/72	25

135	06194	LISBON_R	MRF6096	NOAA	0.00000000	LISBON	243974	1654663	285200	814700	LAK	12/1/58	1/31/98	37
136	06401	MELBOURN_R	MRF6022	NOAA	0.00000000	MELBOURNE	623624	1357079	280400	803700	BRE	9/1/37	1/31/98	47
137	15091	OCALA	MRF6029	NOAA	0.00000000	RAINFALL NEAR OCALA, FLORIDA	158338	1764624	291100	820800	MRN	1/1/01	2/28/87	67
138	06256	ORLAN AP_R	MRF7079	NOAA	0.00000000	ORLANDO WB AIRPORT	392985	1532754	283300	812000	ORA	1/1/42	7/31/91	40
139	06398	PLANT CITY_R	MRF6005	NOAA	0.00000000	PLANT CITY	134321	1340406	280100	820800	HIL	1/1/01	1/31/98	66
140	06847	SANFORD_R	MRF6001	WMD	0.00000000	SANFORD	419942	1629645	284900	811500	SEM	1/1/14	12/31/56	41
141	06848	SANFORX_R	MRF6001	WMD	0.00000000	SANFORD EXPERIMENT STATION	425268	1622574	284800	811400	SEM	6/1/56	1/30/94	35
142	06165	TAVERNIE_R	MRF6053	NOAA	0.00000000	TAVERNIER	659150	243843	250013	803110	MON	6/1/36	1/31/98	47
143	06400	TITUSVIL_R	MRF6018	NOAA	0.00000000	TITUSVILLE 2W	553473	1356881	283700	805000	BRE	1/21/01	1/31/98	71
144	06849	WAUCHUL_R	MRF6012	WMD	0.00000000	WAUCHULA 2N	235413	1175990	273400	814900	HAR	1/1/33	1/30/94	56
145	06132	WINTERHA_R	MRF6008	NOAA	0.00000000	WINTERHAVEN	258989	1338132	280047	814449	POL	3/1/41	7/31/97	42

APPENDIX B

Theissen polygon representation of monthly average rainfall over 145 stations

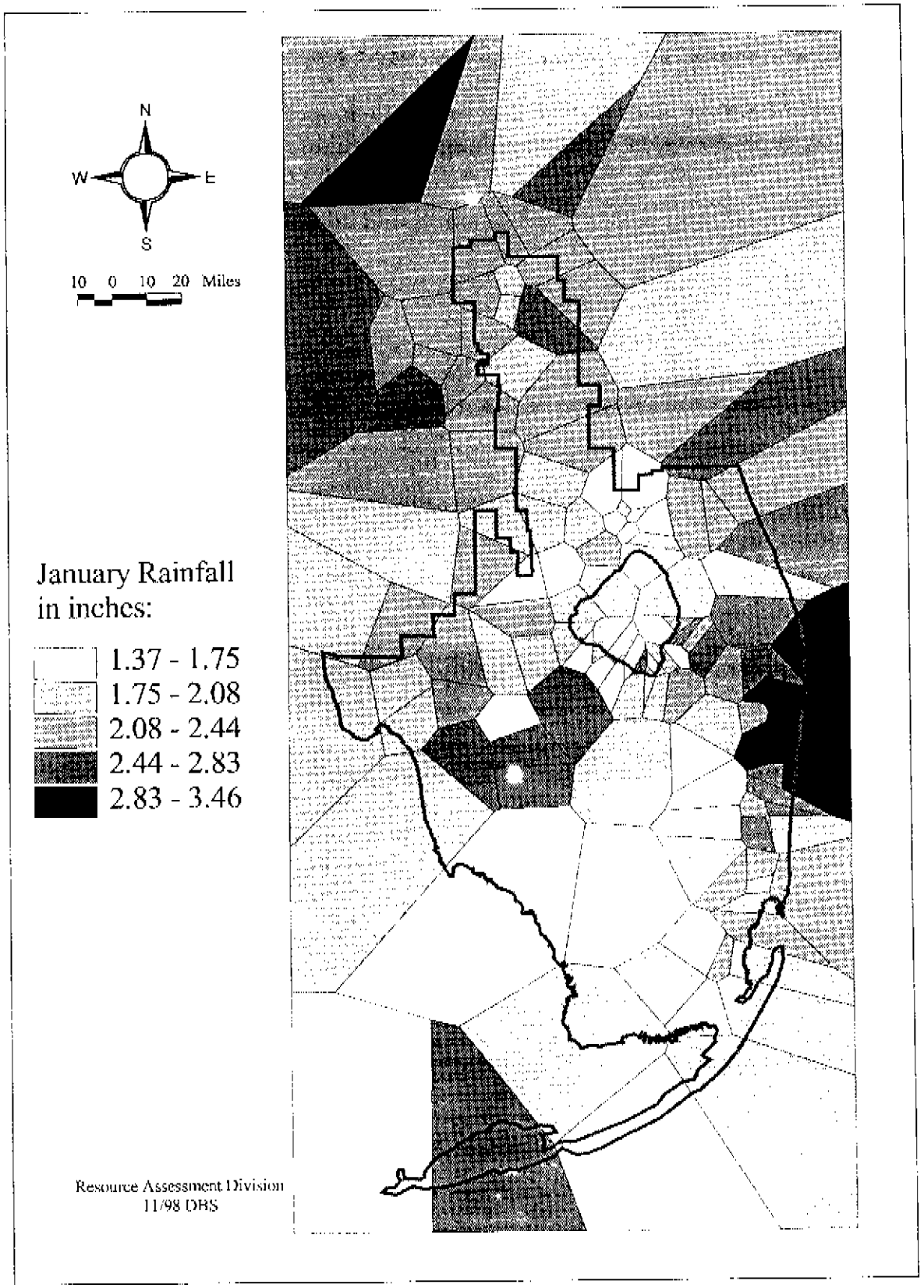

Figure b1. Theissen polygon representation of January average rainfall over 145 stations.

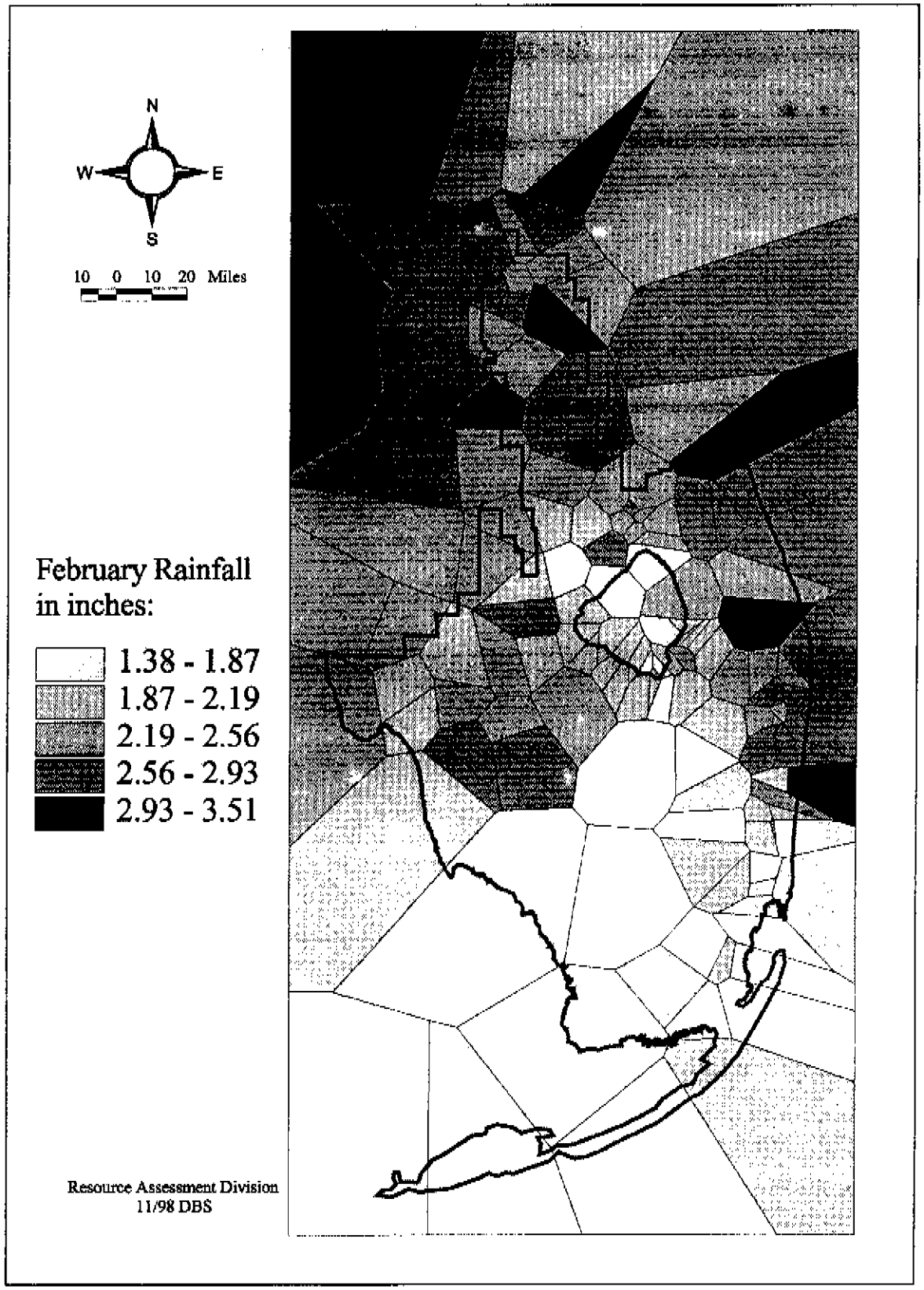

Figure b2. Theissen polygon representation of February average rainfall over 145 stations

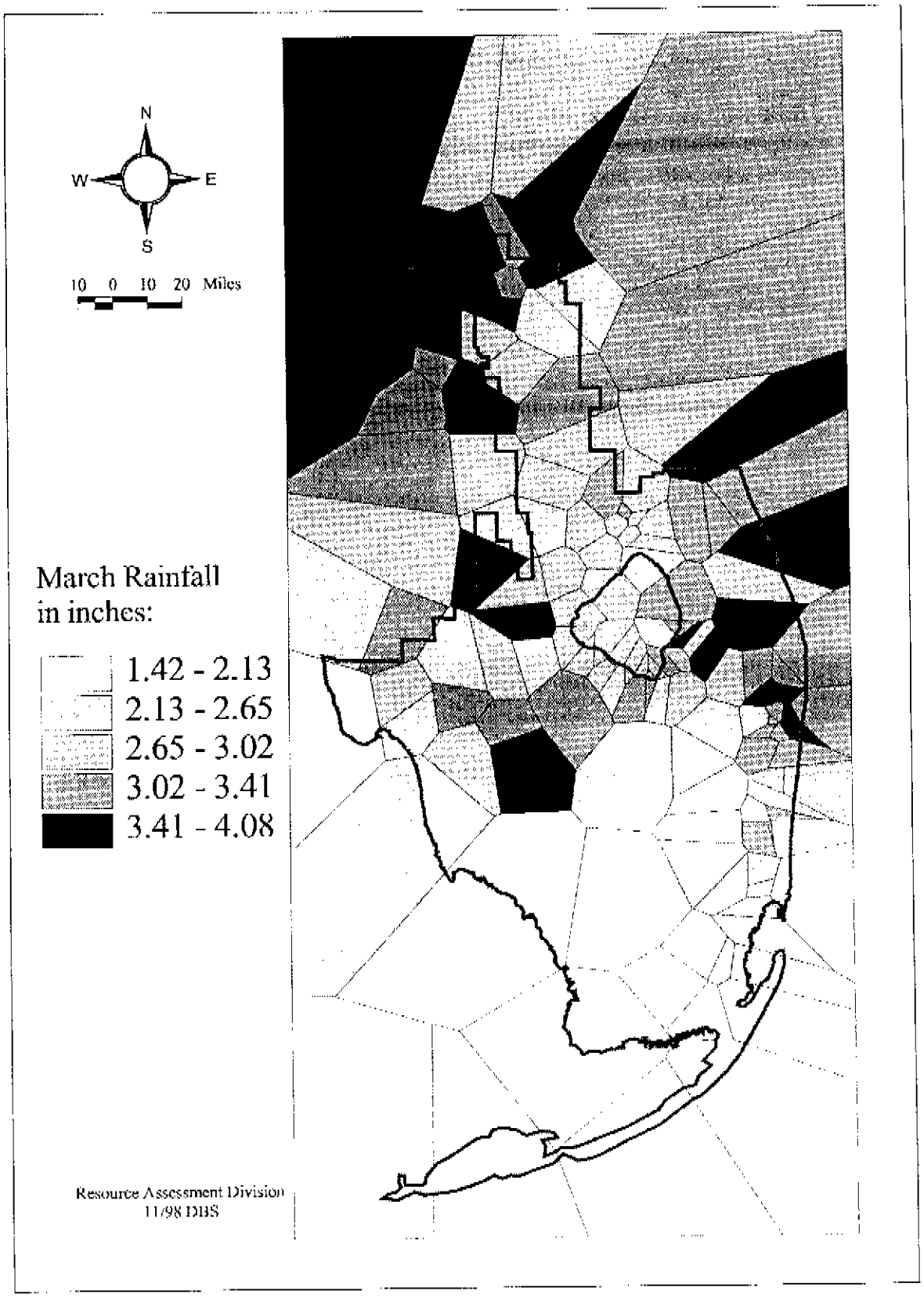

Figure b3. Theissen polygon representation of March average rainfall over 145 stations

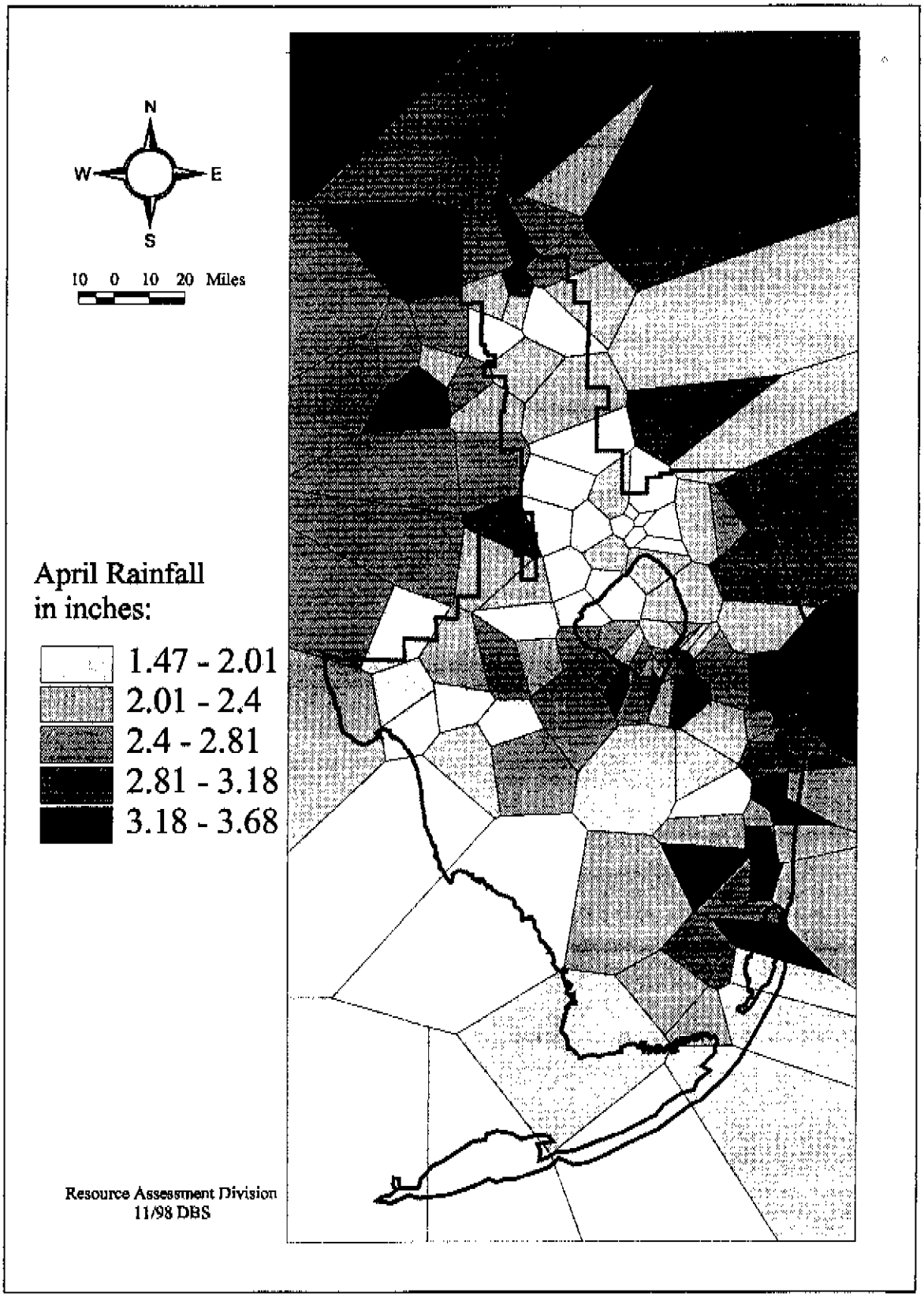

Figure b4. Theissen polygon representation of April average rainfall over 145 stations

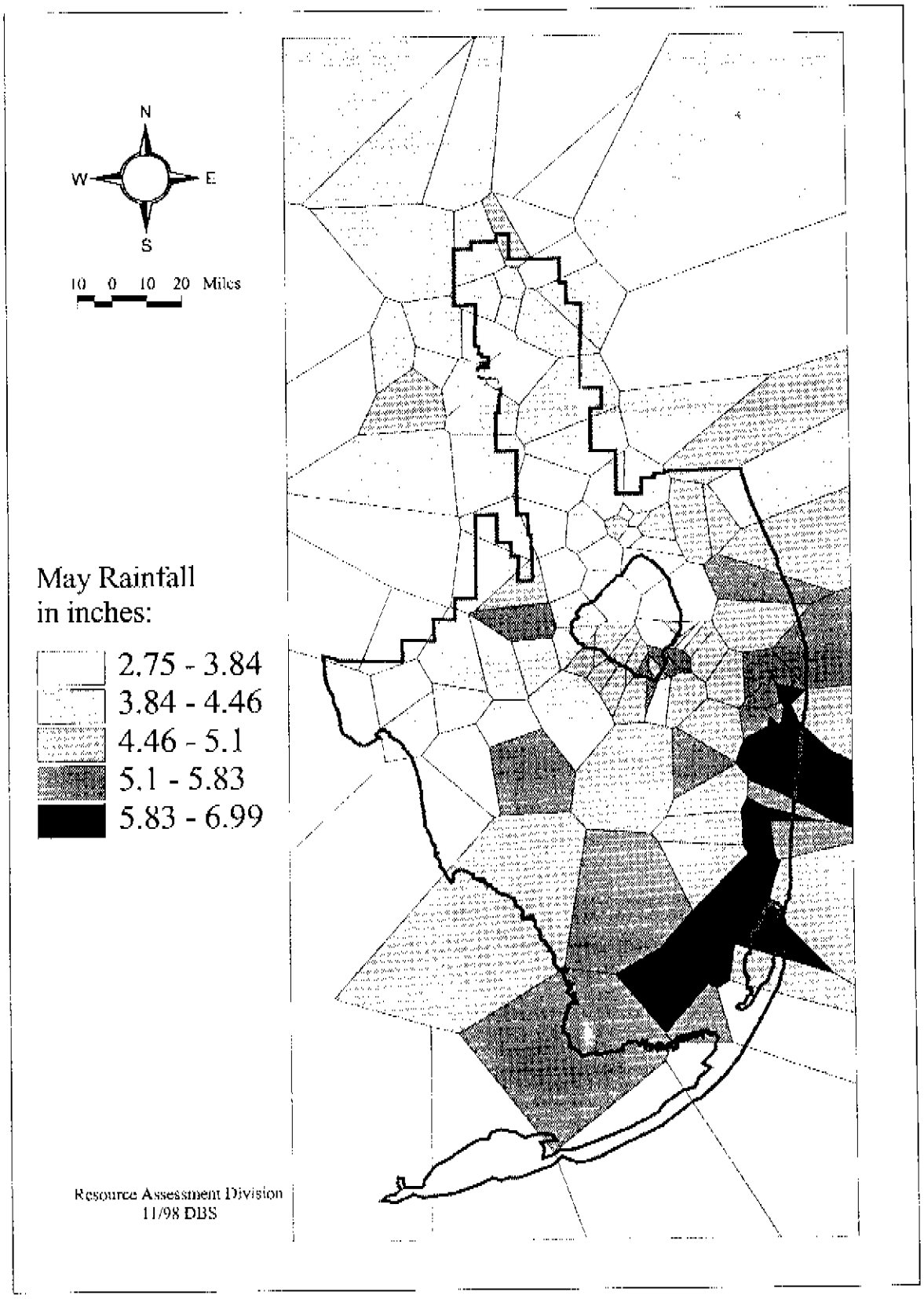

Figure b5. Theissen polygon representation of May average rainfall over 145 stations

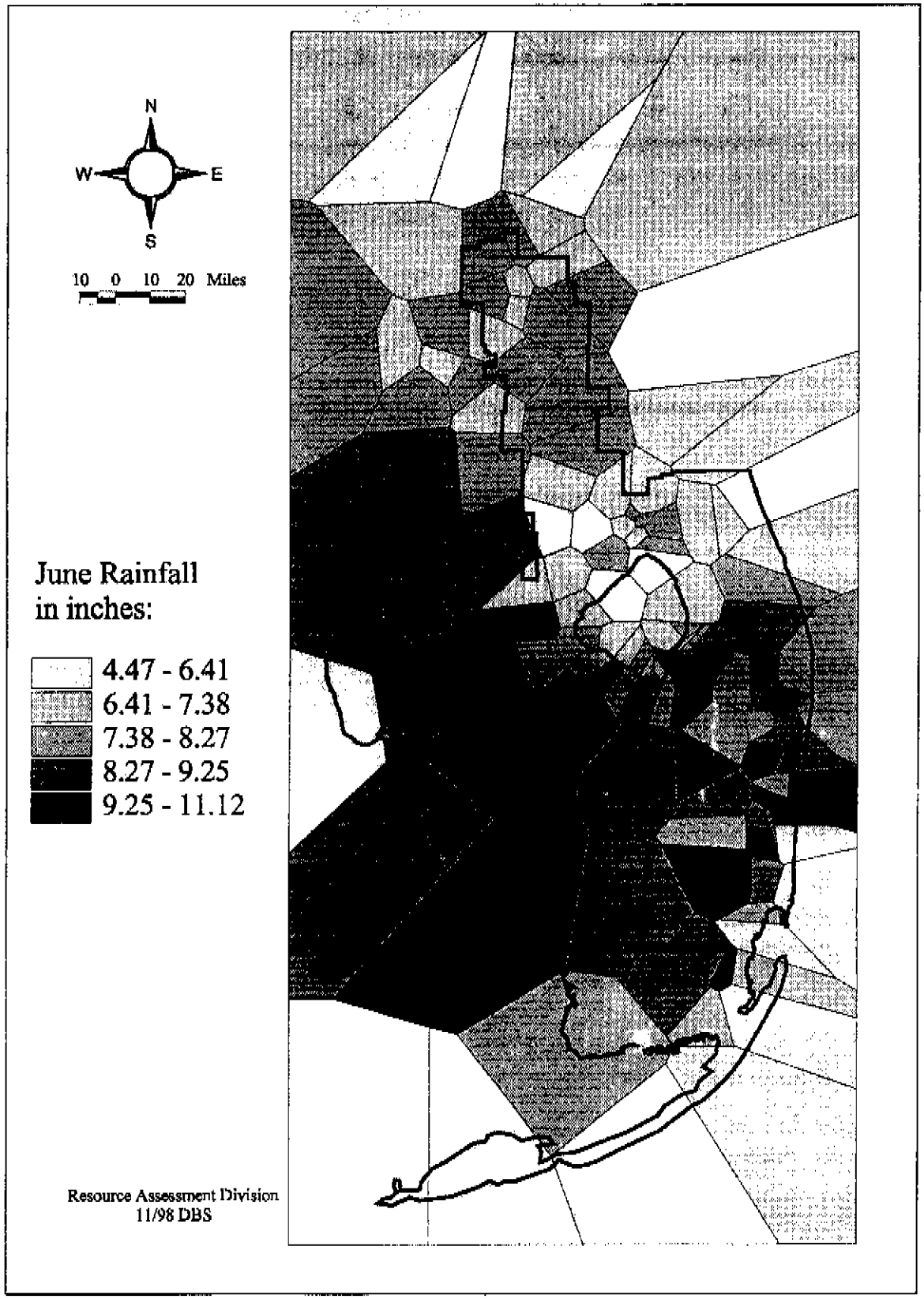

Figure b6. Theissen polygon representation of June average rainfall over 145 stations.

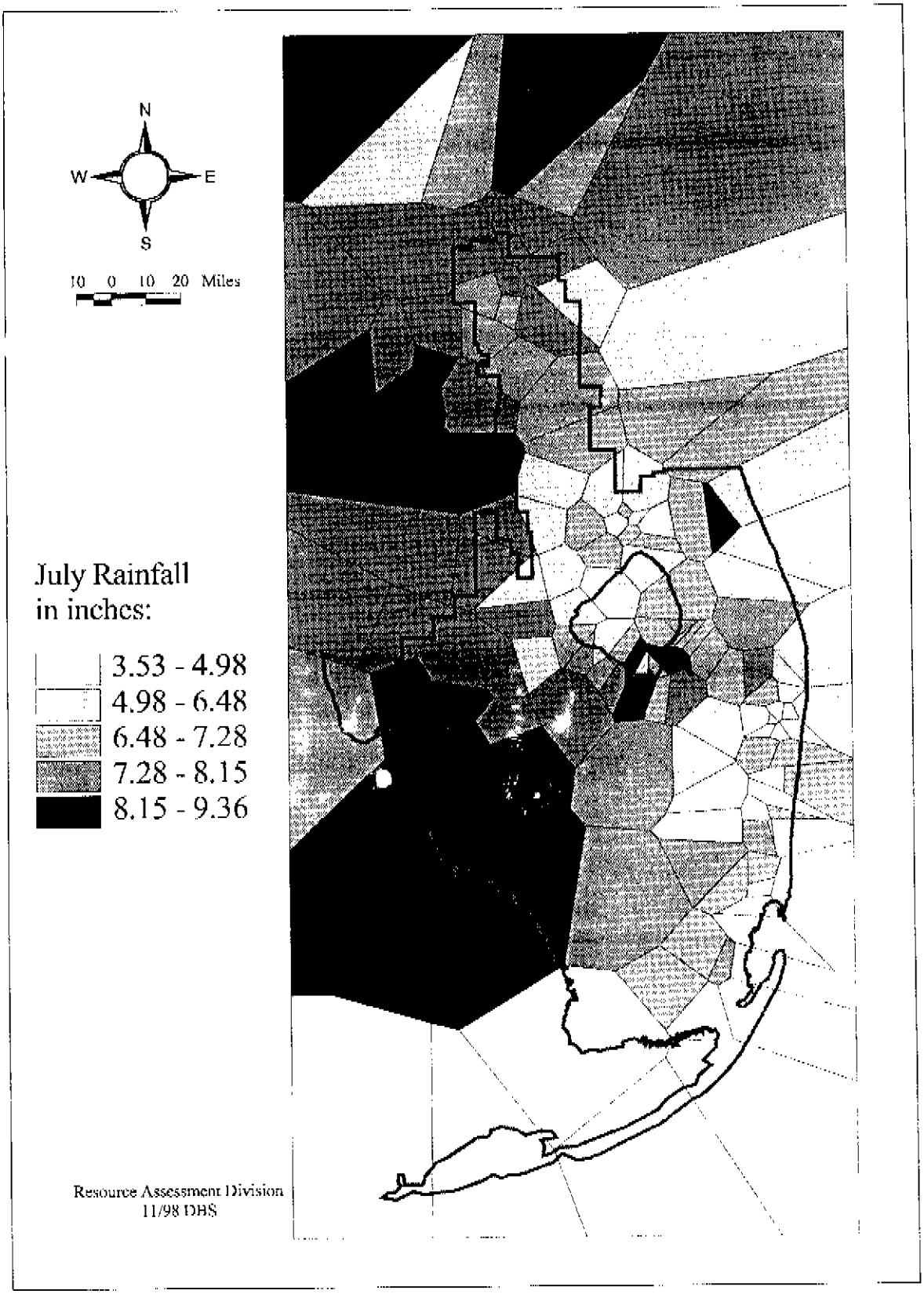

Figure b7. Theissen polygon representation of July average rainfall over 145 stations.

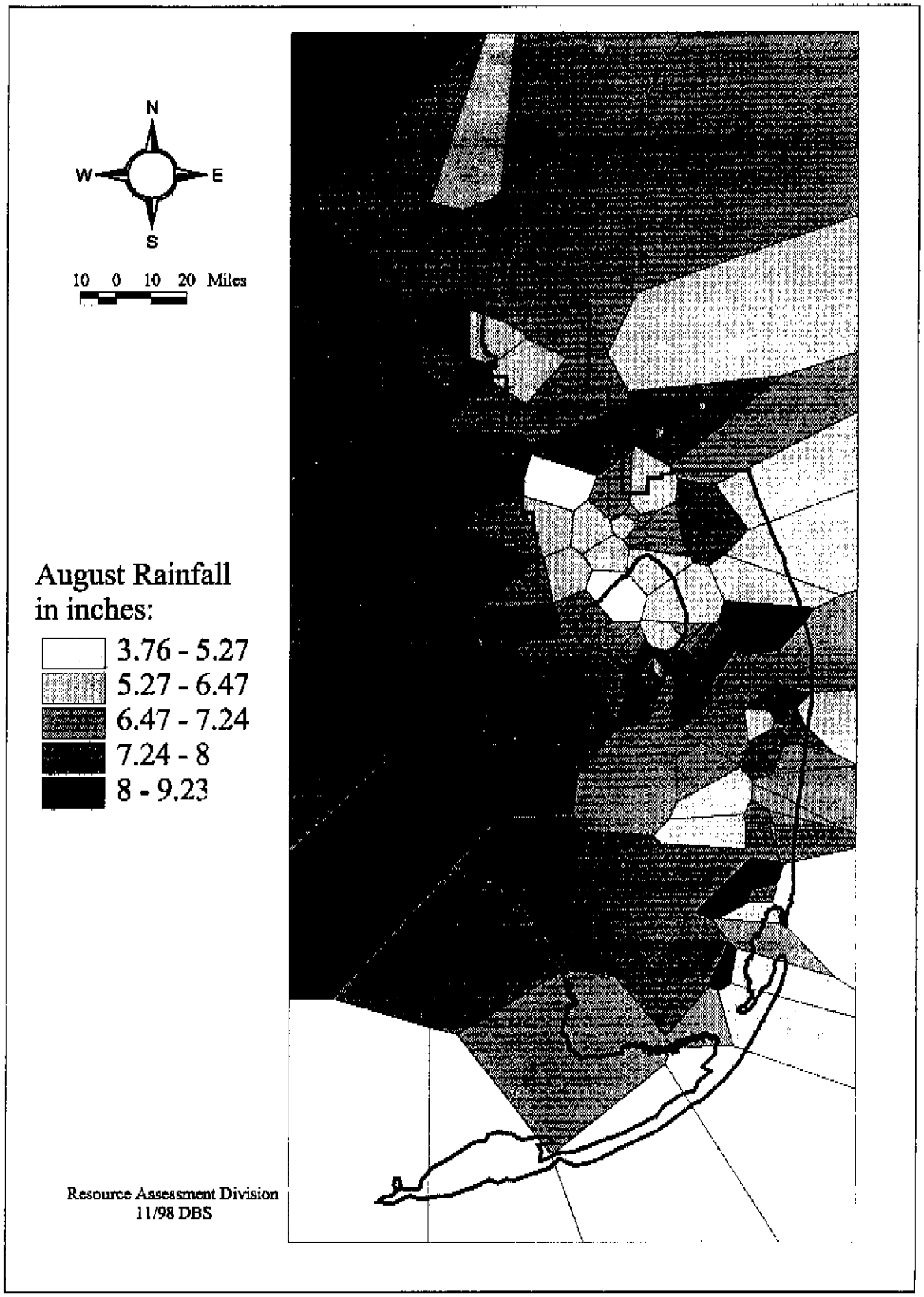

Figure b8. Theissen polygon representation of August average rainfall over 145 stations.

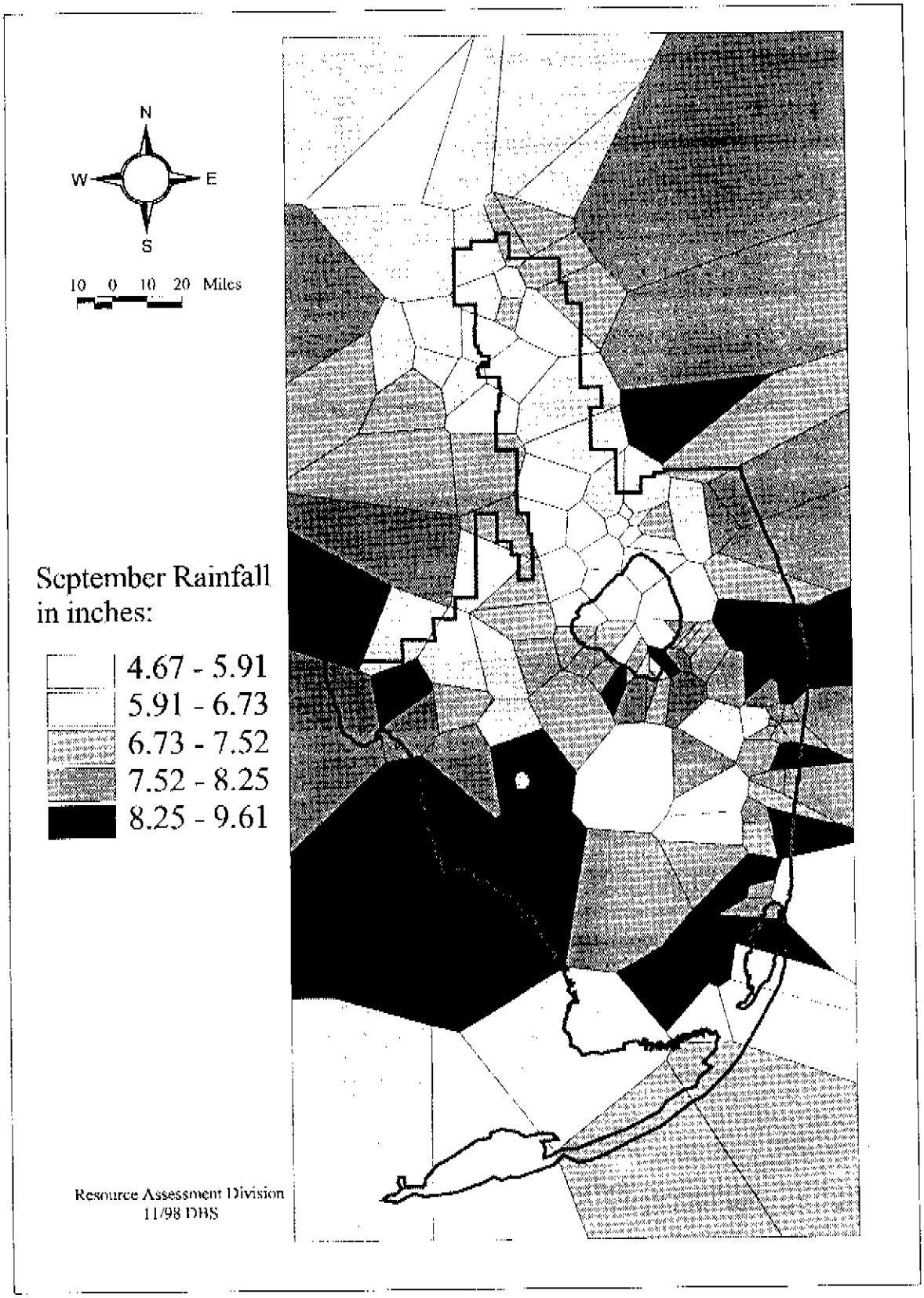

Figure b9. Theissen polygon representation of September average rainfall over 145 stations

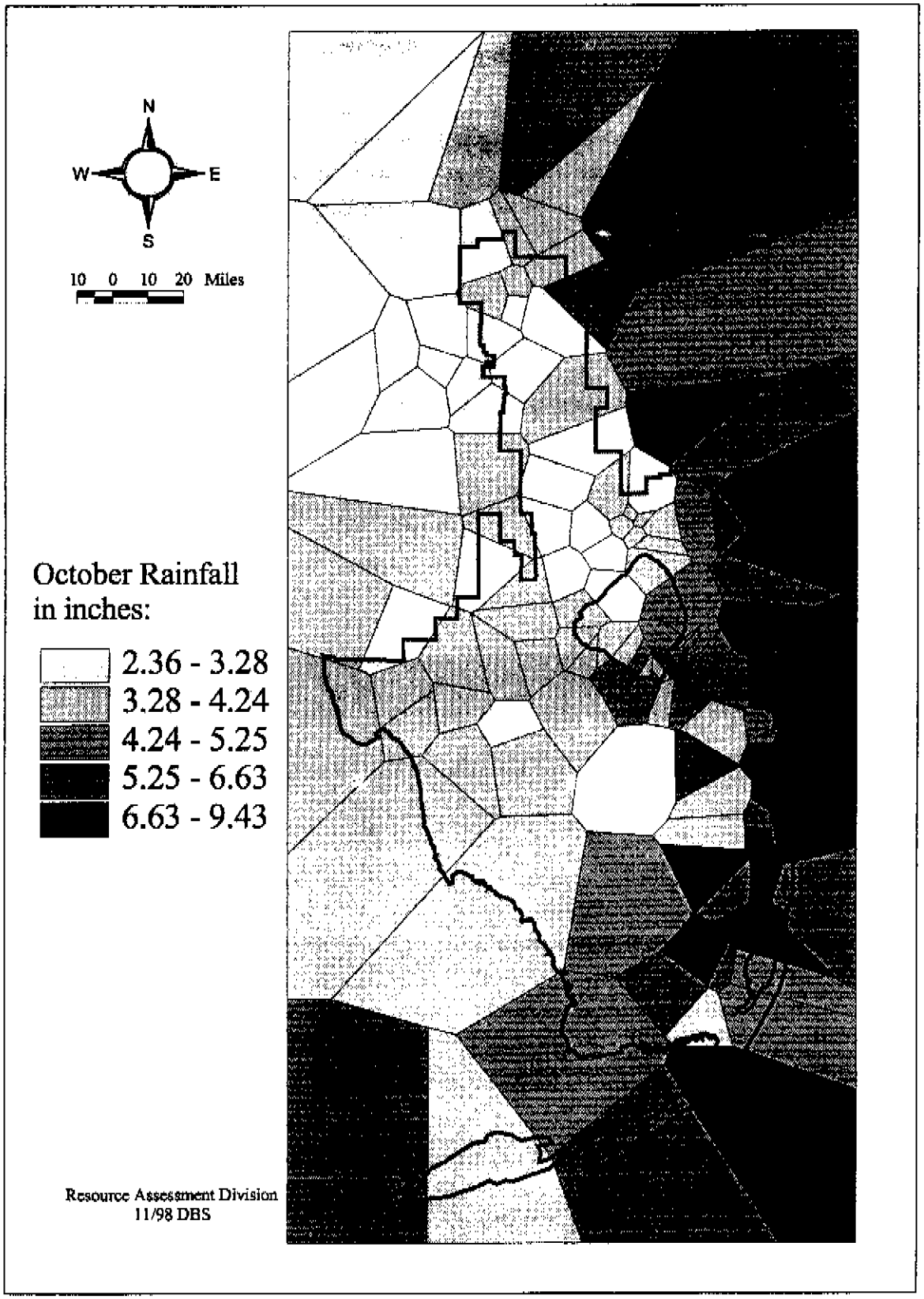

Figure b10. Theissen polygon representation of October average rainfall over 145 stations

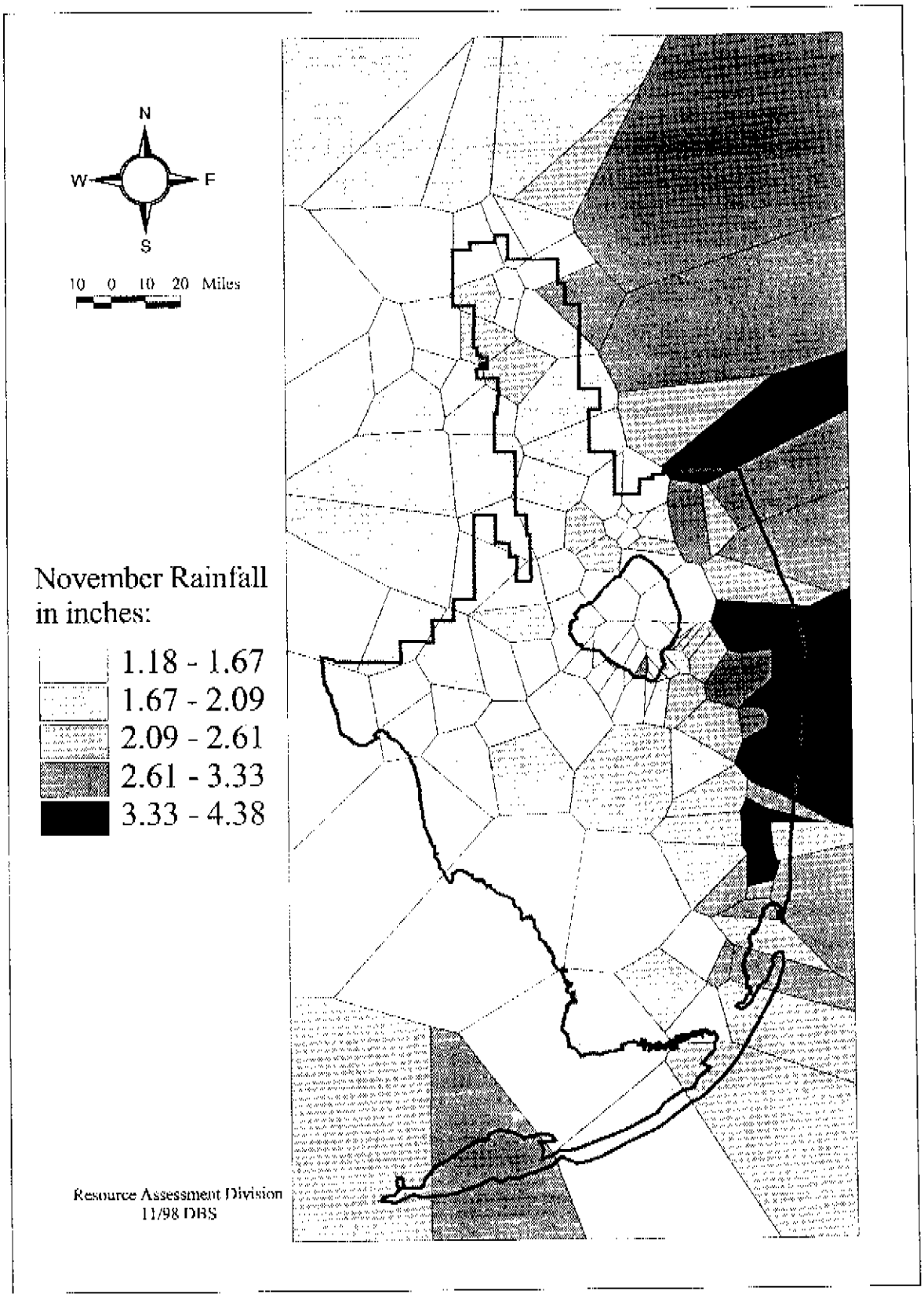

Figure b11. Theissen polygon representation of November average rainfall over 145 stations

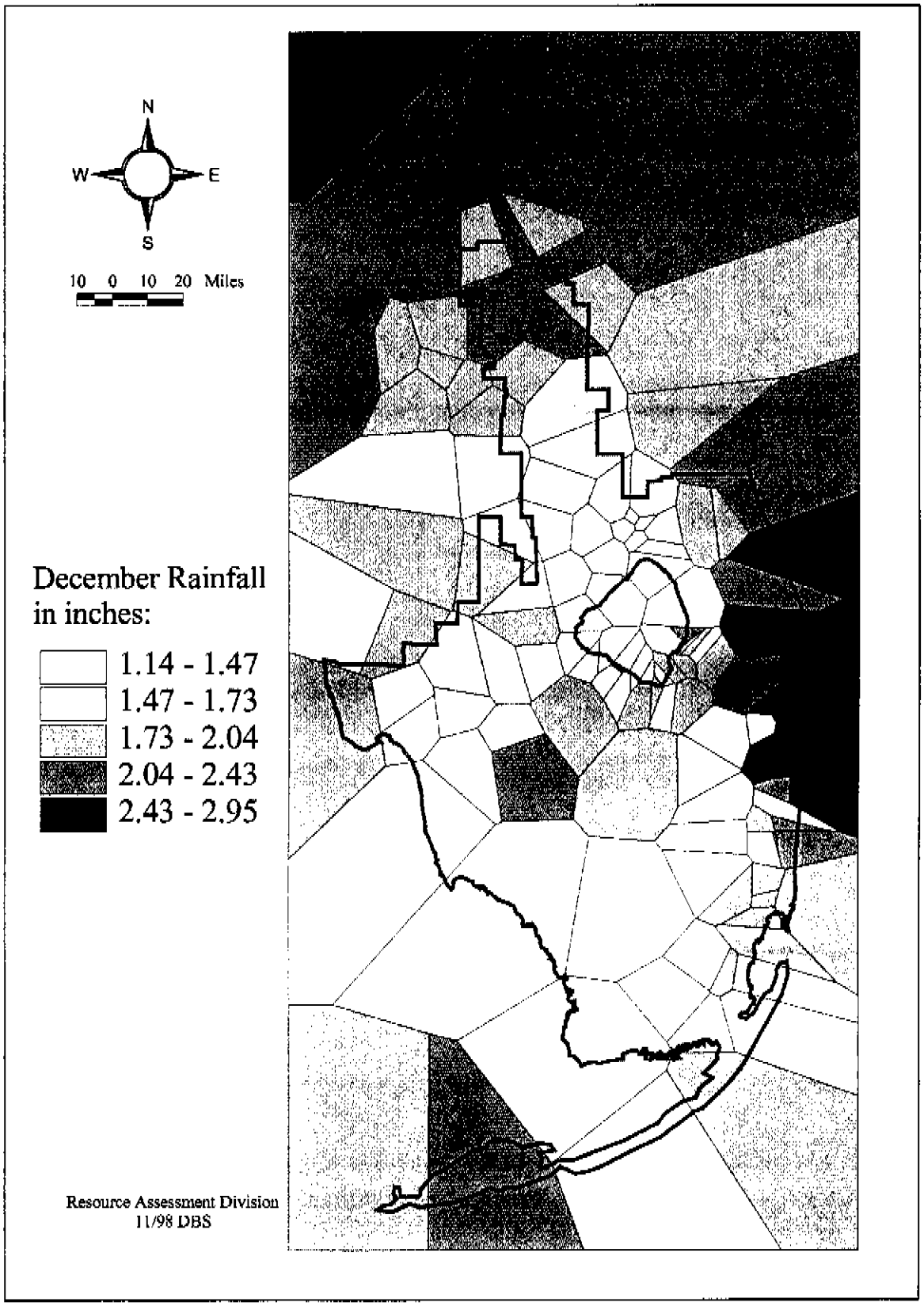

Figure B12. Theissen polygon representation of December average rainfall over 145 stations

Appendix C

Cumulative monthly rainfall

Table C1. Cumulative average monthly rainfall and associated percentages for January through June

a= Cumulative monthly average rainfall

b= a/annual average rainfall at the same station * 100

c = a/District-wide Theissen weighted annual average rainfall (52 inch) * 100.

