Technical Memorandum
WRE # 377

Hydrologic Report on S65C and S65D Sub-Basins in the Lower Kissimmee River Water Management Basin

June 1999

by
Daniel Downey

Okeechobee Service Center
South Florida Water Management District
West Palm Beach, Florida

EXECUTIVE SUMMARY

This report summarizes hydrologic data collected from two sub-basins, S65C and S65D, located within the northern section of the lower Kissimmee River water management basin and east-northeast of the Lake Istokpoga water management basin. The main water conveyance system within the sub-basins described in this report is the Kissimmee River (C-38) which is a primary input into Lake Okeechobee from the north. The major water control structures in these sub-basins are S-65C and S-65D, corresponding to Pool C and Pool D, located on the C-38 canal.

The historical hydrologic data collected within the sub-basins and reported here include rain, stage, and flow. Evaporation data were measured for a limited period at the S-65C structure and are reported here. Data sets pertaining to the different hydrologic parameters were analyzed with respect to expected range and magnitude, prediction of missing values, and consistency with adjacent stations. This data evaluation was applied to evaporation, rainfall, stage, and flow data obtained from the monitoring stations in both sub-basins. Statistical results for evaporation for one station are reported on a monthly and annual basis as mean, median, standard deviation, maximum, and minimum values. Statistics on rainfall for each station are reported on a monthly and yearly basis as mean, median, standard deviation, maximum, and minimum values. Monthly and yearly areal rainfall results are also reported for each sub-basin. Monthly and yearly statistics for stage and flow at each station within the sub-basins are presented in tabular and graphical format. Runoff estimates are presented in graphical and tabular format for the two sub-basins.

ACKNOWLEDGEMENTS

The author would like to thank Janet Wise and Rick Householder for their contributions of the basin map and monitoring location maps provided in this document. Thanks are also extended to Joanne Chamberlain, Steve Lin, Garth Redfield, and Gary Ritter for their reviews and comments on this document.

TABLE OF CONTENTS

EXECUTIVE SUMMARY i
ACKNOWLEDGEMENTS ii
TABLE OF CONTENTS iii
LIST OF TABLES iv
LIST OF FIGURES v
INTRODUCTION 1
STATION LOCATION ERRATA 6
S65C SUB-BASIN 8
- Evaporation 8
- Rainfall 9
- Stage 13
- Flow 17

S65D SUB-BASIN 20
- Rainfall 20
- Stage 23
- Flow 30

S65C AND S65D SUB-BASIN RUNOFF 33
SUMMARY 39
REFERENCES 40
APPENDIX A: RAINFALL, EVAPORATION, STAGE, AND FLOW STATIONS IN S65C AND S65D SUB-BASINS 41
APPENDIX B: S65C SUB-BASIN EVAPORATION, RAINFALL, STAGE, AND FLOW RAW DATA 61
APPENDIX C: S65D SUB-BASIN RAINFALL, STAGE, AND FLOW RAW DATA 81
APPENDIX D: RUNOFF CALCULATION RESULTS FOR S65C AND S65D SUB-BASIN 109

LIST OF TABLES

Table 1. Discrepancies between map station locations and DBHYDRO download results. 6

Table 2. Statistics for monthly pan evaporation results (inches) at station S65C_E. 9

Table 3. Statistics for monthly rainfall (inches) over calendar years 1957 – 1997 in sub-basin S65C. 10

Table 4. Statistics for monthly rainfall (inches) over calendar years 1966 – 1997 in sub-basin S65D. 21

Table 5. Summation of yearly flow and runoff (ac-ft) along C-38 for S65-B, RO_C, S65-C, RO_D, and S65-D 38

LIST OF FIGURES

Figure 1. Lower Kissimmee River and Lake Istokpoga water management basins. 2
Figure 2. Rainfall monitoring stations located within the S65C and S65D sub-basins. 3
Figure 3. Stage monitoring stations located within the S65C and S65D sub-basins. 4
Figure 4. Flow monitoring stations located within the S65C and S65D sub-basins. 5
Figure 5. Daily pan evaporation results for station S65C_E. 9
Figure 6. Average annual areal rainfall in S65C sub-basin for years 1957 – 1997. 11
Figure 7. Mean monthly areal rainfall and standard deviation in S65C sub-basin for years 1957 – 1997. 12
Figure 8. Minimum, median, and maximum monthly areal rainfall in S65C sub-basin for years 1957 – 1997. 12
Figure 9. Daily stage for monitoring station KRDRS 13
Figure 10. Daily stage for monitoring station PC33. 14
Figure 11. Daily stage for monitoring stations PC21 and PC11 14
Figure 12. Daily stage for monitoring station MICCO D. 15
Figure 13. Daily stage for monitoring station S65CX. 15
Figure 14. Daily stage for monitoring station S65C. 16
Figure 15. Daily stage for monitoring stations S65B_T and S65C_H. 17
Figure 16. Daily flow at station PC33_O 18
Figure 17. Daily flow at station G85.HWY. 18
Figure 18. Daily flow at station S65CX_C. 19
Figure 19. Daily flow at station S65C_S. 19
Figure 20. Average annual areal rainfall in S65D sub-basin for years 1966 - 1997. 22
Figure 21. Mean monthly areal rainfall in S65D sub-basin for years 1966 - 1997. 22
Figure 22. Minimum, median, and maximum monthly areal rainfall in S65D sub-basin for years 1966 - 1997. 23
Figure 23. Daily stage for monitoring station FISH. 24
Figure 24. Daily stage for monitoring station RUCKSWF 24
Figure 25. Daily stage for monitoring station CYPRS. 25
Figure 26. Daily stage for monitoring station CHAND1 25
Figure 27. Daily stage for monitoring station CHAND2 26

Figure 28. Daily stage for monitoring station BASS P. 26
Figure 29. Daily stage for monitoring station C38.BAS. 27
Figure 30. Daily stage for monitoring station S65DX. 27
Figure 31. Daily stage for monitoring station S65D. 28
Figure 32. Daily stage for monitoring stations S65C_T and S65D_H. 29
Figure 33. Daily flow at station C38.BAS (1948 – 1952). 30
Figure 34. Daily flow at station C38.BAS (1962 – 1964). 31
Figure 35. Daily flow at station S65DX_C. 31
Figure 36. Daily low at station S65D_S. 32
Figure 37. Temporal results for rainfall and runoff in S65C sub-basin. 33
Figure 38. Monthly summations for rainfall and runoff in S65C sub-basin. 34
Figure 39. Yearly summations for rainfall and runoff in S65C sub-basin. 34
Figure 40. Temporal results for rainfall and runoff in S65D sub-basin. 35
Figure 41. Monthly summations for rainfall and runoff in S65D sub-basin. 36
Figure 42. Yearly summations for rainfall and runoff in S65D sub-basin. 36

INTRODUCTION

The lower Kissimmee River water management basin (KRB) is one of the primary water conveyance systems feeding into the northern section of Lake Okeechobee. The upper Kissimmee River water management basin (UKB) is the primary source of water for the lower Kissimmee River water management basin. The two sub-basins, S65C and S65D, discussed in this report are located in the middle portion of the lower Kissimmee River water management basin. The primary water conveyance system within these sub-basins is the Kissimmee River (C-38 canal).

Hydrologic characteristics, including the main water control structures, within the S65C and S65D sub-basins discussed in this report have been described in detail by Abtew (1992) and Van Horn (1996). The Kissimmee River was channelized in the 1960's as part of the comprehensive Central and South Florida Flood Control Project. The historic river was transformed into the C-38 canal system with associated control structures. Currently, the District is in the process of filling in the C-38 canal to restore 43 miles of meandering river channel and 27,000 acres of wetlands.

The lower Kissimmee River water management basin (Figure 1) extends from the northern edge of Lake Okeechobee, westward to Lake Istokpoga, and eastward to U.S. Highway 441. The northern section of the basin is located at the outlet of Lake Kissimmee (associated with the control structure S-65). The S65C and S65D sub-basins are shown in Figure 1. Figures 2 – 4 show locations of rainfall, stage, and flow sites located within the S65C and S65D sub-basins. The S65C sub-basin encompasses approximately 85 square miles. Upstream inflows to the sub-basin are controlled by the S-65B structure. The S65C sub-basin contributes to the third reach, Pool C, and outflow from the sub-basin (inflow to the S65D sub-basin) is controlled by the water control structure S-65C (concrete gated spillway and lock structure). The S65D sub-basin encompasses just over 182 square miles. The primary water control structure at the outlet of this sub-basin is the concrete gated spillway and lock structure S-65D. The S65D sub-basin contributes to the fourth reach, Pool D. The purpose of the water control structures are to provide flood protection within their respective sub-basins and pass design flood without exceeding upstream flood stages. The structures also pass sufficient discharge to maintain downstream stages and provide minimum flow through capacity for the UKB.

This report presents the hydrologic summary of S65C and S65D sub-basins. Daily time series of evaporation, rainfall, stage, flow, and runoff estimates are presented along with the available sources of data. Annual and monthly hydrologic statistics are also presented.

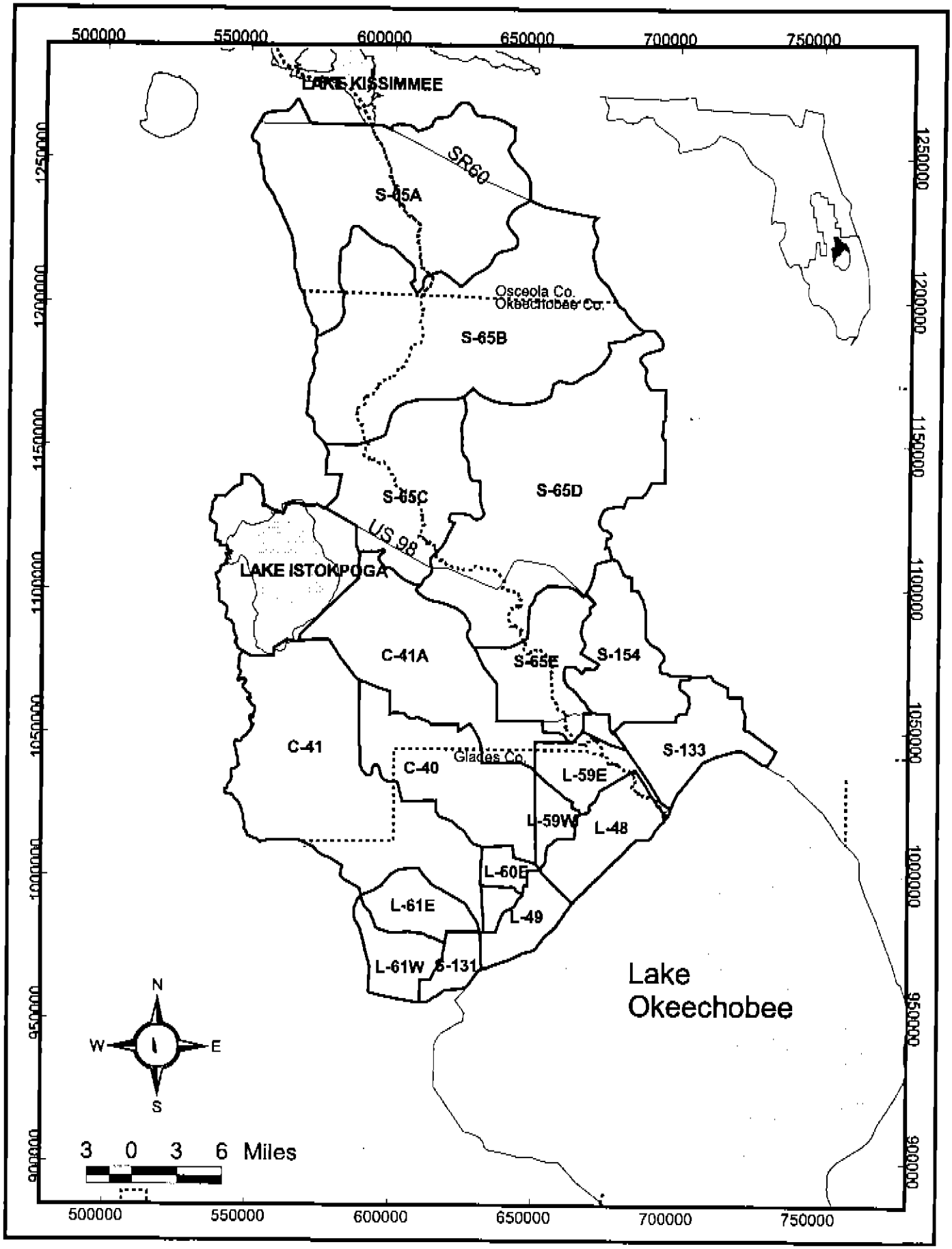

Figure 1. Lower Kissimmee River and Lake Istokpoga water management basins.

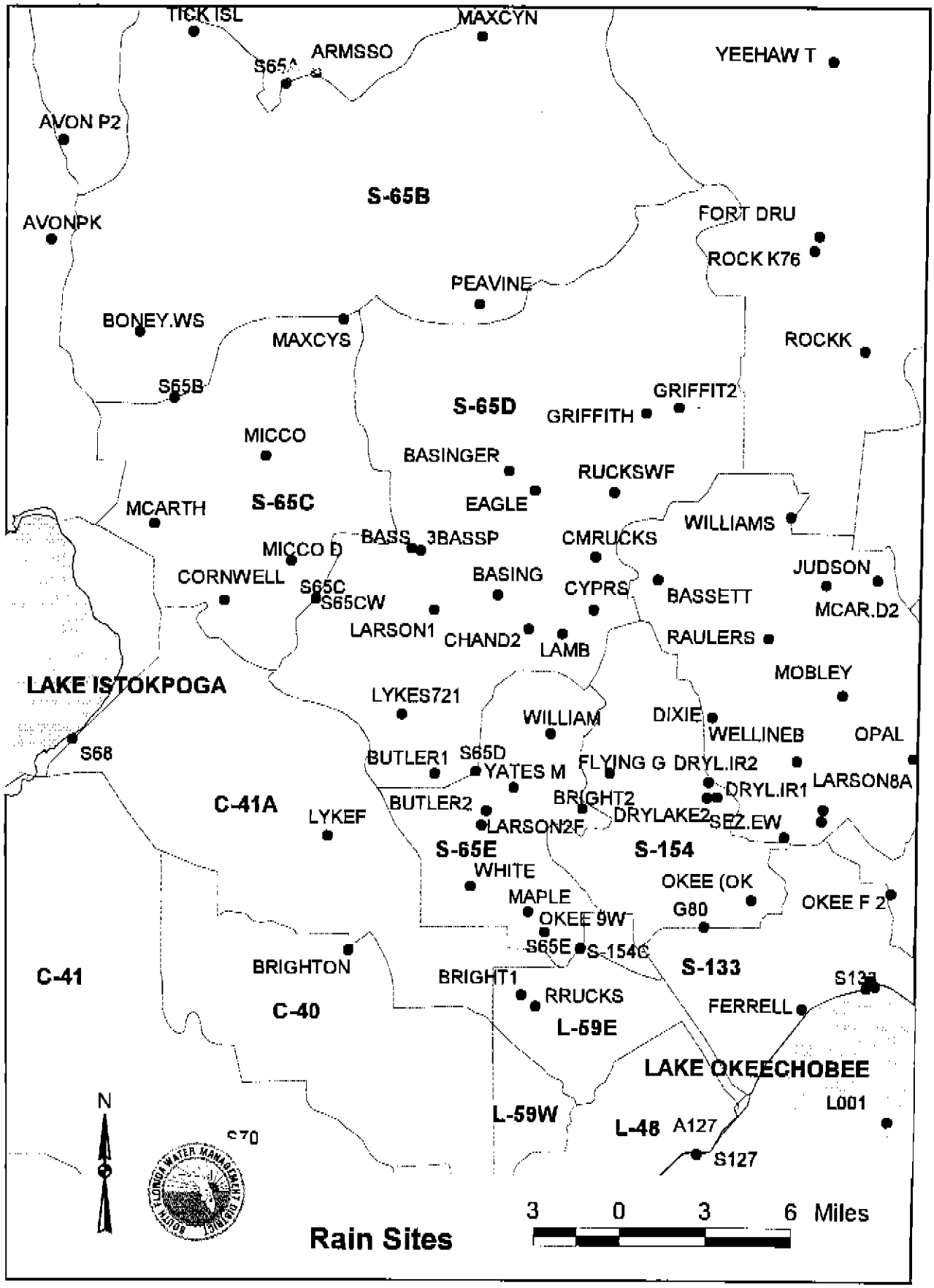

Figure 2. Rainfall monitoring stations located within the S65C and S65D sub-basins.

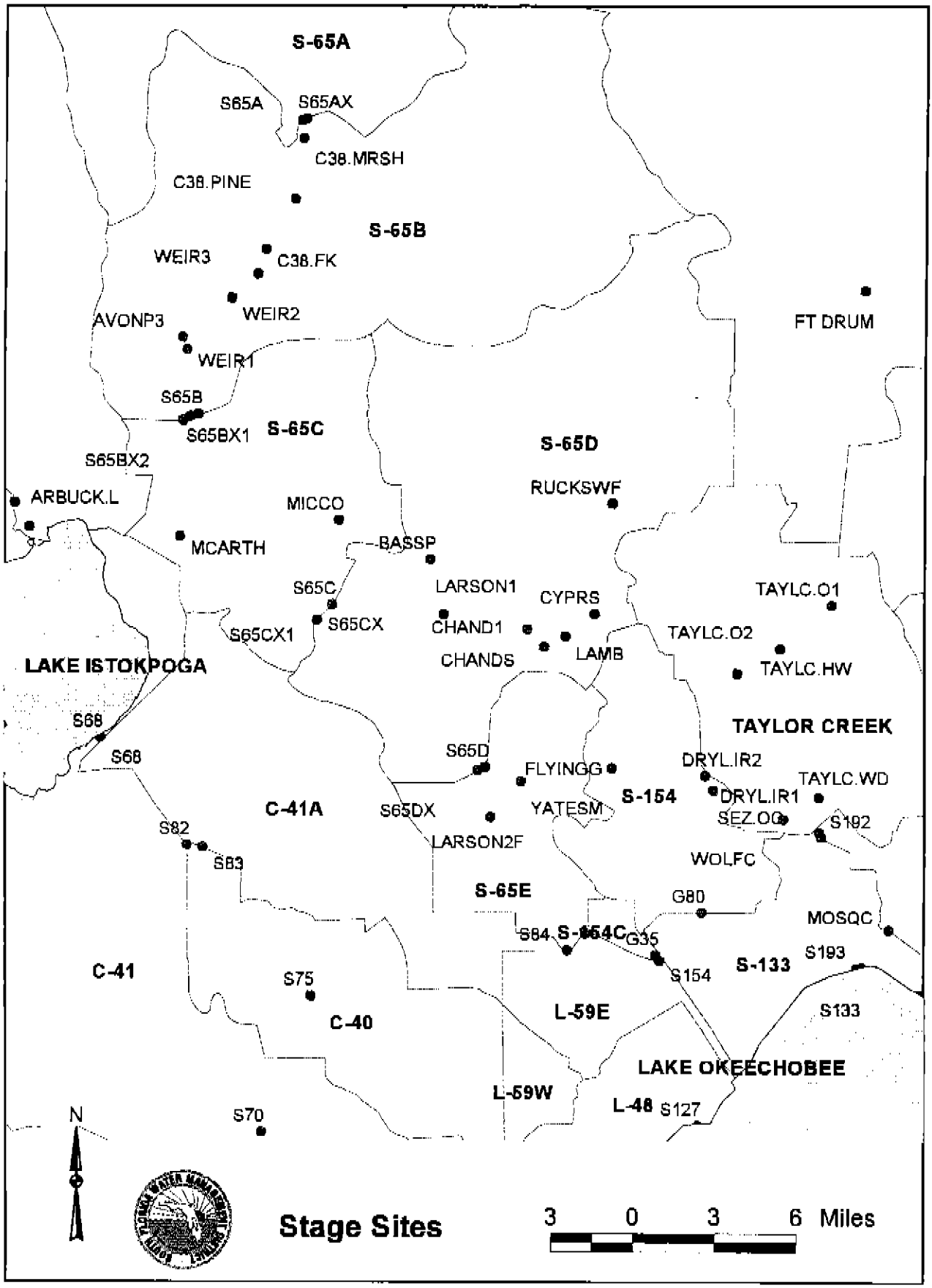

Figure 3. Stage monitoring locations located within the S65C and S65D sub-basins.

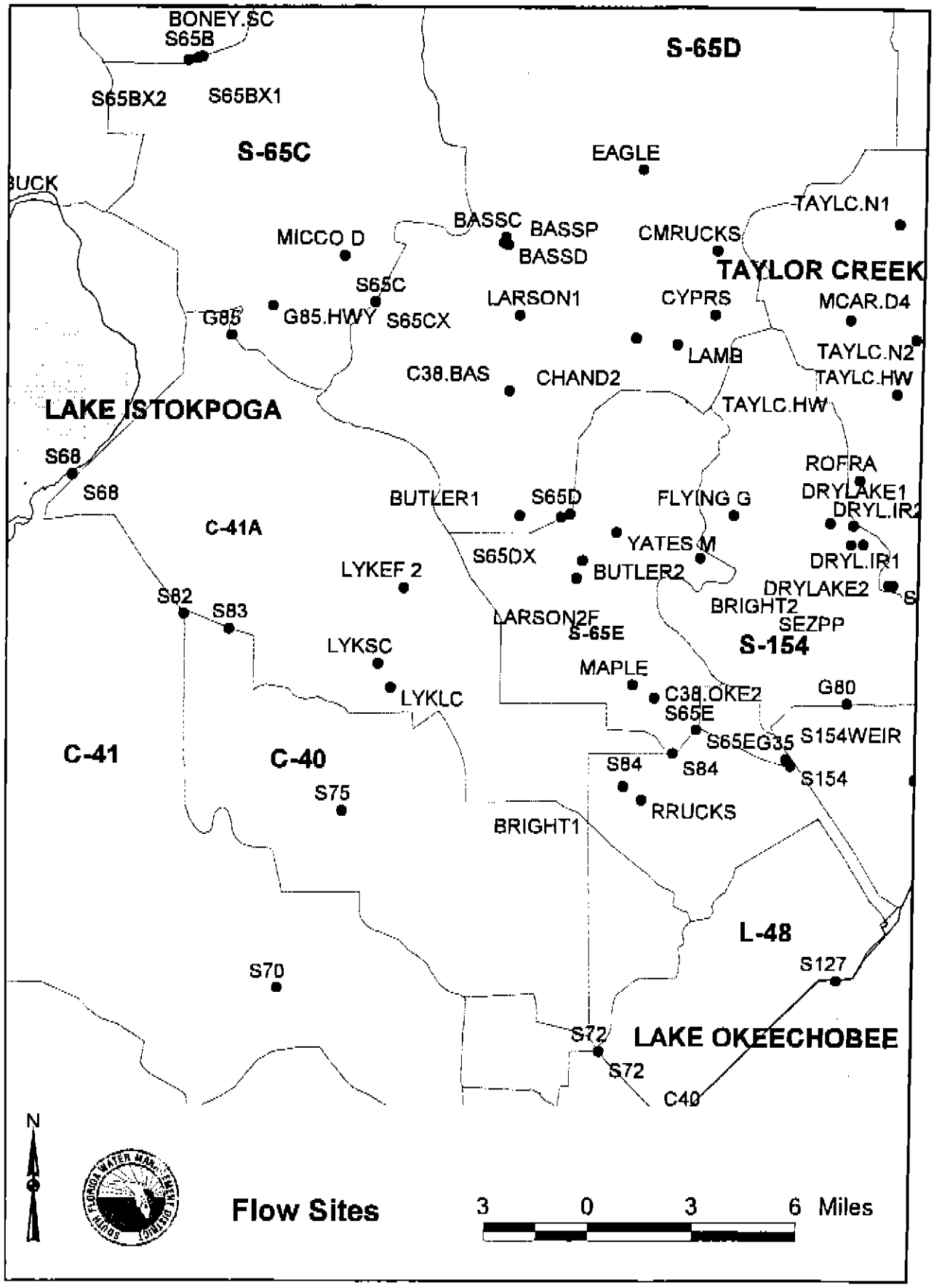

Figure 4. Flow monitoring stations located within the S65C and S65D sub-basins.

STATION LOCATION ERRATA

Several discrepancies were found with respect to maps depicting station location and information obtained from the South Florida Water Management District's database DBHYDRO. Maps of sub-basins C and D, including rainfall, stage, and flow stations, were produced using Arcview v. 3.1. Station sites were overlaid onto sub-basins C and D (Figures 2 – 4). Rainfall, stage, and flow stations were assumed to reside within the contiguous boundary of the respective sub-basin if the location was observed on any one of Figures 2 -- 4. All stations used in this study for sub-basins C and D, and information about the station downloaded from the Districts' database, are given in Appendix A. Reported below, in Table 1, are sites that DBHYDRO indicated were located within the sub-basins used in this study, but upon map inspection, were located in another sub-basin. Data from stations not located within sub-basins C and D (Figures 2 – 4) were not included in this study. Stations that were established within the last one to two years were not depicted in the map overlays (eg., KRDRS, PC11, etc.).

Table 1. Discrepancies between map station locations and DBHYDRO download results.

Station Name	Sub-basin in Dbhydro	Sub-basin on Map	Notes
Sub-basin C			
Rainfall:			
BISHOP[⊥]	C	SWFWMD	
DRESSED[⊥]	C	SWFWMD	
TRIPLE_G[⊥]	C	SWFWMD	
Stage:			
AVON P3	C	B	
Flow:			
G85	C/C-41A[†]	C/C-41A	No data exists
MICCO D	D	C	

Table 1. continued.

Station Name	Sub-basin in Dbhydro	Sub-basin on Map	Notes
Sub-basin D			
Rainfall:			
MAXCEY S	D	B/C†	
MICCO D⊥	D	C	
BRIGHT1⊥	D	L-59E	
RRUCKS⊥	D	L-59E	
MAPLE⊥	D	S-65E	
LARSON2F⊥	D	S-65E	
BUTLER2⊥	D	S-65E	
FERRELL⊥	D	S-133	
LYKES721	-	D	
Stage:			
FISH	D	Not on maps	D‡
LARSON2	D	Not on maps	
RUCKSW	D	Not on maps	D‡
Flow:			
See above data entries.			

⊥ Also exists as stage and/or flow stations.
† Exists on boundary of sub-basin.
‡ Latitude and longitude indicate location is within S65D sub-basin.

S65C SUB-BASIN

The S65C sub-basin encompasses approximately 85 square miles. The location of this sub-basin and map of monitoring stations located within the sub-basin are shown in Figures 1 - 4. The main water conveyance structure within this sub-basin is the C-38 canal. Several of the small watersheds located within this sub-basin that contribute flow through their tributaries to the C-38 canal are the Starvation Slough, Hole in the Wall Hammock, Hickory Hammock, and the northern section of Turkey Hammock.

The major water control structure located at the downstream end of the sub-basin is a reinforced concrete gated spillway (S-65C) with four gates and a lock structure. The structure is located approximately 8.6 miles downstream of S-65B. The purpose of the structure is to maintain operational goals for water levels upstream of S-65C and to pass design flood without exceeding the upstream flood stage. The S65C sub-basin contributes to the third reach, Pool C, and outflow from the sub-basin is controlled by the water control structure S-65C. The flow capacity for the S-65C structure is 18,000 cubic feet per second (cfs), which is 100% of the standard project flood (SPF). No other flow criteria are specified in the structure book for S-65C. This design rate will not exceed the headwater and tailwater design stages. This structure is sized to provide a minimum of 3,000 cfs flow through capacity for the Upper Kissimmee River water management basin flood control, irrespective of local runoff conditions.

The data collected for this sub-basin and presented in this report include evaporation, rainfall, stage, and flow. Daily records exist for the above hydrologic parameters within the South Florida Water Management District database, DBHYDRO, and are accessed through assigned database keys. Data presented in this report were collected by the District, United States Geological Survey (USGS), and the National Oceanic and Atmospheric Administration (NOAA). Preliminary review of the hydrologic data showed missing values or questionable data for single and multiple days for the period of record associated with all data sets. Data were examined with respect to consistency with adjacent stations, seasonal range, and magnitude of recorded value. Predictions for missing data were made based on time gap and consistency with adjacent station data.

Evaporation

Evaporation measurements were obtained from an A Pan device for the years 1966 – 1992. The data were collected near the S-65C spillway on the C-38 canal. Daily results for evaporation are shown in Figure 5, while statistical results over the period of record are given in Table 2. Summary statistics for measured pan evaporation over this time period are: an annual mean of 71.6 inches (with standard deviation of 5.3 inches), minimum of 64.1 inches, and maximum of 82.3 inches. Also, the mean monthly maximum evaporation for the period of record occurred in May, while the mean monthly minimum occurred in December for the years 1966 – 1992.

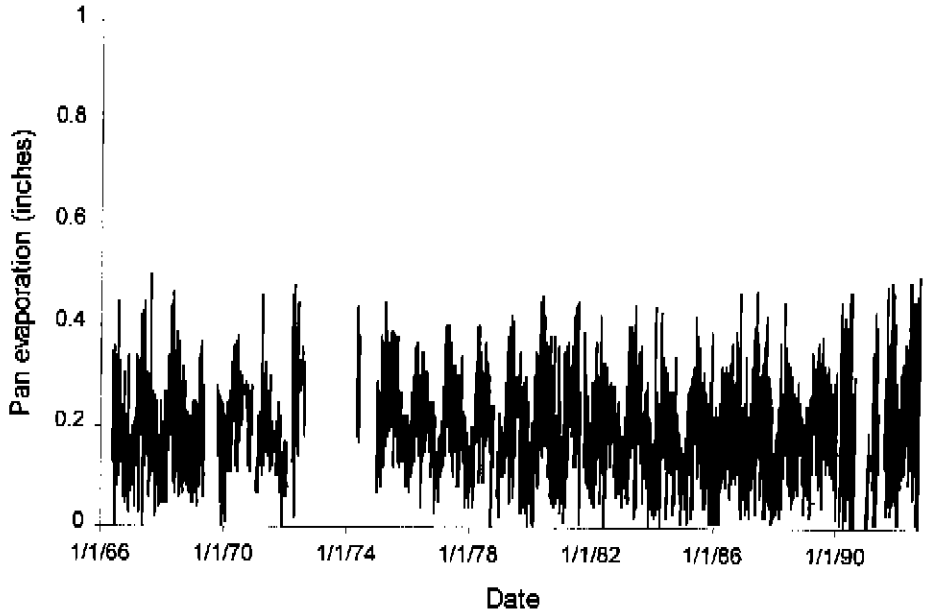

Figure 5. Daily pan evaporation results for station S65C_E.

Table 2. Statistics for monthly pan evaporation results (inches) at station S65C_E.

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR†
Mean	3.86	4.49	6.09	7.47	8.24	7.26	7.23	6.97	6.00	5.83	4.45	3.74	71.61
Standard Deviation	0.62	0.57	0.86	1.20	1.02	0.93	1.34	1.24	0.69	0.70	0.84	0.56	5.27
Minimum	2.62	3.51	4.29	3.74	6.41	4.56	3.21	5.28	4.81	4.67	3.56	2.98	64.10
Median	3.77	4.48	6.24	7.55	8.21	7.26	7.48	6.73	6.01	5.72	4.36	3.78	69.47
Maximum	5.21	5.45	7.99	9.34	10.01	9.23	9.44	10.21	7.29	7.51	6.54	4.85	82.34

† Indicates period of record for statistic.

Rainfall

Average annual areal rainfall for the lower Kissimmee River water management basin was reported as 50.1 inches for the years 1915 - 1985, while District wide average annual areal rainfall was 52.8 inches (Sculley, 1986). The wet season spans from June through October while the dry season occurs during the remaining months. Data compiled by Sculley (1986) resulted in a wet season average of 32.8 inches and a dry season average of 17.1 inches.

A description of rainfall monitoring stations in the S65C sub-basin is given in Appendix A and includes station name, database key(s) for data access from DBHYDRO, daily calculation method, period of record, and grid coordinates. Monitoring locations

for rainfall in this basin are shown in Figure 2. The data from each station were checked for missing values, accumulated data with missing values, and consistency with respect to adjacent stations. If data gaps of three days or less were encountered, missing data were estimated using the closest station with valid rainfall. Any month with greater than three days of missing data were excluded from statistical analysis for that specific month. For data accumulated over time, estimates were made based on the ratio method given in Equation 1, using the next closest station with valid data.

$$P_A(t) = [P_A(c)/P_B(c)]*P_B(t) \quad (1)$$

where

$P_A(t)$ = estimated rainfall for station A on day t, inches,

$P_A(c)$ = cumulative rainfall for station A, inches,

$P_B(t)$ = observed rainfall for station B on day t, inches,

$P_B(c)$ = cumulative rainfall for station B, inches.

Historical results, monthly statistics and annual sums, for each monitoring location are given in graphical and tabular format in Appendix B. Monthly statistics (mean, median, maximum, minimum, standard deviation) were compiled for each month over the period of record for each station. These data were combined for sub-basin wide estimates of average monthly and annual rainfall. For sub-basin wide average (arithmetic) annual areal rainfall, data from each station with temporal overlap were averaged for that year. Monthly statistics for sub-basin rainfall results for the calendar years 1957 – 1997 are depicted in Table 3. Monthly and annual results for sub-basin wide rainfall are given in Appendix B. Note that the maximum monthly rainfall occurred in June and the minimum monthly rainfall occurred in November for the calendar years 1957 – 1997. Also, mean monthly rainfall was highest in June and lowest in December for the calendar years 1957 – 1997.

Table 3. Statistics for monthly rainfall (inches) over calendar years 1957 – 1997 in sub-basin S65C.

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR†
Mean	2.13	2.64	3.19	2.24	4.30	6.93	6.74	6.32	5.83	3.32	1.86	1.69	47.61
Standard Deviation	1.89	1.98	2.25	1.68	2.26	3.01	2.58	2.04	2.29	2.91	1.77	1.21	6.93
Minimum	0.14	0.35	0.07	0.09	0.73	1.80	2.20	2.39	2.30	0.11	0.05	0.09	32.47
Median	1.62	2.22	2.70	2.04	3.90	6.82	6.31	6.24	5.43	2.72	1.11	1.53	46.96
Maximum	7.61	9.80	8.80	5.84	9.65	15.31	13.27	11.93	10.92	14.22	7.05	5.01	65.95

† Indicates period of record for statistic.

Sub-basin wide statistical estimates for rainfall over the calendar years 1957 - 1997 are shown in Figures 6 - 8. Results for this time period showed an annual areal maximum rainfall of 66.0 inches, minimum of 32.5 inches, and historical average of 47.6 inches (with a standard deviation of 6.9 inches). Average wet season areal rainfall was 29.6 inches, while dry season average areal rainfall was 18.4 inches over the years 1957 - 1997. These results are somewhat lower compared to those reported by Sculley (1986) for the entire basin during the years 1915 - 1985 (32.8 and 17.1 inches for wet and dry season, respectively).

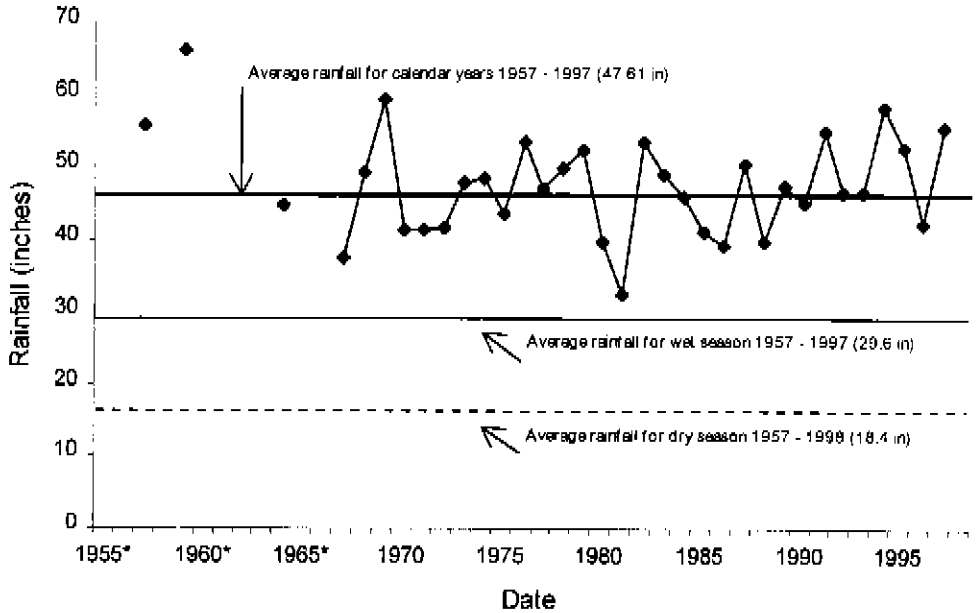

Figure 6. Average annual areal rainfall in S65C sub-basin for years 1957 - 1997.

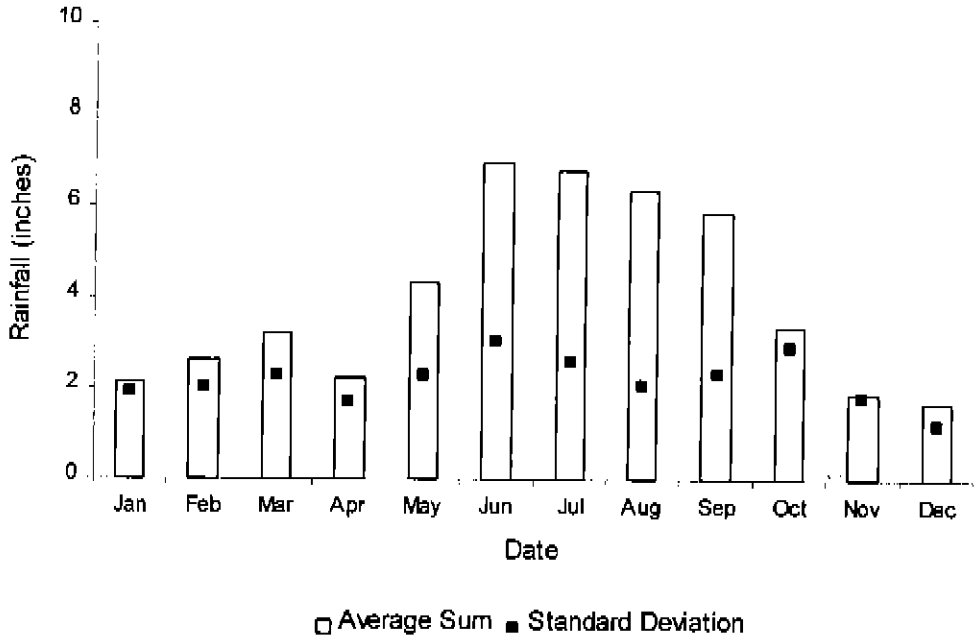

Figure 7. Mean monthly areal rainfall and standard deviation in S65C sub-basin for years 1957 – 1997.

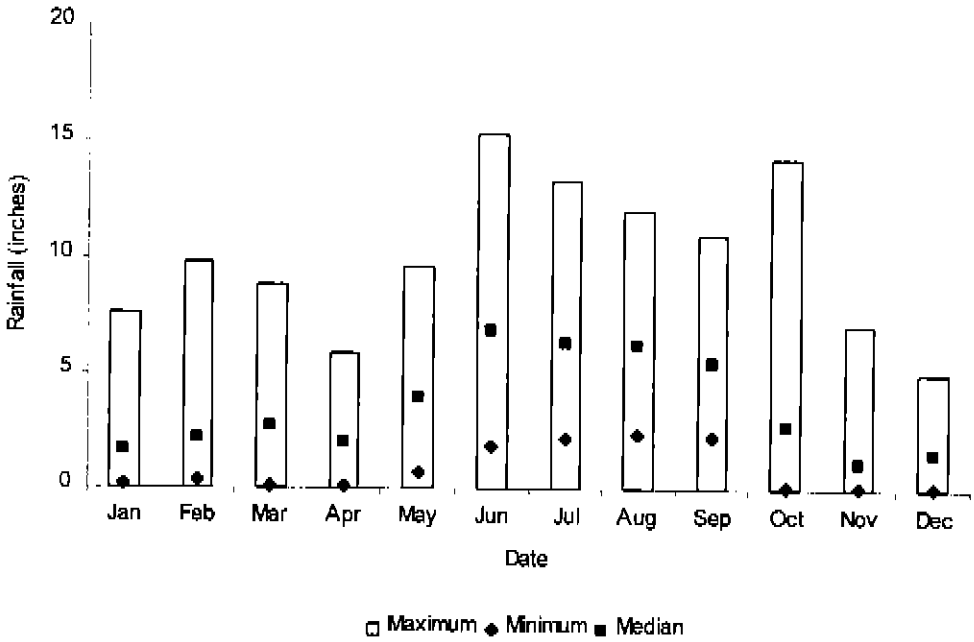

Figure 8. Minimum, median, and maximum monthly areal rainfall in S65C sub-basin for years 1957 - 1997.

Stage

The main structures controlling stage in the S65C sub-basin are the reinforced concrete gated spillway and lock structures S-65B and S-65C. Previous work has reported the stage characteristics of the S-65B structure and sub-basin (Downey, 1999). The S-65C spillway is designed to maintain a headwater stage of 34.0 feet (NGVD) and tailwater stage of 26.8 feet (NGVD) corresponding to the design flood of 30% SPF for the C-38 canal. The 100% SPF design headwater and tailwater stages are 37.6 and 33.7 feet (NGVD), respectively. Water will bypass the spillway structure at an elevation of 39.5 feet (NGVD). Upstream of the S-65C sub-basin control structure are several stations associated with the Kissimmee River Resoration Project. These sites include: KRBNS (data is under correction), KRDRS, and Pool C transects. The Pool C transects are PC11 and PC33 (located on remnant river sections) and PC401 (now called PC21) and PC52 (data is questionable). The latter two stations are located within the Kissimmee River floodplain These sites are not shown on Figure 3. Other structures in the S65C sub-basin include S65CX, an auxiliary culvert on the C-38 canal, presently out of service.

A description of stage monitoring stations in the S65C sub-basin are given in Appendix A and locations for several of these stations are shown in Figure 3. Appendix B reports average monthly stage and statistical summaries for each station. Daily stage results for the monitoring locations within this sub-basin and the S-65C control structure are shown in Figures 9 – 14.

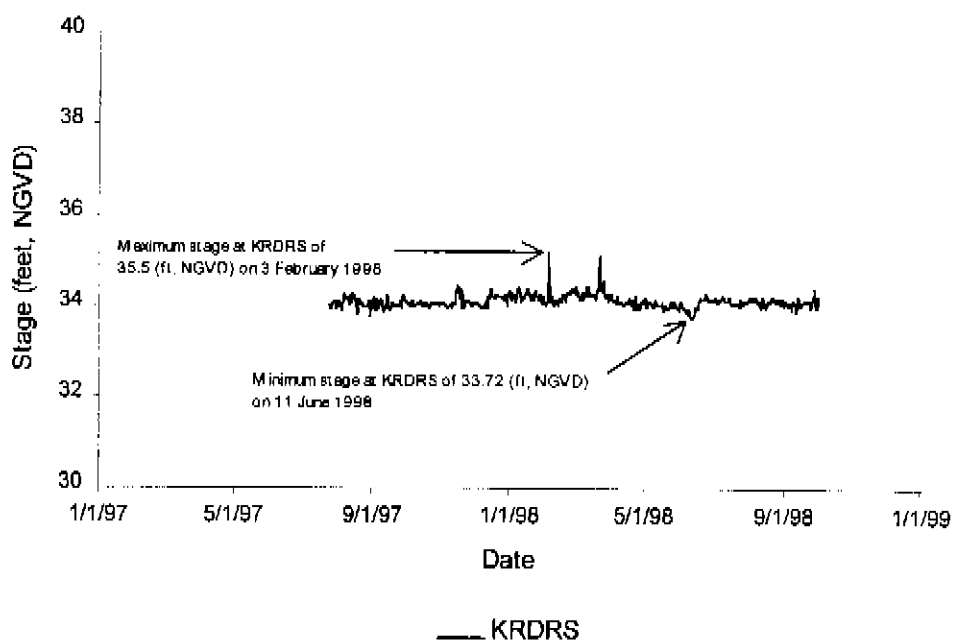

Figure 9. Daily stage for monitoring station KRDRS.

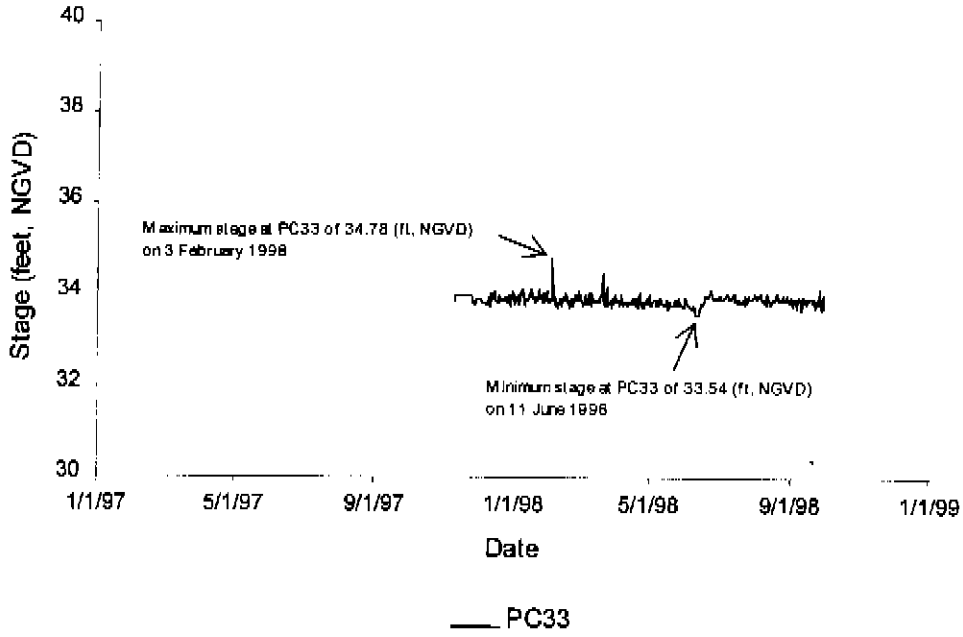

Figure 10. Daily stage for monitoring station PC33.

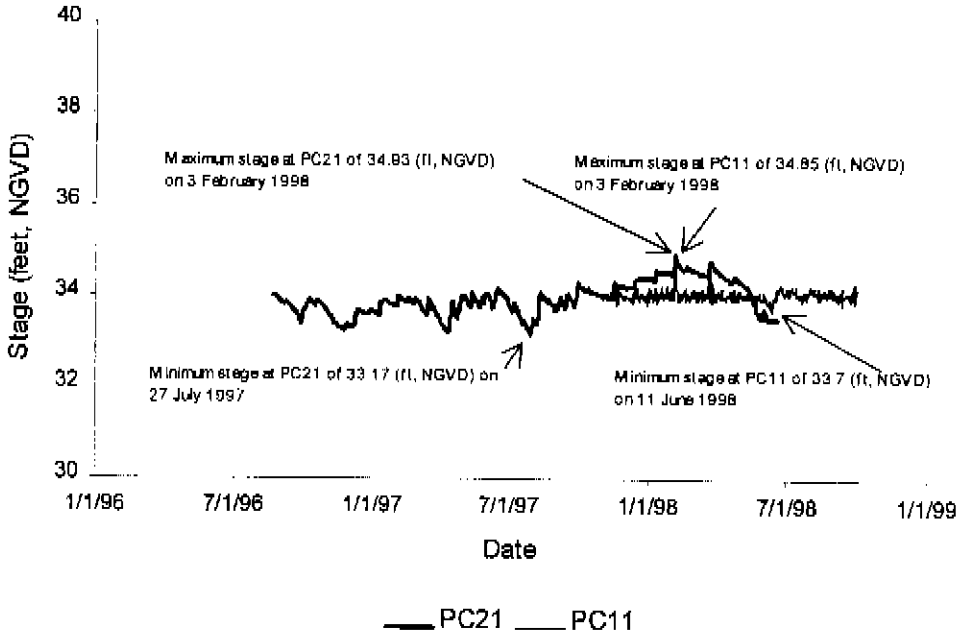

Figure 11. Daily stage for monitoring stations PC21 and PC11.

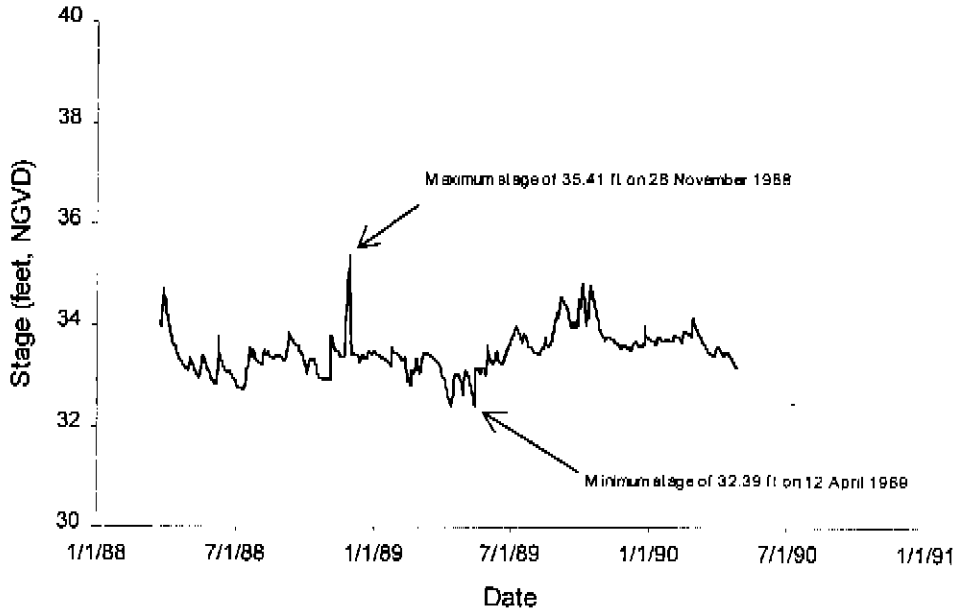

Figure 12. Daily stage for monitoring station MICCO D.