Station	Dbkey	January			February			March			April			May			June		
		a	b	c	a	b	c	a	b	c	a	b	c	a	b	c	a	b	c
1	6303	2.33	4.5	4.5	4.74	9.2	9.1	7.22	14	13.9	9.93	19.2	19.1	15.6	30.2	30	23.42	45.3	45
2	5798	1.58	3.5	3	3.56	7.8	6.8	5.69	12.5	10.9	7.24	15.9	13.9	12.11	26.6	23.3	20.83	45.7	40
3	5922	2.18	4.1	4.2	4.23	8	8.1	6.88	13.1	13.2	9.02	17.1	17.3	12.94	24.5	24.9	22.02	41.7	42.3
4	6205	2.23	4.3	4.3	4.53	8.8	8.7	8.13	15.8	15.6	10.29	20	19.8	14.26	27.7	27.4	22.63	43.9	43.5
5	6136	2.19	4.2	4.2	4.68	8.9	9	7.43	14.1	14.3	10.07	19.2	19.4	14.48	27.5	27.8	22.75	43.3	43.8
6	6135	2.44	4.9	4.7	5.51	11	10.6	9.21	18.4	17.7	11.39	22.7	21.9	15.54	31	29.9	22.9	45.7	44
7	5945	1.37	2.6	2.6	3.53	6.6	6.8	6.18	11.6	11.9	9.47	17.7	18.2	14.34	26.8	27.6	22.42	42	43.1
8	6047	1.72	3.7	3.3	3.96	8.5	7.6	7.11	15.3	13.7	9.17	19.7	17.6	13.38	28.7	25.7	20.32	43.6	39.1
9	6207	2.22	4	4.3	4.13	7.4	7.9	7.09	12.7	13.6	9.95	17.9	19.1	14.73	26.5	28.3	23.34	41.9	44.9
10	6128	1.69	3.4	3.3	3.85	7.8	7.4	6.67	13.5	12.8	9.31	18.8	17.9	14.04	28.4	27	21.86	44.2	42
11	5813	2.53	5.2	4.9	5.61	11.5	10.8	8.14	16.6	15.7	10.14	20.7	19.5	14.09	28.8	27.1	21.54	44	41.4
12	6157	2.33	4.3	4.5	4.5	8.3	8.6	7.75	14.3	14.9	10.29	19	19.8	15.14	28	29.1	23.09	42.7	44.4
13	6186	1.88	4.1	3.6	4.17	9	8	6.28	13.6	12.1	8.42	18.2	16.2	11.16	24.2	21.5	17.05	36.9	32.8
14	6129	2.38	4.7	4.6	5.1	10	9.8	8.57	16.9	16.5	11.42	22.5	22	15.28	30.1	29.4	22.54	44.4	43.3
15	6168	2.18	3.8	4.2	4.05	7	7.8	6.3	10.9	12.1	9.9	17.2	19	16.12	27.9	31	23.4	40.6	45
16	5916	2.54	4.4	4.9	5.19	9	10	8.01	13.9	15.4	10.04	17.4	19.3	14.03	24.3	27	24.36	42.2	46.9
17	6178	1.78	3.1	3.4	3.87	6.7	7.4	5.96	10.3	11.5	8.71	15	16.7	13.85	23.9	26.6	21.09	36.4	40.6
18	6206	2.48	4.5	4.8	4.87	8.9	9.4	7.9	14.4	15.2	10.43	19	20.1	14.79	26.9	28.4	24.38	44.4	46.9
19	5800	2.55	4	4.9	5.09	8	9.8	8.3	13	16	11.6	18.1	22.3	18.58	29	35.7	28	43.7	53.8
20	6050	1.52	3.4	2.9	3.81	8.5	7.3	6.77	15.2	13	8.51	19.1	16.4	13.12	29.4	25.2	20.37	45.6	39.2
21	6161	1.62	3	3.1	3.2	6	6.2	5.19	9.7	10	7.18	13.5	13.8	11.73	22	22.6	21.13	39.7	40.6
22	6210	1.98	4.1	3.8	3.68	7.6	7.1	5.34	11	10.3	7.37	15.2	14.2	12.97	26.8	25	20.93	43.3	40.2
23	6151	2.39	4.5	4.6	5.18	9.8	10	8.29	15.6	15.9	11.24	21.2	21.6	15.56	29.4	29.9	21.57	40.7	41.5
24	6193	1.82	3.4	3.5	3.9	7.3	7.5	6.52	12.2	12.5	8.53	16	16.4	12.39	23.2	23.8	21.53	40.4	41.4
25	6015	2.21	4.2	4.3	4.85	9.1	9.3	7.99	15	15.4	10.38	19.5	20	15.17	28.5	29.2	22.19	41.7	42.7
26	5801	2.29	4	4.4	4.65	8	8.9	7.16	12.4	13.8	9.97	17.2	19.2	15.99	27.7	30.8	24.5	42.4	47.1
27	5807	2.6	4.1	5	5.16	8.1	9.9	8.35	13.2	16.1	11.76	18.5	22.6	18.47	29.1	35.5	28.06	44.2	54
28	6154	1.79	3.6	3.4	3.79	7.7	7.3	6.61	13.4	12.7	9.18	18.6	17.7	13.63	27.6	26.2	21.48	43.5	41.3
29	6155	1.84	3.9	3.5	3.95	8.3	7.6	6.73	14.1	12.9	8.96	18.8	17.2	13.86	29.1	26.7	21.17	44.5	40.7

30	6241	1.55	3.3	3	3.27	6.9	6.3	5.97	12.5	11.5	8.12	17	15.6	13.15	27.6	25.3	20.24	42.4	38.9
31	6242	1.62	3.6	3.1	3.3	7.4	6.4	5.76	12.9	11.1	8.11	18.1	15.6	12.24	27.3	23.5	19.04	42.5	36.6
32	6073	1.67	4	3.2	3.48	8.4	6.7	6.13	14.8	11.8	8.31	20	16	11.81	28.4	22.7	17.65	42.5	33.9
33	6175	2.3	3.6	4.4	4.44	7	8.5	7.11	11.2	13.7	10.79	17	20.7	17.11	26.9	32.9	26.24	41.3	50.5
34	6268	1.5	2.6	2.9	3.16	5.5	6.1	5.1	8.9	9.8	8.09	14.2	15.6	14.07	24.6	27.1	22.62	39.6	43.5
35	5815	2.43	4	4.7	4.85	8	9.3	7.08	11.7	13.6	9.99	16.5	19.2	16.41	27	31.6	25.96	42.7	49.9
36	6180	2.98	5.1	5.7	5.66	9.6	10.9	9	15.3	17.3	12.58	21.4	24.2	17.37	29.6	33.4	24.88	42.4	47.8
37	6082	2.83	4.5	5.4	5.62	8.9	10.8	9.49	15	18.2	12.22	19.3	23.5	17.45	27.5	33.6	28.57	45.1	54.9
38	6077	1.84	4.7	3.5	3.71	9.5	7.1	6.45	16.4	12.4	8.09	20.6	15.6	11.72	29.9	22.5	17.81	45.4	34.2
39	6144	2.25	4.3	4.3	5.11	9.9	9.8	8.63	16.7	16.6	11.25	21.8	21.6	15.58	30.1	30	23.23	44.9	44.7
40	6049	1.54	3.5	3	3.85	8.7	7.4	6.68	15	12.8	8.31	18.7	16	12.35	27.8	23.7	19.2	43.2	36.9
41	6147	1.91	3.9	3.7	4.75	9.8	9.1	8.22	16.9	15.8	10.28	21.1	19.8	14.3	29.4	27.5	20.98	43.1	40.4
42	6305	2.4	4.7	4.6	5.13	10.1	9.9	8.65	17.1	16.6	10.95	21.6	21.1	14.97	29.6	28.8	22.4	44.3	43.1
43	6146	2.02	4	3.9	4.36	8.7	8.4	7.5	14.9	14.4	10.44	20.7	20.1	14.55	28.9	28	21.9	43.4	42.1
44	6133	2.27	4.4	4.4	4.99	9.7	9.6	8.62	16.7	16.6	11.32	22	21.8	15.57	30.2	29.9	23.26	45.2	44.7
45	6145	2.3	4.6	4.4	4.86	9.7	9.4	8.41	16.7	16.2	10.86	21.6	20.9	14.14	28.1	27.2	21.16	42.1	40.7
46	6278	2.24	4.4	4.3	4.63	9	8.9	7.1	13.8	13.6	9.3	18.1	17.9	13.72	26.7	26.4	21.25	41.3	40.9
47	6150	1.76	3.4	3.4	4.16	8.1	8	6.67	13	12.8	9.68	18.9	18.6	13.59	26.6	26.1	22.16	43.3	42.6
48	6158	1.82	3.5	3.5	4.2	8.1	8.1	7.1	13.7	13.7	9.72	18.8	18.7	14.04	27.1	27	23.29	45	44.8
49	5885	2.13	3.8	4.1	4.51	8.1	8.7	7.69	13.9	14.8	9.36	16.9	18	13.59	24.6	26.1	23.34	42.2	44.9
50	6197	1.77	3.6	3.4	3.87	7.8	7.4	6.67	13.5	12.8	9.41	19.1	18.1	14.19	28.7	27.3	21.57	43.7	41.5
51	6181	2.56	4.1	4.9	5.04	8	9.7	8.41	13.4	16.2	11.43	18.2	22	16.93	27	32.6	26.13	41.7	50.2
52	6290	3.45	5.4	6.6	6.31	9.9	12.1	9.85	15.4	18.9	12.9	20.2	24.8	18.62	29.2	35.8	27.74	43.4	53.4
53	6321	3.13	5	6	5.76	9.2	11.1	9.05	14.5	17.4	12.15	19.5	23.4	18.13	29.1	34.9	26.86	43.1	51.7
54	6299	3.19	5.1	6.1	5.7	9.1	11	8.89	14.3	17.1	12.2	19.6	23.5	18.04	29	34.7	27.03	43.4	52
55	6276	3.46	5.4	6.7	6.31	9.8	12.1	10.04	15.6	19.3	13.12	20.4	25.2	19.1	29.7	36.7	27.73	43.2	53.3
56	6306	3.3	5.2	6.4	6.06	9.6	11.6	9.95	15.8	19.1	13.13	20.9	25.3	19.43	30.9	37.4	28.07	44.6	54
57	6302	3.07	5	5.9	5.57	9.1	10.7	8.74	14.3	16.8	11.75	19.2	22.6	18.23	29.8	35.1	26.87	43.9	51.7
58	6322	3.19	5.1	6.1	5.84	9.4	11.2	9.26	14.8	17.8	12.07	19.3	23.2	18.54	29.7	35.7	27.52	44.1	52.9
59	6298	3.31	5.2	6.4	6.04	9.5	11.6	9.79	15.5	18.8	12.9	20.4	24.8	18.94	29.9	36.4	27.97	44.2	53.8
60	5793	3.2	5	6.2	6.07	9.5	11.7	9.37	14.7	18	12.51	19.7	24.1	18.65	29.3	35.9	27.42	43.1	52.7
61	5792	3.01	4.6	5.8	5.64	8.6	10.9	9.03	13.8	17.4	12.22	18.7	23.5	18.64	28.6	35.8	28.24	43.3	54.3
62	6172	2.24	4.8	4.3	4.24	9.1	8.1	6.19	13.4	11.9	8.84	19.1	17	13.77	29.7	26.5	20.71	44.7	39.8
63	6249	2.05	3.7	3.9	4.15	7.4	8	6.24	11.1	12	9.28	16.5	17.8	15.38	27.3	29.6	23.14	41.1	44.5
64	6265	2.02	3.7	3.9	4.1	7.4	7.9	7.19	13	13.8	9.95	18	19.1	14.91	27	28.7	23.3	42.2	44.8

65	6174	2	3.4	3.8	4.07	7	7.8	6.54	11.2	12.6	9.79	16.8	18.8	15.68	26.9	30.1	24.58	42.2	47.3
66	5810	2.33	3.8	4.5	4.82	7.7	9.3	7.27	11.7	14	10.38	16.7	20	16.27	26.2	31.3	27.35	44	52.6
67	6051	1.65	3.5	3.2	3.99	8.5	7.7	6.97	14.7	13.4	8.83	18.7	17	13.11	27.8	25.2	20.72	43.9	39.8
68	6134	2.4	4.7	4.6	5.2	10.1	10	8.66	16.9	16.7	11.17	21.7	21.5	15.25	29.7	29.3	22.79	44.4	43.8
69	6160	1.97	3.7	3.8	4.04	7.6	7.8	6.35	12	12.2	8.22	15.5	15.8	12.4	23.4	23.8	20.89	39.5	40.2
70	6258	1.53	2.9	3	3.31	6.1	6.4	5.91	11	11.4	8.26	15.4	15.9	14.06	26.1	27	23.87	44.4	45.9
71	6070	1.94	4.1	3.7	4.35	9.1	8.4	7.08	14.8	13.6	8.98	18.7	17.3	13.41	28	25.8	21.02	43.8	40.4
72	6052	1.7	3.5	3.3	4.06	8.5	7.8	7.04	14.7	13.5	8.87	18.5	17.1	13.5	28.2	26	21.06	44	40.5
73	6218	2.32	4.4	4.5	4.78	9	9.2	8.1	15.2	15.6	11.05	20.8	21.3	15.69	29.5	30.2	23.45	44.1	45.1
74	5838	2.28	4.3	4.4	4.3	8.2	8.3	7.19	13.7	13.8	9.32	17.7	17.9	14.22	27	27.3	23.04	43.8	44.3
75	5839	2.82	5	5.4	4.94	8.8	9.5	8.52	15.1	16.4	11.04	19.6	21.2	16.14	28.6	31	24.56	43.6	47.2
76	6093	2.39	4.3	4.6	5.32	9.5	10.2	9.02	16.1	17.3	10.96	19.6	21.1	16.44	29.4	31.6	25.16	45	48.4
77	6222	1.71	3	3.3	3.96	6.9	7.6	6.93	12	13.3	9.98	17.3	19.2	15.12	26.2	29.1	23.8	41.2	45.8
78	5837	2.67	5.1	5.1	4.78	9.1	9.2	8.29	15.8	15.9	10.82	20.6	20.8	15.01	28.6	28.9	22.26	42.4	42.8
79	6125	2.71	5.2	5.2	4.79	9.2	9.2	8.34	16.1	16	10.73	20.6	20.6	15.09	29	29	22.61	43.5	43.5
80	6253	1.96	3.3	3.8	4.33	7.3	8.3	6.53	11	12.5	9.97	16.9	19.2	14.77	25	28.4	24.93	42.2	47.9
81	5966	3.45	5.6	6.6	6.26	10.2	12	9.44	15.4	18.1	12.82	20.9	24.6	18.28	29.9	35.2	25.96	42.4	49.9
82	6179	2.65	4.4	5.1	4.84	8.1	9.3	7.74	13	14.9	11.34	19	21.8	17.25	28.9	33.2	24.83	41.6	47.8
83	5796	2.95	4.6	5.7	6.46	10	12.4	9.44	14.6	18.2	12.16	18.8	23.4	19.1	29.5	36.7	28.51	44.1	54.8
84	6122	2.63	4	5.1	5.61	8.5	10.8	9.41	14.2	18.1	11.65	17.6	22.4	16.58	25	31.9	25.69	38.7	49.4
85	6138	1.77	3.4	3.4	4.07	7.8	7.8	6.59	12.7	12.7	9.27	17.8	17.8	13.04	25	25.1	21.54	41.3	41.4
86	6139	2.35	4.6	4.5	4.77	9.4	9.2	8.07	15.8	15.5	9.73	19.1	18.7	13.42	26.3	25.8	22.42	44	43.1
87	6048	1.8	3.7	3.5	4.45	9.1	8.6	7.65	15.7	14.7	9.6	19.7	18.5	13.95	28.6	26.8	21.69	44.4	41.7
88	6225	1.75	3.2	3.4	3.85	7.1	7.4	6.83	12.6	13.1	9.6	17.7	18.5	14.67	27.1	28.2	22.6	41.8	43.5
89	6202	1.81	3.2	3.5	3.77	6.7	7.3	5.58	10	10.7	8.27	14.7	15.9	14.61	26.1	28.1	23.65	42.2	45.5
90	6224	1.8	3	3.5	3.84	6.5	7.4	7.01	11.8	13.5	9.55	16.1	18.4	14.95	25.2	28.7	23.85	40.2	45.9
91	5806	2.4	4.1	4.6	5.06	8.7	9.7	7.77	13.3	14.9	10.93	18.7	21	17.05	29.2	32.8	25.93	44.4	49.9
92	6120	2.01	4.4	3.9	4	8.8	7.7	6.71	14.7	12.9	8.58	18.8	16.5	12.44	27.3	23.9	19.72	43.2	37.9
93	5818	1.44	3.2	2.8	3.01	6.6	5.8	4.47	9.9	8.6	6.99	15.4	13.4	12.37	27.3	23.8	19.94	44	38.3
94	5817	1.77	4.2	3.4	3.3	7.7	6.3	4.96	11.7	9.5	7.21	16.9	13.9	11.48	27	22.1	18.56	43.6	35.7
95	5816	1.94	4.2	3.7	3.73	8.1	7.2	5.61	12.2	10.8	7.89	17.2	15.2	12.46	27.2	24	20.23	44.1	38.9
96	6227	2.46	5	4.7	4.15	8.5	8	6.9	14.1	13.3	9.26	18.9	17.8	14.43	29.5	27.8	21.77	44.5	41.9
97	6119	1.96	4	3.8	4.39	9	8.4	7.44	15.2	14.3	9.84	20.1	18.9	14.09	28.8	27.1	21.44	43.8	41.2
98	5797	2.48	4.3	4.8	5.34	9.2	10.3	8.18	14.1	15.7	11.55	19.8	22.2	16.71	28.7	32.1	26.28	45.2	50.5
99	6274	2.29	4.2	4.4	4.65	8.6	8.9	7.41	13.7	14.2	9.99	18.4	19.2	14.75	27.2	28.4	22.98	42.4	44.2

100	6324	1.96	4.1	3.8	4.09	8.6	7.9	6.35	13.3	12.2	8.42	17.6	16.2	12.94	27.1	24.9	20.57	43	39.6
101	5940	2.19	4.5	4.2	4.93	10	9.5	8.22	16.7	15.8	10.45	21.2	20.1	14.5	29.4	27.9	22.04	44.8	42.4
102	5981	2.14	4.3	4.1	4.73	9.6	9.1	7.51	15.3	14.4	9.45	19.2	18.2	13.74	27.9	26.4	21.84	44.4	42
103	5999	1.79	4.2	3.4	4.11	9.7	7.9	6.8	16.1	13.1	8.75	20.7	16.8	12.37	29.3	23.8	19.32	45.8	37.2
104	6068	1.81	4.2	3.5	3.77	8.9	7.3	6.66	15.7	12.8	8.24	19.4	15.8	12.43	29.2	23.9	18.84	44.3	36.2
105	6071	2.12	4.5	4.1	4.75	10.1	9.1	7.72	16.4	14.8	9.88	20.9	19	13.93	29.5	26.8	21.51	45.6	41.4
106	6066	1.82	4.6	3.5	3.85	9.8	7.4	6.42	16.3	12.4	8.15	20.7	15.7	11.77	29.9	22.6	17.72	45	34.3
107	6074	1.59	3.7	3.1	3.45	8.1	6.6	6.15	14.4	11.8	7.76	18.2	14.9	12.11	28.4	23.3	19.02	44.7	36.6
108	6243	1.82	3.9	3.5	3.82	8.1	7.3	6.46	13.8	12.4	8.71	18.6	16.7	12.89	27.5	24.8	20.53	43.8	39.5
109	6327	1.97	3.9	3.8	3.72	7.4	7.2	6.09	12.1	11.7	8.43	16.7	16.2	13.39	26.6	25.8	22.18	44	42.7
110	6237	2.08	3.8	4	4.35	8	8.4	7.33	13.5	14.1	10.27	18.9	19.7	15.64	28.8	30.1	23.35	43	44.9
111	5808	1.58	3.4	3	3.35	7.3	6.5	5.12	11.1	9.9	7.63	16.5	14.7	12.26	26.6	23.6	20.29	44	39
112	6031	2.19	3.9	4.2	4.94	8.8	9.5	8.15	14.5	15.7	10.85	19.3	20.9	15.42	27.4	29.6	22.33	39.6	42.9
113	5912	2.03	4.4	3.9	4.52	9.9	8.7	7.28	15.9	14	9.58	20.9	18.4	13.3	29	25.6	20.98	45.8	40.3
114	6269	2.03	3.6	3.9	4.14	7.3	8	7.31	12.9	14.1	10.18	18	19.6	15.55	27.5	29.9	24.62	43.5	47.3
115	6271	1.77	3.2	3.4	3.79	6.8	7.3	6.96	12.6	13.4	9.97	18	19.2	14.84	26.8	28.5	23.9	43.2	46
116	6263	1.95	3.7	3.8	3.86	7.2	7.4	6.57	12.3	12.6	8.12	15.2	15.6	11.9	22.3	22.9	20.39	38.2	39.2
117	5880	2.29	5.1	4.4	4.84	10.7	9.3	7.77	17.2	14.9	9.24	20.4	17.8	12.71	28.1	24.4	19.79	43.7	38.1
118	6187	2.66	4.7	5.1	5.24	9.2	10.1	8.99	15.8	17.3	11.97	21.1	23	17.03	30	32.8	23.99	42.2	46.1
119	6166	1.61	3	3.1	3.07	5.7	5.9	4.92	9.2	9.5	7.44	13.9	14.3	12.78	23.9	24.6	22.01	41.1	42.3
120	6046	1.61	3.5	3.1	4.08	8.8	7.9	7.1	15.4	13.7	8.98	19.4	17.3	13.15	28.5	25.3	19.67	42.6	37.8
121	5820	1.71	3.3	3.3	3.8	7.4	7.3	6.72	13.2	12.9	9.52	18.6	18.3	14.55	28.4	28	22.92	44.8	44.1
122	5915	1.53	3.1	3	3.99	8	7.7	7.28	14.6	14	9.07	18.2	17.4	13.28	26.6	25.5	22.72	45.6	43.7
123	6238	1.62	3.4	3.1	3.68	7.8	7.1	6.55	13.9	12.6	8.69	18.5	16.7	13.19	28	25.4	20.54	43.6	39.5
124	6192	2.63	4.7	5.1	5.63	10.1	10.8	9.25	16.6	17.8	11.51	20.7	22.1	16.07	28.9	30.9	23.26	41.8	44.7
125	6182	2.76	4.5	5.3	5.3	8.7	10.2	8.65	14.1	16.6	12.2	19.9	23.5	17.88	29.2	34.4	25.79	42.1	49.6
126	6399	2.03	3.8	3.9	4.53	8.5	8.7	7.45	13.9	14.3	9.97	18.6	19.2	13.73	25.7	26.4	22.49	42.1	43.3
127	6131	2.49	4.6	4.8	5.32	9.8	10.2	8.56	15.7	16.5	11.47	21.1	22.1	16.28	29.9	31.3	24.25	44.6	46.6
128	6396	2.28	4.8	4.4	4.59	9.6	8.8	7.57	15.8	14.6	10.33	21.6	19.9	14.28	29.8	27.5	20.25	42.3	38.9
129	6142	2.18	3.9	4.2	4.45	7.9	8.6	7.34	13	14.1	10.47	18.5	20.1	14.94	26.4	28.7	22.04	39	42.4
130	6397	2.69	5	5.2	5.64	10.5	10.8	9.72	18	18.7	12.4	23	23.8	15.83	29.3	30.4	23.32	43.2	44.9
131	6245	1.64	4.2	3.1	3.39	8.7	6.5	5.05	12.9	9.7	7.22	18.5	13.9	10.44	26.7	20.1	15.1	38.7	29
132	6162	1.63	4.2	3.1	3.39	8.8	6.5	5	12.9	9.6	6.96	18	13.4	10.06	26	19.3	14.53	37.6	27.9
133	6130	2.27	4.5	4.4	4.92	9.7	9.5	8.71	17.2	16.7	11.37	22.4	21.9	15.49	30.6	29.8	22.77	44.9	43.8
134	6246	1.56	3.9	3	2.94	7.3	5.7	4.36	10.8	8.4	6.2	15.4	11.9	10.22	25.4	19.6	15.79	39.2	30.4

135	6194	3.13	6.5	6	6.37	13.2	12.3	10.45	21.6	20.1	13.13	27.1	25.2	17.12	35.3	32.9	23.12	47.7	44.5
136	6401	2.04	4.1	3.9	4.64	9.4	8.9	7.69	15.6	14.8	9.95	20.2	19.1	13.79	28	26.5	20.12	40.9	38.7
137	15091	2.33	4.3	4.5	5.56	10.3	10.7	9.26	17.2	17.8	12.37	23	23.8	16.6	30.8	31.9	23.74	44.1	45.7
138	6256	2.2	4.4	4.2	4.98	9.9	9.6	8.61	17.2	16.5	11.09	22.2	21.3	14.21	28.4	27.3	20.69	41.4	39.8
139	6398	2.68	4.9	5.2	5.64	10.3	10.8	9.42	17.3	18.1	12.23	22.4	23.5	15.97	29.2	30.7	23.93	43.8	46
140	6847	1.99	3.8	3.8	4.18	8.1	8	7.09	13.7	13.6	10.01	19.3	19.2	13.74	26.6	26.4	20.8	40.2	40
141	6848	2.59	5.1	5	6.04	12	11.6	10.02	19.9	19.3	12.38	24.6	23.8	15.84	31.4	30.5	22.22	44.1	42.7
142	6165	2.04	4.3	3.9	4.01	8.5	7.7	5.78	12.3	11.1	8	17	15.4	12.41	26.4	23.9	19.06	40.5	36.6
143	6400	2.12	3.8	4.1	4.64	8.3	8.9	7.93	14.2	15.2	10.93	19.6	21	15	26.8	28.9	21.98	39.3	42.3
144	6849	2.2	4.1	4.2	5.1	9.6	9.8	8.24	15.4	15.8	10.95	20.5	21.1	14.92	27.9	28.7	24.01	45	46.2
145	6132	2.33	4.7	4.5	4.94	9.9	9.5	8.34	16.7	16.0	10.61	21.2	20.4	14.31	28.6	27.5	21.15	42.3	40.7

Table C1 (continued). Cumulative average monthly rainfall and associated percentages for July through December

a= Cumulative monthly average rainfall

b= a/annual average rainfall at the same station * 100

c = a/basin-wide Theissen weighted annual average rainfall (52 inch) * 100.

Station	Dbkey	July			August			September			October			November			December		
		a	b	c	a	b	c	a	b	c	a	b	c	a	b	c	a	b	c
1	6303	28.9	55.9	55.6	34.97	67.6	67.2	41.64	80.5	80.1	46.77	90.5	89.9	50.1	96.9	96.4	51.7	100	99.4
2	5798	26.56	58.2	51.1	32.45	71.1	62.4	37.7	82.7	72.5	41.6	91.2	80	44.08	96.6	84.8	45.61	100	87.7
3	5922	30.16	57.2	58	38.73	73.4	74.5	45.34	86	87.2	49.36	93.6	94.9	51.15	97	98.4	52.74	100	101.4
4	6205	30.49	59.2	58.6	38.02	73.8	73.1	44.51	86.4	85.6	47.67	92.5	91.7	49.7	96.5	95.6	51.52	100	99.1
5	6136	30.96	58.9	59.5	38.34	72.9	73.7	45.6	86.8	87.7	49.21	93.6	94.6	50.93	96.9	97.9	52.56	100	101.1
6	6135	30.95	61.7	59.5	38.02	75.8	73.1	43.78	87.3	84.2	46.21	92.2	88.9	48.26	96.3	92.8	50.13	100	96.4
7	5945	29.96	56.1	57.6	37.09	69.4	71.3	45.61	85.4	87.7	50.39	94.3	96.9	51.94	97.2	99.9	53.44	100	102.8
8	6047	26.72	57.4	51.4	33.73	72.4	64.9	39.88	85.6	76.7	43.37	93.1	83.4	44.97	96.5	86.5	46.59	100	89.6
9	6207	31.22	56.1	60	39.2	70.4	75.4	47.25	84.8	90.9	51.72	92.9	99.5	53.96	96.9	103.8	55.69	100	107.1
10	6128	29.01	58.6	55.8	35.66	72.1	68.6	42.72	86.3	82.2	46.65	94.3	89.7	48	97	92.3	49.48	100	95.2
11	5813	29.03	59.4	55.8	36.03	73.7	69.3	42.01	85.9	80.8	44.67	91.3	85.9	46.73	95.5	89.9	48.91	100	94.1
12	6157	30.5	56.3	58.6	37.56	69.4	72.2	45.19	83.5	86.9	49.92	92.2	96	52.02	96.1	100	54.13	100	104.1
13	6186	24.06	52.1	46.3	31.47	68.2	60.5	39.45	85.4	75.9	42.83	92.8	82.4	44.43	96.2	85.4	46.18	100	88.8
14	6129	30.4	59.9	58.5	37.61	74.1	72.3	44.1	86.9	84.8	46.86	92.4	90.1	48.56	95.7	93.4	50.73	100	97.6
15	6168	29.83	51.7	57.4	36.38	63.1	70	45.04	78.1	86.6	53.67	93	103.2	55.9	96.9	107.5	57.68	100	110.9
16	5916	33.62	58.2	64.7	42.79	74.1	82.3	50.42	87.3	97	54.4	94.3	104.6	56.2	97.4	108.1	57.72	100	111
17	6178	27.53	47.5	52.9	34.88	60.1	67.1	43.65	75.3	83.9	53.07	91.5	102.1	55.69	96	107.1	58	100	111.5
18	6206	32.53	59.2	62.6	40.07	72.9	77.1	47.32	86.1	91	51.16	93.1	98.4	52.99	96.4	101.9	54.95	100	105.7
19	5800	35.13	54.9	67.6	41.92	65.5	80.6	50.57	79	97.3	57.67	90.1	110.9	61.71	96.4	118.7	64.01	100	123.1
20	6050	26.46	59.3	50.9	32.47	72.7	62.4	38.27	85.7	73.6	41.58	93.1	80	43.14	96.6	83	44.64	100	85.8
21	6161	29.53	55.4	56.8	37.39	70.2	71.9	46.62	87.5	89.7	50.86	95.5	97.8	52.12	97.9	100.2	53.27	100	102.4
22	6210	25.91	53.6	49.8	33.15	68.6	63.8	39.87	82.5	76.7	45.01	93.1	86.6	46.89	97	90.2	48.35	100	93
23	6151	27.26	51.4	52.4	33.04	62.3	63.5	41.11	77.6	79.1	47.92	90.4	92.2	50.87	96	97.8	53	100	101.9
24	6193	30.24	56.7	58.2	38.45	72.1	74	46.6	87.4	89.6	50.44	94.6	97	51.9	97.3	99.8	53.34	100	102.6
25	6015	29.39	55.2	56.5	36.71	68.9	70.6	43.42	81.5	83.5	48.49	91	93.2	51.39	96.5	98.8	53.26	100	102.4
26	5801	30.82	53.3	59.3	38.25	66.1	73.5	46.09	79.7	88.6	51.93	89.8	99.9	55.82	96.5	107.4	57.84	100	111.2
27	5807	35.41	55.8	68.1	43.03	67.8	82.8	50.55	79.6	97.2	58.11	91.5	111.7	61.81	97.3	118.9	63.51	100	122.1
28	6154	28.65	58.1	55.1	35.35	71.7	68	42.45	86	81.6	46.3	93.9	89	47.89	97.1	92.1	49.33	100	94.9
29	6155	27.74	58.3	53.4	34.59	72.7	66.5	40.46	85.1	77.8	44.13	92.8	84.9	46.01	96.7	88.5	47.56	100	91.5

30	6241	27.52	57.7	52.9	33.91	71.1	65.2	40.54	85	78	44.73	93.7	86	46.17	96.8	88.8	47.72	100	91.8
31	6242	25.75	57.6	49.5	31.45	70.3	60.5	37.6	84	72.3	41.88	93.6	80.5	43.06	96.2	82.8	44.75	100	86.1
32	6073	23.26	56	44.7	28.91	69.6	55.6	34.85	83.9	67	38.68	93.1	74.4	40.22	96.8	77.3	41.54	100	79.9
33	6175	33.34	52.5	64.1	41.58	65.5	80	50.6	79.6	97.3	58.13	91.5	111.8	61.68	97.1	118.6	63.53	100	122.2
34	6268	29.9	52.3	57.5	37.68	66	72.5	47.15	82.5	90.7	53.83	94.2	103.5	55.86	97.8	107.4	57.12	100	109.9
35	5815	33.54	55.2	64.5	41.77	68.8	80.3	50.52	83.2	97.2	56.1	92.4	107.9	58.88	97	113.2	60.73	100	116.8
36	6180	30.52	52	58.7	36.43	62.1	70.1	44.27	75.4	85.1	52.65	89.7	101.3	56.2	95.8	108.1	58.69	100	112.9
37	6082	37.36	59	71.9	46.46	73.4	89.3	55.23	87.2	106.2	59.07	93.3	113.6	61.17	96.6	117.6	63.33	100	121.8
38	6077	23.32	59.5	44.8	28.59	72.9	55	33.26	84.8	64	36.28	92.5	69.8	37.82	96.4	72.7	39.22	100	75.4
39	6144	31.11	60.2	59.8	38.25	74	73.6	44.85	86.8	86.3	47.86	92.6	92	49.68	96.1	95.5	51.69	100	99.4
40	6049	25.55	57.5	49.1	32.02	72.1	61.6	38.14	85.8	73.3	41.42	93.2	79.7	42.92	96.6	82.5	44.44	100	85.5
41	6147	27.56	56.7	53	34.45	70.8	66.3	41.4	85.1	79.6	44.55	91.6	85.7	46.42	95.5	89.3	48.63	100	93.5
42	6305	29.2	57.7	56.2	36.12	71.4	69.5	42.46	83.9	81.7	46	90.9	88.5	48.48	95.8	93.2	50.62	100	97.3
43	6146	29.8	59.1	57.3	36.46	72.3	70.1	42.97	85.2	82.6	46.51	92.3	89.4	48.33	95.9	92.9	50.41	100	96.9
44	6133	30.76	59.7	59.2	38.06	73.9	73.2	44.7	86.8	86	47.69	92.6	91.7	49.51	96.1	95.2	51.5	100	99
45	6145	28.88	57.4	55.5	35.77	71.1	68.8	43.11	85.7	82.9	46.72	92.9	89.8	48.26	95.9	92.8	50.31	100	96.8
46	6278	26.74	52	51.4	33.88	65.9	65.2	41.15	80	79.1	46.73	90.9	89.9	49.67	96.6	95.5	51.43	100	98.9
47	6150	29.85	58.3	57.4	36.8	71.9	70.8	43.95	85.9	84.5	48.08	94	92.5	49.74	97.2	95.7	51.16	100	98.4
48	6158	30.77	59.5	59.2	38.4	74.2	73.8	45.07	87.1	86.7	48.6	93.9	93.5	50.08	96.8	96.3	51.74	100	99.5
49	5885	32.13	58	61.8	41.36	74.7	79.5	48.73	88.1	93.7	52.12	94.2	100.2	53.92	97.4	103.7	55.35	100	106.4
50	6197	27.96	56.6	53.8	35.04	71	67.4	42.39	85.8	81.5	46.38	93.9	89.2	47.8	96.8	91.9	49.37	100	94.9
51	6181	33.95	54.2	65.3	41.01	65.4	78.9	50.57	80.7	97.2	57.1	91.1	109.8	60.4	96.4	116.1	62.65	100	120.5
52	6290	34.73	54.4	66.8	42.39	66.4	81.5	50.5	79.1	97.1	57.33	89.7	110.3	61.27	95.9	117.8	63.88	100	122.8
53	6321	33.34	53.5	64.1	41.16	66	79.2	48.96	78.6	94.1	55.68	89.3	107.1	59.75	95.9	114.9	62.32	100	119.9
54	6299	33.49	53.8	64.4	41.09	66	79	48.66	78.1	93.6	55.35	88.9	106.4	59.57	95.6	114.6	62.29	100	119.8
55	6276	33.63	52.4	64.7	41.02	63.9	78.9	49.47	77	95.1	56.94	88.7	109.5	61.27	95.4	117.8	64.22	100	123.5
56	6306	34.2	54.3	65.8	41.67	66.2	80.1	49.28	78.3	94.8	55.97	88.9	107.6	60.13	95.5	115.6	62.96	100	121.1
57	6302	33.15	54.1	63.7	40.38	66	77.7	48.04	78.5	92.4	54.75	89.4	105.3	58.72	95.9	112.9	61.22	100	117.7
58	6322	33.8	54.1	65	41.36	66.2	79.5	49.22	78.8	94.7	55.86	89.4	107.4	59.85	95.8	115.1	62.46	100	120.1
59	6298	34.06	53.8	65.5	41.52	65.6	79.8	49.3	77.8	94.8	56.34	89	108.3	60.52	95.6	116.4	63.33	100	121.8
60	5793	34	53.5	65.4	41.09	64.6	79	49.47	77.8	95.1	57.08	89.8	109.8	60.75	95.6	116.8	63.58	100	122.3
61	5792	34.89	53.5	67.1	42.78	65.6	82.3	51.03	78.2	98.1	58.44	89.6	112.4	62.42	95.7	120	65.24	100	125.5
62	6172	24.74	53.4	47.6	29.37	63.4	56.5	35.89	77.4	69	41.58	89.7	80	44.49	96	85.6	46.35	100	89.1
63	6249	28.55	50.8	54.9	34.77	61.8	66.9	42.95	76.4	82.6	51.34	91.3	98.7	54.25	96.5	104.3	56.25	100	108.2
64	6265	31.86	57.8	61.3	39.39	71.4	75.7	47.03	85.3	90.4	52.07	94.4	100.1	53.38	96.8	102.7	55.15	100	106.1

65	6174	30.62	52.6	58.9	38.3	65.7	73.7	46.45	79.7	89.3	53.28	91.5	102.5	56.41	96.8	108.5	58.26	100	112
66	5810	34.47	55.5	66.3	42.86	68.9	82.4	51.44	82.7	98.9	57.35	92.3	110.3	60.22	96.9	115.8	62.16	100	119.5
67	6051	27.17	57.5	52.3	34.38	72.8	66.1	40.54	85.8	78	44.08	93.3	84.8	45.69	96.8	87.9	47.23	100	90.8
68	6134	30.6	59.6	58.8	38.06	74.1	73.2	44.48	86.6	85.5	47.41	92.3	91.2	49.38	96.1	95	51.39	100	98.8
69	6160	29.33	55.4	56.4	37.57	71	72.2	46.23	87.3	88.9	49.84	94.1	95.9	51.54	97.3	99.1	52.95	100	101.8
70	6258	30.35	56.4	58.4	37.21	69.2	71.6	44.98	83.6	86.5	50.51	93.9	97.1	52.3	97.2	100.6	53.79	100	103.4
71	6070	27.61	57.6	53.1	34.71	72.4	66.8	40.33	84.1	77.6	44.13	92	84.9	46.36	96.7	89.2	47.95	100	92.2
72	6052	27.29	57	52.5	34.11	71.3	65.6	41.02	85.8	78.9	44.47	93	85.5	46.15	96.5	88.8	47.84	100	92
73	6218	31.17	58.6	59.9	38.06	71.6	73.2	45.23	85.1	87	49.12	92.4	94.5	50.73	95.4	97.6	53.16	100	102.2
74	5838	30.07	57.1	57.8	37.35	70.9	71.8	44.26	84.1	85.1	48.81	92.7	93.9	50.92	96.7	97.9	52.64	100	101.2
75	5839	31.77	56.3	61.1	40.22	71.3	77.3	47.38	84	91.1	51.96	92.2	99.9	54.4	96.5	104.6	56.38	100	108.4
76	6093	32.95	59	63.4	40.71	72.9	78.3	47.81	85.6	92	51.48	92.1	99	53.83	96.3	103.5	55.87	100	107.4
77	6222	32.13	55.6	61.8	40.54	70.2	78	48.66	84.2	93.6	53.91	93.3	103.7	55.87	96.7	107.4	57.78	100	111.1
78	5837	29.32	55.8	56.4	36.5	69.4	70.2	43.56	82.9	83.8	48.67	92.6	93.6	50.83	96.7	97.7	52.56	100	101.1
79	6125	29.15	56.1	56.1	36.1	69.5	69.4	43.09	82.9	82.9	47.79	91.9	91.9	50.14	96.5	96.4	51.98	100	100
80	6253	32.31	54.7	62.1	40.08	67.8	77.1	48.21	81.6	92.7	54.96	93	105.7	57.46	97.2	110.5	59.11	100	113.7
81	5966	31.61	51.7	60.8	38.56	63	74.2	47.02	76.9	90.4	54.52	89.1	104.8	58.26	95.2	112	61.18	100	117.7
82	6179	31.17	52.2	60	37.75	63.2	72.6	45.82	76.7	88.1	53.89	90.2	103.6	57.48	96.2	110.5	59.74	100	114.9
83	5796	35.41	54.8	68.1	42.26	65.4	81.3	50.02	77.4	96.2	58.72	90.8	112.9	62.16	96.1	119.5	64.66	100	124.3
84	6122	33.3	50.2	64	42.07	63.4	80.9	51.68	77.9	99.4	59.28	89.4	114	63.65	96	122.4	66.33	100	127.6
85	6138	29.26	56.1	56.3	36.74	70.5	70.7	45.55	87.4	87.6	48.95	93.9	94.1	50.46	96.8	97	52.12	100	100.2
86	6139	30.02	58.9	57.7	37.82	74.2	72.7	44.17	86.7	85	47.2	92.6	90.8	49.09	96.3	94.4	50.95	100	98
87	6048	28.61	58.6	55	35.17	72	67.6	41.85	85.7	80.5	45.65	93.5	87.8	47.24	96.7	90.9	48.84	100	93.9
88	6225	30.86	57	59.4	38.36	70.9	73.8	45.84	84.7	88.2	50.98	94.2	98	52.39	96.8	100.8	54.11	100	104.1
89	6202	30.41	54.2	58.5	38.36	68.4	73.8	46.79	83.5	90	52.51	93.7	101	54.68	97.5	105.2	56.06	100	107.8
90	6224	33.21	56	63.9	41.21	69.4	79.2	49.99	84.2	96.1	55.78	94	107.3	57.47	96.8	110.5	59.34	100	114.1
91	5806	32.23	55.2	62	38.7	66.3	74.4	46.2	79.2	88.8	52.26	89.6	100.5	56.22	96.3	108.1	58.35	100	112.2
92	6120	26.15	57.3	50.3	32.71	71.7	62.9	38.54	84.5	74.1	42.02	92.1	80.8	44.07	96.6	84.8	45.61	100	87.7
93	5818	24.65	54.4	47.4	31.66	69.9	60.9	37.92	83.7	72.9	42.04	92.8	80.8	44.03	97.2	84.7	45.28	100	87.1
94	5817	22.54	52.9	43.3	28.58	67.1	55	34.37	80.7	66.1	38.84	91.2	74.7	41.18	96.7	79.2	42.58	100	81.9
95	5816	24.96	54.4	48	31.08	67.8	59.8	36.98	80.7	71.1	41.61	90.8	80	44.44	96.9	85.5	45.85	100	88.2
96	6227	28.03	57.3	53.9	34.78	71.1	66.9	41.04	83.9	78.9	44.47	91	85.5	47.16	96.5	90.7	48.89	100	94
97	6119	28.33	57.9	54.5	34.37	70.2	66.1	40.72	83.2	78.3	45.62	93.2	87.7	47.25	96.5	90.9	48.95	100	94.1
98	5797	31.98	55	61.5	39.03	67.1	75.1	46.29	79.6	89	53.46	91.9	102.8	56.55	97.2	108.8	58.16	100	111.9
99	6274	30.07	55.4	57.8	37.15	68.5	71.4	44.41	81.9	85.4	49.37	91	94.9	52.05	96	100.1	54.22	100	104.3

100	6324	27.02	56.5	52	33.83	70.7	65.1	40.13	83.9	77.2	43.79	91.6	84.2	46.29	96.8	89	47.82	100	92
101	5940	29.25	59.4	56.2	35.92	73	69.1	42.07	85.5	80.9	45.6	92.6	87.7	47.56	96.6	91.5	49.23	100	94.7
102	5981	29.1	59.2	56	36.39	74	70	42.58	86.6	81.9	45.76	93.1	88	47.62	96.8	91.6	49.17	100	94.6
103	5999	25.74	61	49.5	30.94	73.4	59.5	35.94	85.2	69.1	38.7	91.8	74.4	40.68	96.5	78.2	42.17	100	81.1
104	6068	25.49	59.9	49	31.06	73	59.7	35.94	84.5	69.1	39.05	91.8	75.1	41.24	97	79.3	42.54	100	81.8
105	6071	28.14	59.6	54.1	34.35	72.8	66.1	40.27	85.3	77.4	43.53	92.3	83.7	45.65	96.7	87.8	47.19	100	90.7
106	6066	23.36	59.3	44.9	29.14	74	56	34.28	87	65.9	36.83	93.5	70.8	38.19	97	73.4	39.39	100	75.7
107	6074	24.8	58.2	47.7	31.09	73	59.8	36.48	85.7	70.1	39.48	92.7	75.9	41.25	96.9	79.3	42.58	100	81.9
108	6243	26.98	57.5	51.9	33.66	71.8	64.7	40.55	86.4	78	43.87	93.5	84.4	45.47	96.9	87.4	46.91	100	90.2
109	6327	30.32	60.1	58.3	36.95	73.3	71.1	43.37	86	83.4	46.49	92.2	89.4	48.64	96.5	93.5	50.41	100	96.9
110	6237	29.62	54.5	57	36.05	66.3	69.3	43.37	79.8	83.4	49.74	91.5	95.7	52.1	95.9	100.2	54.35	100	104.5
111	5808	25.99	56.4	50	32.29	70.1	62.1	38.32	83.1	73.7	42.34	91.8	81.4	44.63	96.8	85.8	46.09	100	88.6
112	6031	30.88	54.8	59.4	38.19	67.8	73.4	46.21	82	88.9	51.82	92	99.7	54.36	96.5	104.5	56.36	100	108.4
113	5912	28.09	61.3	54	33.59	73.3	64.6	39.14	85.4	75.3	41.77	91.2	80.3	44.07	96.2	84.7	45.82	100	88.1
114	6269	32.88	58.1	63.2	40.39	71.4	77.7	48.15	85.1	92.6	53.32	94.3	102.5	54.77	96.8	105.3	56.55	100	108.8
115	6271	31.67	57.2	60.9	39.16	70.8	75.3	47.24	85.4	90.9	51.98	93.9	100	53.62	96.9	103.1	55.33	100	106.4
116	6263	29.2	54.7	56.2	37.7	70.6	72.5	46.49	87.1	89.4	50.44	94.5	97	51.94	97.3	99.9	53.38	100	102.6
117	5880	26.38	58.3	50.7	32.76	72.3	63	38.57	85.2	74.2	40.93	90.4	78.7	43.14	95.3	83	45.29	100	87.1
118	6187	30.44	53.6	58.5	36.39	64.1	70	44.32	78	85.2	51.07	89.9	98.2	54.25	95.5	104.3	56.81	100	109.3
119	6166	30.08	56.2	57.8	37.46	70	72	45.46	84.9	87.4	50.33	94	96.8	52.33	97.8	100.6	53.53	100	102.9
120	6046	26.49	57.4	50.9	33.31	72.2	64.1	39.52	85.6	76	43.09	93.3	82.9	44.59	96.6	85.8	46.17	100	88.8
121	5820	29.92	58.5	57.5	36.65	71.7	70.5	43.96	86	84.5	48.25	94.4	92.8	49.65	97.1	95.5	51.14	100	98.3
122	5915	30.2	60.5	58.1	37.7	75.6	72.5	43.89	88	84.4	46.71	93.7	89.8	48.42	97.1	93.1	49.88	100	95.9
123	6238	26.64	56.6	51.2	33.72	71.6	64.8	40.67	86.4	78.2	44.25	94	85.1	45.66	97	87.8	47.07	100	90.5
124	6192	29.79	53.5	57.3	36.58	65.7	70.4	43.94	78.9	84.5	49.78	89.4	95.7	53.55	96.1	103	55.7	100	107.1
125	6182	32.23	52.6	62	38.93	63.5	74.9	47.76	77.9	91.8	54.85	89.4	105.5	58.78	95.9	113	61.32	100	117.9
126	6399	30.63	57.3	58.9	38.56	72.2	74.2	46.37	86.8	89.2	49.88	93.3	95.9	51.57	96.5	99.2	53.44	100	102.8
127	6131	32.7	60.1	62.9	40.34	74.2	77.6	47.58	87.5	91.5	50.58	93	97.3	52.46	96.5	100.9	54.37	100	104.6
128	6396	27.35	57.1	52.6	33.68	70.4	64.8	40.32	84.2	77.5	43.78	91.5	84.2	45.61	95.3	87.7	47.87	100	92.1
129	6142	29.25	51.7	56.3	36.84	65.1	70.8	45.8	81	88.1	52.5	92.8	101	54.68	96.7	105.2	56.54	100	108.7
130	6397	30.99	57.4	59.6	38.98	72.3	75	46.64	86.5	89.7	49.81	92.3	95.8	51.8	96	99.6	53.94	100	103.7
131	6245	18.87	48.3	36.3	23.86	61.1	45.9	30.36	77.7	58.4	35.27	90.3	67.8	37.36	95.7	71.9	39.06	100	75.1
132	6162	18.06	46.7	34.7	22.32	57.7	42.9	28.59	73.9	55	34.71	89.7	66.7	36.93	95.5	71	38.68	100	74.4
133	6130	30.52	60.2	58.7	37.9	74.7	72.9	44.32	87.4	85.2	46.91	92.5	90.2	48.71	96.1	93.7	50.7	100	97.5
134	6246	19.87	49.4	38.2	23.63	58.7	45.4	30.49	75.7	58.6	36.94	91.8	71	38.92	96.7	74.8	40.25	100	77.4

135	6194	29.45	60.8	56.6	36.02	74.3	69.3	41.37	85.4	79.5	44	90.8	84.6	46.07	95.1	88.6	48.45	100	93.2
136	6401	26.09	53.1	50.2	31.68	64.4	60.9	39.7	80.7	76.4	44.64	90.8	85.8	47.29	96.2	90.9	49.18	100	94.6
137	15091	32.24	59.9	62	39.98	74.2	76.9	46.19	85.8	88.8	49.15	91.3	94.5	51.04	94.8	98.2	53.87	100	103.6
138	6256	28.73	57.4	55.2	35.74	71.4	68.7	42.77	85.5	82.2	46.2	92.4	88.9	48.15	96.3	92.6	50.03	100	96.2
139	6398	32.12	58.8	61.8	40.65	74.4	78.2	47.79	87.5	91.9	50.49	92.4	97.1	52.33	95.8	100.6	54.61	100	105
140	6847	29.23	56.5	56.2	35.93	69.4	69.1	42.67	82.4	82	47.56	91.9	91.5	49.42	95.5	95	51.77	100	99.5
141	6848	28.87	57.3	55.5	36.08	71.6	69.4	42.35	84.1	81.4	45.78	90.9	88	48.13	95.5	92.6	50.37	100	96.9
142	6165	23.32	49.6	44.8	28.33	60.3	54.5	35.55	75.6	68.4	42.44	90.3	81.6	45.02	95.8	86.6	47.01	100	90.4
143	6400	30.01	53.7	57.7	37.19	66.6	71.5	44.98	80.5	86.5	50.88	91	97.8	53.6	95.9	103.1	55.88	100	107.5
144	6849	32.57	61	62.6	40.07	75.1	77.1	47.2	88.4	90.8	49.92	93.5	96	51.65	96.8	99.3	53.38	100	102.7
145	6132	29.83	59.6	57.4	36.99	74	71.1	43.07	86.1	82.8	46.17	92.3	88.8	47.99	95.9	92.3	50.02	100	96.2

APPENDIX D

Frequency Tables

Table D1. January Rainfall Return Periods for 147 stations in South Florida (DRP= Dry Return Periods in years, WRP= Wet Return Periods in years).