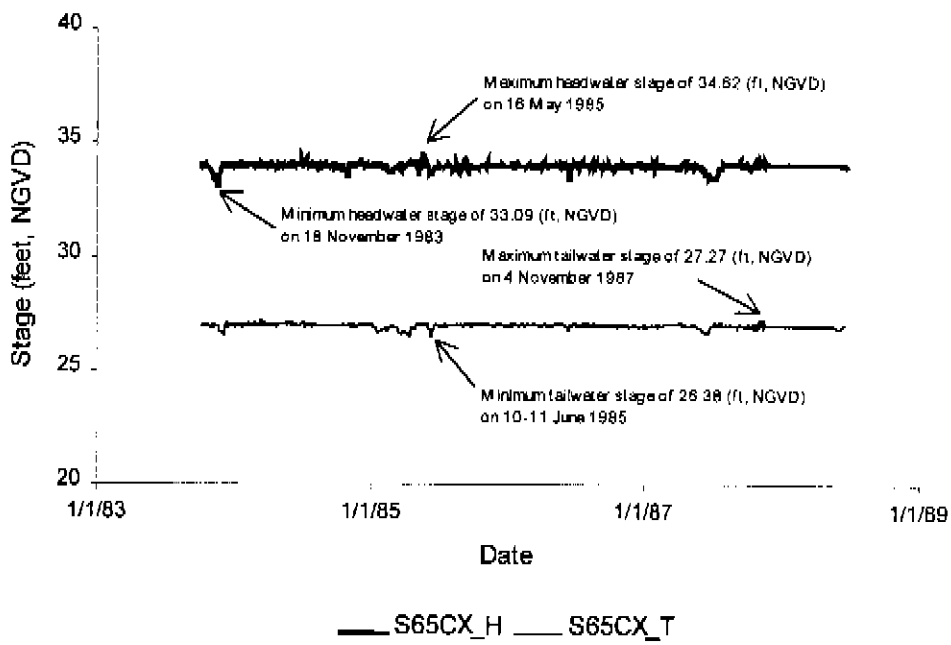

Figure 13. Daily stage for monitoring station S65CX.

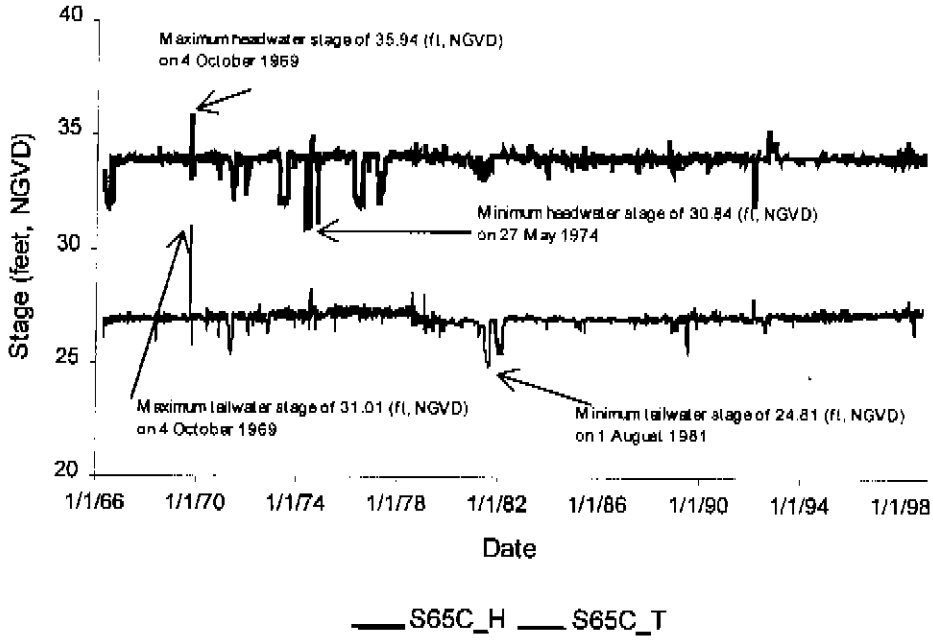

Figure 14. Daily stage for monitoring station S65C.

Stage data were checked for consistency with respect to upstream stations, when possible. Missing data gaps were estimated by assuming a linear arithmetic increase or decrease between the respective data entries that contained valid data. For stations with temporal overlap, the most recent valid data was assumed to be representative for that day. It should also be noted that S-65B tailwater is a valid measure for water levels in Pool C within the S65C sub-basin. Missing data for headwater at the S-65C structure can also be estimated using tailwater measurements at the S-65B structure. Figure 15 shows the results for S-65B tailwater and S-65C headwater measurements and the resultant water levels associated with Pool C.

Review of daily stage results at the S-65C control structure showed that the 30% SPF design headwater elevation (34.0 feet, NGVD) was surpassed 55% of the days during the period of record (April, 1966 – September, 1998). The 30% SPF design tailwater elevation (26.8 feet, NGVD) was surpassed 3 times over the period of record. The 100% SPF headwater and tailwater design stages were never surpassed for the period of record.

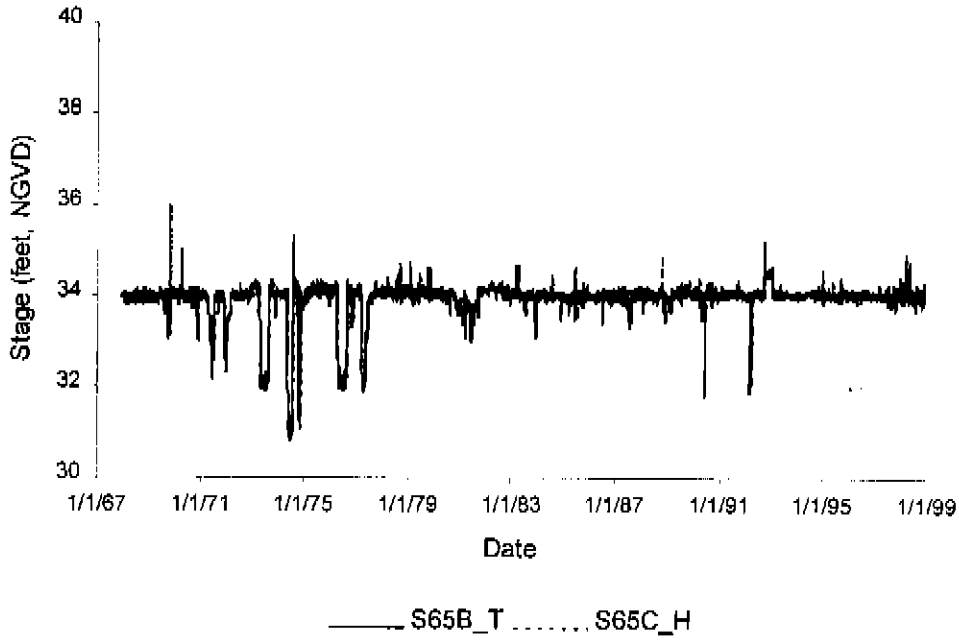

Figure 15. Daily stage for monitoring stations S65B_T and S65C_H.

Flow

Station descriptions, database keys, and period of record for flow monitoring sites are given in Appendix A. Locations of the stations that monitored flow within the S65C sub-basin are shown in Figure 4. The design discharge rate for the S65C sub-basin control structure is 18,000 cfs (100% SPF). This flow rate was exceeded four times over the period of record. A minimum flow rate of 0 cfs occurred through the control structure for 19% of the period of record analyzed.

The S-65C lock operation was established by the U.S. Corp of Engineers in accordance with the River and Harbor Act of 1917 and is currently set as: Monday through Friday, 8:00 a.m. to 5:00 p.m., all year; for Saturday and Sunday, 1 March through 31 October, 5:30 a.m. to 7:30 p.m.; for Saturday and Sunday, 1 November through 28 February, 5:30 a.m. to 6:30 p.m.

Missing gaps for flow data were estimated by assuming a linear arithmetic increase or decrease between the respective data entries that contained valid data. For temporal overlap, the most recent valid data was assumed to be representative for that day. Daily flow results for stations PC33 (not shown in Figure 4), G85.HWY, S65CX_C (presently out of service), and S65C_S are given in Figures 16 – 19. PC33 data were in question at the time of this publication. Monthly and annual flow summations for these stations, in units of ac-ft, are given in Appendix B.

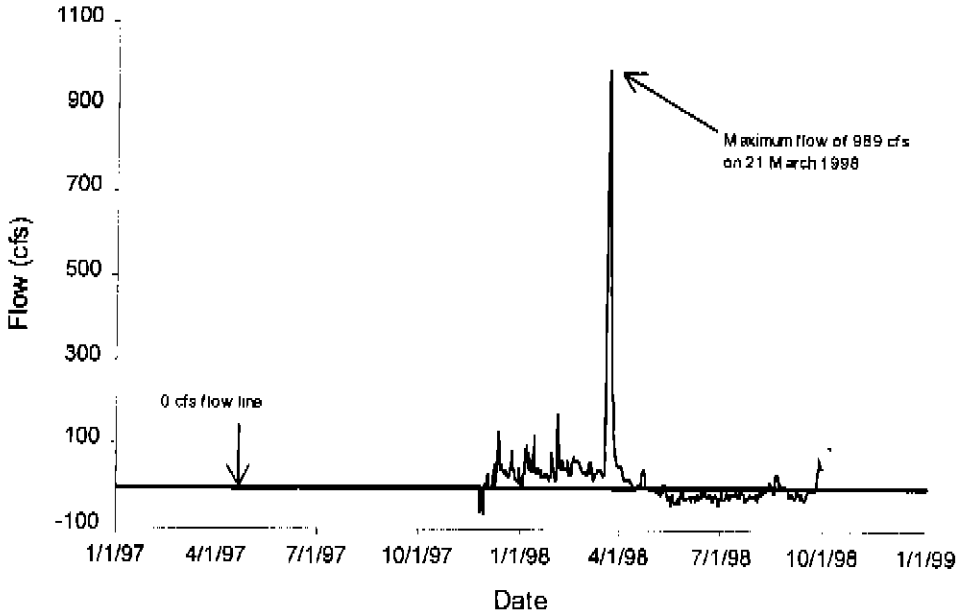

Figure 16. Daily flow at station PC33_O.

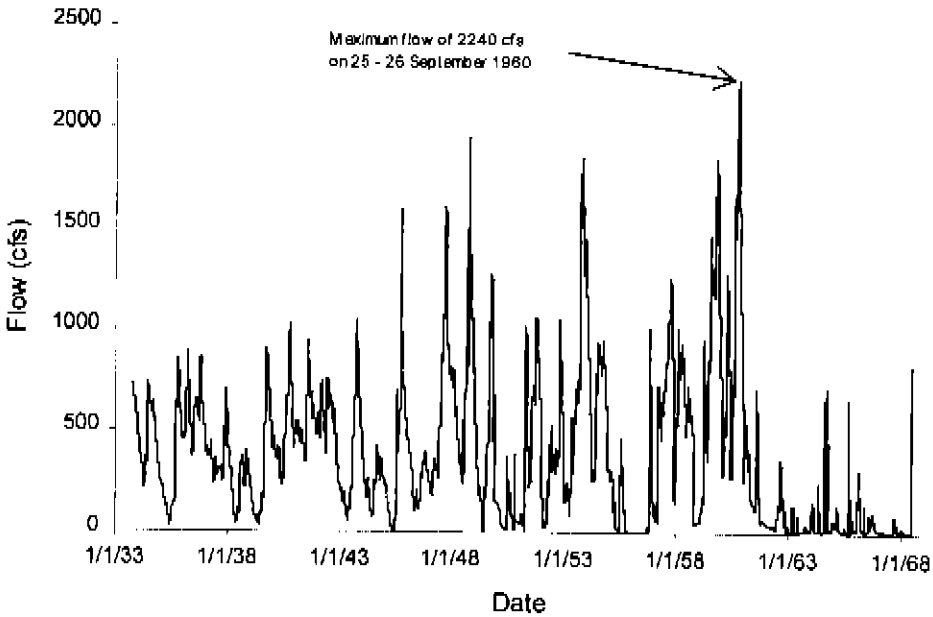

Figure 17. Daily flow at station G85.HWY.

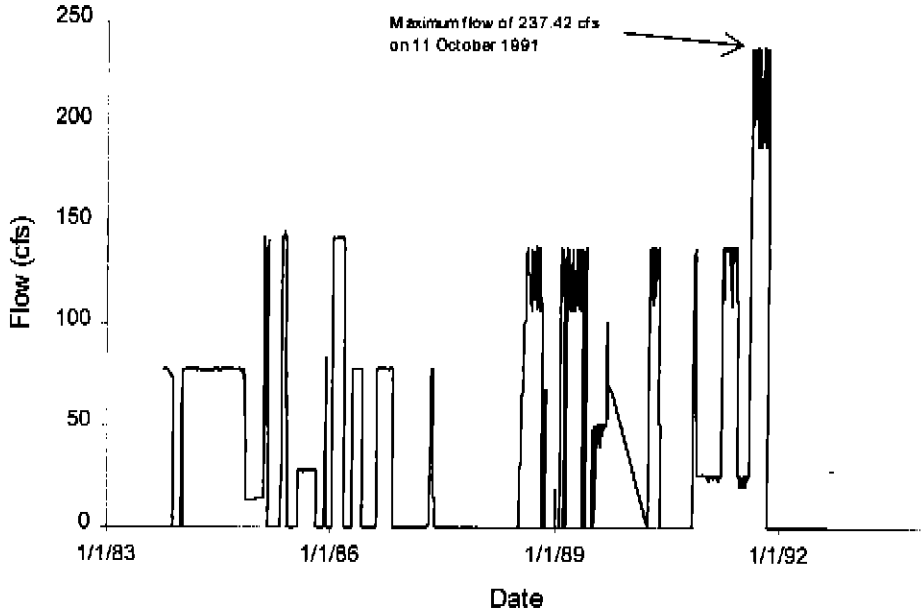

Figure 18. Daily flow at station S65CX_C.

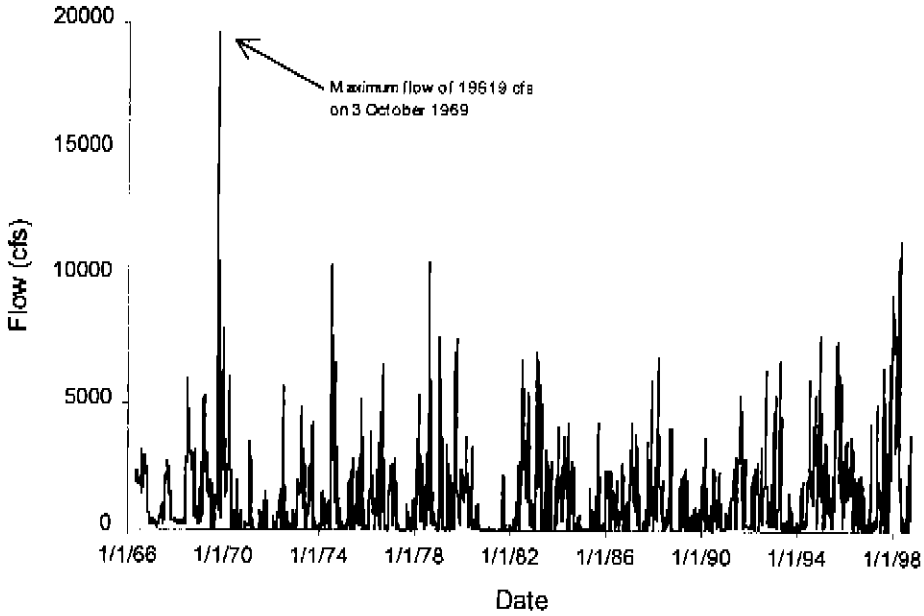

Figure 19. Daily flow at station S65C_S.

S65D SUB-BASIN

The location of sub-basin S65D within the lower Kissimmee River water management basin is shown in Figure 1, with rainfall, stage, and flow monitoring stations shown in Figures 2 – 4. The sub-basin encompasses approximately 182 square miles. The main water conveyance system is the Kissimmee River (C-38) which extends 9.3 miles downstream from the S-65C control structure. The small watersheds contributing flow within this sub-basin are the Crosby, Fourteenmile, Padgett, Open, Oak, Indian Town, Thomas, and Irvin Hammocks; Shin, Wet Rock, and Peat Marshes; Wolf Sawgrass Pond; and Gore, Ash, Cypress, and Chandler Sloughs..

The major water control structure within this sub-basin is a reinforced concrete gated spillway, S-65D, with four gates and a lock structure. The purpose of the structure is to maintain operational goals for water levels upstream of S-65D without exceeding upstream flood design stage and also, restrict downstream flood stages to non-damaging design flood levels. The S65D sub-basin contributes to the fourth reach, Pool D, and outflow from the sub-basin is controlled by the water control structure S-65D. S65DX is an auxiliary structure at this site (presently out of service). The S-65D structure is sized to provide a minimum of 3,000 cfs flow through capacity for the Upper Kissimmee River water management basin flood control, irrespective of local runoff conditions.

The data collected for this sub-basin and presented here include rainfall, stage, and flow. No pan evaporation data was available for this sub-basin. Daily records exist for the above hydrologic parameters in the District database, DBHYDRO. The data were collected by the District, the USGS, and NOAA. The data reported here were checked for consistency with respect to magnitude, upstream data collection station, and missing or questionable data. Estimations of missing data were made based on time gap length and consistency with adjacent stations.

Rainfall

Average annual areal rainfall District-wide for the years 1915 - 1985 has been reported as 52.8 inches, while the lower Kissimmee River water management basin was reported as 50.1 inches for same time period (Sculley, 1986). The wet season for the southern section of Florida spans from June through October. Sculley (1986) reported wet season average annual areal rainfall as 32.8 inches and 17.1 inches for the dry season average for the entire lower Kissimmee River water management basin.

A description of rainfall monitoring locations for the S65D sub-basin are given in Appendix A. Information includes station name, database key for accessing information from DBHYDRO, calculation method, period of record, and grid coordinates. Locations for the monitoring stations are shown in Figure 2. All rainfall data for each station were analyzed with respect to missing values, accumulated data with missing values, and consistency in magnitude, time of year, and adjacent stations. If data gaps of three days or less were encountered, missing data were estimated using the closest station with valid rainfall. Any month with greater than three days of missing data were excluded from

statistical analysis for that specific month. Data accumulated over time were estimated using the ratio method and the next closest station with valid data (*i.e.*, equation 1). If erratic or erroneous data were observed, these data were adjusted with respect to the closest station exhibiting valid data, or removed from the analysis.

Daily historical results for all rainfall collection locations, and the entire sub-basin, are given in graphical and tabular format in Appendix C. Mean, median, standard deviation, maximum, and minimum values were compiled for each month over the period of record for each station. The data from all stations were combined to estimate a sub-basin wide average monthly and annual areal rainfall. Temporal overlap among stations were averaged for the respective year. Monthly statistics for sub-basin rainfall results for the calendar years 1966 – 1997 are depicted in Table 4. Monthly and annual results for sub-basin wide rainfall are given in Appendix C. Note that the maximum monthly rainfall occurred in September and the minimum monthly rainfall occurred in March for the calendar years 1966 – 1997. Mean monthly rainfall was highest in June and lowest in December. Statistical results, compiled over the calendar years 1966 - 1997, for the sub-basin are shown graphically in Figures 20 – 22.

Table 4. Statistics for monthly rainfall (inches) over calendar years 1966 – 1997 in sub-basin S65D.

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR†
Mean	2.03	2.40	3.10	2.01	4.41	7.12	6.78	6.42	5.85	3.30	1.84	1.64	46.76
Standard Deviation	1.65	1.58	2.10	1.41	2.40	3.01	2.23	1.92	2.23	2.54	1.51	1.35	6.85
Minimum	0.21	0.32	0.04	0.13	0.22	1.81	3.10	3.32	1.05	0.46	0.16	0.22	31.28
Median	1.65	2.22	2.87	1.90	4.14	6.63	6.31	6.54	5.64	3.22	1.46	1.20	47.01
Maximum	5.65	7.52	7.57	4.90	11.13	13.19	11.54	11.89	14.71	12.37	7.15	5.59	66.54

† Indicates period of record for statistic.

Rainfall analysis for the S65D sub-basin over the calendar years 1966 - 1997 showed an annual areal maximum of 66.5 inches, minimum of 31.3 inches, and average of 46.8 inches (with a standard deviation of 6.9 inches). Average wet season rainfall for these years was 29.4 inches and dry season rainfall was 17.5 inches. These results are similar to results reported by Sculley (1986) for the lower Kissimmee River water management basin during the years 1915 - 1985 (32.8 and 17.1 inches for wet and dry season, respectively).

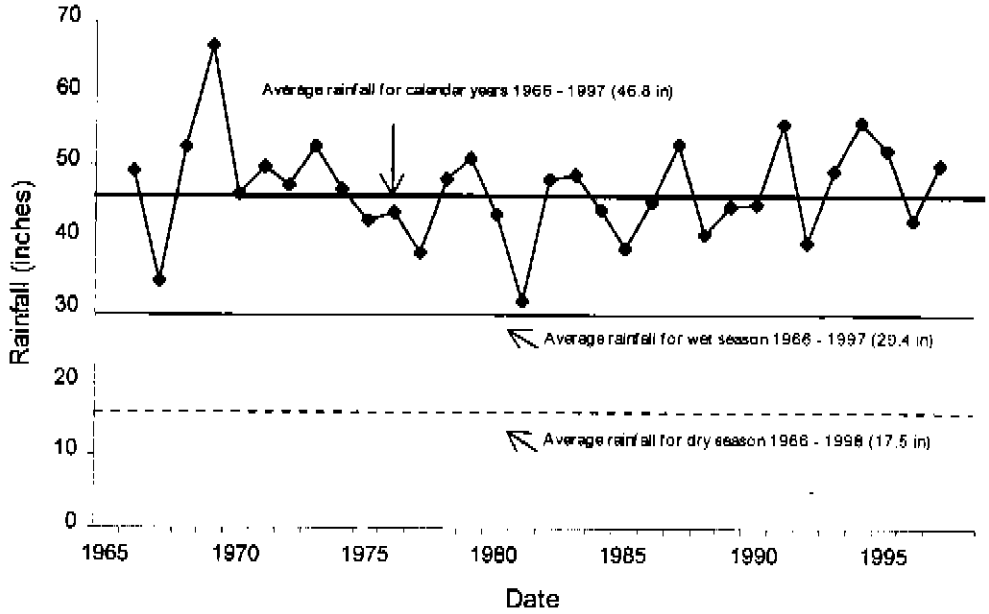

Figure 20. Average annual areal rainfall in S65D sub-basin for years 1966 – 1997.

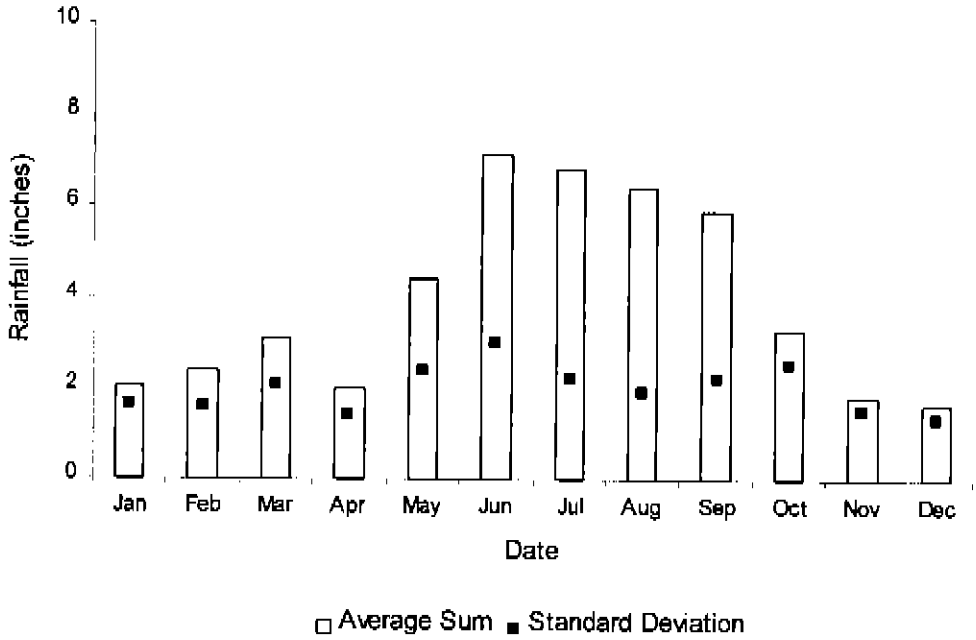

Figure 21. Mean monthly areal rainfall and standard deviation in S65D sub-basin for years 1966 – 1997.

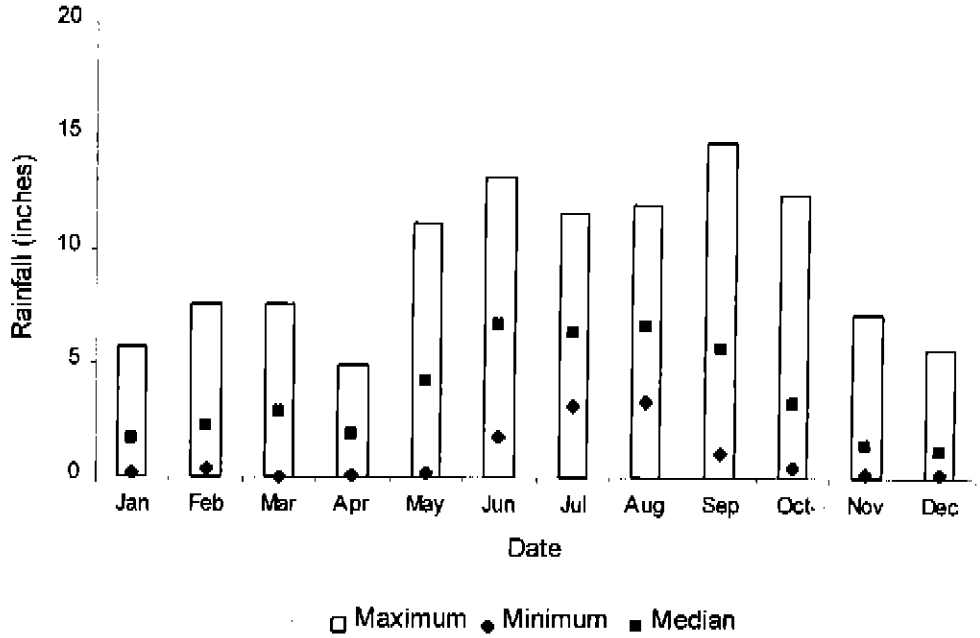

Figure 22. Minimum, median, and maximum monthly areal rainfall in S65D sub-basin for years 1966 - 1997.

Stage

The main structures controlling stage in the S65D sub-basin are the reinforced concrete gated spillway and lock structures S-65C and S-65D. The S-65D spillway is designed to maintain a headwater stage of 26.8 feet (NGVD) and tailwater stage of 23.3 feet (NGVD) corresponding to the design flood of 30% SPF for the C-38 canal. The 100% SPF design headwater and tailwater stages are 32.4 and 26.4 feet (NGVD), respectively. Water will bypass the spillway structure at an elevation of 34.5 feet (NGVD). Daily stage results showed the 30% SPF design headwater stage was exceeded seven times over the period of record, while the 30% SPF design tailwater stage was exceeded twice over the period of record. The 100% SPF headwater and tailwater design stages were not exceeded for this period of record.

A description of stage monitoring stations in the S65D sub-basin are given in Appendix A and locations for these stations are shown in Figure 3. Appendix C reports average monthly stage and statistical summaries for each station. Daily stage results for the monitoring locations FISH (not shown in Figure 3), RUCKSWF, CYPRS, CHAND1, CHAND2, and BASSP, C38.BAS, S65DX (presently out of service), and the S-65D control structure are shown in Figures 23 - 31. Data from all other stations (four years or less of data) are given in Appendix C as monthly averages.

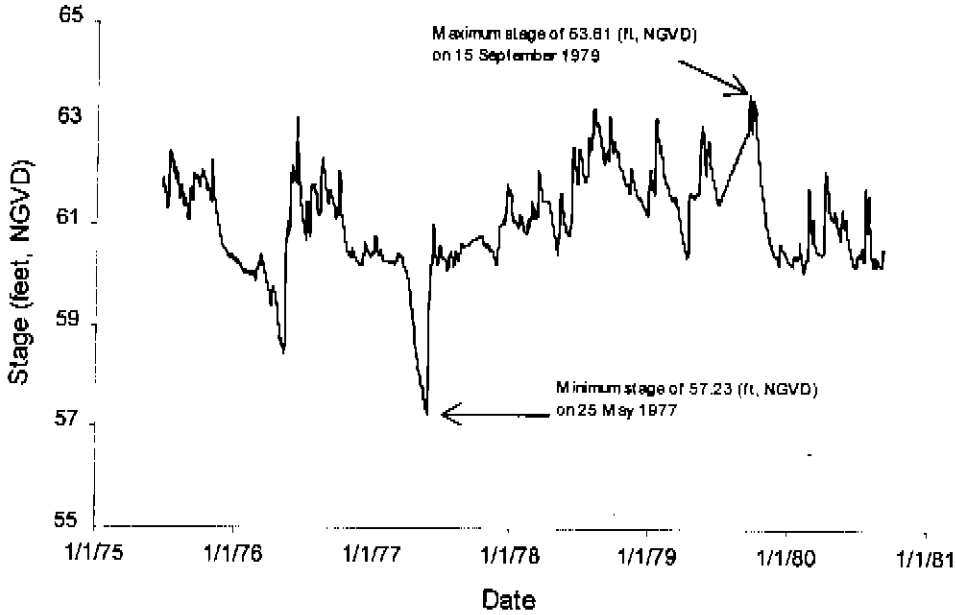

Figure 23. Daily stage for monitoring station FISH.

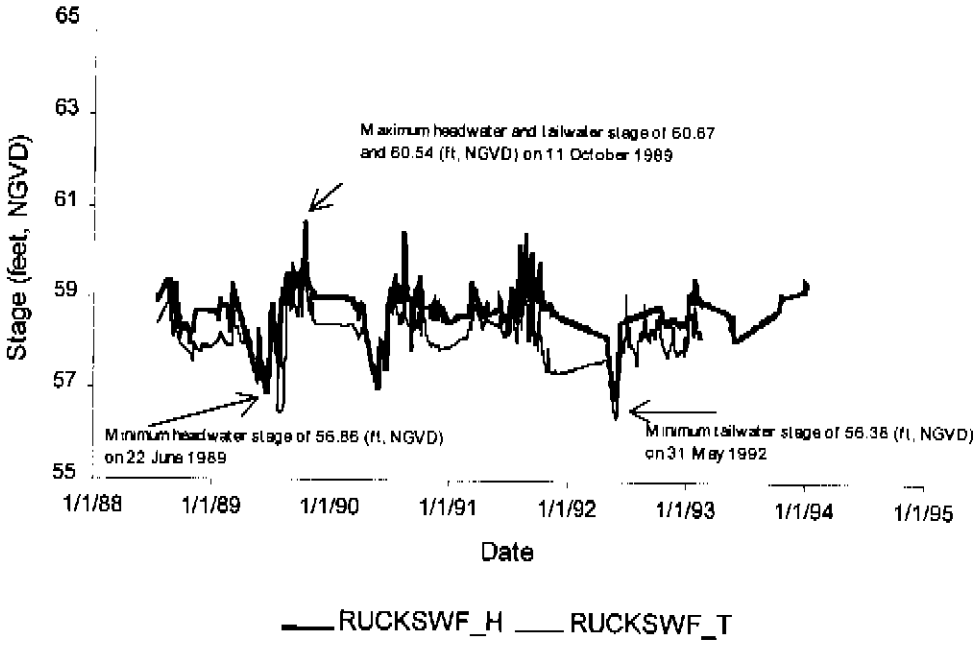

Figure 24. Daily stage for monitoring station RUCKSWF.

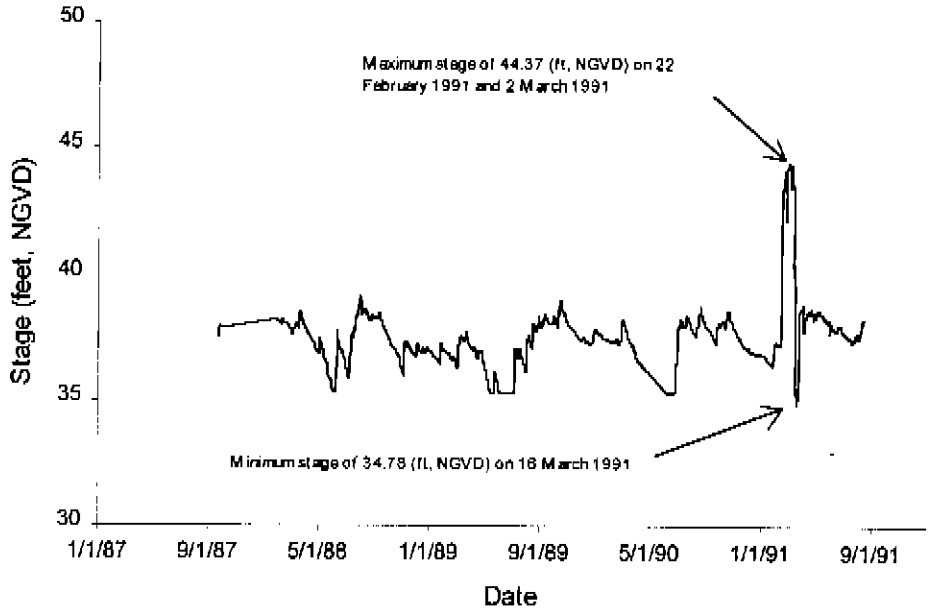

Figure 25. Daily stage for monitoring station CYPRS.

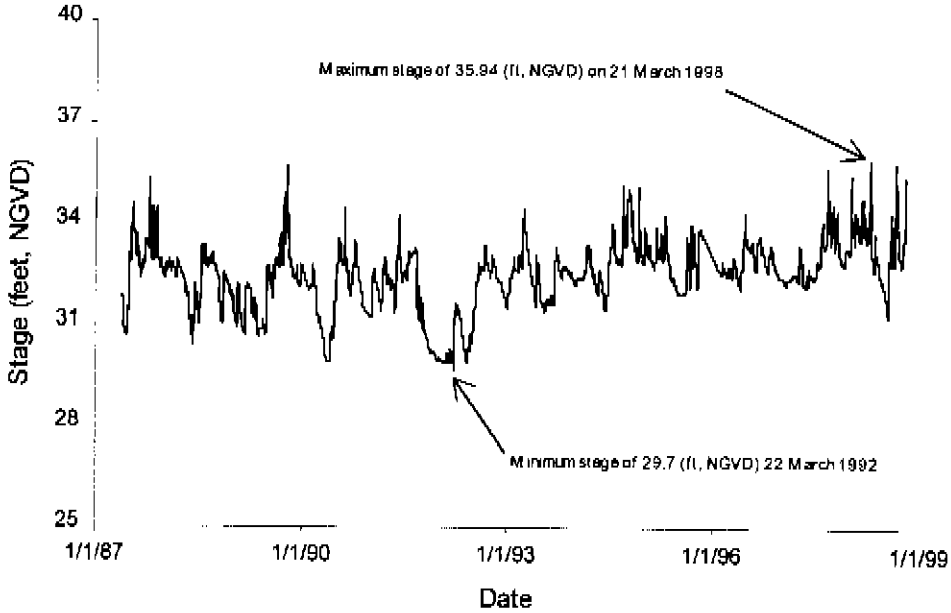

Figure 26. Daily stage for monitoring station CHAND1.

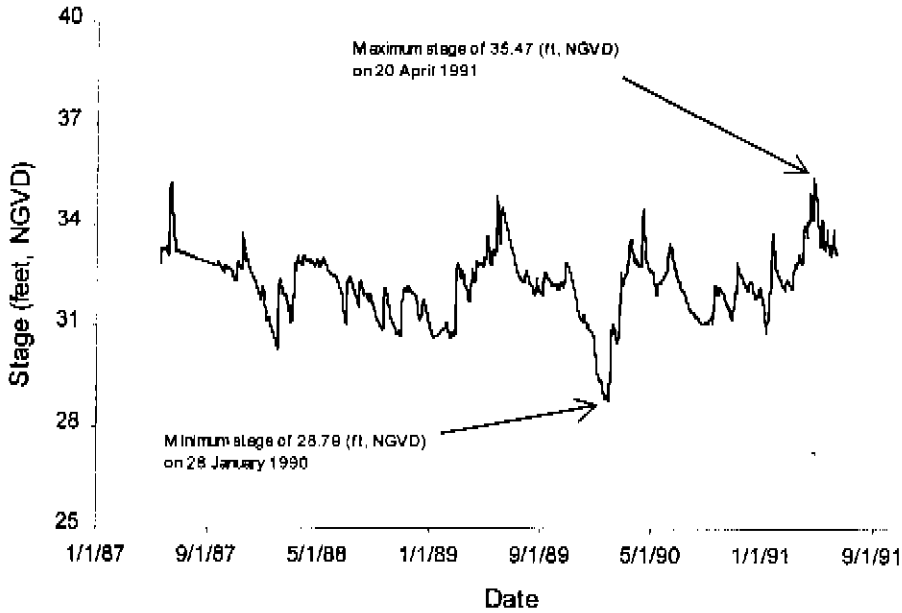

Figure 27. Daily stage for monitoring station CHAND2.

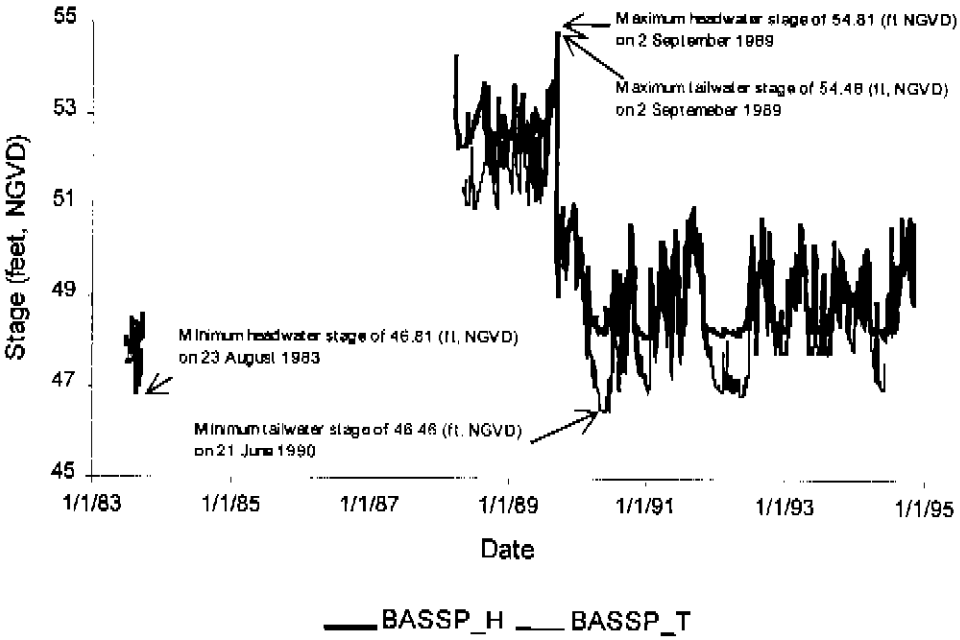

Figure 28. Daily stage for monitoring station BASS P.

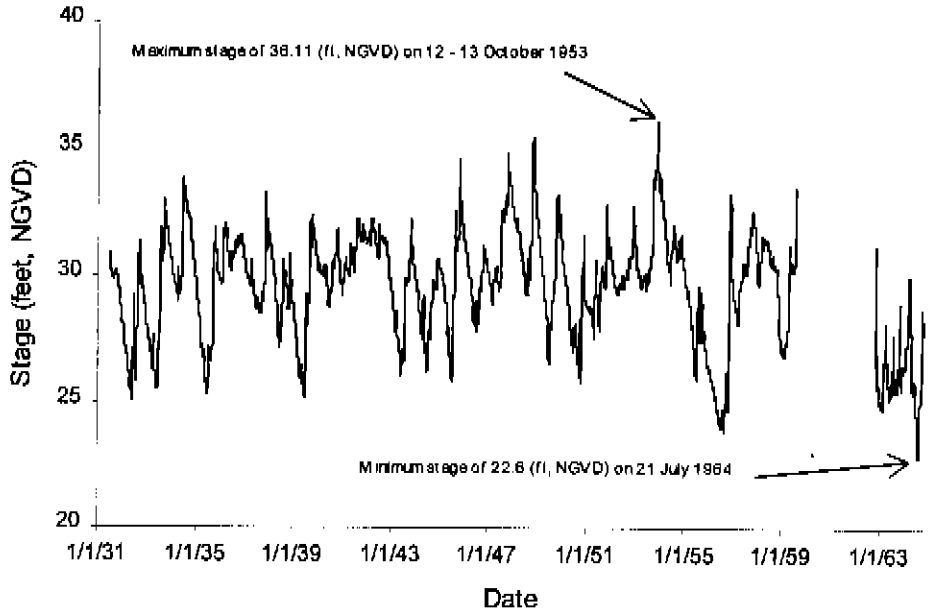

Figure 29. Daily stage for monitoring station C38.BAS.

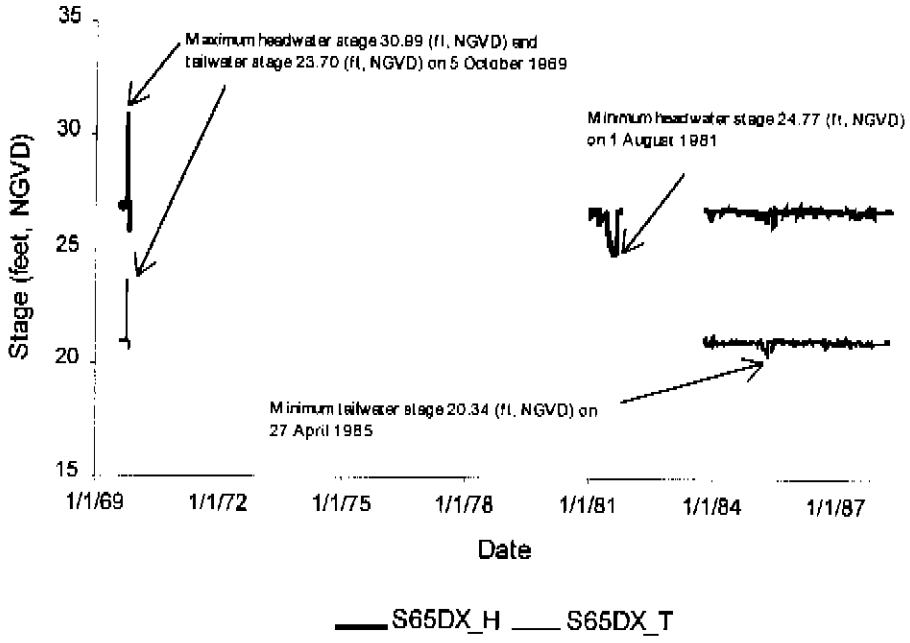

Figure 30. Daily stage for monitoring station S65DX.

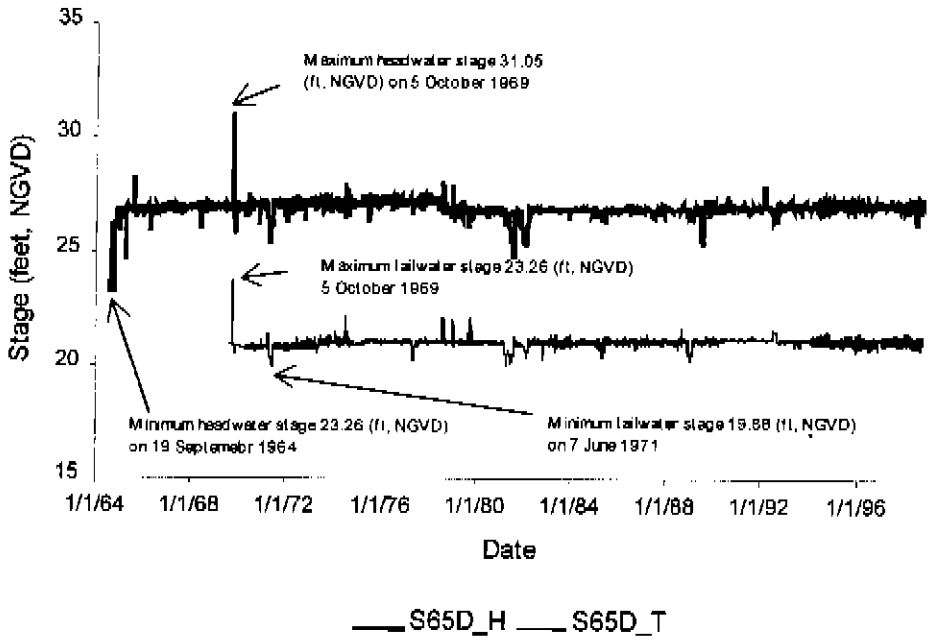

Figure 31. Daily stage for monitoring station S65D.

Stage data were checked for consistency with upstream stations. Missing data gaps were estimated by assuming a linear arithmetic increase or decrease between the respective data entries that contained valid data. For stations with temporal overlap (stations with multiple database keys), the most recent valid data was assumed to represent stage for that day. Also, as was the case for the S65C sub-basin, S-65C tailwater is a valid measure for water levels downstream, at the S-65D structure. Figure 32 shows the resultant water levels associated with Pool D.

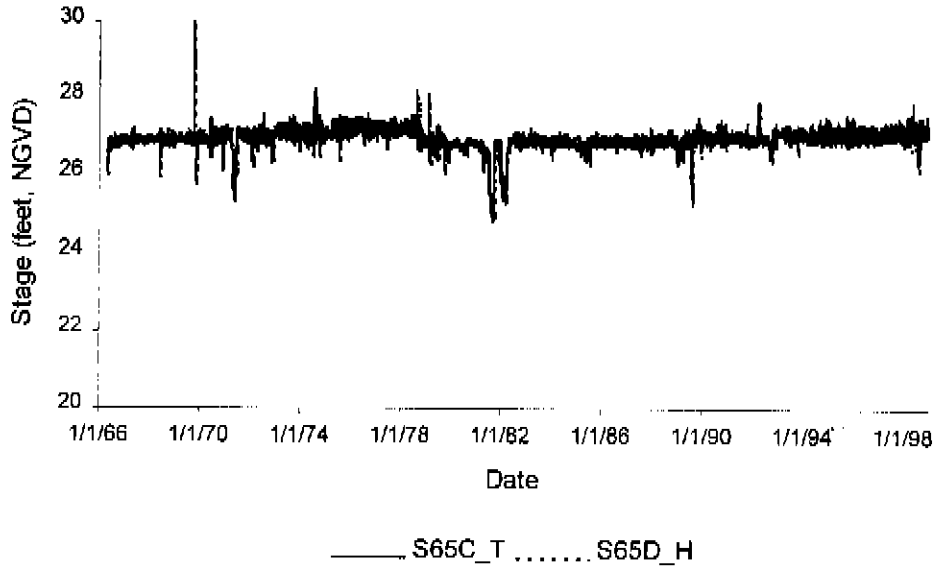

Figure 32. Daily stage for monitoring stations S65C_T and S65D_H.

Flow

Station descriptions, database keys, and period of record for flow monitoring sites are given in Appendix A. Locations of the stations that monitored flow within the S65D sub-basin are shown in Figure 4. The 30% SPF design discharge for the S65D sub-basin control structure is 21,300 cfs. The maximum discharge for this structure is rated at 23,500 cfs (100% SPF). This flow rate was exceeded one time over the period of record. A minimum flow rate of 0 cfs occurred through the control structure for approximately 11% of the period of record analyzed.

The S-65D lock operation was established by the U.S. Corp of Engineers in accordance with the River and Harbor Act of 1917 and is currently set as: Monday through Friday, 8:00 a.m. to 5:00 p.m., all year; for Saturday and Sunday, 1 March through 31 October, 5:30 a.m. to 7:30 p.m.; for Saturday and Sunday, 1 November through 28 February, 5:30 a.m. to 6:30 p.m.

Missing gaps for flow data were estimated by assuming a linear arithmetic increase or decrease between the respective data entries that contained valid data. For temporal overlap, the most recent valid data was assumed to be representative for that day. Daily flow results for stations C38.BAS, S65DX_C (presently out of service) and S65D_S are given in Figures 33 – 36. Monthly and annual flow summations for these stations, in units of ac-ft, are given in Appendix C.

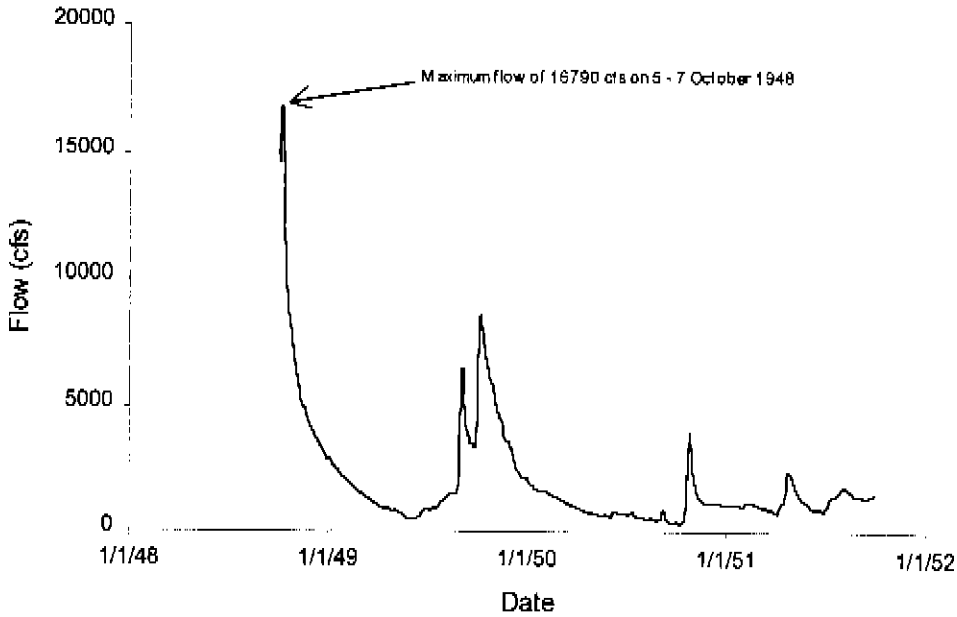

Figure 33. Daily flow at station C38.BAS (1948 – 1952).