Serial number	Station Dbkey	Easting (ft)	Northing (ft)	100 DRP (inches)	50 DRP (inches)	20 DRP (inches)	10 DRP (inches)	5 DRP (inches)	Average (inches)	5 WRP (inches)	10 WRP (inches)	20 WRP (inches)	50 WRP (inches)	100 WRP (inches)
1	06303	754327	787696	0.00	0.02	0.07	0.24	0.54	2.33	3.72	5.27	7.36	8.96	10.58
2	05798	680541	675505	0.01	0.02	0.06	0.18	0.39	1.58	2.51	3.53	4.89	5.93	6.99
3	05922	294334	865035	0.00	0.00	0.03	0.15	0.40	2.18	3.53	5.16	7.38	9.11	10.88
4	06205	358851	1035308	0.00	0.02	0.07	0.23	0.51	2.23	3.56	5.06	7.07	8.61	10.18
5	06136	331927	1184254	0.02	0.05	0.12	0.31	0.61	2.19	3.45	4.77	6.51	7.84	9.17
6	06135	333930	1276041	0.02	0.06	0.14	0.35	0.69	2.44	3.83	5.30	7.23	8.69	10.17
7	05945	532644	866155	0.00	0.01	0.04	0.15	0.32	1.37	2.18	3.09	4.30	5.24	6.18
8	06047	525504	1118578	0.00	0.00	0.02	0.11	0.30	1.72	2.78	4.08	5.87	7.26	8.68
9	06207	620846	844509	0.01	0.03	0.07	0.24	0.53	2.22	3.54	5.02	6.99	8.50	10.03
10	06128	484688	899363	0.01	0.02	0.07	0.20	0.42	1.69	2.69	3.79	5.25	6.37	7.50
11	05813	416025	1423525	0.03	0.08	0.16	0.40	0.76	2.53	3.96	5.43	7.35	8.81	10.27
12	06157	621619	921248	0.02	0.05	0.12	0.31	0.63	2.33	3.68	5.12	7.02	8.47	9.93
13	06186	113082	801291	0.00	0.02	0.06	0.19	0.43	1.85	3.00	4.27	5.97	7.28	8.60
14	06129	249059	1507870	0.02	0.05	0.12	0.33	0.65	2.38	3.75	5.20	7.12	8.58	10.06
15	06168	736091	479102	0.04	0.08	0.16	0.37	0.68	2.18	3.40	4.63	6.23	7.44	8.65
16	05916	309025	745419	0.00	0.01	0.04	0.19	0.50	2.54	4.09	5.94	8.44	10.39	12.37
17	06178	762622	630699	0.00	0.01	0.04	0.15	0.37	1.78	2.86	4.11	5.81	7.13	8.47
18	06206	457975	824067	0.02	0.06	0.14	0.36	0.70	2.45	3.89	5.37	7.32	8.80	10.30
19	05800	762545	643219	0.11	0.19	0.32	0.60	0.98	2.55	3.86	5.08	6.64	7.80	8.95
20	06050	535800	1093341	0.00	0.00	0.01	0.06	0.21	1.52	2.45	3.73	5.47	6.84	8.25
21	06161	372647	549519	0.00	0.00	0.01	0.09	0.26	1.62	2.63	3.91	5.67	7.04	8.46
22	06210	528210	293638	0.01	0.04	0.09	0.25	0.52	1.95	3.14	4.38	6.03	7.29	8.56
23	06151	710834	1128714	0.05	0.15	0.25	0.51	0.86	2.39	3.65	4.86	6.42	7.58	8.73
24	06193	217472	817624	0.00	0.01	0.04	0.16	0.39	1.82	2.91	4.15	5.89	7.20	8.54
25	06015	657594	1102721	0.20	0.29	0.42	0.68	1.01	2.21	3.24	4.13	5.25	6.07	6.87
26	05801	752532	640634	0.18	0.27	0.40	0.67	1.01	2.29	3.38	4.34	5.54	6.42	7.29
27	05807	752149	628213	0.01	0.04	0.11	0.32	0.66	2.60	4.12	5.77	7.97	9.65	11.35
28	06154	471467	910780	0.01	0.03	0.08	0.23	0.47	1.79	2.83	3.95	5.44	6.58	7.73
29	06155	526650	880690	0.01	0.02	0.07	0.21	0.45	1.84	2.93	4.14	5.75	6.98	8.24

30	06241	593048	860492	0.00	0.00	0.00	0.05	0.18	1.55	2.53	3.88	5.77	7.27	8.82
31	06242	619862	919686	0.00	0.00	0.02	0.11	0.29	1.62	2.62	3.84	5.50	6.79	8.11
32	06073	566270	1044407	0.00	0.00	0.02	0.10	0.28	1.67	2.70	3.98	5.73	7.10	8.50
33	06175	734827	543508	0.05	0.11	0.20	0.43	0.76	2.30	3.55	4.80	6.41	7.62	8.83
34	06268	664918	424260	0.03	0.07	0.13	0.28	0.50	1.50	2.31	3.11	4.16	4.94	5.73
35	05815	681903	416049	0.04	0.09	0.19	0.42	0.77	2.43	3.77	5.12	6.88	8.21	9.54
36	06180	810575	806715	0.10	0.18	0.31	0.62	1.06	2.98	4.56	6.09	8.04	9.51	10.97
37	06082	363617	753789	0.00	0.01	0.05	0.21	0.55	2.83	4.56	6.63	9.43	11.61	13.83
38	06077	507142	992758	0.00	0.00	0.03	0.13	0.34	1.84	2.98	4.34	6.20	7.65	9.12
39	06144	330807	1508031	0.09	0.16	0.26	0.50	0.84	2.25	3.42	4.52	5.93	6.99	8.03
40	06049	556236	1117700	0.00	0.01	0.03	0.12	0.30	1.54	2.48	3.61	5.13	6.31	7.52
41	06147	365180	1435686	0.01	0.02	0.07	0.21	0.46	1.91	3.03	4.29	5.95	7.24	8.53
42	06305	355624	1438447	0.16	0.25	0.38	0.66	1.02	2.40	3.58	4.63	5.95	6.93	7.90
43	06146	365917	1441945	0.02	0.04	0.11	0.28	0.56	2.02	3.18	4.41	6.04	7.28	8.53
44	06133	268945	1369683	0.03	0.07	0.14	0.35	0.67	2.27	3.55	4.88	6.62	7.94	9.26
45	06145	427930	1470579	0.11	0.19	0.30	0.56	0.91	2.30	3.46	4.54	5.91	6.92	7.93
46	06278	438598	1446710	0.00	0.00	0.01	0.09	0.30	2.24	3.65	5.52	8.12	10.17	12.29
47	06150	375491	1072312	0.00	0.01	0.04	0.15	0.36	1.76	2.83	4.07	5.76	7.06	8.39
48	06158	356775	879515	0.01	0.02	0.06	0.20	0.44	1.82	2.89	4.09	5.68	6.90	8.14
49	05885	287610	826801	0.00	0.01	0.05	0.19	0.45	2.13	3.42	4.91	6.93	8.49	10.07
50	06197	504893	898250	0.01	0.03	0.08	0.22	0.46	1.77	2.81	3.93	5.43	6.57	7.72
51	06181	737004	856115	0.05	0.11	0.21	0.47	0.84	2.56	3.96	5.35	7.16	8.52	9.88
52	06290	759669	828886	0.02	0.07	0.17	0.46	0.93	3.45	5.44	7.57	10.38	12.53	14.70
53	06321	771113	771605	0.04	0.09	0.20	0.48	0.92	3.13	4.89	6.72	9.11	10.93	12.75
54	06299	771212	798465	0.01	0.05	0.13	0.38	0.80	3.19	5.06	7.11	9.83	11.92	14.03
55	06276	785339	831476	0.03	0.08	0.18	0.48	0.96	3.46	5.45	7.56	10.34	12.46	14.59
56	06306	786766	782109	0.02	0.07	0.16	0.44	0.89	3.30	5.21	7.25	9.94	12.00	14.07
57	06302	760659	786483	0.03	0.08	0.18	0.45	0.88	3.07	4.81	6.64	9.04	10.86	12.69
58	06322	759988	777391	0.06	0.13	0.26	0.57	1.03	3.19	4.95	6.70	8.98	10.70	12.42
59	06298	786400	795839	0.01	0.04	0.12	0.38	0.81	3.31	5.26	7.41	10.28	12.48	14.71
60	05793	776953	740544	0.02	0.07	0.16	0.44	0.88	3.20	5.05	7.01	9.60	11.58	13.57
61	05792	760266	747203	0.03	0.08	0.18	0.45	0.88	3.01	4.72	6.50	8.83	10.60	12.38

62	06172	786202	526653	0.01	0.03	0.09	0.26	0.56	2.24	3.56	5.03	6.93	8.40	9.89
63	06249	737977	502333	0.00	0.02	0.06	0.20	0.46	2.05	3.28	4.59	6.57	8.02	9.49
64	06265	563221	853469	0.00	0.01	0.04	0.16	0.40	2.02	3.24	4.59	6.66	8.18	9.73
65	06174	735762	539676	0.01	0.03	0.07	0.23	0.49	2.00	3.15	4.47	6.21	7.53	8.88
66	05810	715639	543206	0.03	0.08	0.16	0.38	0.72	2.33	3.64	4.97	6.70	8.02	9.34
67	06051	559601	1097510	0.00	0.00	0.02	0.11	0.30	1.65	2.67	3.91	5.59	6.90	8.24
68	06134	305910	1310403	0.01	0.04	0.11	0.30	0.63	2.40	3.79	5.30	7.29	8.82	10.36
69	06160	240884	667430	0.00	0.01	0.05	0.19	0.43	1.97	3.15	4.50	6.32	7.72	9.15
70	06258	651660	727792	0.02	0.05	0.11	0.25	0.47	1.53	2.39	3.27	4.42	5.29	6.16
71	06070	569040	1061376	0.01	0.04	0.10	0.27	0.53	1.94	3.06	4.25	5.82	7.01	8.22
72	06052	572876	1086121	0.00	0.00	0.02	0.10	0.28	1.70	2.75	4.07	5.87	7.29	8.74
73	06218	382265	1526726	0.04	0.09	0.18	0.41	0.75	2.32	3.60	4.59	6.56	7.82	9.08
74	05838	642244	901321	0.01	0.04	0.10	0.28	0.59	2.28	3.62	5.06	6.98	8.44	9.92
75	05839	654787	890764	0.04	0.09	0.19	0.45	0.86	2.82	4.41	6.03	8.15	9.76	11.37
76	06093	397630	941692	0.00	0.02	0.06	0.22	0.51	2.39	3.83	5.50	7.74	9.48	11.24
77	06222	624710	887230	0.00	0.01	0.03	0.13	0.33	1.71	2.75	4.00	5.71	7.03	8.38
78	05837	625984	915303	0.02	0.05	0.12	0.34	0.70	2.67	4.22	5.90	8.12	9.81	11.52
79	06125	629618	911781	0.04	0.09	0.18	0.44	0.82	2.71	4.23	5.79	7.82	9.36	10.91
80	06253	680128	578682	0.01	0.03	0.08	0.23	0.49	1.96	[illegible]	4.38	6.06	7.35	8.65
81	05966	806049	866562	0.07	0.14	0.27	0.61	1.10	3.45	5.34	7.25	9.72	11.59	13.46
82	06179	778640	691382	0.01	0.04	0.11	0.32	0.68	2.65	4.21	5.90	8.15	9.87	11.61
83	05796	781829	691201	0.05	0.11	0.23	0.51	0.94	2.95	4.58	6.22	8.36	9.97	11.59
84	06122	726776	934919	0.01	0.03	0.09	0.25	0.62	2.63	4.19	5.94	8.28	10.08	11.91
85	06138	157880	946317	0.00	0.01	0.05	0.17	0.39	1.77	2.83	4.04	5.67	6.92	8.20
86	06139	174122	939723	0.01	0.03	0.08	0.26	0.56	2.35	3.74	5.30	7.37	8.96	10.57
87	06048	545793	1107892	0.00	0.00	0.02	0.10	0.29	1.80	2.92	4.32	6.24	7.75	9.30
88	06225	550416	866577	0.00	0.02	0.05	0.17	0.40	1.75	2.80	3.99	5.59	6.82	8.07
89	06202	633984	382765	0.00	0.00	0.02	0.12	0.33	1.81	2.93	4.29	6.14	7.58	9.05
90	06224	606168	872235	0.00	0.01	0.04	0.16	0.38	1.80	2.89	4.15	5.85	7.16	8.50
91	05806	759705	630379	0.03	0.07	0.16	0.38	0.72	2.40	3.76	5.15	6.98	8.37	9.76
92	06120	470598	961466	0.00	0.00	0.02	0.10	0.32	2.01	3.26	4.84	7.02	8.73	10.49
93	05818	656800	362549	0.00	0.01	0.03	0.11	0.29	1.44	2.32	3.36	4.77	5.86	6.97

94	05817	705827	375929	0.00	0.00	0.00	0.06	0.21	1.77	2.89	4.42	6.56	8.25	10.01
95	05816	715205	410831	0.02	0.06	0.12	0.30	0.57	1.94	3.03	4.16	5.64	6.76	7.88
96	06227	562849	859627	0.04	0.09	0.18	0.41	0.76	2.46	3.83	5.22	7.04	8.41	9.79
97	06119	624298	963865	0.00	0.01	0.04	0.16	0.40	1.96	3.16	4.56	6.46	7.92	9.42
98	05797	769437	669375	0.05	0.10	0.19	0.43	0.79	2.48	3.86	5.24	7.03	8.38	9.74
99	06274	706442	854841	0.00	0.02	0.07	0.23	0.52	2.29	3.65	5.20	7.27	8.86	10.48
100	06324	681288	777584	0.00	0.01	0.04	0.17	0.41	1.96	3.15	4.53	6.40	7.85	9.32
101	05940	435855	1261289	0.01	0.03	0.09	0.26	0.55	2.19	3.48	4.89	6.77	8.20	9.66
102	05981	456495	1208920	0.01	0.02	0.07	0.23	0.51	2.14	3.41	4.83	6.72	8.18	9.66
103	05999	436517	1151841	0.04	0.08	0.15	0.32	0.58	1.79	2.77	3.74	5.01	5.96	6.92
104	06068	492514	1083330	0.00	0.01	0.05	0.17	0.40	1.81	2.89	4.13	5.79	7.07	8.37
105	06071	512067	1051029	0.01	0.04	0.10	0.28	0.56	2.12	3.36	4.68	6.43	7.77	9.12
106	06066	417389	1089068	0.00	0.00	0.02	0.11	0.30	1.82	2.94	4.35	6.27	7.77	9.32
107	06074	448768	1012176	0.00	0.00	0.01	0.09	0.26	1.59	2.58	3.82	5.51	6.84	8.20
108	06243	401134	892714	0.00	0.00	0.02	0.12	0.32	1.82	2.94	4.32	6.19	7.66	9.15
109	06327	573876	726374	0.00	0.01	0.04	0.17	0.41	1.97	3.17	4.55	6.42	7.87	9.34
110	06237	732597	1010079	0.04	0.08	0.16	0.36	0.66	2.08	3.24	4.40	5.92	7.06	8.21
111	05808	683295	628267	0.02	0.05	0.11	0.26	0.49	1.58	2.46	3.36	4.54	5.42	6.31
112	06031	678230	1105129	0.05	0.10	0.18	0.40	0.72	2.19	3.39	4.58	6.13	7.29	8.46
113	05912	365149	1322578	0.00	0.01	0.05	0.19	0.44	2.03	3.26	4.67	6.56	8.02	9.51
114	06269	583269	852797	0.00	0.01	0.03	0.14	0.38	2.03	3.27	4.77	6.82	8.41	10.03
115	06271	597522	847377	0.00	0.02	0.06	0.19	0.42	1.77	2.82	4.00	5.58	6.80	8.03
116	06263	216752	818638	0.00	0.01	0.03	0.14	0.37	1.95	3.15	4.58	6.52	8.03	9.57
117	05880	329485	1369071	0.00	0.01	0.04	0.17	0.44	2.29	3.70	5.37	7.64	9.41	11.21
118	06187	743790	1042559	0.04	0.10	0.19	0.45	0.83	2.66	4.14	5.64	7.60	9.08	10.56
119	06166	557637	518472	0.05	0.09	0.16	0.33	0.56	1.61	2.47	3.30	4.37	5.17	5.97
120	06046	556384	1076704	0.00	0.00	0.01	0.08	0.25	1.61	2.62	3.90	5.65	7.03	8.44
121	05820	521305	874023	0.00	0.02	0.06	0.19	0.41	1.71	2.72	3.85	5.35	6.50	7.67
122	05915	356865	773499	0.03	0.06	0.12	0.27	0.49	1.53	2.38	3.23	4.33	5.16	6.00
123	06238	391538	999565	0.00	0.00	0.01	0.09	0.26	1.62	2.63	3.90	5.66	7.04	8.45
124	06192	674849	1198522	0.11	0.19	0.32	0.61	1.00	2.63	3.98	5.25	6.87	8.07	9.27
125	06182	790635	853021	0.05	0.11	0.21	0.48	0.88	2.76	4.29	5.82	7.82	9.32	10.83

126	06399	218370	1054921	0.00	0.02	0.07	0.21	0.47	2.33	3.22	4.59	6.40	7.79	9.20
127	06131	227513	1297131	0.03	0.08	0.16	0.39	0.75	2.49	3.90	5.34	7.24	8.67	10.11
128	06396	281243	1642309	0.04	0.09	0.18	0.40	0.73	2.28	3.54	4.80	6.44	7.67	8.91
129	06142	634746	1248050	0.10	0.17	0.28	0.52	0.85	2.18	3.29	4.32	5.64	6.62	7.59
130	06397	105297	1387049	0.04	0.10	0.19	0.45	0.83	2.69	4.18	5.70	7.68	9.18	10.68
131	06245	250708	79406	0.00	0.01	0.03	0.12	0.31	1.64	2.64	3.84	5.46	6.72	8.01
132	06162	234088	79500	0.00	0.01	0.05	0.16	0.37	1.63	2.61	3.73	5.23	6.38	7.56
133	06130	193525	1345960	0.06	0.11	0.20	0.43	0.77	2.27	3.50	4.71	6.28	7.46	8.63
134	06246	599437	206020	0.00	0.00	0.02	0.11	0.28	1.56	2.53	3.70	5.29	6.53	7.80
135	06194	243974	1654663	0.23	0.35	0.52	0.89	1.36	3.13	4.63	5.96	7.63	8.86	10.07
136	06401	623624	1357079	0.04	0.08	0.16	0.36	0.66	2.04	3.16	4.28	5.74	6.84	7.95
137	15091	138338	1764624	0.04	0.08	0.17	0.39	0.72	2.33	3.63	4.95	6.67	7.97	9.27
138	06256	392985	1532754	0.07	0.13	0.23	0.46	0.78	2.20	3.37	4.49	5.94	7.02	8.10
139	06398	134321	1340406	0.06	0.13	0.23	0.50	0.89	2.68	4.13	5.57	7.44	8.84	10.24
140	06847	419942	1629645	0.08	0.14	0.23	0.44	0.74	1.99	3.02	3.99	5.25	6.18	7.10
141	06848	425268	1623574	0.09	0.16	0.28	0.56	0.94	2.59	3.95	5.26	6.93	8.18	9.42
142	06165	659150	243843	0.00	0.02	0.06	0.21	0.47	2.04	3.26	4.64	6.48	7.90	9.34
143	06400	553473	1556881	0.06	0.12	0.21	0.43	0.74	2.12	3.25	4.35	5.77	6.83	7.89
144	06849	235413	1175990	0.02	0.06	0.13	0.32	0.63	2.20	3.45	4.77	6.50	7.82	9.14
145	06132	258989	1338132	0.02	0.06	0.14	0.35	0.68	2.33	3.65	5.04	6.85	8.22	9.61

Table D2. February Rainfall Return Periods for 147 stations in South Florida (DRP= Dry Return Periods in years, WRP= Wet Return Periods in years).

Serial number	Station Dbkey	Easting (ft)	Northing (ft)	100 DRP (inches)	50 DRP (inches)	20 DRP (inches)	10 DRP (inches)	5 DRP (inches)	Average(inches)	5 WRP (inches)	10 WRP (inches)	20 WRP (inches)	50 WRP (inches)	100 WRP (inches)
1	06303	754327	787696	0.00	0.01	0.06	0.21	0.51	2.41	3.87	5.55	7.83	9.58	11.37
2	05798	680541	675505	0.00	0.01	0.03	0.14	0.37	1.98	3.20	4.66	6.66	8.22	9.81
3	05922	294334	865035	0.07	0.13	0.22	0.44	0.74	2.04	3.12	4.15	5.47	6.46	7.44
4	06205	358851	1035308	0.12	0.19	0.31	0.56	0.91	2.30	3.46	4.53	5.90	6.91	7.92
5	06136	331927	1184254	0.07	0.13	0.24	0.50	0.87	2.49	3.83	5.12	6.80	8.05	9.30
6	06135	333930	1276041	0.25	0.37	0.54	0.91	1.37	3.07	4.52	5.79	7.39	8.56	9.71
7	05945	532644	866155	0.00	0.00	0.03	0.14	0.39	2.17	3.50	5.13	7.36	9.10	10.88
8	06047	525504	1118578	0.14	0.23	0.35	0.60	0.94	2.25	3.35	4.33	5.59	6.51	7.42
9	06207	620846	844509	0.04	0.08	0.15	0.34	0.61	1.90	2.95	3.99	5.35	6.38	7.40
10	06128	484688	899363	0.01	0.04	0.10	0.27	0.56	2.16	3.42	4.78	6.58	7.96	9.35
11	05813	416025	1423525	0.05	0.12	0.23	0.53	0.97	3.08	4.79	6.51	8.75	10.44	12.14
12	06157	621619	921248	0.01	0.03	0.09	0.26	0.55	2.17	3.43	4.81	6.64	8.04	9.45
13	06186	113082	801291	0.00	0.02	0.07	0.24	0.53	2.29	3.65	5.18	7.22	8.80	10.39
14	06129	249059	1507870	0.10	0.18	0.31	0.60	1.01	2.72	4.13	5.48	7.19	8.47	9.75
15	06168	736091	479102	0.02	0.04	0.10	0.26	0.52	1.87	2.94	4.07	5.57	6.70	7.85
16	05916	309025	745419	0.10	0.18	0.30	0.58	0.98	2.65	4.03	5.35	7.03	8.29	9.54
17	06178	762622	630699	0.03	0.07	0.14	0.34	0.64	2.09	3.26	4.46	6.02	7.20	8.39
18	06206	457975	824667	0.05	0.10	0.19	0.42	0.77	2.39	3.70	5.02	6.73	8.02	9.31
19	05800	762545	643219	0.05	0.10	0.20	0.45	0.81	2.54	3.94	5.35	7.18	8.56	9.95
20	06050	535800	1093341	0.07	0.13	0.23	0.46	0.80	2.29	3.51	4.70	6.23	7.37	8.51
21	06161	372647	549519	0.00	0.01	0.03	0.12	0.31	1.58	2.54	3.68	5.22	6.42	7.64
22	06210	528210	293638	0.09	0.15	0.23	0.42	0.68	1.69	2.54	3.32	4.31	5.04	5.77
23	06151	710834	1128714	0.11	0.20	0.33	0.63	1.05	2.79	4.23	5.59	7.33	8.63	9.92
24	06193	217472	817624	0.03	0.06	0.14	0.33	0.62	2.09	3.26	4.48	6.06	7.27	8.48
25	06015	657594	1102721	0.06	0.12	0.22	0.48	0.87	2.64	4.08	5.51	7.38	8.78	10.18
26	05801	752532	640634	0.01	0.04	0.10	0.29	0.61	2.36	3.74	5.23	7.22	8.74	10.27
27	05807	752149	628213	0.05	0.10	0.20	0.44	0.81	2.56	3.98	5.41	7.28	8.68	10.09
28	06154	471467	910780	0.04	0.08	0.16	0.35	0.64	2.00	3.10	4.20	5.64	6.72	7.81
29	06155	526650	880690	0.03	0.07	0.15	0.35	0.65	2.11	3.29	4.49	6.06	7.25	8.44

30	06241	593048	860492	0.06	0.10	0.18	0.36	0.61	1.72	2.63	3.51	4.63	5.48	6.32
31	06242	619862	919686	0.01	0.03	0.07	0.21	0.43	1.68	2.66	3.75	5.14	6.22	7.32
32	06073	566270	1044407	0.00	0.02	0.05	0.18	0.41	1.82	2.91	4.14	5.81	7.09	8.39
33	06175	734827	543508	0.05	0.10	0.18	0.40	0.71	2.14	3.31	4.47	5.98	7.11	8.24
34	06268	664918	424260	0.07	0.12	0.20	0.38	0.63	1.67	2.53	3.34	4.38	5.16	5.93
35	05815	681903	416049	0.03	0.08	0.16	0.39	0.73	2.43	3.79	5.19	7.02	8.41	9.81
36	06180	810575	806715	0.05	0.11	0.21	0.48	0.86	2.68	4.15	5.62	7.53	8.97	10.41
37	06082	363617	753789	0.03	0.07	0.16	0.41	0.80	2.79	4.37	6.03	8.21	9.86	11.53
38	06077	507142	992758	0.02	0.06	0.12	0.29	0.55	1.87	2.92	4.01	5.44	6.53	7.62
39	06144	330807	1508031	0.07	0.13	0.25	0.54	0.95	2.86	4.42	5.96	7.95	9.45	10.95
40	06049	556236	1117700	0.11	0.18	0.29	0.55	0.89	2.31	3.49	4.58	5.98	7.03	8.06
41	06147	365180	1435686	0.14	0.23	0.38	0.69	1.12	2.84	4.28	5.60	7.29	8.55	9.79
42	06305	355624	1438447	0.16	0.26	0.40	0.71	1.12	2.72	4.07	5.29	6.83	7.97	9.10
43	06146	365917	1441945	0.01	0.03	0.08	0.25	0.56	2.34	3.73	5.28	7.34	8.93	10.54
44	06133	268945	1369683	0.05	0.11	0.21	0.47	0.87	2.72	4.22	5.74	7.71	9.19	10.68
45	06145	427930	1470579	0.06	0.12	0.23	0.49	0.86	2.56	3.95	5.32	7.09	8.41	9.74
46	06278	438598	1446710	0.00	0.01	0.03	0.16	0.44	2.39	3.86	5.64	8.06	9.95	11.88
47	06150	375491	1072312	0.14	0.22	0.34	0.61	0.97	2.40	3.60	4.69	6.07	7.10	8.11
48	06158	356775	879515	0.16	0.25	0.38	0.65	1.01	2.39	3.55	4.59	5.90	6.87	7.82
49	05885	287610	826801	0.06	0.12	0.22	0.46	0.81	2.38	3.66	4.92	6.55	7.78	9.00
50	06197	504893	898250	0.02	0.06	0.12	0.31	0.60	2.10	3.29	4.53	6.16	7.40	8.65
51	06181	737004	856115	0.14	0.23	0.36	0.64	1.01	2.48	3.71	4.84	6.26	7.32	8.36
52	06290	759669	828886	0.09	0.17	0.30	0.60	1.02	2.86	4.37	5.83	7.70	9.10	10.49
53	06321	771113	771605	0.06	0.11	0.22	0.48	0.86	2.64	4.08	5.52	7.38	8.78	10.19
54	06299	771212	798465	0.06	0.11	0.21	0.46	0.83	2.51	3.87	5.23	6.99	8.32	9.64
55	06276	785339	831476	0.09	0.16	0.29	0.58	1.00	2.85	4.36	5.82	7.70	9.11	10.52
56	06306	786766	782109	0.10	0.18	0.31	0.61	1.02	2.75	4.19	5.56	7.31	8.61	9.91
57	06302	760659	786483	0.07	0.14	0.24	0.50	0.87	2.51	3.85	5.15	6.83	8.09	9.35
58	06322	759988	777391	0.08	0.15	0.27	0.55	0.94	2.65	4.06	5.42	7.17	8.48	9.78
59	06298	786400	795839	0.13	0.22	0.35	0.66	1.07	2.73	4.12	5.40	7.04	8.26	9.47
60	05793	776953	740544	0.14	0.23	0.37	0.69	1.12	2.86	4.32	5.67	7.39	8.67	9.93
61	05792	760266	747203	0.07	0.14	0.25	0.52	0.91	2.63	4.04	5.42	7.20	8.53	9.86

62	06172	786202	526653	0.01	0.04	0.10	0.26	0.54	1.99	3.15	4.38	6.02	7.26	8.52
63	06249	737977	502333	0.04	0.09	0.17	0.37	0.68	2.10	3.26	4.41	5.92	7.05	8.18
64	06265	563221	853469	0.11	0.18	0.28	0.52	0.83	2.09	3.14	4.10	5.33	6.24	7.15
65	06174	735762	539676	0.05	0.10	0.19	0.40	0.70	2.07	3.19	4.29	5.72	6.79	7.86
66	05810	715639	543206	0.02	0.05	0.12	0.33	0.67	2.48	3.92	5.45	7.48	9.03	10.60
67	06051	559601	1097510	0.03	0.08	0.16	0.38	0.71	2.34	3.65	4.99	6.75	8.07	9.41
68	06134	305910	1310403	0.05	0.11	0.21	0.48	0.88	2.80	4.35	5.92	7.96	9.50	11.05
69	06160	240884	667430	0.01	0.03	0.08	0.24	0.52	2.07	3.29	4.63	6.40	7.76	9.14
70	06258	651660	727792	0.04	0.08	0.14	0.32	0.58	1.77	2.74	3.71	4.98	5.92	6.88
71	06070	569040	1061376	0.07	0.13	0.24	0.49	0.84	2.40	3.68	4.92	6.52	7.72	8.92
72	06052	572876	1086121	0.06	0.12	0.22	0.46	0.81	2.36	3.63	4.87	6.47	7.67	8.87
73	06218	382265	1526726	0.03	0.08	0.16	0.39	0.74	2.46	3.84	5.26	7.11	8.52	9.93
74	05838	642244	901321	0.08	0.14	0.23	0.45	0.75	2.02	3.07	4.07	5.34	6.30	7.25
75	05839	654787	890764	0.03	0.07	0.14	0.34	0.64	2.12	3.30	4.52	6.11	7.32	8.53
76	06093	397630	941692	0.16	0.26	0.41	0.74	1.18	2.93	4.39	5.74	7.44	8.70	9.95
77	06222	624710	887230	0.02	0.05	0.12	0.31	0.62	2.25	3.54	4.91	6.72	8.09	9.47
78	05837	625984	915303	0.01	0.03	0.08	0.24	0.51	2.11	3.36	4.74	6.58	8.00	9.43
79	06125	629618	911781	0.02	0.04	0.11	0.28	0.57	2.08	3.28	4.56	6.25	7.53	8.83
80	06253	680128	578682	0.07	0.13	0.23	0.48	0.83	2.37	3.63	4.86	6.44	7.62	8.80
81	05966	806049	866562	0.13	0.22	0.35	0.67	1.09	2.82	4.26	5.60	7.32	8.60	9.86
82	06179	778640	691382	0.01	0.03	0.09	0.26	0.55	2.19	3.48	4.89	6.76	8.20	9.65
83	05796	781829	691201	0.05	0.12	0.25	0.57	1.08	3.51	5.47	7.47	10.09	12.06	14.05
84	06122	726776	934919	0.00	0.01	0.06	0.23	0.59	2.98	4.80	6.96	9.88	12.15	14.46
85	06138	157880	946317	0.00	0.01	0.05	0.21	0.49	2.30	3.69	5.30	7.46	9.14	10.84
86	06139	174122	939723	0.14	0.22	0.35	0.62	0.99	2.42	3.63	4.73	6.13	7.17	8.19
87	06048	545793	1107892	0.22	0.33	0.48	0.79	1.19	2.65	3.90	4.99	6.35	7.35	8.34
88	06225	550416	866577	0.02	0.05	0.12	0.31	0.60	2.10	3.30	4.55	6.20	7.45	8.71
89	06202	633984	382765	0.08	0.14	0.23	0.44	0.73	1.96	2.98	3.93	5.16	6.08	6.99
90	06224	606168	872235	0.02	0.05	0.11	0.29	0.57	2.04	3.21	4.44	6.07	7.31	8.56
91	05806	759705	630379	0.00	0.02	0.07	0.26	0.59	2.66	4.25	6.07	8.51	10.39	12.30
92	06120	470598	961466	0.01	0.04	0.09	0.26	0.53	1.99	3.15	4.39	6.03	7.29	8.55
93	05818	656800	362549	0.00	0.00	0.02	0.10	0.27	1.57	2.54	3.73	5.36	6.64	7.94

94	05817	705827	375929	0.02	0.04	0.09	0.22	0.44	1.52	2.39	3.30	4.50	5.40	6.32
95	05816	715205	410831	0.00	0.01	0.05	0.17	0.39	1.80	2.88	4.12	5.79	7.07	8.38
96	06227	562849	859627	0.01	0.03	0.08	0.21	0.44	1.69	2.68	3.74	5.16	6.24	7.33
97	06119	624298	963865	0.06	0.11	0.21	0.45	0.81	2.42	3.74	5.05	6.74	8.01	9.28
98	05797	769437	669375	0.00	0.03	0.08	0.29	0.65	2.86	4.57	6.50	9.09	11.09	13.12
99	06274	706442	854841	0.01	0.04	0.10	0.29	0.60	2.36	3.75	5.26	7.26	8.80	10.35
100	06324	681288	777584	0.04	0.08	0.16	0.36	0.67	2.13	3.31	4.51	6.06	7.24	8.42
101	05940	435855	1261289	0.26	0.37	0.53	0.86	1.27	2.74	4.01	5.10	6.46	7.45	8.43
102	05981	456495	1208920	0.24	0.35	0.50	0.81	1.20	2.59	3.78	4.80	6.09	7.02	7.94
103	05999	436517	1151841	0.18	0.26	0.39	0.67	1.01	2.32	3.43	4.41	5.64	6.55	7.44
104	06068	492514	1083330	0.13	0.20	0.30	0.53	0.83	1.96	2.92	3.79	4.88	5.68	6.48
105	06071	512067	1051029	0.14	0.23	0.36	0.65	1.05	2.62	3.94	5.15	6.69	7.83	8.96
106	06066	417389	1089068	0.10	0.17	0.27	0.49	0.80	2.03	3.06	4.01	5.23	6.13	7.02
107	06074	448768	1012176	0.04	0.08	0.15	0.33	0.60	1.86	2.88	3.91	5.23	6.23	7.24
108	06243	401134	892714	0.01	0.04	0.09	0.26	0.53	2.00	3.16	4.42	6.07	7.34	8.61
109	06327	573876	726374	0.09	0.15	0.23	0.43	0.69	1.75	2.64	3.45	4.49	5.26	6.03
110	06237	732597	1010079	0.02	0.06	0.13	0.33	0.65	2.27	3.56	4.92	6.70	8.05	9.42
111	05808	683295	628267	0.01	0.04	0.09	0.23	0.48	1.77	2.80	3.90	5.35	6.46	7.57
112	06031	678230	1105129	0.07	0.14	0.26	0.54	0.95	2.75	4.23	5.68	7.54	8.94	10.34
113	05912	365149	1322578	0.14	0.22	0.35	0.63	1.00	2.49	3.73	4.87	6.31	7.38	8.44
114	06269	583269	852797	0.11	0.18	0.29	0.53	0.85	2.11	3.17	4.14	5.38	6.29	7.20
115	06271	597522	847337	0.07	0.13	0.22	0.44	0.74	2.02	3.08	4.09	5.38	6.35	7.31
116	06263	216752	818638	0.04	0.08	0.15	0.34	0.61	1.91	2.96	4.02	5.39	6.42	7.46
117	05880	329485	1369071	0.05	0.11	0.21	0.46	0.83	2.54	3.94	5.33	7.13	8.49	9.85
118	06187	743790	1042559	0.11	0.19	0.31	0.59	0.98	2.58	3.91	5.16	6.76	7.96	9.14
119	06166	557637	518472	0.01	0.03	0.08	0.21	0.41	1.46	2.30	3.18	4.34	5.22	6.12
120	06046	556384	1076704	0.27	0.38	0.53	0.83	1.19	2.47	3.57	4.49	5.65	6.48	7.31
121	05820	521305	874023	0.06	0.11	0.20	0.41	0.72	2.09	3.21	4.30	5.72	6.78	7.84
122	05915	356865	773499	0.20	0.29	0.43	0.72	1.09	2.46	3.62	4.64	5.92	6.86	7.78
123	06238	391538	999565	0.02	0.05	0.12	0.30	0.58	2.07	3.25	4.49	6.12	7.36	8.61
124	06192	674849	1198522	0.30	0.42	0.60	0.96	1.41	3.00	4.36	5.53	6.99	8.05	9.09
125	06182	790635	853021	0.10	0.17	0.29	0.56	0.94	2.54	3.87	5.13	6.74	7.95	9.15

126	06399	218370	1054921	0.09	0.16	0.28	0.55	0.92	2.50	3.81	5.05	6.64	7.83	9.02
127	06131	227513	1297131	0.10	0.18	0.30	0.60	1.02	2.83	4.31	5.74	7.57	8.93	10.29
128	06396	281243	1642309	0.07	0.13	0.23	0.47	0.81	2.31	3.54	4.73	6.27	7.42	8.57
129	06142	634746	1248050	0.07	0.13	0.22	0.46	0.79	2.27	3.48	4.66	6.17	7.31	8.45
130	06397	105297	1387049	0.06	0.13	0.24	0.53	0.96	2.95	4.57	6.19	8.29	9.88	11.46
131	06245	250708	79406	0.00	0.02	0.05	0.18	0.41	1.75	2.79	3.97	5.54	6.75	7.98
132	06162	234088	79500	0.00	0.02	0.06	0.19	0.42	1.75	2.80	3.96	5.52	6.71	7.92
133	06130	193525	1345960	0.05	0.11	0.21	0.46	0.84	2.65	4.11	5.57	7.48	8.92	10.36
134	06246	599437	206020	0.01	0.02	0.06	0.17	0.36	1.38	2.18	3.05	4.20	5.08	5.98
135	06194	243974	1654663	0.41	0.55	0.75	1.15	1.63	3.25	4.65	5.82	7.25	8.30	9.32
136	06401	623624	1357079	0.08	0.14	0.26	0.53	0.91	2.60	3.98	5.33	7.06	8.36	9.65
137	15091	138338	1764624	0.43	0.58	0.78	1.18	1.65	3.23	4.61	5.74	7.13	8.13	9.12
138	06256	392985	1532754	0.14	0.23	0.37	0.68	1.09	2.78	4.19	5.49	7.15	8.38	9.60
139	06398	134321	1340406	0.04	0.10	0.20	0.48	0.90	2.96	4.62	6.32	8.53	10.21	11.89
140	06847	419942	1629645	0.01	0.03	0.09	0.26	0.55	2.19	3.48	4.89	6.77	8.20	9.66
141	06848	425268	1623574	0.34	0.48	0.68	1.10	1.61	3.45	5.03	6.38	8.06	9.29	10.50
142	06165	659150	243843	0.05	0.10	0.18	0.38	0.67	1.97	3.03	4.07	5.42	6.43	7.44
143	06400	553473	1556881	0.05	0.10	0.20	0.45	0.81	2.53	3.92	5.31	7.12	8.49	9.86
144	06849	235413	1175990	0.15	0.25	0.39	0.72	1.15	2.91	4.37	5.72	7.44	8.71	9.98
145	06132	258989	1338132	0.14	0.22	0.36	0.65	1.04	2.61	3.93	5.14	6.67	7.81	8.94

Table D3. March Rainfall Return Periods for 147 stations in South Florida (DRP= Dry Return Periods in years, WRP= Wet Return Periods in years).

Serial number	Station Dbkey	Easting (ft)	Northing (ft)	100 DRP (inches)	50 DRP (inches)	20 DRP (inches)	10 DRP (inches)	5 DRP (inches)	Average(inches)	5 WRP (inches)	10 WRP (inches)	20 WRP (inches)	50 WRP (inches)	100 WRP (inches)
1	06303	754327	787696	0.04	0.10	0.19	0.43	0.79	1.93	3.86	5.24	7.05	8.41	9.78
2	05798	680541	675505	0.00	0.00	0.02	0.11	0.33	1.34	3.46	5.15	7.48	9.3	11.18
3	05922	294334	865035	0.00	0.02	0.07	0.26	0.60	1.86	4.25	6.06	8.49	10.36	12.26
4	06205	358851	1035308	0.12	0.21	0.37	0.75	1.28	2.90	5.51	7.34	9.71	11.47	13.24
5	06136	331927	1184254	0.09	0.16	0.28	0.57	0.98	2.21	4.20	5.60	7.40	8.74	10.08
6	06135	333930	1276041	0.18	0.30	0.48	0.89	1.45	3.06	5.58	7.32	9.54	11.19	12.83
7	05945	532644	866155	0.01	0.03	0.10	0.30	0.64	1.90	4.21	5.94	8.25	10.02	11.81
8	06047	525504	1118578	0.04	0.09	0.20	0.49	0.93	2.40	4.92	6.76	9.16	10.99	12.82
9	06207	620846	844509	0.05	0.11	0.22	0.50	0.93	2.30	4.62	6.29	8.48	10.12	11.78
10	06128	484688	899363	0.01	0.03	0.10	0.31	0.67	2.01	4.48	6.34	8.82	10.72	12.65
11	05813	416025	1423525	0.32	0.44	0.60	0.90	1.28	2.25	3.62	4.52	5.62	6.43	7.22
12	06157	621619	921248	0.04	0.09	0.20	0.50	0.96	2.48	5.09	7.00	9.50	11.39	13.3
13	06186	113082	801291	0.00	0.01	0.03	0.15	0.40	1.41	3.41	4.97	7.08	8.73	10.41
14	06129	249059	1507870	0.09	0.18	0.32	0.68	1.19	2.76	5.34	7.17	9.53	11.3	13.08
15	06168	736091	479102	0.01	0.03	0.08	0.25	0.54	1.61	3.58	5.05	7.03	8.54	10.08
16	05916	309025	745419	0.00	0.02	0.07	0.25	0.60	1.95	4.53	6.50	9.16	11.21	13.3
17	06178	762622	630699	0.00	0.01	0.04	0.16	0.41	1.40	3.37	4.89	6.95	8.55	10.18
18	06206	457975	824667	0.13	0.23	0.37	0.71	1.16	2.50	4.60	6.06	7.92	9.31	10.69
19	05800	762545	643219	0.00	0.02	0.07	0.28	0.68	2.21	5.15	7.40	10.45	12.8	15.19
20	06050	535800	1093341	0.03	0.08	0.18	0.44	0.85	2.24	4.64	6.40	8.71	10.46	12.22
21	06161	372647	549519	0.00	0.01	0.03	0.14	0.37	1.32	3.20	4.67	6.66	8.21	9.79
22	06218	528210	293638	0.03	0.07	0.13	0.29	0.53	1.30	2.58	3.50	4.69	5.59	6.5
23	06151	710834	1128714	0.15	0.25	0.41	0.75	1.22	2.58	4.69	6.15	8.02	9.4	10.78
24	06193	217472	817624	0.00	0.01	0.05	0.20	0.51	1.76	4.21	6.11	8.69	10.69	12.74
25	06015	657594	1102721	0.12	0.21	0.36	0.69	1.16	2.55	4.77	6.32	8.31	9.79	11.26
26	05801	752532	640634	0.01	0.04	0.10	0.29	0.63	1.82	3.99	5.61	7.76	9.42	11.09
27	05807	752149	628213	0.00	0.02	0.07	0.26	0.65	2.18	5.14	7.41	10.50	12.88	15.31
28	06154	471467	910780	0.03	0.07	0.16	0.41	0.80	2.12	4.43	6.12	8.34	10.03	11.74
29	06155	526650	880690	0.01	0.03	0.09	0.30	0.66	1.98	4.43	6.27	8.73	10.63	12.54

30	06241	593048	860492	0.01	0.04	0.11	0.33	0.69	1.97	4.27	5.98	8.25	9.98	11.73
31	06242	619862	919686	0.00	0.02	0.07	0.24	0.55	1.72	3.93	5.61	7.85	9.59	11.35
32	06073	566270	1044407	0.01	0.05	0.12	0.33	0.69	1.95	4.19	5.86	8.07	9.76	11.47
33	06175	734827	543508	0.02	0.06	0.13	0.36	0.73	1.98	4.21	5.85	8.02	9.68	11.34
34	06268	664918	424260	0.01	0.03	0.08	0.23	0.48	1.40	3.08	4.34	6.01	7.29	8.58
35	05815	681903	416049	0.04	0.08	0.17	0.38	0.70	1.72	3.45	4.70	6.32	7.55	8.78
36	06180	810575	806715	0.07	0.14	0.27	0.60	1.08	2.62	5.18	7.02	9.41	11.22	13.02
37	06082	363617	753789	0.04	0.10	0.23	0.57	1.11	2.93	6.08	8.38	11.40	13.7	16.01
38	06077	507142	992758	0.01	0.04	0.11	0.32	0.69	1.99	4.35	6.12	8.47	10.27	12.09
39	06144	330807	1508031	0.16	0.27	0.44	0.83	1.36	2.91	5.32	7.00	9.14	10.74	12.32
40	06049	556236	1117700	0.03	0.07	0.16	0.41	0.80	2.13	4.44	6.14	8.38	10.08	11.79
41	06147	365180	1435686	0.13	0.23	0.39	0.76	1.27	2.82	5.30	7.03	9.25	10.91	12.57
42	06305	355624	1438447	0.32	0.46	0.67	1.09	1.61	3.05	5.15	6.56	8.33	9.62	10.89
43	06146	365917	1441945	0.05	0.11	0.22	0.52	0.97	2.43	4.89	6.67	9.00	10.76	12.53
44	06133	268945	1369683	0.34	0.48	0.69	1.13	1.67	3.15	5.31	6.76	8.57	9.89	11.2
45	06145	427930	1470579	0.11	0.21	0.36	0.73	1.26	2.85	5.42	7.24	9.57	11.32	13.07
46	06278	438598	1446710	0.00	0.00	0.01	0.08	0.30	1.44	4.02	6.14	9.10	11.44	13.87
47	06150	375491	1072312	0.02	0.06	0.13	0.35	0.69	1.87	3.95	5.48	7.49	9.03	10.58
48	06158	356775	879515	0.00	0.03	0.08	0.29	0.65	2.04	4.63	6.60	9.24	11.27	13.34
49	05885	287610	826801	0.02	0.06	0.15	0.42	0.85	2.35	5.02	6.99	9.60	11.59	13.59
50	06197	504893	898250	0.01	0.04	0.11	0.33	0.71	2.04	4.45	6.25	8.64	10.47	12.33
51	06181	737004	856115	0.05	0.11	0.23	0.54	1.02	2.58	5.26	7.20	9.74	11.67	13.6
52	06290	759669	828886	0.12	0.22	0.38	0.75	1.28	2.87	5.41	7.20	9.50	11.22	12.93
53	06321	771113	771605	0.08	0.16	0.30	0.63	1.12	2.61	5.07	6.81	9.07	10.76	12.45
54	06299	771212	798465	0.10	0.18	0.32	0.65	1.12	2.56	4.90	6.55	8.67	10.26	11.85
55	06276	785339	831476	0.10	0.20	0.35	0.74	1.29	2.98	5.74	7.70	10.23	12.13	14.03
56	06306	786766	782109	0.03	0.09	0.21	0.55	1.09	2.92	6.12	8.47	11.56	13.91	16.28
57	06302	760659	786483	0.15	0.25	0.41	0.76	1.23	2.61	4.77	6.26	8.17	9.58	10.98
58	06322	759988	777391	0.13	0.23	0.39	0.75	1.26	2.78	5.19	6.88	9.04	10.66	12.27
59	06298	786400	795839	0.06	0.13	0.27	0.62	1.16	2.90	5.85	7.97	10.76	12.86	14.96
60	05793	776953	740544	0.05	0.11	0.23	0.53	1.01	2.54	5.16	7.06	9.54	11.42	13.3
61	05792	760266	747203	0.04	0.10	0.21	0.52	1.00	2.58	5.31	7.30	9.91	11.89	13.88

62	06172	786202	526653	0.05	0.10	0.18	0.38	0.67	1.56	3.0[illegible]	4.05	5.38	6.38	7.38
63	06249	737977	502333	0.01	0.03	0.08	0.24	0.51	1.51	3.32	4.69	6.50	7.89	9.3[illegible]
64	06265	563221	853469	0.04	0.10	0.20	0.49	0.92	2.36	4.83	6.62	8.96	10.74	12.52
65	06174	735762	539676	0.02	0.06	0.14	0.36	0.70	1.86	3.87	5.34	7.27	8.74	10.22
66	05810	715639	543206	0.05	0.10	0.19	0.43	0.79	1.92	3.80	5.16	6.92	8.25	9.58
67	06051	5[illegible]9601	1097510	0.05	0.11	0.21	0.50	0.92	2.30	4.62	6.30	8.50	10.15	11.81
68	06134	305910	1310403	0.19	0.30	0.48	0.87	1.39	2.89	5.20	6.80	8.82	10.32	11.81
69	06160	240884	667430	0.00	0.00	0.02	0.12	0.36	1.46	3.74	5.57	8.07	10.04	12.06
70	06258	651660	727792	0.01	0.05	0.12	0.33	0.69	1.92	4.12	5.75	7.91	9.56	11.22
71	06070	569040	1061376	0.01	0.04	0.11	0.33	0.69	1.99	4.34	6.09	8.42	10.21	12.01
72	06052	572876	1086121	0.05	0.11	0.22	0.50	0.93	2.31	4.64	6.33	8.53	10.19	11.86
73	06218	382265	1526726	0.09	0.17	0.32	0.66	1.14	2.65	5.11	6.85	9.10	10.78	12.47
74	05838	642244	901321	0.10	0.17	0.30	0.61	1.04	2.33	4.41	5.87	7.76	9.16	10.57
75	05839	654787	890764	0.23	0.36	0.55	0.96	1.50	3.02	5.33	6.91	8.91	10.39	11.84
76	06093	397630	941692	0.04	0.09	0.21	0.54	1.05	2.79	5.81	8.03	10.94	13.15	15.38
77	06222	624710	887230	0.03	0.07	0.17	0.43	0.84	2.23	4.66	6.44	8.79	10.57	12.36
78	05837	625984	915303	0.21	0.34	0.52	0.92	1.45	2.95	5.24	6.81	8.80	10.27	11.72
79	06125	629618	911783	0.27	0.40	0.60	1.01	1.55	3.03	5.25	6.76	8.65	10.05	11.42
80	06253	680128	578682	0.04	0.09	0.17	0.39	0.70	1.72	3.40	4.62	6.19	7.38	8.57
81	05966	806049	866563	0.12	0.21	0.35	0.69	1.16	2.58	4.83	6.41	8.44	9.96	11.47
82	06179	778640	691382	0.03	0.07	0.16	0.41	0.82	2.18	4.56	6.30	8.60	10.35	12.11
83	05796	781829	691201	0.02	0.05	0.14	0.38	0.78	2.19	4.72	6.59	9.07	10.97	12.88
84	06122	726776	934919	0.02	0.07	0.17	0.48	1.00	2.80	6.02	8.40	11.57	13.99	16.43
85	06138	157880	946317	0.00	0.00	0.02	0.14	0.41	1.60	4.10	6.08	8.80	10.94	13.13
86	06139	174122	939723	0.10	0.19	0.33	0.68	1.17	2.65	5.05	6.74	8.92	10.55	12.18
87	06048	545793	1107892	0.03	0.09	0.19	0.48	0.93	2.43	5.03	6.92	9.42	11.32	13.22
88	06225	550416	866577	0.00	0.01	0.06	0.24	0.59	2.02	4.79	6.93	9.84	12.09	14.38
89	06202	633984	382765	0.00	0.02	0.06	0.19	0.43	1.29	2.89	4.09	5.70	6.93	8.18
90	06224	606168	872235	0.01	0.05	0.13	0.39	0.81	2.32	5.03	7.04	9.72	11.76	13.83
91	05806	759705	630379	0.00	0.00	0.02	0.13	0.41	1.69	4.39	6.55	9.53	11.86	14.27
92	06120	470598	961466	0.00	0.01	0.04	0.19	0.51	1.80	4.37	6.38	9.10	11.22	13.39
93	05818	656800	362549	0.01	0.03	0.07	0.20	0.40	1.08	2.30	3.19	4.37	5.27	6.18

94	05817	705827	375929	0.04	0.08	0.15	0.32	0.57	1.32	2.56	3.44	4.58	5.44	6.29
95	05816	715205	410831	0.10	0.16	0.25	0.46	0.74	1.56	2.82	3.69	4.80	5.62	6.44
96	06227	562849	859627	0.20	0.30	0.45	0.77	1.19	2.34	4.07	5.25	6.73	7.82	8.9
97	06119	624298	963865	0.04	0.10	0.20	0.48	0.91	2.33	4.77	6.53	8.84	10.59	12.35
98	05797	769437	669375	0.01	0.04	0.11	0.32	0.70	2.05	4.52	6.37	8.84	10.74	12.66
99	06274	706442	854841	0.24	0.35	0.51	0.84	1.25	2.38	4.04	5.15	6.55	7.57	8.58
100	06324	681288	777584	0.03	0.07	0.14	0.35	0.66	1.72	3.53	4.85	6.59	7.9	9.23
101	05940	435855	1261289	0.04	0.10	0.22	0.52	0.99	2.52	5.13	7.03	9.51	11.39	13.28
102	05981	456495	1208920	0.01	0.04	0.10	0.31	0.68	2.00	4.43	6.25	8.68	10.55	12.43
103	05999	436517	1151841	0.18	0.28	0.43	0.74	1.14	2.28	4.01	5.18	6.66	7.75	8.83
104	06068	492514	1083330	0.02	0.06	0.15	0.40	0.80	2.16	4.55	6.31	8.64	10.41	12.19
105	06071	512067	1051029	0.03	0.08	0.18	0.44	0.86	2.25	4.67	6.44	8.76	10.52	12.29
106	06066	417389	1089068	0.26	0.37	0.52	0.83	1.22	2.25	3.74	4.74	5.98	6.88	7.77
107	06074	448768	1012176	0.00	0.02	0.07	0.25	0.59	1.87	4.32	6.18	8.69	10.63	12.6
108	06243	401134	892714	0.00	0.01	0.06	0.23	0.55	1.82	4.24	6.11	8.62	10.56	12.54
109	06327	573876	726374	0.00	0.00	0.02	0.13	0.39	1.51	3.84	5.69	8.24	10.22	12.26
110	06237	732597	1010079	0.03	0.08	0.18	0.45	0.87	2.26	4.67	6.42	8.72	10.47	12.23
111	05808	683295	628267	0.02	0.05	0.11	0.26	0.51	1.34	2.77	3.82	5.19	6.24	7.29
112	06031	678230	1105129	0.02	0.06	0.14	0.41	0.84	2.36	5.07	7.09	9.77	11.81	13.87
113	05912	365149	1322578	0.11	0.19	0.31	0.61	1.02	2.24	4.19	5.55	7.29	8.59	9.89
114	06269	583269	852797	0.04	0.09	0.19	0.48	0.93	2.41	4.97	6.83	9.28	11.14	13.01
115	06271	597522	847377	0.04	0.10	0.21	0.50	0.95	2.43	4.96	6.80	9.20	11.02	12.85
116	06263	216752	818638	0.00	0.00	0.01	0.11	0.37	1.64	4.40	6.63	9.73	12.17	14.69
117	05880	329485	1369071	0.21	0.31	0.47	0.82	1.26	2.49	4.35	5.62	7.22	8.39	9.55
118	06187	743790	1042559	0.07	0.15	0.29	0.65	1.19	2.92	5.82	7.91	10.63	12.68	14.73
119	06166	557637	518472	0.01	0.02	0.07	0.20	0.45	1.33	2.95	4.16	5.79	7.03	8.29
120	06046	556384	1076704	0.05	0.12	0.23	0.53	0.96	2.35	4.69	6.37	8.55	10.2	11.85
121	05820	521305	874023	0.01	0.03	0.09	0.31	0.69	2.08	4.67	6.62	9.23	11.23	13.27
122	05915	356865	773499	0.02	0.06	0.16	0.43	0.88	2.43	5.20	7.24	9.95	12.02	14.1
123	06238	391538	999565	0.01	0.03	0.09	0.30	0.66	2.03	4.58	6.50	9.08	11.06	13.07
124	06192	674849	1198522	0.12	0.23	0.39	0.77	1.31	2.94	5.54	7.37	9.71	11.47	13.22
125	06182	790635	853021	0.12	0.22	0.37	0.73	1.23	2.72	5.1	6.78	8.92	10.52	12.12

126	06399	218370	1054921	0.09	0.17	0.29	0.60	1.03	2.34	4.48	5.98	7.92	9.37	10.82
127	06131	227513	1297131	0.08	0.16	0.30	0.63	1.10	2.58	4.99	6.71	8.93	10.0	12.27
128	06396	281243	1642309	0.08	0.15	0.28	0.59	1.02	2.38	4.58	6.15	8.17	9.69	11.2
129	06142	634746	1248050	0.06	0.12	0.23	0.51	0.93	2.26	4.49	6.08	8.16	9.73	11.3
130	06397	105297	1387049	0.29	0.44	0.66	1.13	1.74	3.46	6.05	7.81	10.03	11.66	13.28
131	06245	250708	79406	0.00	0.01	0.04	0.15	0.35	1.14	2.66	3.83	5.39	6.61	7.84
132	06162	234088	79500	0.00	0.01	0.03	0.13	0.33	1.10	2.59	3.74	5.30	6.5	7.73
133	06130	193525	1345960	0.32	0.47	0.68	1.13	1.70	3.26	5.57	7.13	9.08	10.51	11.92
134	06246	599437	206020	0.00	0.01	0.03	0.11	0.28	0.96	2.28	3.30	4.69	5.76	6.85
135	06194	243974	1654663	0.38	0.55	0.78	1.27	1.88	3.54	5.95	7.57	9.59	11.07	12.53
136	06401	623624	1357079	0.11	0.19	0.33	0.65	1.11	2.47	4.66	6.20	8.18	9.66	11.13
137	15091	138338	1764624	0.16	0.28	0.46	0.87	1.42	3.04	5.59	7.36	9.63	11.31	12.98
138	06256	392985	1532754	0.20	0.33	0.51	0.92	1.47	3.03	5.44	7.09	9.19	10.74	12.28
139	06398	134321	1340406	0.22	0.35	0.55	0.98	1.55	3.17	5.66	7.37	9.53	11.14	12.72
140	06847	419942	1629645	0.09	0.16	0.29	0.59	1.02	2.34	4.46	5.96	7.90	9.35	10.8
141	06848	425268	1623574	0.40	0.57	0.81	1.29	1.88	3.48	5.79	7.32	9.24	10.64	12.01
142	06165	659150	243843	0.00	0.01	0.05	0.17	0.39	1.24	2.84	4.05	5.68	6.94	8.22
143	06400	553473	1556881	0.13	0.23	0.39	0.75	1.24	2.69	4.99	6.59	8.64	10.16	11.68
144	06849	235413	1175990	0.06	0.13	0.25	0.55	1.00	2.45	4.86	6.59	8.8	10.54	12.24
145	06132	258989	1338132	0.24	0.37	0.56	0.95	1.46	2.89	5.04	6.5	8.33	9.69	11.02

Table D4. April Rainfall Return Periods for 147 stations in South Florida (DRP= Dry Return Periods in years, WRP= Wet Return Periods in years).

Serial number	Station Dbkey	Easting (ft)	Northing (ft)	100 DRP (inches)	50 DRP (inches)	20 DRP (inches)	10 DRP (inches)	5 DRP (inches)	Average(inches)	5 WRP (inches)	10 WRP (inches)	20 WRP (inches)	50 WRP (inches)	100 WRP (inches)
1	06303	754327	787696	0.00	0.01	0.05	0.22	0.54	1.84	4.36	6.31	8.95	11.00	13.08
2	05798	680541	675505	0.00	0.01	0.05	0.16	0.36	1.09	2.47	3.52	4.91	5.99	7.08
3	05922	294334	865035	0.00	0.01	0.05	0.19	0.45	1.47	3.42	4.92	6.94	8.50	10.09
4	06205	358851	1035308	0.02	0.06	0.13	0.32	0.62	1.64	3.39	4.68	6.37	7.65	8.94
5	06136	331927	1184254	0.06	0.12	0.22	0.48	0.87	2.08	4.09	5.53	7.40	8.81	10.22
6	06135	333930	1276041	0.01	0.02	0.07	0.23	0.51	1.55	3.47	4.92	6.85	8.34	9.85
7	05945	532644	866155	0.02	0.06	0.16	0.43	0.88	2.44	5.21	7.26	9.97	12.04	14.13
8	06047	525504	1118578	0.00	0.02	0.06	0.21	0.47	1.46	3.30	4.70	6.58	8.02	9.49
9	06207	620846	844509	0.03	0.08	0.18	0.44	0.84	2.17	4.48	6.15	8.36	10.03	11.71
10	06128	484688	899363	0.01	0.04	0.10	0.31	0.66	1.92	4.20	5.90	8.17	9.90	11.66
11	05813	416025	1423525	0.02	0.06	0.12	0.30	0.59	1.52	3.12	4.29	5.83	7.00	8.17
12	06157	621619	921248	0.00	0.00	0.01	0.12	0.37	1.57	4.13	6.19	9.04	11.27	13.58
13	06186	113082	801291	0.00	0.01	0.03	0.16	0.41	1.43	3.44	5.01	7.13	8.79	10.47
14	06129	249059	1507870	0.02	0.05	0.13	0.37	0.75	2.10	4.51	6.30	8.67	10.47	12.30
15	06168	736091	479102	0.17	0.28	0.46	0.85	1.39	2.98	5.45	7.16	9.35	10.97	12.59
16	05916	309025	745419	0.00	0.00	0.02	0.11	0.32	1.28	3.29	4.88	7.08	8.80	10.57
17	06178	762622	630699	0.01	0.04	0.11	0.33	0.70	2.00	4.36	6.12	8.45	10.24	12.04
18	06206	457975	824667	0.05	0.10	0.19	0.44	0.80	1.97	3.93	5.34	7.18	8.57	9.96
19	05800	762545	643219	0.00	0.00	0.01	0.11	0.41	1.94	5.38	8.19	12.11	15.22	18.43
20	06050	535800	1093341	0.00	0.02	0.05	0.18	0.40	1.23	2.78	3.95	5.52	6.73	7.96
21	06161	372647	549519	0.00	0.01	0.03	0.14	0.37	1.32	3.22	4.69	6.70	8.26	9.86
22	06210	528210	293638	0.02	0.06	0.12	0.31	0.59	1.54	3.18	4.38	5.95	7.15	8.35
23	06151	710834	1128714	0.03	0.07	0.16	0.42	0.83	2.22	4.64	6.42	8.76	10.53	12.32
24	06193	217472	817624	0.00	0.01	0.04	0.16	0.40	1.36	3.23	4.68	6.65	8.17	9.73
25	06015	657594	1102721	0.02	0.06	0.13	0.34	0.67	1.79	3.76	5.21	7.12	8.57	10.03
26	05801	752532	640634	0.01	0.04	0.10	0.32	0.69	2.03	4.47	6.30	8.74	10.61	12.51
27	05807	752149	628213	0.00	0.01	0.06	0.27	0.68	2.30	5.48	7.93	11.25	13.82	16.45
28	06154	471467	910780	0.02	0.07	0.15	0.37	0.73	1.94	4.05	5.59	7.62	9.16	10.71

29	06155	526650	880690	0.00	0.00	0.03	0.14	0.39	1.45	3.61	5.30	7.61	9.42	11.26
30	06241	593048	860492	0.00	0.01	0.04	0.16	0.42	1.44	3.47	5.05	7.19	8.85	10.54
31	06242	619862	919686	0.00	0.00	0.02	0.13	0.39	1.51	3.81	5.64	8.15	10.11	12.12
32	06073	566270	1044407	0.01	0.04	0.10	0.29	0.58	1.61	3.44	4.79	6.57	7.94	9.31
33	06175	734827	543508	0.03	0.09	0.20	0.53	1.04	2.76	5.78	7.99	10.90	13.11	15.34
34	06268	664918	424260	0.00	0.00	0.03	0.17	0.49	1.91	4.85	7.18	10.38	12.88	15.45
35	05815	681903	416049	0.00	0.00	0.03	0.18	0.50	1.89	4.72	6.95	10.00	12.38	14.82
36	06180	810575	806715	0.08	0.16	0.31	0.66	1.18	2.82	5.53	7.46	9.97	11.85	13.74
37	06082	363617	753789	0.00	0.00	0.03	0.17	0.48	1.78	4.43	6.51	9.36	11.58	13.86
38	06077	507142	992758	0.00	0.00	0.01	0.08	0.25	1.03	2.66	3.96	5.77	7.38	8.63
39	06144	330807	1508031	0.05	0.11	0.21	0.47	0.84	2.05	4.05	5.49	7.36	8.76	10.18
40	06049	556236	1117700	0.03	0.06	0.12	0.28	0.51	1.27	2.55	3.47	4.67	5.58	6.50
41	06147	365180	1435686	0.01	0.04	0.10	0.28	0.56	1.53	3.25	4.52	6.19	7.47	8.76
42	06305	355624	1438447	0.02	0.05	0.11	0.31	0.62	1.71	3.63	5.05	6.93	8.36	9.81
43	06146	365917	1441945	0.14	0.23	0.38	0.70	1.14	2.43	4.44	5.83	7.60	8.92	10.23
44	06133	268945	1369683	0.02	0.05	0.13	0.35	0.72	1.99	4.27	5.95	8.18	9.88	11.60
45	06145	427930	1470579	0.04	0.09	0.19	0.42	0.78	1.91	3.82	5.19	6.98	8.33	9.69
46	06278	438598	1446710	0.00	0.00	0.01	0.11	0.33	1.37	3.58	5.34	7.78	9.70	11.67
47	06150	375491	1072312	0.06	0.12	0.24	0.53	0.96	2.35	4.67	6.34	8.51	10.15	11.79
48	06158	356775	879515	0.04	0.08	0.18	0.42	0.79	2.01	4.09	5.60	7.58	9.07	10.57
49	05885	287610	826801	0.00	0.00	0.01	0.09	0.27	1.06	2.71	4.02	5.83	7.25	8.70
50	06197	504893	898250	0.03	0.07	0.16	0.40	0.78	2.07	4.31	5.95	8.11	9.75	11.40
51	06181	737004	856715	0.00	0.02	0.08	0.29	0.68	2.12	4.83	6.89	9.65	11.78	13.95
52	06290	759669	828886	0.00	0.01	0.06	0.24	0.61	2.07	4.92	7.12	10.11	12.42	14.79
53	06321	771113	771605	0.03	0.09	0.19	0.47	0.90	2.35	4.85	6.67	9.06	10.88	12.70
54	06299	771212	798465	0.01	0.05	0.13	0.39	0.83	2.40	5.26	7.40	10.24	12.42	14.62
55	06276	785339	831476	0.00	0.01	0.06	0.26	0.63	2.10	4.94	7.14	10.10	12.39	14.73
56	06306	786766	782109	0.01	0.04	0.11	0.35	0.77	2.29	5.07	7.15	9.94	12.08	14.24
57	06302	760659	786483	0.00	0.02	0.08	0.29	0.67	2.11	4.83	6.90	9.67	11.81	13.99
58	06322	759988	777391	0.01	0.04	0.11	0.33	0.71	2.04	4.47	6.28	8.69	10.53	12.40
59	06298	786400	795839	0.01	0.03	0.09	0.31	0.71	2.19	4.98	7.08	9.91	12.09	14.30
60	05793	776953	740544	0.00	0.02	0.08	0.28	0.67	2.17	5.02	7.21	10.14	12.41	14.72

61	05792	760266	747203	0.00	0.02	0.07	0.28	0.67	2.19	5.11	7.34	10.36	12.70	15.07
62	06172	786202	526653	0.01	0.04	0.10	0.31	0.65	1.91	4.20	5.91	8.20	9.94	11.71
63	06249	737977	502333	0.08	0.16	0.28	0.59	1.04	2.42	4.67	6.27	8.33	9.88	11.43
64	06265	563221	853469	0.00	0.00	0.01	0.12	0.39	1.68	4.49	6.76	9.91	12.39	14.95
65	06174	735762	539676	0.01	0.05	0.14	0.40	0.83	2.37	5.15	7.22	9.97	12.08	14.20
66	05810	715639	543206	0.00	0.02	0.09	0.30	0.69	2.18	4.98	7.11	9.98	12.18	14.42
67	06051	559601	1097510	0.00	0.01	0.05	0.18	0.41	1.30	2.98	4.26	5.98	7.30	8.65
68	06134	305910	1310403	0.02	0.05	0.12	0.33	0.68	1.86	3.96	5.51	7.56	9.12	10.69
69	06160	240884	667430	0.00	0.00	0.02	0.12	0.34	1.23	3.04	4.45	6.38	7.89	9.43
70	06258	651660	727792	0.00	0.00	0.02	0.12	0.37	1.48	3.81	5.66	8.21	10.21	12.26
71	06070	569040	1061376	0.02	0.05	0.11	0.28	0.54	1.44	2.99	4.12	5.62	6.75	7.89
72	06052	572876	1086121	0.00	0.01	0.03	0.14	0.36	1.23	2.95	4.28	6.09	7.48	8.91
73	06218	382265	1526726	0.03	0.08	0.17	0.43	0.84	2.22	4.63	6.39	8.70	10.46	12.23
74	05838	642244	901321	0.00	0.01	0.03	0.15	0.40	1.42	3.45	5.04	7.20	8.88	10.60
75	05839	654787	890764	0.00	0.00	0.03	0.15	0.43	1.63	4.08	6.01	8.66	10.72	12.84
76	06093	397630	941692	0.00	0.00	0.02	0.13	0.34	1.27	3.13	4.60	6.60	8.15	9.75
77	06222	624710	887230	0.00	0.01	0.04	0.21	0.56	2.01	4.93	7.20	10.30	12.71	15.18
78	05837	625984	915303	0.01	0.00	0.00	0.06	0.26	1.41	4.13	6.41	9.63	12.19	14.86
79	06125	629618	911781	0.00	0.00	0.01	0.10	0.33	1.45	3.88	5.85	8.59	10.74	12.97
80	06253	680128	578682	0.00	0.00	0.03	0.18	0.54	2.17	5.58	8.30	12.04	14.96	17.97
81	05966	806049	866562	0.02	0.06	0.16	0.44	0.89	2.49	5.35	7.46	10.26	12.39	14.55
82	06179	778640	691382	0.02	0.07	0.17	0.46	0.95	2.65	5.69	7.94	10.93	13.21	15.51
83	05796	781829	691201	0.01	0.05	0.12	0.34	0.71	1.99	4.30	6.02	8.29	10.03	11.78
84	06122	726776	934919	0.00	0.01	0.05	0.19	0.46	1.53	3.59	5.18	7.32	8.98	10.68
85	06138	157880	946317	0.00	0.02	0.06	0.23	0.56	1.84	4.29	6.17	8.71	10.67	12.67
86	06139	174122	939723	0.03	0.06	0.12	0.28	0.51	1.28	2.58	3.52	4.75	5.67	6.60
87	06048	545793	1107892	0.00	0.02	0.06	0.20	0.45	1.38	3.10	4.41	6.15	7.50	8.86
88	06225	550416	866577	0.00	0.00	0.03	0.17	0.48	1.80	4.49	6.60	9.50	11.75	14.07
89	06202	633984	382765	0.00	0.00	0.01	0.11	0.37	1.62	4.37	6.59	9.69	12.12	14.64
90	06224	606168	872235	0.00	0.02	0.06	0.23	0.55	1.76	4.06	5.83	8.20	10.04	11.90
91	05806	759705	630379	0.01	0.03	0.10	0.33	0.74	2.25	5.05	7.17	10.01	12.19	14.41
92	06120	470598	961466	0.01	0.02	0.07	0.21	0.46	1.35	2.97	4.19	5.81	7.06	8.32

93	05818	656800	362549	0.00	0.00	0.01	0.09	0.32	1.49	4.11	6.26	9.26	11.63	14.09
94	05817	705827	375929	0.01	0.03	0.08	0.24	0.54	1.61	3.58	5.06	7.04	8.57	10.11
95	05816	715205	410831	0.00	0.01	0.04	0.17	0.44	1.53	3.69	5.36	7.63	9.39	11.19
96	06227	562849	859627	0.00	0.01	0.04	0.17	0.44	1.56	3.80	5.54	7.92	9.76	11.64
97	06119	624298	963865	0.00	0.02	0.07	0.24	0.55	1.70	3.83	5.45	7.62	9.29	10.98
98	05797	769437	669375	0.01	0.00	0.00	0.09	0.37	1.92	5.48	8.44	12.59	15.89	19.31
99	06274	706442	854841	0.00	0.01	0.03	0.17	0.46	1.70	4.18	6.12	8.78	10.85	12.96
100	06324	681288	777584	0.00	0.00	0.01	0.10	0.32	1.30	3.37	5.02	7.29	9.07	10.90
101	05940	435855	1261289	0.00	0.02	0.06	0.21	0.50	1.56	3.58	5.11	7.17	8.76	10.37
102	05981	456495	1208920	0.00	0.00	0.01	0.10	0.31	1.22	3.14	4.67	6.77	8.42	10.11
103	05999	436517	1151841	0.00	0.00	0.02	0.10	0.31	1.23	3.15	4.68	6.78	8.43	10.12
104	06068	492514	1083330	0.00	0.00	0.02	0.11	0.29	1.04	2.55	3.74	5.35	6.61	7.90
105	06071	512067	1051029	0.00	0.01	0.04	0.18	0.44	1.47	3.48	5.03	7.12	8.74	10.40
106	06066	417389	1089068	0.00	0.00	0.01	0.09	0.26	1.08	2.81	4.19	6.10	7.59	9.13
107	06074	448768	1012176	0.00	0.00	0.01	0.07	0.24	1.00	2.63	3.94	5.75	7.18	8.64
108	06243	401134	892714	0.00	0.00	0.03	0.14	0.39	1.46	3.63	5.33	7.66	9.48	11.34
109	06327	573876	726374	0.00	0.01	0.04	0.18	0.45	1.57	3.77	5.47	7.79	9.59	11.42
110	06237	732597	1010079	0.00	0.02	0.07	0.26	0.62	2.02	4.71	6.77	9.55	11.70	13.88
111	05808	683295	628267	0.00	0.00	0.03	0.16	0.44	1.63	4.05	5.95	8.55	10.57	12.65
112	06031	678230	1105129	0.00	0.00	0.02	0.15	0.43	1.71	4.38	6.50	9.41	11.68	14.02
113	05912	365149	1322578	0.00	0.00	0.03	0.15	0.42	1.52	3.73	5.46	7.83	9.67	11.55
114	06269	583269	852797	0.00	0.00	0.02	0.15	0.45	1.80	4.66	6.93	10.07	12.53	15.06
115	06271	597522	847377	0.00	0.02	0.06	0.26	0.62	2.06	4.83	6.97	9.84	12.07	14.34
116	06263	216752	818638	0.00	0.00	0.02	0.09	0.27	1.01	2.52	3.71	5.34	6.61	7.92
117	05880	329485	1369071	0.00	0.00	0.01	0.08	0.24	0.94	2.38	3.52	5.09	6.31	7.57
118	06187	743790	1042559	0.01	0.04	0.12	0.35	0.74	2.16	4.74	6.66	9.23	11.19	13.18
119	06166	557637	518472	0.01	0.04	0.11	0.31	0.65	1.84	4.00	5.60	7.73	9.36	11.00
120	06046	556384	1076704	0.00	0.02	0.06	0.20	0.45	1.34	2.99	4.24	5.90	7.17	8.47
121	05820	521305	874023	0.00	0.00	0.03	0.18	0.49	1.83	4.52	6.64	9.53	11.79	14.10
122	05915	356865	773499	0.00	0.00	0.02	0.10	0.29	1.14	2.90	4.29	6.21	7.70	9.24
123	06238	391538	999565	0.01	0.03	0.08	0.24	0.52	1.54	3.41	4.81	6.67	8.10	9.55
124	06192	674849	1198522	0.05	0.10	0.19	0.41	0.74	1.78	3.49	4.71	6.29	7.49	8.68

125	06182	790635	853021	0.01	0.05	0.13	0.41	0.87	2.56	5.64	7.95	11.03	13.39	15.78
126	06399	218370	1054921	0.01	0.04	0.10	0.30	0.64	1.83	4.00	5.61	7.76	9.40	11.06
127	06131	227513	1297131	0.05	0.11	0.21	0.49	0.90	2.25	4.53	6.17	8.32	9.94	11.56
128	06396	281243	1642309	0.14	0.23	0.37	0.68	1.09	2.29	4.16	5.45	7.09	8.30	9.51
129	06142	634746	1248050	0.15	0.25	0.40	0.75	1.22	2.59	4.73	6.21	8.10	9.50	10.90
130	06397	105297	1387049	0.11	0.18	0.31	0.60	1.00	2.19	4.07	5.39	7.08	8.34	9.59
131	06245	250708	79406	0.01	0.00	0.00	0.04	0.21	1.19	3.55	5.53	8.34	10.58	12.91
132	06162	234088	79500	0.00	0.00	0.03	0.14	0.36	1.29	3.16	4.62	6.61	8.16	9.74
133	06130	193525	1345960	0.02	0.06	0.15	0.38	0.75	2.00	4.18	5.78	7.89	9.49	11.11
134	06246	599437	206020	0.00	0.00	0.01	0.09	0.27	1.14	2.98	4.46	6.51	8.11	9.77
135	06194	243974	1654663	0.03	0.07	0.15	0.39	0.76	2.02	4.20	5.81	7.92	9.52	11.14
136	06401	623624	1357079	0.02	0.06	0.13	0.33	0.65	1.71	3.55	4.89	6.66	8.00	9.35
137	15091	138338	1764624	0.04	0.09	0.19	0.47	0.91	2.36	4.87	6.70	9.10	10.92	12.75
138	06256	392985	1532754	0.05	0.10	0.20	0.44	0.80	1.94	3.86	5.23	7.01	8.36	9.71
139	06398	134321	1340406	0.02	0.07	0.16	0.40	0.79	2.11	4.42	6.11	8.34	10.04	11.75
140	06847	419942	1629645	0.18	0.28	0.43	0.77	1.21	2.46	4.37	5.67	7.33	8.55	9.76
141	06848	425268	1623574	0.04	0.08	0.17	0.39	0.72	1.82	3.67	5.01	6.76	8.08	9.41
142	06165	659150	243843	0.00	0.01	0.05	0.19	0.47	1.53	3.56	5.12	7.23	8.86	10.51
143	06400	553473	1556881	0.06	0.13	0.25	0.54	0.98	2.35	4.64	6.27	8.40	10.00	11.61
144	06849	235413	1175990	0.00	0.01	0.06	0.23	0.57	1.86	4.36	6.27	8.86	10.86	12.90
145	06132	258989	1338132	0.02	0.05	0.12	0.32	0.63	1.70	3.57	4.94	6.75	8.13	9.52

Table D5. May Rainfall Return Periods for 147 stations in South Florida (DRP= Dry Return Periods in years, WRP= Wet Return Periods in years).

Serial number	Station Dbkey	Easting (ft)	Northing (ft)	100 DRP (inches)	50 DRP (inches)	20 DRP (inches)	10 DRP (inches)	5 DRP (inches)	Average(inches)	5 WRP (inches)	10 WRP (inches)	20 WRP (inches)	50 WRP (inches)	100 WRP (inches)
1	06303	754327	787696	0.43	0.64	0.95	1.62	2.47	4.84	8.38	10.77	13.79	16.01	18.20
2	05798	630541	675505	0.13	0.25	0.45	0.94	1.66	3.88	7.50	10.08	13.42	15.92	18.42
3	05922	294334	865035	0.06	0.14	0.28	0.65	1.21	3.03	6.12	8.35	11.27	13.48	15.69
4	06205	358851	1035308	0.89	1.10	1.36	1.84	2.38	3.69	5.41	6.49	7.79	8.72	9.61
5	06136	331927	1184254	0.45	0.64	0.90	1.43	2.09	3.85	6.40	8.09	10.20	11.74	13.26
6	06135	333930	1276041	0.35	0.52	0.75	1.24	1.87	3.58	6.10	7.80	9.93	11.49	13.03
7	05945	532644	866155	0.72	0.95	1.26	1.86	2.56	4.37	6.88	8.51	10.50	11.95	13.35
8	06047	525504	1118578	0.03	0.09	0.21	0.56	1.14	3.12	6.63	9.21	12.63	15.24	17.86
9	06207	620846	844509	0.67	0.89	1.19	1.77	2.47	4.28	6.79	8.44	10.46	11.92	13.35
10	06128	484688	899363	0.76	0.98	1.29	1.86	2.54	4.27	6.64	8.17	10.04	11.39	12.71
11	05813	416025	1423525	0.06	0.13	0.27	0.64	1.21	3.05	6.17	8.43	11.38	13.62	15.86
12	06157	621619	921248	0.65	0.87	1.17	1.76	2.47	4.32	6.91	8.61	10.70	12.21	13.69
13	06186	113082	801291	0.12	0.20	0.33	0.63	1.04	2.25	4.17	5.50	7.20	8.47	9.73
14	06129	249059	1507870	0.29	0.43	0.65	1.10	1.68	3.29	5.71	7.35	9.41	10.93	12.43
15	06168	736091	479102	0.64	0.91	1.28	2.03	2.96	5.44	9.02	11.41	14.38	16.55	18.67
16	05916	309025	745419	0.22	0.36	0.56	1.02	1.62	3.34	5.99	7.81	10.12	11.83	13.53
17	06178	762622	630699	0.25	0.42	0.68	1.25	2.02	4.26	7.75	10.17	13.24	15.52	17.79
18	06200	457975	824667	0.63	0.83	1.11	1.64	2.28	3.91	6.18	7.65	9.47	10.78	12.06
19	05800	762545	643219	0.58	0.85	1.24	2.07	3.12	6.01	10.28	13.16	16.78	19.43	22.04
20	06050	535800	1093341	0.03	0.09	0.21	0.59	1.22	3.40	7.29	10.17	13.98	16.90	19.84
21	06101	372647	549519	0.16	0.29	0.49	0.98	1.65	3.69	6.95	9.23	12.17	14.36	16.55
22	06210	528210	293638	0.09	0.20	0.41	0.94	1.74	4.34	8.72	11.89	16.02	19.14	22.27
23	06151	710834	1128714	0.43	0.61	0.86	1.38	2.03	3.76	6.28	7.96	10.06	11.59	13.09
24	06193	217472	817624	0.22	0.36	0.56	1.00	1.58	3.24	5.79	7.54	9.76	11.40	13.03
25	06015	657594	1102721	0.37	0.56	0.83	1.39	2.11	4.10	7.08	9.08	11.61	13.47	15.30
26	05801	752532	640634	0.16	0.31	0.57	1.18	2.07	4.80	9.26	12.43	16.52	19.59	22.65
27	05807	752149	628213	0.31	0.52	0.85	1.59	2.60	5.54	10.15	13.34	17.41	20.44	23.45
28	06154	471467	910780	0.42	0.61	0.87	1.40	2.06	3.86	6.49	8.24	10.44	12.04	13.61

29	06155	526650	880690	0.47	0.67	0.96	1.54	2.28	4.26	7.15	9.08	11.49	13.25	14.99
30	06241	593048	860492	1.11	1.37	1.70	2.31	2.99	4.66	6.85	8.23	9.90	11.08	12.23
31	06242	619862	919686	0.43	0.60	0.85	1.35	1.96	3.61	5.99	7.57	9.54	10.97	12.38
32	06073	566270	1044407	0.11	0.20	0.35	0.72	1.24	2.82	5.37	7.17	9.50	11.23	12.97
33	06175	734827	543508	0.32	0.53	0.84	1.55	2.50	5.25	9.51	12.46	16.22	19.00	21.76
34	06268	664918	424260	0.33	0.53	0.83	1.51	2.41	4.99	8.98	11.72	15.20	17.79	20.35
35	05815	681903	416049	0.92	1.22	1.62	2.41	3.34	5.75	9.11	11.30	13.99	15.93	17.83
36	06180	810575	806715	0.60	0.82	1.11	1.70	2.40	4.25	6.87	8.58	10.71	12.25	13.76
37	06082	363617	753789	0.18	0.33	0.57	1.12	1.90	4.23	7.96	10.58	13.95	16.46	18.96
38	06077	507142	992758	0.01	0.05	0.14	0.42	0.90	2.62	5.77	8.12	11.26	13.67	16.11
39	06144	330807	1508031	0.56	0.76	1.03	1.56	2.20	3.86	6.19	7.73	9.62	10.99	12.33
40	06049	556236	1117700	0.04	0.10	0.23	0.58	1.15	3.04	6.33	8.75	11.93	14.34	16.77
41	06147	365180	1435686	0.41	0.58	0.82	1.30	1.90	3.51	5.84	7.39	9.33	10.74	12.12
42	06305	355624	1438447	0.41	0.58	0.82	1.30	1.90	3.51	5.84	7.40	9.34	10.75	12.14
43	06146	365917	1441945	0.26	0.41	0.63	1.10	1.72	3.47	6.12	7.93	10.22	11.91	13.58
44	06133	268945	1369683	0.24	0.39	0.61	1.09	1.73	3.55	6.35	8.27	10.71	12.52	14.31
45	06145	427930	1470579	0.10	0.18	0.32	0.67	1.15	2.63	5.03	6.72	8.91	10.55	12.18
46	06278	438598	1446710	0.24	0.38	0.61	1.11	1.77	3.69	6.65	8.69	11.28	13.20	15.11
47	06150	375491	1072312	0.19	0.32	0.51	0.95	1.53	3.24	5.90	7.74	10.09	11.83	13.56
48	06158	356775	879515	0.19	0.33	0.54	1.01	1.66	3.56	6.54	8.60	11.25	13.21	15.17
49	05885	287610	826801	0.25	0.39	0.61	1.09	1.73	3.55	6.34	8.25	10.67	12.47	14.24
50	06197	504893	898250	0.79	1.02	1.33	1.91	2.60	4.33	6.70	8.22	10.08	11.43	12.73
51	06181	737004	856115	0.87	1.13	1.49	2.16	2.95	4.97	7.75	9.54	11.74	13.32	14.86
52	06290	759669	828886	0.53	0.76	1.10	1.78	2.64	4.96	8.36	10.64	13.48	15.56	17.61
53	06321	771113	771605	0.37	0.58	0.89	1.58	2.48	5.04	8.94	11.61	14.99	17.49	19.97
54	06299	771212	798465	0.43	0.66	0.98	1.66	2.54	4.98	8.63	11.10	14.21	16.51	18.77
55	06276	785339	831476	0.55	0.80	1.15	1.86	2.76	5.19	8.75	11.13	14.11	16.29	18.43
56	06306	786766	782109	0.46	0.69	1.04	1.78	2.72	5.37	9.33	12.02	15.41	17.91	20.37
57	06302	760659	786483	0.29	0.49	0.81	1.52	2.49	5.34	9.80	12.89	16.85	19.79	22.71
58	06322	759988	777391	0.43	0.67	1.02	1.77	2.74	5.48	9.63	12.45	16.02	18.65	21.25
59	06298	786400	795839	0.34	0.54	0.85	1.54	2.44	5.05	9.06	11.81	15.31	17.90	20.46
60	05793	776953	740544	0.39	0.61	0.94	1.64	2.57	5.18	9.16	11.88	15.32	17.86	20.37

61	05792	760266	747203	0.66	0.93	1.31	2.08	3.04	5.61	9.33	11.81	14.90	17.15	19.36
62	06172	786202	526653	0.17	0.31	0.53	1.06	1.79	4.00	7.54	10.02	13.21	15.60	17.98
63	06249	737977	502333	0.09	0.21	0.42	1.00	1.87	4.70	9.51	13.00	17.55	20.99	24.45
64	06265	563221	853469	1.07	1.32	1.64	2.24	2.92	4.58	6.77	8.15	9.82	11.01	12.16
65	06174	735762	539676	0.22	0.39	0.66	1.30	2.17	4.79	8.97	11.89	15.64	18.43	21.22
66	05810	715639	543206	0.38	0.59	0.90	1.58	2.46	4.97	8.77	11.37	14.65	17.08	19.48
67	06051	559601	1097510	0.03	0.08	0.20	0.56	1.14	3.17	6.76	9.43	12.95	15.64	18.35
68	06134	305910	1310403	0.26	0.40	0.62	1.08	1.70	3.43	6.08	7.88	10.17	11.86	13.53
69	06160	240884	667430	0.13	0.24	0.42	0.86	1.48	3.36	6.39	8.54	11.29	13.36	15.42
70	06258	651660	727792	0.64	0.89	1.24	1.94	2.80	5.10	8.39	10.57	13.27	15.24	17.18
71	06070	569040	1061376	0.06	0.14	0.29	0.70	1.33	3.39	6.92	9.49	12.85	15.39	17.95
72	06052	572876	1086121	0.03	0.10	0.23	0.63	1.26	3.44	7.30	10.14	13.90	16.76	19.65
73	06218	382265	1526726	0.43	0.62	0.89	1.45	2.14	4.02	6.78	8.62	10.92	12.61	14.27
74	05838	642244	901321	0.27	0.44	0.69	1.24	1.98	4.09	7.33	9.57	12.40	14.50	16.58
75	05839	654787	890764	0.27	0.44	0.69	1.27	2.03	4.25	7.67	10.03	13.03	15.26	17.47
76	06093	397630	941692	0.47	0.69	1.00	1.65	2.47	4.73	8.04	10.28	13.07	15.12	17.14
77	06222	624710	887230	0.50	0.72	1.02	1.64	2.41	4.48	7.49	9.50	12.00	13.83	15.63
78	05837	625984	915303	0.08	0.18	0.34	0.75	1.36	3.28	6.49	8.78	11.77	14.02	16.27
79	06125	629618	911781	0.38	0.56	0.81	1.33	1.98	3.76	6.39	8.15	10.35	11.97	13.56
80	06253	680128	578682	0.30	0.47	0.73	1.28	2.00	4.05	7.18	9.31	12.01	14.01	15.98
81	05966	806049	866562	0.42	0.62	0.93	1.57	2.39	4.67	8.07	10.37	13.27	15.40	17.50
82	06179	778640	691382	0.21	0.38	0.65	1.29	2.16	4.80	9.01	11.96	15.75	18.57	21.39
83	05796	781829	691201	0.49	0.74	1.12	1.93	2.97	5.90	10.31	13.30	17.08	19.86	22.61
84	06122	726776	934919	0.48	0.68	0.97	1.56	2.30	4.29	7.18	9.11	11.52	13.29	15.02
85	06138	157880	946317	0.12	0.22	0.39	0.78	1.34	3.04	5.79	7.72	10.22	12.08	13.94
86	06139	174122	939723	0.05	0.11	0.24	0.57	1.09	2.82	5.78	7.93	10.75	12.89	15.04
87	06048	545793	1107892	0.07	0.16	0.32	0.73	1.36	3.37	6.76	9.21	12.41	14.82	17.24
88	06225	550416	866577	0.95	1.20	1.53	2.15	2.86	4.63	7.02	8.54	10.39	11.72	13.00
89	06202	633984	382765	0.37	0.59	0.92	1.64	2.59	5.32	9.49	12.36	15.99	18.68	21.34
90	06224	606168	872235	0.79	1.04	1.38	2.04	2.83	4.85	7.65	9.48	11.72	13.34	14.92
91	05806	759705	630379	0.05	0.13	0.32	0.84	1.68	4.56	9.63	13.37	18.29	22.05	25.83
92	06120	470598	961466	0.46	0.63	0.86	1.33	1.90	3.41	5.56	6.98	8.74	10.02	11.27

93	05818	656800	362549	0.62	0.85	1.18	1.83	2.63	4.74	7.75	9.74	12.21	14.01	15.77
94	05817	705827	375929	0.33	0.50	0.73	1.23	1.88	3.65	6.29	8.08	10.33	11.98	13.61
95	05816	715205	410831	0.02	0.08	0.20	0.57	1.18	3.34	7.23	10.11	13.94	16.86	19.82
96	06227	562849	859627	0.33	0.52	0.79	1.39	2.17	4.37	7.71	10.00	12.88	15.01	17.12
97	06119	624298	963865	0.13	0.24	0.42	0.87	1.49	3.41	6.53	8.72	11.56	13.68	15.80
98	05797	769437	669375	0.22	0.38	0.63	1.19	1.96	4.24	7.83	10.32	13.52	15.89	18.25
99	06274	706442	854841	0.73	0.96	1.26	1.84	2.53	4.29	6.71	8.28	10.20	11.59	12.94
100	06324	681288	777584	0.30	0.47	0.71	1.23	1.91	3.83	6.72	8.69	11.19	13.03	14.84
101	05940	435855	1261289	0.24	0.38	0.60	1.06	1.66	3.40	6.05	7.86	10.16	11.86	13.55
102	05981	456495	1208920	0.01	0.04	0.13	0.45	1.00	3.05	6.86	9.74	13.59	16.56	19.57
103	05999	436517	1151841	0.46	0.62	0.84	1.29	1.82	3.22	5.19	6.49	8.09	9.26	10.39
104	06068	492514	1083330	0.50	0.69	0.95	1.46	2.08	3.70	6.02	7.54	9.43	10.80	12.14
105	06071	512067	1051029	0.30	0.45	0.68	1.15	1.76	3.45	5.98	7.70	9.86	11.46	13.03
106	06066	417389	1089068	0.28	0.42	0.62	1.04	1.58	3.09	5.34	6.85	8.76	10.17	11.55
107	06074	448768	1012176	0.48	0.67	0.93	1.45	2.10	3.82	6.28	7.91	9.94	11.41	12.86
108	06243	401134	892714	0.58	0.77	1.03	1.54	2.16	3.74	5.95	7.39	9.17	10.46	11.71
109	06327	573876	726374	0.54	0.76	1.06	1.66	2.39	4.36	7.17	9.04	11.36	13.05	14.71
110	06237	732597	1010079	0.19	0.34	0.58	1.15	1.95	4.35	8.19	10.89	14.36	16.95	19.53
111	05808	683295	628267	0.38	0.56	0.82	1.37	2.06	3.98	6.82	8.73	11.13	12.89	14.63
112	06031	678230	1105129	0.25	0.40	0.63	1.15	1.84	3.81	6.85	8.95	11.61	13.59	15.54
113	05912	365149	1322578	0.01	0.05	0.15	0.44	0.93	2.69	5.90	8.30	11.49	13.93	16.40
114	06269	583269	852797	1.05	1.32	1.67	2.32	3.08	4.93	7.42	9.00	10.91	12.28	13.61
115	06271	597522	847377	0.82	1.06	1.37	1.97	2.66	4.42	6.81	8.35	10.23	11.59	12.90
116	06263	216752	818638	0.23	0.37	0.57	1.00	1.57	3.18	5.65	7.33	9.47	11.04	12.60
117	05880	329485	1369071	0.39	0.54	0.75	1.17	1.68	3.05	5.01	6.31	7.92	9.09	10.24
118	06187	743790	1042559	0.62	0.84	1.15	1.77	2.52	4.48	7.27	9.11	11.38	13.03	14.64
119	06166	557637	518472	0.27	0.44	0.71	1.31	2.11	4.43	8.04	10.54	13.72	16.08	18.41
120	06046	556384	1076704	0.01	0.04	0.12	0.41	0.94	2.93	6.66	9.50	13.30	16.22	19.19
121	05820	521305	874023	0.89	1.14	1.46	2.07	2.79	4.58	7.00	8.55	10.44	11.80	13.12
122	05915	356865	773499	0.15	0.26	0.45	0.90	1.52	3.41	6.42	8.54	11.27	13.30	15.33
123	06238	391538	999565	0.59	0.80	1.08	1.62	2.28	4.00	6.42	8.00	9.95	11.36	12.74
124	06192	674849	1198522	0.42	0.61	0.87	1.42	2.10	3.96	6.67	8.49	10.76	12.42	14.06

125	06182	790635	853021	0.40	0.62	0.93	1.59	2.44	4.83	8.42	10.86	13.93	16.19	18.43
126	06399	218370	1054921	0.17	0.29	0.48	0.89	1.46	3.11	5.69	7.48	9.76	11.46	13.14
127	06131	227513	1297131	0.15	0.27	0.48	0.98	1.69	3.86	7.37	9.85	13.05	15.44	17.83
128	06396	281243	1642309	0.33	0.48	0.70	1.17	1.76	3.39	5.81	7.43	9.47	10.97	12.44
129	06142	634746	1248050	0.74	0.95	1.24	1.78	2.42	4.04	6.25	7.68	9.42	10.67	11.89
130	06397	105297	1387049	0.12	0.22	0.38	0.74	1.25	2.78	5.23	6.95	9.15	10.79	12.43
131	06245	250708	79406	0.02	0.05	0.14	0.40	0.83	2.35	5.09	7.13	9.83	11.90	13.98
132	06162	234088	79500	0.00	0.02	0.08	0.29	0.67	2.15	4.97	7.12	10.01	12.24	14.51
133	06130	193525	1345960	0.27	0.41	0.63	1.11	1.73	3.48	6.14	7.96	10.25	11.95	13.62
134	06246	599437	206020	0.20	0.33	0.53	0.98	1.58	3.33	6.05	7.94	10.34	12.12	13.89
135	06194	243974	1654663	0.33	0.49	0.72	1.19	1.79	3.44	5.88	7.52	9.58	11.09	12.57
136	06401	623624	1357079	0.24	0.37	0.57	1.01	1.59	3.23	5.73	7.43	9.60	11.20	12.78
137	15091	138338	1764624	0.23	0.37	0.59	1.06	1.70	3.53	6.35	8.29	10.76	12.58	14.40
138	06256	392985	1532754	0.37	0.50	0.69	1.07	1.54	2.76	4.49	5.64	7.06	8.09	9.11
139	06398	134321	1340406	0.24	0.37	0.57	1.00	1.56	3.15	5.57	7.23	9.32	10.86	12.39
140	06847	419942	1629645	0.41	0.58	0.80	1.25	1.81	3.28	5.40	6.80	8.54	9.80	11.05
141	06848	425268	1623574	0.31	0.45	0.64	1.06	1.57	2.99	5.07	6.47	8.22	9.50	10.76
142	06165	659150	243843	0.20	0.33	0.55	1.03	1.69	3.63	6.67	8.78	11.47	13.48	15.47
143	06400	553473	1556881	0.28	0.43	0.65	1.13	1.74	3.46	6.06	7.82	10.05	11.69	13.31
144	06849	235413	1175990	0.13	0.24	0.41	0.83	1.42	3.20	6.07	8.09	10.69	12.63	14.57
145	06132	258989	1338132	0.26	0.39	0.59	1.02	1.58	3.14	5.49	7.09	9.10	10.59	12.06

Table D6. June Rainfall Return Periods for 147 stations in South Florida (DRP= Dry Return Periods in years, WRP= Wet Return Periods in years).