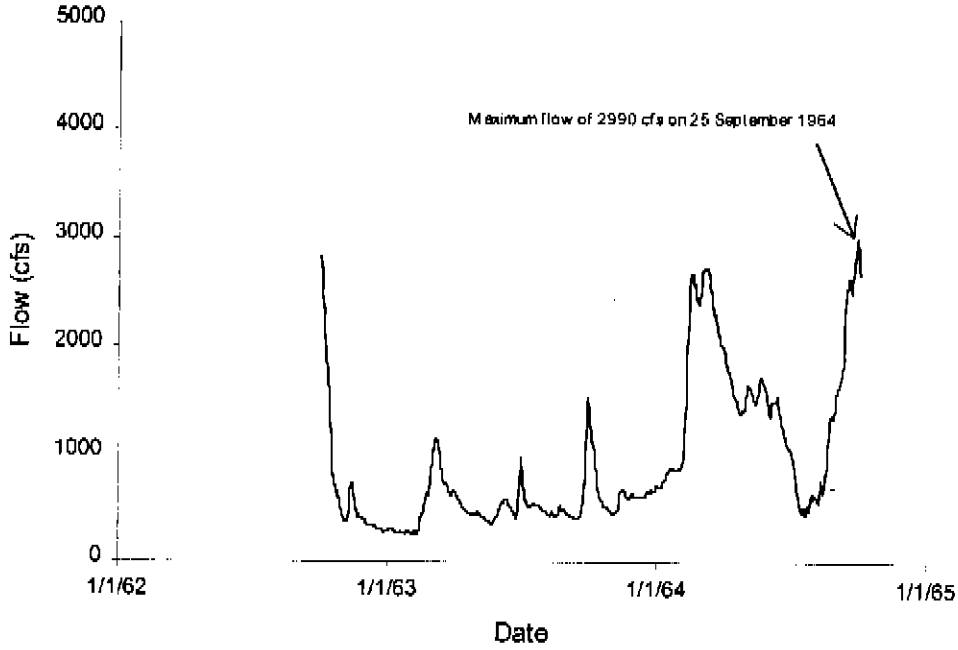

Figure 34. Daily flow at station C38.BAS (1962 – 1964).

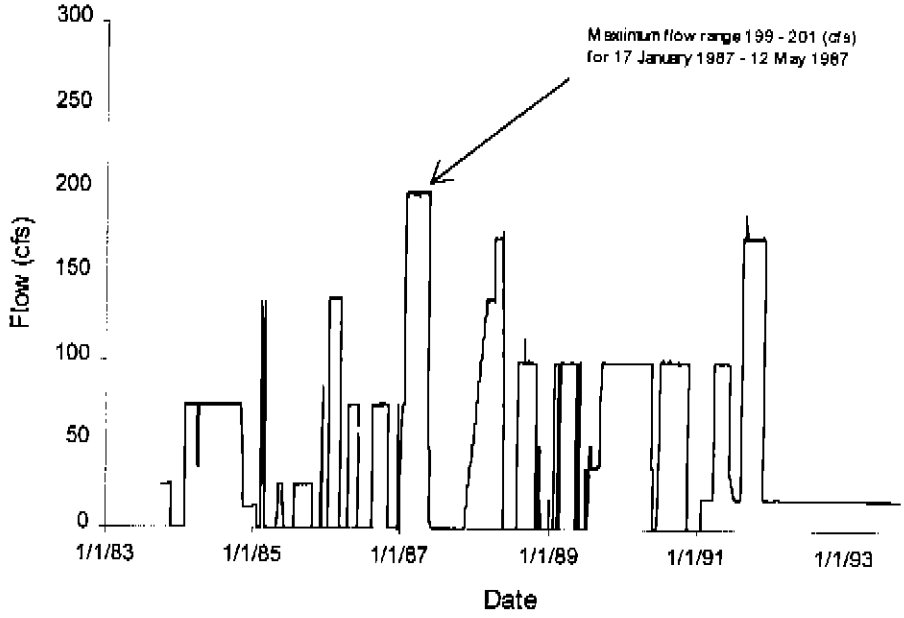

Figure 35. Daily flow at station S65DX_C.

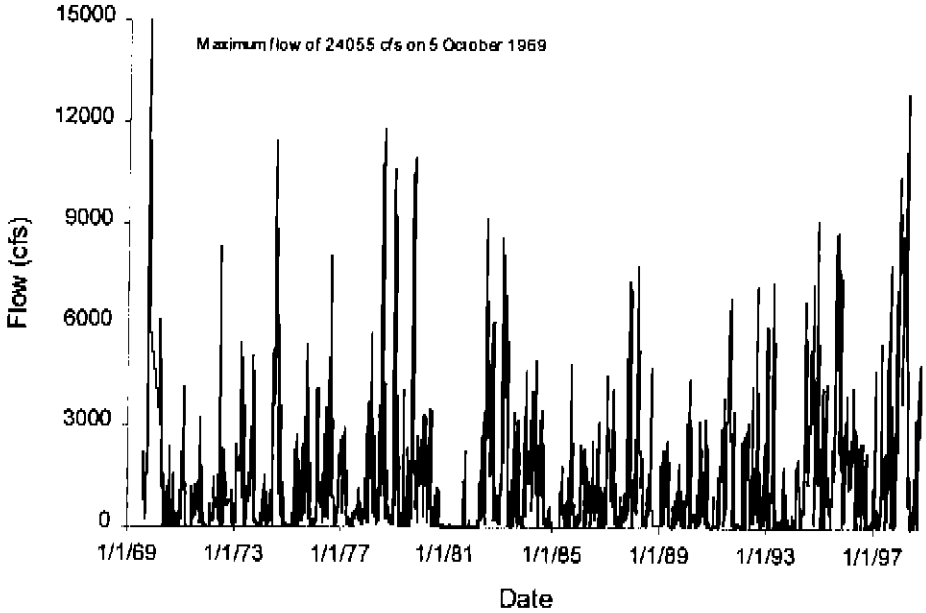

Figure 36. Daily flow at station S65D_S.

S65C AND S65D SUB-BASIN RUNOFF

Flow data have been presented with respect to the S65C and S65D sub-basins. Runoff within these sub-basins contribute to the total flow through the S-65C and S-65D structures along the C-38 canal. Historical flows through the S-65B structure at the southern edge of the S65B sub-basin was reported by Downey (1998).

Runoff estimates are obtained by subtracting average daily flow measured at the upstream control structure from average daily flow measured at the downstream control structure. The data are then adjusted to obtain runoff in inches/day. Monthly and yearly statistical results for runoff, in units of ac-ft, within the S65C and S65D sub-basins are presented in tabular format in Appendix D. Negative flows exist for these data (daily, monthly, and yearly). The temporal results for the period of record analyzed (December 1967 – September 1998) showed that runoff within the S65C sub-basin was negative for 27% of the events recorded (daily flow at S-65C subtracted by daily flow at S-65B). The S65D sub-basin showed that 23% of the total runoff events (August 1969 – September 1998) were negative (daily flow at S65-D flow subtracted by daily flow at S65-C).

Temporal results for rainfall and runoff data for the S65C sub-basin are presented in Figure 37. Monthly and yearly summations for this sub-basin are presented in Figures 38 and 39. All three figures show that negative runoff can exist for the sub-basin on a daily, monthly, and yearly basis. Negative runoff implies flow losses along the canal between the S-65B and S-65C structures. These losses may be due to evaporation, seepage, leakage through the lock structure, a combination of these physical effects, or other unaccounted for losses along the canal (Pool C).

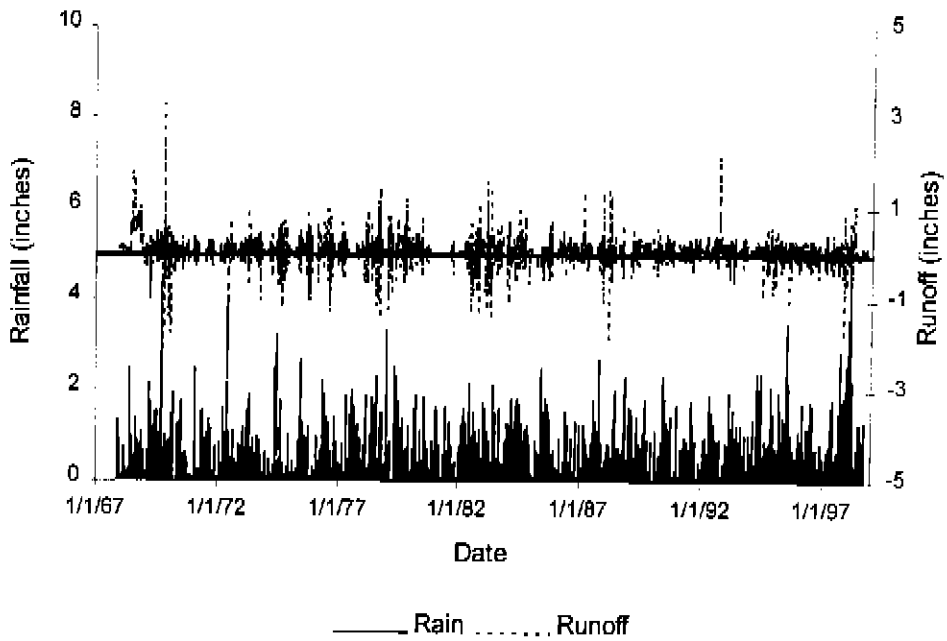

Figure 37. Temporal results for rainfall and runoff in S65C sub-basin.

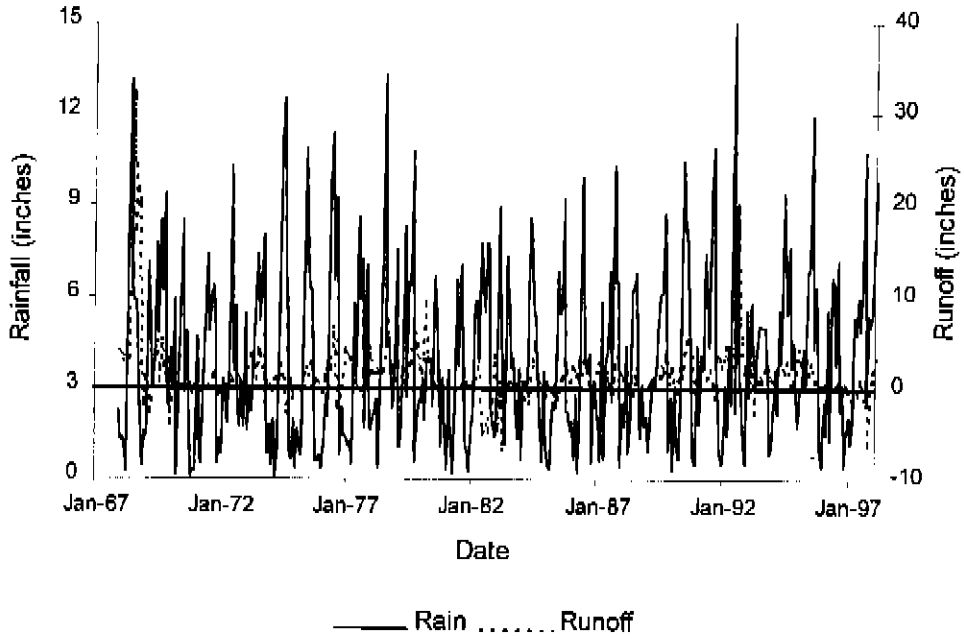

Figure 38. Monthly summations for rainfall and runoff in S65C sub-basin.

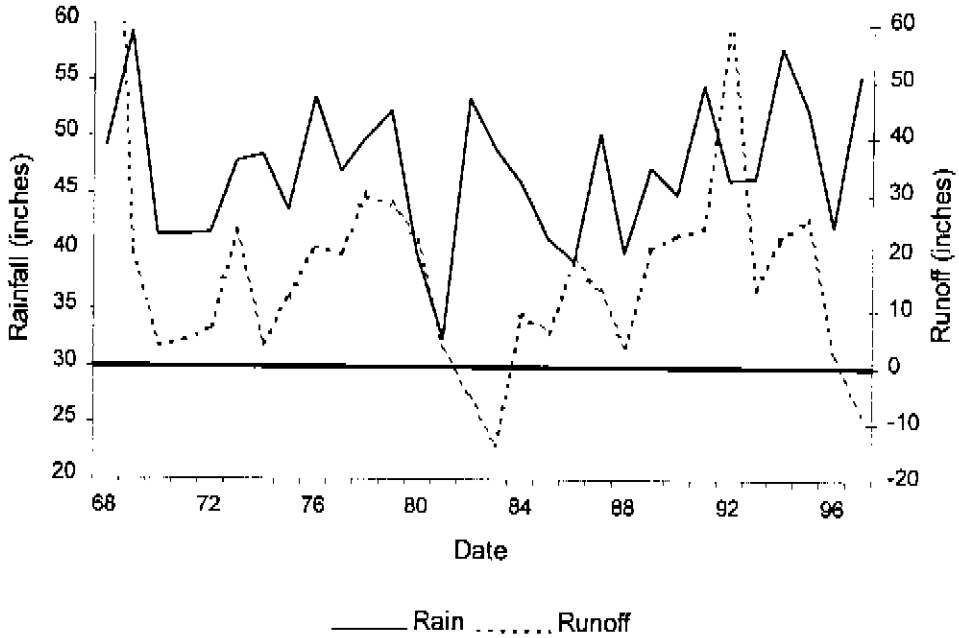

Figure 39. Yearly summations for rainfall and runoff in S65C sub-basin.

Temporal results for rainfall and runoff data for the S65D sub-basin are presented in Figure 40. Monthly and yearly summations for this sub-basin are presented in Figures 41 and 42. These figures show that negative runoff can exist for the sub-basin on a daily and monthly basis within this sub-basin. Negative runoff implies flow losses along the canal between the S-65C and S-65D structures. These losses may be due to evaporation, seepage, leakage from the lock structure, a combination of these physical effects, or other unaccounted for losses along the canal (Pool D).

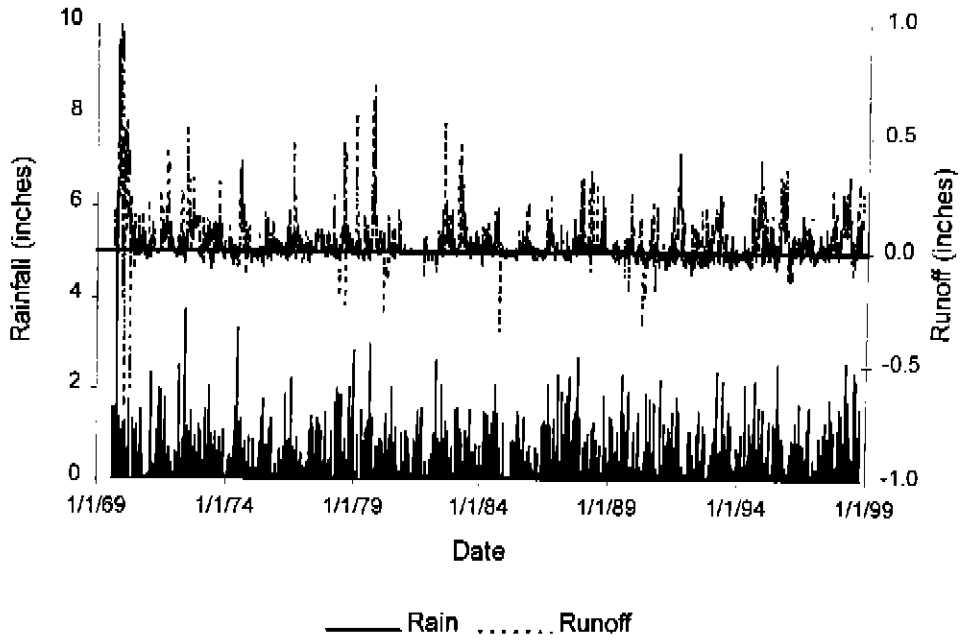

Figure 40. Temporal results for rainfall and runoff in S65D sub-basin.

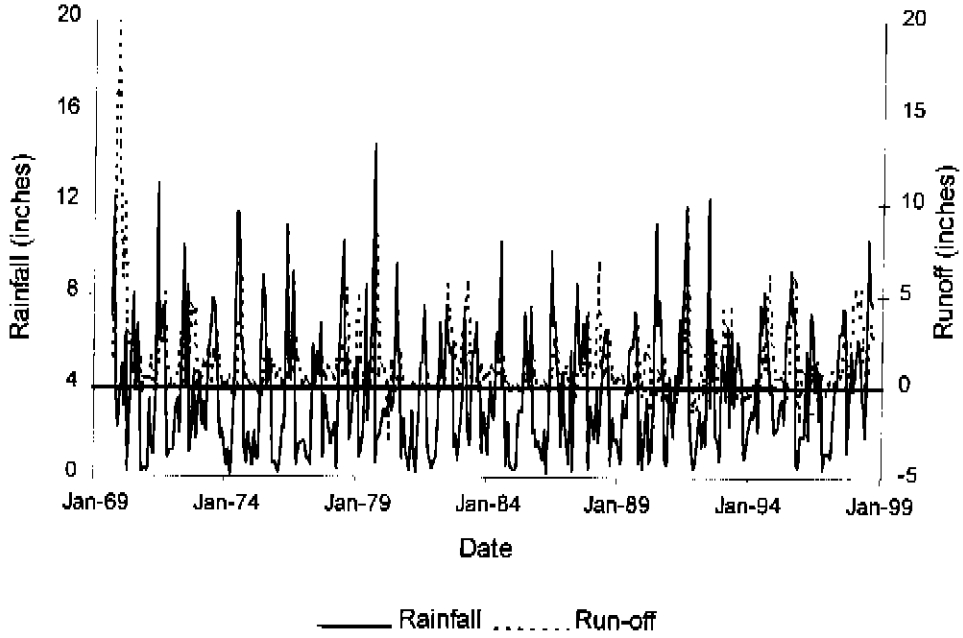

Figure 41. Monthly summations for rainfall and runoff in S65D sub-basin.

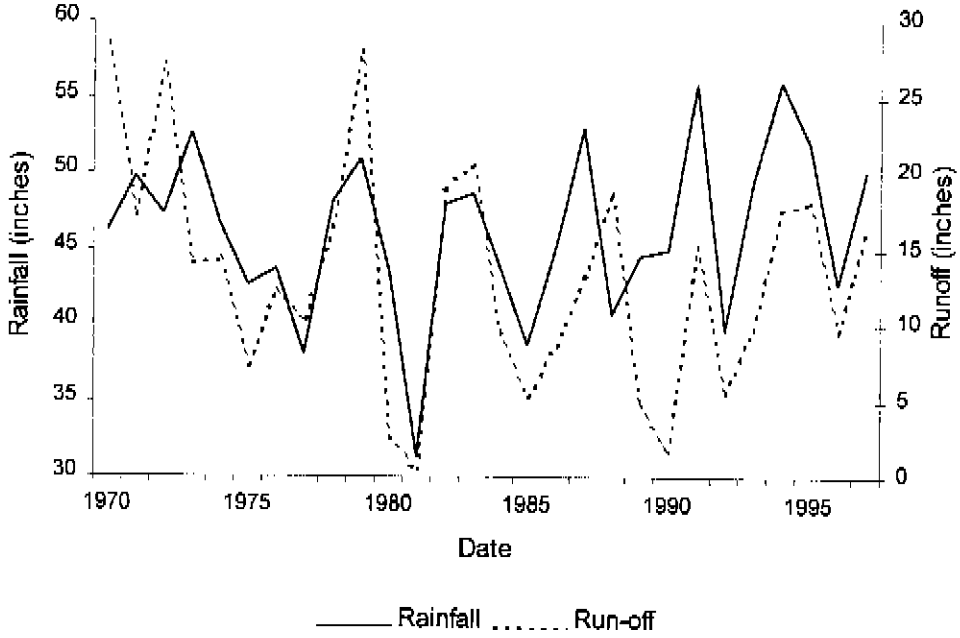

Figure 42. Yearly summations for rainfall and runoff in S65D sub-basin.

An overview of the resulting yearly flow summations through the control structures S-65B, S-65C, and S-65D, calculated runoff flows for S65C and S65D sub-basins over the years 1970 – 1998 are given in Table 5. The results, in general, show consistency with respect to upstream and downstream structures. Over the period of record analyzed, 27% of the daily runoff events within the S65C sub-basin were negative, while 23% of the daily runoff events were negative within the S65D sub-basin. Also, several years show upstream average daily flows were greater than downstream average daily flows. The same effect is seen with several yearly total flow summations. This implies flow losses along the C-38 canal between the S-65B and S-65D structures. Again, these losses may be due to evaporation, seepage, leakage through the lock structures, a combination of these physical effects, or other unaccounted for losses along the canal (Pool C and Pool D). These results, especially in light of accumulated yearly flow at a downstream structure that is less than flow at the immediate upstream structure, implies one of two possibilities: one possibility is that linear interpolation used to estimate missing flow data is an incorrect procedure; the second possibility is that existing discharge rating curves used to compute flow and gate operation data for estimating stage may need to be reevaluated.

Table 5. Summation of yearly flow and runoff (ac-ft) along C-38 for S65-B, RO_C, S65-C, RO_D, and S65-D.

Year	S65-B	RO_C†	S65-C	RO_D†	S65-D
1970	735605	17780	753385	277545	1030930
1971	228828	21714	250542	167244	417786
1972	232932	30436	263368	265663	529031
1973	753064	105948	859012	137804	996816
1974	1102874	17263	1120137	138477	1258614
1975	479727	54247	533974	70547	604521
1976	711031	94545	805576	118943	924519
1977	330255	89801	420056	100409	520465
1978	902116	134970	1037086	159618	1196704
1979	984316	128250	1112566	271162	1383728
1980	466043	100184	566227	24491	590718
1981	54453	12821	67274	4984	72258
1982	1099149	-24736	1074413	182797	1257210
1983	1268133	-62892	1205241	199236	1404477
1984*	801501	40954	842455	91004	933459
1985	252515	27164	279679	49784	329463
1986	572390	86040	658430	81880	740310
1987	975352	59969	1035321	126811	1162132
1988	676602	16198	692800	182613	875413
1989	351101	95082	446183	44868	491051
1990	447178	104294	551472	17453	568925
1991*	831012	110218	941230	148343	1089573
1992*	554735	275656	830391	53663	884054
1993*	682822	63118	745940	94989	840929
1994*	1328770	102914	1431684	170878	1602562
1995	1599734	118061	1717795	176084	1893879
1996*	869507	7951	877458	92768	970226
1997*	1284643	-36429	1248214	160195	1408409

* adjusted value at S65-B from previous report (Downey, 1998).
† RO_C is runoff for sub-basin S65C, RO_D is runoff for sub-basin S65D.

SUMMARY

Hydrologic data for the S65C and S65D sub-basins have been summarized and presented in this report. These data included evaporation, rainfall, stage, and flow. Temporal results were presented for all parameters, as were statistical summaries for each basin and each monitoring station. Runoff values were estimated for both sub-basins, and presented over daily, monthly, and yearly time frames.

Evaporation results were available for a limited period (1966 – 1992). The data showed an average value of 71.6 inches (with standard deviation of 5.3 inches) over the period of record. The average monthly maximum for this period of record was 8.2 inches (August) while the average monthly minimum value was 3.7 inches (December).

Historical rainfall within the lower Kissimmee River water management basin was reported as 50.1 inches for the years 1915 – 1986 (Sculley, 1986), while district wide rainfall was 52.8 inches. Results presented here indicated that the S65C sub-basin areal annual rainfall was 47.6 inches (1957 – 1997). Maximum annual rainfall over this period was 66.0 inches while minimum annual rainfall was 32.5 inches. The S65D sub-basin areal annual rainfall was 46.8 inches (1966 – 1997), with a maximum of 66.5 inches and minimum of 31.3 inches.

Stage data for the S-65C flow control structure showed that the 30% SPF design headwater elevation (34.0 ft, NGVD) was surpassed 55% of the days for the period of record data were collected, while the tailwater elevation (26.8 ft, NGVD) was surpassed 3 times. The 100% SPF design stages were never surpassed for this time period. The S-65D control structure 30% SPF design headwater stage (26.8 ft, NGVD) was surpassed for seventy-eight percent of the period of record, while the 30% SPF design tailwater stage (23.3 ft, NGVD) was surpassed twice over the period of record. The 100% SPF design stages were not exceeded for this structure over the period of record.

Flow data for the S-65C structure indicate that the 100% SPF design value (18,000 cfs) was surpassed four times over the period of record analyzed. The 30% SPF value was not reported for this structure. Nineteen percent of the flow events for this structure were zero over the period of record. The 100% SPF for the S-65D (21,3000 cfs) was exceeded one time over the period of record. Eleven percent of the flow events for this structure were zero. The 30% SPF (21,3000 cfs) was surpassed one time for the period of record for this structure (same as 100% SPF).

Data were presented for total flows, in ac-ft, over a monthly and yearly time frame for the S-65B, S-65C, and S-65D flow structures. The flow data for these structures were used to estimate runoff within these two sub-basins. Qualitative graphical data were presented showing the effects of rainfall on runoff over a yearly and monthly time frame for both sub-basins.

REFERENCES

Abtew, Wossenu. 1992. An Atlas of the Lower Kissimmee River and Lake Istokpoga Surface Water Management Basins. Technical Memorandum. South Florida Water Management District, West Palm Beach, FL.

Downey, Daniel. 1999. Hydrologic Report on S65A and S65B Sub-Basins in the Lower Kissimmee River Water Management Basin. Technical Memorandum # 369. South Florida Water Management District, West Palm Beach, FL.

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

Van Horn, Stuart. 1996. Hydrometeorologic Monitoring Network Metadata Report. South Florida Water Management District, West Palm Beach, FL.

APPENDIX A
RAINFALL, EVAPORATION, STAGE, AND FLOW STATIONS IN S65C AND S65D SUB-BASINS

Table A1. Rainfall and evaporation stations in S65C sub-basin.

```
*****************************************************************************************************************
* STATION BISHOP_R        BISHOP DAIRY NEAR ARBUCKLE CREEK                                                      *
* SECTION 30        TOWN  34        RANGE 31                                                                    *
* LAT  273012.125    XCOORD 559348.000 BASIN S65C        QUAD SHEET  27081132 LAKE ARBUCKLE SE                 *
* LONG: 811755.250    YCOORD 1152272.500 COUNTY HIG        LAND SURFACE    0.00 FT MSL                          *
*                                                                                                               *
* DBKEY: TYPE UNITS        STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*
* 13057 RAIN INCHES       SUM  DA  SP01   0.00  0  07/20/1989  07/18/1991  00  00          ACBI+R   WMD
* IW869 RAIN INCHES       INST BK  SP01   0.00  0  07/20/1989  07/18/1991  00  00          ACBI+R   WMD
*****************************************************************************************************************
* STATION CORNWELL_R        CORNWELL 4NW                                                                        *
* SECTION 30        TOWN  35        RANGE 32                                                                    *
* LAT  272401.156    XCOORD 602159.625 BASIN S65C        QUAD SHEET  27081214 BASINGER NW                      *
* LONG: 810959.250    YCOORD 1114729.625 COUNTY OKE        LAND SURFACE    99.00 FT MSL                         *
*                                                                                                               *
* DBKEY: TYPE UNITS        STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*
* 06149 RAIN INCHES       SUM  DA  CAN    0.00  0  11/01/1955  09/30/1975  00  00          MRF6030  NOAA
*****************************************************************************************************************
* STATION KRBNR        WATER SAMPLING STATIONS ON THE KISSIMMEE RIVER                                         *
* SECTION 6        TOWN  35        RANGE 32                                                                    *
* LAT  272740.719    XCOORD 600666.375 BASIN S65C        QUAD SHEET      0 AAAA UNAVAILABLE                  X *
* LONG: 811016.125    YCOORD 1136904.500 COUNTY HIG        LAND SURFACE                                        *
*                                                                                                               *
* DBKEY: TYPE UNITS        STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*
* FZ609 RAIN INCHES       SUM  DA  CR10   0.00  0  05/15/1997  01/14/1999                KRBN+R   WMD
* IX784 RAIN INCHES       INST BK  CR10   0.00  0  05/15/1997  11/02/1998                KRBN+R   WMD
*****************************************************************************************************************
* STATION MCARTH_R        GW-187 RAIN/WELL ON MCARTHUR PROPERTY NEAR U.S. 98                                    *
* SECTION 14        TOWN  35        RANGE 31                                                                    *
* LAT  272619.125    XCOORD 589204.125 BASIN S65C        QUAD SHEET  27081210                                  *
* LONG: 811223.250    YCOORD 1128683.875 COUNTY HIG        LAND SURFACE    99.00 FT MSL                         *
*                                                                                                               *
* DBKEY: TYPE UNITS        STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*
* 05873 RAIN INCHES       SUM  DA  2A35   0.00  0  05/24/1974  12/15/1998  00  00          MRF187   WMD
* IY083 RAIN INCHES       INST BK  2A35   0.00  0  05/24/1974  07/20/1998  00  00          MRF187   WMD
*****************************************************************************************************************
* STATION MICCO_R        GW-159 RAIN/WELL ON MICCO BLUFF NEAR S-65B                                             *
* SECTION 31        TOWN  34        RANGE 32                                                                    *
* LAT  272821.125    XCOORD 609490.562 BASIN S65C        QUAD SHEET  27081210                                  *
* LONG: 810838.250    YCOORD 1140974.625 COUNTY OKE        LAND SURFACE    99.00 FT MSL                         *
*                                                                                                               *
* DBKEY: TYPE UNITS        STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*
* 05856 RAIN INCHES       SUM  DA  ????   0.00  0  03/06/1972  01/22/1999  00  00          MRF159   WMD
* IY101 RAIN INCHES       INST BK  ????   0.00  0  03/06/1972  09/22/1998  00  00          MRF159   WMD
*****************************************************************************************************************
* STATION S65CW        WEATHER STATION NEAR S-65C SPILLWAY ON CANAL C-38                                      *
* SECTION 27        TOWN  35        RANGE 32                                                                    *
* LAT  272405.156    XCOORD 618924.062 BASIN S65C        QUAD SHEET  27081210                                  *
* LONG: 810653.250    YCOORD 1115114.625 COUNTY OKE        LAND SURFACE    35.00 FT MSL                         *
*                                                                                                               *
* DBKEY: TYPE UNITS        STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*
* 15473 RAIN INCHES       SUM  DA  CR10  10.00  0  10/20/1992  01/12/1999  00  00  00      S65CW+R  WMD
* IY860 RAIN INCHES       INST BK  CR10  10.00  0  10/20/1992  10/29/1998  00  00  00      S65CW+R  WMD
*****************************************************************************************************************
```

Table A1. continued.

```
*****************************************************************************************************************
* STATION S65C_R          S-65C SPILLWAY ON CANAL C-38                                                          *
* SECTION 27        TOWN  35       RANGE 32                                                                     *
* LAT  272405.156    XCOORD 618924.062 BASIN S65C       QUAD SHEET  27081210                                   *
* LONG: 810653.250    YCOORD 1115114.625 COUNTY OKE        LAND SURFACE   35.00 FT MSL                          *
*                                                                                                               *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP  START    END    GATE SLOT RANK ALTERNATE ID *
*
* 06024 RAIN INCHES      SUM  DA  ????   0.00  0  06/01/1966  12/31/1998  00  00          MRF38   WMD
* IY865 RAIN INCHES      INST  BK  ????   0.00  0  06/01/1966  09/30/1998  00  00          MRF38   WMD
* 12477 RAIN INCHES      SUM  DA  SP01   8.00  0  08/16/1988  11/12/1991  00  00          S65C+R   WMD
* IY866 RAIN INCHES      INST  BK  SP01   8.00  0  08/16/1988  11/12/1991  00  00          S65C+R   WMD
* 07741 RAIN INCHES      DWR  RI  ????   0.00  0  03/01/1988  09/22/1992  00  00          S65C@R   WMD
* 16657 RAIN INCHES      SUM  DA  OMD    0.00  2  01/08/1991  01/28/1999                          WMD
*****************************************************************************************************************
* STATION S65C_E          S-65C SPILLWAY ON CANAL C-38                                                          *
* SECTION 27        TOWN  35       RANGE 32                                                                     *
* LAT  272405.156    XCOORD 618924.062 BASIN S65C       QUAD SHEET  27081210                                   *
* LONG: 810653.250    YCOORD 1115114.625 COUNTY OKE        LAND SURFACE   35.00 FT MSL                          *
*                                                                                                               *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP  START    END    GATE SLOT RANK ALTERNATE ID *
*
* IY863 EVAP INCHES      INST  BK  APAN   0.00  0  06/01/1966  09/13/1992  00  00          EVP38   WMD
* 06349 EVAP INCHES      SUM  DA  APAN   0.00  0  06/01/1966  09/13/1992  00  00          EVP38   WMD
* 12480 EVAP INCHES      SUM  DA  SP01   0.00  0                 00  00          S65C+EP   WMD
*****************************************************************************************************************
```

Table A2. Stage stations in S65C sub-basin.

```
*****************************************************************************************************
** STATION AVON P3        AVON PARK BOMBING RANGE MARSH NR BONEY DIKE                              *
* SECTION 3       TOWN 34      RANGE 31                                                  *
* LAT 273238.125   XCOORD 589627.938 BASIN S65C      QUAD SHEET 27081120                      *
* LONG: 811219.250   YCOORD 1166953.875 COUNTY OKE      LAND SURFACE   99.00 FT MSL                *
*                                                                                          *
* DBKEY: TYPE UNITS      STAT FREQ RCDR STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 04439 STG FEET      INST BK ????  0.00 0 09/18/1984 10/07/1998 00 00        BOMBMSH   WMD  *
* 04440 STG FEET      MEAN DA ????  0.00 0 09/19/1984 01/11/1999 00 00        BOMBMSH   WMD  *
*****************************************************************************************************
*
* STATION BISHOP_H       BISHOP DAIRY NEAR ARBUCKLE CREEK                                         *
* SECTION 30      TOWN 34      RANGE 31                                                  *
* LAT 273012.125   XCOORD 559348.000 BASIN S65C      QUAD SHEET 27081132 LAKE ARBUCKLE SE          *
* LONG: 811755.250   YCOORD 1152272.500 COUNTY HIG      LAND SURFACE   0.00 FT MSL                 *
*                                                                                          *
* DBKEY: TYPE UNITS      STAT FREQ RCDR STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 13053 STG FEET      MEAN DA SP01  0.00 0 07/20/1989 07/18/1991 00 00        ACBI+H   WMD  *
* 13055 STG FEET      INST BK SP01  0.00 0 07/20/1989 07/18/1991 00 00        ACBI+H   WMD  *
*****************************************************************************************************
*
* STATION BISHOP_T       BISHOP DAIRY NEAR ARBUCKLE CREEK                                         *
* SECTION 30      TOWN 34      RANGE 31                                                  *
* LAT 273012.125   XCOORD 559348.000 BASIN S65C      QUAD SHEET 27081132 LAKE ARBUCKLE SE          *
* LONG: 811755.250   YCOORD 1152272.500 COUNTY HIG      LAND SURFACE   0.00 FT MSL                 *
*                                                                                          *
* DBKEY: TYPE UNITS      STAT FREQ RCDR STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 13054 STG FEET      MEAN DA SP01  0.00 0 07/20/1989 05/22/1991 00 00        ACBI+T   WMD  *
* 13056 STG FEET      INST BK SP01  0.00 0 07/20/1989 07/18/1991 00 00        ACBI+T   WMD  *
*****************************************************************************************************
*
* STATION DRESSED        DRESSED DAIRY NEAR ARBUCKLE CREEK                                        *
* SECTION 8       TOWN 33      RANGE 29                                                  *
* LAT 273737.125   XCOORD 514933.375 BASIN S65C      QUAD SHEET 27081134 LAKE ARBUCKLE             *
* LONG: 812610.250   YCOORD 1197340.750 COUNTY HIG      LAND SURFACE   99.90 FT MSL                *
*                                                                                          *
* DBKEY: TYPE UNITS      STAT FREQ RCDR STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 13063 STG FEET      MEAN DA SP01  0.00 0 08/17/1989 09/30/1990 00 00        ACDR+    WMD  *
* 13064 STG FEET      INST BK SP01  0.00 0 08/17/1989 12/11/1990 00 00        ACDR+    WMD  *
*****************************************************************************************************
** STATION KRBNS          WATER SAMPLING STATIONS ON THE KISSIMMEE RIVER                           *
* SECTION 6       TOWN 35      RANGE 32                                                  *
* LAT 272741.031   XCOORD 600725.500 BASIN S65C      QUAD SHEET     0 AAAA UNAVAILABLE          X *
* LONG: 811015.500   YCOORD 1136935.000 COUNTY HIG      LAND SURFACE                             *
*                                                                                          *
* DBKEY: TYPE UNITS      STAT FREQ RCDR STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* FZ599 STG FEET      MEAN DA CR10  0.00 0 08/11/1997 01/14/1999              KRBN+    WMD  *
* IX785 STG FEET      INST BK CR10  0.00 0 08/11/1997 11/02/1998              KRBN+    WMD  *
*****************************************************************************************************
*
* STATION KRDRS          KISSIMMEE RIVER RESTORATION SITE D RIVER CHANNEL                         *
* SECTION 26      TOWN 34      RANGE 31                                                  *
* LAT 272909.875   XCOORD 592258.312 BASIN S65C      QUAD SHEET     0 AAAA UNAVAILABLE          X *
* LONG: 811149.625   YCOORD 1145920.000 COUNTY HIG      LAND SURFACE                             *
*                                                                                          *
* DBKEY: TYPE UNITS      STAT FREQ RCDR STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* H7666 STG FEET      MEAN DA CR10  0.00 0 07/23/1997 01/29/1999              KRDR+    WMD  *
* IX796 STG FEET      INST BK CR10  0.00 0 07/23/1997 10/29/1998              KRDR+    WMD  *
*****************************************************************************************************
```

Table A2. continued.

```
*****************************************************************************************************
** STATION PC11          PC11 KISSIMMEE RIVER POOL C TRANSECT 1 SITE 1                          *
* SECTION 28        TOWN  35       RANGE 32                                                      *
* LAT  272428.156    XCOORD 613428.688 BASIN S65C       QUAD SHEET  27081214 BASINGER NW          *
* LONG: 810754.250    YCOORD 1117442.500 COUNTY OKE        LAND SURFACE                          *
*                                                                                                 *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*
* G6532 STG  FEET       MEAN  DA  CR10   0.00  0  10/30/1997  01/14/1999                PC11+   WMD  *
* IY204 STG  FEET       INST  BK  CR10   0.00  0  10/30/1997  10/01/1998                PC11+   WMD  *
*****************************************************************************************************
*
* STATION PC21          KISSIMMEE RIVER POOL C TRANSECT 2 SITE 1                                *
* SECTION 20        TOWN  35       RANGE 32                                                      *
* LAT  272507.000    XCOORD 452059.000 BASIN S65C       QUAD SHEET  27081214 BASINGER NW          *
* LONG: 810852.000    YCOORD 1121324.000 COUNTY HIG        LAND SURFACE                          *
*                                                                                                 *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*
* E9681 STG  FEET       MEAN  DA  CR10   0.00  0  08/22/1996  06/19/1998                PC21+   WMD  *
* IY208 STG  FEET       INST  BK  CR10   0.00  0  08/22/1996  06/19/1998                PC21+   WMD  *
*****************************************************************************************************
** STATION PC33_O        PC33 KISSIMMEE RIVER POOL C TRANSECT 3 SITE 3 OPEN CHANNEL UVM                *
* SECTION 16        TOWN  35       RANGE 32                                                      *
* LAT  272556.125    XCOORD 611005.312 BASIN S65C       QUAD SHEET  27081214 BASINGER NW          *
* LONG: 810821.250    YCOORD 1126331.125 COUNTY OKE        LAND SURFACE                          *
*                                                                                                 *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*
* G6526 STG  FEET       MEAN  DA  CR10   0.00  0  11/09/1997  01/14/1999                PC33+   WMD  *
* IY206 STG  FEET       INST  BK  CR10   0.00  0  11/09/1997  10/01/1998                PC33+   WMD  *
*****************************************************************************************************
** STATION PC52          POOL C, TRANSECT 5, GAGE 2, FLOODPLAIN STAGE                            *
* SECTION 25        TOWN  34       RANGE 31                                                      *
* LAT  272922.406    XCOORD 595270.562 BASIN S65C       QUAD SHEET  27081214 BASINGER NW          *
* LONG: 811116.188    YCOORD 1147180.000 COUNTY OKE        LAND SURFACE                          *
*                                                                                                 *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*
* IU155 STG  FEET       MEAN  DA  CR10   0.00  0  09/20/1998  01/14/1999                PC52+   WMD  *
* IY207 STG  FEET       INST  BK  CR10   0.00  0  09/20/1998  10/05/1998                PC52+   WMD  *
*****************************************************************************************************
** STATION S65CX_H       S-65C AUX. CULVERT NO. 1 (S-65CX-1) ON CANAL C-38                       *
* SECTION 27        TOWN  35       RANGE 32                                                      *
* LAT  272335.156    XCOORD 616036.938 BASIN S65C       QUAD SHEET  27081210                      *
* LONG: 810725.250    YCOORD 1112088.125 COUNTY OKE        LAND SURFACE   35.00 FT MSL              *
*                                                                                                 *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*
* 07941 STG  FEET       DWR   RI  ????   0.00  0  03/09/1988  12/18/1992  00   00        S65CX@H   WMD  *
* 04459 STG  FEET       INST  BK  ????   0.00  0                 00   00                WMD  *
* 04460 STG  FEET       MEAN  DA  ????   0.00  0  10/02/1983  08/16/1988  00   00              WMD  *
*****************************************************************************************************
*
* STATION S65CX_T       S-65C AUX. CULVERT NO. 1 (S-65CX-1) ON CANAL C-38                       *
* SECTION 27        TOWN  35       RANGE 32                                                      *
* LAT  272335.156    XCOORD 616036.938 BASIN S65C       QUAD SHEET  27081210                      *
* LONG: 810725.250    YCOORD 1112088.125 COUNTY OKE        LAND SURFACE   35.00 FT MSL              *
*                                                                                                 *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*
* 07942 STG  FEET       DWR   RI  ????   0.00  0  03/09/1988  12/18/1992  00   00        S65CX@T   WMD  *
* 04461 STG  FEET       INST  BK  ????   0.00  0                 00   00                WMD  *
* 04462 STG  FEET       MEAN  DA  ????   0.00  0  10/02/1983  06/15/1988  00   00              WMD  *
*****************************************************************************************************
```

Table A2. continued.

```
*****************************************************************************************************************
*
* STATION S65C_H        S-65C SPILLWAY ON CANAL C-38                                                  *
* SECTION 27        TOWN  35       RANGE 32                                                  *
* LAT  272405.156    XCOORD 618924.062 BASIN S65C       QUAD SHEET  27081210                          *
* LONG: 810653.250    YCOORD 1115114.625 COUNTY OKE       LAND SURFACE   35.00 FT MSL                    *
*                                                                                                  *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP  START    END    GATE SLOT RANK ALTERNATE ID *
*
* 04453 STG  FEET       INST  BK  ????   0.00  0  04/29/1966  08/16/1988  00  00          S65C*H   WMD  *
* 04454 STG  FEET       MEAN  DA  A35    0.00  0  04/29/1966  08/16/1988  00  00          S65C*H   WMD  *
* 1Y864 STG  FEET       INST  BK  A35    0.00  0  04/29/1966  08/16/1988  00  00          S65C*H   WMD  *
* 06957 STG  FEET       MEAN  DA  CR10   0.00  0  03/02/1987  01/11/1999  00  00          S65C+H   WMD  *
* 07740 STG  FEET       DWR   RI  ????   0.00  0  03/01/1988  04/18/1998  00  00          S65C@H   WMD  *
*****************************************************************************************************************
** STATION S65C_T        S-65C SPILLWAY ON CANAL C-38                                                  *
* SECTION 27        TOWN  35       RANGE 32                                                  *
* LAT  272405.156    XCOORD 618924.062 BASIN S65C       QUAD SHEET  27081210                          *
* LONG: 810653.250    YCOORD 1115114.625 COUNTY OKE       LAND SURFACE   35.00 FT MSL                    *
*                                                                                                  *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP  START    END    GATE SLOT RANK ALTERNATE ID *
*
* 04455 STG  FEET       INST  BK  ????   0.00  0  04/29/1966  01/09/1995  00  00          S65C*T   WMD  *
* 04456 STG  FEET       MEAN  DA  A35    0.00  0  04/29/1966  01/09/1995  00  00          S65C*T   WMD  *
* 1Y867 STG  FEET       INST  BK  A35    0.00  0  04/29/1966  01/09/1995  00  00          S65C*T   WMD  *
* 06958 STG  FEET       MEAN  DA  CR10   0.00  0  03/02/1987  01/11/1999  00  00          S65C+T   WMD  *
* 07742 STG  FEET       DWR   RI  ????   0.00  0  03/01/1988  04/18/1998  00  00          S65C@T   WMD  *
*****************************************************************************************************************
*
* STATION TRIPLE_G_H       TRIPLE G DAIRY NEAR ARBUCKLE CREEK                                            *
* SECTION 18        TOWN  34       RANGE 30                                                  *
* LAT  272923.125    XCOORD 556184.125 BASIN S65C       QUAD SHEET  27081241 LORIDA                    *
* LONG: 811830.250    YCOORD 1147332.375 COUNTY HIG       LAND SURFACE   99.90 FT MSL                    *
*                                                                                                  *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP  START    END    GATE SLOT RANK ALTERNATE ID *
*
* 13067 STG  FEET       MEAN  DA  SP01   0.00  0                 00  00          ACTG+H   WMD  *
* 13068 STG  FEET       INST  BK  SP01   0.00  0                 00  00          ACTG+H   WMD  *
*****************************************************************************************************************
*
* STATION TRIPLE_G_T       TRIPLE G DAIRY NEAR ARBUCKLE CREEK                                            *
* SECTION 18        TOWN  34       RANGE 30                                                  *
* LAT  272923.125    XCOORD 556184.125 BASIN S65C       QUAD SHEET  27081241 LORIDA                    *
* LONG: 811830.250    YCOORD 1147332.375 COUNTY HIG       LAND SURFACE   99.90 FT MSL                    *
*                                                                                                  *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP  START    END    GATE SLOT RANK ALTERNATE ID *
*
* 13069 STG  FEET       MEAN  DA  SP01   0.00  0                 00  00          ACTG+T   WMD  *
* 13070 STG  FEET       INST  BK  SP01   0.00  0                 00  00          ACTG+T   WMD  *
*****************************************************************************************************************
```

Table A3. Flow stations in S65C sub-basin.

```
*****************************************************************************************************************
* STATION G85.HWY        ISTOKPOGA CANAL NR CORNWELL                                                          *
* SECTION 30       TOWN  35       RANGE 32                                                                     *
* LAT  272357.156   XCOORD 603511.000 BASIN S65C       QUAD SHEET  27081214 BASINGER NW                        *
* LONG: 810944.250   YCOORD 1114324.000 COUNTY HIG       LAND SURFACE   99.00 FT MSL                           *
*                                                                                                               *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP  START    END    GATE SLOT RANK ALTERNATE ID *
*
* 00233 FLOW CFS        MEAN  DA  PREF   0.00  0  10/01/1933  06/30/1968  00  00        02272000  USGS  *
*****************************************************************************************************************
* STATION PC33_O         PC33 KISSIMMEE RIVER POOL C TRANSECT 3 SITE 3 OPEN CHANNEL UVM                          *
* SECTION 16       TOWN  35       RANGE 32                                                                     *
* LAT  272556.125   XCOORD 611005.312 BASIN S65C       QUAD SHEET  27081214 BASINGER NW                        *
* LONG: 810821.250   YCOORD 1126331.125 COUNTY OKE       LAND SURFACE                                          *
*                                                                                                               *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP  START    END    GATE SLOT RANK ALTERNATE ID *
*
* G6527 FLOW CFS        MEAN  DA  CR10   0.00  0  10/17/1997  01/14/1999                PC33+Q   WMD  *
* IY205 FLOW CFS        INST  BK  CR10   0.00  0  10/17/1997  10/01/1998                PC33+Q   WMD  *
*****************************************************************************************************************
* STATION S65CX_C        S-65C AUX. CULVERT NO. 1 (S-65CX-1) ON CANAL C-38                                      *
* SECTION 27       TOWN  35       RANGE 32                                                                     *
* LAT  272335.156   XCOORD 616036.938 BASIN S65C       QUAD SHEET  27081210                                    *
* LONG: 810725.250   YCOORD 1112088.125 COUNTY OKE       LAND SURFACE   35.00 FT MSL                           *
*                                                                                                               *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP  START    END    GATE SLOT RANK ALTERNATE ID *
*
* 04463 FLOW CFS        INST  BK  NA     0.00  0                 00  00        52735322   WMD  *
* 04464 FLOW CFS        MEAN  DA  NA     0.00  0  10/02/1983  06/15/1988  00  00        52735322   WMD  *
* 15332 FLOW CFS        MEAN  DA  NA     0.00  1  06/15/1988  01/11/1999                62735322   WMD  *
*****************************************************************************************************************
* STATION S65C_S         S-65C SPILLWAY ON CANAL C-38                                                           *
* SECTION 27       TOWN  35       RANGE 32                                                                     *
* LAT  272405.156   XCOORD 618924.062 BASIN S65C       QUAD SHEET  27081210                                    *
* LONG: 810653.250   YCOORD 1115114.625 COUNTY OKE       LAND SURFACE   35.00 FT MSL                           *
*                                                                                                               *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP  START    END    GATE SLOT RANK ALTERNATE ID *
*
* 04457 FLOW CFS        INST  BK  NA     0.00  0                 00  00        52735321   WMD  *
* 04458 FLOW CFS        MEAN  DA  NA     0.00  0  04/29/1966  08/16/1988  00  00        52735321   WMD  *
* 06959 FLOW CFS        MEAN  DA  NA     0.00  1  03/02/1987  01/11/1999  00  00        62735321   WMD  *
* 15338 FLOW CFS        MEAN  DA  NA     0.00  2  03/03/1987  01/11/1999                72735321   WMD  *
*****************************************************************************************************************
```

Table A4. Rainfall and evaporation stations in S65D sub-basin.

```
*****************************************************************************************************************
* STATION BASINGER_R      BASINGER TOWER                                                                        *
* SECTION 35      TOWN  34      RANGE 33                                                                        *
* LAT  272756.125   XCOORD 654255.562 BASIN S65D      QUAD SHEET 27081211 BASINGER                              *
* LONG: 810021.188   YCOORD 1138423.250 COUNTY OKE      LAND SURFACE   99.00 FT MSL                             *
*                                                                                                               *
* DBKEY: TYPE UNITS      STAT FREQ RCDR STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 06101 RAIN INCHES     SUM  DA  ????  0.00  0  11/07/1969  06/30/1982  00  00        MRF5033   FS  *
*****************************************************************************************************************
* STATION BASING_R        GW-160 RAIN/WELL OFF U.S. HIGHWAY 98 ON ROUTE 700A AT BASINGER                        *
* SECTION 27      TOWN  35      RANGE 33                                                                        *
* LAT  272413.156   XCOORD 652451.875 BASIN S65D      QUAD SHEET 27081210                                       *
* LONG: 810041.188   YCOORD 1115905.500 COUNTY OKE      LAND SURFACE   0.00 FT MSL                              *
*                                                                                                               *
* DBKEY: TYPE UNITS      STAT FREQ RCDR STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 05857 RAIN INCHES     SUM  DA  ????  0.00  0  02/22/1972  01/11/1999  00  00        MRF160   WMD  *
* IW802 RAIN INCHES     INST BK  ????  0.00  0  02/22/1972  10/07/1998  00  00        MRF160   WMD  *
*****************************************************************************************************************
* STATION BASS 3_R        725103-1BASS WEST WELL 4 IN NR BASINGER FLA                                           *
* SECTION 20      TOWN  35      RANGE 33                                                                        *
* LAT  272535.000   XCOORD 480176.000 BASIN S65D      QUAD SHEET 27081211 BASINGER                              *
* LONG: 810340.000   YCOORD 1124128.000 COUNTY OKE      LAND SURFACE   99.00 FT MSL                             *
*                                                                                                               *
* DBKEY: TYPE UNITS      STAT FREQ RCDR STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 05658 RAIN INCHES     SUM  DA  ????  0.00  0  04/17/1979  09/30/1989  00  00    272535081034001  USGS  *
*****************************************************************************************************************
* STATION BASSP_R         FLUME ON BASS LARGE PASTURE ABOVE DETENTION AREA                                      *
* SECTION 17      TOWN  35      RANGE 33                                                                        *
* LAT  272532.125   XCOORD 638215.438 BASIN S65D      QUAD SHEET 27081211 BASINGER                              *
* LONG: 810319.250   YCOORD 1123886.500 COUNTY OKE      LAND SURFACE   50.00 FT MSL                             *
*                                                                                                               *
* DBKEY: TYPE UNITS      STAT FREQ RCDR STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 07515 RAIN INCHES     SUM  DA  SP01  0.00  0              00  00        BASW+R   WMD  *
*****************************************************************************************************************
* STATION BRIGHT1_R       BRIGHTON 1 DAIRY                                                                      *
* SECTION 3       TOWN  38      RANGE 33                                                                        *
* LAT  271207.156   XCOORD 657410.812 BASIN S65D      QUAD SHEET 27080334 OKEECHOBEE NW                         *
* LONG: 805946.250   YCOORD 1042597.500 COUNTY GLA      LAND SURFACE   30.00 FT MSL                             *
*                                                                                                               *
* DBKEY: TYPE UNITS      STAT FREQ RCDR STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 07596 RAIN INCHES     SUM  DA  SP01  0.00  0  03/10/1988  09/25/1989  00  00        BRI1+R   WMD  *
* IW925 RAIN INCHES     INST BK  SP01  0.00  0  03/10/1988  09/25/1989  00  00        BRI1+R   WMD  *
*****************************************************************************************************************
* STATION BUTLER1_R       BUTLER #1 DAIRY                                                                       *
* SECTION 32      TOWN  36      RANGE 33                                                                        *
* LAT  271848.156   XCOORD 641173.750 BASIN S65D      QUAD SHEET 27081212 FORT BASINGER                         *
* LONG: 810246.250   YCOORD 1083091.000 COUNTY HIG      LAND SURFACE   30.00 FT MSL                             *
*                                                                                                               *
* DBKEY: TYPE UNITS      STAT FREQ RCDR STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 07569 RAIN INCHES     SUM  DA  SP01  0.00  0  03/18/1988  04/18/1990  00  00        BUT1+R   WMD  *
* IW932 RAIN INCHES     INST BK  SP01  0.00  0  03/18/1988  04/18/1990  00  00        BUT1+R   WMD  *
*****************************************************************************************************************
* STATION BUTLER2_R       BUTLER #2 DAIRY                                                                       *
* SECTION 3       TOWN  37      RANGE 33                                                                        *
* LAT  271742.156   XCOORD 650734.000 BASIN S65D      QUAD SHEET 27081212 FORT BASINGER                         *
* LONG: 810100.250   YCOORD 1076424.125 COUNTY HIG      LAND SURFACE   30.00 FT MSL                             *
*                                                                                                               *
* DBKEY: TYPE UNITS      STAT FREQ RCDR STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 07574 RAIN INCHES     SUM  DA  SP01  0.00  0              00  00        BUT2+R   WMD  *
*****************************************************************************************************************
```

Table A4. continued.

```
*****************************************************************************************************************
* STATION CHAND2_R        CHANDLER SLOUGH DOWNSTREAM OF CYPRESS SLOUGH                                          *
* SECTION 35        TOWN  35        RANGE 33                                                                    *
* LAT  272311.156    XCOORD 658220.250 BASIN S65D        QUAD SHEET  27080344 TAYLOR CREEK NW                  *
* LONG: 805937.188    YCOORD 1109644.875 COUNTY OKE        LAND SURFACE    30.00 FT MSL                         *
*                                                                                                               *
* DBKEY: TYPE UNITS        STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 07546 RAIN INCHES       SUM  DA  SP01   0.00  0  02/10/1988  10/17/1991  00  00          CHAN+R   WMD  *
* IW989 RAIN INCHES       INST  BK  SP01   0.00  0  02/10/1988  10/17/1991  00  00          CHAN+R   WMD  *
*****************************************************************************************************************
* STATION CMRUCKS_R        C. M. RUCKS DAIRY                                                                    *
* SECTION 17        TOWN  35        RANGE 34                                                                    *
* LAT  272522.156    XCOORD 670294.500 BASIN S65D        QUAD SHEET  27080344 TAYLOR CREEK NW                  *
* LONG: 805723.188    YCOORD 1122875.250 COUNTY OKE        LAND SURFACE    40.00 FT MSL                         *
*                                                                                                               *
* DBKEY: TYPE UNITS        STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 07564 RAIN INCHES       SUM  DA  SP01   0.00  0                 00  00          RUCC+R   WMD  *
*****************************************************************************************************************
* STATION CYPRS_R        CYPRESS SLOUGH ON WATERFORD PROPERTY NEAR FLORIDA HIGHWAY 68                           *
* SECTION 29        TOWN  35        RANGE 34                                                                    *
* LAT  272346.156    XCOORD 670027.500 BASIN S65D        QUAD SHEET  27080344 TAYLOR CREEK NW                  *
* LONG: 805726.188    YCOORD 1113181.375 COUNTY OKE        LAND SURFACE    30.00 FT MSL                         *
*                                                                                                               *
* DBKEY: TYPE UNITS        STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 07554 RAIN INCHES       SUM  DA  SP01   0.00  0                 00  00          CYPR+R   WMD  *
*****************************************************************************************************************
* STATION EAGLE_R        EAGLE ISLAND DAIRY AT OUTFALL                                                          *
* SECTION 2        TOWN  35        RANGE 33                                                                    *
* LAT  272721.125    XCOORD 659029.812 BASIN S65D        QUAD SHEET  27080344 TAYLOR CREEK NW                  *
* LONG: 805928.188    YCOORD 1134889.125 COUNTY OKE        LAND SURFACE    0.00 FT MSL                          *
*                                                                                                               *
* DBKEY: TYPE UNITS        STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 12272 RAIN INCHES       SUM  DA  SP01   0.00  0  02/10/1988  05/08/1990  00  00          EAGL+R   WMD  *
* IX119 RAIN INCHES       INST  BK  SP01   0.00  0  02/10/1988  05/08/1990  00  00          EAGL+R   WMD  *
*****************************************************************************************************************
* STATION FERRELL_R        FERRELL DAIRY                                                                        *
* SECTION 4        TOWN  38        RANGE 35                                                                    *
* LAT  271144.156    XCOORD 709059.625 BASIN S65D        QUAD SHEET  27080331 OKEECHOBEE                       *
* LONG: 805014.188    YCOORD 1040309.375 COUNTY OKE        LAND SURFACE    40.00 FT MSL                         *
*                                                                                                               *
* DBKEY: TYPE UNITS        STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 07601 RAIN INCHES       SUM  DA  SP01   0.00  0                 00  00          FERR+R   WMD  *
*****************************************************************************************************************
* STATION GRIFFIT2_R        GRIFFITH RANCH (BELFORT)                                                            *
* SECTION 22        TOWN  34        RANGE 34                                                                    *
* LAT  272952.125    XCOORD 685053.312 BASIN S65D        QUAD SHEET  27080344 TAYLOR CREEK NW                  *
* LONG: 805439.188    YCOORD 1150147.125 COUNTY OKE        LAND SURFACE    99.00 FT MSL                         *
*                                                                                                               *
* DBKEY: TYPE UNITS        STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 06005 RAIN INCHES       SUM  DA  BELF   0.00  0  03/22/1965  06/07/1970  00  00          MRF36    WMD  *
* IX636 RAIN INCHES       INST  BK  BELF   0.00  0  03/22/1965  06/07/1970  00  00          MRF36    WMD  *
*****************************************************************************************************************
```

Table A4. continued.

```
*****************************************************************************************************
* STATION GRIFFITH_R      GW-189 RAIN/WELL ON GRIFFITH PROPERTY NEAR BASSINGER                      *
* SECTION 21      TOWN 34      RANGE 34                                                             *
* LAT 272941.125   XCOORD 679020.562 BASIN S65D      QUAD SHEET 27080340                           *
* LONG: 805546.188   YCOORD 1149032.500 COUNTY OKE      LAND SURFACE   99.00 FT MSL                 *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 05875 RAIN INCHES     SUM  DA 2A35  0.00 0 04/25/1974  12/08/1997 00  00        MRF189   WMD  *
* IX638 RAIN INCHES     INST BK 2A35  0.00 0 04/25/1974  12/08/1997 00  00        MRF189   WMD  *
*****************************************************************************************************
* STATION LAMB_R         LAMB ISLAND DAIRY                                                          *
* SECTION 31      TOWN 35      RANGE 34                                                             *
* LAT 272302.156   XCOORD 664440.125 BASIN S65D      QUAD SHEET 27080344 TAYLOR CREEK NW           *
* LONG: 805828.188   YCOORD 1108736.875 COUNTY OKE      LAND SURFACE   50.00 FT MSL                 *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 07579 RAIN INCHES     SUM  DA CR10  0.00 0 02/10/1988  01/25/1999 00  00        LAMB+R   WMD  *
* IX897 RAIN INCHES     INST BK CR10  0.00 0 02/10/1988  09/21/1998 00  00        LAMB+R   WMD  *
*****************************************************************************************************
* STATION LARSON1_R      LARSON DAIRY #1                                                            *
* SECTION 29      TOWN 35      RANGE 33                                                             *
* LAT 272345.156   XCOORD 640734.312 BASIN S65D      QUAD SHEET 27081211 BASINGER                  *
* LONG: 810251.250   YCOORD 1113080.875 COUNTY OKE      LAND SURFACE   40.00 FT MSL                 *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 07522 RAIN INCHES     SUM  DA CR10  0.00 0 04/11/1988  07/29/1998 00  00        LAR1+R   WMD  *
* IX903 RAIN INCHES     INST BK CR10  0.00 0 04/11/1988  07/29/1998 00  00        LAR1+R   WMD  *
*****************************************************************************************************
* STATION LARSON2F_R     LARSON #2 DAIRY (FLUME)                                                    *
* SECTION 3       TOWN 37      RANGE 33                                                             *
* LAT 271716.156   XCOORD 649831.438 BASIN S65D      QUAD SHEET 27081212 FORT BASINGER             *
* LONG: 810110.250   YCOORD 1073799.000 COUNTY HIG      LAND SURFACE   30.00 FT MSL                 *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 12556 RAIN INCHES     SUM  DA CR10  0.00 0 08/23/1988  08/03/1998 00  00        LAR2F+R  WMD  *
* IX906 RAIN INCHES     INST BK CR10  0.00 0 08/23/1988  08/03/1998 00  00        LAR2F+R  WMD  *
*****************************************************************************************************
* STATION MAPLE_R        MAPLE RIVER NEAR KISSIMMEE RIVER OXBOW                                     *
* SECTION 13      TOWN 37      RANGE 33                                                             *
* LAT 271438.156   XCOORD 658583.750 BASIN S65D      QUAD SHEET 27080334 OKEECHOBEE NW             *
* LONG: 805933.250   YCOORD 1057844.500 COUNTY HIG      LAND SURFACE   30.00 FT MSL                 *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 07533 RAIN INCHES     SUM  DA SP01  0.00 0 06/14/1988  11/28/1989 00  00        MAPL+R   WMD  *
* IY039 RAIN INCHES     INST BK SP01  0.00 0 06/14/1988  11/28/1989 00  00        MAPL+R   WMD  *
*****************************************************************************************************
* STATION MAXCEY S_R     GW-190 RAIN/WELL ON MAXCY SOUTH PROPERTY NEAR S-65B                        *
* SECTION 2       TOWN 34      RANGE 32                                                             *
* LAT 273229.125   XCOORD 623652.000 BASIN S65D      QUAD SHEET 27081120                           *
* LONG: 810601.250   YCOORD 1166003.250 COUNTY OKE      LAND SURFACE   99.00 FT MSL                 *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 05877 RAIN INCHES     SUM  DA 2A35  0.00 0 04/11/1974  01/21/1999 00  00        MRF190   WMD  *
* IY053 RAIN INCHES     INST BK 2A35  0.00 0 04/11/1974  10/19/1998 00  00        MRF190   WMD  *
*****************************************************************************************************
```

Table A4. continued.

```
*****************************************************************************************************
* STATION MICCO D_R        MICCO DAIRY @ OUTLET                                                    *
* SECTION 23        TOWN  35       RANGE 32                                                        *
* LAT  272513.125    XCOORD 614334.625 BASIN S65D       QUAD SHEET  27081214 BASINGER NW           *
* LONG: 810744.250    YCOORD 1121985.625 COUNTY OKE        LAND SURFACE    0.00 FT MSL             *
*                                                                                                   *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 03998 RAIN INCHES      MAX   DA  SP01   0.00  0                 00   00          MICC+R   WMD  *
* 12567 RAIN INCHES      SUM   DA  SP01   2.00  0  03/26/1988  04/23/1990  00   00          MICC+R   WMD  *
* IY099 RAIN INCHES      INST  BK  SP01   2.00  0  03/26/1988  04/23/1990  00   00          MICC+R   WMD  *
*****************************************************************************************************
* STATION RRUCKS_R         R. RUCKS DAIRY                                                          *
* SECTION 2        TOWN  38       RANGE 33                                                        *
* LAT  271147.156    XCOORD 660119.688 BASIN S65D       QUAD SHEET  27080334 OKEECHOBEE NW         *
* LONG: 805916.250    YCOORD 1040578.188 COUNTY GLA        LAND SURFACE    30.00 FT MSL            *
*                                                                                                   *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 07591 RAIN INCHES      SUM   DA  SP01   0.00  0                 00   00          RUCR+R   WMD  *
*****************************************************************************************************
* STATION RUCKSWF_R        W. F. RUCKS DAIRY (FLUME SITE)                                          *
* SECTION 5        TOWN  35       RANGE 34                                                        *
* LAT  272718.125    XCOORD 673443.438 BASIN S65D       QUAD SHEET  27080344 TAYLOR CREEK NW       *
* LONG: 805648.188    YCOORD 1134589.875 COUNTY OKE        LAND SURFACE    0.00 FT MSL             *
*                                                                                                   *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 07580 RAIN INCHES      SUM   DA  CR10   0.00  0  08/22/1988  01/25/1999  00   00          RUCWF+R   WMD  *
* IY287 RAIN INCHES      INST  BK  CR10   0.00  0  08/22/1988  09/16/1998  00   00          RUCWF+R   WMD  *
*****************************************************************************************************
* STATION S65D_R           S-65D SPILLWAY ON CANAL C-38                                            *
* SECTION 27        TOWN  36       RANGE 33                                                        *
* LAT  271852.156    XCOORD 648750.625 BASIN S65D       QUAD SHEET  27081210                       *
* LONG: 810122.250    YCOORD 1083492.750 COUNTY OKE        LAND SURFACE    30.00 FT MSL            *
*                                                                                                   *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 06068 RAIN INCHES      SUM   DA  BELF   0.00  0  02/08/1965  05/29/1995  00   00          MRF43    WMD  *
* IY869 RAIN INCHES      INST  BK  BELF   0.00  0  02/08/1965  05/29/1995  00   00          MRF43    WMD  *
* 06069 RAIN INCHES      SUM   DA  CAN    0.00  0  05/31/1980  03/31/1983  00   00          MRF43C   WMD  *
* 16281 RAIN INCHES      SUM   DA  CR10   0.00  1  02/23/1995  01/12/1999                  S65D+R   WMD  *
* IY870 RAIN INCHES      INST  BK  CR10   0.00  1  02/23/1995  10/08/1998                  S65D+R   WMD  *
* 07806 RAIN INCHES      DWR   RI  ????   0.00  0  03/01/1988  09/22/1992  00   00          S65D@R   WMD  *
* 16658 RAIN INCHES      SUM   DA  OMD    0.00  3  01/08/1991  01/28/1999                  WMD  *
*****************************************************************************************************
```

Table A5. Stage stations in S65D sub-basin.

```
*****************************************************************************************************
* STATION BASS          725103-5BASS EAST WELL 4 IN NR BASINGER FL                                  *
* SECTION 17        TOWN  35       RANGE 33                                                         *
* LAT  272540.125    XCOORD 638576.250 BASIN S65D       QUAD SHEET  27081211 BASINGER              *
* LONG: 810315.250    YCOORD 1124694.125 COUNTY OKE        LAND SURFACE    52.00 FT MSL             *
*                                                                                                   *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*                                                                                                   *
* 05657 STG  FEET        FWM  DA  ????   0.00  0  12/17/1980  07/29/1982  00   00     272535081030501  USGS  *
*****************************************************************************************************
* STATION BASSC_II        CULVERT ON BASS DETENTION AREA AT ASH SLOUGH                              *
* SECTION 17        TOWN  35       RANGE 33                                                         *
* LAT  272540.125    XCOORD 638576.250 BASIN S65D       QUAD SHEET  27081211 BASINGER              *
* LONG: 810315.250    YCOORD 1124694.125 COUNTY OKE        LAND SURFACE    52.00 FT MSL             *
*                                                                                                   *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*                                                                                                   *
* 05193 STG  FEET        INST  BK  ????   0.00  0  06/27/1983  09/21/1983  00   00        BASSC*H   WMD  *
* 05194 STG  FEET        MEAN  DA  SDIG   0.00  0  06/27/1983  09/21/1983  00   00        BASSC*H   WMD  *
* IW803 STG  FEET        INST  BK  SDIG   0.00  0  06/27/1983  09/21/1983  00   00        BASSC*H   WMD  *
*****************************************************************************************************
* STATION BASSC_T         CULVERT ON BASS DETENTION AREA AT ASH SLOUGH                              *
* SECTION 17        TOWN  35       RANGE 33                                                         *
* LAT  272540.125    XCOORD 638576.250 BASIN S65D       QUAD SHEET  27081211 BASINGER              *
* LONG: 810315.250    YCOORD 1124694.125 COUNTY OKE        LAND SURFACE    52.00 FT MSL             *
*                                                                                                   *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*                                                                                                   *
* 05195 STG  FEET        INST  BK  ????   0.00  0  05/31/1983  09/21/1983  00   00        BASSC*T   WMD  *
* 05196 STG  FEET        MEAN  DA  SDIG   0.00  0  05/31/1983  09/21/1983  00   00        BASSC*T   WMD  *
* IW804 STG  FEET        INST  BK  SDIG   0.00  0  05/31/1983  09/21/1983  00   00        BASSC*T   WMD  *
*****************************************************************************************************
* STATION BASSP_H         FLUME ON BASS LARGE PASTURE ABOVE DETENTION AREA                          *
* SECTION 17        TOWN  35       RANGE 33                                                         *
* LAT  272532.125    XCOORD 638215.438 BASIN S65D       QUAD SHEET  27081211 BASINGER              *
* LONG: 810319.250    YCOORD 1123886.500 COUNTY OKE        LAND SURFACE    50.00 FT MSL             *
*                                                                                                   *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*                                                                                                   *
* 05181 STG  FEET        INST  BK  ????   0.00  0  06/27/1983  10/31/1994  00   00        BASSP*H   WMD  *
* 05182 STG  FEET        MEAN  DA  SDIG   0.00  0  06/27/1983  10/31/1994  00   00        BASSP*H   WMD  *
* IW808 STG  FEET        INST  BK  SDIG   0.00  0  06/27/1983  10/31/1994  00   00        BASSP*H   WMD  *
* 07512 STG  FEET        MEAN  DA  SP01   0.00  0  06/24/1988  06/07/1994  00   00        BASW+H    WMD  *
*****************************************************************************************************
* STATION BASSP_T         FLUME ON BASS LARGE PASTURE ABOVE DETENTION AREA                          *
* SECTION 17        TOWN  35       RANGE 33                                                         *
* LAT  272532.125    XCOORD 638215.438 BASIN S65D       QUAD SHEET  27081211 BASINGER              *
* LONG: 810319.250    YCOORD 1123886.500 COUNTY OKE        LAND SURFACE    50.00 FT MSL             *
*                                                                                                   *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*                                                                                                   *
* 05183 STG  FEET        INST  BK  ????   0.00  0  06/27/1983  06/02/1994  00   00        BASSP*T   WMD  *
* 05184 STG  FEET        MEAN  DA  ????   0.00  0  06/27/1983  06/02/1994  00   00        BASSP*T   WMD  *
* 07513 STG  FEET        MEAN  DA  SP01   0.00  0  06/24/1988  06/07/1994  00   00        BASW+T    WMD  *
*****************************************************************************************************
* STATION BRIGHT1         BRIGHTON 1 DAIRY                                                          *
* SECTION 3         TOWN  38       RANGE 33                                                         *
* LAT  271207.156    XCOORD 657410.812 BASIN S65D       QUAD SHEET  27080334 OKEECHOBEE NW         *
* LONG: 805946.250    YCOORD 1042597.500 COUNTY GLA        LAND SURFACE    30.00 FT MSL             *
*                                                                                                   *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*                                                                                                   *
* 07593 STG  FEET        MEAN  DA  SP01   0.00  0  01/19/1988  09/25/1989  00   00        BRI1+     WMD  *
* IW924 STG  FEET        INST  BK  SP01   0.00  0  01/19/1988  09/25/1989  00   00        BRI1+     WMD  *
*****************************************************************************************************
```

Table A5. continued.

```
*****************************************************************************************************
* STATION BUTLER1        BUTLER #1 DAIRY                                                    *
* SECTION 32       TOWN  36      RANGE 33                                                   *
* LAT  271848.156   XCOORD 641173.750 BASIN S65D      QUAD SHEET  27081212 FORT BASINGER          *
* LONG: 810246.250   YCOORD 1083091.000 COUNTY HIG       LAND SURFACE   30.00 FT MSL              *
*                                                                                                *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 07566 STG  FEET      MEAN  DA  SP01   0.00  0  03/17/1988  08/29/1989  00  00        BUT1+   WMD  *
* IW931 STG  FEET      INST  BK  SP01   0.00  0  03/17/1988  08/29/1989  00  00        BUT1+   WMD  *
*****************************************************************************************************
* STATION BUTLER2        BUTLER #2 DAIRY                                                    *
* SECTION  3       TOWN  37      RANGE 33                                                   *
* LAT  271742.156   XCOORD 650734.000 BASIN S65D      QUAD SHEET  27081212 FORT BASINGER          *
* LONG: 810100.250   YCOORD 1076424.125 COUNTY HIG       LAND SURFACE   30.00 FT MSL              *
*                                                                                                *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 07571 STG  FEET      MEAN  DA  SP01   0.00  0  11/24/1987  04/04/1990  00  00        BUT2+   WMD  *
* IW933 STG  FEET      INST  BK  SP01   0.00  0  11/24/1987  04/04/1990  00  00        BUT2+   WMD  *
*****************************************************************************************************
* STATION C38.BAS        KISSIMMEE RIVER NEAR BASINGER                                      *
* SECTION  5       TOWN  36      RANGE 33                                                   *
* LAT  272153.156   XCOORD 639377.625 BASIN S65D      QUAD SHEET  27081212 FORT BASINGER          *
* LONG: 810306.250   YCOORD 1101772.125 COUNTY OKE       LAND SURFACE   99.00 FT MSL              *
*                                                                                                *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 00235 STG  FEET      MEAN  DA  ????   0.00  0  06/21/1931  09/30/1964  00  00        02272500  USGS  *
*****************************************************************************************************
* STATION C38BAS         KISSIMMEE RIVER NEAR BASINGER, W SIDE OF RIVER (FT. BASINGER)              *
* SECTION  5       TOWN  36      RANGE 33                                                   *
* LAT  272148.156   XCOORD 639828.188 BASIN S65D      QUAD SHEET  27081212 FORT BASINGER          *
* LONG: 810301.250   YCOORD 1101267.125 COUNTY OKE       LAND SURFACE                             *
*                                                                                                *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* GT994 STG  FEET      MEAN  DA  CR10   0.00  0  10/23/1997  02/01/1999              C38BAS+   WMD  *
* IW950 STG  FEET      INST  BK  CR10   0.00  0  10/23/1997  10/08/1998              C38BAS+   WMD  *
*****************************************************************************************************
* STATION CHAND1         CHANDLER SLOUGH UPSTREAM OF CYPRESS SLOUGH                                 *
* SECTION 35       TOWN  35      RANGE 33                                                   *
* LAT  272316.156   XCOORD 657048.438 BASIN S65D      QUAD SHEET  27080344 TAYLOR CREEK NW        *
* LONG: 805950.188   YCOORD 1110149.750 COUNTY OKE       LAND SURFACE   30.00 FT MSL              *
*                                                                                                *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 07541 STG  FEET      MEAN  DA  SDIG   0.00  0  05/20/1987  01/11/1999  00  00        CHAND*BA   WMD  *
* IW983 STG  FEET      INST  BK  SDIG   0.00  0  05/20/1987  08/25/1998  00  00        CHAND*BA   WMD  *
*****************************************************************************************************
* STATION CHAND2         CHANDLER SLOUGH DOWNSTREAM OF CYPRESS SLOUGH                               *
* SECTION 35       TOWN  35      RANGE 33                                                   *
* LAT  272311.156   XCOORD 658220.250 BASIN S65D      QUAD SHEET  27080344 TAYLOR CREEK NW        *
* LONG: 805937.188   YCOORD 1109644.875 COUNTY OKE       LAND SURFACE   30.00 FT MSL              *
*                                                                                                *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 07543 STG  FEET      MEAN  DA  SP01   0.00  0  09/22/1987  10/17/1991  00  00        CHAN+   WMD  *
* IW987 STG  FEET      INST  BK  SP01   0.00  0  09/22/1987  10/17/1991  00  00        CHAN+   WMD  *
*****************************************************************************************************
```

Table A5. continued.

```
*****************************************************************************************************************
* STATION CMRUCKS          C. M. RUCKS DAIRY                                                                    *
* SECTION 17        TOWN  35       RANGE 34                                                                     *
* LAT  272522.156    XCOORD 670294.500 BASIN S65D       QUAD SHEET  27080344  TAYLOR CREEK NW                  *
* LONG: 805723.188    YCOORD 1122875.250 COUNTY OKE        LAND SURFACE    40.00 FT MSL                          *
*                                                                                                                *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK  ALTERNATE ID *
*
* 07561 STG  FEET        MEAN  DA  SP01   0.00  0  10/07/1987  01/08/1990  00   00          RUCC+    WMD  *
* IX010 STG  FEET        INST  BK  SP01   0.00  0  10/07/1987  01/08/1990  00   00          RUCC+    WMD  *
*****************************************************************************************************************
* STATION CYPRS           CYPRESS SLOUGH ON WATFORD PROPERTY NEAR FLORIDA HIGHWAY 68                            *
* SECTION 29        TOWN  35       RANGE 34                                                                     *
* LAT  272346.156    XCOORD 670027.500 BASIN S65D       QUAD SHEET  27080344  TAYLOR CREEK NW                  *
* LONG: 805726.188    YCOORD 1113181.375 COUNTY OKE        LAND SURFACE    30.00 FT MSL                          *
*                                                                                                                *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK  ALTERNATE ID *
*
* 07551 STG  FEET        MEAN  DA  SP01   0.00  0  09/23/1987  08/08/1991  00   00          CYPR+    WMD  *
* 04573 STG  FEET        INST  BK  ????   0.00  0  05/19/1987  07/24/1987  00   00          CYPRES*W    WMD  *
* 04574 STG  FEET        MEAN  DA  ????   0.00  0  05/19/1987  01/19/1999  00   00          CYPRES*W    WMD  *
*****************************************************************************************************************
* STATION EAGLE           EAGLE ISLAND DAIRY AT OUTFALL                                                         *
* SECTION 2         TOWN  35       RANGE 33                                                                     *
* LAT  272721.125    XCOORD 659029.812 BASIN S65D       QUAD SHEET  27080344  TAYLOR CREEK NW                  *
* LONG: 805928.188    YCOORD 1134889.125 COUNTY OKE        LAND SURFACE    0.00 FT MSL                          *
*                                                                                                                *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK  ALTERNATE ID *
*
* 12266 STG  FEET        MEAN  DA  SP01   0.00  0  02/10/1988  05/08/1990  00   00          EAGL+    WMD  *
* IX117 STG  FEET        INST  BK  SP01   0.00  0  02/10/1988  05/08/1990  00   00          EAGL+    WMD  *
*****************************************************************************************************************
* STATION FERRELL         FERRELL DAIRY                                                                         *
* SECTION 4         TOWN  38       RANGE 35                                                                     *
* LAT  271144.156    XCOORD 709059.625 BASIN S65D       QUAD SHEET  27080331  OKEECHOBEE                        *
* LONG: 805014.188    YCOORD 1040309.375 COUNTY OKE        LAND SURFACE    40.00 FT MSL                          *
*                                                                                                                *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK  ALTERNATE ID *
*
* 07598 STG  FEET        MEAN  DA  SP01   0.00  0  01/25/1988  10/17/1989  00   00          FERR+    WMD  *
* IX290 STG  FEET        INST  BK  SP01   0.00  0  01/25/1988  10/17/1989  00   00          FERR+    WMD  *
*****************************************************************************************************************
* STATION FISH            FISH SLOUGH AT EAGLE ISLAND ROAD NR CHANDLER SLOUGH                                   *
* SECTION 3         TOWN  35       RANGE 34                                                                     *
* LAT  272754.125    XCOORD 681458.750 BASIN S65D       QUAD SHEET  27080344  TAYLOR CREEK NW                  *
* LONG: 805519.188    YCOORD 1138229.375 COUNTY OKE        LAND SURFACE    99.00 FT MSL                          *
*                                                                                                                *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK  ALTERNATE ID *
*
* 04577 STG  FEET        INST  BK  ????   0.00  0  06/24/1975  12/31/1980  00   00          FISH     WMD  *
* 04578 STG  FEET        MEAN  DA  ????   0.00  0  06/24/1975  09/05/1980  00   00          FISH     WMD  *
*****************************************************************************************************************
* STATION LAMB_H          LAMB ISLAND DAIRY                                                                     *
* SECTION 31        TOWN  35       RANGE 34                                                                     *
* LAT  272302.156    XCOORD 664440.125 BASIN S65D       QUAD SHEET  27080344  TAYLOR CREEK NW                  *
* LONG: 805828.188    YCOORD 1108736.875 COUNTY OKE        LAND SURFACE    50.00 FT MSL                          *
*                                                                                                                *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK  ALTERNATE ID *
*
* 12274 STG  FEET        MEAN  DA  SP01   0.00  0  02/10/1988  08/21/1991  00   00          LAMB+H    WMD  *
* IX896 STG  FEET        INST  BK  SP01   0.00  0  02/10/1988  08/21/1991  00   00          LAMB+H    WMD  *
*****************************************************************************************************************
```

Table A5. continued.

```
*****************************************************************************************************
* STATION LAMB_T          LAMB ISLAND DAIRY                                                  *
* SECTION 31        TOWN  35       RANGE 34                                                  *
* LAT  272302.156    XCOORD 664440.125 BASIN S65D       QUAD SHEET  27080344 TAYLOR CREEK NW          *
* LONG: 805828.188    YCOORD 1108736.875 COUNTY OKE        LAND SURFACE    50.00 FT MSL                *
*                                                                                                  *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID
AGENCY *
*                                                                                                  *
* 12275 STG  FEET       MEAN  DA  SP01   0.00  0  02/10/1988  08/21/1991  00  00          LAMB+T   WMD  *
* IX898 STG  FEET       INST  BK  SP01   0.00  0  02/10/1988  08/21/1991  00  00          LAMB+T   WMD  *
*****************************************************************************************************
* STATION LARSON1         LARSON DAIRY #1                                                    *
* SECTION 29        TOWN  35       RANGE 33                                                  *
* LAT  272345.156    XCOORD 640734.312 BASIN S65D       QUAD SHEET  27081211 BASINGER                 *
* LONG: 810251.250    YCOORD 1113080.875 COUNTY OKE        LAND SURFACE    40.00 FT MSL                *
*                                                                                                  *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 07518 STG  FEET       MEAN  DA  SP01   0.00  0  01/20/1988  09/12/1991  00  00          LAR1+    WMD  *
* IX901 STG  FEET       INST  BK  SP01   0.00  0  01/20/1988  09/12/1991  00  00          LAR1+    WMD  *
*****************************************************************************************************
* STATION LARSON2         LARSON #2 DAIRY                                                    *
* SECTION  3        TOWN  37       RANGE 33                                                  *
* LAT  271716.156    XCOORD 649651.000 BASIN S65D       QUAD SHEET  27081212 FORT BASINGER            *
* LONG: 810112.250    YCOORD 1073799.000 COUNTY HIG        LAND SURFACE    30.00 FT MSL                *
*                                                                                                  *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 07581 STG  FEET       MEAN  DA  SP01   0.00  0  04/18/1988  09/25/1989  00  00          LAR2+    WMD  *
* IX904 STG  FEET       INST  BK  SP01   0.00  0  04/18/1988  09/25/1989  00  00          LAR2+    WMD  *
*****************************************************************************************************
* STATION LARSON2F_H      LARSON #2 DAIRY (FLUME)                                            *
* SECTION  3        TOWN  37       RANGE 33                                                  *
* LAT  271716.156    XCOORD 649831.438 BASIN S65D       QUAD SHEET  27081212 FORT BASINGER            *
* LONG: 810110.250    YCOORD 1073799.000 COUNTY HIG        LAND SURFACE    30.00 FT MSL                *
*                                                                                                  *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 12487 STG  FEET       MEAN  DA  SP01   0.00  0  06/24/1988  11/26/1991  00  00          LAR2F+H  WMD  *
* IX905 STG  FEET       INST  BK  SP01   0.00  0  06/24/1988  11/26/1991  00  00          LAR2F+H  WMD  *
*****************************************************************************************************
* STATION LARSON2F_T      LARSON #2 DAIRY (FLUME)                                            *
* SECTION  3        TOWN  37       RANGE 33                                                  *
* LAT  271716.156    XCOORD 649831.438 BASIN S65D       QUAD SHEET  27081212 FORT BASINGER            *
* LONG: 810110.250    YCOORD 1073799.000 COUNTY HIG        LAND SURFACE    30.00 FT MSL                *
*                                                                                                  *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 12488 STG  FEET       MEAN  DA  SP01   0.00  0  06/24/1988  11/26/1991  00  00          LAR2F+T  WMD  *
* IX907 STG  FEET       INST  BK  SP01   0.00  0  06/24/1988  11/26/1991  00  00          LAR2F+T  WMD  *
*****************************************************************************************************
* STATION MAPLE           MAPLE RIVER NEAR KISSIMMEE RIVER OXBOW                             *
* SECTION 13        TOWN  37       RANGE 33                                                  *
* LAT  271438.156    XCOORD 658583.750 BASIN S65D       QUAD SHEET  27080334 OKEECHOBEE NW            *
* LONG: 805933.250    YCOORD 1057844.500 COUNTY HIG        LAND SURFACE    30.00 FT MSL                *
*                                                                                                  *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 07529 STG  FEET       MEAN  DA  SP01   0.00  0  01/12/1988  11/28/1989  00  00          MAPL+    WMD  *
* 07528 STG  FEET       MEAN  DA  SDIG   0.00  0  05/21/1987  04/12/1990  00  00          MAPLE    WMD  *
* IY038 STG  FEET       INST  BK  SDIG   0.00  0  05/21/1987  04/12/1990  00  00          MAPLE    WMD  *
*****************************************************************************************************
```

Table A5. continued.

```
*****************************************************************************************************
* STATION MICCO D        MICCO DAIRY @ OUTLET                                                      *
* SECTION 23       TOWN  35      RANGE 32                                                          *
* LAT  272513.125   XCOORD 614334.625 BASIN S65D      QUAD SHEET  27081214 BASINGER NW            *
* LONG: 810744.250   YCOORD 1121985.625 COUNTY OKE       LAND SURFACE    0.00 FT MSL              *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*
* 03996 STG  FEET       MEAN  DA  SP01   0.00  0  03/23/1988  04/23/1990  00  00        MICC+   WMD  *
* IY097 STG  FEET       INST  BK  SP01   0.00  0  03/23/1988  04/23/1990  00  00        MICC+   WMD  *
*****************************************************************************************************
* STATION RRUCKS_H       R. RUCKS DAIRY                                                            *
* SECTION 2       TOWN  38      RANGE 33                                                          *
* LAT  271147.156   XCOORD 660119.688 BASIN S65D      QUAD SHEET  27080334 OKEECHOBEE NW          *
* LONG: 805916.250   YCOORD 1040578.188 COUNTY GLA       LAND SURFACE   30.00 FT MSL              *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*
* 12276 STG  FEET       MEAN  DA  SP01   0.00  0  03/03/1988  08/06/1991  00  00        RUCR+H   WMD  *
* IY282 STG  FEET       INST  BK  SP01   0.00  0  03/03/1988  08/06/1991  00  00        RUCR+H   WMD  *
*****************************************************************************************************
* STATION RRUCKS_T       R. RUCKS DAIRY                                                            *
* SECTION 2       TOWN  38      RANGE 33                                                          *
* LAT  271147.156   XCOORD 660119.688 BASIN S65D      QUAD SHEET  27080334 OKEECHOBEE NW          *
* LONG: 805916.250   YCOORD 1040578.188 COUNTY GLA       LAND SURFACE   30.00 FT MSL              *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*
* 12277 STG  FEET       MEAN  DA  SP01   0.00  0  03/03/1988  08/06/1991  00  00        RUCR+T   WMD  *
* IY283 STG  FEET       INST  BK  SP01   0.00  0  03/03/1988  08/06/1991  00  00        RUCR+T   WMD  *
*****************************************************************************************************
* STATION RUCKSW         W. F. RUCKS DAIRY                                                         *
* SECTION 5       TOWN  35      RANGE 34                                                          *
* LAT  272708.125   XCOORD 674975.375 BASIN S65D      QUAD SHEET  27080344 TAYLOR CREEK NW        *
* LONG: 805631.188   YCOORD 1133580.750 COUNTY OKE       LAND SURFACE    0.00 FT MSL              *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*
* 12554 STG  FEET       MEAN  DA  SP01   0.00  0  02/10/1988  09/11/1989  00  00        RUCW+   WMD  *
* IY284 STG  FEET       INST  BK  SP01   0.00  0  02/10/1988  09/11/1989  00  00        RUCW+   WMD  *
*****************************************************************************************************
* STATION RUCKSWF_H      W. F. RUCKS DAIRY (FLUME SITE)                                            *
* SECTION 5       TOWN  35      RANGE 34                                                          *
* LAT  272718.125   XCOORD 673443.438 BASIN S65D      QUAD SHEET  27080344 TAYLOR CREEK NW        *
* LONG: 805648.188   YCOORD 1134589.875 COUNTY OKE       LAND SURFACE    0.00 FT MSL              *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*
* 12552 STG  FEET       MEAN  DA  SP01   0.00  0  07/14/1988  01/08/1994  00  00        RUCWF+H   WMD  *
* IY286 STG  FEET       INST  BK  SP01   0.00  0  07/14/1988  01/08/1994  00  00        RUCWF+H   WMD  *
*****************************************************************************************************
* STATION RUCKSWF_T      W. F. RUCKS DAIRY (FLUME SITE)                                            *
* SECTION 5       TOWN  35      RANGE 34                                                          *
* LAT  272718.125   XCOORD 673443.438 BASIN S65D      QUAD SHEET  27080344 TAYLOR CREEK NW        *
* LONG: 805648.188   YCOORD 1134589.875 COUNTY OKE       LAND SURFACE    0.00 FT MSL              *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP   START    END    GATE SLOT RANK ALTERNATE ID *
*
* 12553 STG  FEET       MEAN  DA  SP01   0.00  0  07/14/1988  02/17/1993  00  00        RUCWF+T   WMD  *
* IY288 STG  FEET       INST  BK  SP01   0.00  0  07/14/1988  02/17/1993  00  00        RUCWF+T   WMD  *
*****************************************************************************************************
```

Table A5. continued.

```
*****************************************************************************************************
* STATION S65DX_H        S-65D AUX. CULVERT NO. 1 (S-65DX-1) ON CANAL C-38                          *
* SECTION 27       TOWN  36      RANGE 33                                                           *
* LAT  271846.156   XCOORD 647397.500 BASIN S65D      QUAD SHEET  27081212 FORT BASINGER           *
* LONG: 810137.250   YCOORD 1082887.125 COUNTY OKE       LAND SURFACE   30.00 FT MSL               *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 07943 STG  FEET      DWR  RI  ????  0.00  0  03/09/1988  04/01/1998  00  00        S65DX@H   WMD  *
* 04471 STG  FEET      INST  BK  ????  0.00  0                 00  00              WMD  *
* 04472 STG  FEET      MEAN  DA  ????  0.00  0  08/08/1969  04/07/1988  00  00              WMD  *
*****************************************************************************************************
* STATION S65DX_T        S-65D AUX. CULVERT NO. 1 (S-65DX-1) ON CANAL C-38                          *
* SECTION 27       TOWN  36      RANGE 33                                                           *
* LAT  271846.156   XCOORD 647397.500 BASIN S65D      QUAD SHEET  27081212 FORT BASINGER           *
* LONG: 810137.250   YCOORD 1082887.125 COUNTY OKE       LAND SURFACE   30.00 FT MSL               *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 07944 STG  FEET      DWR  RI  ????  0.00  0  03/09/1988  04/01/1998  00  00        S65DX@T   WMD  *
* 04473 STG  FEET      INST  BK  ????  0.00  0                 00  00              WMD  *
* 04474 STG  FEET      MEAN  DA  ????  0.00  0  08/09/1969  04/07/1988  00  00              WMD  *
*****************************************************************************************************
* STATION S65D_H         S-65D SPILLWAY ON CANAL C-38                                               *
* SECTION 27       TOWN  36      RANGE 33                                                           *
* LAT  271852.156   XCOORD 648750.625 BASIN S65D      QUAD SHEET  27081210                         *
* LONG: 810122.250   YCOORD 1083492.750 COUNTY OKE       LAND SURFACE   30.00 FT MSL               *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 04465 STG  FEET      INST  BK  ????  0.00  0  07/30/1964  07/09/1991  00  00        S65D*H   WMD  *
* 04466 STG  FEET      MEAN  DA  A35   0.00  0  07/30/1964  07/09/1991  00  00        S65D*H   WMD  *
* 1Y868 STG  FEET      INST  BK  A35   0.00  0  07/30/1964  07/09/1991  00  00        S65D*H   WMD  *
* 06960 STG  FEET      MEAN  DA  CR10  0.00  0  02/18/1987  01/12/1999  00  00        S65D+H   WMD  *
* 07743 STG  FEET      DWR  RI  ????  0.00  0  03/01/1988  04/18/1998  00  00        S65D@H   WMD  *
*****************************************************************************************************
* STATION S65D_T         S-65D SPILLWAY ON CANAL C-38                                               *
* SECTION 27       TOWN  36      RANGE 33                                                           *
* LAT  271852.156   XCOORD 648750.625 BASIN S65D      QUAD SHEET  27081210                         *
* LONG: 810122.250   YCOORD 1083492.750 COUNTY OKE       LAND SURFACE   30.00 FT MSL               *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 04467 STG  FEET      INST  BK  ????  0.00  0  08/09/1969  07/09/1991  00  00        S65D*T   WMD  *
* 04468 STG  FEET      MEAN  DA  A35   0.00  0  08/09/1969  07/09/1991  00  00        S65D*T   WMD  *
* 1Y871 STG  FEET      INST  BK  A35   0.00  0  08/09/1969  07/09/1991  00  00        S65D*T   WMD  *
* 06961 STG  FEET      MEAN  DA  CR10  0.00  0  03/10/1987  01/12/1999  00  00        S65D+T   WMD  *
* 07807 STG  FEET      DWR  RI  ????  0.00  0  03/01/1988  04/18/1998  00  00        S65D@T   WMD  *
*                                                                                                   *
*****************************************************************************************************
```

Table A6. Flow stations in S65D sub-basin.

```
*****************************************************************************************************
* STATION BASSC_C        CULVERT ON BASS DETENTION AREA AT ASH SLOUGH                              *
* SECTION 17       TOWN  35       RANGE 33                                                          *
* LAT  272540.125    XCOORD 638576.250 BASIN S65D       QUAD SHEET  27081211 BASINGER              *
* LONG: 810315.250    YCOORD 1124694.125 COUNTY OKE       LAND SURFACE    52.00 FT MSL              *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 05197 FLOW CFS        INST  BK  NA    0.00  0                 00  00        50935321   WMD  *
* 05198 FLOW CFS        MEAN  DA  NA    0.00  0  09/04/1979  09/04/1979  00  00        50935321   WMD  *
*****************************************************************************************************
* STATION BASSP_F        FLUME ON BASS LARGE PASTURE ABOVE DETENTION AREA                          *
* SECTION 17       TOWN  35       RANGE 33                                                          *
* LAT  272532.125    XCOORD 638215.438 BASIN S65D       QUAD SHEET  27081211 BASINGER              *
* LONG: 810319.250    YCOORD 1123886.500 COUNTY OKE       LAND SURFACE    50.00 FT MSL              *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 05185 FLOW CFS        INST  BK  NA    0.00  0                 00  00        50935323   WMD  *
* 05186 FLOW CFS        MEAN  DA  NA    0.00  0  09/03/1979  11/04/1993  00  00        50935323   WMD  *
*****************************************************************************************************
* STATION BRIGHT1_O       BRIGHTON 1 DAIRY                                                          *
* SECTION 3        TOWN  38       RANGE 33                                                          *
* LAT  271207.156    XCOORD 657410.812 BASIN S65D       QUAD SHEET  27080334 OKEECHOBEE NW         *
* LONG: 805946.250    YCOORD 1042597.500 COUNTY GLA       LAND SURFACE    30.00 FT MSL              *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 07592 FLOW CFS        MEAN  DA  SP01  0.00  0                 00  00        60238332   WMD  *
*****************************************************************************************************
* STATION BUTLER1_O       BUTLER #1 DAIRY                                                           *
* SECTION 32       TOWN  36       RANGE 33                                                          *
* LAT  271848.156    XCOORD 641173.750 BASIN S65D       QUAD SHEET  27081212 FORT BASINGER         *
* LONG: 810246.250    YCOORD 1083091.000 COUNTY HIG       LAND SURFACE    30.00 FT MSL              *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 07565 FLOW CFS        MEAN  DA  SP01  0.00  0                 00  00        63236331   WMD  *
*****************************************************************************************************
* STATION BUTLER2_O       BUTLER #2 DAIRY                                                           *
* SECTION 3        TOWN  37       RANGE 33                                                          *
* LAT  271742.156    XCOORD 650734.000 BASIN S65D       QUAD SHEET  27081212 FORT BASINGER         *
* LONG: 810100.250    YCOORD 1076424.125 COUNTY HIG       LAND SURFACE    30.00 FT MSL              *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 07570 FLOW CFS        MEAN  DA  SP01  0.00  0                 00  00        60337331   WMD  *
*****************************************************************************************************
* STATION C38.BAS        KISSIMMEE RIVER NEAR BASINGER                                             *
* SECTION 5        TOWN  36       RANGE 33                                                          *
* LAT  272153.156    XCOORD 639377.625 BASIN S65D       QUAD SHEET  27081212 FORT BASINGER         *
* LONG: 810306.250    YCOORD 1101772.125 COUNTY OKE       LAND SURFACE    99.00 FT MSL              *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 00236 FLOW CFS        MEAN  DA  PREF  0.00  0  10/01/1948  09/30/1964  00  00        02272500   USGS  *
*****************************************************************************************************
* STATION CHAND2_O        CHANDLER SLOUGH DOWNSTREAM OF CYPRESS SLOUGH                              *
* SECTION 35       TOWN  35       RANGE 33                                                          *
* LAT  272311.156    XCOORD 658220.250 BASIN S65D       QUAD SHEET  27080344 TAYLOR CREEK NW       *
* LONG: 805937.188    YCOORD 1109644.875 COUNTY OKE       LAND SURFACE    30.00 FT MSL              *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP   START    END     GATE SLOT RANK ALTERNATE ID *
*
* 07542 FLOW CFS        MEAN  DA  SP01  0.00  0                 00  00        63535331   WMD  *
*****************************************************************************************************
```

Table A6. continued.

```
*****************************************************************************************************
* STATION CMRUCKS_O        C. M. RUCKS DAIRY                                                        *
* SECTION 17        TOWN  35       RANGE 34                                                        *
* LAT  272522.156    XCOORD 670294.500 BASIN S65D       QUAD SHEET  27080344 TAYLOR CREEK NW        *
* LONG: 805723.188    YCOORD 1122875.250 COUNTY OKE        LAND SURFACE    40.00 FT MSL             *
*                                                                                                   *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP  START    END    GATE SLOT RANK ALTERNATE ID *
*
* 07560 FLOW CFS        MEAN  DA  SP01   0.00  0                 00  00        61735342   WMD  *
*****************************************************************************************************
* STATION CYPRS_O         CYPRESS SLOUGH ON WATERFORD PROPERTY NEAR FLORIDA HIGHWAY 68              *
* SECTION 29        TOWN  35       RANGE 34                                                        *
* LAT  272346.156    XCOORD 670027.500 BASIN S65D       QUAD SHEET  27080344 TAYLOR CREEK NW        *
* LONG: 805726.188    YCOORD 1113181.375 COUNTY OKE        LAND SURFACE    30.00 FT MSL             *
*                                                                                                   *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP  START    END    GATE SLOT RANK ALTERNATE ID *
*
* 07550 FLOW CFS        MEAN  DA  SP01   0.00  0                 00  00        61735341   WMD  *
*****************************************************************************************************
* STATION EAGLE_O         EAGLE ISLAND DAIRY AT OUTFALL                                             *
* SECTION 2        TOWN  35       RANGE 33                                                        *
* LAT  272721.125    XCOORD 659029.812 BASIN S65D       QUAD SHEET  27080344 TAYLOR CREEK NW        *
* LONG: 805928.188    YCOORD 1134889.125 COUNTY OKE        LAND SURFACE    0.00 FT MSL              *
*                                                                                                   *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP  START    END    GATE SLOT RANK ALTERNATE ID *
*
* 12270 FLOW CFS        MEAN  DA  SP01   0.00  0                 00  00        60135331   WMD  *
*****************************************************************************************************
* STATION FERRELL_O        FERRELL DAIRY                                                            *
* SECTION 4        TOWN  38       RANGE 35                                                        *
* LAT  271144.156    XCOORD 709059.625 BASIN S65D       QUAD SHEET  27080331 OKEECHOBEE             *
* LONG: 805014.188    YCOORD 1040309.375 COUNTY OKE        LAND SURFACE    40.00 FT MSL             *
*                                                                                                   *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP  START    END    GATE SLOT RANK ALTERNATE ID *
*
* 07597 FLOW CFS        MEAN  DA  SP01   0.00  0                 00  00        60438351   WMD  *
*****************************************************************************************************
* STATION LAMB_O          LAMB ISLAND DAIRY                                                         *
* SECTION 31        TOWN  35       RANGE 34                                                        *
* LAT  272302.156    XCOORD 664440.125 BASIN S65D       QUAD SHEET  27080344 TAYLOR CREEK NW        *
* LONG: 805828.188    YCOORD 1108736.875 COUNTY OKE        LAND SURFACE    50.00 FT MSL             *
*                                                                                                   *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP  START    END    GATE SLOT RANK ALTERNATE ID *
*
* 07575 FLOW CFS        MEAN  DA  SP01   0.00  0                 00  00        63135341   WMD  *
*****************************************************************************************************
* STATION LARSON1_O        LARSON DAIRY #1                                                          *
* SECTION 29        TOWN  35       RANGE 33                                                        *
* LAT  272345.156    XCOORD 640734.312 BASIN S65D       QUAD SHEET  27081211 BASINGER               *
* LONG: 810251.250    YCOORD 1113080.875 COUNTY OKE        LAND SURFACE    40.00 FT MSL             *
*                                                                                                   *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP  START    END    GATE SLOT RANK ALTERNATE ID *
*
* 07519 FLOW CFS        MEAN  DA  SP01   0.00  0                 00  00        62935331   WMD  *
*****************************************************************************************************
* STATION LARSON2F_F       LARSON #2 DAIRY (FLUME)                                                  *
* SECTION 3        TOWN  37       RANGE 33                                                        *
* LAT  271716.156    XCOORD 649831.438 BASIN S65D       QUAD SHEET  27081212 FORT BASINGER          *
* LONG: 810110.250    YCOORD 1073799.000 COUNTY HIG        LAND SURFACE    30.00 FT MSL             *
*                                                                                                   *
* DBKEY: TYPE UNITS       STAT FREQ RCDR  STRATA REP  START    END    GATE SLOT RANK ALTERNATE ID *
*
* 12489 FLOW CFS        MEAN  DA  SP01   0.00  0                 00  00        60337333   WMD  *
*****************************************************************************************************
```

Table A6. continued.

```
*****************************************************************************************************
* STATION MAPLE_O        MAPLE RIVER NEAR KISSIMMEE RIVER OXBOW                                    *
* SECTION 13       TOWN  37      RANGE 33                                                  *
* LAT  271438.156   XCOORD 658583.750 BASIN S65D      QUAD SHEET  27080334 OKEECHOBEE NW          *
* LONG: 805933.250   YCOORD 1057844.500 COUNTY HIG       LAND SURFACE   30.00 FT MSL                *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 07530 FLOW CFS        MEAN  DA  SP01   0.00  0                 00  00        62337331   WMD  *
*****************************************************************************************************
* STATION MICCO D_O       MICCO DAIRY @ OUTLET                                                      *
* SECTION 23       TOWN  35      RANGE 32                                                  *
* LAT  272513.125   XCOORD 614334.625 BASIN S65D      QUAD SHEET  27081214 BASINGER NW            *
* LONG: 810744.250   YCOORD 1121985.625 COUNTY OKE       LAND SURFACE   0.00 FT MSL                 *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 03997 FLOW CFS        MEAN  DA  SP01   0.00  0                 00  00        MICC+Q   WMD  *
*****************************************************************************************************
* STATION RRUCKS_O        R. RUCKS DAIRY                                                            *
* SECTION 2        TOWN  38      RANGE 33                                                  *
* LAT  271147.156   XCOORD 660119.688 BASIN S65D      QUAD SHEET  27080334 OKEECHOBEE NW          *
* LONG: 805916.250   YCOORD 1040578.188 COUNTY GLA       LAND SURFACE   30.00 FT MSL                *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 07587 FLOW CFS        MEAN  DA  SP01   0.00  0                 00  00        60238331   WMD  *
*****************************************************************************************************
* STATION S65DX_C        S-65D AUX. CULVERT NO. 1 (S-65DX-1) ON CANAL C-38                          *
* SECTION 27       TOWN  36      RANGE 33                                                  *
* LAT  271846.156   XCOORD 647397.500 BASIN S65D      QUAD SHEET  27081212 FORT BASINGER          *
* LONG: 810137.250   YCOORD 1082887.125 COUNTY OKE       LAND SURFACE   30.00 FT MSL                *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 04475 FLOW CFS        INST  BK  NA    0.00  0                 00  00        52736332   WMD  *
* 04476 FLOW CFS        MEAN  DA  NA    0.00  0  10/02/1983  04/07/1988  00  00        52736332   WMD  *
* 15333 FLOW CFS        MEAN  DA  NA    0.00  1  04/07/1988  01/12/1999                62736332   WMD  *
*****************************************************************************************************
* STATION S65D_S         S-65D SPILLWAY ON CANAL C-38                                              *
* SECTION 27       TOWN  36      RANGE 33                                                  *
* LAT  271852.156   XCOORD 648750.625 BASIN S65D      QUAD SHEET  27081210                        *
* LONG: 810122.250   YCOORD 1083492.750 COUNTY OKE       LAND SURFACE   30.00 FT MSL                *
*                                                                                                   *
* DBKEY: TYPE UNITS      STAT FREQ RCDR  STRATA REP  START   END    GATE SLOT RANK ALTERNATE ID *
*
* 04469 FLOW CFS        INST  BK  NA    0.00  0                 00  00        52736331   WMD  *
* 04470 FLOW CFS        MEAN  DA  NA    0.00  0  08/09/1969  06/29/1991  00  00        52736331   WMD  *
* 06962 FLOW CFS        MEAN  DA  SP01   0.00  0  03/10/1987  01/12/1999  00  00        62736331   WMD  *
*****************************************************************************************************
```

APPENDIX B

S65C SUB-BASIN EVAPORATION, RAINFALL, STAGE, AND FLOW RAW DATA

Note on all tables:

* indicates partial year data.