Serial number	Station Dbkey	Easting (ft)	Northing (ft)	100 DRP (inches)	50 DRP (inches)	20 DRP (inches)	10 DRP (inches)	5 DRP (inches)	Average(inches)	5 WRP (inches)	10 WRP (inches)	20 WRP (inches)	50 WRP (inches)	100 WRP (inches)
1	06303	754327	787696	1.71	2.11	2.62	3.57	4.64	7.24	10.67	12.83	15.44	17.30	19.10
2	05798	680541	675505	1.33	1.74	2.29	3.36	4.62	7.84	12.30	15.18	18.73	21.28	23.77
3	05922	294334	865035	1.75	2.20	2.79	3.90	5.17	8.32	12.54	15.23	18.49	20.83	23.09
4	06205	358851	1035308	1.71	2.13	2.68	3.69	4.85	7.70	11.49	13.89	16.80	18.87	20.88
5	06136	331927	1184254	2.34	2.77	3.30	4.26	5.32	7.80	10.95	12.89	15.20	16.83	18.39
6	06135	333930	1276041	1.41	1.78	2.26	3.16	4.19	6.74	10.17	12.35	15.00	16.90	18.74
7	05945	532644	866155	1.72	2.13	2.65	3.63	4.74	7.46	11.05	13.32	16.07	18.02	19.91
8	06047	525504	1118578	0.38	0.62	0.97	1.76	2.80	5.80	10.43	13.61	17.65	20.65	23.62
9	06207	620846	844509	1.26	1.67	2.21	3.27	4.52	7.73	12.19	15.08	18.64	21.21	23.72
10	06128	484688	899363	1.93	2.33	2.84	3.77	4.81	7.30	10.52	12.53	14.94	16.65	18.29
11	05813	416025	1423525	1.18	1.53	2.01	2.92	3.99	6.72	10.47	12.90	15.87	18.01	20.10
12	06157	621619	921248	1.83	2.23	2.75	3.71	4.79	7.39	10.79	12.93	15.50	17.33	19.10
13	06186	113082	801291	0.69	0.95	1.30	2.02	2.89	5.19	8.48	10.65	13.34	15.29	17.21
14	06129	249059	1507870	1.91	2.28	2.76	3.61	4.56	6.81	9.69	11.48	13.62	15.13	16.58
15	06168	736091	479102	0.63	0.93	1.34	2.21	3.30	6.28	10.68	13.63	17.33	20.04	22.71
16	05916	309025	745419	3.00	3.54	4.21	5.40	6.71	9.76	13.62	16.00	18.82	20.81	22.71
17	06178	762622	630699	0.83	1.14	1.58	2.46	3.53	6.38	10.45	13.13	16.47	18.90	21.28
18	06206	457975	824667	2.27	2.76	3.39	4.53	5.82	8.92	12.96	15.49	18.53	20.69	22.77
19	05800	762545	643219	3.59	4.06	4.64	5.64	6.69	9.06	11.93	13.65	15.66	17.05	18.38
20	06050	535800	1093341	0.15	0.32	0.61	1.32	2.38	5.70	11.21	15.15	20.26	24.11	27.96
21	06161	372647	549519	1.37	1.81	2.40	3.55	4.92	8.43	13.32	16.49	20.39	23.21	25.96
22	06210	528210	293638	0.66	0.97	1.42	2.36	3.56	6.84	11.70	14.97	19.08	22.10	25.07
23	06151	710834	1128714	0.93	1.21	1.59	2.33	3.20	5.42	8.48	10.46	12.89	14.64	16.35
24	06193	217472	817624	2.40	2.87	3.47	4.55	5.74	8.57	12.21	14.47	17.16	19.07	20.90
25	06015	657594	1102721	1.20	1.54	1.99	2.85	3.85	6.38	9.81	12.02	14.71	16.65	18.53
26	05801	752532	640634	1.73	2.16	2.71	3.75	4.93	7.83	11.69	14.14	17.10	19.22	21.27
27	05807	752149	628213	2.09	2.58	3.21	4.37	5.68	8.87	13.07	15.72	18.92	21.19	23.39
28	06154	471467	910780	1.55	1.94	2.45	3.41	4.50	7.20	10.81	13.10	15.88	17.87	19.79
29	06155	526650	880690	1.42	1.78	2.26	3.15	4.17	6.70	10.09	12.25	14.86	16.74	18.55

30	06241	593048	860492	1.30	1.65	2.11	2.97	3.98	6.47	9.84	12.00	14.62	16.50	18.33
31	06242	619862	919686	1.03	1.35	1.78	2.62	3.60	6.12	9.60	11.86	14.63	16.62	18.57
32	06073	566270	1044407	0.84	1.11	1.48	2.19	3.04	5.23	8.28	10.26	12.70	14.46	16.18
33	06175	734827	543508	1.22	1.64	2.21	3.32	4.66	8.14	13.02	16.21	20.15	23.00	25.79
34	06268	664918	424260	0.86	1.22	1.73	2.76	4.03	7.46	12.43	15.73	19.85	22.86	25.82
35	05815	681903	416049	3.08	3.58	4.19	5.26	6.42	9.08	12.40	14.42	16.80	18.47	20.07
36	06180	810575	806715	0.53	0.80	1.21	2.08	3.21	6.37	11.13	14.37	18.45	21.46	24.43
37	06082	363617	753789	2.38	2.95	3.67	5.02	6.55	10.27	15.20	18.32	22.07	24.76	27.34
38	06077	507142	992758	1.05	1.34	1.74	2.48	3.35	5.53	8.50	10.41	12.74	14.41	16.04
39	06144	330807	1508031	1.72	2.11	2.61	3.53	4.57	7.09	10.40	12.48	14.98	16.76	18.48
40	06049	556236	1117700	0.25	0.45	0.76	1.50	2.52	5.57	10.45	13.86	18.25	21.52	24.78
41	06147	365180	1435686	1.22	1.55	1.98	2.80	3.74	6.10	9.28	11.31	13.79	15.57	17.29
42	06305	355624	1438447	1.55	1.93	2.41	3.31	4.34	6.85	10.19	12.30	14.85	16.68	18.44
43	06146	365917	1441945	1.34	1.70	2.18	3.08	4.12	6.71	10.22	12.46	15.19	17.15	19.05
44	06133	268945	1369683	1.30	1.68	2.17	3.11	4.21	6.99	10.76	13.20	16.16	18.30	20.37
45	06145	427930	1470579	2.22	2.58	3.03	3.82	4.69	6.67	9.15	10.66	12.45	13.71	14.90
46	06278	438598	1446710	0.14	0.30	0.58	1.31	2.39	5.87	11.69	15.88	21.33	25.44	29.57
47	06150	375491	1072312	1.04	1.42	1.94	2.98	4.25	7.58	12.39	15.41	19.26	22.06	24.80
48	06158	356775	879515	2.16	2.63	3.24	4.35	5.59	8.60	12.53	15.00	17.96	20.06	22.09
49	05885	287610	826801	2.14	2.64	3.27	4.45	5.78	9.03	13.29	15.98	19.23	21.54	23.77
50	06197	504893	898250	1.29	1.65	2.13	3.03	4.08	6.72	10.29	12.59	15.39	17.41	19.36
51	06181	737004	856115	1.27	1.70	2.27	3.39	4.74	8.22	13.97	16.25	20.15	22.98	25.74
52	06290	759669	828886	1.44	1.88	2.46	3.57	4.89	8.23	12.83	15.81	19.45	22.08	24.63
53	06321	771113	771605	1.91	2.35	2.93	3.98	5.17	8.08	11.91	14.32	17.23	19.31	21.31
54	06299	771212	798465	2.18	2.64	3.23	4.31	5.51	8.39	12.13	14.46	17.27	19.26	21.17
55	06276	785339	831476	1.35	1.76	2.31	3.36	4.61	7.78	12.15	14.97	18.43	20.93	23.36
56	06306	786766	782109	1.57	2.00	2.56	3.61	4.83	7.88	12.00	14.63	17.83	20.13	22.36
57	06302	760659	786483	1.89	2.33	2.90	3.94	5.12	7.99	11.77	14.15	17.03	19.07	21.05
58	06322	759988	777391	1.70	2.15	2.73	3.82	5.09	8.22	12.42	15.10	18.36	20.69	22.95
59	06298	786400	795839	2.33	2.80	3.39	4.45	5.64	8.46	12.09	14.34	17.04	18.95	20.78
60	05793	776953	740544	2.05	2.50	3.08	4.13	5.31	8.15	11.86	14.19	16.99	18.97	20.89
61	05792	760266	747203	2.39	2.89	3.52	4.66	5.93	8.97	12.90	15.35	18.29	20.37	22.38

62	06172	786202	526653	1.00	1.33	1.76	2.61	3.62	6.22	9.83	12.18	15.06	17.15	19.19
63	06249	737977	502333	0.50	0.78	1.20	2.09	3.26	6.55	11.54	14.95	19.26	22.44	25.58
64	06265	563221	853469	2.19	2.63	3.18	4.16	5.26	7.86	11.21	13.28	15.76	17.52	19.20
65	06174	735762	539676	1.80	2.25	2.83	3.91	5.14	8.18	12.23	14.80	17.92	20.14	22.29
66	05810	715639	543206	2.70	3.27	3.99	5.32	6.79	10.34	14.94	17.81	21.26	23.70	26.06
67	06051	559601	1097510	0.56	0.84	1.26	2.15	3.29	6.49	11.27	14.51	18.60	21.61	24.58
68	06134	305910	1310403	1.94	2.33	2.82	3.71	4.70	7.06	10.10	12.00	14.26	15.86	17.40
69	06160	240884	667430	1.46	1.87	2.42	3.46	4.67	7.72	11.86	14.53	17.78	20.11	22.38
70	06258	651660	727792	1.43	1.90	2.51	3.71	5.14	8.80	13.89	17.20	21.26	24.20	27.06
71	06070	569040	1061376	1.64	2.03	2.53	3.45	4.49	7.03	10.39	12.51	15.06	16.89	18.65
72	06052	572876	1086121	0.21	0.40	0.72	1.49	2.60	6.03	11.62	15.59	20.71	24.56	28.40
73	06218	382265	1526726	1.52	1.91	2.41	3.36	4.44	7.12	10.70	12.98	15.75	17.72	19.64
74	05838	642244	901321	2.64	3.10	3.67	4.68	5.79	8.36	11.59	13.58	15.93	17.59	19.17
75	05839	654787	890764	1.67	2.09	2.64	3.66	4.84	7.73	11.59	14.05	17.02	19.15	21.21
76	06093	397630	941692	2.06	2.51	3.08	4.12	5.30	8.12	11.80	14.10	16.87	18.84	20.74
77	06222	624710	887230	2.07	2.52	3.09	4.12	5.29	8.09	11.73	14.00	16.74	18.68	20.55
78	05837	625984	915303	0.32	0.54	0.89	1.69	2.77	5.96	10.98	14.47	18.92	22.24	25.53
79	06125	629618	911781	1.44	1.82	2.31	3.22	4.28	6.89	10.39	12.62	15.33	17.27	19.15
80	06253	680128	578682	2.15	2.67	3.33	4.56	5.96	9.37	13.90	16.76	20.21	22.67	25.06
81	05966	806049	866562	1.52	1.91	2.41	3.34	4.41	7.06	10.58	12.83	15.54	17.49	19.37
82	06179	778640	691382	0.54	0.82	1.23	2.12	3.26	6.45	11.24	14.50	18.60	21.63	24.61
83	05796	781829	691201	2.03	2.51	3.12	4.26	5.55	8.70	12.85	15.47	18.63	20.89	23.06
84	06122	726776	934919	1.26	1.68	2.25	3.36	4.69	8.14	12.97	16.11	19.99	22.80	25.54
85	06138	157880	94631	1.71	2.14	2.69	3.73	4.91	7.82	11.69	14.15	17.13	19.26	21.31
86	06139	174122	939723	1.85	2.30	2.89	3.98	5.23	8.28	12.35	14.93	18.05	20.27	22.43
87	06048	545793	1107892	0.36	0.61	0.99	1.84	3.00	6.39	11.69	15.36	20.05	23.53	26.99
88	06225	550416	866577	2.00	2.41	2.93	3.87	4.92	7.42	10.64	12.65	15.06	16.76	18.40
89	06202	633984	382765	0.81	1.17	1.69	2.77	4.13	7.82	13.24	16.87	21.42	24.75	28.03
90	06224	606168	872235	2.11	2.57	3.15	4.21	5.41	8.28	12.03	14.37	17.19	19.19	21.12
91	05806	759705	630379	2.52	2.98	3.55	4.58	5.72	8.37	11.75	13.83	16.30	18.04	19.72
92	06120	470598	961466	1.73	2.10	2.58	3.45	4.43	6.78	9.84	11.76	14.06	15.70	17.27
93	05818	656800	362549	1.08	1.44	1.91	2.84	3.95	6.79	10.74	13.32	16.48	18.77	21.01

94	05817	705827	375929	1.18	1.52	1.97	2.84	3.85	6.42	9.92	12.17	14.93	16.92	18.84
95	05816	715205	410831	0.78	1.11	1.57	2.50	3.67	6.78	11.30	14.31	18.07	20.81	23.50
96	06227	562849	859627	1.77	2.15	2.63	3.51	4.49	6.84	9.90	11.81	14.11	15.73	17.30
97	06119	624298	963865	0.81	1.13	1.57	2.46	3.55	6.46	10.63	13.39	16.82	19.32	21.77
98	05797	769437	669375	1.24	1.67	2.26	3.43	4.84	8.50	13.67	17.06	21.24	24.27	27.24
99	06274	706442	854841	1.82	2.24	2.78	3.77	4.90	7.63	11.22	13.48	16.20	18.14	20.02
100	06324	681288	777584	1.79	2.18	2.68	3.59	4.62	7.10	10.33	12.36	14.79	16.52	18.19
101	05940	435855	1261289	1.59	1.98	2.47	3.38	4.42	6.96	10.32	12.44	15.01	16.84	18.61
102	05981	456495	1208920	1.61	2.01	2.54	3.53	4.66	7.44	11.16	13.52	16.39	18.44	20.42
103	05999	436517	1151841	1.97	2.34	2.79	3.59	4.48	6.55	9.19	10.81	12.74	14.10	15.41
104	06068	492514	1083330	1.69	2.02	2.44	3.19	4.03	6.01	8.56	10.13	12.02	13.35	14.63
105	06071	512067	1051029	1.68	2.06	2.56	3.47	4.51	7.02	10.32	12.40	14.91	16.70	18.42
106	06066	417389	1089068	0.72	0.99	1.35	2.08	2.96	5.27	8.55	10.71	13.39	15.33	17.24
107	06074	448768	1012176	0.41	0.65	1.01	1.80	2.84	5.80	10.33	13.43	17.37	20.28	23.16
108	06243	401134	892714	1.41	1.79	2.28	3.22	4.30	6.98	10.60	12.91	15.72	17.74	19.70
109	06327	573876	726374	1.38	1.80	2.36	3.44	4.71	7.93	12.37	15.24	18.76	21.30	23.76
110	06237	732597	1010079	1.24	1.63	2.10	3.05	4.16	6.97	10.84	13.33	16.38	18.59	20.72
111	05808	683295	628267	2.22	2.64	3.16	4.10	5.13	7.56	10.66	12.58	14.86	16.47	18.01
112	06031	678230	1105129	1.38	1.73	2.18	3.02	3.98	6.35	9.52	11.53	13.97	15.71	17.40
113	05912	365149	1322578	1.66	2.05	2.55	3.48	4.53	7.10	10.48	12.62	15.20	17.04	18.82
114	06269	583269	852797	2.15	2.62	3.21	4.29	5.51	8.44	12.25	14.64	17.50	19.54	21.50
115	06271	597522	847377	1.57	2.01	2.59	3.70	4.99	8.23	12.64	15.47	18.92	21.40	23.81
116	06263	216752	818638	2.51	2.95	3.50	4.47	5.54	8.02	11.16	13.08	15.37	16.97	18.51
117	05880	329485	1369071	1.57	1.93	2.39	3.25	4.21	6.55	9.63	11.57	13.91	15.57	17.18
118	06187	743790	1042559	1.62	1.98	2.44	3.27	4.21	6.47	9.42	11.27	13.50	15.08	16.61
119	06166	557637	518472	1.86	2.32	2.92	4.05	5.33	8.49	12.70	15.37	18.60	20.91	23.15
120	06046	556384	1076704	0.59	0.85	1.23	2.00	2.98	5.64	9.54	12.16	15.44	17.84	20.20
121	05820	521305	874023	1.78	2.21	2.75	3.77	4.92	7.74	11.46	13.82	16.66	18.69	20.65
122	05915	356865	773499	2.19	2.68	3.29	4.43	5.70	8.78	12.80	15.32	18.35	20.51	22.59
123	06238	391538	999565	1.21	1.56	2.04	2.94	3.99	6.66	10.30	12.66	15.53	17.60	19.61
124	06192	674849	1198522	0.83	1.14	1.58	2.45	3.52	6.34	10.37	13.03	16.33	18.74	21.09
125	06182	790635	853021	1.28	1.66	2.16	3.13	4.27	7.15	11.10	13.64	16.76	19.01	21.19

126	06399	218370	1054921	1.90	2.35	2.92	3.98	5.18	8.10	11.96	14.39	17.33	19.42	21.45
127	06131	227513	1297131	1.81	2.22	2.74	3.70	4.78	7.40	10.82	12.97	15.56	17.41	19.18
128	06396	281243	1642309	1.40	1.71	2.10	2.81	3.62	5.55	8.08	9.67	11.57	12.92	14.23
129	06142	634746	1248050	0.63	0.92	1.33	2.18	3.24	6.15	10.41	13.26	16.84	19.46	22.04
130	06397	105297	1387049	1.90	2.29	2.78	3.67	4.66	7.01	10.05	11.94	14.20	15.80	17.34
131	06245	250708	79406	0.22	0.37	0.60	1.11	1.81	3.85	7.04	9.25	12.07	14.17	16.25
132	06162	234088	79500	0.16	0.29	0.50	0.98	1.64	3.63	6.81	9.03	11.88	14.01	16.13
133	06130	193525	1345960	1.91	2.29	2.76	3.62	4.57	6.83	9.73	11.53	13.67	15.19	16.65
134	06246	599437	206020	0.04	0.11	[illegible]27	0.74	1.50	4.13	8.80	12.26	16.83	20.31	23.83
135	06194	243974	1654663	1.62	1.93	2.33	3.03	3.81	5.64	7.99	9.44	11.17	12.39	13.56
136	06401	623624	1357079	1.06	1.36	1.77	2.54	3.45	5.74	8.86	10.87	13.32	15.09	16.81
137	15091	138338	1764624	1.72	2.09	2.56	3.41	4.37	6.66	9.64	11.50	13.73	15.32	16.85
138	06256	392985	1532754	1.51	1.85	2.27	3.05	3.92	6.02	8.76	10.48	12.55	14.02	15.43
139	06398	134321	1340406	1.24	1.62	2.12	3.10	4.25	7.17	11.21	13.82	17.02	19.32	21.57
140	06847	419942	1629645	1.29	1.63	2.09	2.95	3.95	6.44	9.80	11.94	14.56	16.43	18.25
141	06848	425268	1623574	0.88	1.18	1.58	2.36	3.29	5.71	9.09	11.29	14.01	15.97	17.89
142	06165	659150	243843	0.29	0.49	0.81	1.54	2.53	5.46	10.07	13.28	17.39	20.44	23.48
143	06400	553473	1556881	1.31	1.66	2.11	2.96	3.94	6.38	9.67	11.77	14.31	16.14	17.91
144	06849	235413	1175990	2.18	2.65	3.24	4.33	5.55	8.47	12.28	14.66	17.52	19.56	21.51
145	06132	258989	1338132	1.74	2.09	2.54	3.35	4.25	6.40	9.17	10.89	12.95	14.41	15.82

Table D7. July Rainfall Return Periods for 147 stations in South Florida (DRP= Dry Return Periods in years, WRP= Wet Return Periods in years).

Serial number	Station Dbkey	Easting (ft)	Northing (ft)	100 DRP (inches)	50 DRP (inches)	20 DRP (inches)	10 DRP (inches)	5 DRP (inches)	Average(inches)	5 WRP (inches)	10 WRP (inches)	20 WRP (inches)	50 WRP (inches)	100 WRP (inches)
1	06303	754327	787696	1.00	1.28	1.63	2.30	3.07	5.00	7.60	9.26	11.29	12.74	14.14
2	05798	680541	675505	1.13	1.41	1.79	2.48	3.29	5.26	7.91	9.59	11.63	13.09	14.51
3	05922	294334	865035	2.21	2.63	3.16	4.11	5.17	7.65	10.83	12.79	15.13	16.79	18.38
4	06205	358851	1035308	2.88	3.28	3.77	4.62	5.52	7.55	10.02	11.51	13.25	14.47	15.62
5	06136	331927	1184254	2.30	2.72	3.26	4.21	5.26	7.73	10.87	12.81	15.11	16.74	18.30
6	06135	333930	1276041	3.10	3.51	4.00	4.84	5.74	7.75	10.17	11.62	13.32	14.49	15.61
7	05945	532644	866155	1.81	2.20	2.69	3.59	4.60	7.03	10.19	12.16	14.54	16.22	17.84
8	06047	525504	1118578	1.43	1.76	2.18	2.95	3.82	5.93	8.70	10.45	12.55	14.05	15.49
9	06207	620846	844509	2.22	2.63	3.15	4.06	5.07	7.43	10.43	12.28	14.48	16.03	17.52
10	06128	484688	899363	1.62	1.98	2.45	3.31	4.28	6.63	9.72	11.66	13.99	15.65	17.26
11	05813	416025	1423525	2.42	2.81	3.29	4.13	5.04	7.13	9.74	11.32	13.20	14.51	15.76
12	06157	621619	921248	1.44	1.81	2.29	3.19	4.23	6.79	10.22	12.40	15.04	16.94	18.77
13	06186	113082	801291	1.54	1.90	2.36	3.20	4.16	6.49	9.56	11.49	13.82	15.49	17.09
14	06129	249059	1507870	2.46	2.86	3.37	4.26	5.23	7.46	10.26	11.97	13.99	15.40	16.76
15	06168	736091	479102	1.13	1.45	1.86	2.65	3.56	5.85	8.96	10.95	13.[illegible]8	15.12	16.82
16	05916	309025	745419	3.04	3.52	[illegible]11	5.14	6.26	8.82	12.00	13.93	16.20	17.80	19.32
17	06178	762622	630699	0.41	0.64	0.99	1.73	2.69	5.43	9.59	12.42	16.01	18.66	21.28
18	06206	457975	824667	2.47	2.90	3.42	4.35	5.37	7.72	10.68	12.50	14.64	16.15	17.60
19	05800	762545	643219	1.55	1.92	2.38	3.25	4.22	6.60	9.73	11.71	14.10	15.80	17.44
20	06050	535800	109334	1.27	1.57	1.97	2.71	3.55	5.61	8.35	10.08	12.18	13.67	15.12
21	06161	372647	549519	2.71	3.15	3.68	4.63	5.64	7.99	10.90	12.68	14.77	16.24	17.64
22	06210	528210	293638	1.06	1.32	1.64	2.25	2.93	4.60	6.81	8.21	9.89	11.09	12.26
23	06151	710834	1128714	1.26	1.55	1.92	2.61	3.38	5.27	7.75	9.32	11.20	12.55	13.84
24	06193	217472	817624	3.06	3.50	4.05	5.00	6.02	8.34	11.18	12.90	14.91	16.32	17.66
25	06015	657594	1102721	2.92	3.28	3.71	4.45	5.22	6.95	9.02	10.25	11.68	12.67	13.61
26	05801	752532	640634	1.83	2.15	2.56	3.29	4.09	5.96	8.33	9.79	11.51	12.73	13.90
27	05807	752149	628213	0.45	0.71	1.10	1.94	3.04	6.19	10.99	14.28	18.44	21.51	24.56
28	06154	471467	910780	1.63	2.00	2.47	3.33	4.31	6.66	9.74	11.68	14.02	15.68	17.28

29	06155	526650	880690	1.80	2.14	2.57	3.34	4.19	6.19	8.74	10.32	12.20	13.53	14.81
30	06241	593048	860492	2.40	2.77	3.24	4.05	4.93	6.94	9.43	10.95	12.74	13.99	15.18
31	06242	619862	919686	1.36	1.70	2.13	2.95	3.88	6.18	9.23	11.17	13.52	15.19	16.82
32	06073	566270	1044407	1.00	1.27	1.63	2.32	3.12	5.11	7.81	9.54	11.64	13.16	14.63
33	06175	734827	543508	2.00	2.37	2.83	3.66	4.56	6.69	9.40	11.06	13.05	14.44	15.78
34	06268	664918	424260	1.63	2.00	2.48	3.35	4.34	6.75	9.91	11.90	14.29	16.00	17.64
35	05815	681903	416049	2.16	2.55	3.04	3.92	4.89	7.15	10.02	11.79	13.89	15.38	16.80
36	06180	810575	806715	0.45	0.67	0.98	1.65	2.49	4.84	8.32	10.67	13.63	15.80	17.94
37	06082	363617	753789	2.15	2.61	3.18	4.23	5.40	8.21	11.84	14.12	16.84	18.77	20.63
38	06077	507142	992758	0.92	1.18	1.54	2.21	3.00	5.00	7.72	9.48	11.62	13.17	14.67
39	06144	330807	1508031	2.35	2.76	3.27	4.17	5.16	7.46	10.35	12.13	14.24	15.72	17.13
40	06049	556236	1117700	2.36	2.68	3.07	3.75	4.47	6.10	8.08	9.27	10.66	11.63	12.55
41	06147	365180	1435686	2.03	2.37	2.79	3.54	4.35	6.24	8.60	10.04	11.75	12.95	14.10
42	06305	355624	1438447	1.72	2.07	2.52	3.32	4.22	6.36	9.12	10.84	12.90	14.36	15.76
43	06146	365917	1441945	2.12	2.53	3.05	3.97	5.00	7.42	10.51	12.43	14.71	16.33	17.88
44	06133	268945	1369683	2.38	2.77	3.25	4.10	5.01	7.13	9.76	11.37	13.27	14.60	15.87
45	06145	427930	1470579	2.34	2.74	3.24	4.12	5.08	7.32	10.12	11.84	13.87	15.30	16.67
46	06278	438598	1446710	0.14	0.27	0.50	1.06	1.86	4.35	8.44	11.35	15.11	17.94	20.76
47	06150	375491	1072312	2.64	3.04	3.52	4.37	5.28	7.36	9.91	11.46	13.27	14.54	15.75
48	06158	356775	879515	2.51	2.90	3.37	4.20	5.09	7.13	9.66	11.18	12.98	14.24	15.44
49	05885	287610	826801	2.31	2.77	3.34	4.38	5.52	8.24	11.73	13.90	16.48	18.31	20.07
50	06197	504893	898250	1.65	1.99	2.40	3.16	4.00	5.99	8.55	10.14	12.04	13.39	14.69
51	06181	737004	856115	2.03	2.43	2.94	3.87	4.89	7.33	10.46	12.41	14.74	16.39	17.97
52	06290	759669	828886	1.42	1.77	2.23	3.07	4.04	6.42	9.59	11.60	14.03	15.77	17.46
53	06321	771113	771605	1.54	1.88	2.30	3.08	3.95	6.03	8.75	10.46	12.50	13.95	15.35
54	06299	771212	798465	1.91	2.24	2.66	3.40	4.21	6.11	8.50	9.96	11.70	12.93	14.10
55	06276	785339	831476	1.52	1.83	2.22	2.91	3.69	5.53	7.90	9.38	11.14	12.39	13.59
56	06306	786766	782109	0.75	1.02	1.40	2.14	3.05	5.43	8.81	11.03	13.79	15.79	17.74
57	06302	760659	786483	1.72	2.05	2.46	3.19	4.00	5.91	8.35	9.85	11.65	12.92	14.13
58	06322	759988	777391	2.41	2.73	3.11	3.77	4.47	6.05	7.95	9.09	10.42	11.34	12.21
59	06298	786400	795839	0.55	0.80	1.15	1.88	2.79	5.27	8.91	11.35	14.41	16.64	18.84
60	05793	776953	740544	0.85	1.15	1.56	2.36	3.33	5.86	9.42	11.75	14.63	16.71	18.75

61	05792	760266	747203	1.52	1.86	2.29	3.09	3.99	6.17	9.03	10.82	12.98	14.52	16.00
62	06172	786202	526653	0.80	1.00	1.26	1.75	2.32	3.70	5.56	6.74	8.17	9.19	10.18
63	06249	737977	502333	0.95	1.22	1.56	2.23	3.00	4.93	7.55	9.24	11.29	12.76	14.19
64	06265	563221	853469	2.64	3.08	3.63	4.61	5.67	8.13	11.21	13.09	15.32	16.89	18.39
65	06174	735762	539676	1.82	2.13	2.52	3.21	3.97	5.72	7.93	9.28	10.88	12.01	13.08
66	05810	715639	543206	2.23	2.60	3.06	3.87	4.74	6.77	9.29	10.84	12.66	13.94	15.17
67	06051	559601	1097510	2.29	2.62	3.02	3.72	4.47	6.18	8.27	9.53	11.01	12.04	13.03
68	06134	305910	1310403	2.91	3.31	3.79	4.63	5.51	7.51	9.93	11.39	13.09	14.28	15.40
69	06160	240884	667430	2.12	2.56	3.11	4.11	5.23	7.89	11.32	13.47	16.03	17.85	19.59
70	06258	651660	727792	2.61	2.93	3.32	3.99	4.70	6.26	8.14	9.26	10.56	11.46	12.31
71	06070	569040	1061376	2.00	2.34	2.76	3.52	4.34	6.24	8.64	10.11	11.84	13.06	14.23
72	06052	572876	1086121	2.24	2.56	2.95	3.62	4.34	5.97	7.96	9.16	10.57	11.55	12.48
73	06218	382265	1526726	2.30	2.70	3.20	4.09	5.05	7.31	10.14	11.89	13.95	15.40	16.79
74	05838	642244	901321	1.88	2.24	2.70	3.53	4.44	6.60	9.37	11.08	13.13	14.58	15.97
75	05839	654787	890764	2.33	2.71	3.17	3.97	4.85	6.86	9.36	10.89	12.68	13.94	15.15
76	06093	397630	941692	2.29	2.69	3.20	4.10	5.08	7.37	10.26	12.03	14.14	15.62	17.04
77	06222	624710	887230	2.64	3.07	3.60	4.54	5.56	7.92	10.86	12.65	14.77	16.26	17.68
78	05837	625984	915303	1.42	1.78	2.24	3.09	4.07	6.49	9.70	11.74	14.22	15.98	17.69
79	06125	629618	911781	1.76	2.10	2.53	3.30	4.15	6.15	8.71	10.30	12.19	13.53	14.81
80	06253	680128	578682	1.66	2.04	2.52	3.41	4.41	6.84	10.04	12.05	14.47	16.19	17.85
81	05966	806049	866562	0.80	1.06	1.41	2.10	2.93	5.06	8.02	9.96	12.34	14.06	15.74
82	06179	778640	691382	1.27	1.59	2.01	2.78	3.66	5.83	8.72	10.56	12.79	14.38	15.92
83	05796	781829	691201	1.08	1.41	1.85	2.70	3.69	6.22	9.71	11.97	14.73	16.72	18.66
84	06122	726776	934919	2.22	2.61	3.10	3.98	4.94	7.18	10.02	11.77	13.84	15.29	16.69
85	06138	157880	946317	1.75	2.15	2.65	3.58	4.62	7.16	10.48	12.56	15.07	16.86	18.59
86	06139	174122	939723	2.86	3.24	3.71	4.52	5.38	7.31	9.66	11.07	12.71	13.86	14.94
87	06048	545793	1107892	1.72	2.08	2.53	3.36	4.27	6.46	9.30	11.07	13.18	14.69	16.13
88	06225	550416	866577	2.50	2.93	3.46	4.41	5.44	7.83	10.84	12.68	14.87	16.40	17.87
89	06202	633984	382765	2.05	2.40	2.84	3.61	4.45	6.41	8.86	10.37	12.15	13.40	14.60
90	06224	606168	872235	3.01	3.50	4.10	5.15	6.29	8.91	12.17	14.16	16.51	18.15	19.72
91	05806	759705	630379	0.91	1.21	1.61	2.38	3.29	5.65	8.92	11.05	13.67	15.56	17.41
92	06120	470598	961466	1.32	1.64	2.06	2.84	3.74	5.92	8.83	10.67	12.89	14.48	16.02

93	05818	656800	362549	1.14	1.38	1.69	2.25	2.88	4.39	6.36	7.58	9.06	10.10	11.11
94	05817	705827	375929	0.20	0.32	0.52	0.97	1.56	3.30	6.01	7.88	10.26	12.03	13.78
95	05816	715205	410831	0.42	0.61	0.88	1.45	2.16	4.09	6.93	8.83	11.22	12.96	14.68
96	06227	562849	859627	1.65	1.98	2.38	3.12	3.94	5.87	8.35	9.89	11.72	13.02	14.27
97	06119	624298	963865	1.43	1.78	2.23	3.06	4.01	6.34	9.44	11.40	13.77	15.46	17.09
98	05797	769437	669375	0.71	0.97	1.32	2.01	2.85	5.06	8.18	10.23	12.76	14.60	16.41
99	06274	706442	854841	1.88	2.25	2.71	3.54	4.46	6.65	9.45	11.18	13.26	14.72	16.13
100	06324	681288	777584	1.90	2.23	2.65	3.39	4.20	6.09	8.48	9.95	11.69	12.92	14.09
101	05940	435855	1261289	1.78	2.15	2.62	3.48	4.44	6.73	9.70	11.55	13.77	15.35	16.87
102	05981	456495	1208920	3.09	3.44	3.87	4.60	5.36	7.03	9.02	10.20	11.56	12.51	13.40
103	05999	436517	1151841	2.17	2.50	2.91	3.62	4.38	6.13	8.29	9.60	11.14	12.22	13.24
104	06068	492514	1083330	1.60	1.95	2.38	3.17	4.06	6.19	8.97	10.70	12.78	14.25	15.67
105	06071	512067	1051029	1.18	1.51	1.94	2.75	3.69	6.05	9.24	11.28	13.78	15.57	17.30
106	06066	417389	1089068	1.85	2.14	2.50	3.13	3.81	5.38	7.32	8.49	9.88	10.86	11.79
107	06074	448768	1012176	1.04	1.32	1.69	2.40	3.22	5.27	8.04	9.82	11.99	13.54	15.05
108	06243	401134	892714	2.34	2.67	3.07	3.77	4.51	6.19	8.25	9.48	10.93	11.94	12.90
109	06327	573876	726374	1.41	1.81	2.33	3.33	4.49	7.40	11.36	13.90	17.00	19.22	21.38
110	06237	732597	1010079	1.58	1.91	2.32	3.06	3.89	5.86	8.41	10.00	11.90	13.25	14.54
111	05808	683295	628267	1.74	2.04	2.40	3.05	3.76	5.41	7.47	8.73	10.22	11.27	12.28
112	06031	678230	1105129	1.91	2.35	2.91	3.94	5.10	7.92	11.63	13.96	16.78	18.78	20.71
113	05912	365149	1322578	1.90	2.27	2.73	3.56	4.49	6.68	9.48	11.22	13.29	14.76	16.16
114	06269	583269	852797	2.51	2.94	3.47	4.42	5.44	7.83	10.83	12.67	14.84	16.37	17.83
115	06271	597522	847377	2.60	3.00	3.49	4.36	5.28	7.41	10.04	11.64	13.52	14.84	16.09
116	06263	216752	818638	3.02	3.47	4.03	5.00	6.04	8.42	11.36	13.14	15.23	16.69	18.08
117	05880	329485	1369071	2.29	2.63	3.04	3.77	4.54	6.31	8.48	9.79	11.33	12.41	13.43
118	06187	743790	1042559	1.42	1.75	2.17	2.95	3.83	5.97	8.78	10.56	12.70	14.22	15.69
119	06166	557637	518472	1.68	2.09	2.62	3.59	4.71	7.43	11.05	13.34	16.11	18.08	19.99
120	06046	556384	1076704	2.98	3.31	3.71	4.38	5.08	6.63	8.45	9.53	10.77	11.63	12.44
121	05820	521305	874023	1.62	1.98	2.44	3.28	4.22	6.50	9.48	11.34	13.59	15.19	16.72
122	05915	356865	773499	1.82	2.20	2.69	3.58	4.58	6.97	10.08	12.02	14.34	16.00	17.59
123	06238	391538	999565	1.26	1.57	1.97	2.71	3.55	5.63	8.38	10.12	12.23	13.74	15.20
124	06192	674849	1198522	1.40	1.73	2.16	2.95	3.85	6.03	8.92	10.75	12.95	14.52	16.04

125	06182	790635	853021	1.10	1.42	1.83	2.62	3.54	5.85	9.00	11.03	13.50	15.27	17.00
126	06399	218370	1054921	2.17	2.60	3.13	4.08	5.14	7.64	10.85	12.83	15.20	16.88	18.48
127	06131	227513	1297131	3.12	3.55	4.07	4.97	5.94	8.11	10.76	12.35	14.20	15.50	16.73
128	06396	281243	1642309	1.93	2.30	2.76	3.59	4.51	6.67	9.43	11.14	13.18	14.62	16.00
129	06142	634746	1248050	2.07	2.45	2.91	3.75	4.67	6.81	9.52	11.20	13.18	14.58	15.92
130	06397	105297	1387049	1.63	2.02	2.52	3.45	4.50	7.07	10.48	12.63	15.23	17.09	18.88
131	06245	250708	79406	0.44	0.61	0.84	1.29	1.85	3.33	5.43	6.81	8.53	9.78	11.00
132	06162	234088	79500	0.34	0.49	0.70	1.12	1.65	3.07	5.15	6.54	8.27	9.53	10.77
133	06130	193525	1345960	2.63	3.03	3.52	4.38	5.30	7.40	10.00	11.57	13.42	14.71	15.94
134	06246	599437	206020	0.44	0.62	0.86	1.35	1.96	3.58	5.91	7.45	9.37	10.77	12.14
135	06194	243974	1654663	1.96	2.29	2.69	3.41	4.19	6.00	8.27	9.65	11.29	12.44	13.54
136	06401	623624	1357079	1.31	1.61	2.00	2.73	3.54	5.53	8.14	9.79	11.78	13.20	14.56
137	15091	138338	1764624	3.47	3.89	4.40	5.27	6.18	8.21	10.65	12.09	13.77	14.93	16.03
138	06256	392985	1532754	2.36	2.77	3.29	4.22	5.23	7.60	10.59	12.42	14.60	16.13	17.60
139	06398	134321	1340406	2.33	2.75	3.29	4.24	5.28	7.73	10.84	12.76	15.04	16.64	18.18
140	06847	419942	1629645	2.16	2.60	3.15	4.15	5.26	7.89	11.29	13.40	15.93	17.71	19.43
141	06848	425268	1623574	1.43	1.76	2.20	3.00	3.92	6.14	9.08	10.94	13.18	14.78	16.33
142	06165	659150	243843	0.44	0.62	0.87	1.38	2.02	3.72	[illegible]	7.82	9.86	11.35	12.81
143	06400	553473	1556881	2.18	2.59	3.12	4.06	5.10	7.55	10.66	12.62	14.93	16.56	18.13
144	06849	235413	1175990	2.63	3.07	3.62	4.60	5.66	8.12	11.21	13.09	15.33	16.90	18.40
145	06132	258989	1338132	3.13	3.58	4.11	5.05	6.05	8.32	11.09	12.76	14.71	16.07	17.36

Table D8. August Rainfall Return Periods for 147 stations in South Florida (DRP= Dry Return Periods in years, WRP= Wet Return Periods in years).

Serial number	Station Dbkey	Easting (ft)	Northing (ft)	100 DRP (inches)	50 DRP (inches)	20 DRP (inches)	10 DRP (inches)	5 DRP (inches)	Average(inches)	5 WRP (inches)	10 WRP (inches)	20 WRP (inches)	50 WRP (inches)	100 WRP (inches)
1	06303	754327	787696	1.11	1.41	1.80	2.54	3.40	5.54	8.43	10.28	12.52	14.14	15.70
2	05798	680541	675505	1.30	1.60	1.99	2.70	3.50	5.45	8.02	9.63	11.58	12.97	14.31
3	05922	294334	865035	2.09	2.53	3.09	4.11	5.25	7.99	11.55	13.78	16.44	18.33	20.15
4	06205	358851	1035308	2.75	3.13	3.60	4.41	5.27	7.23	9.61	11.04	12.72	13.89	15.00
5	06136	331927	1184254	1.97	2.36	2.84	3.70	4.66	6.93	9.84	11.65	13.80	15.32	16.78
6	06135	333930	1276041	3.27	3.61	4.01	4.68	5.38	6.89	8.67	9.71	10.91	11.73	12.50
7	05945	532644	866155	2.53	2.90	3.34	4.12	4.94	6.82	9.12	10.51	12.14	13.27	14.35
8	06047	525504	1118578	2.41	2.77	3.22	3.99	4.81	6.70	9.02	10.42	12.07	13.22	14.32
9	06207	620846	844509	2.45	2.87	3.38	4.29	5.28	7.57	10.44	12.20	14.28	15.74	17.14
10	06128	484688	899363	1.94	2.28	2.71	3.48	4.32	6.29	8.77	10.30	12.11	13.39	14.62
11	05813	416025	1423525	1.80	2.16	2.62	3.45	4.37	6.56	9.38	11.13	13.23	14.72	16.14
12	06157	621619	921248	2.00	2.37	2.83	3.65	4.55	6.66	9.35	11.00	12.97	14.35	15.68
13	06186	113082	801291	1.18	1.54	2.01	2.91	3.98	6.69	10.41	12.82	15.76	17.88	19.95
14	06129	249059	1507870	2.06	2.43	2.90	3.74	4.66	6.81	9.54	11.23	13.23	14.64	15.99
15	06168	736091	479102	1.47	1.81	2.24	3.03	3.92	6.08	8.92	10.71	12.86	14.39	15.87
16	05916	309025	745419	2.96	3.44	4.02	5.05	6.17	8.73	11.92	13.86	16.16	17.76	19.30
17	06178	762622	630699	1.14	1.50	1.96	2.86	3.93	6.64	10.37	12.78	15.74	17.87	19.95
18	06206	457975	824667	2.09	2.48	2.97	3.86	4.82	7.10	10.01	11.80	13.94	15.44	16.89
19	05800	762545	643219	1.40	1.74	2.18	3.00	3.94	6.25	9.31	11.25	13.60	15.28	16.90
20	06050	535800	1093341	1.70	2.01	2.40	3.10	3.87	5.67	7.96	9.38	11.05	12.24	13.37
21	06161	372647	549519	2.80	3.20	3.69	4.55	5.46	7.54	10.08	11.61	13.40	14.65	15.84
22	06210	528210	293638	1.58	1.94	2.42	3.29	4.29	6.70	9.89	11.90	14.32	16.05	17.72
23	06151	710834	1128714	1.15	1.44	1.82	2.52	3.33	5.31	7.96	9.65	11.69	13.15	14.56
24	06193	217472	817624	2.75	3.18	3.70	4.61	5.59	7.84	10.62	12.30	14.28	15.67	16.99
25	06015	657594	1102721	2.07	2.45	2.93	3.78	4.71	6.90	9.68	11.40	13.44	14.88	16.26
26	05801	752532	640634	1.78	2.16	2.65	3.53	4.53	6.92	10.03	11.98	14.32	15.98	17.58
27	05807	752149	628213	1.27	1.64	2.13	3.07	4.16	6.91	10.67	13.09	16.04	18.17	20.23
28	06154	471467	910780	2.06	2.41	2.84	3.60	4.43	6.36	8.76	10.24	11.98	13.21	14.38

29	06155	526650	880690	2.19	2.55	2.98	3.76	4.59	6.52	8.91	10.38	12.10	13.31	14.47
30	06241	593048	860492	1.66	1.99	2.41	3.16	4.00	5.99	8.55	10.14	12.04	13.39	14.68
31	06242	619862	919680	2.07	2.36	2.71	3.33	3.98	5.46	7.28	8.36	9.64	10.53	11.37
32	06073	566270	1044407	1.50	1.80	2.16	2.83	3.56	5.30	7.53	8.91	10.56	11.73	12.84
33	06175	734827	543508	2.27	2.70	3.23	4.20	5.26	7.76	10.94	12.91	15.26	16.91	18.50
34	06268	664918	424260	1.66	2.06	2.56	3.50	4.57	7.18	10.63	12.81	15.44	17.32	19.14
35	05815	681903	416049	2.06	2.49	3.02	4.00	5.09	7.70	11.06	13.16	15.67	17.46	19.17
36	06180	810575	806715	0.99	1.27	1.65	2.38	3.22	5.36	8.28	10.16	12.46	14.11	15.72
37	06082	363617	753789	2.71	3.19	3.77	4.82	5.96	8.61	11.95	14.00	16.42	18.13	19.77
38	06077	507142	992758	1.09	1.36	1.70	2.34	3.07	4.86	7.23	8.73	10.54	11.84	13.09
39	06144	330807	1508031	2.20	2.57	3.03	3.85	4.73	6.77	9.34	10.91	12.76	14.06	15.31
40	06049	556236	1117700	1.86	2.20	2.62	3.36	4.18	6.10	8.53	10.03	11.80	13.05	14.25
41	06147	365180	1435686	2.47	2.82	3.25	4.00	4.80	6.61	8.82	10.16	11.72	12.81	13.85
42	06305	355624	1438447	1.97	2.33	2.77	3.58	4.46	6.53	9.15	10.77	12.69	14.05	15.35
43	06146	365917	1441945	1.66	2.00	2.44	3.23	4.11	6.23	8.96	10.67	12.71	14.16	15.55
44	06133	268945	1369683	2.09	2.47	2.95	3.79	4.72	6.89	9.64	11.33	13.34	14.76	16.12
45	06145	427930	1470579	2.32	2.68	3.12	3.88	4.70	6.58	8.90	10.30	11.96	13.11	14.22
46	06278	438598	1446710	0.78	1.09	1.52	2.39	3.45	6.27	10.33	13.01	16.35	18.78	21.17
47	06150	375491	1072312	1.49	1.84	2.29	3.13	4.09	6.42	9.50	11.45	13.80	15.47	17.09
48	06158	356775	879515	2.60	2.99	3.48	4.32	5.22	7.29	9.84	11.38	13.20	14.47	15.68
49	05885	287610	826801	2.85	3.33	3.92	4.97	6.11	8.76	12.07	14.09	16.49	18.17	19.78
50	06197	504893	898250	1.81	2.17	2.64	3.47	4.41	6.62	9.48	11.26	13.38	14.89	16.34
51	06181	737004	856115	2.12	2.48	2.94	3.75	4.63	6.68	9.27	10.85	12.73	14.05	15.31
52	06290	759669	828886	2.04	2.43	2.93	3.84	4.83	7.19	10.22	12.09	14.33	15.92	17.44
53	06321	771113	771605	2.34	2.74	3.25	4.15	5.13	7.40	10.27	12.03	14.12	15.58	16.99
54	06299	771212	798465	2.21	2.61	3.10	3.98	4.94	7.18	10.02	11.77	13.85	15.31	16.71
55	06276	785339	831476	2.62	3.00	3.46	4.26	5.13	7.08	9.47	10.92	12.61	13.79	14.92
56	06306	786766	782109	2.01	2.39	2.88	3.76	4.73	7.02	9.95	11.77	13.94	15.47	16.94
57	06302	760659	786483	1.64	2.01	2.48	3.35	4.34	6.71	9.82	11.78	14.14	15.81	17.43
58	06322	759988	777391	2.16	2.55	3.04	3.92	4.88	7.14	9.99	11.75	13.85	15.32	16.73
59	06298	786400	795839	2.97	3.34	3.79	4.56	5.38	7.19	9.37	10.68	12.19	13.24	14.23
60	05793	776953	740544	2.31	2.68	3.13	3.92	4.78	6.75	9.19	10.68	12.43	13.66	14.84

61	05792	760266	747203	2.66	3.07	3.57	4.44	5.38	7.53	10.19	11.80	13.69	15.02	16.28
62	06172	786202	526653	0.70	0.91	1.21	1.77	2.45	4.16	6.54	8.09	9.98	11.35	12.68
63	06249	737977	502333	1.07	1.38	1.78	2.54	3.43	5.65	8.68	10.63	13.00	14.71	16.37
64	06265	563221	853469	2.71	3.09	3.56	4.38	5.24	7.21	9.62	11.07	12.77	13.95	15.08
65	06174	735762	539676	1.99	2.39	2.89	3.80	4.80	7.20	10.28	12.20	14.49	16.11	17.67
66	05810	715639	543206	1.40	1.81	2.34	3.37	4.57	7.60	11.74	14.41	17.66	20.01	22.28
67	06051	559601	1097510	1.87	2.24	2.71	3.56	4.51	6.75	9.64	11.43	13.58	15.09	16.55
68	06134	305910	1310403	2.22	2.61	3.09	3.95	4.88	7.06	9.80	11.48	13.48	14.88	16.22
69	06160	240884	667430	2.09	2.51	[illegible].05	4.03	5.12	7.71	11.05	13.14	15.63	17.40	19.09
70	06258	651660	727792	1.94	2.30	2.74	3.54	4.41	6.47	9.07	10.68	12.58	13.93	15.22
71	06070	569040	1061376	1.66	2.03	2.49	3.35	4.30	6.60	9.61	11.50	13.76	15.37	16.92
72	06052	572876	1086121	1.58	1.93	2.38	3.20	4.12	6.34	9.25	11.07	13.26	14.82	16.32
73	06218	382265	1526726	1.63	1.98	2.43	3.26	4.19	6.41	9.32	11.14	13.32	14.88	16.37
74	05838	642244	901321	1.93	2.31	2.78	3.64	4.59	6.83	9.70	11.48	13.61	15.11	16.56
75	05839	654787	890764	2.61	3.05	3.59	4.55	5.60	8.02	11.05	12.91	15.10	16.64	18.12
76	06093	397630	941692	1.92	2.32	2.83	3.75	4.78	7.25	10.44	12.43	14.81	16.51	18.13
77	06222	624710	887230	3.04	3.47	4.00	4.90	5.88	8.07	10.75	12.37	14.26	15.58	16.83
78	05837	625984	915303	2.28	2.65	3.11	3.92	4.80	6.83	9.36	10.90	12.73	14.01	15.23
79	06125	629618	911781	1.74	2.10	2.55	3.38	4.30	6.49	9.33	11.10	13.22	14.73	16.17
80	06253	680128	578682	1.81	2.21	2.72	3.65	4.70	7.22	10.52	12.59	15.08	16.85	18.55
81	05966	806049	866562	0.80	1.10	1.53	2.37	3.40	6.13	10.02	12.59	15.78	18.10	20.38
82	06179	778640	691382	1.89	2.23	2.65	3.42	4.25	6.21	8.68	10.21	12.02	13.30	14.52
83	05796	781829	691201	1.84	2.19	2.64	3.44	4.33	6.43	9.12	10.79	12.78	14.18	15.53
84	06122	726776	934919	1.95	2.40	2.98	4.03	5.23	8.13	11.94	14.34	17.23	19.29	21.28
85	06138	157880	946317	1.69	2.07	2.56	3.46	4.48	6.94	10.17	12.20	14.65	16.39	18.07
86	06139	174122	939723	2.84	3.23	3.72	4.56	5.46	7.48	9.96	11.45	13.19	14.41	15.56
87	06048	545793	1107892	1.98	2.32	2.75	3.50	4.32	6.22	8.62	10.08	11.82	13.05	14.21
88	06225	550416	866577	2.09	2.48	2.96	3.84	4.80	7.06	9.94	11.71	13.83	15.32	16.75
89	06202	633984	382765	2.45	2.86	3.38	4.28	5.26	7.54	10.40	12.14	14.21	15.66	17.05
90	06224	606168	872235	3.37	3.76	4.23	5.04	5.88	7.75	9.97	11.28	12.80	13.86	14.85
91	05806	759705	630379	1.01	1.32	1.73	2.53	3.46	5.84	9.11	11.23	13.83	15.70	17.52
92	06120	470598	961466	1.71	2.05	2.48	3.25	4.11	6.15	8.76	10.38	12.32	13.69	15.01

93	05818	656800	362549	1.64	2.00	2.46	3.30	4.24	6.52	9.49	11.36	13.60	15.19	16.72
94	05817	705827	375929	1.05	1.34	1.73	2.47	3.33	5.49	8.43	10.32	12.62	14.28	15.89
95	05816	715205	410831	1.02	1.31	1.71	2.46	3.33	5.55	8.57	10.52	12.90	14.61	16.28
96	06227	562849	859627	2.49	2.83	3.25	3.97	4.74	6.48	8.60	9.87	11.36	12.39	13.37
97	06119	624298	963865	1.02	1.32	1.71	2.45	3.31	5.48	8.44	10.35	12.68	14.35	15.98
98	05797	769437	669375	1.74	2.10	2.56	3.40	4.34	6.58	9.49	11.31	13.48	15.02	16.51
99	06274	706442	854841	1.81	2.18	2.64	3.48	4.41	6.63	9.49	11.27	13.39	14.90	16.35
100	06324	681288	777584	0.90	1.21	1.63	2.46	3.46	6.06	9.72	12.12	15.08	17.22	19.32
101	05940	435855	1261289	1.59	1.94	2.37	3.17	4.07	6.21	9.01	10.76	12.86	14.35	15.79
102	05981	456495	1208920	1.15	1.50	1.96	2.86	3.91	6.58	10.26	12.63	15.54	17.64	19.68
103	05999	436517	1151841	1.25	1.51	1.85	2.48	3.17	4.85	7.02	8.39	10.02	11.18	12.30
104	06068	492514	1083330	1.29	1.58	1.94	2.61	3.36	5.18	7.55	9.04	10.83	12.11	13.34
105	06071	512067	1051029	1.87	2.19	2.59	3.30	4.08	5.88	8.15	9.54	11.19	12.35	13.46
106	06066	417389	1089068	1.51	1.81	2.18	2.86	3.62	5.41	7.71	9.14	10.85	12.06	13.22
107	06074	448768	1012176	0.93	1.22	1.62	2.39	3.31	5.65	8.90	11.01	13.61	15.48	17.31
108	06243	401134	892714	2.14	2.48	2.91	3.66	4.48	6.35	8.69	10.12	11.80	12.98	14.10
109	06327	573876	726374	2.25	2.59	3.01	3.74	4.53	6.33	8.55	9.90	11.48	12.59	13.65
110	06237	732597	1010079	1.37	1.70	2.12	2.90	3.78	5.94	8.79	10.59	12.77	14.32	15.82
111	05808	683295	628267	1.30	1.62	2.03	2.79	3.67	5.81	8.65	10.45	12.63	14.19	15.69
112	06031	678230	1105129	0.86	1.18	1.62	2.51	3.60	6.46	10.53	13.22	16.55	18.98	21.35
113	05912	365149	1322578	0.63	0.87	1.20	1.87	2.69	4.85	7.94	9.98	12.51	14.35	16.16
114	06269	583269	852797	2.75	3.13	3.60	4.41	5.27	7.21	9.57	11.00	12.66	13.82	14.92
115	06271	597522	847377	2.31	2.70	3.18	4.03	4.96	7.11	9.81	11.46	13.41	14.78	16.09
116	06263	216752	818638	2.52	2.96	3.51	4.49	5.56	8.04	11.18	13.10	15.38	16.99	18.52
117	05880	329485	1369071	2.06	2.39	2.80	3.52	4.29	6.07	8.29	9.64	11.23	12.35	13.42
118	06187	743790	1042559	0.86	1.14	1.51	2.24	3.11	5.34	8.44	10.46	12.94	14.74	16.49
119	06166	557637	518472	2.88	3.25	3.70	4.47	5.29	7.12	9.32	10.64	12.17	13.24	14.25
120	06046	556384	1076704	1.48	1.82	2.27	3.09	4.03	6.31	9.31	11.21	13.50	15.13	16.71
121	05820	521305	874023	1.90	2.25	2.69	3.47	4.33	6.35	8.91	10.49	12.36	13.69	14.96
122	05915	356865	773499	2.95	3.32	3.78	4.56	5.39	7.23	9.45	10.78	12.33	13.40	14.41
123	06238	391538	999565	2.66	3.02	3.45	4.21	5.01	6.80	8.99	10.30	11.82	12.89	13.90
124	06192	674849	1198522	1.50	1.85	2.29	3.11	4.04	6.29	9.25	11.12	13.37	14.97	16.52

125	06182	790635	853021	1.50	1.85	2.29	3.09	4.00	6.21	9.12	10.94	13.14	14.70	16.21
126	06399	218370	1054921	2.53	2.94	3.44	4.34	5.31	7.54	10.32	12.02	14.02	15.43	16.77
127	06131	227513	1297131	2.59	2.99	3.47	4.32	5.23	7.30	9.86	11.42	13.24	14.52	15.73
128	06396	281243	1642309	1.38	1.70	2.11	2.88	3.75	5.86	8.65	10.41	12.54	14.05	15.51
129	06142	634746	1248050	2.08	2.48	2.97	3.85	4.83	7.13	10.07	11.89	14.05	15.57	17.04
130	06397	105297	1387049	2.25	2.67	3.19	4.12	5.14	7.53	10.58	12.46	14.70	16.27	17.78
131	06245	250708	79406	0.98	1.23	1.55	2.16	2.86	4.58	6.89	8.35	10.13	11.40	12.64
132	06162	234088	79500	0.69	0.90	1.17	1.69	2.30	3.85	5.98	7.35	9.03	10.24	11.42
133	06130	193525	1345960	3.08	3.45	3.88	4.63	5.41	7.14	9.20	10.43	11.84	12.82	13.75
134	06246	599437	206020	0.32	0.47	0.69	1.13	1.70	3.24	5.51	7.04	8.95	10.36	11.74
135	06194	243974	1654663	2.22	2.56	2.97	3.70	4.48	6.27	8.48	9.82	11.39	12.49	13.54
136	06401	623624	1357079	0.73	0.99	1.33	2.02	2.84	4.98	7.99	9.96	12.39	14.16	15.88
137	15091	138338	1764624	2.36	2.76	3.26	4.14	5.10	7.34	10.15	11.87	13.91	15.34	16.71
138	06256	392985	1532754	2.35	2.72	3.16	3.94	4.78	6.70	9.07	10.51	12.20	13.38	14.51
139	06398	134321	1340406	3.10	3.53	4.06	4.98	5.96	8.18	10.88	12.51	14.41	15.74	17.00
140	06847	419942	1629645	1.46	1.80	2.24	3.05	3.97	6.20	9.15	11.01	13.26	14.86	16.40
141	06848	425268	1623574	1.82	2.19	2.66	3.52	4.47	6.74	9.67	11.49	13.68	15.23	16.71
142	06165	659150	243843	0.70	0.93	1.25	1.86	2.59	4.48	7.12	8.84	10.96	12.49	13.98
143	06400	553473	1556881	1.48	1.84	2.31	3.18	4.17	6.61	9.86	11.92	14.41	16.18	17.90
144	06849	235413	1175990	2.59	2.97	3.44	4.27	5.15	7.16	9.64	11.14	12.90	14.14	15.31
145	06132	258989	1338132	1.80	2.17	2.63	3.48	4.43	6.70	9.62	11.45	13.63	15.18	16.67

Table D9. September Rainfall Return Periods for 147 stations in South Florida (DRP= Dry Return Periods in years, WRP= Wet Return Periods in years).

Serial number	Station Dbkey	Easting (ft)	Northing (ft)	100 DRP (inches)	50 DRP (inches)	20 DRP (inches)	10 DRP (inches)	5 DRP (inches)	Average(inches)	5 WRP (inches)	10 WRP (inches)	20 WRP (inches)	50 WRP (inches)	100 WRP (inches)
1	06303	754327	787696	0.91	1.22	1.64	2.45	3.43	5.96	9.50	11.81	14.66	16.72	18.73
2	05798	680541	675505	0.69	0.94	1.26	1.90	2.68	4.68	7.50	9.35	11.63	13.28	14.89
3	05922	294334	865035	1.90	2.24	2.67	3.44	4.28	6.25	8.74	10.27	12.10	13.38	14.61
4	06205	358851	1035308	1.67	2.01	2.43	3.20	4.05	6.08	8.69	10.32	12.26	13.63	14.95
5	06136	331927	1184254	1.36	1.72	2.19	3.07	4.10	6.64	10.06	12.25	14.90	16.80	18.65
6	06135	333930	1276041	1.38	1.67	2.05	2.74	3.51	5.36	7.78	9.29	11.10	12.39	13.63
7	05945	532644	866155	2.25	2.69	3.25	4.25	5.36	8.00	11.37	13.47	15.97	17.74	19.44
8	06047	525504	1118578	1.37	1.68	2.08	2.82	3.66	5.70	8.37	10.06	12.09	13.54	14.94
9	06207	620846	844509	1.88	2.29	2.82	3.78	4.87	7.48	10.89	13.04	15.61	17.44	19.20
10	06128	484688	899363	1.17	1.52	1.97	2.83	3.85	6.40	9.89	12.14	14.89	16.87	18.79
11	05813	416025	1423525	1.19	1.49	1.88	2.61	3.44	5.49	8.23	9.97	12.08	13.59	15.05
12	06157	621619	921248	1.50	1.88	2.38	3.31	4.37	7.00	10.51	12.74	15.45	17.39	19.26
13	06186	113082	801291	1.55	1.95	2.46	3.44	4.56	7.32	11.03	13.38	16.25	18.29	20.28
14	06129	249059	1507870	1.05	1.36	1.78	2.57	3.50	5.86	9.10	11.19	13.74	15.58	17.37
15	06168	736091	479102	1.23	1.63	2.18	3.23	4.50	7.75	12.28	15.23	18.86	21.49	24.05
16	05916	309025	745419	1.84	2.23	2.73	3.64	4.66	7.11	10.28	12.27	14.65	16.35	17.98
17	06178	762622	630699	1.32	1.73	2.28	3.36	4.63	7.88	12.38	15.30	18.88	21.47	23.99
18	06206	457975	824667	1.99	2.37	2.84	3.69	4.62	6.82	9.63	11.36	13.43	14.89	16.29
19	05800	762545	643219	1.74	2.17	2.74	3.79	4.99	7.96	11.91	14.42	17.45	19.63	21.73
20	06050	535800	1093341	0.74	1.01	1.36	2.07	2.93	5.15	8.30	10.36	12.90	14.75	16.56
21	06161	372647	549519	2.23	2.70	3.31	4.41	5.64	8.60	12.45	14.86	17.74	19.79	21.77
22	06210	528210	293638	2.17	2.52	2.95	3.70	4.52	6.40	8.73	10.15	11.83	13.00	14.12
23	06151	710834	1128714	1.51	1.91	2.44	3.42	4.56	7.38	11.18	13.60	16.55	18.66	20.70
24	06193	217472	817624	1.89	2.31	2.84	3.82	4.92	7.57	11.03	13.21	15.82	17.67	19.46
25	06015	657594	1102721	1.17	1.50	1.93	2.76	3.71	6.11	9.36	11.45	13.99	15.82	17.59
26	05803	752532	640634	2.22	2.63	3.14	4.05	5.05	7.40	10.38	12.22	14.41	15.95	17.42
27	05807	752149	628213	0.39	0.64	1.02	1.86	2.99	6.25	11.30	14.78	19.21	22.50	25.76
28	06154	471467	910780	0.92	1.24	1.68	2.54	3.59	6.31	10.14	12.66	15.76	18.02	20.22

29	06155	526650	880690	1.12	1.42	1.80	2.51	3.34	5.38	8.11	9.86	11.97	13.49	14.96
30	06241	593048	860492	1.38	1.72	2.15	2.96	3.87	6.11	9.08	10.96	13.23	14.86	16.43
31	06242	619862	919686	0.92	1.21	1.60	2.35	3.25	5.53	8.69	10.75	13.27	15.09	16.86
32	06073	566270	1044407	1.43	1.74	2.13	2.84	3.63	5.54	8.03	9.58	11.44	12.76	14.04
33	06175	734827	543508	1.99	2.45	3.03	4.12	5.35	8.35	12.29	14.77	17.76	19.89	21.95
34	06268	664918	424260	2.55	3.04	3.65	4.77	6.00	8.90	12.61	14.92	17.66	19.60	21.46
35	05815	681903	416049	2.84	3.29	3.85	4.83	5.89	8.33	11.37	13.21	15.39	16.92	18.38
36	06180	810575	806715	1.49	1.88	2.39	3.34	4.44	7.17	10.84	13.18	16.01	18.05	20.02
37	06082	363617	753789	1.17	1.57	2.12	3.19	4.48	7.82	12.51	15.58	19.37	22.11	24.79
38	06077	507142	992758	0.51	0.71	0.99	1.55	2.25	4.10	6.76	8.53	10.72	12.32	13.89
39	06144	330807	1508031	0.91	1.22	1.63	2.44	3.40	5.90	9.39	11.67	14.47	16.50	18.48
40	06049	556236	1117700	0.64	0.90	1.27	2.00	2.92	5.36	8.88	11.22	14.13	16.26	18.34
41	06147	365180	1435686	0.87	1.18	1.61	2.45	3.48	6.16	9.96	12.46	15.55	17.79	19.98
42	06305	355624	1438447	0.77	1.06	1.44	2.21	3.15	5.61	9.09	11.39	14.22	16.29	18.30
43	06146	365917	1441945	1.32	1.65	2.07	2.86	3.76	5.98	8.94	10.82	13.09	14.71	16.28
44	06133	268945	1369683	0.84	1.14	1.54	2.35	3.33	5.89	9.51	11.88	14.82	16.95	19.03
45	06145	427930	1470579	1.29	1.65	2.12	3.02	4.06	6.68	10.23	12.51	15.29	17.29	19.22
46	06278	438598	1446710	1.32	1.68	2.15	3.04	4.07	6.63	10.10	12.31	15.01	16.95	18.82
47	06150	375491	1072312	1.33	1.68	2.15	3.02	4.03	6.54	9.91	12.07	14.69	16.57	18.40
48	06158	356775	879515	1.88	2.23	2.66	3.44	4.29	6.29	8.83	10.40	12.26	13.58	14.84
49	05885	287610	826801	1.45	1.82	2.30	3.19	4.22	6.77	10.17	12.34	14.96	16.84	18.66
50	06197	504893	898250	0.64	0.94	1.36	2.23	3.33	6.35	10.78	13.76	17.49	20.22	22.92
51	06181	737004	856115	1.53	1.99	2.60	3.77	5.15	8.64	13.43	16.53	20.32	23.05	25.71
52	06290	759669	828886	1.71	2.12	2.65	3.64	4.75	7.49	11.11	13.40	16.17	18.14	20.05
53	06321	771113	771605	1.71	2.11	2.62	3.56	4.62	7.21	10.62	12.78	15.37	17.22	19.00
54	06299	771212	798465	2.38	2.78	3.26	4.12	5.05	7.19	9.87	11.50	13.44	14.79	16.09
55	06276	785339	831476	2.16	2.60	3.15	4.15	5.26	7.91	11.32	13.44	15.97	17.77	19.49
56	06306	786766	782109	1.72	2.11	2.60	3.52	4.55	7.06	10.34	12.41	14.90	16.67	18.38
57	06302	760659	786483	1.32	1.69	2.18	3.12	4.21	6.96	10.70	13.10	16.03	18.14	20.18
58	06322	759988	777391	1.76	2.16	2.67	3.62	4.69	7.29	10.69	12.84	15.42	17.26	19.04
59	06298	786400	795839	2.13	2.54	3.04	3.95	4.96	7.32	10.34	12.21	14.43	16.00	17.51
60	05793	776953	740544	2.13	2.56	3.11	4.10	5.21	7.84	11.24	13.35	15.88	17.68	19.40

61	05792	760266	747203	1.84	2.26	2.80	3.79	4.92	7.65	11.23	13.49	16.21	18.15	20.02
62	06172	786202	526653	0.69	0.97	1.35	2.14	3.11	5.71	9.45	11.94	15.04	17.29	19.51
63	06249	737977	502333	1.47	1.87	2.40	3.40	4.56	7.45	11.37	13.88	16.93	19.12	21.25
64	06265	563221	853469	1.43	1.81	2.30	3.23	4.31	6.99	10.59	12.90	15.70	17.70	19.65
65	06174	735762	539676	1.87	2.29	2.82	3.80	4.90	7.56	11.05	13.24	15.88	17.75	19.56
66	05810	715639	543206	3.05	3.49	4.03	4.96	5.96	8.22	11.00	12.67	14.63	16.00	17.30
67	06051	559601	1097510	0.69	0.95	1.32	2.07	2.98	5.42	8.90	11.21	14.07	16.16	18.20
68	06134	305910	1310403	1.19	1.51	1.93	2.71	3.62	5.87	8.91	10.84	13.20	14.89	16.53
69	06160	240884	667430	2.87	3.31	3.86	4.83	5.87	8.26	11.21	13.01	15.12	16.61	18.02
70	06258	651660	727792	1.23	1.60	2.09	3.04	4.17	7.01	10.93	13.46	16.56	18.80	20.97
71	06070	569040	1061376	1.47	1.76	2.13	2.79	3.53	5.27	7.50	8.89	10.55	11.72	12.85
72	06052	572876	1086121	0.95	1.27	1.70	2.55	3.56	6.17	9.83	12.21	15.15	17.28	19.36
73	06218	382265	1526726	1.29	1.64	2.11	2.98	4.00	6.53	9.96	12.16	14.83	16.75	18.61
74	05838	642244	901321	1.10	1.43	1.87	2.71	3.71	6.24	9.72	11.96	14.72	16.70	18.63
75	05839	654787	890764	1.61	1.98	2.44	3.31	4.28	6.64	9.74	11.70	14.05	15.72	17.33
76	06093	397630	941692	0.24	0.43	0.75	1.50	2.56	5.74	10.85	14.44	19.06	22.52	25.96
77	06222	624710	887230	1.09	1.46	1.96	2.96	4.15	7.24	11.58	14.41	17.91	20.45	22.92
78	05837	625984	915303	1.12	1.46	1.91	2.77	3.79	6.38	[illegible]	12.23	15.05	17.08	19.05
79	06125	629618	911781	1.02	1.35	1.79	2.64	3.66	6.27	9.89	12.24	15.13	17.22	19.26
80	06253	680128	578682	2.63	3.05	3.57	4.48	5.47	7.74	10.56	12.28	14.30	15.72	17.08
81	05966	806049	866562	1.42	1.83	2.37	3.41	4.62	7.67	11.84	14.53	17.80	20.16	22.46
82	06179	778640	691382	1.44	1.83	2.35	3.34	4.49	7.36	11.24	13.73	16.77	18.95	21.06
83	05796	781829	691201	1.66	2.05	2.56	3.50	4.57	7.17	10.62	12.80	15.42	17.30	19.11
84	06122	726776	934919	1.91	2.40	3.02	4.19	5.53	8.83	13.24	16.03	19.42	21.85	24.20
85	06138	157880	946317	2.48	2.94	3.51	4.53	5.66	8.31	11.67	13.75	16.21	17.96	19.63
86	06139	174122	939723	1.56	1.89	2.31	3.06	3.91	5.93	8.55	10.18	12.14	13.53	14.86
87	06048	545793	1107892	0.86	1.17	1.58	2.40	3.38	5.94	9.54	11.91	14.83	16.94	19.01
88	06225	550416	866577	1.35	1.72	2.20	3.11	4.18	6.82	10.40	12.70	15.49	17.49	19.43
89	06202	633984	382765	2.58	3.02	3.56	4.52	5.57	7.99	11.03	12.90	15.10	16.65	18.13
90	06224	606168	872235	1.50	1.93	2.50	3.57	4.83	7.98	12.27	15.02	18.39	20.80	23.15
91	05806	759705	630379	1.11	1.46	1.93	2.85	3.94	6.73	10.61	13.13	16.22	18.46	20.63
92	06120	470598	961466	0.81	1.08	1.45	2.16	3.01	5.22	8.29	10.30	12.77	14.56	16.30

93	05818	656800	362549	2.06	2.38	2.78	3.48	4.23	5.96	8.11	9.42	10.96	12.04	13.06
94	05817	705827	375929	0.69	0.94	1.29	2.00	2.85	5.11	8.33	10.45	13.07	14.98	16.85
95	05816	715205	410831	1.05	1.34	1.72	2.44	3.28	5.38	8.22	10.04	12.26	13.85	15.39
96	06227	562849	859627	1.07	1.38	1.78	2.54	3.44	5.69	8.75	10.71	13.12	14.84	16.52
97	06119	624298	963865	0.95	1.25	1.65	2.43	3.35	5.71	8.99	11.12	13.73	15.61	17.45
98	05797	769437	669375	1.05	1.39	1.85	2.73	3.79	6.51	10.29	12.75	15.78	17.96	20.09
99	06274	706442	854841	1.28	1.64	2.11	2.99	4.03	6.61	10.11	12.36	15.10	17.06	18.97
100	06324	681288	777584	0.91	1.20	1.60	2.37	3.29	5.65	8.94	11.07	13.70	15.60	17.45
101	05940	435855	1261289	0.88	1.17	1.56	2.31	3.21	5.51	8.72	10.82	13.39	15.25	17.06
102	05981	456495	1208920	1.81	2.13	2.54	3.25	4.03	5.85	8.16	9.58	11.26	12.44	13.57
103	05999	436517	1151841	1.39	1.65	1.98	2.56	3.20	4.71	6.62	7.81	9.22	10.21	11.16
104	06068	492514	1083330	1.03	1.27	1.59	2.18	2.85	4.50	6.68	8.06	9.73	10.92	12.07
105	06071	512067	1051029	1.26	1.56	1.95	2.66	3.48	5.46	8.09	9.75	11.75	13.19	14.57
106	06066	417389	1089068	0.83	1.08	1.41	2.04	2.78	4.66	7.23	8.89	10.93	12.39	13.82
107	06074	448768	1012176	0.77	1.02	1.36	2.02	2.81	4.83	7.64	9.48	11.73	13.36	14.95
108	06243	401134	892714	1.14	1.48	1.92	2.76	3.75	6.24	9.64	11.83	14.51	16.44	18.31
109	06327	573876	726374	1.76	2.09	2.51	3.26	4.09	6.05	8.54	10.08	11.92	13.21	14.46
110	06237	732597	1010079	1.05	1.40	1.86	2.75	3.82	6.56	10.38	12.86	15.91	18.12	20.27
111	05808	683295	628267	1.04	1.34	1.72	2.46	3.32	5.48	8.41	10.29	12.59	14.24	15.84
112	06031	678230	1105129	0.69	1.01	1.47	2.42	3.62	6.91	11.76	15.02	19.11	22.11	25.06
113	05912	365149	1322578	0.20	0.36	0.61	1.21	2.03	4.50	8.45	11.21	14.76	17.41	20.04
114	06269	583269	852797	1.10	1.46	1.95	2.90	4.03	6.95	11.02	13.68	16.94	19.30	21.60
115	06271	597522	847377	1.86	2.27	2.80	3.77	4.86	7.50	10.96	13.13	15.74	17.59	19.38
116	06263	216752	818638	1.75	2.19	2.76	3.83	5.05	8.07	12.10	14.66	17.77	19.99	22.13
117	05880	329485	1369071	0.96	1.24	1.61	2.32	3.16	5.26	8.14	10.00	12.26	13.89	15.48
118	06187	743790	1042559	1.56	1.96	2.48	3.44	4.55	7.28	10.92	13.24	16.05	18.06	20.01
119	06166	557637	518472	1.97	2.38	2.91	3.86	4.92	7.47	10.77	12.83	15.30	17.05	18.74
120	06046	556384	1076704	0.83	1.11	1.50	2.25	3.16	5.53	8.85	11.02	13.70	15.64	17.54
121	05820	521305	874023	1.33	1.69	2.16	3.06	4.09	6.67	10.16	12.39	15.11	17.05	18.94
122	05915	356865	773499	1.67	1.99	2.40	3.12	3.93	5.82	8.25	9.75	11.54	12.81	14.02
123	06238	391538	999565	1.09	1.42	1.86	2.72	3.72	6.27	9.78	12.06	14.84	16.85	18.80
124	06192	674849	1198522	1.59	1.96	2.44	3.33	4.34	6.80	10.04	12.09	14.56	16.32	18.03

125	06182	790635	853021	1.82	2.27	2.85	3.92	5.14	8.13	12.11	14.63	17.68	19.86	21.96
126	06399	218370	1054921	2.04	2.44	2.95	3.87	4.89	7.32	10.44	12.38	14.69	16.33	17.90
127	06131	227513	1297131	1.31	1.67	2.14	3.02	4.05	6.60	10.06	12.27	14.97	16.90	18.77
128	06396	281243	1642309	1.74	2.09	2.52	3.30	4.17	6.22	8.86	10.50	12.45	13.84	15.16
129	06142	634746	1248050	1.36	1.78	2.35	3.45	4.75	8.07	12.66	15.64	19.29	21.93	24.49
130	06397	105297	1387049	1.58	1.97	2.47	3.39	4.46	7.06	10.51	12.70	15.35	17.24	19.07
131	06245	250708	79406	1.32	1.65	2.07	2.86	3.76	5.98	8.92	10.79	13.06	14.67	16.24
132	06162	234088	79500	1.59	1.92	2.33	3.07	3.90	5.87	8.41	9.99	11.88	13.22	14.51
133	06130	193525	1345960	1.26	1.58	2.00	2.78	3.68	5.90	8.86	10.74	13.03	14.66	16.24
134	06246	599437	206020	1.05	1.37	1.81	2.65	3.64	6.18	9.69	11.96	14.75	16.76	18.72
135	06194	243974	1654663	0.93	1.19	1.53	2.19	2.95	4.86	7.46	9.13	11.17	12.64	14.06
136	06401	623624	1357079	1.83	2.24	2.76	3.73	4.82	7.44	10.89	13.05	15.66	17.51	19.30
137	15091	138338	1764624	1.01	1.31	1.70	2.46	3.36	5.62	8.72	10.72	13.16	14.93	16.64
138	06256	392985	1532754	1.40	1.76	2.21	3.07	4.05	6.45	9.67	11.71	14.18	15.95	17.67
139	06398	134321	1340406	1.11	1.45	1.91	2.78	3.81	6.44	10.07	12.42	15.29	17.37	19.39
140	06847	419942	1629645	1.43	1.78	2.22	3.03	3.96	6.22	9.21	11.10	13.38	15.01	16.58
141	06848	425268	1623574	0.83	1.12	1.51	2.27	3.20	5.59	8.96	11.16	13.87	15.84	17.77
142	06165	659150	243843	1.44	1.80	2.27	3.15	4.16	6.64	9.94	12.04	14.59	16.41	18.17
143	06400	553473	1556881	1.71	2.11	2.62	3.56	4.62	7.20	10.61	12.75	15.33	17.17	18.95
144	06849	235413	1175990	1.55	1.91	2.38	3.24	4.22	6.60	9.74	11.72	14.11	15.82	17.47
145	06132	258989	1338132	1.00	1.30	1.69	2.43	3.30	5.50	8.52	10.46	12.83	14.54	16.19

Table D10. October Rainfall Return Periods for 147 stations in South Florida (DRP= Dry Return Periods in years, WRP= Wet Return Periods in years).

Serial number	Station Dbkey	Easting (ft)	Northing (ft)	100 DRP (inches)	50 DRP (inches)	20 DRP (inches)	10 DRP (inches)	5 DRP (inches)	Average(inches)	5 WRP (inches)	10 WRP (inches)	20 WRP (inches)	50 WRP (inches)	100 WRP (inches)
1	06303	754327	787696	0.19	0.34	0.58	1.13	1.89	4.18	7.82	10.37	13.63	16.07	18.50
2	05798	680541	675505	0.05	0.12	0.25	0.61	1.16	2.98	6.09	8.36	11.33	13.58	15.85
3	05922	294334	865035	0.04	0.11	0.24	0.60	1.16	3.04	6.30	8.68	11.81	14.19	16.58
4	06205	358851	1035308	0.13	0.22	0.37	0.71	1.18	2.58	4.80	6.35	8.33	9.81	11.28
5	06136	331927	1184254	0.13	0.23	.39	0.78	1.31	2.93	5.50	7.31	9.63	11.37	13.09
6	06135	333930	1276041	0.03	0.07	0.15	0.38	0.72	1.85	3.80	5.22	7.08	8.49	9.91
7	05945	532644	866155	0.35	0.53	0.79	1.35	2.07	4.07	7.07	9.11	11.67	13.55	15.41
8	06047	525504	1118578	0.04	0.10	0.22	0.54	1.03	2.66	5.46	7.50	10.17	12.20	14.24
9	06207	620846	844509	0.15	0.27	0.47	0.94	1.60	3.61	6.83	9.10	12.02	14.21	16.38
10	06128	484688	899363	0.05	0.12	0.25	0.61	1.17	3.00	6.14	8.42	11.41	13.67	15.95
11	05813	416025	1423525	0.24	0.35	0.50	0.82	1.22	2.30	3.90	4.96	6.30	7.27	8.23
12	06157	621619	921248	0.14	0.26	0.46	0.95	1.65	3.79	7.27	9.73	12.90	15.28	17.65
13	06186	113082	801291	0.00	0.01	0.05	0.24	0.63	2.25	5.45	7.95	11.34	13.98	16.68
14	06129	249059	1507870	0.03	0.07	0.16	0.40	0.79	2.09	4.34	5.99	8.17	9.82	11.48
15	06168	736091	479102	1.15	1.55	2.09	3.14	4.41	7.70	12.31	15.33	19.05	21.74	24.38
16	05916	309025	745419	0.04	0.10	0.23	0.58	1.14	3.01	6.26	8.65	11.78	14.16	16.56
17	06178	762622	630699	1.80	2.27	2.88	4.03	5.35	8.63	13.04	15.85	19.27	21.71	24.08
18	06206	457975	824667	0.18	0.30	0.49	0.92	1.49	3.17	5.78	7.60	9.91	11.62	13.33
19	05800	762545	643219	0.52	0.79	1.18	2.01	3.07	6.05	10.51	13.54	17.35	20.16	22.93
20	06050	535800	1093341	0.07	0.15	0.28	0.61	1.09	2.60	5.11	6.91	9.23	10.98	12.74
21	06161	372647	549519	0.32	0.48	0.72	1.21	1.85	3.62	6.26	8.05	10.30	11.96	13.59
22	06210	528210	293638	0.64	0.87	1.18	1.81	2.57	4.56	7.37	9.22	11.50	13.17	14.79
23	06151	710834	1128714	0.50	0.75	1.13	1.92	2.94	5.80	10.08	12.99	16.65	19.34	22.00
24	06193	217472	817624	0.05	0.12	0.26	0.61	1.16	2.95	6.00	8.22	11.12	13.31	15.52
25	06015	657594	1102721	0.40	0.59	0.88	1.47	2.24	4.34	7.48	9.59	12.26	14.21	16.14
26	05801	752532	640634	0.80	1.07	1.43	2.14	3.00	5.21	8.31	10.33	12.82	14.63	16.39
27	05807	752149	628213	0.50	0.77	1.17	2.05	3.18	6.39	11.26	14.57	18.76	21.86	24.92
28	06154	471467	910780	0.06	0.14	0.28	0.65	1.21	2.99	6.00	8.17	11.00	13.14	15.29

29	06155	526650	880690	0.12	0.23	0.39	0.78	1.32	2.97	5.60	7.46	9.84	11.62	13.40
30	06241	593048	860492	0.14	0.26	0.45	0.89	1.51	3.39	6.40	8.52	11.24	13.27	15.30
31	06242	619862	919686	0.24	0.39	0.61	1.10	1.74	3.58	6.41	8.35	10.81	12.64	14.44
32	06073	566270	1044407	0.07	0.15	0.30	0.67	1.22	2.98	5.93	8.04	10.80	12.87	14.95
33	06175	734827	543508	0.67	0.98	1.41	2.31	3.44	6.51	11.03	14.05	17.84	20.62	23.35
34	06268	664918	424260	1.59	1.94	2.37	3.17	4.07	6.22	9.02	10.77	12.88	14.37	15.81
35	05815	681903	416049	0.71	0.96	1.30	1.98	2.80	4.95	7.98	9.97	12.42	14.20	15.95
36	06180	810575	806715	1.68	2.10	2.64	3.66	4.83	7.71	11.54	13.98	16.93	19.04	21.09
37	06082	363617	753789	0.03	0.09	0.21	0.55	1.08	2.89	6.04	8.35	11.40	13.72	16.05
38	06077	507142	992758	0.02	0.06	0.15	0.41	0.82	2.25	4.77	6.63	9.09	10.96	12.85
39	06144	330807	1508031	0.02	0.05	0.14	0.38	0.79	2.22	4.75	6.63	9.13	11.03	12.96
40	06049	556236	1117700	0.03	0.08	0.18	0.47	0.92	2.47	5.16	7.13	9.73	11.71	13.70
41	06147	365180	1435686	0.05	0.12	0.24	0.54	0.99	2.44	4.89	6.65	8.95	10.69	12.43
42	06305	355624	1438447	0.16	0.28	0.45	0.84	1.37	2.93	5.35	7.04	9.19	10.79	12.38
43	06146	365917	1441945	0.15	0.25	0.42	0.80	1.33	2.90	5.37	7.10	9.30	10.95	12.58
44	06133	268945	1369683	0.08	0.15	0.28	0.58	1.02	2.38	4.61	6.19	8.23	9.76	11.29
45	06145	427930	1470579	0.24	0.37	0.56	0.98	1.52	3.06	5.37	6.95	8.94	10.42	11.87
46	06278	438598	1446710	0.02	0.07	0.20	0.63	1.37	4.02	8.88	12.53	17.19	21.12	24.90
47	06150	375491	1072312	0.19	0.31	0.52	0.97	1.59	3.40	6.24	8.21	10.73	12.60	14.46
48	06158	356775	879515	0.15	0.25	0.42	0.80	1.33	2.89	5.35	7.07	9.26	10.90	12.52
49	05885	287610	826801	0.00	0.02	0.07	0.29	0.70	2.32	5.45	7.86	11.11	13.63	16.19
50	06197	504893	898250	0.08	0.16	0.32	0.71	1.28	3.12	6.19	8.39	11.25	13.41	15.57
51	06181	733004	856115	0.68	0.96	1.35	2.13	3.11	5.71	9.48	11.98	15.09	17.36	19.59
52	06290	759669	828886	0.74	1.03	1.44	2.27	3.28	5.99	9.88	12.47	15.68	18.02	20.31
53	06321	771113	771605	0.47	0.72	1.08	1.86	2.88	5.71	9.99	12.89	16.56	19.26	21.93
54	06299	771212	798465	0.75	1.04	1.44	2.25	3.25	5.88	9.66	12.17	15.27	17.53	19.75
55	06276	785339	831476	0.94	1.27	1.73	2.64	3.74	6.62	10.70	13.38	16.69	19.09	21.44
56	06306	786766	782109	0.46	0.71	1.07	1.85	2.86	5.68	9.92	12.81	16.46	19.15	21.80
57	06302	760659	786483	0.65	0.93	1.32	2.13	3.13	5.84	9.78	12.42	15.70	18.11	20.47
58	06322	759988	777391	0.41	0.65	1.00	1.76	2.76	5.59	9.89	12.84	16.56	19.32	22.04
59	06298	786400	795839	0.85	1.16	1.59	2.44	3.49	6.22	10.12	12.68	15.86	18.17	20.43
60	05793	776953	740544	0.62	0.91	1.34	2.24	3.38	6.54	11.21	14.36	18.32	21.22	24.09

61	05792	760266	747203	1.16	1.51	1.99	2.89	3.96	6.69	10.44	12.86	15.83	17.97	20.06
62	06172	786202	526653	0.61	0.86	1.20	1.88	2.73	4.99	8.24	10.39	13.08	15.03	16.95
63	06249	737977	502333	0.72	1.05	1.53	2.53	3.79	7.24	12.32	15.74	20.02	23.16	26.25
64	06265	563221	853469	0.43	0.63	0.91	1.51	2.27	4.34	7.40	9.46	12.04	13.94	15.81
65	06174	735762	539676	0.64	0.93	1.32	2.14	3.16	5.93	9.97	12.67	16.05	18.52	20.95
66	05810	715639	543206	0.76	1.03	1.40	2.12	2.99	5.25	8.45	10.54	13.13	15.01	16.84
67	06051	559601	1097510	0.20	0.33	0.51	0.91	1.44	2.97	5.30	6.90	8.93	10.44	11.93
68	06134	305910	1310403	0.04	0.09	0.19	0.46	0.88	2.24	4.58	6.28	8.51	10.19	11.89
69	06160	240884	667430	0.11	0.21	0.37	0.75	1.28	2.91	5.53	7.38	9.77	11.56	13.34
70	06258	651660	727792	0.63	0.87	1.21	1.88	2.70	4.87	7.98	10.03	12.58	14.44	16.26
71	06070	569040	1061376	0.18	0.31	0.49	0.92	1.49	3.15	5.74	7.53	9.82	11.51	13.20
72	06052	572876	1086121	0.07	0.15	0.29	0.63	1.13	2.71	5.33	7.20	9.63	11.46	13.28
73	06218	382265	1526726	0.10	0.20	0.36	0.76	1.33	3.10	5.98	8.03	10.67	12.65	14.63
74	05838	642244	901321	0.10	0.21	0.39	0.85	1.51	3.60	7.03	9.49	12.67	15.06	17.45
75	05839	654787	890764	0.31	0.48	0.73	1.26	1.95	3.89	6.80	8.79	11.30	13.15	14.97
76	06093	397630	941692	0.00	0.03	0.09	0.34	0.80	2.55	5.86	8.39	11.79	14.42	17.08
77	06222	624710	887230	0.40	0.60	0.89	1.50	2.29	4.48	7.76	9.97	12.76	14.81	16.83
78	05837	625984	915303	0.22	0.38	0.62	1.18	1.94	4.20	7.73	10.19	13.34	15.68	18.01
79	06125	629618	911781	0.15	0.28	0.48	0.98	1.67	3.79	7.20	9.60	12.69	15.01	17.32
80	06253	680128	578682	0.13	0.28	0.54	1.20	2.18	5.28	10.46	14.18	19.01	22.64	26.29
81	05966	806049	866562	0.69	0.99	1.43	2.32	3.44	6.49	10.96	13.95	17.68	20.42	23.11
82	06179	778640	691382	0.49	0.78	1.20	2.12	3.33	6.78	12.04	15.64	20.19	23.56	26.90
83	05796	781829	691201	0.37	0.64	1.05	2.00	3.30	7.14	13.18	17.39	22.77	26.77	30.75
84	06122	726776	934919	0.46	0.72	1.12	1.99	3.13	6.39	11.36	14.77	19.09	22.28	25.44
85	06138	157880	946317	0.02	0.06	0.16	0.43	0.89	2.50	5.37	7.50	10.32	12.47	14.64
86	06139	174122	939723	0.13	0.22	0.37	0.70	1.15	2.48	4.58	6.04	7.90	9.29	10.67
87	06048	545793	1107892	0.15	0.26	0.44	0.85	1.41	3.10	5.78	7.66	10.06	11.86	13.64
88	06225	550416	866577	0.24	0.41	0.66	1.23	2.00	4.25	7.76	10.19	13.30	15.60	17.89
89	06202	633984	382765	0.70	0.96	1.31	2.00	2.85	5.07	8.21	10.28	12.85	14.71	16.53
90	06224	606168	872235	0.33	0.53	0.83	1.49	2.36	4.85	8.68	11.31	14.65	17.12	19.56
91	05806	759705	630379	0.21	0.38	0.66	1.30	2.20	4.91	9.25	12.30	16.21	19.14	22.05
92	06120	470598	961466	0.01	0.05	0.14	0.42	0.88	2.53	5.52	7.76	10.73	13.00	15.30

93	05818	656800	362549	0.39	0.55	0.79	1.29	1.90	3.57	6.01	7.65	9.69	11.18	12.65
94	05817	705827	375929	0.04	0.11	0.25	0.65	1.27	3.37	7.03	9.70	13.23	15.91	18.61
95	05816	715205	410831	0.30	0.47	0.72	1.25	1.95	3.92	6.90	8.93	11.50	13.40	15.27
96	06227	562849	859627	0.02	0.06	0.15	0.42	0.88	2.51	5.45	7.64	10.54	12.76	15.00
97	06119	624298	963865	0.15	0.27	0.49	0.99	1.71	3.92	7.50	10.03	13.29	15.74	18.17
98	05797	769437	669375	0.31	0.53	0.87	1.66	2.73	5.89	10.86	14.32	18.74	22.03	25.30
99	06274	706442	854841	0.15	0.29	0.50	1.02	1.75	3.99	7.59	10.13	13.41	15.86	18.31
100	06324	681288	777584	0.12	0.22	0.38	0.76	1.31	2.95	5.60	7.46	9.86	11.66	13.45
101	05940	435855	1261289	0.11	0.20	0.36	0.73	1.25	2.84	5.40	7.20	9.53	11.27	13.01
102	05983	456495	1208920	0.42	0.56	0.76	1.15	1.62	2.83	4.53	5.65	7.03	8.03	9.00
103	05999	436517	1151841	0.02	0.06	0.14	0.38	0.76	2.06	4.35	6.05	8.28	9.98	11.70
104	06068	492514	1083330	0.00	0.02	0.08	0.29	0.68	2.17	4.98	7.13	10.01	12.23	14.49
105	06071	512067	1051029	0.05	0.12	0.24	0.54	1.01	2.52	5.08	6.93	9.34	11.16	12.99
106	06066	417389	1089068	0.03	0.07	0.15	0.37	0.73	1.92	4.00	5.51	7.51	9.03	10.56
107	06074	448768	1012176	0.00	0.01	0.05	0.22	0.57	2.00	4.84	7.06	10.06	12.40	14.79
108	06243	401134	892714	0.11	0.20	0.35	0.70	1.19	2.68	5.08	6.76	8.94	10.56	12.18
109	06327	573876	726374	0.01	0.03	0.10	0.33	0.74	2.22	4.96	7.03	9.80	11.92	14.08
110	06237	732597	1010079	0.73	1.01	1.39	2.17	3.11	5.61	9.19	11.56	14.49	16.63	18.72
111	05808	683295	628267	0.13	0.23	0.41	0.83	1.43	3.23	6.15	8.21	10.86	12.84	14.82
112	06031	678230	1105129	0.35	0.55	0.85	1.49	2.34	4.73	8.38	10.87	14.02	16.35	18.66
113	05912	365149	1322578	0.02	0.06	0.14	0.37	0.73	1.97	4.15	5.75	7.86	9.46	11.08
114	06269	583269	852797	0.50	0.72	1.02	1.64	2.41	4.49	7.52	9.54	12.06	13.91	15.72
115	06271	597522	847377	0.55	0.75	1.04	1.62	2.32	4.17	6.82	8.57	10.74	12.32	13.87
116	06263	216752	818638	0.00	0.02	0.09	0.35	0.84	2.72	6.33	9.10	12.83	15.71	18.64
117	05880	329485	1369071	0.10	0.17	0.28	0.54	0.90	1.94	3.58	4.73	6.19	7.28	8.36
118	06187	743790	1042559	1.02	1.34	1.77	2.60	3.58	6.08	9.54	11.78	14.53	16.52	18.46
119	06166	557637	518472	0.19	0.33	0.56	1.08	1.81	3.97	7.41	9.80	12.88	15.17	17.45
120	06046	556384	1076704	0.15	0.26	0.43	0.82	1.35	2.93	5.41	7.14	9.35	11.00	12.64
121	05820	521305	874023	0.22	0.36	0.57	1.05	1.69	3.56	6.46	8.46	11.01	12.90	14.78
122	05915	356865	773499	0.10	0.18	0.30	0.60	1.02	2.28	4.31	5.73	7.55	8.92	10.28
123	06238	391538	999565	0.04	0.11	0.23	0.56	1.06	2.74	5.60	7.69	10.42	12.49	14.57
124	06192	674849	1198522	0.71	0.97	1.33	2.04	2.91	5.17	8.39	10.50	13.12	15.03	16.89

125	06182	790635	853021	0.85	1.16	1.59	2.46	3.50	6.26	10.19	12.77	15.97	18.30	20.58
126	06399	218370	1054921	0.04	0.09	0.21	0.52	1.01	2.65	5.50	7.59	10.33	12.42	14.51
127	06131	227513	1297131	0.11	0.19	0.33	0.65	1.10	2.43	4.57	6.06	7.99	9.42	10.85
128	06396	281243	1642309	0.05	0.11	0.24	0.56	1.05	2.66	5.40	7.39	9.98	11.95	13.92
129	06142	634746	1248050	0.58	0.85	1.23	2.02	3.03	5.78	9.83	12.55	15.95	18.45	20.92
130	06397	105297	1387049	0.01	0.03	0.10	0.33	0.74	2.25	5.06	7.18	10.01	12.19	14.40
131	06245	250708	79406	0.35	0.53	0.80	1.37	2.11	4.18	7.29	9.40	12.06	14.02	15.96
132	06162	234088	79500	0.58	0.83	1.18	1.92	2.83	5.31	8.93	11.35	14.37	16.59	18.76
133	06130	193525	1345960	0.05	0.10	0.20	0.45	0.82	2.01	4.02	5.46	7.33	8.75	10.17
134	06246	599437	206020	1.76	2.09	2.51	3.27	4.10	6.06	8.58	10.13	11.98	13.29	14.54
135	06194	243974	1654663	0.07	0.13	0.24	0.51	0.90	2.10	4.06	5.45	7.26	8.61	9.96
136	06401	623624	1357079	0.34	0.52	0.79	1.36	2.10	4.19	7.32	9.46	12.15	14.13	16.09
137	15091	138338	1764624	0.02	0.07	0.16	0.41	0.82	2.21	4.66	6.47	8.85	10.66	12.49
138	06256	392985	1532754	0.07	0.15	0.28	0.62	1.12	2.70	5.32	7.20	9.63	11.46	13.30
139	06398	134321	1340406	0.07	0.14	0.25	0.53	0.92	2.14	4.14	5.56	7.39	8.77	10.14
140	06847	419942	1629645	0.37	0.56	0.83	1.40	2.14	4.18	7.23	9.29	11.89	13.80	15.68
141	06848	425268	1623574	0.20	0.32	0.50	0.89	1.41	2.88	5.13	6.67	8.62	10.07	11.50
142	06165	659150	243843	0.80	1.10	1.52	2.35	3.38	6.08	9.94	12.49	15.65	17.95	20.20
143	06400	553473	1556881	0.54	0.78	1.12	1.83	2.71	5.11	8.63	10.98	13.93	16.08	18.20
144	06849	235413	1175990	0.04	0.10	0.19	0.45	0.84	2.10	4.24	5.78	7.80	9.32	10.85
145	06132	258989	1338132	0.11	0.20	0.34	0.67	1.13	2.51	4.73	6.29	8.29	9.78	11.27

Table D11. November Rainfall Return Periods for 147 stations in South Florida (DRP= Dry Return Periods in years, WRP= Wet Return Periods in years).