[1] indicates period of record for station and excludes partial year results.

Table B1. Monthly and annual rainfall sums (inches) at station S65B_R.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1965*	--	--	--	--	--	7.24	--	6.15	4.79	3.38	0.4	1.65	23.61
1966	3.53	2.33	0.63	1.75	7.73	8.05	6.03	4.98	4.42	3.64	0.1	0.56	43.75
1967	0.89	3.47	0.51	0.14	0.92	8.03	5.73	3.68	5.73	1.66	0.1	1.97	32.83
1968	0.84	1.21	0.97	0.44	5.7	13.49	7.14	5	5.21	1.8	2.35	0.45	44.6
1969	1.76	1.57	6.69	3.36	3.54	8.61	3.22	8.19	6.21	13.2	2.39	3.27	62.01
1970	3.89	1.91	5.25	0.08	4.63	2.98	8.62	2.85	5.28	2.04	0.04	0.47	38.04
1971	0.14	4.74	1.03	0.15	1.56	5.26	5.43	4.78	4.6	4.76	0.38	0.72	33.55
1972	1.14	3.31	2.66	1.18	2.22	8.7	5.11	4.69	3.43	1.1	3.36	1.52	38.42
1973*	5.48	1.28	3.8	2.51	5.54	7.21	8.7	5.04	9.53	1.06	0.61	--	50.76
1974*	0.19	2.89	0.17	--	--	--	11.24	6.25	0	1.16	0.24	1.63	23.77
1975	0.57	0.89	0.89	0.41	5.17	8.96	4.8	8.07	6.76	2.79	0.65	0.66	40.62
1976	0.33	0.96	1.14	0.98	7.4	9	2.99	4.53	6.45	0.68	2.03	1.56	38.05
1977*	1.08	1.41	0.73	0.15	2.91	3.58	4.09	--	4.13	0.68	6.86	1.71	27.33
1978	1.08	2.23	2.22	0.04	2.33	7.71	15.54	5.35	4.08	2.39	2.77	2.66	48.4
1979	6.92	1.14	0.89	3.41	6.01	3.29	7.03	3.65	11.19	0	2.06	2.07	47.66
1980	1.93	3.51	1.69	3.65	3.17	2.59	5.98	5.11	2.21	0.61	2	0.94	33.39
1981	0.26	3.26	1.44	0.1	3.26	6.91	2.51	5.21	2.19	1.43	0.7	0.11	27.38
1982	1.2	2	5.41	6.32	3.4	6.93	6.28	10.15	6.34	4.59	1.64	1.55	55.81
1983	2.61	8.33	5.5	2.78	0.95	6.94	4.75	3.46	3.52	1.35	1.26	3.8	45.25
1984	0.34	2.61	2.78	3.49	9.61	7.38	8.37	4.96	2.19	0.5	4.35	1.07	47.65
1985	0.47	0.23	2.67	1.91	1.69	7.57	3.9	6.8	5.99	3.85	2.41	0.78	38.27
1986	1.74	0.63	2.48	0.13	2.31	10.39	5.04	1.63	3.73	5.55	0.4	3.47	37.5
1987	1.18	0.6	5.71	1.91	2.51	4.68	7.26	1.19	6.81	5.52	5.83	0.41	43.61
1988	2.06	1.71	4.14	1.06	1.1	5.39	6.7	8.46	2.45	0.68	2.97	1.65	38.37
1989	1.99	0.91	3.44	2.14	1.58	4.53	7.75	7.55	8.47	2.24	1.32	3.15	45.07
1990*	0.52	4.38	1.24	1.11	--	10.93	9.37	8.9	6.24	2.35	0.71	0.72	46.47
1991*	3.79	1.83	3.43	3.15	5.28	5.35	7.09	4.52	--	3.09	0.57	0.24	38.34
1992*	0.39	2.76	0.96	4.09	1.16	15.18	1.37	11.14	3.19	--	1.28	0.56	42.08
1993	4.18	2.51	4.64	4.53	2.02	3.33	5.53	3.43	3.17	2.97	0.27	0.83	37.41
1994	2.19	2.54	1.93	6.25	4.21	11.84	9.26	5.69	6.76	2.25	4.19	2.59	59.7
1995	1.52	3.07	2.28	4.2	2.63	6.8	6.75	16.53	3.96	6.02	0.63	0.53	54.92
1996	3.36	1.19	6.02	1.21	6.74	7.48	4.73	5.23	3.58	2.66	0.67	1.72	44.59
1997	2.34	1.27	1.35	5.77	5.36	5.01	4.71	4.63	9.52	2.27	7.47	5.04	54.74
1998*	4.37	8.96	9.32	3.24	2.44	0.89	7.2	5.93	6.1				48.45

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[1]
Mean	1.95	2.47	2.85	2.24	3.71	7.04	6.37	5.87	5.1	2.76	1.91	1.56	43.52
Standard Deviation	1.67	1.93	2.19	1.89	2.24	3.12	2.7	2.92	2.39	2.48	1.95	1.19	8.66
Minimum	0.14	0.23	0.17	0.04	0.92	0.89	1.37	1.19	0	0	0.04	0.11	27.38
Median	1.52	2	2.28	1.91	3.17	7.21	6.03	5.11	4.79	2.26	1.28	1.54	43.68
Maximum	6.92	8.96	9.32	6.32	9.61	15.18	15.54	16.53	11.19	13.2	7.47	5.04	62.01

Table B2. Monthly and annual rainfall sums (inches) at station MAXCEY S_R.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1974*	--	--	--	--	10.15	7.64	9.29	9.06	5.09	1.25	0.35	1.95	44.78
1975	0	2.12	0.89	0.15	4.64	8.68	5.08	4.34	3.71	4.04	0.39	0.83	34.87
1976*	0.38	2.96	0.8	2.76	9.83	13.22	--	--	7.24	0.62	2.49	2.15	42.45
1977	1.12	0.94	2.58	0.1	10.18	3.92	8.12	3.4	9.83	1.45	6.88	3.04	51.56
1978	1.56	3.03	3.11	0.06	6.21	13.47	15.3	4.42	5.46	4.04	2.74	4.33	63.73
1979*	8.93	0.81	1.31	3.5	9.35	3.6	--	--	12.8	0.05	1.22	2.82	44.39
1980	2.79	4.72	2.4	4.49	6.36	3.7	8.86	5.05	4.98	0.54	6.26	4.21	54.36
1981	0.29	4.39	2.97	0.09	2.22	4.54	6.46	9.7	8.87	1.37	1.01	0.28	42.19
1982*	3.16	2.69	2.24	--	3.73	7.95	8.36	--	--	3.65	2.51	1.61	35.9
1983	3.33	11.22	5.67	2.29	0.49	13.49	5.96	3.65	3.01	3.11	1.28	3.93	57.43
1984	0.48	2.21	3.71	2.94	8.81	9.2	3.75	9.05	5.17	0.94	4.7	1.15	52.11
1985	0.37	0.4	2.68	2.25	2.35	5.22	9.02	5.64	10.1	1.51	2.03	1.94	43.51
1986*	2.65	0.76	3.1	0.28	2.75	10.6	5.9	--	3.52	4.06	0.14	3.91	37.67
1987	1.73	1.08	5.14	0.15	4.21	4.88	8.11	1.37	15.25	8.79	9.42	0.82	60.95
1988	2.8	2.41	4.22	1.61	1.5	6.23	7.94	8.53	5.52	2.3	3.47	1.75	48.28
1989	2.9	1.1	5.56	3.68	0.95	4.46	10.13	4.33	7.08	5.91	1.57	4.39	52.06
1990	0.07	4.44	2.28	0.73	3.04	11.31	6.68	5.51	6.19	4.01	0	0	44.26
1991	4.1	2.12	5.49	3.23	10.87	4.15	18.95	12.49	3.6	2.67	0.98	0.73	69.38
1992*	0.89	--	--	--	--	18.63	--	--	--	--	--	0.63	20.15
1993	10.12	4.29	6.87	5.14	5.14	6.07	7.66	13.27	--	3.85	1.53	1.52	65.46
1994*	3.35	5.94	2.4	10.65	4.61	18.21	7.2	8.61	14.75	4.38	--	--	80.1
1995*	--	--	4.48	7.25	3.33	--	--	--	6.04	10.23	0.83	0.43	32.59
1996	3.88	0.99	8.1	1.81	10.96	10.12	5.57	7.94	1.39	3.59	0.48	2.89	57.72
1997*	3.91	1.39	3.67	7.71	5.22	8.35	0	0	22.34	5.88	--	5.46	63.93
1998*	8.78	12.61	17.01	7.24	1.33	6.78	12.04	8.86	8.62	--	--	--	83.27

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[1]
Mean	2.94	3.3	4.2	3.1	5.34	8.52	8.11	6.59	7.75	3.4	2.39	2.21	51
Standard Deviation	2.85	3.18	3.35	2.95	3.44	4.38	3.92	3.53	4.92	2.54	2.49	1.56	10.3
Minimum	0	0.4	0.8	0.06	0.49	3.6	0	0	1.39	0.05	0	0	32.59
Median	2.79	2.31	3.11	2.53	4.63	7.8	7.94	5.64	6.12	3.59	1.53	1.94	52.06
Maximum	10.12	12.61	17.01	10.65	10.96	18.63	18.95	13.27	22.34	10.23	9.42	5.46	69.38

Table B3. Monthly and annual rainfall sums (inches) at station MICCO D_R.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1988*	--	--	--	--	--	--	--	--	1.78	1.46	3.43	1.67	8.34
1989*	1.79	0.89	2.08	3.45	5.08	--	2.25	5.62	6.62	3.38	0.26	0	31.42
1990*	0.01	0	0	--	--	--	--	--	--	--	--	--	0.01

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[1]
Mean	0.90	0.45	1.04	3.45	5.08	--	2.25	5.62	4.20	2.42	1.85	0.84	--
Standard Deviation	1.26	0.63	1.47	--	--	--	--	3.42	1.36	2.24	1.18	--	--
Minimum	0.01	0.00	0.00	3.45	5.08	0.00	2.25	5.62	1.78	1.46	0.26	0.00	--
Median	0.90	0.45	1.04	3.45	5.08	--	2.25	5.62	4.20	2.42	1.85	0.84	--
Maximum	1.79	0.89	2.08	3.45	5.08	0.00	2.25	5.62	6.62	3.38	3.43	1.67	--

Table B4. Monthly and annual rainfall sums (inches) at station MICCO_R.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1972*	--	--	--	1.56	3.36	9.51	2.49	5.8	3.43	0.25	2.33	1.81	30.54
1973	5.84	1.61	1.97	2.34	3.96	8.5	9.42	5.41	8.03	1.86	0.58	2.49	52.01
1974*	0.32	3	0.03	0.69	2.71	9.78	--	--	3.53	0.32	0.35	1.83	22.56
1975	0.76	1.1	0.78	0.71	8.06	9.91	4.48	3.74	6.03	2.66	0.26	0.8	39.29
1976	0.15	0.59	2.31	1.51	9.67	11.25	6.39	10.33	3.31	0.49	2.31	0.89	49.2
1977	1.19	0.46	0.64	0.55	5.89	4.25	8.95	5.66	4.95	1.59	6.85	3.28	44.26
1978	1.26	2.52	2.01	0.05	3.8	6.3	11.81	1.58	4.89	3.25	1.52	3.19	42.18
1979*	--	--	0.99	3.77	8.97	1.72	8.98	8.02	2.41	0.19	0.93	1.87	37.85
1980	1.5	3.25	1.41	1.46	3.53	1.87	4.36	6.36	3.72	1.28	3.29	1.21	33.24
1981	0.14	3.74	0.99	0.09	1.66	4.3	1.88	8.69	4.35	1.18	0.91	0.1	28.03
1982*	1.73	0.18	7.77	6.48	3.82	8.49	1.49	--	--	1	1.17	0.99	33.12
1983*	2.68	8.96	4.62	--	1.18	5.39	6.34	0.62	4.53	3.16	1.33	3.98	42.79
1984	0.8	3.63	3.79	2.35	10.25	11.56	6.59	4.41	2.07	0.47	3.08	0.96	49.96
1985	0.6	0.32	2.42	2.68	2.42	7.15	5.27	6.98	11.08	2.05	2.12	1.93	45.02
1986	1.64	0.87	3.39	0.24	1.58	8.56	5.73	3.81	3.93	3.48	0.64	3.19	37.06
1987	1.7	0.57	5.58	0.3	3.33	5.27	8.27	1.77	9.76	6.34	5.52	0.38	48.79
1988	2.72	1.88	5.69	1.13	1.84	5.28	2.85	7.15	2.4	0.85	2.79	1.82	36.4
1989	1.76	0.95	3.7	3.07	3.66	3.91	4.06	5.34	11.54	4.04	1.23	3.09	46.35
1990	0.5	3.11	0.78	1.04	3	11.09	7.53	5.47	5.82	2.61	0.96	0.52	42.43
1991	4.21	1.66	3.27	3.26	5.33	4.05	7.62	10.49	2.09	2.7	0.66	0.11	45.45
1992	0.33	4.04	1.57	4.16	1.25	13.87	1.73	7.09	2.64	2.66	0.83	0.55	40.72
1993	4.67	2.96	5.85	4.48	1.99	3.92	5.24	3.35	4.92	3.3	0.55	0.9	42.13
1994	2.28	3.26	3	4.86	3.81	3.71	5.83	4.67	6.75	3.5	3.4	2.5	47.57
1995	1.65	2.75	1.97	3.71	2.28	5.85	4.1	11.11	3.19	7.1	0.46	0.4	44.57
1996	2.4	1.32	4.72	1.14	5.98	3.74	3.07	9.31	1.76	2.44	0.36	0.84	37.08
1997	1.25	0.75	1.15	4.68	3.81	5.84	4.21	5.88	9.29	1.63	5.36	4.92	48.77
1998*	5.77	10.18	8.44	2.77	0.6	1.18	9.95	7.91	4.27	--	--	--	51.07

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[1]
Mean	1.91	2.55	3.03	2.27	3.99	6.53	5.72	6.04	5.03	2.32	1.92	1.71	42.88
Standard Deviation	1.64	2.44	2.24	1.75	2.62	3.34	2.76	2.76	2.80	1.73	1.77	1.28	6.06
Minimum	0.14	0.18	0.03	0.05	0.60	1.18	1.49	0.62	1.76	0.19	0.26	0.10	28.03
Median	1.64	1.88	2.37	1.95	3.53	5.84	5.50	5.80	4.31	2.25	1.20	1.51	44.26
Maximum	5.84	10.18	8.44	6.48	10.25	13.87	11.81	11.11	11.54	7.10	6.85	4.92	52.01

Table B5. Monthly and annual rainfall sums (inches) at station KRBNR.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1997*	--	--	--	--	--	5.54	3.11	10.84	8.15	2.34	0.14	0.81	30.93
1998*	4.96	11.13	--	2.42	0.75	0.87	7.52	7.11	3.63	--	--	--	38.39

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[1]
Mean	4.96	11.13		2.42	0.75	3.21	5.32	8.98	5.89	2.34	0.14	0.81	--
Standard Deviation	--	--		--	--					--	--	--	--
Minimum	4.96	11.13		2.42	0.75	0.87	3.11	7.11	3.63	2.34	0.14	0.81	--
Median	4.96	11.13		2.42	0.75	3.21	5.32	8.98	5.89	2.34	0.14	0.81	--
Maximum	4.96	11.13		2.42	0.75	5.54	7.52	10.84	8.15	2.34	0.14	0.81	--

Table B6. Monthly and annual rainfall sums (inches) at station MCARTH_R.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1974*	--	--	--	--	--	17.22	--	--	8.38	0.59	1.29	2.36	29.84
1975	0.42	1.17	1.32	0.84	5.66	17.52	12.23	8.86	9.35	1.17	0.31	0.89	59.74
1976*	0.4	0.78	6.12	2.33	12.18	13.54	8.25	--	--	--	3.51	0.87	47.98
1977	1.82	1.74	1.35	0.53	3.63	0.15	13.75	10.52	11.68	3.53	9.68	4.33	62.71
1978	2.25	1.24	3.05	1.26	2.69	3.12	11.82	6.08	3.29	4.79	2.31	2.93	44.83
1979	6.22	0.85	1.16	3	5.58	2.27	6.49	5.45	12.01	0.34	1.83	3.57	48.77
1980	3.17	2.91	2.07	3.77	3.46	2.34	5.86	4.09	3.32	1.62	1.8	0.74	35.15
1981	0.21	3.12	0.75	0.15	3.14	9.16	1.81	5.09	2.8	1.71	1.15	0.11	29.2
1982*	1.04	2.79	5.83	4.39	3.29	7.66	1.75	10.38	9.61	--	--	--	46.74
1983	2.29	7.3	4.21	2.51	0.94	6.24	2.97	4.29	4.45	2.53	1.25	3.24	42.22
1984	0.7	3.56	2.59	2.01	7.45	6.48	3.23	3.6	3.26	0.25	2.77	0.82	36.72
1985	0.45	0.31	2.25	2.24	2.01	7.49	3.62	5.24	8.48	2.17	1.1	1.25	36.61
1986	1.84	0.73	2.95	0.22	1.27	7.88	11.05	4.22	2	2.79	0.42	3.18	38.55
1987	1.33	0.36	4.73	0.35	4.75	2.2	7.62	0.76	11.15	4.8	4.74	0.1	42.89
1988	1.92	1.13	3.03	0.06	1.04	8.39	7.65	9.03	2.87	1.07	3.53	2.18	41.9
1989*	1.94	0.99	1.92	1.72	4.23	8.82	4.9	6	--	--	1.06	2.92	34.5
1990	0.34	3.57	1.49	0.22	3.17	10	9.29	9.86	6.11	2.44	0.14	0.62	47.25
1991	4.62	1.97	3.57	2.49	7.04	3.46	6.33	10.3	4.37	3.81	0.98	0.94	49.88
1992	0.54	1.16	1.78	5.99	3.29	15.03	3.23	10.78	4.37	2.73	1.12	0.41	50.43
1993	5.02	3.25	4.99	4.56	0.96	5.11	5.99	5.33	4.95	4.7	0.52	0.78	46.16
1994*	2.41	3.18	1.62	5.25	4.93	6.51	6.69	3.34	6.76	2.29	--	2.92	45.9
1995	1.71	2.24	2.56	5.02	5.33	8.72	7.75	11.25	4.31	5.5	0.49	0.49	55.37
1996	2.57	1.38	4.66	1.47	6.32	6.87	3.52	5.47	4.05	2.68	0.44	0.31	39.74
1997	1.93	1.33	1.26	5.2	5.87	8.02	3.95	4.78	9.7	2.07	5.55	5.48	55.14
1998*	6.2	11.37	7.21	2.86	1.37	0.39	9.23	10.09	5.8	--	--	--	54.52

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[1]
Mean	2.14	2.43	3.02	2.44	4.15	7.38	6.62	6.73	6.22	2.55	2.09	1.80	45.43
Standard Deviation	1.77	2.44	1.78	1.86	2.60	4.71	3.37	3.01	3.15	1.52	2.24	1.51	8.78
Minimum	0.21	0.31	0.75	0.06	0.94	0.15	1.75	0.76	2.00	0.25	0.14	0.10	29.20
Median	1.88	1.56	2.58	2.29	3.55	7.49	6.41	5.47	4.95	2.44	1.20	0.94	44.83
Maximum	6.22	11.37	7.21	5.99	12.18	17.52	13.75	11.25	12.01	5.50	9.68	5.48	62.71

Table B7. Monthly and annual rainfall sums (inches) at station CORNWELL_R.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1955*	--	--	--	--	--	--	--	--	--	--	0.16	1.53	1.69
1956*	0.48	0.79	0.42	1.45	4.09	5.42	3.53	7.66	4.75	12.03	--	0.29	40.91
1957	1.35	3.79	6.13	4.85	5.55	5.73	9.6	7.21	6.71	1.36	0.05	3.52	55.85
1958*	6.3	2.46	5.72	1.62	5.25	3.05	12.84	2.39	4.85	2.94	--	3.22	50.64
1959	2.6	1.42	8.1	1.94	5.85	4.13	10.07	9.4	5.37	14.22	1.13	1.72	65.95
1960*	0.14	3.79	4.86	3.14	0.73	8.2	5.87	6.84	10.92	3.26	--	0.89	48.64
1961*	--	0.83	1.65	2.23	--	3.97	--	6.82	2.4	--	1.25	0.09	19.24
1962*	--	1.05	--	--	--	10.32	3.82	6.52	--	0.45	2.99	0.1	25.25
1963*	1.33	6.13	2.08	0.55	6.47	2.74	--	3.8	4.62	0.11	4.27	3.62	35.72
1964	2.97	4.48	1.38	3.36	3.22	5.01	8.37	7.26	4.74	1.38	0.41	2.3	44.88
1965*	0.24	2.63	2.56	--	1.53	--	5.35	3.14	7.05	3.83	0.61	1.32	28.26
1966*	4.43	2	0.25	2.11	--	6.93	4.84	7.5	6.6	--	0.75	0.21	35.62
1967*	--	3.77	--	--	--	7.37	5.06	4.37	--	5.2	0.86	--	26.63
1968*	--	--	1.22	--	8.37	12.88	3.74	7.01	6.45	4.44	0.31	0.41	44.83
1969*	--	1.41	7.08	2.62	3.83	6.83	6.32	8.8	6.11	5.53	4.25	2.19	54.97
1970*	4.89	3.19	6.19	--	3.28	8.92	8.82	3.38	4.45	2.15	0.2	0.26	45.73

Table B7. continued.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1971*	0.09	4.86	1.44	0.76	3.65	8.73	3.68	--	7.58	5.6	0.61	1.5	38.5
1972	0.44	3.43	4.46	0.04	5.01	11.18	1.48	6.16	2	2.75	3.44	1.84	42.23
1973	5.29	1.54	2.81	2.18	1.7	1.96	4.98	4.13	7.24	5.01	0.9	0.8	38.54
1974*	0.46	0.97	--	0.68	2.76	11.78	8.13	6.38	5.11	1.62	1.03	2.01	40.93
1975*	0.12	2.19	1.07	1.35	4.41	9.75	6.61	6.86	6.41	--	--	--	38.77

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[1]
Mean	2.08	2.67	3.38	1.93	4.11	7.10	6.28	6.09	5.74	4.23	1.37	1.46	49.49
Standard Deviation	2.18	1.53	2.53	1.25	1.97	3.22	2.86	1.97	2.00	3.79	1.42	1.15	11.24
Minimum	0.09	0.79	0.25	0.04	0.73	1.96	1.48	2.39	2.00	0.11	0.05	0.09	38.54
Median	1.33	2.46	2.56	1.94	3.96	6.93	5.61	6.82	5.74	3.26	0.86	1.50	44.88
Maximum	6.30	6.13	8.10	4.85	8.37	12.88	12.84	9.40	10.92	14.22	4.27	3.62	65.95

Table B8. Monthly and annual rainfall sums (inches) at station S65C_R.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1966*	--	--	--	--	--	--	--	--	--	3.33	0.07	0.33	3.73
1967	0.48	3.85	0.22	0.21	1.91	6.58	2.76	4.72	9.94	6.47	0.92	2.55	40.61
1968	1.67	1.55	1.05	0.23	11.46	13.09	7.81	5.55	6.02	4.37	2.36	0.29	55.45
1969*	1.4	1.25	7.65	3	--	--	--	--	--	--	3.08	1.72	18.1
1970*	4.27	3.55	6.42	0.17	2.07	6.26	8.13	2.3	4.86	2.82	--	0.22	41.07
1971	0.42	4.55	1.34	0.47	4.84	8.15	5.41	7.14	7.05	4.93	0.49	1.73	46.52
1972	0.71	3.15	0.82	4.5	4.97	11.69	5.88	6.33	1.37	2.62	3.74	1.74	47.52
1973	5.11	1.99	3.49	1.81	4.71	5.06	6.27	6.07	7.37	2.36	0.95	2.17	47.36
1974*	0.52	0.94	--	--	2.85	12.37	--	8.18	4.44	0.71	0.37	2.17	32.55
1975	0.18	2.35	0.81	1.01	6.03	9.99	8.75	4.65	4.75	2.95	0.99	0.89	43.35
1976	0.26	0.81	3.5	2.68	9.12	9.99	6.97	10.23	5.77	1.3	1.68	1.97	54.28
1977	1.82	0.61	0.99	1	6.5	4.66	7.97	5.2	5.78	1.1	5.07	3.59	44.29
1978*	1.77	2.44	2.81	0.33	5.11	5.76	11.84	4.47	5.81	3.66	--	3.9	47.9
1979	7.62	1.15	1.66	2.26	11.73	2.38	4.77	7.51	15.51	2.21	2.14	2.07	61.01
1980	3.8	2.3	2.22	6.5	3.29	1.69	8.63	5.56	3.56	1.2	3.25	0.94	42.94
1981	0.33	3.68	1.28	0.16	1.78	8.08	6.02	6.46	5.71	0.74	0.81	0.48	35.53
1982	1.02	3.48	7.47	6.24	5.25	7.95	9.61	4.68	7.93	0.89	1.51	1.43	57.46
1983	3.92	8.92	6.05	2.09	2.14	4.72	7.85	6.56	4.61	3.19	1.63	3.46	55.14
1984	0.6	4.34	3.26	3.54	7.07	5.75	6.36	4.16	3.98	0.44	2.89	1.27	43.66
1985*	0.43	0.5	1.74	2.49	3.75	6.99	--	3.56	10.09	1.9	3.19	2.12	36.76
1986	1.71	0.14	2.04	0.15	2.59	12.21	3.78	5.05	4.4	4.68	1.22	2.64	40.61
1987	3.28	0.36	8.11	0.57	4.5	5.19	3.06	7.54	8.8	7.74	6.69	0.23	56.07
1988	3.17	1.7	4.62	0.38	3.26	5.7	6.37	3.78	2.93	1.61	2.63	1.39	37.54
1989	1.95	0.76	3.2	4.06	6.24	4.8	6.05	7.82	8.17	5.93	0.22	2.76	51.96
1990	0.28	3.33	0.85	0.92	3.36	9.11	10.44	9.14	5.26	2.36	1.47	0.47	46.99
1991	5.19	1.43	4.86	5.68	8.93	4.64	8.73	16.84	6.99	1.88	1.65	0.34	67.16
1992	1.06	4.17	1.35	3.29	4.2	13.75	3.6	7.12	2.18	2.54	1.07	0.35	44.68
1993	4.81	3.18	6.4	3.56	2.71	4.16	2.77	1.95	4.64	3.47	0.93	1.05	39.63
1994	1.82	2.91	1.93	3.54	3.25	7.88	6.84	4.87	5.26	4.92	3.72	2.99	49.93
1995	1.97	2.38	2.51	2.92	2.1	6.04	7.54	8.27	3.74	4.22	1.39	0.21	43.29
1996	1.72	2.1	4.79	0.7	5.03	4.91	2.48	7.47	1.87	3.3	0.21	1.47	36.05
1997	1.16	1.12	1.01	4.25	3.92	4.62	4.9	5.21	7.86	1.3	2.69	6.36	44.4
1998*	4.55	7.07	5.72	2.34	2.67	1.57	14.53	6.95	6.38	--	--	--	51.78

Table B8. continued.

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[⊥]
Mean	2.16	2.56	3.23	2.29	4.75	6.96	6.76	6.30	5.90	2.94	1.97	1.73	47.44
Standard Deviation	1.87	1.92	2.34	1.89	2.64	3.26	2.80	2.72	2.81	1.80	1.52	1.36	7.91
Minimum	0.18	0.14	0.22	0.15	1.78	1.57	2.48	1.95	1.37	0.44	0.07	0.21	35.53
Median	1.72	2.33	2.51	2.26	4.20	6.04	6.37	6.07	5.71	2.62	1.57	1.60	45.60
Maximum	7.62	8.92	8.11	6.50	11.73	13.75	14.53	16.84	15.51	7.74	6.69	6.36	67.16

Table B9. Monthly and annual rainfall sums (inches) at S65CW.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1992*	--	--	--	--	--	--	--	--	--	--	1.11	0.44	1.55
1993	4.66	3	6.18	3.42	4.69	3.08	3.02	2.07	4.48	2.46	0.89	1.08	39.03
1994*	2.1	2.92	1.75	3.05	2.41	8.13	6.93	4.87	5.47	--	3.6	3.16	44.39
1995	1.92	2.12	4.58	2.99	2.15	6.38	7.25	9.71	4.13	5.04	0.95	0.24	47.46
1996*	1.74	1.9	5.41	1.29	4.83	4.99	2.84	7.62	1.03	4.19	0.21	--	36.05
1997	1.5	1.18	1.14	4.52	3.96	4.82	5.08	5.21	8.28	1.22	2.67	7	46.58
1998*	4.41	6.95	5.3	2.32	1.38	0.85	13.04	3.8	5.56	--	--	--	43.61

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[⊥]
Mean	2.72	3.01	4.06	2.93	3.24	4.71	6.36	5.55	4.83	3.23	1.57	2.38	44.36
Standard Deviation	1.42	2.04	2.10	1.08	1.45	2.54	3.77	2.73	2.36	1.72	1.28	2.83	4.63
Minimum	1.50	1.18	1.14	1.29	1.38	0.85	2.84	2.07	1.03	1.22	0.21	0.24	39.03
Median	2.01	2.52	4.94	3.02	3.19	4.91	6.01	5.04	4.98	3.33	1.03	1.08	46.58
Maximum	4.66	6.95	6.18	4.52	4.83	8.13	13.04	9.71	8.28	5.04	3.60	7.00	47.46

Table B10. Monthly and annual pan evaporation sums (inches) at station S65C_E.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1966*	--	--	--	--	--	7.19	7.07	6.97	5.23	5.24	4.68	3.78	40.16
1967	4.2	4.13	6.89	8.66	10.01	7.06	6.73	6.4	6.06	5.46	4.5	3.9	74
1968	3.6	4.52	6.66	8.05	8.03	6.34	7.07	6.3	6.51	5.5	4.19	3.61	70.38
1969*	4.01	4.44	5.32	6.96	--	--	--	--	--	--	3.97	3.89	28.59
1970*	3.72	4.65	6.38	7.63	8.87	7.32	8.49	8.4	--	7.39	6.45		69.3
1971*	--	3.56	6.02	5.48	6.41	5.81	5.24	5.28	4.81	6.25	3.63	3.01	55.5
1972*	2.62	--	--	8.31	8.56	7.87	9.44	9.26	--	--	--	--	46.06
1973*	--	--	--	--	--	--	--	--	--	--	--	--	--
1974*	--	--	--	--	8.93	--	--	--	--	--	--	--	8.93
1975	4.5	5.3	7.99	9.23	9.15	8.36	8.19	8.36	5.81	6.08	5.05	4.32	82.34
1976*	4.34	5.08	6.8	7.72	7.87	7.01	8.15	--	6.34	5.8	4.8	3.26	67.17
1977*	3.31	4.8	6.73	9.34	9.28	7.48	--	6.89	6.26	6.42	4.57	3.51	68.59
1978*	3.51	3.51	5.84	8.63	8.1	7.2	7.48	7.58	5.95	5.8	--	3.35	66.95
1979*	4.31	4.14	6.28	8.24	6.92	8.03	7.56	--	5.85	5.61	4.36	3.29	64.59
1980	3.54	4.15	6.86	7.3	9.33	9.23	8.17	6.86	6.07	5.53	3.83	3.67	74.54
1981*	3.5	4.9	4.73	8.23	7.19	8.24	8.45	5.66	--	6.01	4.6	4.51	66.02
1982	5.21	5.08	5.89	7.13	6.79	6.41	6.73	6.65	5.87	5.25	3.83	3.89	68.73
1983	3.59	4.29	6.41	7.46	9.65	7.23	7.61	5.97	5.11	4.96	3.69	3.03	69
1984	3.77	4.3	6.2	6.27	7.87	6.95	6.02	5.73	5.05	5.3	3.56	3.08	64.1
1985	3.51	4.79	6.5	6.85	8.25	7.5	6.8	6.25	5.27	4.67	3.58	4.14	68.11
1986*	2.74	3.78	5.38	6.88	7.49	8.12	--	--	7.05	6.42	4.14	4.74	56.74

Table B10. continued.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1987	4.29	3.76	5.11	7.24	8.69	7.21	6.64	6.8	6.65	5.55	3.57	2.98	68.49
1988	3.1	4.27	4.85	8.24	8.21	7.43	6.51	6.18	6.01	6.02	4.83	3.82	69.47
1989	4.37	4.61	6.59	6.98	7.98	7.26	7.63	6.99	7.29	7.51	6.54	4.85	78.6
1990*	4.65	5.35	--	7.04	6.55	4.56	3.21	--	--	--	--	--	31.36
1991*	4	--	4.29	3.74	--	--	--	10.21	6.74	5.72	5.05	3.98	43.73
1992*	4.42	5.45	6.17	7.76	9.33	7.28	8.61	6.65	--	--	--	--	55.67

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[1]
Mean	3.86	4.49	6.09	7.47	8.24	7.26	7.23	6.97	6.00	5.83	4.45	3.74	71.61
Standard Deviation	0.62	0.57	0.86	1.20	1.02	0.93	1.34	1.24	0.69	0.70	0.84	0.56	5.27
Minimum	2.62	3.51	4.29	3.74	6.41	4.56	3.21	5.28	4.81	4.67	3.56	2.98	64.10
Median	3.77	4.48	6.24	7.55	8.21	7.26	7.48	6.73	6.01	5.72	4.36	3.78	69.47
Maximum	5.21	5.45	7.99	9.34	10.01	9.23	9.44	10.21	7.29	7.51	6.54	4.85	82.34

Table B11. Monthly and annual rainfall sums (inches) for sub-basin S65C.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1955*	--	--	--	--	--	--	--	--	--	--	0.16	1.53	1.69
1956*	0.48	0.79	0.42	1.45	4.09	5.42	3.53	7.66	4.75	12.03	--	0.29	40.91
1957	1.35	3.79	6.13	4.85	5.55	5.73	9.6	7.21	6.71	1.36	0.05	3.52	55.85
1958*	6.3	2.46	5.72	1.62	5.25	3.05	12.84	2.39	4.85	2.94	--	3.22	50.64
1959	2.6	1.42	8.1	1.94	5.85	4.13	10.07	9.4	5.37	14.22	1.13	1.72	65.95
1960*	0.14	3.79	4.86	3.14	0.73	8.2	5.87	6.84	10.92	3.26	--	0.89	48.64
1961*	--	0.83	1.65	2.23	--	3.97	--	6.82	2.4	--	1.25	0.09	19.24
1962*	--	1.05	--	--	--	10.32	3.82	6.52	--	0.45	2.99	0.1	25.25
1963*	1.33	6.13	2.08	0.55	6.47	2.74	--	3.8	4.62	0.11	4.27	3.62	35.72
1964	2.97	4.48	1.38	3.36	3.22	5.01	8.37	7.26	4.74	1.38	0.41	2.3	44.88
1965*	0.24	2.63	2.56	--	1.15	7.24	5.02	4.68	5.96	3.64	0.52	1.5	35.14
1966	4.02	2.18	0.45	1.94	7.73	8.31	5.58	6.68	5.31	3.52	0.31	0.37	46.4
1967	0.69	3.7	0.39	0.18	1.42	7.31	4.49	4.26	7.86	4.45	0.63	2.27	37.65
1968	1.27	1.4	1.08	0.22	8.5	13.15	6.24	5.84	5.88	3.53	1.68	0.37	49.16
1969	1.6	1.41	7.14	3	3.71	7.77	4.8	8.55	6.22	9.4	3.24	2.39	59.23
1970	4.34	2.89	5.96	0.09	3.32	6.04	8.51	2.83	4.85	2.32	0.08	0.32	41.55
1971	0.22	4.73	1.26	0.46	3.35	7.38	4.87	5.95	6.41	5.1	0.49	1.31	41.53
1972	0.77	3.31	2.75	1.82	3.93	10.28	3.78	5.76	2.57	1.71	3.23	1.73	41.64
1973	5.45	1.61	3.04	2.22	3.99	5.71	7.37	5.21	8.06	2.6	0.77	1.8	47.83
1974	0.39	1.97	0.07	0.82	5.12	11.14	12.55	7.31	5.49	0.95	0.6	2	48.41
1975	0.32	1.64	0.97	0.75	5.68	10.85	7.01	6.24	6.2	2.72	0.51	0.81	43.7
1976	0.31	1.23	2.78	2.04	9.65	11.39	6.51	9.27	5.72	0.79	2.41	1.48	53.58
1977	1.4	1.05	1.26	0.45	5.8	3.33	8.57	5.89	7.28	1.67	7.05	3.21	46.96
1978	1.59	2.27	2.64	0.34	4.03	7.26	13.27	4.38	4.69	3.63	2.36	3.4	49.86
1979	7.61	0.99	1.21	3.18	8.31	2.64	6.56	6.35	10.8	0.56	1.64	2.48	52.33
1980	2.64	3.33	1.95	3.99	3.98	2.42	6.74	5.23	3.56	1.04	3.32	1.61	39.81
1981	0.25	3.63	1.48	0.11	2.42	6.6	3.75	7.04	4.77	1.29	0.91	0.22	32.47
1982	1.62	2.22	5.78	5.84	3.9	7.8	5.49	7.81	7.51	2.3	1.72	1.42	53.41
1983	2.97	8.95	5.22	2.38	1.14	7.35	5.57	3.69	4.02	2.68	1.36	3.68	49.01
1984	0.58	3.27	3.22	2.86	8.62	8.07	5.66	5.24	3.35	0.52	3.57	1.05	46.01
1985	0.47	0.35	2.34	2.32	2.43	6.89	5.47	5.65	9.17	2.29	2.19	1.61	41.18
1986	1.91	0.64	2.78	0.21	2.08	9.93	6.38	3.74	3.5	4.12	0.54	3.29	39.12
1987	1.83	0.58	5.85	0.65	3.86	4.43	6.86	2.54	10.35	6.63	6.43	0.38	50.39
1988	2.54	1.76	4.43	0.85	1.74	6.2	6.31	6.79	3.03	1.33	3.14	1.75	39.87
1989	2.04	0.93	3.32	3.03	3.61	5.2	6.06	6.14	8.73	4.57	0.94	2.73	47.3
1990	0.28	3.13	1.11	0.69	3.12	10.5	8.66	7.77	5.93	2.75	0.65	0.47	45.06

Table B11. continued.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1991	4.37	1.82	4.12	3.57	7.49	4.34	9.76	10.92	4.09	2.83	0.96	0.47	54.74
1992	0.64	3.11	1.44	4.39	2.49	15.31	2.2	9.1	3.61	2.47	1.08	0.5	46.34
1993	5.61	3.19	5.81	4.29	2.93	4.28	5.07	4.98	4.99	3.49	0.8	1.03	46.47
1994	2.36	3.46	2.12	5.61	3.88	9.39	7.14	5.41	7.66	3.69	4.54	2.84	58.1
1995	1.75	2.95	3.06	4.35	2.98	6.82	6.99	11.93	4.25	6.36	0.79	0.37	52.6
1996	2.6	1.48	5.62	1.27	6.66	6.4	3.73	7.2	2.3	3.14	0.41	1.48	42.29
1997	2.04	1.15	1.61	5.36	4.74	6.01	4.84	6.2	10.71	2.41	5.42	5.01	55.5
1998*	5.56	9.8	8.8	3.33	1.5	1.8	10.49	7.23	5.79	--	--	--	54.3

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR*
Mean	2.13	2.64	3.19	2.24	4.30	6.93	6.74	6.32	5.83	3.32	1.86	1.69	47.61
Standard Deviation	1.89	1.98	2.25	1.68	2.26	3.01	2.58	2.04	2.29	2.91	1.77	1.21	6.93
Minimum	0.14	0.35	0.07	0.09	0.73	1.80	2.20	2.39	2.30	0.11	0.05	0.09	32.47
Median	1.62	2.22	2.70	2.04	3.90	6.82	6.31	6.24	5.43	2.72	1.11	1.53	46.96
Maximum	7.61	9.80	8.80	5.84	9.65	15.31	13.27	11.93	10.92	14.22	7.05	5.01	65.95

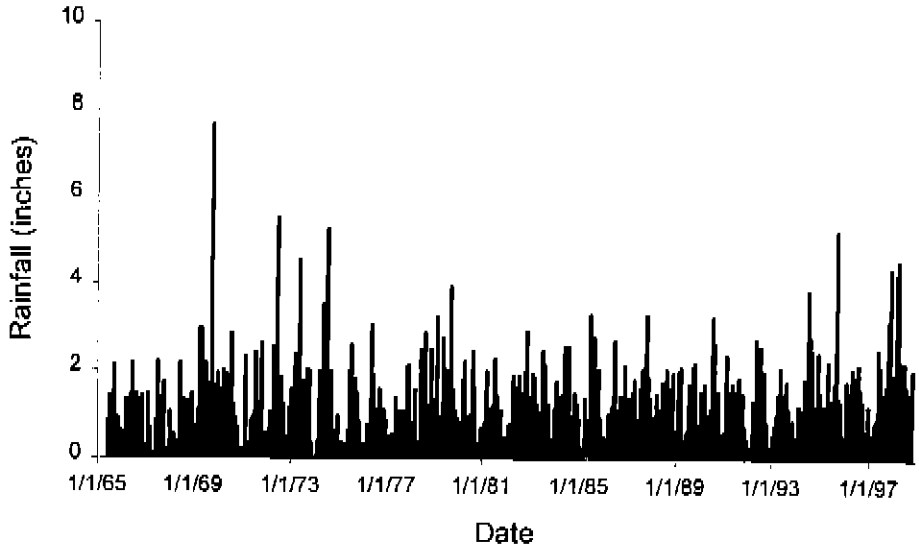

Figure B1. Daily rainfall at station S65B_R.

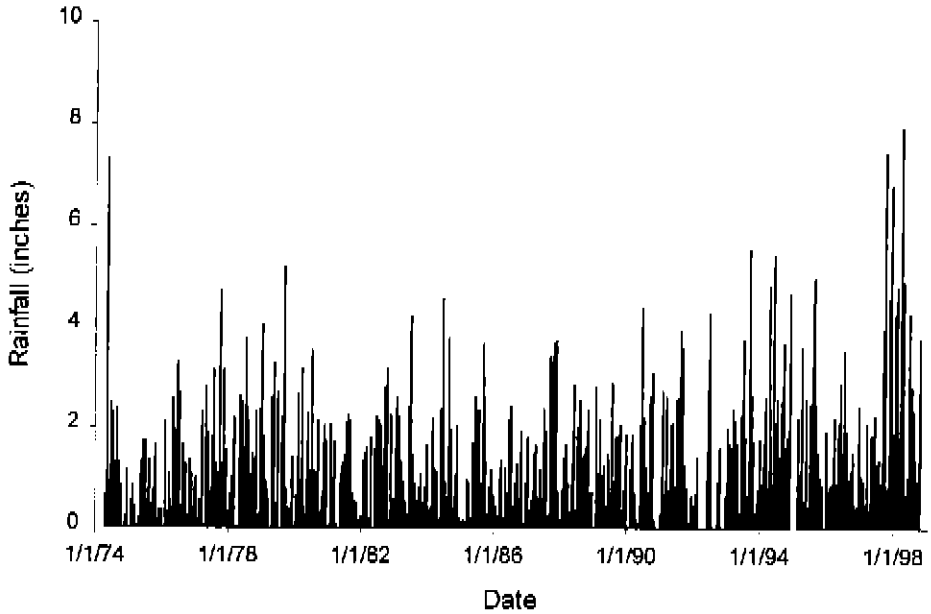

Figure B2. Daily rainfall at station MAXCEY S_R.

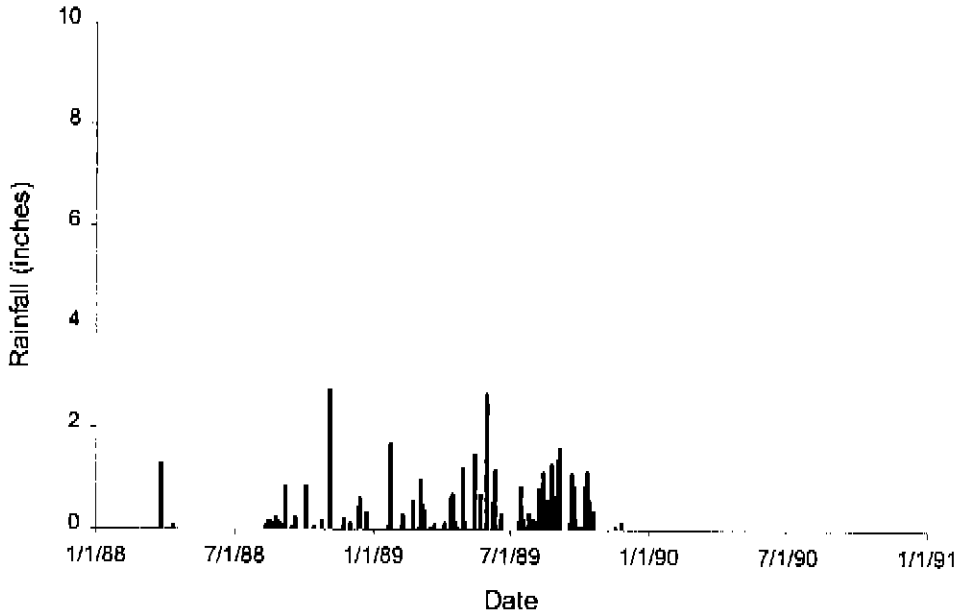

Figure B3. Daily rainfall at station MICCO D_R.

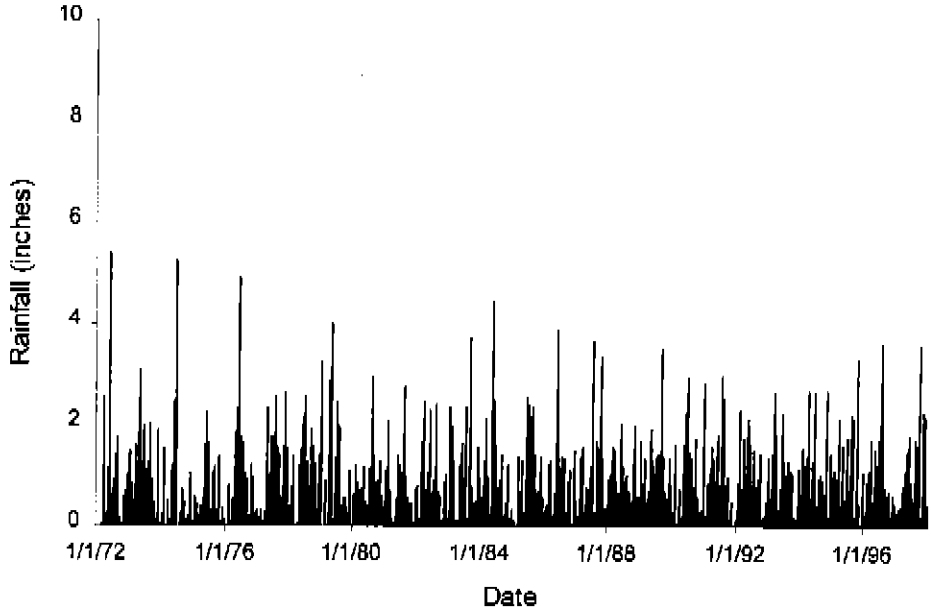

Figure B4. Daily rainfall at station MICCO_R.

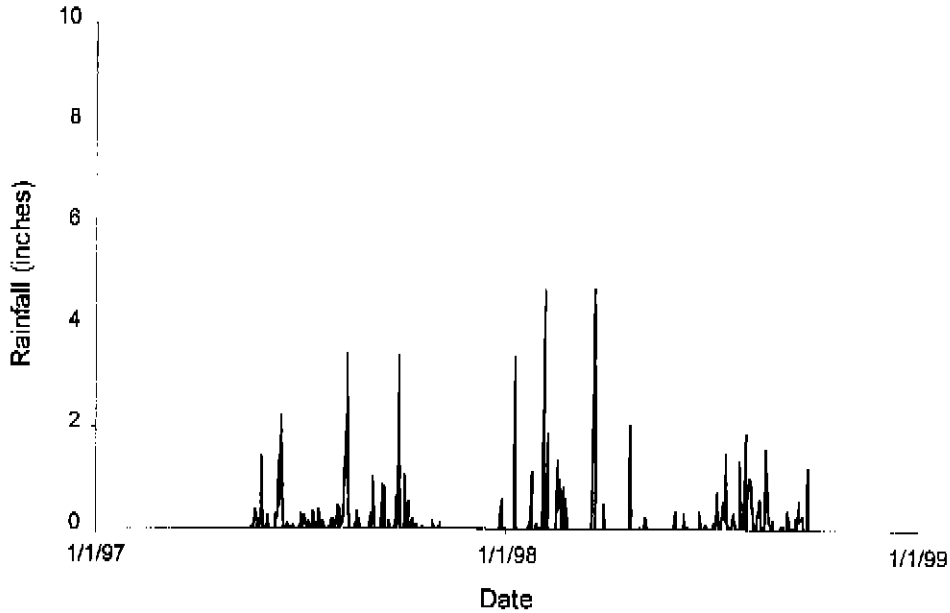

Figure B5. Daily rainfall at station KRBNR.

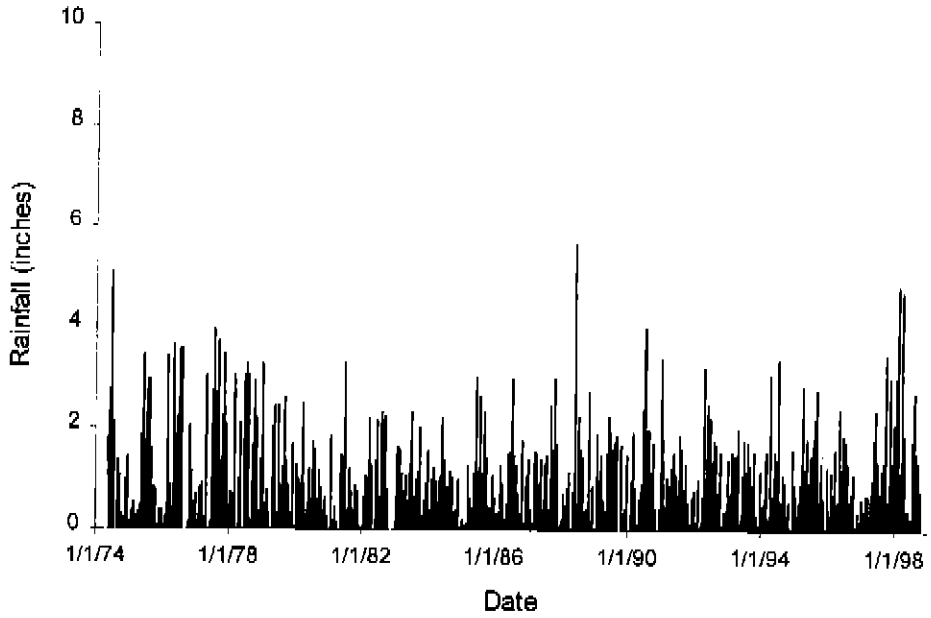

Figure B6. Daily rainfall at station MCARTH_R.

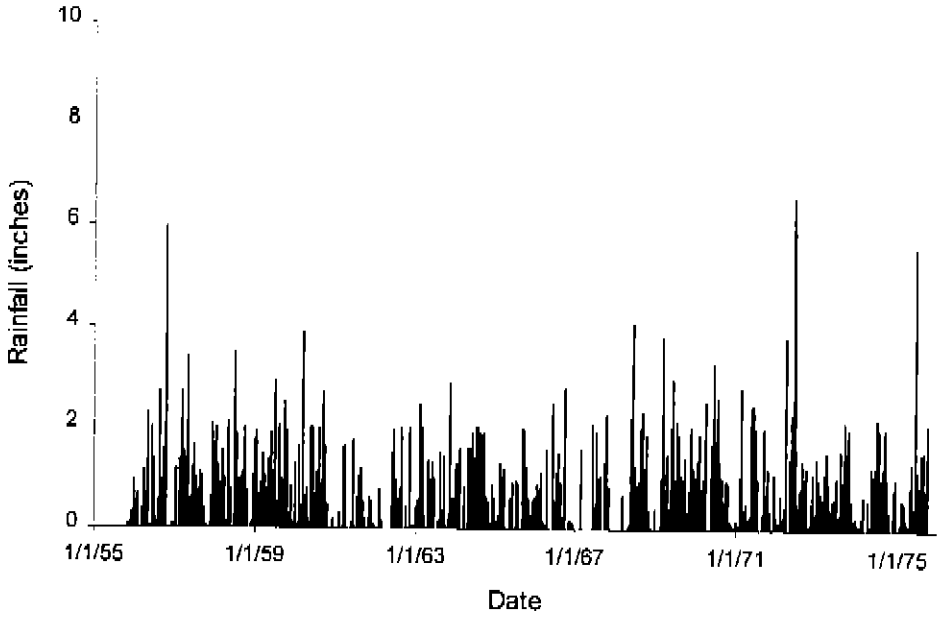

Figure B7. Daily rainfall at station CORNWELL_R.

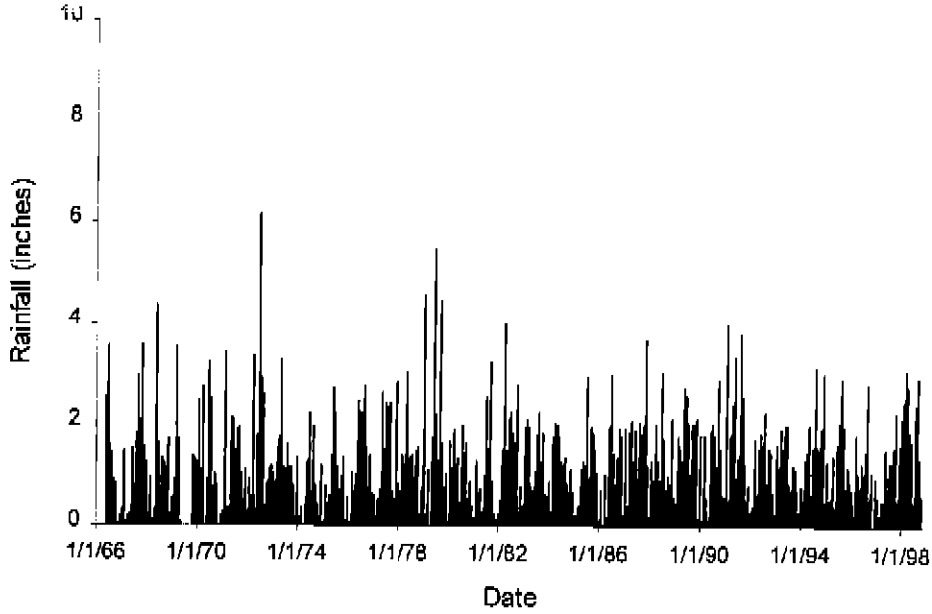

Figure B8. Daily rainfall at station S65C_R.

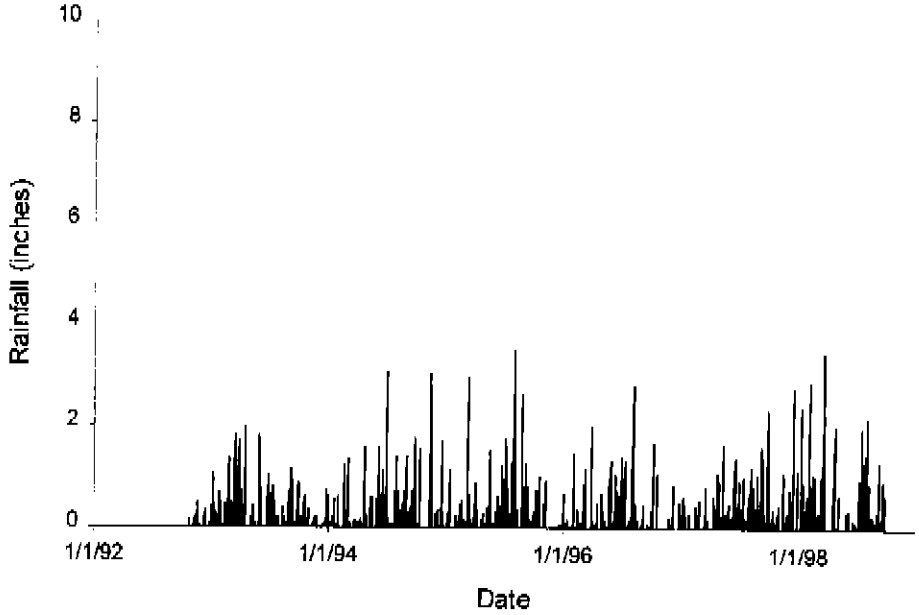

Figure B9. Daily rainfall at station S65CW.

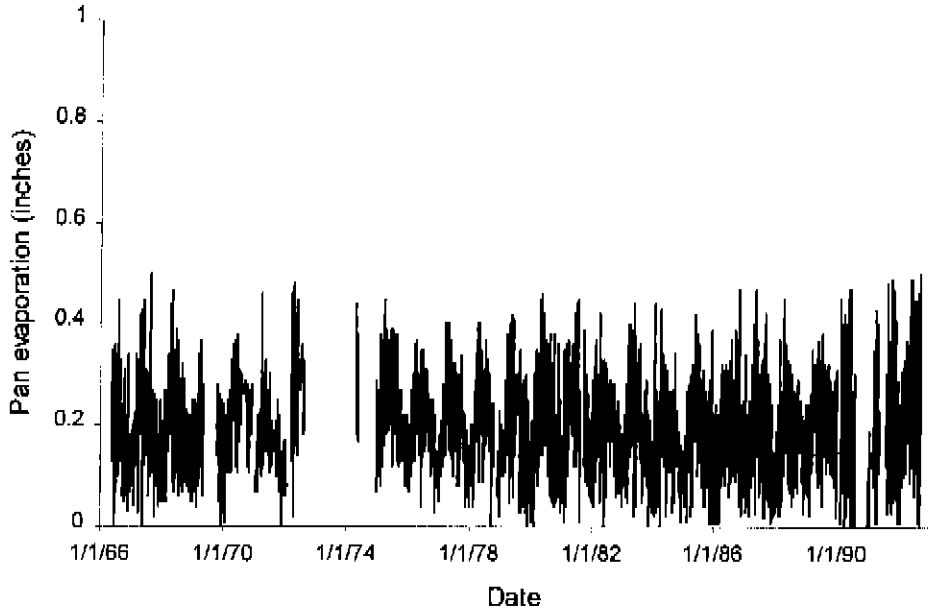

Figure B10.Daily pan evaporation at station S65C_R.

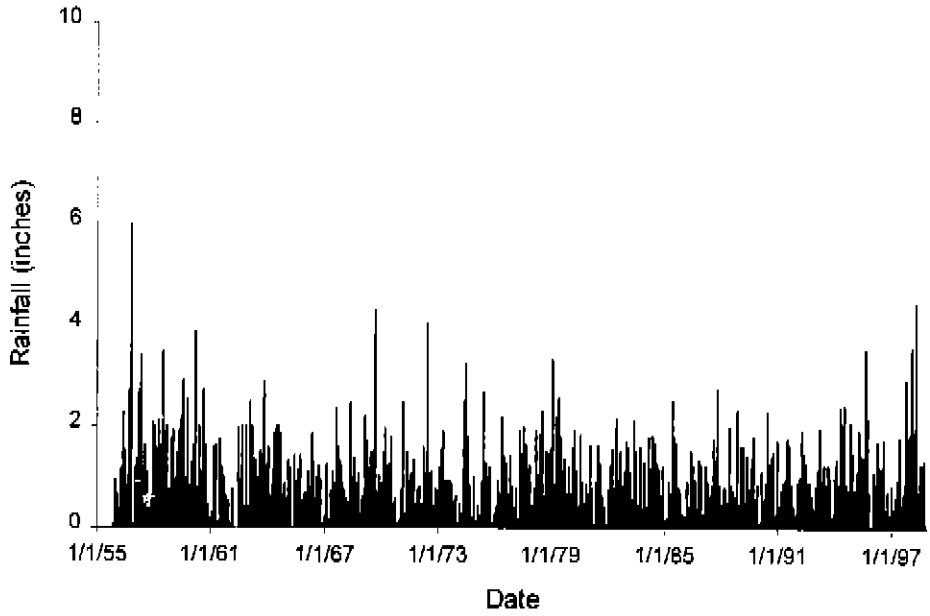

Figure B11.Daily rainfall for sub-basin S65C_R.

Table B10. Average monthly stage data (feet, NGVD) for stations containing records of three years or less.

Year/Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
MICCO D												
1988	--	--	--	33.49	33.15	33.10	33.08	33.36	33.52	33.11	33.69	33.40
1989	33.37	33.18	33.30	32.81	32.99	33.38	33.71	33.69	34.23	34.24	33.65	33.65
1990	33.70	33.83	33.57	--	--	--	--	--	--	--	--	--
KRBNS												
1997*		--	--	--	--	--	--	--	--	35.82	35.80	35.83	35.85
1998*		35.90	35.93	35.96	35.84	35.79	35.80	35.86	35.85	35.81	--	--	--
KRDRS												
1997*		--	--	--	--	--	--	--	34.05	34.03	34.03	34.07	34.13
1998*		34.20	34.22	34.29	34.07	34.01	34.02	34.09	34.11	34.07	--	--	--
PC33												
1997*		--	--	--	--	--	--	--	--	--	--	--	33.90
1998*		33.95	33.93	33.91	33.87	33.83	33.85	33.92	33.92	33.88	--	--	--
PC21												
1996*		--	--	--	--	--	--	--	--	33.71	33.81	33.38	33.56
1997		33.78	33.90	33.71	33.58	33.91	33.98	33.51	33.79	33.94	34.11	34.12	34.33
1998*		34.50	34.64	34.57	34.41	33.95	--	--	--	--	--	--	--
PC11												
1997*		--	--	--	--	--	--	--	--	--	--	34.04	34.00
1998*		34.05	34.07	34.05	34.03	34.00	34.00	34.08	34.09	34.05	--	--	--

Table B11. Average monthly headwater stage (feet, NGVD) at station S65CX_H.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1983*	--	--	--	--	--	--	--	--	--	33.93	33.51	34.01
1984	34.00	34.02	34.01	33.99	34.01	34.05	34.02	33.99	33.98	33.83	34.03	34.01
1985	33.98	33.79	33.93	34.07	34.02	33.79	33.97	33.94	33.98	33.96	34.04	34.00
1986	33.98	33.99	33.98	34.02	34.01	33.85	34.01	34.02	34.02	33.98	34.04	34.01
1987	34.03	34.00	33.92	34.00	33.96	33.52	33.83	34.03	34.06	34.04	34.06	34.06
1988*	34.06	34.06	34.06	34.06	34.06	--	--	--	--	--	--	--

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	34.01	33.97	33.98	34.03	34.01	33.80	33.96	34.00	34.01	33.95	33.94	34.02
Standard Deviation	0.03	0.11	0.06	0.04	0.03	0.22	0.09	0.04	0.04	0.08	0.24	0.02
Minimum	33.98	33.79	33.92	33.99	33.96	33.52	33.83	33.94	33.98	33.83	33.51	34.00
Median	34.00	34.00	33.98	34.02	34.01	33.82	33.99	34.01	34.00	33.96	34.04	34.01
Maximum	34.06	34.06	34.06	34.07	34.06	34.05	34.02	34.03	34.06	34.04	34.06	34.06

Table B12. Average monthly tailwater stage (feet, NGVD) at station S65CX_T.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1983*	--	--	--	--	--	--	--	--	--	26.93	26.83	26.88
1984	26.96	27.00	26.96	26.99	27.02	26.97	26.96	26.95	26.94	26.95	26.94	26.99
1985	26.78	26.82	26.73	26.74	26.97	26.79	26.93	26.96	26.98	26.98	26.96	26.97
1986	26.98	26.99	26.98	26.97	27.00	26.93	26.97	26.96	26.95	26.95	26.95	26.93
1987	26.94	26.97	26.99	26.98	26.89	26.78	26.99	26.96	26.94	26.93	26.99	26.94
1988*	26.94	26.93	26.92	26.90	26.89	--	--	--	--	--	--	--

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	26.92	26.94	26.92	26.92	26.95	26.87	26.96	26.96	26.95	26.95	26.93	26.94
Standard Deviation	0.08	0.07	0.11	0.10	0.06	0.10	0.03	0.01	0.02	0.02	0.06	0.04
Minimum	26.78	26.82	26.73	26.74	26.89	26.78	26.93	26.95	26.94	26.93	26.83	26.88
Median	26.94	26.97	26.96	26.97	26.97	26.86	26.96	26.96	26.95	26.95	26.95	26.94
Maximum	26.98	27.00	26.99	26.99	27.02	26.97	26.99	26.96	26.98	26.98	26.99	26.99

Table B13. Average monthly headwater stage (feet, NGVD) at station S65C_H.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1966*	--	--	--	--	32.45	32.02	32.04	33.35	33.85	33.84	33.83	33.90
1967	33.90	33.93	33.93	33.91	33.96	33.92	33.92	33.94	33.90	33.88	33.94	33.99
1968	33.89	33.91	33.93	33.92	33.95	33.93	33.92	33.92	33.91	33.93	33.97	33.92
1969	33.94	33.98	33.92	33.91	33.95	33.98	33.89	33.97	33.93	34.19	33.97	33.99
1970	33.97	33.95	33.98	34.00	33.96	34.01	34.01	33.95	33.97	33.94	33.64	33.97
1971	33.98	33.99	33.91	33.61	32.95	32.55	33.83	33.91	33.99	33.97	33.61	33.00
1972	33.54	33.94	33.98	33.96	33.97	33.96	33.96	33.97	34.02	33.96	34.05	34.18
1973	34.22	34.13	33.94	32.22	32.07	32.09	32.53	34.09	34.10	33.95	34.05	34.06
1974	34.03	34.03	33.99	33.38	31.14	31.10	34.23	34.05	34.00	33.29	33.83	33.91
1975	33.98	34.03	34.10	34.11	34.07	34.11	34.14	34.12	34.13	34.09	34.00	34.04
1976	34.05	34.13	33.99	32.23	32.09	32.07	32.22	34.01	34.05	33.85	34.07	34.06
1977	34.08	33.81	32.24	32.35	33.28	33.95	33.92	34.00	34.08	34.05	34.06	34.07
1978	34.04	34.07	34.08	34.05	34.04	34.04	34.08	34.14	34.05	34.05	34.05	34.08
1979	34.07	34.01	34.01	33.96	34.06	34.03	34.03	33.99	34.10	34.35	34.05	34.00
1980	34.00	34.01	34.00	34.01	33.98	34.00	33.92	34.05	34.04	33.87	33.74	33.78
1981	33.41	33.90	33.56	33.81	33.32	33.54	33.80	33.71	34.12	34.06	34.15	34.11
1982	34.11	34.20	34.19	34.13	34.14	34.15	34.12	34.04	34.03	34.05	34.05	34.05
1983	34.05	34.274	34.33	34.05	34.02	33.90	34.03	33.99	34.00	33.93	33.51	34.01
1984	34.00	34.02	34.01	33.99	34.01	34.05	34.02	33.99	33.98	33.83	34.03	34.01
1985	33.98	33.79	33.93	34.07	34.02	33.79	33.97	33.94	33.98	33.96	34.04	34.00
1986	33.98	33.99	33.98	34.02	34.01	33.85	34.01	34.02	34.02	33.98	34.04	34.01
1987	34.03	34.02	34.02	34.01	33.98	33.50	33.83	34.03	34.06	34.04	34.06	34.01
1988	34.02	34.02	34.02	34.04	34.02	33.99	33.96	34.06	34.14	33.91	33.93	33.95
1989	33.86	34.03	34.06	34.06	34.04	33.94	34.08	34.08	34.10	34.08	34.05	34.08
1990	34.00	34.00	33.88	34.01	33.98	34.06	34.04	34.06	34.06	34.06	34.06	34.07
1991	34.05	34.05	34.05	34.06	34.07	34.07	34.07	34.07	34.06	34.05	34.06	34.04
1992	33.85	32.14	34.00	34.04	34.05	34.04	34.03	34.31	34.58	34.54	34.53	34.28
1993	34.05	34.04	34.06	34.04	34.04	34.04	34.04	34.05	34.05	34.05	34.05	34.05
1994	34.05	34.03	34.03	34.04	34.03	34.04	34.03	34.02	34.05	34.04	34.04	34.03
1995	34.04	34.05	34.04	34.04	34.05	34.04	34.06	34.05	34.06	34.07	34.07	34.06
1996	34.05	34.06	34.04	34.05	34.05	34.03	34.05	34.05	34.03	34.04	34.04	34.04
1997	34.04	34.05	34.03	34.03	33.99	33.98	33.98	33.99	34.01	33.99	34.02	34.00
1998*	34.04	34.06	34.03	34.03	33.99	34.00	34.08	34.08	34.04	--	--	--

Table B13. continued.

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	33.98	33.96	33.95	33.82	33.69	33.66	33.84	34.00	34.04	34.00	33.99	33.99
Standard Deviation	0.15	0.34	0.33	0.53	0.73	0.76	0.52	0.15	0.12	0.19	0.18	0.20
Minimum	33.41	32.14	32.24	32.22	31.14	31.10	32.04	33.35	33.85	33.29	33.51	33.00
Median	34.02	34.02	34.01	34.02	33.99	33.98	34.01	34.02	34.04	34.02	34.04	34.02
Maximum	34.22	34.24	34.33	34.13	34.14	34.15	34.23	34.31	34.58	34.54	34.53	34.28

Table B14. Average monthly tailwater stage (feet, NGVD) at station S65C_T.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1966*	--	--	--	--	26.80	26.75	26.82	26.82	26.86	26.85	26.87	26.91
1967	26.90	26.89	26.93	26.97	27.00	26.90	26.92	26.95	26.92	26.90	26.90	26.91
1968	26.90	26.91	26.91	26.92	26.93	26.84	26.88	26.91	26.91	26.92	26.94	26.94
1969	26.96	26.94	26.95	26.93	26.89	26.95	26.93	26.93	26.90	27.34	26.93	26.98
1970	27.03	27.03	27.00	26.92	26.76	27.04	27.00	27.01	27.01	27.03	26.53	27.09
1971	27.07	27.08	26.92	25.88	25.75	26.81	27.08	27.08	27.03	27.03	27.02	26.91
1972	26.38	26.89	26.89	27.07	27.03	27.08	27.05	27.00	26.95	26.64	26.91	27.11
1973	27.19	27.09	27.11	27.13	27.12	27.22	27.26	27.17	27.16	27.15	27.01	27.12
1974	27.06	27.10	26.98	27.10	27.13	27.08	27.51	27.33	27.29	27.16	27.01	27.04
1975	27.04	27.05	27.23	27.30	27.20	27.15	27.31	27.30	27.35	27.34	27.23	27.29
1976	27.38	27.37	27.35	27.36	27.33	27.15	27.34	27.36	27.26	27.24	27.29	27.19
1977	27.26	27.27	27.30	27.23	27.13	27.23	27.27	27.12	27.22	27.17	27.27	27.24
1978	27.29	27.31	27.25	27.30	27.26	27.24	27.17	27.09	26.98	26.92	26.92	26.96
1979	26.94	26.90	26.83	26.73	26.86	26.82	26.86	26.87	26.62	26.60	26.83	26.84
1980	26.87	26.89	26.90	26.75	26.80	26.81	26.80	26.88	26.87	26.86	26.87	26.88
1981	26.79	26.85	26.51	26.61	26.58	25.71	25.11	25.10	26.88	26.75	26.54	25.75
1982	25.74	25.75	26.70	26.97	26.95	27.00	27.02	27.03	27.01	27.02	26.96	26.97
1983	26.97	27.06	27.05	27.04	27.01	26.93	26.97	26.98	26.96	26.94	26.83	26.88
1984	26.97	27.00	26.96	26.99	27.02	26.97	26.96	26.95	26.94	26.95	26.94	26.99
1985	26.78	26.82	26.73	26.74	26.97	26.79	26.93	26.96	26.98	26.98	26.96	26.97
1986	26.97	26.99	26.98	26.97	27.00	26.93	26.97	26.97	26.95	26.95	26.95	26.93
1987	26.94	26.96	26.97	26.99	26.94	26.78	26.99	26.96	26.94	26.93	27.05	26.96
1988	26.99	26.96	27.02	26.96	26.96	26.99	27.08	27.02	27.02	26.96	26.78	26.89
1989	26.82	26.97	26.99	27.03	27.01	25.97	27.00	27.07	27.13	27.02	27.01	27.07
1990	27.08	27.04	26.99	27.04	27.06	27.12	27.08	27.10	27.05	27.05	27.06	27.09
1991	27.08	27.08	27.09	27.10	27.08	27.03	27.07	27.11	26.99	27.01	26.99	26.99
1992	27.03	27.52	27.07	27.02	26.99	26.97	26.60	26.87	27.07	27.18	27.15	27.17
1993	27.21	27.12	27.18	27.16	27.10	27.13	27.09	26.96	27.18	27.14	27.12	27.07
1994	27.06	27.07	27.15	27.08	27.06	27.17	27.17	27.14	27.25	27.21	27.22	27.17
1995	27.16	27.15	27.14	27.17	27.15	27.10	27.21	27.28	27.26	27.24	27.15	27.11
1996	27.19	27.16	27.21	27.20	27.20	27.23	27.20	27.22	27.14	27.16	27.14	27.24
1997	27.20	27.23	27.19	27.20	27.25	27.23	27.27	27.28	27.23	27.17	27.19	27.33
1998*	27.36	27.36	27.51	27.25	27.04	27.02	27.33	27.30	27.28	--	--	--

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	26.99	27.03	27.03	27.00	26.98	26.94	27.01	27.00	27.05	27.02	26.99	27.00
Standard Deviation	.30	0.29	0.20	0.27	0.27	0.32	0.39	0.37	0.16	0.18	0.18	0.26
Minimum	25.74	25.75	26.51	25.88	25.75	25.71	25.11	25.10	26.62	26.60	26.53	25.75
Median	7.03	27.05	27.00	27.03	27.01	27.00	27.05	27.02	27.01	27.02	26.98	26.99
Maximum	27.38	27.52	27.51	27.36	27.33	27.24	27.51	27.36	27.35	27.34	27.29	27.33

Table B15. Monthly and annual flow sums (ac-ft) at station G85.HWY.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1933*	--	--	--	--	--	--	--	--	--	44887	39273	35663	119823
1934	28900	21104	19246	16294	19329	36901	40394	36584	37308	30215	22949	18086	327310
1935	15011	12024	9324	7315	4832	3045	6347	8910	23735	46420	41969	31649	210581
1936	29161	34382	49240	40886	29382	28342	36609	38105	35425	49796	41310	34227	446865
1937	26150	21945	23542	24117	19365	17431	18970	18514	17929	21037	25534	36943	271477
1938	26269	18744	14973	7444	3281	4959	10517	21934	17840	19623	20418	16943	182945
1939	13042	8664	6115	3769	3509	2973	10156	17135	38813	48032	39198	30966	222372
1940	27347	23844	23512	24230	17647	16300	24175	38103	53313	53515	37750	28673	368409
1941	31111	28991	29223	27842	26008	21571	37147	50680	40664	37250	34578	31542	396607
1942	33065	29499	42635	34295	28255	35495	39432	38030	33700	32517	22160	16271	385354
1943	12857	10612	10830	7097	5082	7224	15207	28227	38474	55988	40370	32754	264722
1944	24086	16620	12932	14216	9124	5673	7127	18948	22969	19436	20615	17149	188895
1945	14244	9995	6930	2428	859	833	14833	29415	57837	56345	40805	33515	268039
1946	28904	21467	19442	11443	7988	9539	8626	15233	18375	22499	21128	17485	202129
1947	14432	11403	19855	20267	18300	25883	46446	62706	76087	69401	49909	48078	462767
1948	46442	42022	34209	25944	20958	17996	21315	44785	74080	74175	67225	54298	523449
1949	38722	23140	15180	10620	5145	5236	15372	29630	59812	73013	44609	12575	333054
1950	8541	6905	3330	1549	1014	15485	13506	7240	3047	5423	4048	2973	73061
1951	2745	4405	2922	24637	36965	16166	24617	42217	39545	61655	50208	34487	340569
1952	12284	1825	4774	16624	18560	25438	20821	21717	21315	40930	42415	29338	256041
1953	12226	11947	9729	15142	28836	30211	40894	45261	86427	101892	82732	81006	546303
1954	63105	40759	31361	16542	21519	44173	55792	52664	51030	54304	38603	23984	493836
1955	17848	15350	10330	5790	2144	2418	16856	19714	9390	1248	24	20	101132
1956	0	0	0	0	0	0	16	85	276	26630	40969	11655	79631
1957	5334	3642	33065	34100	35499	36762	48203	57174	67280	69627	37208	10536	438430
1958	36223	47773	50841	51674	42110	32369	38837	36760	32299	13783	2785	3041	388495
1959	3233	6982	26934	44284	27105	41654	79915	75075	86481	99849	82970	55707	630189
1960	25579	26972	43502	64412	37631	19008	39843	96041	117780	109013	72945	46428	699154
1961	25232	25421	21809	18490	10751	7599	15227	34203	8892	3481	3794	3209	178108
1962	2563	2114	2295	2307	1984	1242	6444	10374	13095	11738	2807	480	57443
1963	702	448	3455	1728	238	3047	659	768	964	1301	821	666	14797
1964	3092	6075	2132	595	4292	476	395	7547	25032	2178	1022	1379	54215
1965	3186	2341	5014	1577	906	597	825	184	3443	3237	1646	912	23868
1966	1262	9622	9261	1628	924	1170	1063	3923	4441	4415	1194	1186	40089
1967	1025	902	1033	696	274	276	303	385	1799	2061	728	726	10208
1968*	1396	698	452	341	254	17074	--	--	--	--	--	--	20215

Statistic†	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR‡
Mean	18151	15676	17128	16580	14002	15273	22261	29655	35850	39055	30764	22987	278840
SD	15083	12958	14648	16148	13164	13732	19111	22677	29054	30724	23808	19486	185752
Min	0	0	0	0	0	0	16	85	276	1248	24	20	10208
Med	14432	11947	12932	14216	9124	15485	16114	28822	32999	37250	37208	18086	266381
Max	63105	47773	50841	64412	42110	44173	79915	96041	117780	109013	82970	81006	699154

† SD = standard deviation; Min = minimum; Med = median; Max = maximum.

Table B16. Monthly and annual flow sums (ac-ft) at station PC33_O.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1997*	--	--	--	--	--	--	--	--	--	--	--	1853	1853
1998*	2684	2934	8902	789	-1061	-1315	-1180	-131	-323	--	--	--	11299

Table B17. Monthly and annual flow sums (ac-ft) at station S65CX_C.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1983*	--	--	--	--	--	--	--	--	--	4610	2600	0	7210
1984	3471	4469	4776	4602	4750	4635	4780	4782	4624	4735	1466	799	47889
1985	861	4231	0	0	7192	0	476	1694	1652	1285	0	327	17718
1986	6379	7904	1262	1952	4796	833	0	3072	4645	4796	0	0	35639
1987	0	0	0	56	2422	0	0	0	0	0	0	0	2478
1988	0	0	0	0	0	0	1932	7289	7323	6042	815	0	23401
1989	2335	5502	7420	7293	4848	97	1987	2916	3628	3828	3035	2442	45331
1990	1736	962	393	7135	6327	0	0	0	0	0	3493	1563	21609
1991	1537	1406	3598	8105	8164	2862	1494	11278	12335	13282	248	0	64309
1992†	0	0	0	0	0	0	0	0	0	0	0	0	0
1993†	0	0	0	0	0	0	0	0	0	0	0	0	0

* data not included in statistical summary.

Statistic†	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR†
Mean	2039	3059	2182	3644	4812	1053	1333	3880	4276	4286	1295	569	29509
SD	2104	2894	2791	3558	2620	1753	1636	3848	4112	4038	1412	883	20321
Min	0	0	0	0	0	0	0	0	0	0	0	0	2478
Med	1636	2819	827	3277	4822	48	986	2995	4126	4610	815	0	23401
Max	6379	7904	7420	8105	8164	4635	4780	11278	12335	13282	3493	2442	64309

† SD = standard deviation; Min = minimum; Med = median; Max = maximum.

Table B18. Monthly and annual flow sums (ac-ft) at station S65C_S.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1966	--	--	--	--	120143	113817	114880	157776	143601	138363	52789	19313	860682
1967	17209	17707	15840	11655	31750	36322	33426	110538	134850	92758	17982	18817	538854
1968	18086	16130	16441	13984	17030	150046	274756	185437	154765	106125	33093	19030	1004923
1969	88254	26299	179362	150445	102347	85810	10445	53059	95168	533369	132214	186655	1643427
1970	217314	119613	175109	145281	14910	13910	30877	10592	3685	7564	3255	11275	753385
1971	43560	106740	12932	0	0	0	18161	11598	23955	32107	1491	0	250542
1972	0	9015	2460	22074	44012	67558	68633	18437	10755	4984	5409	10033	263368
1973	29679	90317	102940	151295	98191	12442	50089	102003	169563	47610	1805	3078	859012
1974	115	39843	21396	21692	44299	39837	413705	345450	153146	37471	2281	902	1120137
1975	1474	573	8464	55766	77470	34453	19119	88607	114081	74239	55852	3876	533974
1976	966	79749	104927	56149	66947	59806	48431	188085	108172	14012	588	77744	805576
1977	126301	87433	112944	16769	2612	0	0	0	19468	4473	9929	40127	420056
1978	83608	111808	133724	41358	59065	60074	125097	279332	71515	33445	12231	25829	1037082
1979	189244	152240	55675	5580	79881	8301	29066	41943	254814	182411	30454	82957	1112566
1980	109372	113420	152692	64815	85027	5048	4314	17683	13488	368	0	0	566227
1981	0	859	0	0	0	0	0	4194	57576	1712	2162	771	67274
1982	0	1898	7462	32514	76083	181103	207944	196634	165319	156602	32419	16435	1074413
1983	11167	242697	306661	215775	72979	13319	79122	114404	56809	842	0	91466	1205241
1984	100119	113434	69470	150851	135267	34309	86237	119790	12438	1941	9590	9009	842455
1985	244	206	557	6615	51422	4790	10947	56940	95214	35576	6649	10519	279679
1986	110540	110134	75411	64111	61052	25702	48534	54901	72059	4815	18658	12513	658430
1987	163300	134567	87330	182018	61659	0	2823	5587	31045	68866	179698	118428	1035321
1988	65287	103801	162135	134479	75050	0	16138	28412	106585	737	174	2	692800
1989	33033	57835	67302	98719	84793	1438	15207	15814	23483	29665	6490	12404	446183
1990	85225	107676	42292	52672	24974	16975	60384	51984	29140	66814	8241	5095	551472
1991	10812	13581	25928	71616	124929	60776	144226	268477	94044	101962	13824	11055	941230
1992	14245	83864	24435	120809	100091	51121	62139	157444	105340	47017	25024	38862	830391
1993	220101	67124	96624	249183	17120	5034	8355	8936	41576	18762	7767	5358	745940
1994	11139	14349	94075	46965	17742	145994	169920	139863	196644	201718	216719	176556	1431684
1995	109830	105639	110620	118066	64265	35144	95621	336170	332663	223588	82607	103582	1717795
1996	181534	98052	113936	177563	45418	63514	32734	81310	30419	43548	3663	5767	877458
1997	39367	68512	9993	51932	139623	70343	29905	253430	50538	33674	133368	367529	1248214
1998*	430735	345950	525479	192501	36778	6909	15114	48568	83989	--	--	--	1686023

Statistic†	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[1]
Mean	78496	82533	91082	85102	61604	42542	70495	107679	92603	73348	34576	46406	824358
S.D.	94118	73213	105187	70974	38982	47576	88969	100658	75126	104545	55121	77113	396643
Min	0	206	0	0	0	0	0	0	3685	368	0	0	67274
Med.	41464	85649	72441	60130	61659	34309	33426	81310	83989	36524	9760	12459	830391
Max.	430735	345950	525479	249183	139623	181103	413705	345450	332663	533369	216719	367529	1717795

† SD = standard deviation; Min = minimum; Med = median; Max = maximum.

APPENDIX C

S65D SUB-BASIN RAINFALL, STAGE, AND FLOW RAW DATA

Note on all tables:

* indicates partial year data.
⊥ indicates period of record for station and excludes partial year results.

Table C1. Monthly and annual rainfall sums (inches) at station GRIFFIT2_R.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1965*	--	--	--	1.03	0.3	6.14	10.24	3.08	7.25	2.65	0.84	1.3	32.83
1966*	--	--	--	--	--	--	--	--	--	--	--	--	0
1967*	--	--	--	--	--	--	--	--	--	2.54	0.57	1.64	4.75
1968*	0.48	1.45	--	--	4.23	14.17	12.72	5.03	2.48	6.04	1.53	--	48.13
1969*	--	--	--	--	--	--	6.94	--	--	--	--	--	6.94
1970*	--	3.94	5.05	0.09	3.93	--	--	--	--	--	--	--	13.01

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR⊥
Mean	0.48	2.70	5.05	0.56	2.82	10.16	9.97	4.06	4.87	3.74	0.98	1.47	
Standard Deviation	--	1.76	--	0.66	2.19	5.68	2.90	1.38	3.37	1.99	0.50	0.24	
Minimum	0.48	1.45	5.05	0.09	0.30	6.14	6.94	3.08	2.48	2.54	0.57	1.30	
Median	0.48	2.70	5.05	0.56	3.93	10.16	10.24	4.06	4.87	2.65	0.84	1.47	
Maximum	0.48	3.94	5.05	1.03	4.23	14.17	12.72	5.03	7.25	6.04	1.53	1.64	

Table C2. Monthly and annual rainfall sums (inches) at station GRIFFITH_R.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1974*	--	--	--	--	4.33	14	12.12	--	5.03	2.19	0.55	1.69	39.91
1975	0.73	2.16	0.62	0.37	7.71	10.35	8.27	3.75	6.65	3.89	0.77	0.84	46.11
1976	0.06	0.53	1.58	1.42	13.92	3.9	2.87	16.85	2.39	0.03	2.41	1.56	47.52
1977	1.35	0.99	0.59	0.36	3.57	1.65	4.94	4.63	8.84	0.98	2.79	3.4	34.09
1978	1.23	2.13	3.05	0.17	6.67	11.89	11.26	3.7	5.25	0.44	4.06	4.65	54.5
1979	0	0.74	1.24	2.62	2.3	3.96	3.94	3.94	3.91	0.15	0.67	1.81	25.28
1980*	3.71	3.8	4.96	--	--	3.49	--	3.06	--	1.34	2.76	2.06	25.18
1981*	0.28	--	0.96	0.08	1.29	4.32	3.67	--	3.6	0.89	0.78	0.33	16.2
1982*	0.81	2.9	5.37	1.86	4.26	--	--	--	4.35	1.92	2.21	1.11	24.79
1983	2.98	6.29	3.81	2.93	0.86	7.35	5.46	6.92	5.47	6.08	1.24	4.19	53.58
1984*	0.88	4.94	1.84	1.92	8.28	4.78	--	--	6.58	0.82	4.2	0.83	35.07
1985	0.38	0.43	3.67	2.58	3.73	8.67	6.05	8.57	10.73	2.92	1.28	2.07	51.08
1986	2.82	0.43	2.28	0.12	2.51	12.59	9.21	9.18	5.8	7.09	0.75	5.61	58.39
1987	2.25	0.58	4.82	0.03	5.62	9.78	7.79	2.16	6.55	4.85	6.7	0.77	51.9
1988	3.29	1.7	4.52	2.16	1.48	4.9	9.66	6.45	2.34	0.61	2.81	1.58	41.5
1989	1.8	0.65	5.55	2.77	1.07	6.64	8.01	7.13	6.73	5.95	1.35	2.59	50.24
1990	0.4	3.93	0.8	0.66	2.32	10.97	8.4	8.6	7.15	3.75	0.61	0.53	48.12
1991	3.8	1.43	3.78	2.56	8.31	2.61	12.35	10.25	3.52	3.4	0.98	0.42	53.41
1992	0.74	2.07	1.12	3.64	0.49	10.03	4.63	6.6	2.67	1.92	0.92	1.86	36.69
1993	4.59	2.76	7.61	2.67	1.72	3.85	7.37	8.27	6.02	3.35	0.96	0.85	50.02
1994	1.99	4.35	3.53	3.1	2.88	9.68	10.12	6.25	10.4	3.08	4.11	3.08	62.57
1995*	2.17	3.69	3.5	3.1	--	--	--	14.45	11.78	10.13	1.58	--	50.4
1996*	1.31	2.94	5.04	1.55	2.35	--	--	--	--	--	--	--	13.19

Table C2. continued.

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[1]
Mean	1.71	2.35	3.19	1.75	4.08	7.27	7.56	7.26	5.99	2.99	2.02	1.99	47.81
Standard Deviation	1.34	1.67	1.94	1.20	3.32	3.72	2.92	3.83	2.69	2.57	1.59	1.46	9.45
Minimum	0.00	0.43	0.59	0.03	0.49	1.65	2.87	2.16	2.34	0.03	0.55	0.33	25.28
Median	1.33	2.13	3.52	1.92	2.88	7.00	7.90	6.76	5.80	2.56	1.32	1.69	50.13
Maximum	4.59	6.29	7.61	3.64	13.92	14.00	12.35	16.85	11.78	10.13	6.70	5.61	62.57

Table C3. Monthly and annual rainfall sums (inches) at stations containing records of three years or less.