Serial number	Station Dbkey	Easting (ft)	Northing (ft)	100 DRP (inches)	50 DRP (inches)	20 DRP (inches)	10 DRP (inches)	5 DRP (inches)	Average(inches)	5 WRP (inches)	10 WRP (inches)	20 WRP (inches)	50 WRP (inches)	100 WRP (inches)
1	06303	754327	787696	0.06	0.14	0.26	0.59	1.07	2.60	5.17	7.01	9.40	11.20	13.01
2	05798	680541	675505	0.00	0.02	0.06	0.23	0.54	1.72	3.97	5.69	8.00	9.79	11.61
3	05922	294334	865035	0.00	0.00	0.00	0.05	0.20	1.02	2.92	4.50	6.72	8.49	10.32
4	06205	358851	1035308	0.02	0.05	0.11	0.29	0.57	1.52	3.19	4.42	6.03	7.26	8.50
5	06136	331927	1184254	0.02	0.04	0.09	0.24	0.48	1.29	2.70	3.73	5.09	6.13	7.17
6	06135	333930	1276041	0.00	0.01	0.04	0.17	0.42	1.39	3.29	4.75	6.73	8.26	9.82
7	05945	532644	866155	0.02	0.05	0.11	0.25	0.47	1.20	2.43	3.33	4.50	5.38	6.27
8	06047	525504	1118578	0.00	0.02	0.05	0.17	0.37	1.13	2.56	3.63	5.07	6.18	7.30
9	06207	620846	844509	0.01	0.03	0.08	0.25	0.54	1.61	3.56	5.03	6.99	8.50	10.02
10	06128	484688	899363	0.00	0.00	0.02	0.10	0.26	0.91	2.17	3.16	4.49	5.52	6.58
11	05813	416025	1423525	0.01	0.03	0.09	0.26	0.53	1.51	3.26	4.56	6.28	7.60	8.93
12	06157	621619	921248	0.02	0.06	0.13	0.32	0.61	1.59	3.28	4.51	6.12	7.35	8.58
13	06186	113082	801291	0.01	0.00	0.00	0.04	0.17	0.89	2.60	4.03	6.03	7.63	9.29
14	06129	249059	1507870	0.00	0.01	0.03	0.13	0.34	1.15	[illegible]	3.96	5.62	6.91	8.23
15	06168	736091	479102	0.07	0.13	0.23	0.47	0.80	1.80	3.42	4.55	6.01	7.11	8.20
16	05916	309025	745419	0.01	0.04	0.10	0.25	0.50	1.34	2.82	3.91	5.35	6.44	7.54
17	06178	762622	630699	0.02	0.06	0.13	0.36	0.72	1.95	4.12	5.71	7.82	9.43	11.05
18	06206	457975	824667	0.00	0.02	0.06	0.19	0.42	1.30	2.93	4.17	5.82	7.10	8.39
19	05800	762545	643219	0.24	0.39	0.60	1.06	1.67	3.39	6.03	7.83	10.11	11.80	13.47
20	06050	535800	1093341	0.02	0.06	0.11	0.26	0.48	1.21	2.43	3.31	4.46	5.33	6.21
21	06161	372647	549519	0.01	0.02	0.06	0.16	0.33	0.93	2.00	2.80	3.85	4.66	5.47
22	06210	528210	293638	0.01	0.04	0.10	0.25	0.51	1.40	2.96	4.11	5.63	6.78	7.95
23	06151	710834	1128714	0.07	0.14	0.27	0.57	1.00	2.34	4.55	6.12	8.15	9.68	11.21
24	06193	217472	817624	0.00	0.01	0.04	0.14	0.32	1.02	2.34	3.34	4.69	5.73	6.79
25	06015	657594	1102721	0.17	0.27	0.42	0.76	1.19	2.44	4.35	5.65	7.31	8.54	9.75
26	05801	752532	640634	0.16	0.28	0.47	0.89	1.47	3.19	5.91	7.79	10.21	12.01	13.80
27	05807	752149	628213	0.13	0.23	0.40	0.80	1.34	3.00	5.65	7.51	9.90	11.68	13.46
28	06154	471467	910780	0.00	0.02	0.05	0.17	0.38	1.13	2.53	3.59	5.00	6.08	7.18

29	06155	526650	880690	0.00	0.01	0.05	0.18	0.41	1.31	3.01	4.32	6.07	7.42	8.79
30	06241	593048	860492	0.00	0.01	0.04	0.14	0.33	1.01	2.31	3.29	4.61	5.62	6.66
31	06242	619862	919686	0.00	0.01	0.04	0.13	0.28	0.84	1.88	2.67	3.71	4.52	5.33
32	06073	566270	1044407	0.01	0.02	0.06	0.19	0.39	1.12	2.44	3.42	4.73	5.72	6.73
33	06175	734827	543508	0.11	0.21	0.36	0.74	1.26	2.86	5.44	7.26	9.61	11.36	13.11
34	06268	664918	424260	0.02	0.05	0.12	0.30	0.59	1.54	3.19	4.40	5.98	7.19	8.40
35	05815	681903	416049	0.14	0.23	0.36	0.67	1.09	2.30	4.19	5.50	7.16	8.39	9.62
36	06180	810575	806715	0.04	0.10	0.22	0.54	1.04	2.70	5.56	7.65	10.39	12.47	14.56
37	06082	363617	753789	0.00	0.00	0.02	0.13	0.36	1.36	3.39	4.99	7.18	8.88	10.63
38	06077	507142	992758	0.00	0.00	0.01	0.08	0.24	0.97	2.51	3.74	5.44	6.78	8.15
39	06144	330807	1508031	0.00	0.00	0.03	0.13	0.34	1.21	2.95	4.31	6.16	7.59	9.06
40	06049	556236	1117700	0.02	0.04	0.09	0.23	0.44	1.14	2.35	3.23	4.40	5.28	6.16
41	06147	365180	1435686	0.00	0.00	0.01	0.10	0.30	1.19	3.04	4.52	6.56	8.16	9.79
42	06305	355624	1438447	0.05	0.11	0.21	0.45	0.81	1.95	3.84	5.19	6.94	8.26	9.58
43	06146	365917	1441945	0.00	0.01	0.03	0.14	0.35	1.22	2.93	4.27	6.07	7.47	8.91
44	06133	268945	1369683	0.00	0.01	0.04	0.15	0.38	1.25	2.93	4.23	5.98	7.34	8.72
45	06145	427930	1470579	0.00	0.01	0.03	0.13	0.31	1.05	2.48	3.58	5.06	6.21	7.39
46	06278	438598	1446710	0.01	0.03	0.10	0.32	0.70	2.10	4.68	6.62	9.21	11.20	13.22
47	06150	375491	1072312	0.04	0.08	0.14	0.31	0.55	1.32	2.58	3.48	4.65	5.53	6.41
48	06158	356775	879515	0.02	0.05	0.10	0.24	0.45	1.14	2.31	3.16	4.27	5.11	5.95
49	05885	287610	826801	0.00	0.00	0.03	0.12	0.33	1.18	2.90	4.23	6.05	7.47	8.92
50	06197	504893	898250	0.00	0.01	0.03	0.13	0.31	0.99	2.29	3.28	4.62	5.65	6.70
51	06181	737004	856115	0.06	0.13	0.26	0.58	1.05	2.57	5.12	6.94	9.32	11.11	12.91
52	06290	759669	828886	0.30	0.45	0.66	1.13	1.72	3.36	5.82	7.49	9.58	11.13	12.65
53	06321	771113	771605	0.16	0.28	0.48	0.92	1.52	3.33	6.18	8.17	10.72	12.62	14.51
54	06299	771212	798465	0.22	0.36	0.57	1.05	1.68	3.51	6.35	8.31	10.79	12.64	14.47
55	06276	785339	831476	0.21	0.35	0.56	1.04	1.69	3.59	6.54	8.58	11.19	13.12	15.05
56	06306	786766	782109	0.18	0.30	0.50	0.95	1.58	3.41	6.30	8.32	10.90	12.82	14.72
57	06302	760659	786483	0.20	0.33	0.53	0.97	1.56	3.29	5.97	7.82	10.18	11.93	13.67
58	06322	759988	777391	0.21	0.34	0.55	1.00	1.59	3.33	6.01	7.85	10.20	11.94	13.67
59	06298	786400	795839	0.17	0.29	0.48	0.94	1.56	3.41	6.35	8.40	11.02	12.98	14.93
60	05793	776953	740544	0.17	0.29	0.46	0.87	1.42	3.03	5.54	7.29	9.52	11.17	12.82

61	05792	760266	747203	0.15	0.27	0.45	0.88	1.47	3.25	6.06	8.03	10.55	12.44	14.31
62	06172	786202	526653	0.10	0.18	0.31	0.61	1.05	2.35	4.45	5.93	7.83	9.25	10.67
63	06249	737977	502333	0.05	0.11	0.22	0.51	0.93	2.27	4.52	6.14	8.25	9.84	11.43
64	06265	563221	853469	0.00	0.00	0.02	0.10	0.26	0.88	2.11	3.06	4.35	5.35	6.37
65	06174	735762	539676	0.06	0.12	0.24	0.55	1.00	2.44	4.87	6.61	8.88	10.59	12.30
66	05810	715639	543206	0.13	0.19	0.32	0.63	1.06	2.34	4.38	5.81	7.65	9.02	10.38
67	06051	559601	1097510	0.01	0.03	0.07	0.20	0.42	1.18	2.57	3.59	4.96	6.01	7.06
68	06134	305910	1310403	0.00	0.01	0.05	0.18	0.42	1.36	3.15	4.52	6.37	7.79	9.24
69	06160	240884	667430	0.02	0.06	0.12	0.27	0.52	1.31	2.65	3.62	4.89	5.86	6.82
70	06258	651660	727792	0.02	0.05	0.11	0.27	0.52	1.36	2.80	3.85	5.23	6.28	7.33
71	06070	569040	1061376	0.00	0.02	0.07	0.23	0.52	1.58	3.56	5.06	7.06	8.60	10.17
72	06052	572876	1086121	0.02	0.05	0.11	0.27	0.50	1.29	2.64	3.61	4.90	5.87	6.84
73	06218	382265	1526726	0.00	0.01	0.05	0.16	0.36	1.13	2.58	3.67	5.15	6.28	7.43
74	05838	642244	901321	0.01	0.04	10	0.28	0.57	1.57	3.34	4.64	6.37	7.69	9.02
75	05839	654787	890764	0.06	0.12	0.22	0.46	0.82	1.93	3.76	5.06	6.75	8.01	9.28
76	06093	397630	941692	0.00	0.00	0.01	0.11	0.35	1.46	3.82	5.72	8.33	10.38	12.49
77	06222	624710	887230	0.00	0.00	0.01	0.07	0.26	1.17	3.19	4.82	7.10	8.90	10.76
78	05837	625984	915303	0.02	0.05	0.12	0.30	0.60	1.62	3.40	4.70	6.43	7.74	9.06
79	06125	629618	911781	0.06	0.11	0.21	0.45	0.79	1.86	3.63	4.90	6.53	7.76	8.99
80	06253	680128	578682	0.04	0.09	0.17	0.41	0.77	1.93	3.90	5.32	7.19	8.60	10.01
81	05966	806049	866562	0.14	0.24	0.41	0.81	1.37	3.04	5.71	7.58	9.98	11.77	13.55
82	06179	778640	691382	0.03	0.09	0.20	0.51	1.01	2.69	5.65	7.82	10.68	12.85	15.04
83	05796	781829	691201	0.11	0.20	0.35	0.71	1.22	2.77	5.26	7.03	9.30	11.00	12.70
84	06122	726776	934919	0.00	0.01	0.06	0.29	0.79	2.88	7.07	10.36	14.84	18.32	21.89
85	06138	157880	946317	0.00	0.00	0.02	0.10	0.27	0.99	2.44	3.57	5.11	6.31	7.54
86	06139	174122	939723	0.01	0.03	0.08	0.24	0.49	1.39	3.00	4.19	5.78	6.99	8.22
87	06048	545793	1107892	0.03	0.06	0.12	0.27	0.50	1.23	2.47	3.37	4.54	5.42	6.30
88	06225	550416	866577	0.01	0.02	0.06	0.17	0.35	1.02	2.24	3.15	4.36	5.28	6.22
89	06202	633984	382765	0.07	0.13	0.23	0.46	0.78	1.75	3.31	4.41	5.81	6.87	7.91
90	06224	606168	872235	0.00	0.00	0.03	0.12	0.32	1.12	2.72	3.97	5.66	6.97	8.31
91	05806	759705	630379	0.16	0.27	0.46	0.89	1.48	3.24	6.02	7.97	10.46	12.32	14.17
92	06120	470598	961466	-0.01	0.00	0.00	0.04	0.21	1.13	3.34	5.18	7.79	9.87	12.03

93	05818	656800	362549	0.01	0.04	0.10	0.27	0.55	1.48	3.14	4.36	5.97	7.19	8.43
94	05817	705827	375929	0.09	0.16	0.27	0.52	0.87	1.91	3.55	4.70	6.17	7.26	8.35
95	05816	715205	410831	0.00	0.01	0.04	0.20	0.53	1.88	4.56	6.64	9.47	11.67	13.92
96	06227	562849	859627	0.01	0.05	0.12	0.34	0.70	1.97	4.25	5.94	8.18	9.89	11.62
97	06119	624298	963865	0.00	0.01	0.04	0.14	0.34	1.12	2.63	3.78	5.34	6.55	7.78
98	05797	769437	669375	0.04	0.09	0.19	0.47	0.91	2.35	4.84	6.65	9.02	10.82	12.63
99	06274	706442	854841	0.01	0.03	0.09	0.29	0.63	1.91	4.28	6.06	8.45	10.28	12.14
100	06324	681288	777584	0.02	0.06	0.13	0.34	0.69	1.86	3.93	5.45	7.46	8.99	10.53
101	05940	435855	1261289	0.00	0.01	0.04	0.17	0.41	1.35	3.16	4.55	6.42	7.87	9.34
102	05981	456495	1208920	0.01	0.02	0.07	0.21	0.46	1.34	2.96	4.17	5.78	7.01	8.26
103	05999	436517	1151841	0.00	0.02	0.06	0.20	0.45	1.39	3.16	4.50	6.29	7.68	9.08
104	06068	492514	1083330	0.04	0.09	0.17	0.38	0.70	1.71	3.41	4.63	6.22	7.42	8.62
105	06071	512067	1051029	0.01	0.03	0.07	0.23	0.51	1.52	3.37	4.76	6.62	8.04	9.49
106	06066	417389	1089068	0.00	0.01	0.03	0.12	0.29	0.93	2.18	3.14	4.43	5.43	6.44
107	06074	448768	1012176	-0.01	0.00	0.00	0.04	0.18	0.99	2.89	4.48	6.72	8.50	10.35
108	06243	401134	892714	0.00	0.01	0.03	0.13	0.32	1.09	2.58	3.74	5.30	6.51	7.75
109	06327	573876	726374	0.00	0.02	0.07	0.22	0.50	1.53	3.45	4.90	6.84	8.33	9.85
110	06237	732597	1010079	0.00	0.02	0.06	0.21	0.51	1.64	3.79	5.44	7.66	9.37	11.11
111	05808	683295	628267	0.10	0.17	0.28	0.53	0.87	1.88	3.47	4.59	6.01	7.06	8.12
112	06031	678230	1105129	0.06	0.12	0.23	0.49	0.86	2.02	3.92	5.27	7.02	8.33	9.64
113	05912	365149	1322578	0.05	0.10	0.19	0.42	0.76	1.81	3.56	4.81	6.43	7.65	8.87
114	06269	583269	852797	0.00	0.02	0.05	0.16	0.35	1.05	2.31	3.27	4.54	5.51	6.50
115	06271	597522	847377	0.00	0.01	0.04	0.14	0.34	1.12	2.63	3.79	5.36	6.57	7.81
116	06263	216752	818638	0.00	0.02	0.05	0.16	0.36	1.08	2.40	3.39	4.72	5.74	6.77
117	05880	329485	1369071	0.00	0.00	0.03	0.14	0.39	1.44	3.57	5.25	7.54	9.32	11.15
118	06187	743790	1042559	0.08	0.16	0.29	0.62	1.08	2.53	4.89	6.57	8.74	10.37	11.99
119	06166	557637	518472	0.03	0.07	0.14	0.33	0.62	1.54	3.11	4.23	5.71	6.82	7.94
120	06046	556384	1076704	0.01	0.03	0.07	0.19	0.40	1.11	2.38	3.33	4.58	5.53	6.49
121	05820	521305	874023	0.00	0.01	0.04	0.13	0.31	0.98	2.23	3.19	4.47	5.46	6.46
122	05915	356865	773499	0.01	0.02	0.06	0.19	0.42	1.23	2.72	3.84	5.33	6.47	7.63
123	06238	391538	999565	0.00	0.00	0.02	0.09	0.25	0.93	2.28	3.33	4.78	5.90	7.05
124	06192	674849	1198522	0.06	0.13	0.27	0.62	1.16	2.91	5.86	8.00	10.80	12.91	15.03

125	06182	790635	853021	0.07	0.16	0.31	0.69	1.26	3.07	6.11	8.29	11.12	13.26	15.41
126	06399	218370	1054921	0.00	0.02	0.06	0.18	0.40	1.21	2.70	3.82	5.32	6.47	7.64
127	06131	227513	1297131	0.00	0.02	0.06	0.20	0.44	1.34	3.00	4.26	5.95	7.24	8.56
128	06396	281243	1642309	0.00	0.02	0.06	0.19	0.43	1.30	2.92	4.14	5.76	7.02	8.29
129	06142	634746	1248050	0.08	0.15	0.25	0.48	0.81	1.78	3.32	4.41	5.79	6.83	7.86
130	06397	105297	1387049	0.00	0.00	0.01	0.08	0.27	1.21	3.24	4.88	7.17	8.97	10.82
131	06245	250708	79406	0.01	0.04	0.09	0.27	0.55	1.54	3.31	4.63	6.38	7.71	9.05
132	06162	234088	79500	0.00	0.01	0.04	0.16	0.42	1.48	3.58	5.22	7.44	9.16	10.93
133	06130	193525	1345960	0.00	0.00	0.02	0.11	0.31	1.17	2.93	4.31	6.20	7.67	9.18
134	06246	599437	206020	0.00	0.01	0.04	0.17	0.41	1.35	3.18	4.58	6.48	7.95	9.45
135	06194	243974	1654663	0.01	0.03	0.09	0.25	0.52	1.50	3.27	4.59	6.35	7.69	9.04
136	06401	623624	1357079	0.08	0.15	0.26	0.54	0.93	2.13	4.07	5.45	7.22	8.55	9.87
137	15091	138338	1764624	0.02	0.05	0.11	0.28	0.54	1.43	2.95	4.07	5.54	6.65	7.77
138	06256	392985	1532754	0.00	0.01	0.04	0.17	0.41	1.34	3.13	4.50	6.35	7.78	9.24
139	06398	134321	1340406	0.00	0.02	0.05	0.18	0.42	1.30	2.95	4.21	5.90	7.20	8.52
140	06847	419942	1629645	0.02	0.05	0.11	0.27	0.54	1.41	2.93	4.04	5.49	6.60	7.72
141	06848	425268	1623574	0.01	0.03	0.09	0.27	0.58	1.70	3.73	5.25	7.27	8.81	10.38
142	06165	659150	243843	0.00	0.02	0.08	0.26	0.59	1.82	4.12	5.86	8.20	10.00	11.82
143	06400	553473	1556881	0.05	0.10	0.20	0.47	0.86	2.12	4.24	5.77	7.76	9.26	10.77
144	06849	235413	1175990	0.00	0.01	0.05	0.17	0.39	1.21	2.77	3.95	5.53	6.76	8.00
145	06132	258989	1338132	0.00	0.00	0.03	0.13	0.33	1.20	2.95	4.31	6.16	7.61	9.08

Table D12. December Rainfall Return Periods for 147 stations in South Florida (DRP= Dry Return Periods in years, WRP= Wet Return Periods in years).

Serial number	Station Dbkey	Easting (ft)	Northing (ft)	100 DRP (inches)	50 DRP (inches)	20 DRP (inches)	10 DRP (inches)	5 DRP (inches)	Average(inches)	5 WRP (inches)	10 WRP (inches)	20 WRP (inches)	50 WRP (inches)	100 WRP (inches)
1	06303	754327	787696	0.01	0.02	0.06	0.18	0.39	1.15	2.53	3.56	4.93	5.98	7.05
2	05798	680541	675505	0.00	0.00	0.01	0.07	0.22	0.94	2.49	3.73	5.45	6.80	8.19
3	05922	294334	865035	0.00	0.00	0.02	0.10	0.28	1.03	2.56	3.75	5.39	6.66	7.96
4	06205	358851	1035308	0.10	0.17	0.26	0.47	0.74	1.53	2.73	3.56	4.61	5.38	6.15
5	06136	331927	1184254	0.03	0.07	0.13	0.30	0.53	1.29	2.54	3.43	4.59	5.47	6.35
6	06135	333930	1276041	0.06	0.11	0.19	0.38	0.66	1.50	2.87	3.84	5.09	6.02	6.96
7	05945	532644	866155	0.00	0.00	0.01	0.08	0.24	0.94	2.42	3.59	5.21	6.47	7.77
8	06047	525504	1118578	0.02	0.04	0.09	0.23	0.46	1.22	2.55	3.53	4.81	5.78	6.76
9	06207	620846	844509	0.01	0.02	0.06	0.19	0.42	1.25	2.76	3.90	5.42	6.59	7.77
10	06128	484688	899363	0.00	0.01	0.05	0.15	0.34	1.05	2.37	3.37	4.71	5.74	6.78
11	05813	416025	1423525	0.04	0.09	0.18	0.39	0.70	1.71	3.38	4.57	6.13	7.30	8.48
12	06157	621619	921248	0.01	0.03	0.08	0.24	0.51	1.52	3.36	4.75	6.60	8.01	9.45
13	06186	113082	801291	0.05	0.10	0.18	0.36	0.62	1.41	2.68	3.57	4.73	5.59	6.45
14	06129	249059	1507870	0.02	0.05	0.12	0.30	0.60	1.63	3.41	4.73	6.46	7.78	9.11
15	06168	736091	479102	0.02	0.04	0.10	0.25	0.50	1.33	2.79	3.86	5.27	6.34	7.42
16	05916	309025	745419	0.00	0.00	0.02	0.10	0.28	1.00	2.46	3.60	5.15	6.35	7.59
17	06178	762622	630699	0.00	0.00	0.01	0.10	0.34	1.42	3.75	5.63	8.22	10.26	12.36
18	06206	457975	824667	0.00	0.00	0.01	0.08	0.27	1.18	3.18	4.81	7.07	8.85	10.69
19	05800	762545	643219	0.01	0.03	0.08	0.25	0.54	1.64	3.67	5.20	7.24	8.81	10.40
20	06050	535800	1093341	0.02	0.05	0.10	0.25	0.46	1.16	2.34	3.20	4.32	5.16	6.01
21	06161	372647	549519	0.00	0.00	0.00	0.04	0.14	0.67	1.86	2.84	4.21	5.29	6.41
22	06210	528210	293638	0.01	0.03	0.07	0.20	0.40	1.09	2.30	3.20	4.39	5.30	6.21
23	06151	710834	1128714	0.05	0.11	0.19	0.41	0.72	1.69	3.27	4.40	5.85	6.95	8.04
24	06193	217472	817624	0.01	0.02	0.06	0.17	0.36	1.04	2.29	3.22	4.46	5.41	6.37
25	06015	657594	1102721	0.00	0.02	0.06	0.20	0.45	1.34	2.98	4.22	5.87	7.14	8.42
26	05801	752532	640634	0.00	0.01	0.03	0.15	0.38	1.35	3.25	4.73	6.74	8.30	9.89
27	05807	752149	628213	0.00	0.01	0.04	0.14	0.35	1.16	2.73	3.94	5.58	6.84	8.13
28	06154	471467	910780	0.00	0.02	0.05	0.16	0.35	1.04	2.29	3.22	4.47	5.42	6.39

29	06155	526650	880690	0.00	0.01	0.03	0.13	0.32	1.06	2.49	3.59	5.06	6.21	7.37
30	06241	593048	860492	0.00	0.00	0.00	0.05	0.18	0.89	2.52	3.86	5.74	7.23	8.77
31	06242	619862	919686	0.00	0.00	0.01	0.08	0.24	1.04	2.74	4.11	6.01	7.50	9.04
32	06073	566270	1044407	0.00	0.00	0.02	0.09	0.25	0.88	2.14	3.13	4.47	5.51	6.57
33	06175	734827	543508	0.02	0.04	0.10	0.26	0.52	1.38	2.90	4.02	5.49	6.61	7.74
34	06268	664918	424260	0.01	0.02	0.06	0.16	0.33	0.93	2.00	2.79	3.83	4.63	5.44
35	05815	681903	416049	0.08	0.13	0.22	0.42	0.70	1.51	2.81	3.71	4.86	5.71	6.57
36	06180	810575	806715	0.06	0.12	0.22	0.47	0.83	1.97	3.85	5.19	6.92	8.23	9.53
37	06082	363617	753789	0.00	0.00	0.01	0.11	0.33	1.35	3.51	5.23	7.60	9.45	11.36
38	06077	507142	992758	0.00	0.00	0.01	0.06	0.19	0.84	2.28	3.43	5.05	6.32	7.63
39	06144	330807	1508031	0.07	0.12	0.21	0.43	0.72	1.62	3.06	4.07	5.37	6.34	7.31
40	06049	556236	1117700	0.02	0.05	0.11	0.25	0.46	1.17	2.37	3.23	4.37	5.22	6.08
41	06147	365180	1435686	0.04	0.09	0.18	0.39	0.71	1.73	3.42	4.63	6.20	7.39	8.58
42	06305	355624	1438447	0.04	0.08	0.16	0.37	0.68	1.66	3.32	4.50	6.05	7.22	8.39
43	06146	365917	1441945	0.00	0.02	0.07	0.22	0.49	1.48	3.32	4.70	6.56	7.98	9.43
44	06133	268945	1369683	0.01	0.03	0.08	0.24	0.50	1.45	3.16	4.44	6.14	7.44	8.76
45	06145	427930	1470579	0.03	0.07	0.15	0.34	0.63	1.58	3.19	4.36	5.88	7.03	8.18
46	06278	438598	1446710	-0.04	-0.01	0.00	0.01	0.11	0.86	2.87	4.62	7.16	9.22	11.37
47	06150	375491	1072312	0.05	0.08	0.15	0.30	0.51	1.14	2.17	2.89	3.82	4.51	5.20
48	06158	356775	879515	0.00	0.01	0.05	0.16	0.38	1.17	2.65	3.78	5.29	6.45	7.63
49	05885	287610	826801	0.00	0.02	0.05	0.15	0.34	1.02	2.28	3.23	4.50	5.48	6.47
50	06197	504893	898250	0.00	0.02	0.05	0.17	0.37	1.12	2.50	3.55	4.94	6.02	7.10
51	06181	737004	856115	0.01	0.03	0.09	0.27	0.57	1.64	3.58	5.04	6.97	8.44	9.94
52	06290	759669	828886	0.04	0.09	0.18	0.42	0.80	2.01	4.07	5.56	7.51	8.99	10.47
53	06321	771113	771605	0.11	0.19	0.32	0.60	0.99	2.12	3.89	5.13	6.70	7.87	9.04
54	06299	771212	798465	0.05	0.11	0.21	0.47	0.86	2.12	4.22	5.73	7.70	9.19	10.68
55	06276	785339	831476	0.04	0.09	0.20	0.47	0.89	2.26	4.61	6.32	8.55	10.24	11.94
56	06306	786766	782109	0.05	0.10	0.21	0.48	0.89	2.20	4.41	6.00	8.08	9.65	11.22
57	06302	760659	786483	0.05	0.11	0.20	0.45	0.81	1.96	3.88	5.25	7.03	8.38	9.72
58	06322	759988	777391	0.11	0.18	0.31	0.59	0.98	2.14	3.97	5.24	6.87	8.09	9.29
59	06298	786400	795839	0.05	0.11	0.22	0.49	0.90	2.19	4.36	5.92	7.95	9.48	11.02
60	05793	776953	740544	0.05	0.11	0.22	0.49	0.90	2.20	4.39	5.96	8.01	9.55	11.10

61	05792	760266	747203	0.03	0.08	0.17	0.42	0.82	2.13	4.41	6.07	8.25	9.91	11.58
62	06172	786202	526653	0.02	0.04	0.10	0.26	0.52	1.39	2.92	4.04	5.51	6.63	7.76
63	06249	737977	502333	0.00	0.01	0.04	0.16	0.40	1.35	3.21	4.64	6.59	8.10	9.64
64	06265	563221	853469	0.00	0.00	0.01	0.09	0.27	1.11	2.88	4.29	6.23	7.75	9.32
65	06174	735762	539676	0.01	0.03	0.07	0.21	0.46	1.33	2.93	4.12	5.71	6.93	8.16
66	05810	715639	543206	0.03	0.07	0.14	0.32	0.60	1.50	3.02	4.12	5.56	6.64	7.74
67	06051	559601	1097510	0.01	0.04	0.09	0.22	0.44	1.16	2.41	3.33	4.53	5.45	6.38
68	06134	305910	1310403	0.06	0.11	0.20	0.40	0.70	1.60	3.08	4.12	5.46	6.47	7.47
69	06160	240884	667430	0.00	0.01	0.04	0.13	0.31	0.98	2.25	3.22	4.52	5.52	6.54
70	06258	651660	727792	0.00	0.01	0.03	0.13	0.32	1.03	2.40	3.45	4.86	5.96	7.07
71	06070	569040	1061376	0.02	0.05	0.10	0.25	0.47	1.22	2.48	3.40	4.61	5.52	6.44
72	06052	572876	1086121	0.02	0.06	0.12	0.27	0.51	1.29	2.62	3.58	4.84	5.79	6.74
73	06218	382265	1526726	0.05	0.10	0.19	0.43	0.78	1.90	3.77	5.12	6.86	8.18	9.49
74	05838	642244	901321	0.00	0.01	0.04	0.15	0.36	1.18	2.76	3.97	5.59	6.85	8.13
75	05839	654787	890764	0.00	0.00	0.03	0.14	0.37	1.31	3.19	4.66	6.66	8.21	9.80
76	06093	397630	941692	0.02	0.05	0.12	0.30	0.58	1.54	3.20	4.42	6.02	7.23	8.45
77	06222	624710	887230	0.00	0.00	0.01	0.10	0.30	1.21	3.10	4.61	6.69	8.32	10.00
78	05837	625984	915303	0.00	0.01	0.04	0.14	0.35	1.18	2.79	4.03	5.70	6.99	8.31
79	06125	629618	911781	0.00	0.01	0.04	0.15	0.38	1.25	2.95	4.25	6.01	7.37	8.76
80	06253	680128	578682	0.00	0.01	0.04	0.15	0.35	1.14	2.64	3.79	5.34	6.53	7.74
81	05966	806049	866562	0.04	0.10	0.20	0.48	0.89	2.25	4.56	6.23	8.41	10.06	11.72
82	06179	778640	691382	0.02	0.05	0.11	0.30	0.61	1.68	3.57	4.96	6.81	8.21	9.63
83	05796	781829	691201	0.01	0.05	0.11	0.32	0.66	1.84	3.96	5.52	7.60	9.19	10.79
84	06122	726776	934919	-0.01	0.00	0.00	0.06	0.27	1.48	4.36	6.77	10.17	12.89	15.71
85	06138	157880	946317	0.01	0.04	0.08	0.22	0.45	1.24	2.62	3.65	5.00	6.03	7.06
86	06139	174122	939723	0.07	0.13	0.21	0.41	0.69	1.52	2.83	3.75	4.93	5.80	6.68
87	06048	545793	1107892	0.02	0.05	0.10	0.25	0.47	1.21	2.49	3.42	4.64	5.57	6.50
88	06225	550416	866577	0.00	0.00	0.01	0.08	0.25	1.06	2.80	4.19	6.12	7.64	9.20
89	06202	633984	382765	0.00	0.02	0.05	0.15	0.34	0.99	2.19	3.09	4.29	5.21	6.15
90	06224	606168	872235	0.00	0.00	0.02	0.12	0.32	1.21	3.03	4.46	6.41	7.94	9.50
91	05806	759705	630379	0.00	0.01	0.03	0.16	0.41	1.42	3.44	5.00	7.12	8.77	10.46
92	06120	470598	961466	0.00	0.02	0.05	0.16	0.36	1.09	2.45	3.48	4.86	5.92	7.00

93	05818	656800	362549	-0.01	0.00	0.00	0.02	0.11	0.67	2.04	3.20	4.84	6.16	7.53
94	05817	705827	375929	0.00	0.00	0.01	0.08	0.23	0.89	2.27	3.37	4.87	6.05	7.25
95	05816	715205	410831	0.00	0.01	0.03	0.12	0.29	0.96	2.27	3.27	4.62	5.67	6.74
96	06227	562849	859627	0.00	0.01	0.04	0.16	0.38	1.20	2.77	3.97	5.58	6.82	8.08
97	06119	624298	963865	0.00	0.00	0.01	0.09	0.26	1.06	2.76	4.11	5.97	7.43	8.93
98	05797	769437	669375	0.00	0.00	0.02	0.10	0.28	1.04	2.61	3.85	5.54	6.86	8.21
99	06274	706442	854841	0.00	0.00	0.02	0.13	0.37	1.40	3.52	5.19	7.48	9.27	11.10
100	06324	681288	777584	0.00	0.00	0.00	0.05	0.18	0.89	2.50	3.83	5.70	7.18	8.70
101	05940	435855	1261289	0.04	0.08	0.14	0.31	0.55	1.32	2.58	3.48	4.65	5.53	6.40
102	05981	456495	1208920	0.06	0.10	0.17	0.34	0.57	1.26	2.37	3.14	4.14	4.88	5.62
103	05999	436517	1151841	0.07	0.11	0.18	0.35	0.57	1.23	2.27	2.99	3.91	4.59	5.27
104	06068	492514	1083330	0.00	0.02	0.05	0.15	0.32	0.94	2.06	2.90	4.02	4.87	5.74
105	06071	512067	1051029	0.06	0.10	0.18	0.34	0.57	1.25	2.34	3.10	4.07	4.79	5.51
106	06066	417389	1089068	0.00	0.02	0.05	0.14	0.30	0.87	1.90	2.68	3.71	4.50	5.30
107	06074	448768	1012176	0.00	0.01	0.04	0.13	0.29	0.93	2.12	3.03	4.25	5.20	6.15
108	06243	401134	892714	0.01	0.04	0.08	0.21	0.41	1.09	2.26	3.12	4.24	5.10	5.96
109	06327	573876	726374	0.01	0.03	0.07	0.21	0.44	1.28	2.81	3.94	5.46	6.62	7.79
110	06237	732597	1010079	0.00	0.00	0.03	0.15	0.40	1.47	3.63	5.32	7.62	9.42	11.26
111	05808	683295	628267	0.00	0.00	0.02	0.11	0.28	0.98	2.36	3.45	4.91	6.05	7.22
112	06031	678230	1105129	0.00	0.00	0.01	0.09	0.28	1.22	3.24	4.87	7.13	8.91	10.74
113	05912	365149	1322578	0.00	0.02	0.06	0.19	0.41	1.25	2.79	3.96	5.52	6.72	7.93
114	06269	583269	852797	0.00	0.00	0.02	0.11	0.31	1.16	2.89	4.25	6.11	7.56	9.05
115	06271	597522	847377	0.00	0.00	0.01	0.09	0.27	1.08	2.77	4.12	5.97	7.42	8.91
116	06263	216752	818638	0.02	0.05	0.10	0.24	0.44	1.11	2.23	3.04	4.10	4.90	5.70
117	05880	329485	1369071	0.01	0.03	0.09	0.26	0.55	1.56	3.40	4.77	6.58	7.97	9.38
118	06187	743790	1042559	0.03	0.08	0.16	0.40	0.76	1.96	4.02	5.52	7.49	8.98	10.48
119	06166	557637	518472	0.02	0.04	0.09	0.20	0.37	0.93	1.87	2.55	3.44	4.12	4.79
120	06046	556384	1076704	0.03	0.06	0.12	0.27	0.49	1.22	2.45	3.33	4.49	5.36	6.23
121	05820	521305	874023	0.00	0.00	0.02	0.10	0.27	0.98	2.40	3.51	5.02	6.20	7.40
122	05915	356865	773499	0.00	0.01	0.04	0.15	0.34	1.03	2.32	3.30	4.61	5.62	6.64
123	06238	391538	999565	0.00	0.02	0.05	0.15	0.34	1.00	2.24	3.17	4.41	5.37	6.33
124	06192	674849	1198522	0.10	0.17	0.27	0.51	0.83	1.77	3.25	4.27	5.58	6.55	7.52

125	06182	790635	853021	0.05	0.10	0.20	0.45	0.81	1.98	3.94	5.34	7.17	8.54	9.92
126	06399	218370	1054921	0.01	0.03	0.07	0.22	0.46	1.35	2.97	4.18	5.79	7.03	8.28
127	06131	227513	1297131	0.02	0.05	0.12	0.29	0.56	1.45	2.99	4.12	5.59	6.71	7.83
128	06396	281243	1642309	0.05	0.10	0.19	0.41	0.74	1.78	3.50	4.73	6.33	7.53	8.74
129	06142	634746	1248050	0.04	0.08	0.15	0.33	0.60	1.45	2.88	3.91	5.25	6.25	7.26
130	06397	105297	1387049	0.02	0.05	0.12	0.31	0.60	1.60	3.36	4.64	6.34	7.63	8.92
131	06245	250708	79406	0.02	0.05	0.11	0.27	0.51	1.30	2.64	3.62	4.90	5.86	6.83
132	06162	234088	79500	0.01	0.04	0.09	0.24	0.48	1.31	2.76	3.82	5.23	6.30	7.38
133	06130	193525	1345960	0.01	0.04	0.10	0.27	0.54	1.48	3.13	4.34	5.95	7.17	8.40
134	06246	599437	206020	0.00	0.01	0.04	0.13	0.30	0.93	2.14	3.05	4.28	5.23	6.20
135	06194	243974	1654663	0.16	0.25	0.37	0.65	1.01	2.02	3.55	4.59	5.91	6.89	7.85
136	06401	623624	1357079	0.06	0.11	0.19	0.39	0.66	1.52	2.90	3.87	5.13	6.07	7.00
137	15091	138338	1764624	0.04	0.10	0.20	0.46	0.87	2.18	4.40	6.01	8.12	9.71	11.30
138	06256	392985	1532754	0.06	0.11	0.20	0.40	0.67	1.51	2.86	3.81	5.03	5.94	6.85
139	06398	134321	1340406	0.06	0.11	0.21	0.44	0.78	1.81	3.51	4.72	6.28	7.45	8.62
140	06847	419942	1629645	0.07	0.13	0.23	0.47	0.82	1.88	3.59	4.81	6.38	7.55	8.72
141	06848	425268	1623574	0.10	0.17	0.28	0.52	0.86	1.85	3.40	4.47	5.85	6.87	7.89
142	06165	659150	243843	0.01	0.03	0.08	0.24	0.50	1.44	3.15	4.42	6.11	7.41	8.72
143	06400	553473	1556881	0.13	0.21	0.33	0.59	0.93	1.91	3.41	4.43	5.73	6.69	7.65
144	06849	235413	1175990	0.06	0.11	0.19	0.37	0.62	1.40	2.63	3.50	4.62	5.45	6.28
145	06132	258989	1338132	0.08	0.14	0.24	0.46	0.76	1.66	3.08	4.08	5.35	6.30	7.25

APPENDIX E

Monthly variograms for various return periods

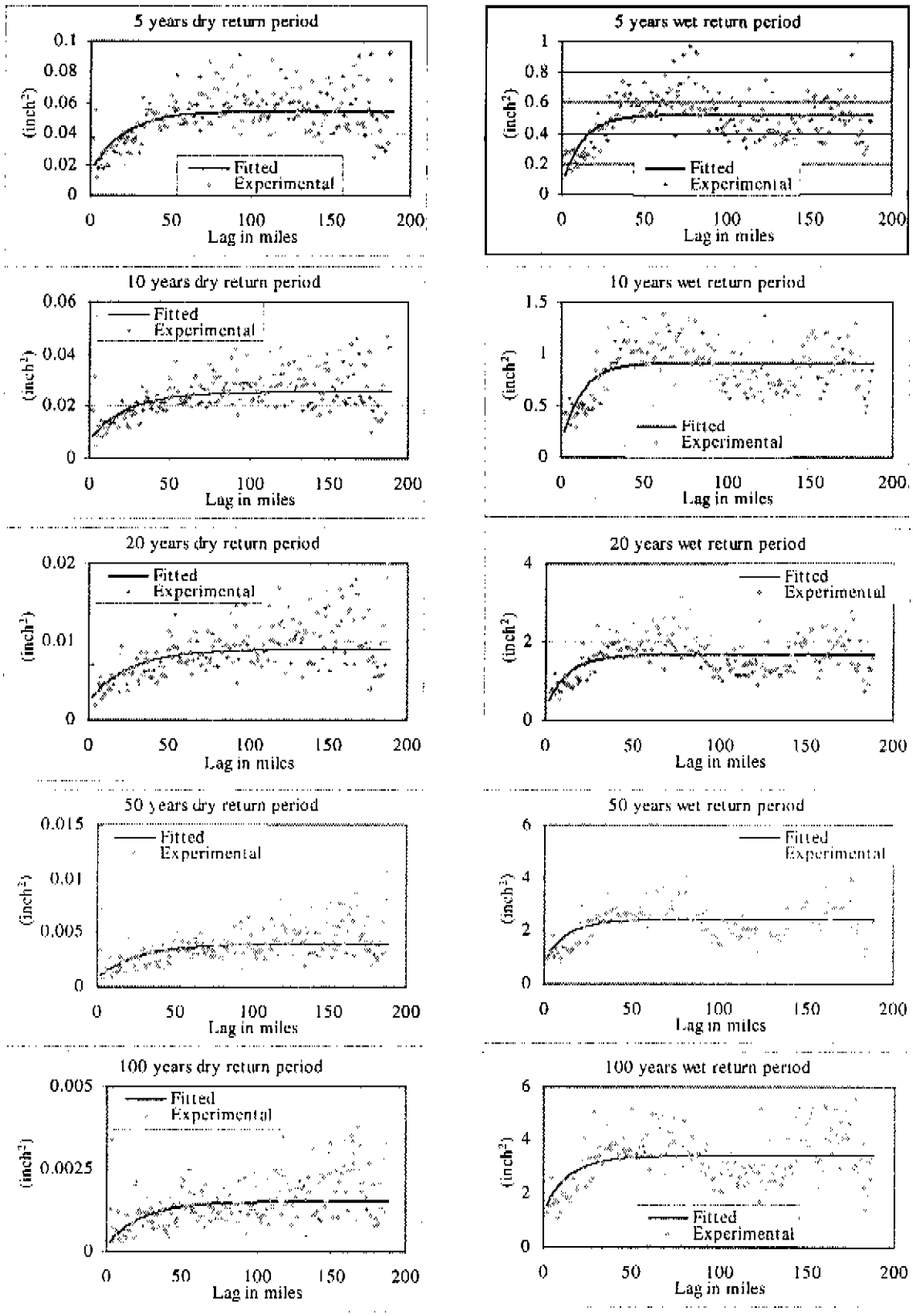

Figure E1. Semi-variograms for January rainfall data within South Florida for several return periods.