Year/Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
EAGLE_R													
1988*	--	--	--	--	--	6.77	9.48	10.46	5.91	--	3.31	2.41	38.34
1989*	1.68	0.53	3.72	2.93	2.47	7.92	5.65	0	8.42	5.95	--	--	39.27
1990*	--	--	--	1.38	--	--	--	--	--	--	--	--	1.38
BUTLER1_R													
1988*	--	--	--	--	--	--	5.31	5.41	0.44	0.28	1.01	0.01	12.46
1989*	--	0.35	2.09	1.27	0.42	2.97	1.75	7.54	8.5	3.49	0.03	--	28.41
1990*	0.49	2.28	0.17	--	--	--	--	--	--	--	--	--	2.94

Table C4. Monthly and annual rainfall sums (inches) at station RUCKSWF_R.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1988*	--	--	--	--	--	--	--	--	2.36	--	2.28	0	4.64
1989*	1.74	0.96	4	2.48	2.45	5.17	5.32	5.33	5.41	6.94	--	--	39.8
1990*	--	--	--	1.2	3.33	3.82	3.8	7.99	4.86	3.18	0.84	0.64	29.66
1991*	--	1.79	--	--	--	3.24	6.19	8.91	5.64	2.69	--	--	28.46
1992*	--	--	--	0	0.29	11.86	2.66	6.53	3.44	1.74	1.47	0.83	28.82
1993*	5.39	2.9	7.03	2.36	--	--	--	--	--	--	--	--	17.68
1994*	--	--	--	--	--	11.31	8.19	11.55	0.18	13.37	1.83	8.17	54.6
1995*	2.13	1.31	--	--	--	--	--	--	6.9	7.8	0.25	0.41	18.8
1996	1.63	1.67	5.38	1.23	7.61	6.99	4.17	3.12	1.53	5.05	0.99	1.72	41.09
1997	0.05	0.14	2.97	4.07	3.22	5.04	4.71	5.81	5.83	1.14	2.39	5.42	40.79
1998*	1.44	5.67	5.72	6.08	2.29	1.02	9.19	5.45	10.05	--	--	--	46.91

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[1]
Mean	2.06	2.06	5.02	2.49	3.20	6.06	5.53	6.84	4.62	5.24	1.44	2.46	40.94
Standard Deviation	1.78	1.80	1.57	2.04	2.42	3.82	2.23	2.59	2.86	4.06	0.79	3.11	0.21
Minimum	0.05	0.14	2.97	0.00	0.29	1.02	2.66	3.12	0.18	1.14	0.25	0.00	40.79
Median	1.69	1.67	5.38	2.36	2.84	5.11	5.02	6.17	5.14	4.12	1.47	0.83	40.94
Maximum	5.39	5.67	7.03	6.08	7.61	11.86	9.19	11.55	10.05	13.37	2.39	8.17	41.09

Table C5. Monthly and annual rainfall sums (inches) at station CHAND2_R.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1988*	--	--	--	--	--	--	5.35	9.95	8.59	0.46	3.24	2.5	30.09
1989*	1.65	0.69	--	--	--	--	7.19	6.98	8.49	--	--	2.05	27.05
1990*	0.51	3.87	0.52	1.21	1.6	12.16	4.91	6.56	--	--	0.89	0.54	32.77
1991*	5.43	2.07	--	4.06	7.04	4.86	6.9	9.21	5.39	--	--	--	44.96

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[1]
Mean	2.53	2.21	0.52	2.64	4.32	8.51	6.09	8.18	7.49	0.46	2.07	1.70	
Standard Deviation	2.58	1.59		2.02	3.85	5.16	1.13	1.66	1.82		1.66	1.03	
Minimum	0.51	0.69	0.52	1.21	1.60	4.86	4.91	6.56	5.39	0.46	0.89	0.54	
Median	1.65	2.07	0.52	2.64	4.32	8.51	6.13	8.10	8.49	0.46	2.07	2.05	
Maximum	5.43	3.87	0.52	4.06	7.04	12.16	7.19	9.95	8.59	0.46	3.24	2.50	

Table C6. Monthly and annual rainfall sums (inches) at station LAMB_R.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1988*	--	--	--	1.8	--	--	--	--	--	1.22	3.1	2.4	8.52
1989*	1.68	--	4.3	2.06	2.31	6.61	5.93	--	--	5.75	0.46	2.54	31.64
1990*	0.19	3.95	0.53	0.68	--	--	6.49	5.92	4.52	5.74	0.74	0.57	29.33
1991*	4.33	2.25	4.27	3.74	5.95	6.19	6.84	--	--	3.48	1.39	0.74	39.18
1992*	0.9	3.46	1.57	2.35	1.05	13.2	1.82	7.85	5.64	1.79	--	0.73	40.36
1993	6.92	3.85	7.9	2.06	10.33	2.03	4.82	6.67	3.87	5.33	0.1	1.07	54.95
1994	2.28	3.19	2.58	7.06	1.09	2.69	2.82	10.96	10.34	5.34	3.38	3.25	54.98
1995*	2.08	1.83	3.21	4.01	2.66	5.06	5.97	9.81	--	6.92	0.5	0.06	42.11
1996	2.28	1.53	9.62	4.99	10.26	10.15	5.25	4.83	2.23	3.74	0.28	1.46	56.62
1997	1.52	1.17	3.89	3.49	2.75	7.07	6.48	7.19	7.02	0.85	3.65	5.49	50.57
1998*	4.64	5.88	5.24	3.24	1.64	0.88	9.98	8.84	7.27	--	--	--	47.61

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[1]
Mean	2.68	3.01	4.31	3.23	4.23	5.99	5.64	7.76	5.84	4.02	1.51	1.83	54.28
Standard Deviation	2.03	1.48	2.75	1.75	3.73	3.94	2.24	2.04	2.66	2.14	1.45	1.64	2.59
Minimum	0.19	1.17	0.53	0.68	1.05	0.88	1.82	4.83	2.23	0.85	0.10	0.06	50.57
Median	2.18	3.19	4.08	3.24	2.66	6.19	5.95	7.52	5.64	4.54	0.74	1.27	54.97
Maximum	6.92	5.88	9.62	7.06	10.33	13.20	9.98	10.96	10.34	6.92	3.65	5.49	56.62

Table C7. Monthly and annual rainfall sums (inches) at station BASINGER_R.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1969*	--	--	--	--	--	--	--	--	--	--	--	2.6	2.6
1970*	--	--	--	0.3	4.3	4.9	11.1	6.1	12.3	5	--	--	44
1971*	--	--	--	2.2	3.6	14.3	5.3	5.92	8.4	3.7	1.5	1.2	46.12
1972*	2	3.6	4.2	2.1	8.5	--	--	14.1	1.4	3.5	6.9	2.3	48.6
1973	6.2	3.2	3.1	2.4	6	10.8	13.3	10.2	7.5	3.1	0.7	2.7	69.2
1974*	0.5	2.8	0.1	2.5	4.1	11.8	10.2	8	6.8	1.1	0.5	--	48.4
1975	0.8	2.7	1.6	0.8	7.3	12.5	8.8	4.6	8.8	6.5	0.2	0.7	55.3
1976	0.4	0	2.2	2.3	11.8	3.8	4.3	8	4.6	0.5	0.6	1.6	40.1
1977*	1.7	0.7	--	0.6	6.4	6.9	5.9	4.4	8.9	0.7	3.3	3.7	43.2
1978*	1.5	2.4	3	0.3	5.9	13.2	--	--	6.4	2.1	2	3.6	40.4
1979*	7.4	1.5	1.1	3.7	11	--	--	8.1	21.1	0.3	1.1	1.8	57.1
1980*	4.7	4.5	5	7.6	5.3	5.2	16.1	9.8	--	--	0.5	1.5	60.2
1981	0.6	5.3	1.5	0.2	2.1	6.1	6.2	12.3	7.5	4	1.1	0.9	47.8
1982*	0.3	3.9	10.2	10	1.7	0.2	--	--	--	--	--	--	26.3

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[1]
Mean	2.37	2.78	3.20	2.69	6.00	8.15	9.02	8.32	8.52	2.77	1.67	2.05	53.10
Standard Deviation	2.53	1.59	2.86	2.96	3.07	4.58	4.00	3.08	4.98	2.02	1.94	1.02	12.40
Minimum	0.30	0.00	0.10	0.20	1.70	0.20	4.30	4.40	1.40	0.30	0.20	0.70	40.10
Median	1.50	2.80	2.60	2.20	5.90	6.90	8.80	8.00	7.50	3.10	1.10	1.80	51.55
Maximum	7.40	5.30	10.20	10.00	11.80	14.30	16.10	14.10	21.10	6.50	6.90	3.70	69.20

Table C8. Monthly and annual rainfall sums (inches) at station BASS 3_R.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1979*	--	--	--	--	8.88	1.8	5.28	3.6	13.2	0.6	0.48	2.04	35.88
1980	1.92	2.52	2.64	3.72	0.72	3	8.64	7.68	7.8	0.48	3.84	0.84	43.8
1981	0	2.76	0.72	0	1.44	2.28	5.04	6.84	4.32	0.6	0.96	0	24.96
1982*	--	2.64	--	--	3.48	6.6	5.4	6.12	7.56	1.08	1.32	0.12	34.32
1983	3	6.48	5.64	1.2	0.6	3.48	6.36	1.92	0.96	1.2	0	1.2	32.04
1984*	2.28	--	1.68	1.92	2.76	3.84	3.24	2.76	2.16	0	1.72	0.14	22.5
1985*	0.04	0.07	0.29	0.4	0.41	1.01	0.44	0.38	0.74	0.28	0.27	0.49	4.82
1986*	0.53	0.29	0.35	0.21	0.51	1.39	1.18	--	0.25	1.7	--	--	6.41
1987*	--	0.24	0.69	0.23	0.56	16.62	0.46	--	--	0.74	0.4	--	19.94
1988*	--	0.13	0.51	0.56	0.63	0.82	1.01	0.48	0.47	--	0.05	0	4.66
1989*	2.45	0.04	0.03	0.23	0.93	1.12	0.78	0.77	0.88	--	--	--	7.23

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[1]
Mean	1.46	1.69	1.39	0.94	1.90	3.81	3.44	3.39	3.83	0.74	1.00	0.60	33.60
Standard Deviation	1.24	2.17	1.79	1.21	2.52	4.57	2.85	2.85	4.36	0.51	1.21	0.72	9.52
Minimum	0.00	0.04	0.03	0.00	0.41	0.82	0.44	0.38	0.25	0.00	0.00	0.00	24.96
Median	1.92	0.29	0.69	0.40	0.72	2.28	3.24	2.76	1.56	0.60	0.48	0.32	32.04
Maximum	3.00	6.48	5.64	3.72	8.88	16.62	8.64	7.68	13.20	1.70	3.84	2.04	43.80

Table C9. Monthly and annual rainfall sums (inches) at station BASING_R.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1972*	--	--	3.61	0.65	--	--	--	--	0.52	1.15	5.44	1.39	12.76
1973*	3.84	1.87	2.99	--	--	2.54	1.73	7.87	4.98	2.83	2.72	1.76	33.13
1974*	0.46	0.74	0.03	0.54	4.49	--	--	--	4.93	1.38	0.49	1.82	14.88
1975	0.74	1.44	0.69	0.89	4.31	8.44	7.73	2.74	1.91	4.79	1.08	0.64	35.4
1976*	0.19	0.89	2.33	1.6	10.57	4.21	4	7.42	7.03	--	--	--	38.24
1977	1.97	0.78	0.8	0.49	10.71	4.82	6.24	4.5	6.84	1.27	0.6	1.3	40.32
1978	1.64	1.82	2.75	0.6	3.87	6.81	13.25	5.48	7.32	0.92	1.97	3.56	49.99
1979	6.82	0.77	1.16	2.61	8.4	1.92	2.35	8.07	18.04	0.55	0.88	1.76	53.33
1980	2.24	2.62	2.76	3.77	2.42	2.24	9.93	4.83	5.37	0.44	3.23	1.2	41.05
1981	0.22	3.14	1.13	0.14	1.61	2.59	5.85	7.42	5.99	1.34	0.85	0.31	30.59
1982	1.02	2.49	6.13	6.48	6.27	13.93	4.57	2.93	5.97	1.25	3.28	0.31	54.63
1983	4.18	5.89	5.64	1.8	2.79	6.09	8.16	6.93	4.21	4.47	1.51	3.27	54.94
1984	0.69	5.05	3.84	3.1	9.21	5.57	16.47	5.8	5.78	0.76	2.71	0.42	59.4
1985	0.23	0.38	6.46	6.59	6.46	14.25	8.39	5.44	12.93	2.72	2.51	1.22	67.58
1986	1.81	0.93	2.53	0.17	3.16	18.83	9.38	8.15	9.05	3.07	1.82	5.76	64.66
1987	2.19	0.61	8.25	0.23	6.38	10.53	10.79	5.33	6.94	6.71	8.75	0.39	67.1
1988	3.52	1.99	4.99	2.29	2.37	7.84	6.08	3.48	4.18	0.31	3.19	4.2	44.44
1989	1.83	0.67	4.24	3.9	3.99	8.44	9.27	6.4	12.48	7.38	0.8	3.04	62.44
1990	0.39	4.27	0.85	1.3	1.66	14.83	7.74	9.21	7.75	4.01	0.93	0.53	53.47
1991	4.6	1.71	5.52	4.81	7.18	4.05	7.4	15.46	5.63	3.71	0.84	0.32	61.23
1992	0.67	3.1	1.4	2.68	1.16	12.62	2.59	6.22	7.01	1.92	1.5	0.33	41.2
1993	6.29	3.98	6.76	2.13	11.79	2.28	3.66	8.94	4.39	4.86	1.1	1	57.18
1994	2.4	3	3.4	3.76	1.51	6.24	7.18	10.52	5.59	3.87	4.08	3.64	55.19
1995	2.28	2.11	3.04	5.36	2.26	7.18	9.22	7.13	7.09	9.23	0.79	0.41	56.1
1996	2.09	1.77	5.85	1.32	6.54	6.08	4.34	4.91	2.08	7.33	0.15	0.44	42.9
1997	1.62	1.41	2.72	4.33	6.39	7.75	9.39	11.85	7.38	1.15	3.49	5.97	63.45
1998*	5.28	7.2	7.17	5.31	3.79	2.24	12.74	9.69	8.08	--	--	--	61.5

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[1]
Mean	2.28	2.33	3.59	2.57	5.17	7.29	7.54	7.07	6.65	3.10	2.19	1.80	52.57
Standard Deviation	1.89	1.74	2.27	2.01	3.14	4.60	3.58	2.88	3.52	2.50	1.90	1.71	10.53
Minimum	0.19	0.38	0.03	0.14	1.16	1.92	1.73	2.74	0.52	0.31	0.15	0.31	30.59
Median	1.90	1.85	3.04	2.21	4.31	6.24	7.73	6.93	5.99	2.72	1.51	1.22	54.79
Maximum	6.82	7.20	8.25	6.59	11.79	18.83	16.47	15.46	18.04	9.23	8.75	5.97	67.58

Table C10. Monthly and annual rainfall sums (inches) at station LARSON1_R.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1988*	--	--	--	--	--	--	--	--	7.05	0.37	3.75	2.58	13.75
1989*	2.51	--	2.69	3.61	3.44	6.1	8.6	5.23	10.14	4.96	0.71	2.61	50.6
1990*	0.36	3.16	0.9	0.4	--	7.32	6.13	7.3	4.68	2.57	0.8	0.92	34.54
1991*	4.19	1.81	5.05	1.19	--	--	9.48	14.5	7.15	2.73	0.69	0.13	46.92
1992*	--	--	1.55	0	1.75	10.67	3.51	6.14	4.11	2.75	1.64	0.32	32.44
1993	5.43	3.91	6.22	1.8	9.4	2.28	5.09	5.46	3.9	4.67	0.74	0.85	49.75
1994*	0.98	2.68	--	1.93	1.18	--	--	7.71	3.07	3.14	--	--	20.69
1995*	0.31	--	2.16	4.44	2.2	7.46	7.66	9.06	6.04	4.3	0.02	1.32	44.97
1996*	1.46	1.38	3.53	--	--	--	--	--	1.8	5.08	0.13	0.01	13.39
1997	1	1.31	1.88	3.36	3.53	5.41	6.54	9.15	8.53	1.09	2.47	4.5	48.77
1998*	3.13	4.95	5.1	3.44	2.14	2.72	9.04	--	--	--	--	--	30.52

Table C10. continued.

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[1]
Mean	2.15	2.74	3.23	2.24	3.38	5.99	7.01	8.07	5.65	3.17	1.22	1.47	49.26
Standard Deviation	1.79	1.37	1.85	1.55	2.79	2.91	2.07	3.00	2.60	1.61	1.21	1.49	0.69
Minimum	0.31	1.31	0.90	0.00	1.18	2.28	3.51	5.23	1.80	0.37	0.02	0.01	48.77
Median	1.46	2.68	2.69	1.93	2.20	6.10	7.10	7.51	5.36	2.95	0.74	0.92	49.26
Maximum	5.43	4.95	6.22	4.44	9.40	10.67	9.48	14.50	10.14	5.08	3.75	4.50	49.75

Table C11. Monthly and annual rainfall sums (inches) at station LYKES721_R.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1974*	--	--	--	--	4.24	11.93	--	--	7.78	1.2	0.71	2.11	27.97
1975	0.21	2.14	0.46	0.77	5.22	7.26	8.3	5.48	5.04	6.11	0.19	0.62	41.8
1976	0.28	1.23	2.85	2.61	10.71	3.9	2.56	6.55	6.29	0.77	1.48	1.32	40.55
1977	1.53	0.81	1.38	0.18	4.83	2.4	5.37	4.63	5.1	0.4	4.71	2.56	33.9
1978	1.66	2.03	0.75	0.45	5.9	6.28	14.83	2.74	5.55	1	1.8	3.73	46.72
1979	6.38	0.56	1.42	1.49	10.26	2.33	7.09	7.58	17.09	0.32	2.92	1.53	58.97
1980	2.48	1.69	1.74	3.85	3.54	2.43	7.62	6.7	4.72	0.94	3.31	1	40.02
1981	0.23	2.73	1.09	0.44	2.25	6.61	3.74	6.86	2.18	0.34	0.26	0.43	27.16
1982	0.95	1.47	5.69	2.74	4.35	11.21	5.55	4.12	4.79	0.6	1.59	0.61	43.67
1983	3.68	8.61	3.4	1.23	0.74	4.42	3.09	10.25	2.33	4.87	1.31	2.69	46.62
1984	0.45	3.45	3.67	1.58	6.19	4.65	12.57	3.29	2	0.35	1.86	0.35	40.41
1985	0.45	0.34	1.87	2.96	2.08	7.5	4.81	2.66	6.11	1.65	3.02	1.3	34.75
1986	1.65	1.1	2.67	0.13	3.19	7.22	7.95	6.39	3.09	2.77	1.45	4.5	42.11
1987*	2.07	0.84	--	0.23	8.97	3.54	5.49	5.24	7.17	6.03	8.89	0.13	48.6

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[1]
Mean	1.69	2.08	2.25	1.44	5.18	5.83	6.84	5.58	5.66	1.95	2.39	1.63	41.39
Standard Deviation	1.75	2.15	1.49	1.24	3.02	3.06	3.56	2.15	3.76	2.13	2.24	1.33	7.84
Minimum	0.21	0.34	0.46	0.13	0.74	2.33	2.56	2.66	2.00	0.32	0.19	0.13	27.16
Median	1.53	1.47	1.81	1.23	4.59	5.47	5.55	5.48	5.07	0.97	1.70	1.31	41.18
Maximum	6.38	8.61	5.69	3.85	10.71	11.93	14.83	10.25	17.09	6.11	8.89	4.50	58.97

Table C12. Monthly and annual rainfall sums (inches) at station S65D_R.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1965*	--	--	4.27	2.22	0.11	8.46	8.14	3.49	3.98	3.04	0.4	0.97	35.08
1966	3.38	3.32	0.62	1.74	6.64	11.63	6.73	9.11	2.18	3.02	0.51	0.34	49.22
1967	0.27	3.3	0.34	0.05	0.36	3.17	4.96	5.38	6.47	1.95	0.4	1.99	28.64
1968	0.74	1.31	1.01	1.02	4.38	12.25	10.18	3.76	4.49	10.7	2.7	0.15	52.69
1969	1.87	1.66	7.45	5.26	6.14	6.11	8.34	6.53	6.98	12.37	3.13	2.05	67.89
1970	4.87	1.78	6.81	0.18	2.08	7.14	4.95	2.73	3.13	2.61	0.29	0.5	37.07
1971	0.08	2.4	1.29	0.3	2.42	16.18	7.27	8.82	7.23	4.39	0.44	0.7	51.52
1972	0.78	2.4	5	0.34	3.13	8.69	1.67	3.54	0.81	0.57	3.23	1.4	31.56
1973*	3.4	1.75	3.42	1.89	4.35	--	--	6.23	4.51	4.99	2.47	2	35.01
1974	0.15	0.55	0	0.8	6.88	9.61	12.91	3.51	4.01	0.98	1.12	1.45	41.97
1975	0.1	1.27	0.8	1.15	4.21	4.54	5.51	2.49	6.47	5.6	0.27	0.52	32.93
1976	0.13	1.78	1.25	2.34	10.56	4.73	4.97	5.42	3.69	0.2	1.12	0.87	37.06
1977	1.25	0.73	0.87	0.27	3.13	4.33	3.34	2.88	5.43	0.35	5.39	2.48	30.45
1978	0.96	1.22	2.11	0.22	5.09	7.11	11.07	2.28	2.18	1.22	1.67	2.57	37.7
1979	3.91	0.42	0.93	1.25	6.82	2.53	3.19	10.22	14.16	0.29	3.76	1.96	49.44
1980	2.01	1.54	1.77	2.5	2.76	6.47	6.72	2.04	3.08	0.44	2.16	0.7	32.19
1981	0.27	2.17	0.78	0	2.94	4.81	4.79	8.75	4.65	0.38	0.86	0.05	30.45
1982	0.76	0.94	6.82	3.22	3.16	7.5	4.56	6.22	4.23	1.96	1.99	0.39	41.75
1983	2.77	8.87	3.72	1.93	1.64	5.3	2.42	7.98	4.97	5.77	0.85	2.53	48.75
1984	0.81	3.48	3.18	2.95	4.98	5.53	11.67	3.5	2.73	0.35	1.55	0.35	41.08
1985	0.35	0.24	2.63	3.11	0.7	5.5	5.23	3.19	4.89	2.34	2.23	1.07	31.48
1986	1.54	1.16	3.04	0.13	3.35	7.2	8.57	6.13	4.81	3.79	1.49	4.83	46.04
1987	1.56	1.07	5.95	0.2	8.57	5.45	6.81	3.92	4.86	5.24	11.44	0.05	55.12
1988	2.81	2.32	4.24	1.72	2.97	5.48	7.37	6.41	3.57	0.35	4.41	1.03	42.68
1989	2.03	0.63	3.53	3.78	3.48	3.56	5.68	8.62	7.77	4.01	0.71	2.42	46.22
1990*	0.47	3.23	0.16	--	5.11	18.47	--	7.5	6.53	--	0.35	0.45	42.27
1991	3.77	1.65	3.11	3.72	4.7	4.04	9.96	11	2.97	1.87	1.82	0.06	48.67
1992	0.56	2.98	0.81	3.11	0.79	14.13	2.77	6.09	7.12	0	1.55	0.26	40.17
1993	6.07	3.1	5.01	1.04	3.45	3.02	3.94	5.25	6.15	5.22	1.05	1.28	44.58
1994	2.24	2.12	2.53	7.09	1.32	10.05	4.5	6.16	9.88	4.27	5.41	3.65	59.22
1995	2.67	2.45	5.38	1.25	3.26	9.18	5.51	6.54	5.9	9.72	0.85	0.12	52.83
1996	2.62	1.13	5.08	1.41	6.53	5.94	3.09	4.95	6.2	3.32	0.7	1.1	42.07
1997	1.52	0.25	3.21	4.69	5.31	8.5	5.64	5.27	7.68	0.62	3.67	5.76	52.12
1998*	4.1	5.9	5.45	1.62	5.34	2.31	7.58	9.26	6.24	--	--	--	47.8

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[1]
Mean	1.84	2.09	3.02	1.89	4.02	7.24	6.25	5.74	5.29	3.19	2.12	1.40	43.45
Standard Deviation	1.55	1.70	2.14	1.68	2.35	3.84	2.79	2.45	2.47	3.14	2.21	1.36	9.57
Minimum	0.08	0.24	0.00	0.00	0.11	2.31	1.67	2.04	0.81	0.00	0.27	0.05	28.64
Median	1.54	1.75	3.08	1.62	3.47	6.11	5.58	5.76	4.88	2.48	1.55	1.03	42.38
Maximum	6.07	8.87	7.45	7.09	10.56	18.47	12.91	11.00	14.16	12.37	11.44	5.76	67.89

Table C13. Monthly and annual rainfall sums (inches) for sub-basin S65D.

Year		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1965*	–	–	4.55	1.64	0.22	7.35	9.24	3.32	5.66	3.13	0.65	1.14	36.90	
1966	3.82	3.32	0.62	1.74	6.64	10.85	6.32	8.38	3.57	3.22	0.31	0.36	49.15	
1967	0.38	3.59	0.30	0.13	1.15	4.97	3.92	5.10	8.28	3.66	0.63	2.06	34.17	
1968	0.97	1.42	0.92	0.53	6.68	13.19	10.26	4.78	4.45	7.04	2.19	0.22	52.65	
1969	1.65	1.47	7.57	4.14	6.14	6.09	7.69	6.53	6.98	12.37	3.78	2.13	66.54	
1970	5.01	3.09	6.32	0.19	3.11	6.03	8.07	3.70	6.77	3.47	0.16	0.37	46.29	
1971	0.26	3.49	1.33	0.98	3.62	12.85	5.99	7.29	7.57	4.33	0.80	1.20	49.71	
1972	1.15	3.02	3.43	1.92	5.62	10.21	3.95	8.46	1.05	1.98	4.84	1.73	47.36	
1973	4.65	2.22	3.26	2.01	5.25	6.41	7.89	7.62	6.12	3.35	1.71	2.17	52.66	
1974	0.42	1.27	0.04	1.28	4.50	11.67	11.54	6.50	5.53	1.28	0.63	2.00	46.66	
1975	0.46	2.01	0.84	0.84	5.82	8.87	7.94	3.95	5.61	4.99	0.60	0.72	42.65	
1976	0.21	0.88	2.29	2.16	11.13	5.09	4.28	9.11	4.99	0.57	1.46	1.54	43.71	
1977	1.61	0.77	0.93	0.49	5.86	4.13	5.64	4.41	6.82	0.79	3.65	2.86	37.96	
1978	1.46	2.02	2.42	0.34	5.45	8.51	10.42	4.49	5.41	1.56	2.31	3.68	48.07	
1979	5.36	0.86	1.25	2.17	8.49	2.49	4.44	6.99	14.71	0.64	1.71	1.84	50.95	
1980	2.98	2.71	3.01	4.02	2.90	3.50	9.43	5.66	4.58	0.81	2.70	1.18	43.48	
1981	0.27	3.03	1.06	0.14	1.92	4.98	5.05	7.60	4.87	1.17	0.82	0.37	31.28	
1982	0.87	2.56	6.84	4.90	4.06	7.63	5.95	5.44	5.82	1.30	1.99	0.68	48.04	
1983	3.42	7.52	4.72	1.87	1.46	5.26	5.58	6.81	3.79	4.27	1.11	2.91	48.72	
1984	0.96	4.25	2.92	2.51	6.44	5.04	10.39	3.94	3.88	0.46	2.49	0.56	43.84	
1985	0.33	0.32	2.82	3.02	2.85	7.32	4.97	3.98	7.60	1.98	2.10	1.36	38.65	
1986	1.67	0.67	2.14	0.14	2.53	9.94	6.71	6.96	4.61	3.83	1.33	4.67	45.20	
1987	2.26	0.61	5.57	0.23	5.78	8.56	5.77	4.61	6.85	5.22	7.15	0.33	52.94	
1988	3.21	1.68	3.91	1.53	3.07	5.29	6.47	6.55	4.08	0.52	2.67	1.64	40.62	
1989	1.75	0.63	3.43	2.74	2.64	5.52	5.81	5.67	7.38	5.88	0.58	2.56	44.59	
1990	0.36	3.59	0.61	0.97	2.89	11.19	6.66	7.79	5.97	3.50	0.82	0.56	44.91	
1991	4.47	1.82	4.53	3.67	7.06	4.21	8.49	11.89	5.35	2.88	1.13	0.34	55.84	
1992	0.78	2.99	1.29	2.54	1.38	12.31	3.10	6.61	4.58	1.80	1.57	0.67	39.62	
1993	5.65	3.36	6.70	2.22	6.45	3.13	4.65	6.03	4.99	4.31	0.82	0.98	49.29	
1994	1.97	3.05	2.63	4.42	2.02	7.61	6.30	8.29	6.41	5.42	3.75	4.15	56.02	
1995	1.92	2.25	3.25	3.51	2.41	6.93	6.86	9.18	6.91	7.58	0.72	0.48	52.00	
1996	1.87	1.78	5.56	1.66	7.31	6.82	3.86	5.01	2.59	4.66	0.39	1.10	42.61	
1997	1.14	0.90	2.61	4.03	4.21	6.43	6.30	7.44	7.40	1.05	3.06	5.59	50.16	
1998*	3.86	6.14	5.74	3.69	2.98	1.81	10.53	8.03	7.60				50.38	

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR[1]
Mean	2.03	2.40	3.10	2.01	4.41	7.12	6.78	6.42	5.85	3.30	1.84	1.64	46.76
Standard Deviation	1.65	1.58	2.10	1.41	2.40	3.01	2.23	1.92	2.23	2.54	1.51	1.35	6.85
Minimum	0.21	0.32	0.04	0.13	0.22	1.81	3.10	3.32	1.05	0.46	0.16	0.22	31.28
Median	1.65	2.22	2.87	1.90	4.14	6.63	6.31	6.54	5.64	3.22	1.46	1.20	47.01
Maximum	5.65	7.52	7.57	4.90	11.13	13.19	11.54	11.89	14.71	12.37	7.15	5.59	66.54

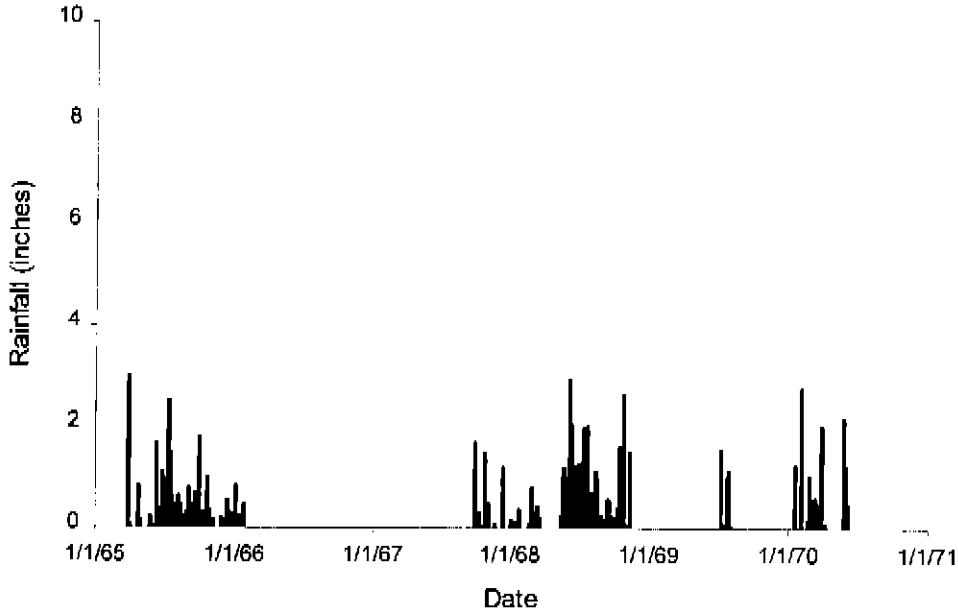

Figure C1. Daily rainfall at station GRIFFIT2_R.

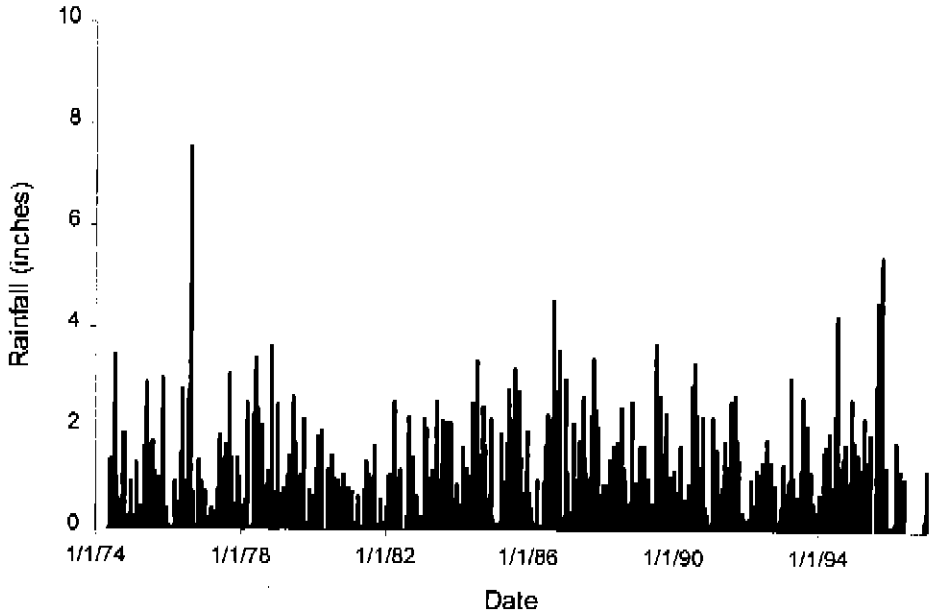

Figure C2. Daily rainfall at station GRIFFITII_R.

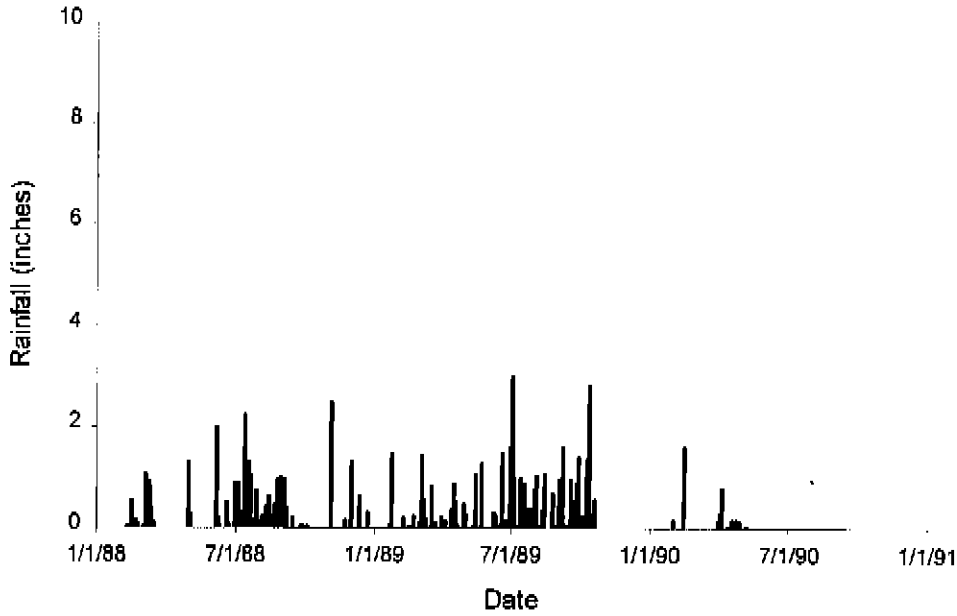

Figure C3. Daily rainfall at station EAGLE_R.

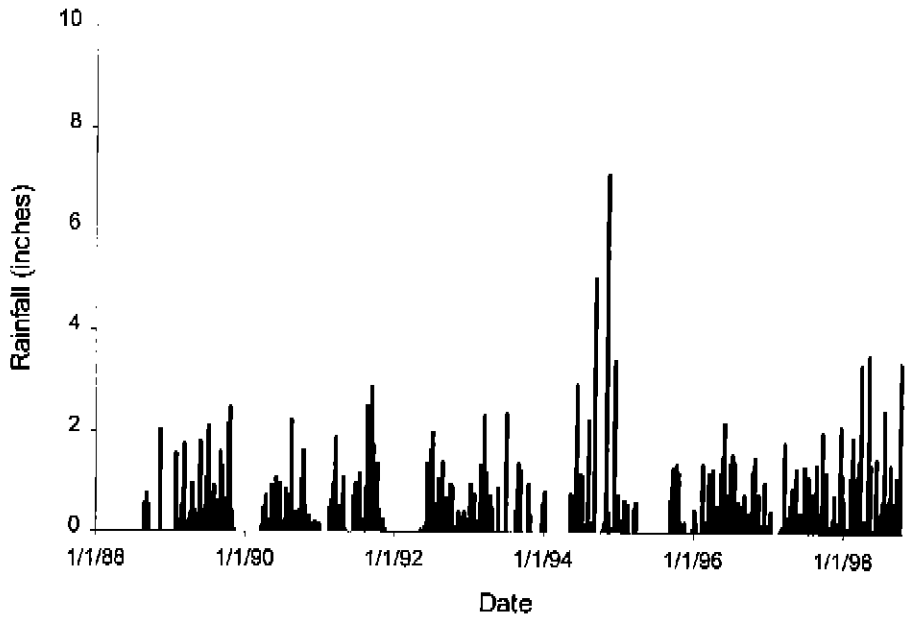

Figure C4. Daily rainfall at station RUCKSWF_R.

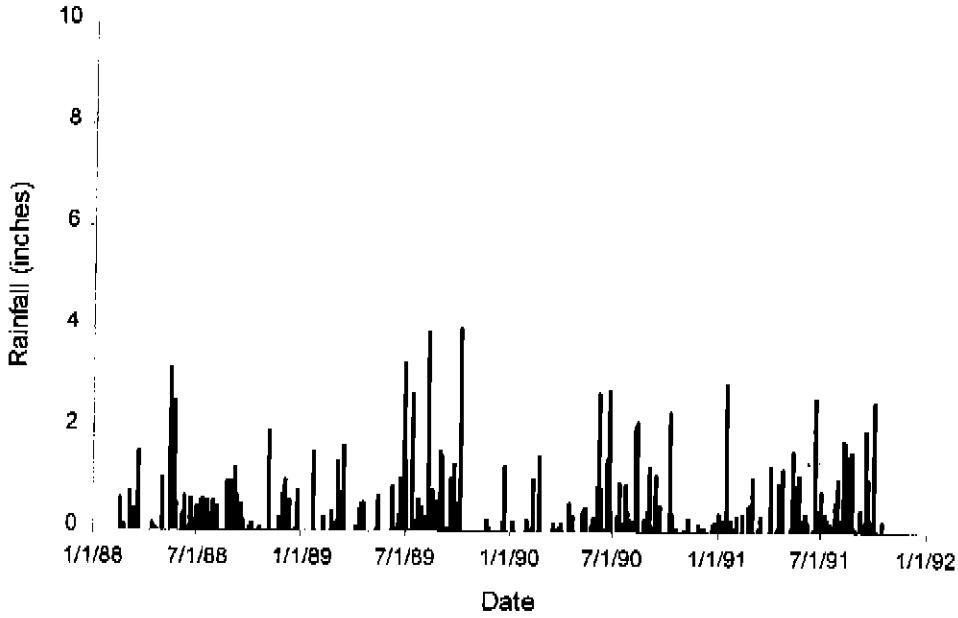

Figure C5. Daily rainfall at station CHAND2_R.

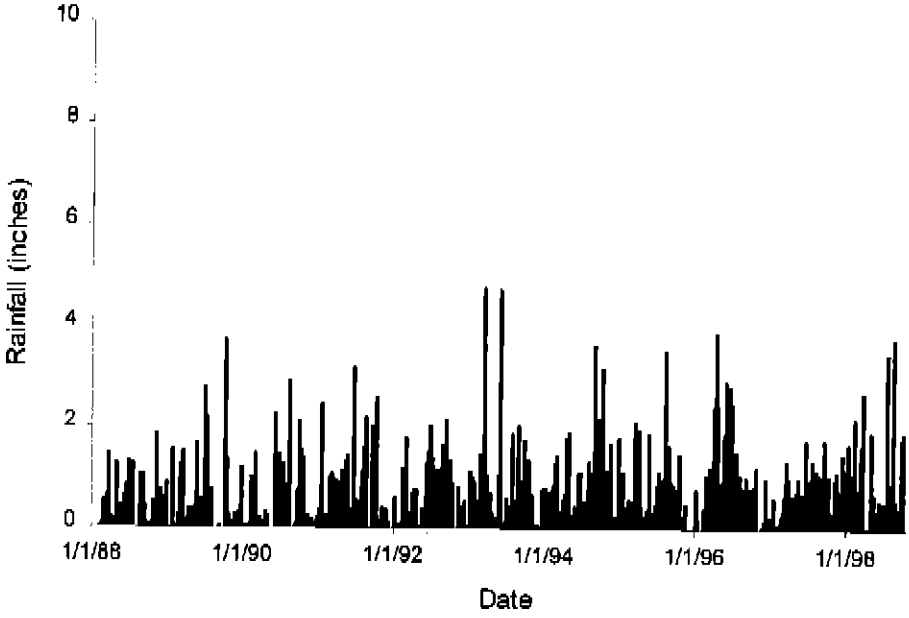

Figure C6. Daily rainfall at station LAMB_R.

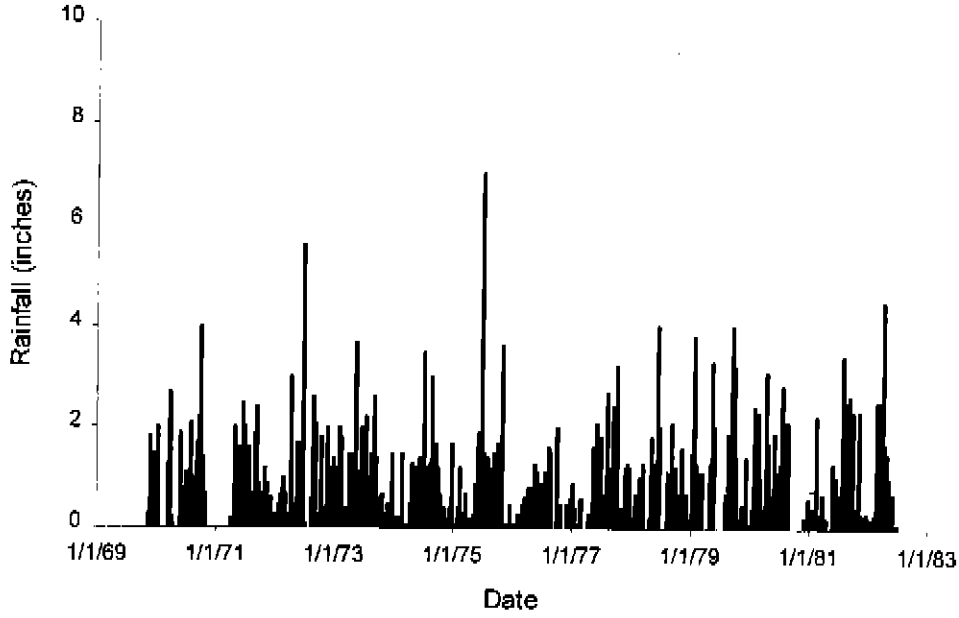

Figure C9. Daily rainfall at station BASINGER_R.

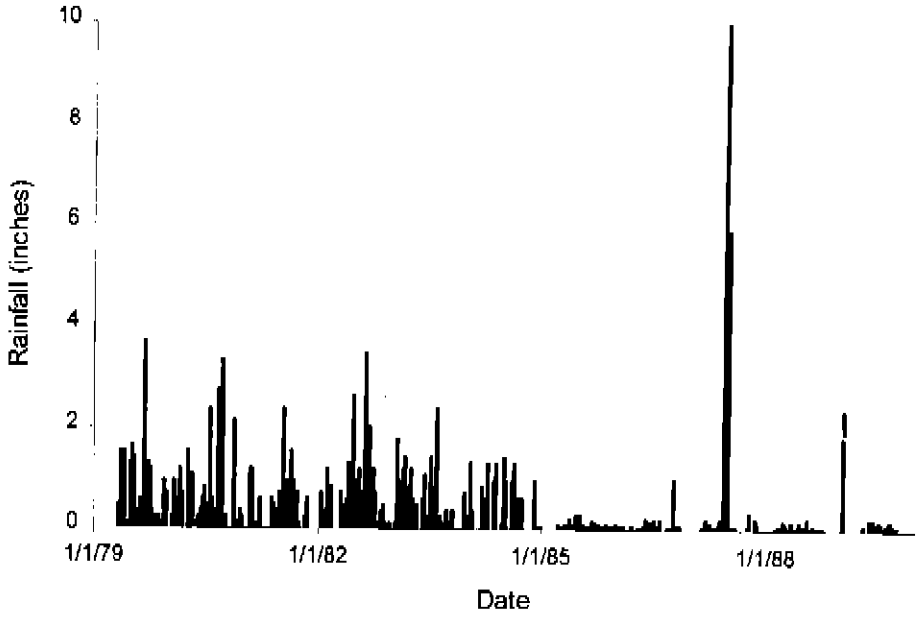

Figure C10. Daily rainfall at station BASS 3_R.

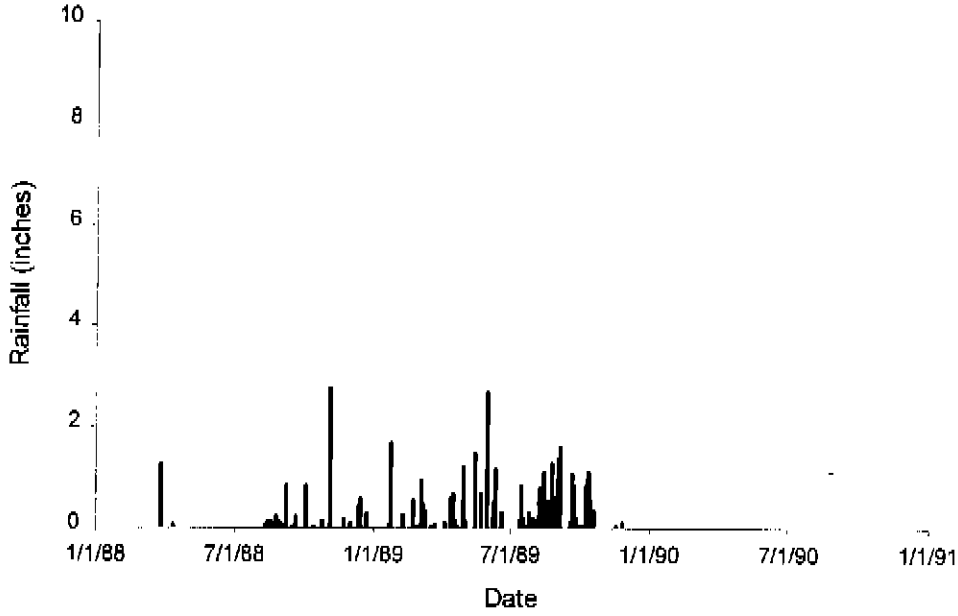

Figure C11. Daily rainfall at station MICCO D_R.

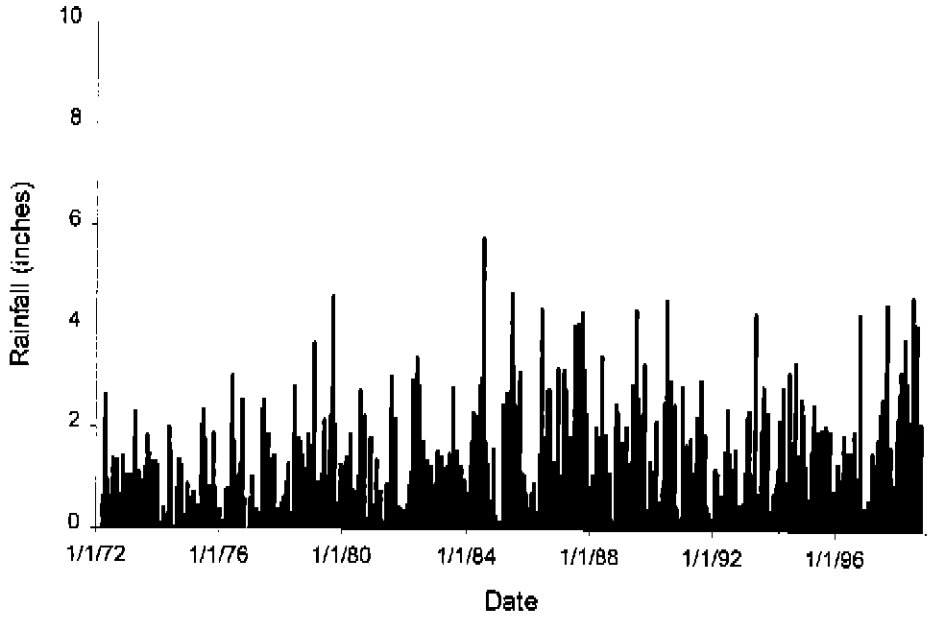

Figure C12. Daily rainfall at station BASING_R.

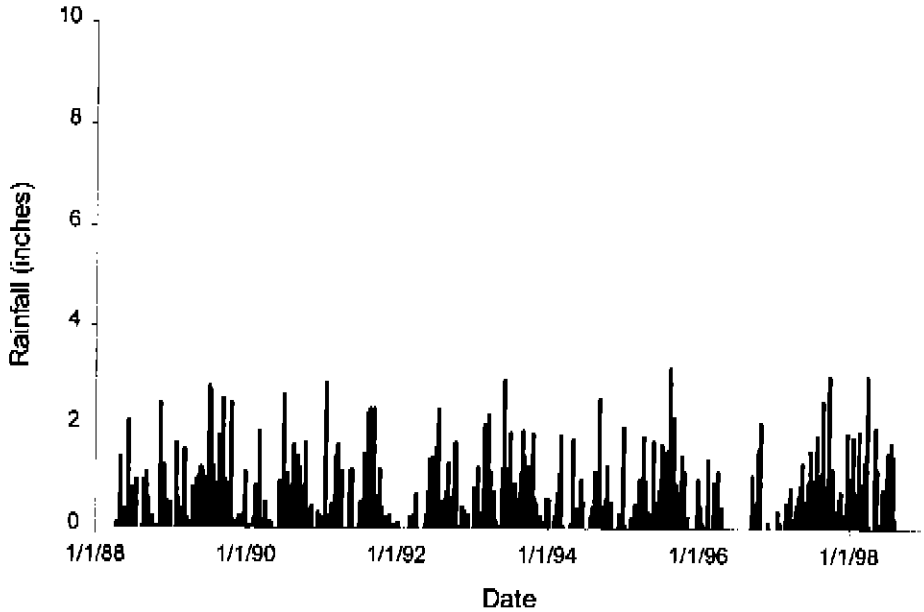

Figure C13. Daily rainfall at station LARSON1_R.

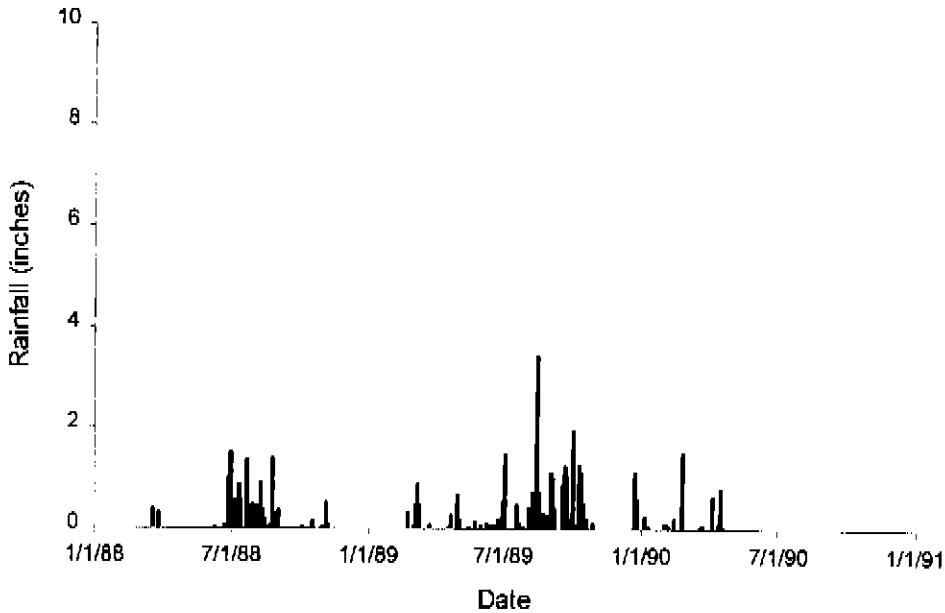

Figure C14. Daily rainfall at station BUTLER1_R.

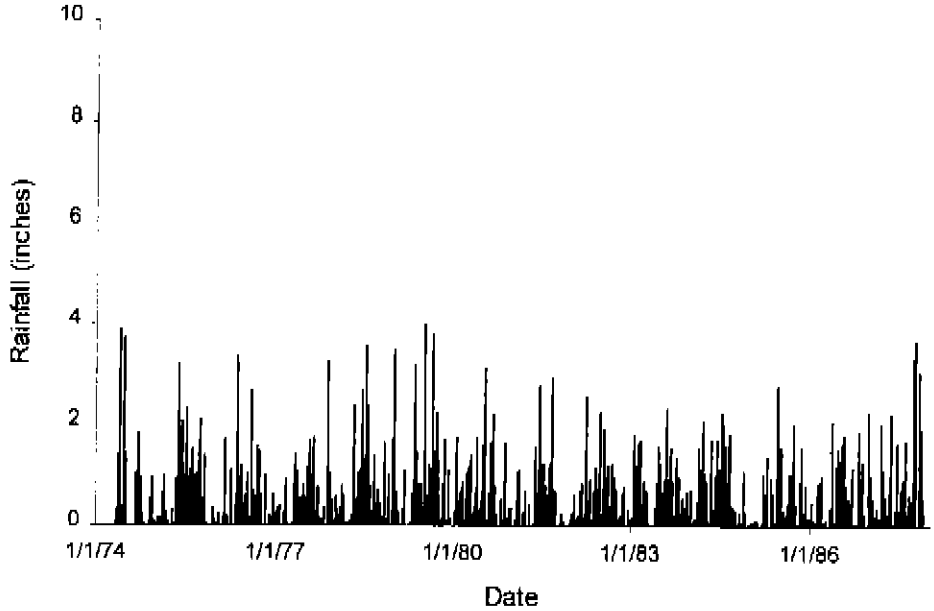

Figure C15. Daily rainfall at station LYKES721_R.