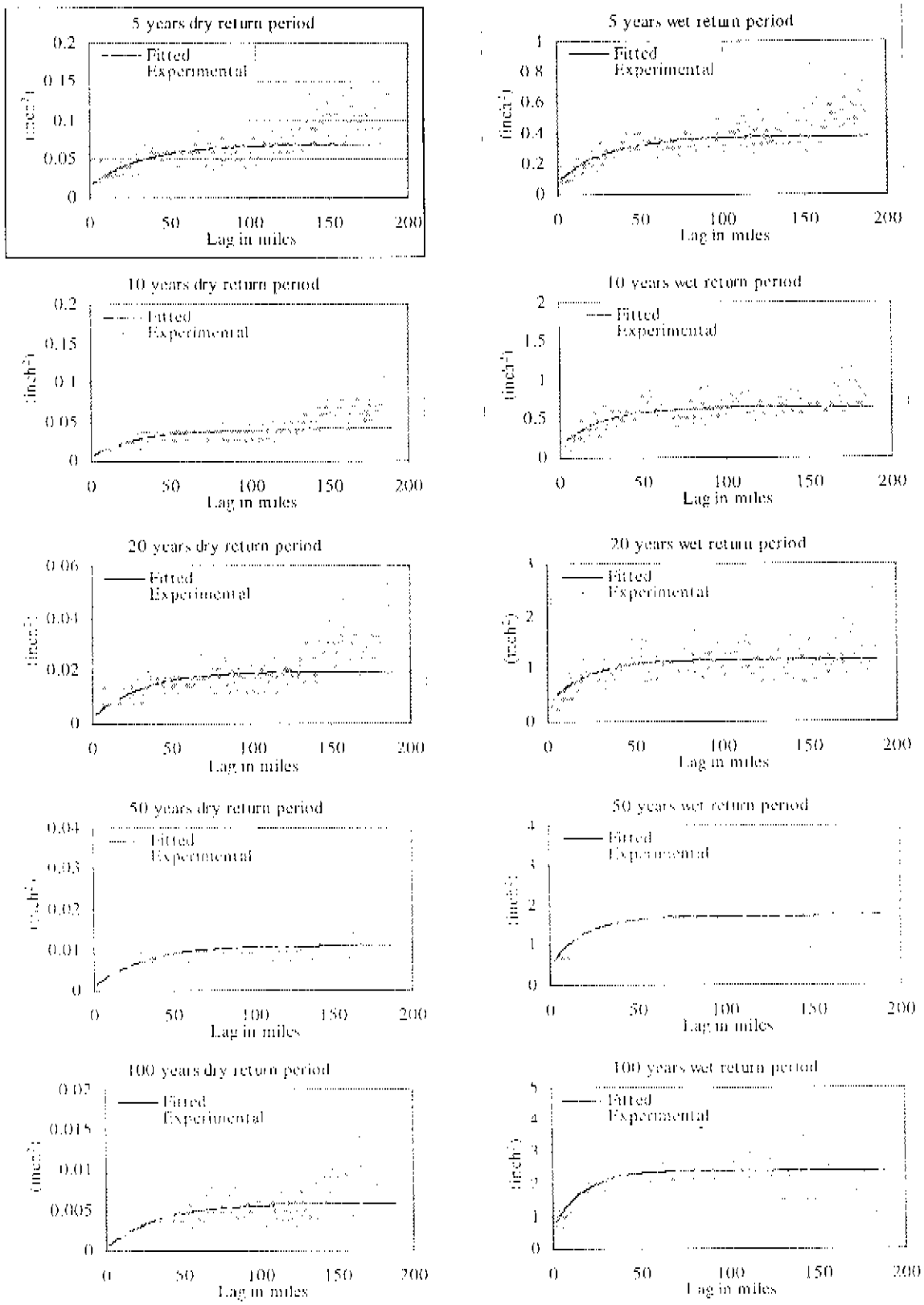

Figure E2. Semi-variograms for February rainfall data within South Florida for several return periods.

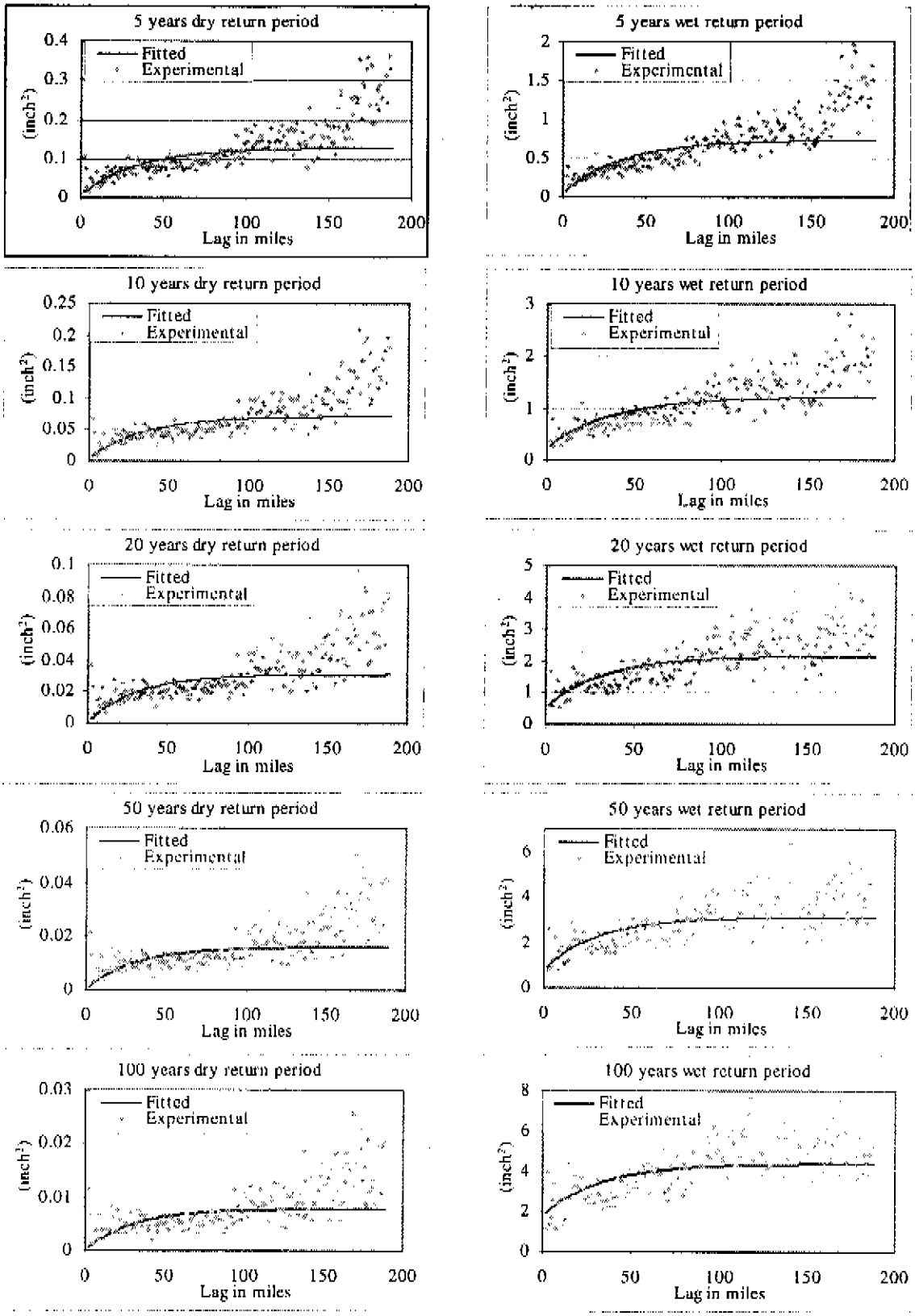

Figure E3. Semi-variograms for March rainfall data within South Florida for several return periods.

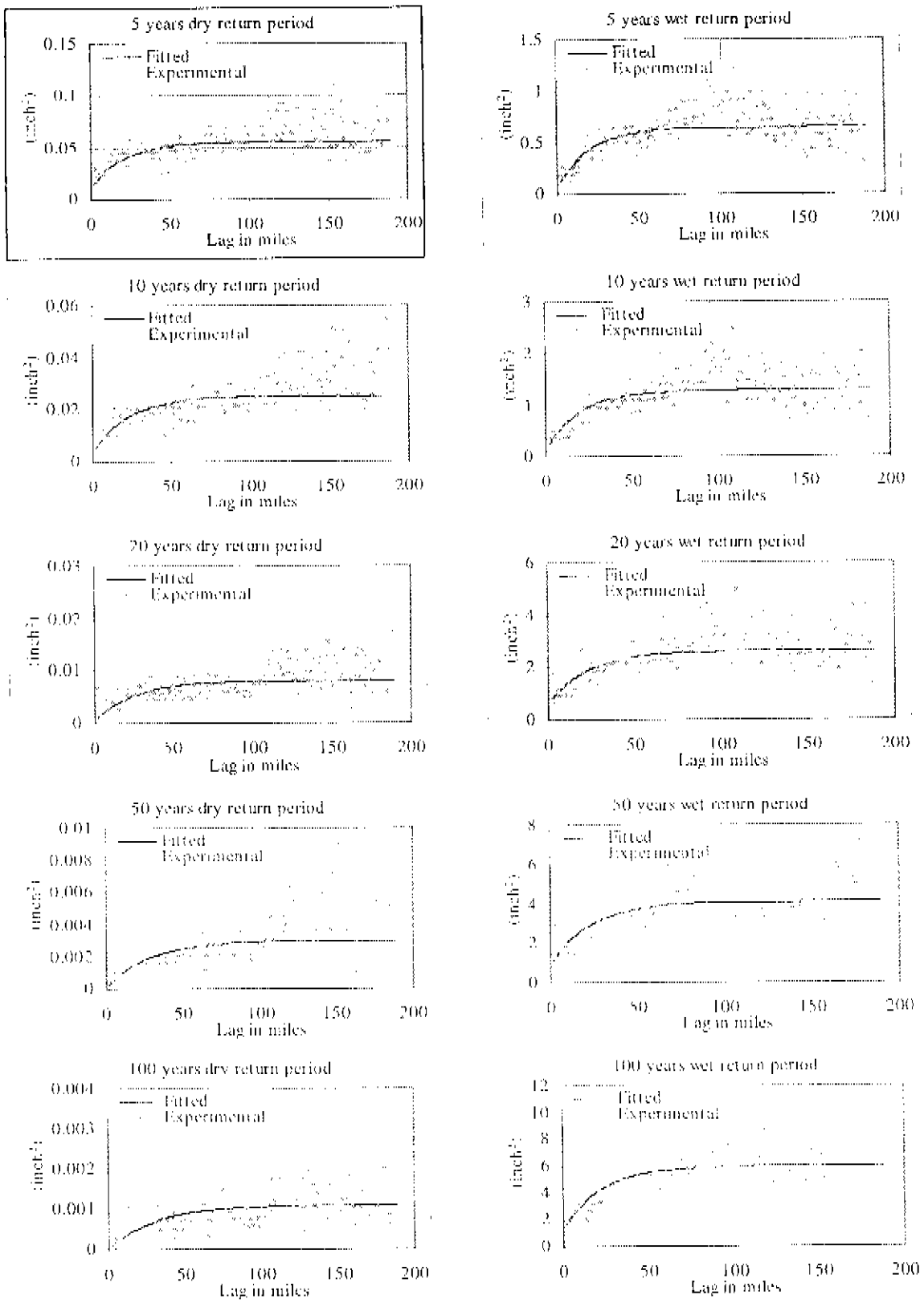

Figure E4. Semi-variograms for April rainfall data within South Florida for several return periods.

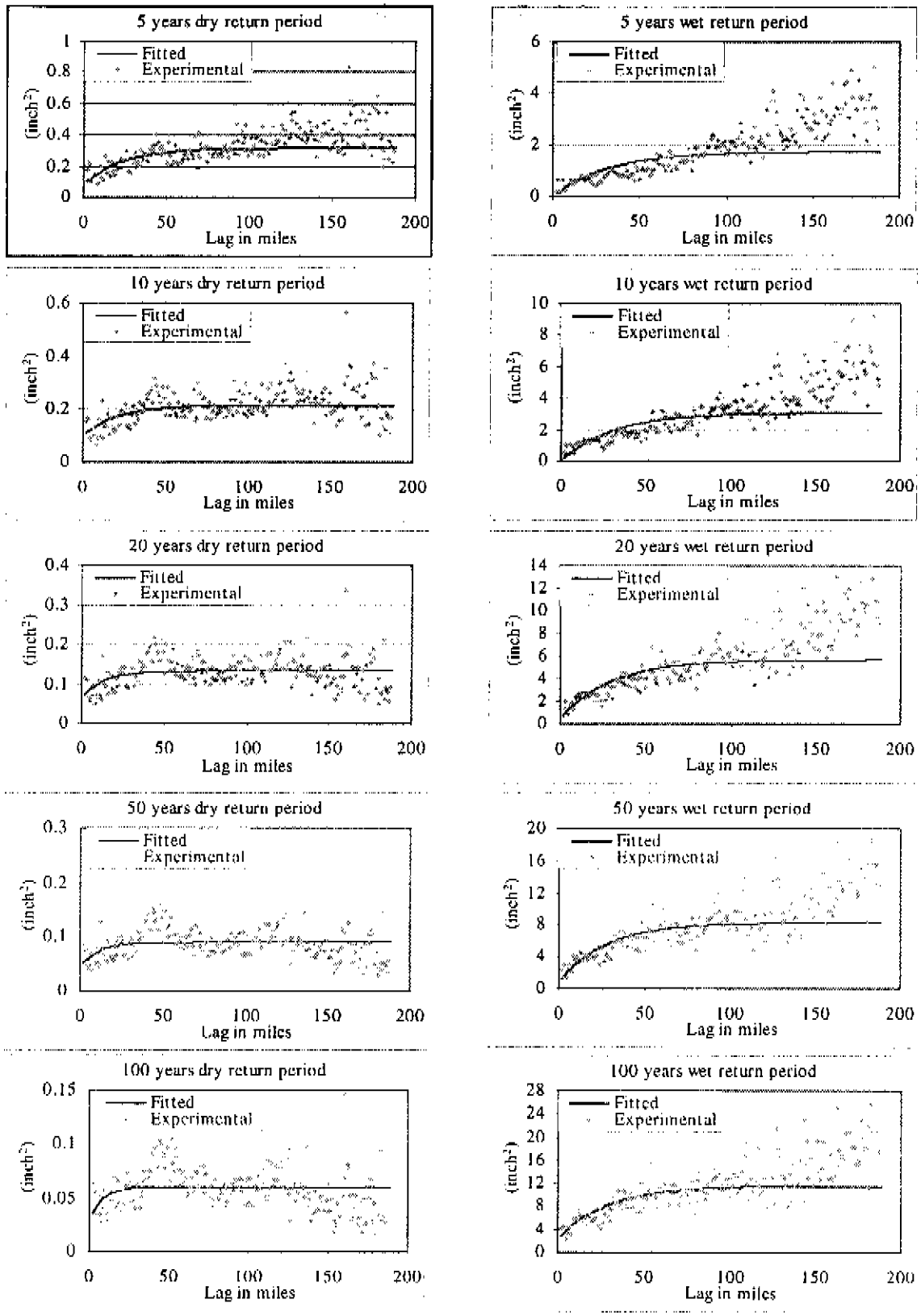

Figure E5. Semi-variograms for May rainfall data within South Florida for several return periods.

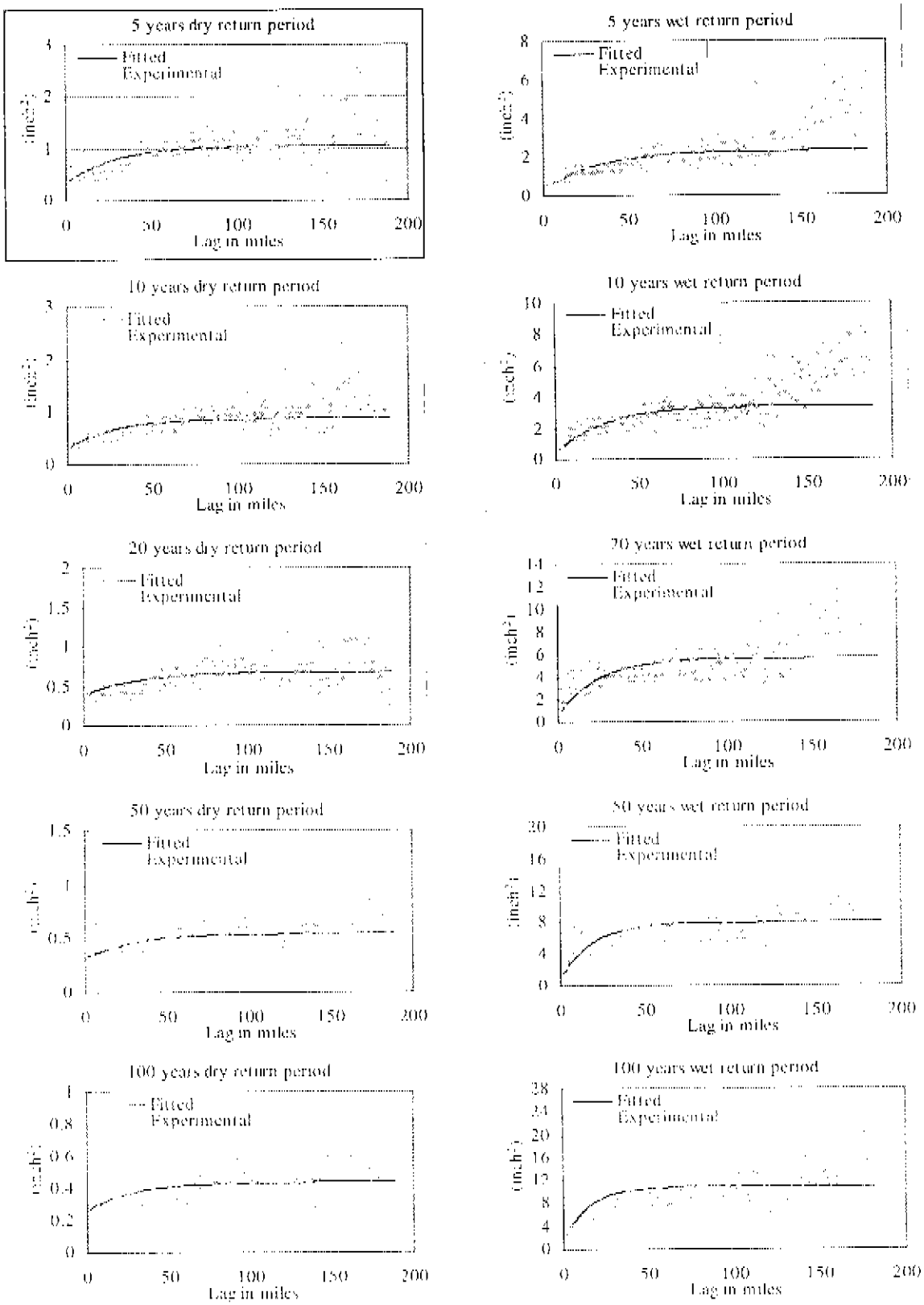

Figure E6. Semi variograms for June rainfall data within South Florida for several return periods.

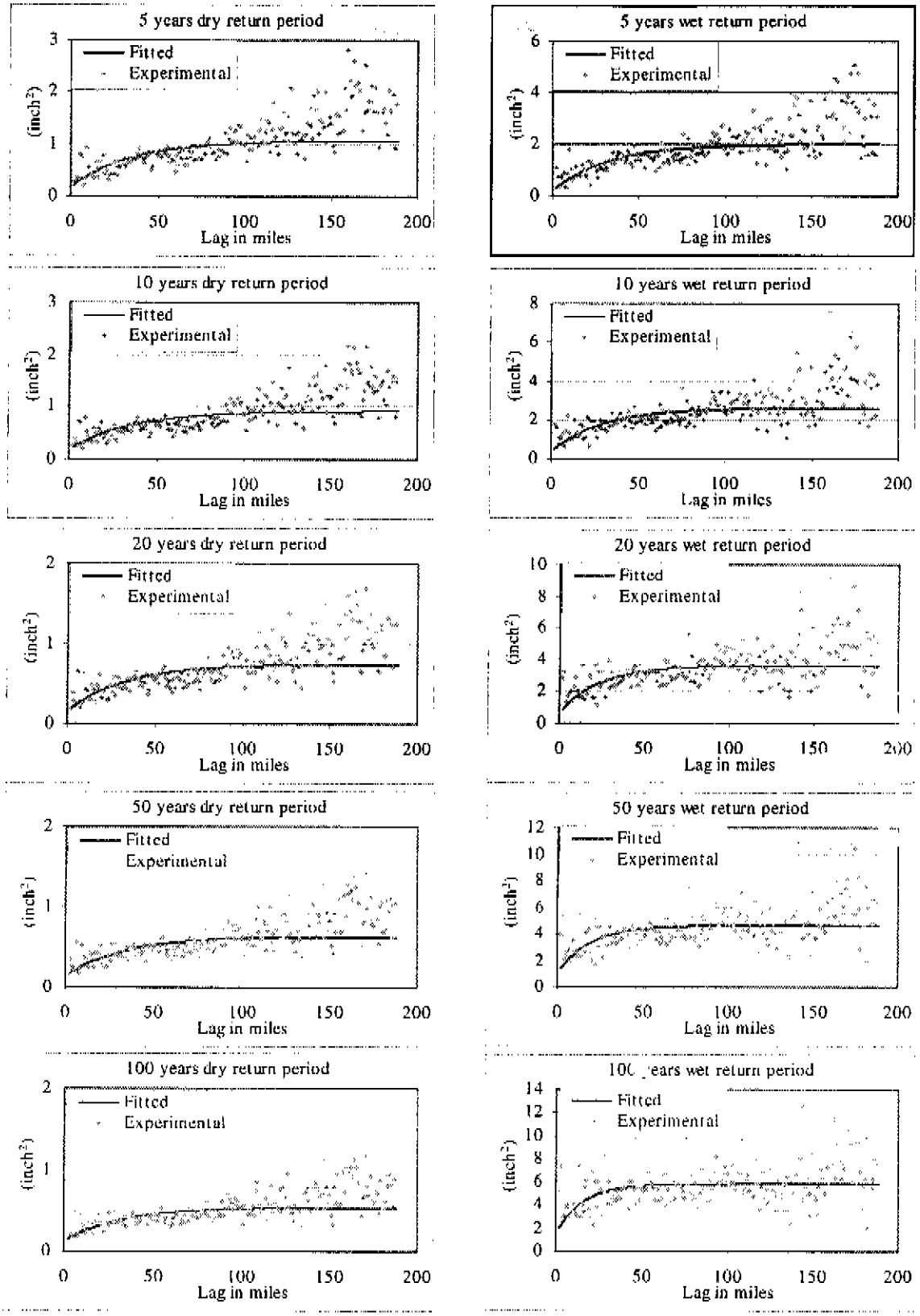

Figure E7. Semi-variograms for July rainfall data within South Florida for several return periods.

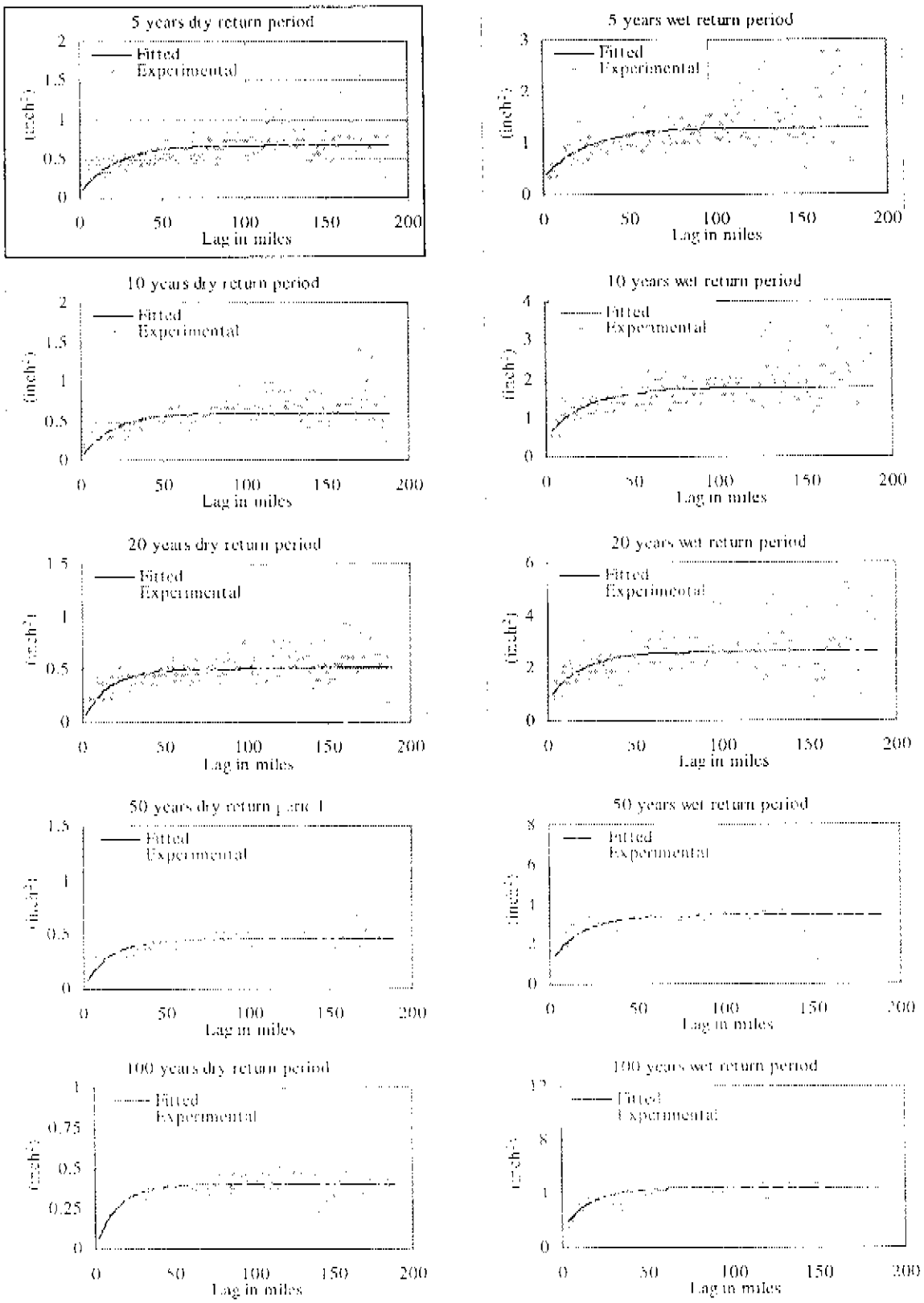

Figure E8. Semi variograms for August rainfall data within South Florida for several return periods.

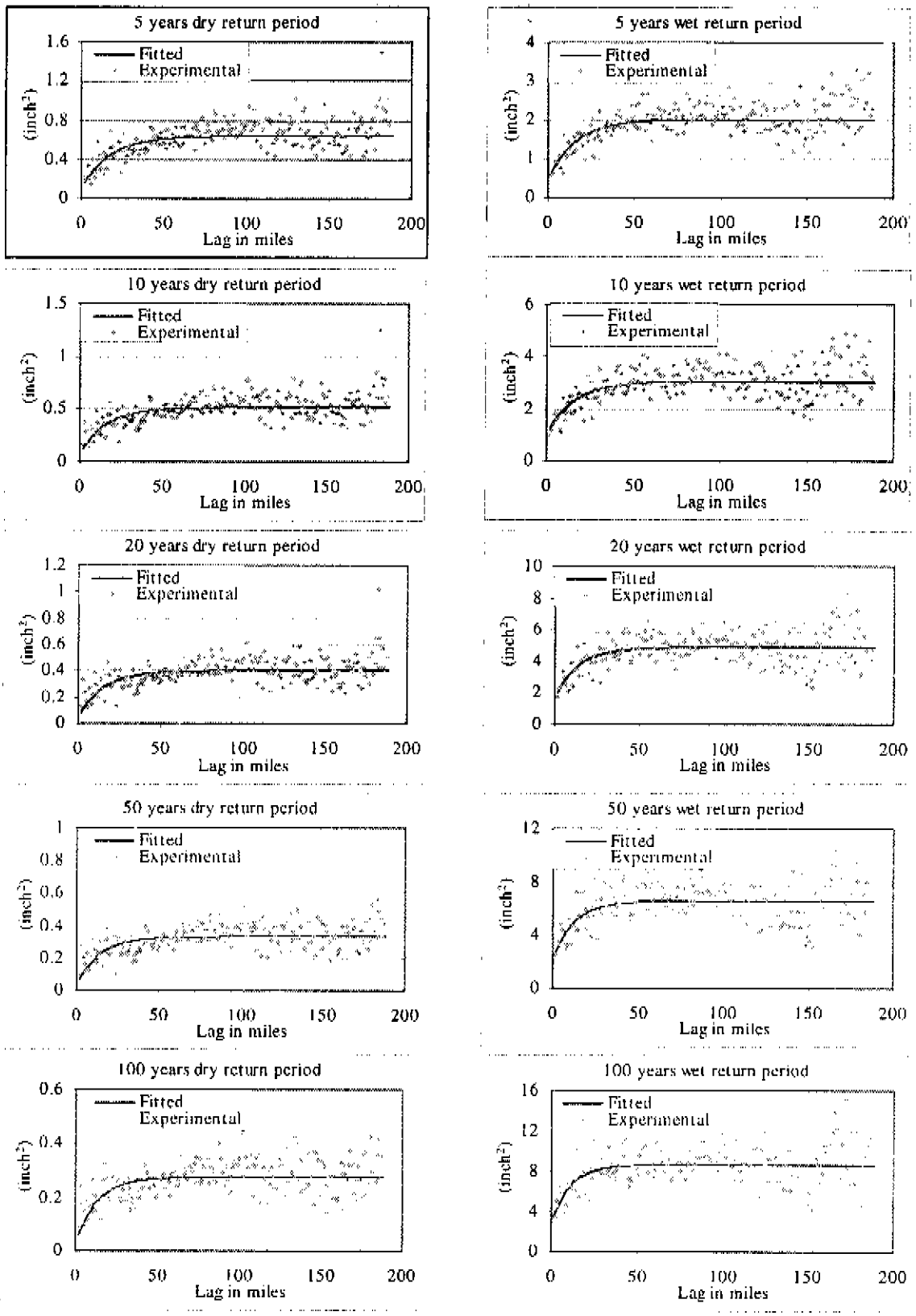

Figure E9. Semi-variograms for September rainfall data within South Florida for several return periods.

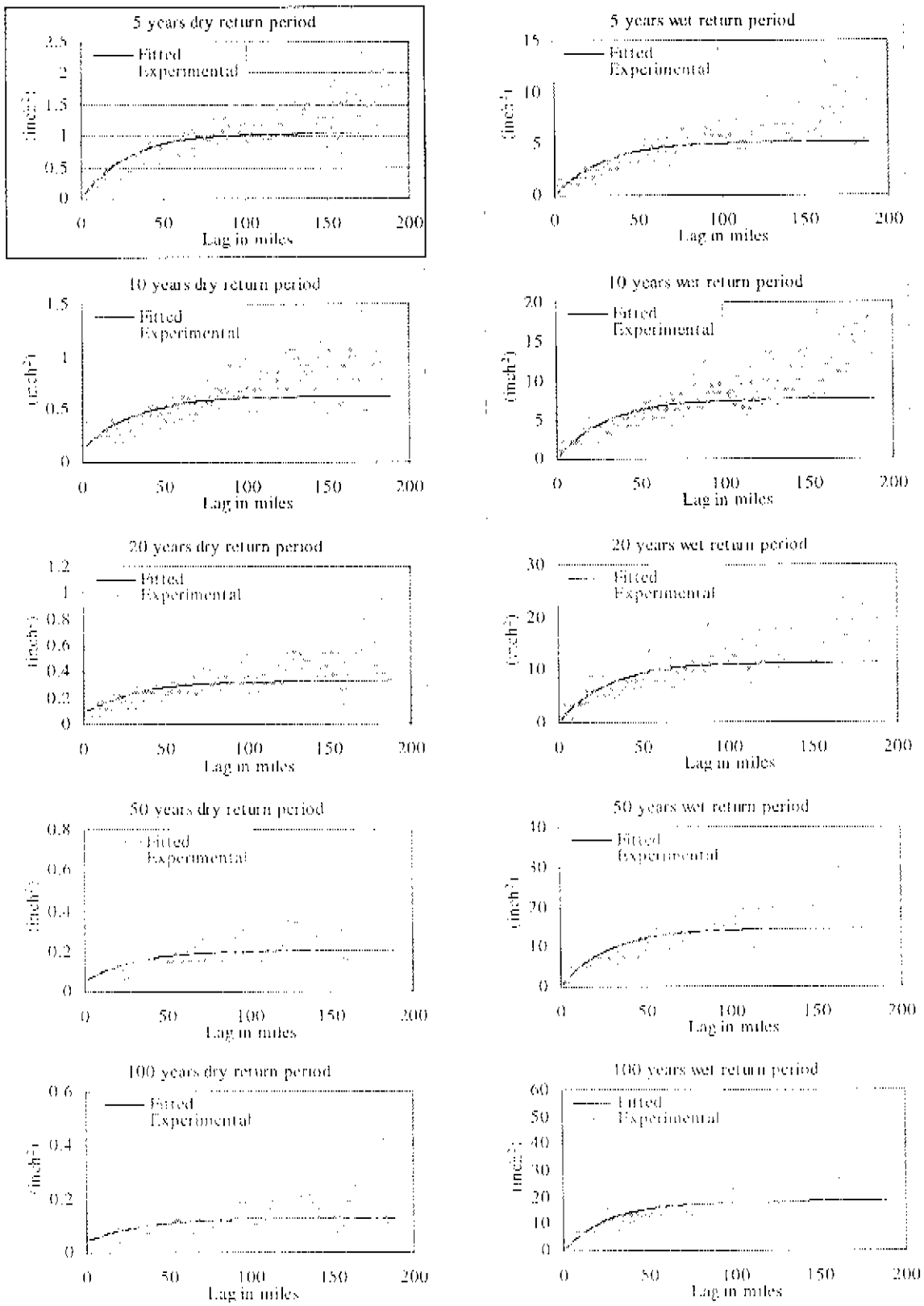

Figure E10. Semi-variograms for October rainfall data within South Florida for several return periods.

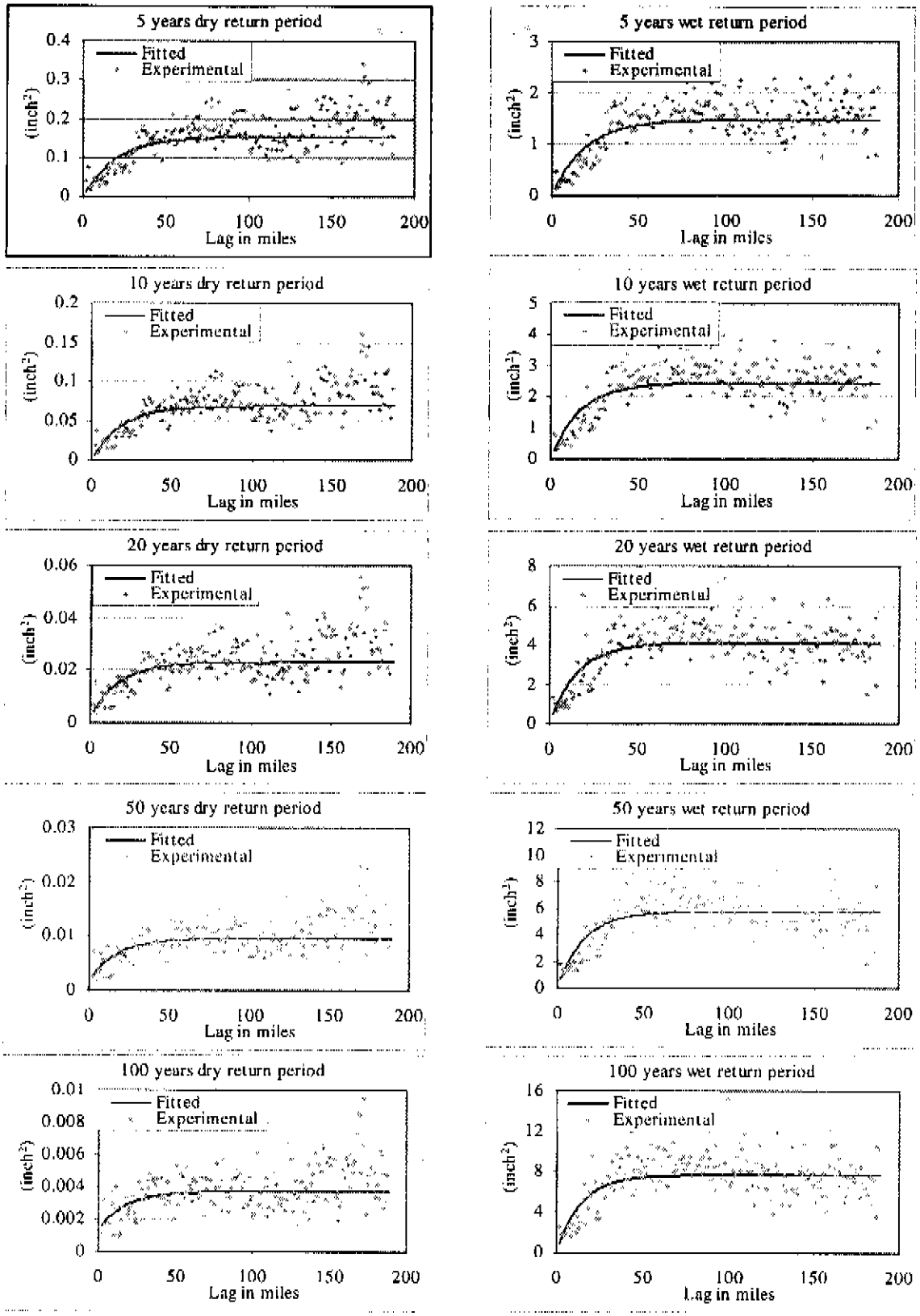

Figure E11. Semi-variograms for November rainfall data within South Florida for several return periods.

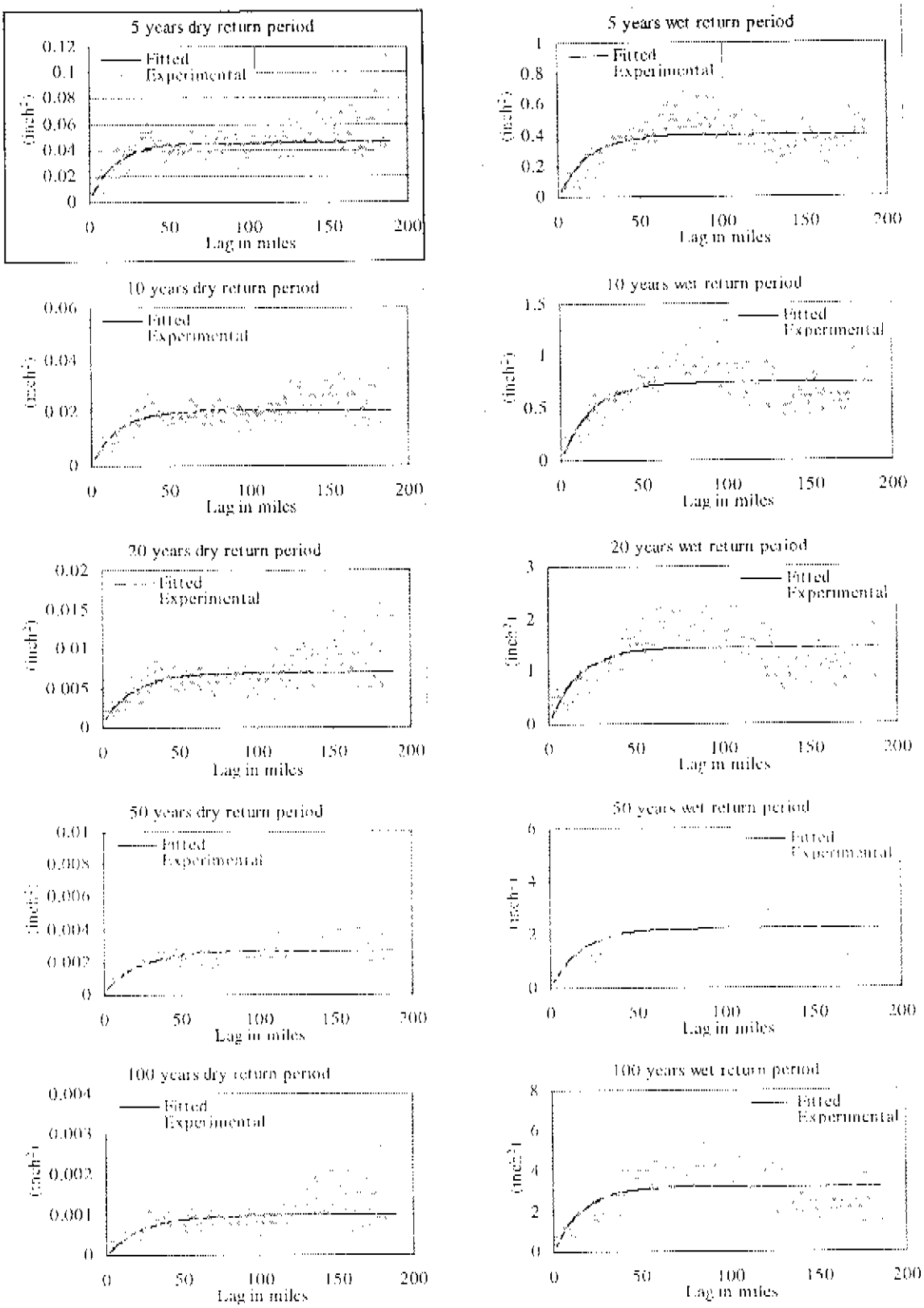

Figure E12. Semi-variograms for December rainfall data within South Florida for several return periods.

APPENDIX F

Model parameters of variogram presented in Appendix E

Table F1. January variogram parameters for ten return periods.

Month	Variance	Nugget	Range/3	Range
100-year DRP	0.002	2E-04	23.67	71.02
50-year DRP	0.004	8E-04	25.57	76.7
20-year DRP	0.009	0.002	25.57	76.7
10-year DRP	0.026	0.007	23.67	71.02
5-year DRP	0.055	0.016	21.78	65.34
5-year WRP	0.52	0.065	12.31	36.93
10 year WRP	0.918	0.133	12.31	36.93
20 year WRP	1.671	0.283	12.31	36.93
50-year WRP	2.446	0.895	14.2	42.61
100-year WRP	3.411	1.326	14.2	42.61

Table F2. February variogram parameters for ten return periods.

Month	Variance	Nugget	Range/3	Range
100-year DRP	0.006	3E-04	33.14	99.43
50-year DRP	0.011	0.001	31.25	93.75
20-year DRP	0.02	0.003	31.25	93.75
10 year DRP	0.041	0.007	32.2	96.59
5-year DRP	0.069	0.016	35.04	105.1
5-year WRP	0.377	0.085	30.3	90.91
10-year WRP	0.643	0.164	26.52	79.55
20-year WRP	1.167	0.318	21.78	65.34
50-year WRP	1.718	0.472	18.94	56.82
100-year WRP	2.415	0.662	17.05	51.14

Table F3. March variogram parameters for ten return periods.

Month	Variance	Nugget	Range/3	Range
100-year DRP	0.008	1E-04	30.3	90.91
50-year DRP	0.016	3E-04	30.3	90.91
20-year DRP	0.031	9E-04	31.25	93.75
10-year DRP	0.071	0.003	33.14	99.43
5-year DRP	0.129	0.008	35.04	105.1
5-year WRP	0.734	0.057	35.98	108
10-year WRP	1.215	0.243	35.98	108
20 year WRP	2.155	0.516	32.2	96.59
50-year WRP	3.138	0.807	30.3	90.91
100-year WRP	4.388	1.778	32.2	96.59

Table F4. April variogram parameters for ten return periods.

Month	Variance	Nugget	Range/3	Range
100-year DRP	0.001	0	31.25	93.75
50-year DRP	0.003	1E-04	28.41	85.23
20-year DRP	0.008	6E-04	25.57	76.7
10 year DRP	0.025	0.004	22.73	68.18
5-year DRP	0.055	0.011	20.83	62.5
5-year WRP	0.649	0.068	19.89	59.66
10-year WRP	1.288	0.138	19.89	59.66
20 year WRP	2.631	0.577	22.73	68.18
50 year WRP	4.086	0.904	22.73	68.18
100-year WRP	5.975	1.339	22.73	68.18

Table F5. May variogram parameters for ten return periods.

Month	Variance	Nugget	Range/3	Range
100-year DRP	0.061	0.03	8.523	25.57
50-year DRP	0.091	0.045	11.36	34.09
20-year DRP	0.133	0.065	13.26	39.77
10-year DRP	0.216	0.098	19.89	59.66
5-year DRP	0.316	0.082	23.67	71.02
5-year WRP	1.737	0	32.2	96.59
10-year WRP	3.074	0	30.3	90.91
20-year WRP	5.654	0.459	29.36	88.07
50-year WRP	8.288	0.764	27.46	82.39
100-year WRP	11.56	2.338	28.41	85.23

Table F6. June variogram parameters for ten return periods.

Month	Variance	Nugget	Range/3	Range
100-year DRP	0.436	0.264	28.41	85.23
50-year DRP	0.547	0.323	30.3	90.91
20-year DRP	0.677	0.385	31.25	93.75
10-year DRP	0.882	0.314	27.46	82.39
5-year DRP	1.067	0.352	30.3	90.91
5-year WRP	2.306	0.29	31.25	93.75
10-year WRP	3.418	0.448	29.36	88.07
20-year WRP	5.653	0.633	23.67	71.02
50-year WRP	7.994	0.935	18.94	56.82
100-year WRP	10.94	1.386	15.15	45.45

Table F7. July variogram parameters for ten return periods.

Month	Variance	Nugget	Range/3	Range
100-year DRP	0.537	0.121	30.3	90.91
50-year DRP	0.63	0.139	32.2	96.59
20-year DRP	0.738	0.153	33.14	99.43
10-year DRP	0.908	0.171	34.09	102.3
5-year DRP	1.069	0.175	35.04	105.1
5-year WRP	1.999	0.229	33.14	99.43
10-year WRP	2.582	0.374	29.36	88.07
20-year WRP	3.61	0.711	23.67	71.02
50-year WRP	4.608	1.083	18.94	56.82
100-year WRP	5.814	1.561	15.15	45.45

Table F8. August variogram parameters for ten return periods.

Month	Variance	Nugget	Range/3	Range
100-year DRP	0.404	0.018	14.2	42.61
50-year DRP	0.457	0.021	15.15	45.45
20-year DRP	0.514	0.026	16.1	48.3
10-year DRP	0.598	0.038	18.94	56.82
5-year DRP	0.673	0.059	20.83	62.5
5-year WRP	1.293	0.342	25.57	76.7
10-year WRP	1.771	0.523	22.73	68.18
20-year WRP	2.628	0.8	18.94	56.82
50-year WRP	3.452	1.036	17.05	51.14
100-year WRP	4.437	1.303	15.15	45.45

Table F9. September variogram parameters for ten return periods.

Month	Variance	Nugget	Range/3	Range
100-year DRP	0.276	0.03	13.26	39.77
50-year DRP	0.332	0.036	14.2	42.61
20-year DRP	0.4	0.047	15.15	45.45
10-year DRP	0.515	0.073	16.1	48.3
5-year DRP	0.642	0.112	17.99	53.98
5-year WRP	2.018	0.451	16.1	48.3
10-year WRP	3.056	1.044	16.1	48.3
20-year WRP	4.865	1.633	13.26	39.77
50-year WRP	6.585	2.145	12.31	36.93
100-year WRP	8.617	2.718	10.42	31.25

Table F10. October variogram parameters for ten return periods.

Month	Variance	Nugget	Range/3	Range
100-year DRP	0.129	0.041	33.13	99.43
50-year DRP	0.207	0.059	32.2	96.59
20-year DRP	0.331	0.083	32.2	96.59
10-year DRP	0.627	0.13	31.25	93.75
5-year DRP	1.054	0	28.41	85.23
5-year WRP	5.233	0	29.36	88.07
10-year WRP	7.632	0	28.41	85.23
20-year WRP	11.35	0	28.41	85.23
50-year WRP	14.64	0	27.46	82.39
100-year WRP	18.38	0	26.52	79.55

Table F11. November variogram parameters for ten return periods.

Month	Variance	Nugget	Range/3	Range
100-year DRP	0.004	0.001	17.05	51.14
50-year DRP	0.01	0.002	17.99	53.98
20-year DRP	0.023	0.002	17.99	53.98
10-year DRP	0.069	0	18.94	56.82
5-year DRP	0.153	0	19.89	59.66
5-year WRP	1.469	0	18.94	56.82
10-year WRP	2.439	0	17.05	51.14
20-year WRP	4.118	0	16.1	48.3
50-year WRP	5.722	0	15.15	45.45
100-year WRP	7.647	0	14.2	42.61

Table F12. December variogram parameters for ten return periods.

Month	Variance	Nugget	Range/3	Range
100-year DRP	0.001	0	23.67	71.02
50-year DRP	0.003	2E-04	22.73	68.18
20-year DRP	0.007	6E-04	19.89	59.66
10-year DRP	0.021	8E-04	17.05	51.14
5-year DRP	0.045	0.002	16.1	48.3
5-year WRP	0.401	0	17.99	53.98
10-year WRP	0.742	0	17.99	53.98
20-year WRP	1.453	0	17.05	51.14
50-year WRP	2.228	0	17.05	51.14
100-year WRP	3.237	0	16.1	48.3