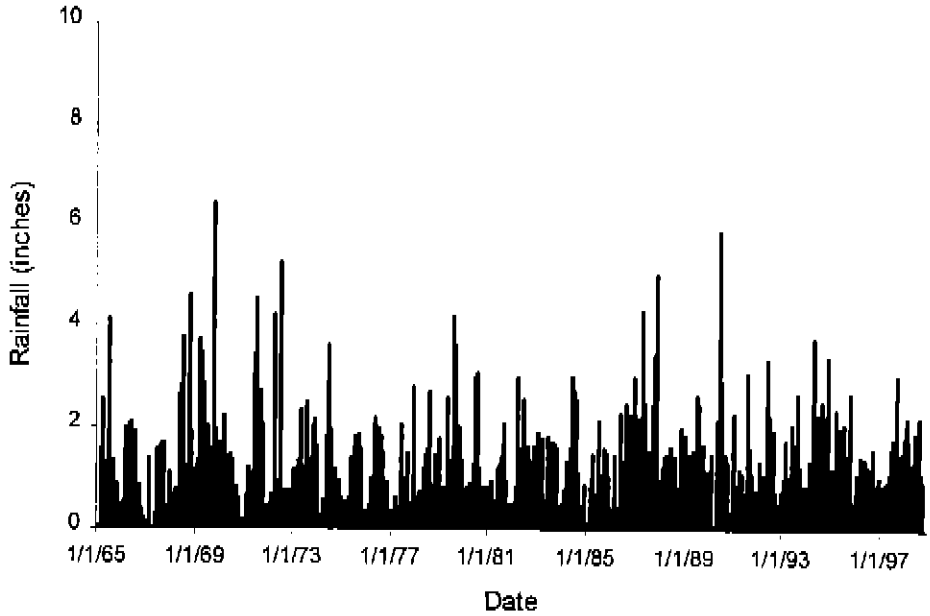

Figure C16. Daily rainfall at station S65D_R.

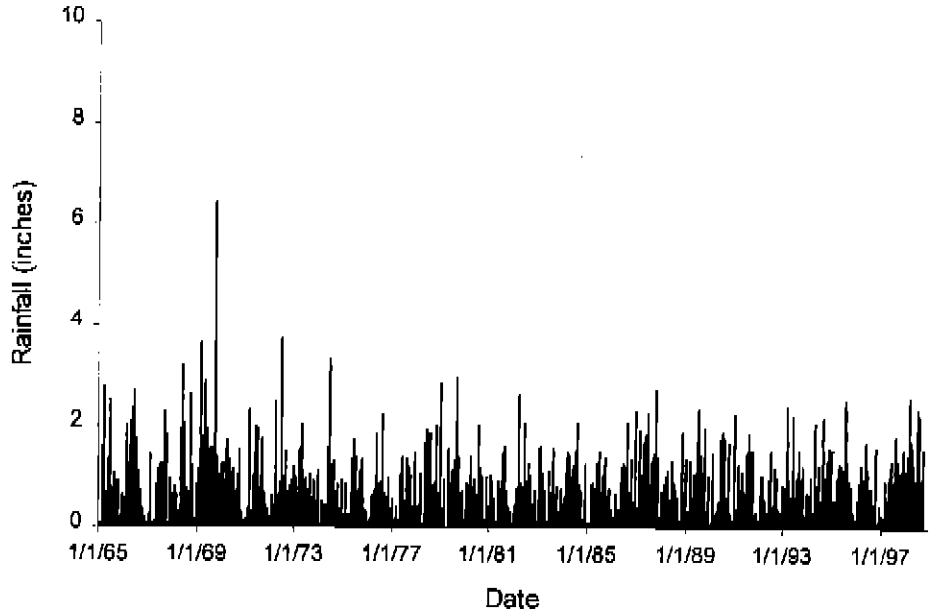

Figure C17. Daily rainfall for sub-basin S65D.

Table C14. Average monthly stage data (feet, NGVD) for stations containing records of four years or less.

Year/Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
EAGLE												
1988*	--	52.94	53.20	54.93	55.42	55.55	55.59	55.71	55.51	55.65	55.74	56.18
1989	56.11	55.76	56.51	55.60	54.62	55.71	56.61	56.56	56.68	56.74	55.98	56.41
1990*	56.32	55.80	55.63	55.68	55.66	--	--	--	--	--	--	--
RUCKSW												
1988*	--	17.95	18.06	17.61	17.56	17.36	18.10	18.53	17.99	17.49	17.57	17.74
1989*	17.79	17.48	17.78	17.33	16.95	16.89	17.45	18.16	18.53	--	--	--
CMRUCKS												
1987*	--	--	--	--	--	--	--	--	--	44.74	45.14	44.43
1988	44.58	44.43	44.34	44.15	44.63	44.81	45.48	44.74	43.92	44.23	44.66	45.10
1989	45.16	44.48	45.00	44.18	44.18	44.28	45.28	45.66	45.92	46.19	45.70	45.87
1990*	45.75	--	--	--	--	--	--	--	--	--	--	--
LAMB_II												
1988*	--	22.00	21.94	21.79	21.79	21.78	21.82	22.00	21.85	21.72	21.79	21.77
1989	29.84	34.11	34.22	33.87	33.34	33.08	33.65	33.79	34.10	34.45	33.29	33.46
1990	33.30	33.56	33.44	33.74	33.81	34.35	33.65	33.47	33.74	33.74	32.68	32.34
1991*	32.68	32.29	32.75	32.54	32.81	32.70	33.32	33.74	--	--	--	--
LAMB_T												
1988*	--	16.03	16.06	15.20	14.97	14.68	15.94	16.08	16.00	15.33	15.39	15.96
1989	27.03	32.52	32.97	32.47	32.17	31.91	33.19	33.03	33.63	34.13	32.95	32.87
1990	33.17	33.02	32.62	31.70	31.35	32.82	33.58	33.74	33.59	33.45	32.58	32.07
1991*	32.44	32.70	32.93	32.85	32.95	32.88	33.34	34.18	--	--	--	--
BASSC_II												
1983*	--	--	--	--	--	47.33	47.57	48.90	48.63	--	--	--
BASSC_T												
1983*	--	--	--	--	46.75	46.68	46.88	49.05	48.78	--	--	--
LARSON1												
1988	25.59	25.50	25.75	25.38	25.30	25.27	25.48	25.50	25.25	24.90	25.04	25.22
1989	25.21	25.13	25.02	24.93	25.53	29.28	32.52	32.76	33.45	33.19	32.27	32.36
1990	32.31	32.29	32.19	32.22	32.11	32.38	32.82	32.90	32.85	32.91	32.32	32.20
1991*	32.43	32.40	32.85	32.63	32.93	32.91	32.99	34.15	33.71	--	--	--
C38BAS												
1997*	--	--	--	--	--	--	--	--	--	26.96	27.05	27.13
1998*	27.13	27.14	27.22	27.10	26.92	26.90	27.21	27.18	27.16	--	--	--
BUTLER1												
1988*	--	--	36.70	36.11	36.01	35.54	36.48	37.30	37.05	35.41	35.28	35.16
1989*	35.14	35.08	34.98	35.15	34.47	34.28	34.30	34.71	--	--	--	--

Table C15. Average monthly stage data (feet, NGVD) at station FISH.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1975*	--	--	--	--	--	61.78	61.94	61.50	61.71	61.85	61.13	60.41
1976	60.18	60.03	60.07	59.38	60.21	61.75	61.31	61.63	61.42	60.84	60.33	60.46
1977	60.45	60.27	60.25	59.05	57.95	60.50	60.30	60.49	60.67	60.69	60.47	61.33
1978	61.08	61.10	61.53	61.06	61.04	62.01	62.29	62.78	62.60	62.07	61.77	61.46
1979	62.30	61.75	61.15	61.23	62.32	61.82	61.79	62.38	63.04	61.98	60.61	60.42
1980*	60.36	60.61	60.60	61.43	60.99	60.41	60.89	60.29	60.42	--	--	--

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	60.88	60.75	60.72	60.43	60.51	61.38	61.42	61.51	61.64	61.49	60.86	60.81
Standard Deviation	0.87	0.69	0.61	1.12	1.61	0.72	0.74	0.99	1.04	0.67	0.59	0.53
Minimum	60.18	60.03	60.07	59.05	57.95	60.41	60.30	60.29	60.42	60.69	60.33	60.41
Median	60.45	60.61	60.60	61.06	60.99	61.76	61.55	61.57	61.56	61.85	60.61	60.46
Maximum	62.30	61.75	61.53	61.43	62.32	62.01	62.29	62.78	63.04	62.07	61.77	61.46

Table B16. Average monthly stage data (feet, NGVD) at station RUCKSWF_H.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1988*	--	--	--	--	--	--	59.03	59.19	58.66	58.28	58.59	58.70
1989	58.72	58.70	58.83	58.10	57.60	57.23	58.19	59.15	59.37	59.46	59.05	59.00
1990	58.99	58.98	58.81	58.41	57.43	58.01	59.11	59.30	58.92	58.84	58.74	58.58
1991	58.52	58.61	58.98	58.70	58.70	58.65	58.79	59.45	59.19	59.00	58.74	58.57
1992	58.48	58.39	58.30	58.21	57.42	58.23	58.58	58.67	58.77	58.69	58.51	58.49
1993	58.99	58.97	58.87	58.78	58.51	58.18	58.33	58.48	58.64	58.92	59.11	59.17
1994*	59.31	--	--	--	--	--	--	--	--	--	--	--

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	58.84	58.73	58.76	58.44	57.93	58.06	58.67	59.04	58.92	58.87	58.79	58.75
Standard Deviation	0.32	0.25	0.27	0.30	0.62	0.52	0.37	0.38	0.30	0.39	0.24	0.27
Minimum	58.48	58.39	58.30	58.10	57.42	57.23	58.19	58.48	58.64	58.28	58.51	58.49
Median	58.86	58.70	58.83	58.41	57.60	58.18	58.69	59.17	58.84	58.88	58.74	58.64
Maximum	59.31	58.98	58.98	58.78	58.70	58.65	59.11	59.45	59.37	59.46	59.11	59.17

Table C17. Average monthly stage data (feet, NGVD) at station RUCKSWF_T.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1988*	--	--	--	--	--	--	58.50	58.71	58.18	57.84	57.86	57.93
1989	58.06	57.98	58.27	58.07	57.57	57.16	57.55	57.88	58.91	59.07	58.49	58.42
1990	58.41	58.40	58.30	58.09	57.45	58.05	58.72	58.69	58.40	58.33	57.97	57.90
1991	58.00	58.14	58.62	58.49	58.45	58.29	58.43	58.92	58.31	57.87	57.43	57.40
1992	57.46	57.52	57.58	57.64	57.03	57.79	58.03	58.20	58.25	58.20	57.97	57.88
1993*	58.42	55.11	--	--	--	--	--	--	--	--	--	--

Table C17. continued.

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	58.07	57.43	58.19	58.07	57.62	57.82	58.25	58.48	58.41	58.26	57.94	57.90
Standard	0.39	1.34	0.44	0.35	0.60	0.49	0.46	0.42	0.29	0.50	0.38	0.36
Minimum	57.46	55.11	57.58	57.64	57.03	57.16	57.55	57.88	58.18	57.84	57.43	57.40
Median	58.06	57.98	58.28	58.08	57.51	57.92	58.43	58.69	58.31	58.20	57.97	57.90
Maximum	58.42	58.40	58.62	58.49	58.45	58.29	58.72	58.92	58.91	59.07	58.49	58.42

Table C18. Average monthly stage data (feet, NGVD) at station CYPRS.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1987*	--	--	--	--	--	--	--	--	37.78	37.90	37.99	38.07
1988	38.16	38.01	38.00	37.35	36.42	36.57	37.56	38.35	37.98	36.84	36.89	37.00
1989	36.81	36.71	37.30	36.81	35.61	35.28	36.51	37.71	38.16	38.31	37.62	37.46
1990	37.49	37.49	37.29	36.29	35.68	35.73	38.01	38.06	37.71	38.14	37.29	36.86
1991*	36.76	41.95	38.86	38.41	38.21	37.83	37.49	38.00	--	--	--	--

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	37.30	38.54	37.86	37.21	36.48	36.35	37.39	38.03	37.91	37.80	37.45	37.35
Standard Deviation	0.66	2.34	0.75	0.91	1.21	1.12	0.63	0.26	0.20	0.66	0.47	0.55
Minimum	36.76	36.71	37.29	36.29	35.61	35.28	36.51	37.71	37.71	36.84	36.89	36.86
Median	37.15	37.75	37.65	37.08	36.05	36.15	37.53	38.03	37.88	38.02	37.46	37.23
Maximum	38.16	41.95	38.86	38.41	38.21	37.83	38.01	38.35	38.16	38.31	37.99	38.07

Table C19. Average monthly stage data (feet, NGVD) at station CHAND1.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1987*	--	--	--	--	31.52	31.25	33.49	33.07	32.88	33.74	33.69	32.71
1988	32.64	32.68	32.71	32.26	31.28	31.57	32.28	32.86	32.85	32.03	32.25	31.96
1989	31.46	31.09	31.97	31.57	30.96	30.88	32.27	32.64	33.32	33.98	32.54	32.44
1990	32.43	32.24	31.99	30.89	30.00	30.78	32.88	33.05	32.24	32.88	31.90	31.35
1991	31.86	31.81	32.46	32.25	32.49	32.63	32.78	33.10	31.56	30.89	30.28	30.07
1992	29.96	30.08	30.34	31.36	30.35	30.45	31.96	32.76	32.77	32.81	32.28	31.79
1993	32.35	32.72	33.41	33.08	32.11	32.20	31.60	31.80	32.93	32.59	32.59	32.34
1994	32.40	32.81	32.78	32.26	32.05	32.47	33.42	33.20	34.07	34.05	33.63	33.22
1995	33.13	33.05	33.20	33.42	32.49	32.05	32.02	32.96	32.88	33.47	33.40	33.03
1996	32.69	32.65	32.59	32.73	32.65	33.53	33.18	33.35	33.01	33.05	32.68	32.42
1997	32.33	32.49	32.83	32.34	32.45	32.63	33.37	34.08	33.87	33.28	33.04	33.86
1998*	33.89	34.22	34.16	33.08	32.62	31.91	32.97	33.98	33.32	--	--	--

Table C19. continued.

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	32.28	32.35	32.59	32.29	31.75	31.86	32.68	33.07	32.97	32.98	32.57	32.29
Standard Deviation	0.99	1.08	0.97	0.78	0.92	0.91	0.64	0.60	0.66	0.92	0.96	1.01
Minimum	29.96	30.08	30.34	30.89	30.00	30.45	31.60	31.80	31.56	30.89	30.28	30.07
Median	32.40	32.65	32.71	32.26	32.08	31.98	32.83	33.06	32.90	33.05	32.59	32.42
Maximum	33.89	34.22	34.16	33.42	32.65	33.53	33.49	34.08	34.07	34.05	33.69	33.86

Table C20. Average monthly stage data (feet, NGVD) at station CHAND2.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1987*	--	--	--	--	33.18	33.67	33.11	32.95	32.82	32.61	32.92	32.22
1988	31.06	31.72	32.44	32.90	32.74	32.01	32.05	31.87	31.41	31.03	32.00	31.42
1989	30.75	30.98	32.31	32.71	33.47	33.84	32.57	32.17	32.31	32.40	31.85	30.90
1990	29.19	31.12	32.90	33.07	32.32	32.82	31.75	31.14	31.72	31.63	32.33	32.02
1991*	32.15	32.29	32.80	34.44	33.53	33.36	--	--	--	--	--	--

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	30.79	31.53	32.61	33.28	33.05	33.14	32.37	32.03	32.06	31.92	32.28	31.64
Standard Deviation	1.22	0.60	0.28	0.79	0.51	0.74	0.60	0.75	0.62	0.73	0.47	0.60
Minimum	29.19	30.98	32.31	32.71	32.32	32.01	31.75	31.14	31.41	31.03	31.85	30.90
Median	30.91	31.42	32.62	32.98	33.18	33.36	32.31	32.02	32.01	32.02	32.17	31.72
Maximum	32.15	32.29	32.90	34.44	33.53	33.84	33.11	32.95	32.82	32.61	32.92	32.22

Table C21. Average monthly stage data (feet, NGVD) at station BASSP_H.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1983*	--	--	--	--	--	47.94	47.90	47.68	48.07	--	--	--
1984*	--	--	--	--	--	--	--	--	--	--	--	--
1985*	--	--	--	--	--	--	--	--	--	--	--	--
1986*	--	--	--	--	--	--	--	--	--	--	--	--
1987*	--	--	--	--	--	--	--	--	--	--	--	--
1988*	--	--	53.55	52.33	52.34	52.55	52.98	53.17	52.70	52.34	52.61	52.62
1989	52.66	52.29	52.65	52.42	52.72	52.67	53.05	53.58	51.42	50.07	50.41	50.25
1990	49.94	48.98	48.47	48.32	48.22	48.51	48.72	48.44	48.82	49.38	48.21	48.16
1991	48.76	48.43	49.43	49.23	49.20	48.98	49.22	50.39	50.09	49.19	48.31	48.26
1992	48.19	48.25	48.23	48.17	48.31	48.60	49.06	49.71	49.32	49.32	48.34	48.31
1993	48.82	49.35	49.89	49.17	48.40	48.67	48.51	48.46	49.42	49.20	49.29	49.00
1994*	48.78	49.43	48.87	48.35	48.22	48.44	49.17	49.43	50.02	49.87	--	--

Table C21. continued.

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	49.53	49.45	50.16	49.71	49.63	49.54	49.83	50.11	49.98	49.91	49.53	49.43
Standard Deviation	1.64	1.47	2.10	1.86	2.01	1.91	2.01	2.19	1.47	1.12	1.73	1.75
Minimum	48.19	48.25	48.23	48.17	48.22	47.94	47.90	47.68	48.07	49.19	48.21	48.16
Median	48.80	49.17	49.43	49.17	48.40	48.64	49.11	49.57	49.72	49.38	48.81	48.65
Maximum	52.66	52.29	53.55	52.42	52.72	52.67	53.05	53.58	52.70	52.34	52.61	52.62

Table C22. Average monthly stage data (feet, NGVD) at station BASSP_T.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1983*	--	--	--	--	--	47.52	47.54	47.80	47.44	--	--	--
1984*	--	--	--	--	--	--	--	--	--	--	--	--
1985*	--	--	--	--	--	--	--	--	--	--	--	--
1986*	--	--	--	--	--	--	--	--	--	--	--	--
1987*	--	--	--	--	--	--	--	--	--	--	--	--
1988*	--	--	--	--	51.15	51.48	51.13	51.73	52.36	51.45	52.17	52.21
1989	51.97	51.66	52.34	51.74	51.62	51.48	52.70	53.49	51.24	49.91	50.38	50.32
1990	49.42	48.42	47.69	47.03	46.49	46.88	48.17	47.71	48.39	48.92	47.57	47.24
1991	48.02	48.00	48.94	48.79	48.61	48.56	48.77	49.97	49.84	49.08	47.89	47.33
1992	46.98	47.29	47.04	46.98	46.87	47.61	48.96	49.50	49.23	49.20	48.07	47.80
1993	48.63	49.29	49.66	49.04	47.95	48.34	48.23	47.93	49.42	49.21	48.77	48.28
1994*	49.01	49.35	48.67	47.76	47.10	47.12	--	--	--	--	--	--

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	49.01	49.00	49.06	48.56	48.54	48.62	49.36	49.73	49.70	49.63	49.14	48.86
Standard Deviation	1.69	1.52	1.86	1.78	2.07	1.85	1.86	2.21	1.67	0.95	1.79	1.99
Minimum	46.98	47.29	47.04	46.98	46.49	46.88	47.54	47.71	47.44	48.92	47.57	47.24
Median	48.82	48.86	48.81	48.28	47.95	47.97	48.77	49.50	49.42	49.20	48.42	48.04
Maximum	51.97	51.66	52.34	51.74	51.62	51.48	52.70	53.49	52.36	51.45	52.17	52.21

Table C23. Average monthly stage data (feet, NGVD) at station C38.BAS.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1931*	--	--	--	--	--	30.76	30.26	29.97	30.06	29.98	29.43	28.71
1932	28.04	27.21	26.79	26.13	25.63	27.30	26.39	28.28	30.75	29.77	29.44	28.57
1933	27.86	27.23	26.82	26.78	25.90	25.70	28.91	30.94	32.49	32.20	31.59	30.98
1934	30.36	29.81	29.45	29.45	29.56	31.87	33.14	32.58	32.32	31.74	30.91	30.16
1935	29.39	28.62	27.60	27.01	26.24	25.58	26.43	26.79	29.33	31.28	30.26	29.83
1936	29.73	30.72	31.82	31.12	30.44	30.62	30.76	31.05	31.29	31.43	31.23	30.69
1937	30.15	29.90	29.70	29.93	29.23	28.85	28.88	28.54	29.09	30.61	31.40	31.68
1938	31.09	30.58	29.97	28.89	27.60	27.87	29.11	30.22	29.48	29.78	29.71	28.82
1939	28.07	27.38	26.51	26.04	25.71	25.62	28.40	30.15	31.68	31.67	31.23	30.58
1940	30.29	30.13	30.06	30.15	29.26	28.99	29.76	30.38	31.32	31.30	30.16	29.50
1941	30.04	30.46	30.16	30.75	30.85	30.24	31.50	31.79	31.45	31.59	31.57	31.34
1942	31.56	31.43	31.89	31.40	30.88	31.39	31.44	31.39	31.37	31.01	30.21	29.53
1943	28.78	28.09	27.96	27.09	26.49	26.76	28.53	29.76	30.38	31.39	30.47	29.92
1944	29.43	28.66	27.74	28.69	27.12	26.71	27.21	28.85	29.71	29.80	30.56	30.30

Table C23. continued.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1945	30.05	29.65	28.89	27.84	26.76	26.37	29.84	31.25	32.49	32.70	31.94	31.31
1946	30.81	30.23	29.87	29.04	28.42	28.54	28.34	29.56	30.64	30.77	30.46	30.01
1947	29.42	28.98	29.96	30.09	29.60	30.94	32.42	32.73	33.69	33.92	33.15	32.47
1948	32.09	31.99	31.40	30.85	30.24	29.75	29.87	30.46	32.58	34.25	32.61	31.81
1949	31.04	30.27	29.40	28.56	27.60	27.18	28.50	30.10	32.19	32.69	31.71	30.76
1950	30.15	29.72	29.00	28.14	27.47	27.64	27.43	26.58	26.65	28.19	29.42	28.79
1951	28.59	28.68	28.10	29.11	29.49	28.09	29.37	30.09	29.72	31.44	31.01	30.62
1952	30.04	29.57	29.36	29.60	29.65	29.85	29.93	30.09	30.51	31.45	31.83	30.96
1953	30.23	29.86	29.61	29.92	29.90	29.86	30.40	31.42	33.74	34.93	33.74	33.47
1954	32.71	31.93	31.24	30.40	29.91	31.50	31.47	30.86	30.95	31.28	30.48	29.93
1955	29.36	29.07	28.29	27.60	26.56	26.33	28.20	28.24	28.28	27.43	26.64	26.31
1956	26.00	25.67	25.33	24.80	24.42	24.24	24.23	24.29	25.08	29.00	30.23	29.20
1957	28.71	28.30	29.19	29.71	30.36	30.18	30.97	31.74	32.13	32.07	30.98	29.87
1958	30.59	31.29	31.38	31.37	31.11	30.50	30.63	30.37	30.13	29.05	27.50	27.02
1959	27.05	27.25	28.97	30.55	30.24	31.58	--	--	--	--	--	--
1960*	--	--	--	--	--	--	--	--	--	--	--	--
1961*	--	--	--	--	--	--	--	--	--	--	--	--
1962*	--	--	--	--	--	--	--	--	--	28.27	26.02	25.19
1963	24.92	25.64	27.30	25.95	25.41	26.05	26.20	25.70	26.18	26.67	26.10	26.30
1964*	27.00	29.24	28.44	25.97	25.60	24.80	23.29	24.58	27.77	--	--	--

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	29.45	29.25	29.07	28.76	28.26	28.44	29.06	29.62	30.45	30.92	30.40	29.82
Standard Deviation	1.73	1.64	1.63	1.86	2.01	2.25	2.26	2.17	2.10	1.91	1.85	1.84
Minimum	24.92	25.64	25.33	24.80	24.42	24.24	23.29	24.29	25.08	26.67	26.02	25.19
Median	29.89	29.61	29.28	29.08	28.82	28.54	29.24	30.12	30.69	31.29	30.52	29.97
Maximum	32.71	31.99	31.89	31.40	31.11	31.87	33.14	32.73	33.74	34.93	33.74	33.47

Table C24. Average monthly stage data (feet, NGVD) at station S65DX_II.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1969*	--	--	--	--	--	--	--	26.92	26.89	27.40	--	--
1970*	--	--	--	--	--	--	--	--	--	--	--	--
1971*	--	--	--	--	--	--	--	--	--	--	--	--
1972*	--	--	--	--	--	--	--	--	--	--	--	--
1973*	--	--	--	--	--	--	--	--	--	--	--	--
1974*	--	--	--	--	--	--	--	--	--	--	--	--
1975*	--	--	--	--	--	--	--	--	--	--	--	--
1976*	--	--	--	--	--	--	--	--	--	--	--	--
1977*	--	--	--	--	--	--	--	--	--	--	--	--
1978*	--	--	--	--	--	--	--	--	--	--	--	--
1979*	--	--	--	--	--	--	--	--	--	--	--	--
1980*	--	--	--	--	--	--	--	--	--	--	--	--
1981*	26.71	26.76	26.44	26.54	26.52	25.62	25.04	25.03	26.78	--	--	--
1982*	--	--	--	--	--	--	--	--	--	--	--	--
1983*	--	--	--	--	--	--	--	--	--	26.81	26.71	26.72
1984	26.82	26.86	26.82	26.82	26.84	26.85	26.81	26.81	26.83	26.80	26.80	26.84
1985	26.64	26.67	26.60	26.59	26.84	26.67	26.79	26.81	26.84	26.82	26.82	26.83
1986	26.82	26.83	26.83	26.86	26.87	26.80	26.85	26.84	26.82	26.82	26.83	26.81
1987	26.77	26.80	26.80	26.81	26.73	26.64	26.85	26.82	26.80	26.80	26.87	26.85
1988*	26.84	26.84	26.83	26.81	--	--	--	--	--	--	--	--

Table C24. continued.

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	26.77	26.79	26.72	26.74	26.76	26.51	26.47	26.54	26.83	26.91	26.81	26.81
Standard Deviation	0.08	0.07	0.17	0.14	0.14	0.50	0.80	0.74	0.04	0.24	0.06	0.05
Minimum	26.64	26.67	26.44	26.54	26.52	25.62	25.04	25.03	26.78	26.80	26.71	26.72
Median	26.79	26.81	26.81	26.81	26.84	26.67	26.81	26.82	26.82	26.81	26.82	26.83
Maximum	26.84	26.86	26.83	26.86	26.87	26.85	26.85	26.92	26.89	27.40	26.87	26.85

Table C25. Average monthly stage data (feet, NGVD) at station S65DX_T.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1969*	--	--	--	--	--	--	--	21.00	20.99	21.29	--	--
1970*	--	--	--	--	--	--	--	--	--	--	--	--
1971*	--	--	--	--	--	--	--	--	--	--	--	--
1972*	--	--	--	--	--	--	--	--	--	--	--	--
1973*	--	--	--	--	--	--	--	--	--	--	--	--
1974*	--	--	--	--	--	--	--	--	--	--	--	--
1975*	--	--	--	--	--	--	--	--	--	--	--	--
1976*	--	--	--	--	--	--	--	--	--	--	--	--
1977*	--	--	--	--	--	--	--	--	--	--	--	--
1978*	--	--	--	--	--	--	--	--	--	--	--	--
1979*	--	--	--	--	--	--	--	--	--	--	--	--
1980*	--	--	--	--	--	--	--	--	--	--	--	--
1981*	--	--	--	--	--	--	--	--	--	--	--	--
1982*	--	--	--	--	--	--	--	--	--	--	--	--
1983*	--	--	--	--	--	--	--	--	--	21.09	20.94	21.03
1984	21.04	21.04	21.03	21.03	21.05	21.05	21.07	21.04	21.05	21.04	21.05	21.05
1985	20.97	21.08	20.90	20.64	21.10	21.00	21.15	21.13	21.11	21.08	21.05	21.02
1986	21.05	21.05	21.05	21.10	21.08	21.06	21.13	21.08	21.06	20.99	21.03	21.01
1987	21.08	21.06	21.06	21.02	21.06	21.05	21.11	21.04	21.04	21.03	21.02	21.04
1988*	21.05	21.05	21.12	21.12	--	--	--	--	--	--	--	--

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	21.04	21.05	21.03	20.98	21.07	21.04	21.11	21.06	21.05	21.09	21.02	21.03
Standard Deviation	0.04	0.01	0.08	0.20	0.02	0.03	0.03	0.05	0.04	0.10	0.04	0.02
Minimum	20.97	21.04	20.90	20.64	21.05	21.00	21.07	21.00	20.99	20.99	20.94	21.01
Median	21.05	21.05	21.05	21.03	21.07	21.05	21.12	21.04	21.05	21.06	21.03	21.03
Maximum	21.08	21.08	21.12	21.12	21.10	21.06	21.15	21.13	21.11	21.29	21.05	21.05

Table C26. Average monthly stage data (feet, NGVD) at station S65D_H.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1964*	--	--	--	--	--	--	23.27	23.40	24.38	25.27	26.52	26.81
1965	26.77	26.84	26.84	26.69	26.81	26.87	26.87	26.93	26.79	26.85	26.83	26.88
1966	26.89	26.88	26.88	26.72	26.80	26.77	26.83	26.82	26.88	26.85	26.89	26.92
1967	26.91	26.90	26.93	26.97	26.99	26.90	26.91	26.94	26.92	26.89	26.90	26.90
1968	26.89	26.90	26.90	26.91	26.92	26.83	26.87	26.91	26.91	26.91	26.93	26.93
1969	26.95	26.94	26.95	26.93	26.90	26.95	26.93	26.93	26.89	27.34	26.93	26.94
1970	26.92	26.93	26.91	26.90	26.77	27.06	27.01	27.01	27.03	27.04	26.54	27.09
1971	27.07	27.04	26.91	25.86	25.72	26.79	27.05	27.06	27.00	27.02	27.02	26.91
1972	26.38	26.91	26.89	27.09	27.03	27.06	27.01	26.99	26.94	26.64	26.92	27.12
1973	27.18	27.10	27.10	27.11	27.10	27.20	27.22	27.13	27.11	27.14	26.98	27.11
1974	27.04	27.08	26.95	27.07	27.09	27.03	27.30	27.17	27.20	27.11	26.96	27.03
1975	27.00	26.97	27.16	27.21	27.12	27.08	27.24	27.20	27.24	27.23	27.15	27.22
1976	27.30	27.27	27.24	27.27	27.23	27.05	27.25	27.22	27.18	27.17	27.23	27.11
1977	27.17	27.20	27.21	27.15	27.06	27.16	27.19	27.06	27.17	27.14	27.23	27.18
1978	27.22	27.26	27.18	27.24	27.20	27.17	27.07	27.01	26.91	26.86	26.88	26.90
1979	26.84	26.82	26.76	26.67	26.79	26.79	26.84	26.83	26.47	26.50	26.79	26.79
1980	26.77	26.78	26.80	26.68	26.73	26.76	26.73	26.80	26.79	26.80	26.80	26.81
1981	26.71	26.76	26.44	26.54	26.52	25.62	25.04	25.03	26.77	26.63	26.44	25.66
1982	25.63	25.64	26.61	26.87	26.84	26.81	26.81	26.83	26.82	26.83	26.82	26.82
1983	26.85	26.85	26.82	26.84	26.84	26.78	26.82	26.82	26.83	26.81	26.71	26.72
1984	26.82	26.86	26.82	26.82	26.84	26.85	26.81	26.81	26.83	26.80	26.80	26.84
1985	26.64	26.67	26.60	26.59	26.84	26.67	26.79	26.81	26.84	26.82	26.82	26.83
1986	26.82	26.83	26.83	26.86	26.87	26.80	26.85	26.84	26.82	26.82	26.83	26.81
1987	26.77	26.80	26.80	26.81	26.79	26.64	26.85	26.82	26.80	26.80	26.87	26.81
1988	26.86	26.82	26.83	26.81	26.82	26.84	26.90	26.88	26.86	26.82	26.63	26.76
1989	26.67	26.82	26.86	26.88	26.85	25.81	26.85	26.93	27.00	26.92	26.90	26.96
1990	26.96	26.91	26.86	26.90	26.93	26.98	26.96	26.95	26.86	26.92	26.94	26.97
1991	26.97	26.96	26.97	26.96	26.92	26.89	26.90	26.88	26.84	26.87	26.88	26.87
1992	26.93	27.41	26.97	26.89	26.88	26.86	26.51	26.73	26.95	27.09	27.06	27.08
1993	27.07	27.01	27.05	26.99	26.97	27.01	26.99	26.86	27.08	27.05	27.03	26.98
1994	26.98	26.97	27.05	26.97	26.97	27.04	27.02	27.02	27.10	27.05	27.04	27.05
1995	27.06	27.05	27.04	27.05	27.03	27.00	27.06	27.01	27.03	27.09	27.03	26.99
1996	27.01	27.00	27.04	27.00	27.01	27.05	27.02	27.04	26.97	27.01	26.98	27.09
1997	27.04	27.05	27.02	27.03	27.05	27.04	27.08	27.04	27.05	26.99	27.02	27.02
1998*	27.00	27.01	27.04	27.03	26.87	26.85	27.15	27.14	27.10	--	--	--

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	26.89	26.92	26.92	26.89	26.89	26.85	26.80	26.80	26.87	26.88	26.89	26.91
Standard Deviation	0.29	0.28	0.17	0.25	0.25	0.32	0.71	0.68	0.46	0.34	0.18	0.25
Minimum	25.63	25.64	26.44	25.86	25.72	25.62	23.27	23.40	24.38	25.27	26.44	25.66
Median	26.93	26.92	26.91	26.91	26.89	26.88	26.91	26.93	26.91	26.90	26.90	26.93
Maximum	27.30	27.41	27.24	27.27	27.23	27.20	27.30	27.22	27.24	27.34	27.23	27.22

Table C27. Average monthly stage data (feet, NGVD) at station S65D_T.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1969*	--	--	--	--	--	--	--	21.00	20.99	21.24	20.89	20.87
1970	20.84	20.82	20.80	20.75	20.77	20.80	20.81	20.83	20.78	20.80	20.78	20.82
1971	20.78	20.83	20.88	20.84	20.15	20.54	20.84	20.85	20.80	20.80	20.77	20.77
1972	20.81	20.72	20.80	20.79	20.81	20.83	20.80	20.86	20.84	20.75	21.03	20.95
1973	20.95	20.92	20.94	20.90	20.88	21.05	20.99	21.05	21.04	21.05	21.03	21.01
1974	21.05	21.12	21.02	21.05	21.01	21.07	21.38	21.09	20.98	20.96	20.94	20.94
1975	20.94	20.96	20.98	20.99	21.03	21.04	21.07	21.09	21.09	21.07	21.06	21.05
1976	21.00	21.04	21.04	21.03	21.04	21.06	21.05	21.07	21.04	21.02	21.01	21.07
1977	21.06	21.07	21.09	20.94	20.47	20.92	20.92	21.07	21.10	21.05	21.10	21.00
1978	21.01	21.02	21.03	21.04	21.05	21.05	21.06	21.58	21.03	21.01	21.02	21.04
1979	21.16	21.02	21.04	21.03	21.08	20.99	21.03	21.02	21.27	21.66	21.00	20.99
1980	20.99	21.00	21.01	21.01	21.03	21.06	21.03	21.03	21.03	21.01	21.01	20.99
1981	20.97	21.01	20.81	20.23	20.58	20.30	20.37	20.66	21.03	20.90	20.96	20.89
1982	20.85	20.48	20.86	21.03	21.04	21.08	21.06	21.06	21.03	20.96	21.00	21.02
1983	21.00	21.09	21.06	21.04	20.99	21.07	20.98	21.01	20.95	21.10	20.94	21.03
1984	21.04	21.04	21.03	21.03	21.05	21.05	21.07	21.04	21.05	21.04	21.05	21.05
1985	20.97	21.08	20.90	20.64	21.10	21.00	21.15	21.13	21.11	21.08	21.05	21.02
1986	21.05	21.05	21.05	21.10	21.08	21.06	21.13	21.08	21.06	20.99	21.03	21.01
1987	21.08	21.06	21.06	21.02	21.05	21.05	21.11	21.05	21.04	21.03	21.07	21.08
1988	21.11	21.09	21.12	21.08	21.08	20.93	21.13	21.14	21.17	21.05	20.94	20.45
1989	20.62	21.09	21.14	21.13	21.12	21.01	21.11	21.12	21.10	21.13	21.05	21.07
1990	21.09	21.11	21.09	21.14	21.17	21.16	21.18	21.17	21.19	21.17	21.16	21.17
1991	21.17	21.17	21.19	21.17	21.18	21.19	21.21	21.25	21.19	21.17	21.18	21.17
1992	21.17	21.18	21.12	21.15	21.15	21.21	21.51	21.26	21.06	21.08	21.10	21.07
1993	21.13	21.09	21.09	21.08	21.03	21.10	21.14	20.97	21.15	21.15	21.14	21.12
1994	21.14	21.11	21.17	21.10	21.10	21.15	21.15	21.12	21.15	21.13	21.13	20.99
1995	21.01	21.01	21.01	21.03	21.05	21.04	21.10	21.23	21.16	21.11	21.00	21.05
1996	21.08	21.04	21.01	21.08	21.03	21.06	21.01	21.05	21.06	21.05	21.03	21.15
1997	21.10	21.07	21.09	21.08	21.17	21.16	21.17	21.16	21.11	21.07	21.10	21.22
1998*	21.16	21.16	21.16	21.04	21.07	21.05	21.03	21.04	21.03	--	--	--

Statistic	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mean	21.01	21.02	21.02	20.98	20.98	21.00	21.05	21.07	21.05	21.06	21.02	21.00
Standard Deviation	0.13	0.15	0.11	0.19	0.23	0.19	0.20	0.16	0.11	0.16	0.10	0.15
Minimum	20.62	20.48	20.80	20.23	20.15	20.30	20.37	20.66	20.78	20.75	20.77	20.45
Median	21.04	21.05	21.04	21.03	21.05	21.05	21.07	21.06	21.05	21.05	21.03	21.02
Maximum	21.17	21.18	21.19	21.17	21.18	21.21	21.51	21.58	21.27	21.66	21.18	21.22

Table C28. Monthly and annual flow sums (ac-ft) for C38.BAS.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1948*	--	--	--	--	--	--	--	--	--	677266	301631	212790	1191687
1949	151678	98282	78864	54421	41554	37246	60229	114706	252876	425183	252480	152650	1720169
1950	107307	80590	69772	49976	41279	42403	40904	29770	30106	89166	84517	67399	733189
1951*	63454	60281	55715	85689	92729	54824	82301	99512	84576	--	--	--	679081
1952*	--	--	--	--	--	--	--	--	--	--	--	--	--
1953*	--	--	--	--	--	--	--	--	--	--	--	--	--
1954*	--	--	--	--	--	--	--	--	--	--	--	--	--
1955*	--	--	--	--	--	--	--	--	--	--	--	--	--
1956*	--	--	--	--	--	--	--	--	--	--	--	--	--
1957*	--	--	--	--	--	--	--	--	--	--	--	--	--
1958*	--	--	--	--	--	--	--	--	--	--	--	--	--
1959*	--	--	--	--	--	--	--	--	--	--	--	--	--
1960*	--	--	--	--	--	--	--	--	--	--	--	--	--
1961*	--	--	--	--	--	--	--	--	--	--	--	--	--
1962*	--	--	--	--	--	--	--	--	--	82230	28983	19579	130792
1963	17018	23497	52230	30346	24859	31885	34757	28295	36314	45301	34231	38460	397193
1964*	49260	118395	144498	93363	97410	76801	37798	59547	141503	--	--	--	818575

Statistic†	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR‡
Mean	77743	76208	80215	62760	59566	48631	51198	66366	109075	263829	140368	98175	950184
SD	52543	36465	37506	26200	33148	17893	20029	39593	92007	277581	127835	81845	561475
Min	17018	23497	52230	30346	24859	31885	34757	28295	30106	45301	28983	19579	397193
Med	63454	80590	69772	54421	41554	42403	40904	59547	84576	89166	84517	67399	647332
Max	151678	118395	144498	93363	97410	76801	82301	114706	252876	677266	301631	212790	1720169

† SD = standard deviation; Min = minimum; Med = median; Max = maximum.

Table C29. Monthly and annual flow sums (ac-ft) for S65DX_C.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1983*	--	--	--	--	--	--	--	--	--	1488	1029	0	2517
1984	657	4183	4191	3564	4453	4306	4443	4447	4304	4435	1363	738	41084
1985	397	3322	0	0	1507	0	436	1591	1543	1208	0	315	10319
1986	6115	7593	1222	1813	4487	781	0	2777	4328	4495	0	276	33887
1987	8101	11068	12266	11903	6532	0	0	0	0	0	383	2557	52810
1988	4959	6813	8366	9824	6298	0	0	5629	5871	4975	1061	0	53796
1989	1851	4278	6062	5875	3923	89	1916	2259	4364	6087	5891	6087	48682
1990	6087	5498	6087	5885	4703	714	6089	6091	5865	6081	2448	0	55548
1991	313	1018	2666	5895	6081	2668	1162	8608	10275	10634	9186	1121	59627
1992	1125	1075	1127	1085	1121	1091	1127	1127	1091	1127	1091	1127	13314
1993*	1131	1020	1131	1091	1127	1091	1127	1121	1095	--	--	--	9934

Statistic†	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR‡
Mean	3072	4586	4312	4693	4023	1075	1630	3364	3874	4052	2245	1222	41007
SD	2922	3275	3902	3947	2101	1400	2055	2735	3082	3203	2983	1882	18301
Min	313	1018	0	0	1121	0	0	0	0	0	0	0	10319
Med	1492	4231	3429	4721	4471	748	1127	2519	4316	4465	1077	528	48682
Max	8101	11068	12266	11903	6532	4306	6089	8608	10275	10634	9186	6087	59627

† SD = standard deviation; Min = minimum; Med = median; Max = maximum.

Table C30. Monthly and annual flow sums (ac-ft) for S65D_S.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1969*	--	--	--	--	--	--	--	--	111949	636860	339653	313653	1402115
1970	275720	216434	209771	167546	32113	21638	40507	16588	10759	22251	1492	16111	1030930
1971	47971	122112	16473	0	0	18524	41943	36725	73816	47798	10873	1551	417786
1972	0	15414	13613	50784	46341	111372	105058	31038	53090	45063	45657	11601	529031
1973	34045	102884	113476	168724	113901	15328	68492	116316	198255	58794	2005	4596	996816
1974	2503	44797	18407	23449	39850	40648	490639	389478	159337	42733	4389	2384	1258614
1975	1976	1402	5474	53953	74030	42368	45519	96654	118889	88055	66590	9611	604521
1976	9316	82044	106441	55209	73076	76295	57488	225724	123142	28163	8908	78713	924519
1977	130147	89008	113317	23475	7087	9747	18506	21767	32083	11417	14505	49406	520465
1978	89626	116437	147951	41427	59515	67526	159707	331621	90559	46940	17186	28209	1196704
1979	236743	164966	57940	4284	97485	13188	31177	50232	354757	242358	36925	93673	1383728
1980	118308	113079	124843	77678	88746	3082	8763	20408	31682	1722	1332	1075	590718
1981	141	2172	67	0	0	0	0	2594	64448	1734	1102	0	72258
1982	0	0	6559	43601	80800	235192	245059	226159	186590	179326	37115	16809	1257210
1983	47027	289367	361548	234380	78769	13266	82635	120133	65592	11042	4209	96509	1404477
1984	108033	124219	76660	157151	143443	42229	120565	123064	17905	3076	8867	8247	933459
1985	0	0	2	5919	57793	8194	16574	62296	116828	42219	9455	10183	329463
1986	110880	112238	76510	62121	59525	35727	73836	81365	85872	5923	23068	13245	740310
1987	174560	133259	85751	189333	57672	117	23723	14958	37252	96567	218530	130410	1162132
1988	71144	115251	227968	146239	80998	7101	25637	58422	129763	5484	3405	4001	875413
1989	37986	63541	70997	95968	83125	3041	13444	22342	23675	61268	7423	8241	491051
1990	102856	130990	52360	18798	15025	14549	67947	57472	23261	82390	1971	1306	568925
1991	7394	1950	19258	73249	148487	66677	173816	349953	123156	119200	2098	4335	1089573
1992	3358	91473	21759	137437	106070	51690	60624	176095	129770	45787	24740	35251	884054
1993	261679	82071	118054	290973	11760	4933	3882	7517	41913	13191	2964	1992	840929
1994	7414	13924	93191	43159	11328	153477	191156	150827	239240	260396	246115	192335	1602562
1995	115797	110657	116382	126605	60001	30597	109402	393503	390381	278631	74781	87142	1893879
1996	190420	104933	116570	191600	49603	83450	46245	95569	36471	50478	2443	2444	970226
1997	41148	76779	10396	54909	149532	76627	40233	291285	69984	41824	144912	410780	1408409
1998*	482962	384172	577734	214436	38452	3293	31446	82214	107438	--	--	--	1922147

Statistic†	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR‡
Mean	93419	100192	102051	94911	64294	43099	82553	125942	108262	88644	46990	56338	927792
S.D.	111556	86132	121710	79610	42398	52460	99070	121309	91818	130610	84020	97594	417369
Min.	0	0	2	0	0	0	0	2594	10759	1722	1102	0	72258
Med.	47971	102884	76660	62121	59525	21638	46245	82214	88216	45787	9455	11601	928989
Max.	482962	384172	577734	290973	149532	235192	490639	393503	390381	636860	339653	410780	1893879

† SD = standard deviation; Min = minimum; Med = median; Max = maximum.

APPENDIX D

RUNOFF CALCULATION RESULTS FOR S65C AND S65D SUB-BASIN

Table D1. Monthly and annual runoff calculation results (ac-ft) for S65C sub-basin.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1967*	--	--	--	--	--	--	--	--	--	--	1995	16637	18632
1968	16184	14235	14371	12149	14507	71173	145611	80331	99325	92661	19267	-7979	571835
1969	4125	8024	-16819	5712	21851	26067	3037	24344	2811	8749	19629	-20717	86813
1970	45	8976	907	6347	-1360	3219	272	2357	-1088	3808	-3083	1768	22168
1971	5984	3853	1043	0	0	0	-1768	6528	6483	3264	-2720	-1360	21307
1972	0	680	-997	1043	4805	1405	12920	1723	6165	2992	-907	272	30101
1973	7163	9520	16229	13691	12285	4216	16773	16728	-1133	11515	-1496	589	106080
1974	-952	2947	4624	5485	10427	-1587	-1315	-4080	-2267	9747	-4941	-907	17181
1975	-91	-227	-1269	3309	4760	12920	6437	11923	3128	7616	6437	-861	54082
1976	-1405	-1904	15368	17453	5712	34136	18405	-12195	589	-997	408	15912	91482
1977	16003	13781	16229	8296	2584	0	-907	0	7344	3808	3264	21352	91754
1978	6483	7344	9384	6619	8840	7163	3173	46512	14869	12376	8341	-45	131059
1979	317	-6800	10381	3037	8296	6936	12421	12557	19720	33819	21533	7163	129380
1980	8885	13827	45469	13872	6528	1768	1859	3581	8160	363	0	-317	103995
1981	0	0	0	0	0	0	0	363	10291	1088	136	771	12649
1982	0	1859	4397	5939	6029	-24525	-21896	-16320	-4352	-3944	16456	11832	-24525
1983	-21624	-4533	-29013	-21533	5667	1043	2947	2765	3536	952	0	-10653	-70446
1984	4579	-6619	11923	-9203	-4987	19856	20989	14008	6619	-1179	-9928	3083	49141
1985	136	-1405	-8568	-544	-2811	-861	3944	5984	11923	11515	3989	3899	27201
1986	6528	7888	6528	14189	11424	5667	18496	8931	11243	-7707	272	1677	85136
1987	7525	2629	7616	-7480	12965	-91	-1768	-2357	11560	15504	-1315	14552	59340
1988	2403	-2493	7072	589	4533	1315	5803	9520	-9384	-1360	181	0	18179
1989	-3037	2131	6755	7163	18587	2448	10245	7480	16501	14099	2811	9384	94567
1990	45	-9157	4624	9021	6392	9656	25115	23392	13147	19403	-589	3763	104812
1991	7344	11832	11379	6664	4035	12875	-5848	-2720	24661	15187	14053	10699	110161
1992	14235	17544	14597	3264	16275	14643	27336	83821	37672	23845	4624	16275	274131
1993	-8931	16229	1995	-3672	11651	3309	4669	771	18859	10155	6120	3899	65054
1994	7616	8749	14824	16683	8296	1088	17861	3763	-1224	11061	-4941	14915	98691
1995	22712	7616	17227	16501	16048	4533	9747	3491	11288	5077	7027	-1360	119907
1996	363	2629	816	3989	-1723	2811	4896	272	-2675	-1224	907	-499	10562
1997	-6845	363	-1949	-9928	2131	7525	-1949	-4035	408	-22077	-12285	-3355	-51996
1998*	17453	9701	23301	4669	635	-4261	-136	8160	5395	--	--	--	64917

Statistic†	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR‡
Mean	3653	4491	6724	4301	6916	7240	10883	10890	10631	9337	3072	3561	81327
SD	8558	7077	12708	8613	6581	15507	26985	22189	19029	18798	8114	8888	113306
Min	-21624	-9157	-29013	-21533	-4987	-24525	-21896	-16320	-9384	-22077	-12285	-20717	-70446
Median	2403	2947	6755	5485	6029	3219	4669	3763	6619	6347	408	1677	75095
Max	22712	17544	45469	17453	21851	71173	145611	83821	99325	92661	21533	21352	571835

† SD = standard deviation; Min = minimum; Med = median; Max = maximum; * indicates data not used in POR calculation.
‡ POR = period of record statistic.

Table D2. Monthly and annual runoff calculation results (ac-ft) for S65D sub-basin.

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Sum
1969	--	--	--	--	--	--	--	--	16714	103392	207659	127006	454771
1970	58498	96785	34788	22156	17005	7580	9815	6025	6899	14576	-1749	4956	277334
1971	4470	15353	3304	0	0	18560	23710	24974	49753	15839	9523	1263	166749
1972	0	6511	10883	28375	2041	44020	36537	12730	42270	39938	39938	1652	264895
1973	4178	12341	10786	17588	15742	3110	18269	14090	28472	11175	194	1555	137500
1974	2624	5053	-3012	1458	-4373	680	76961	44117	6316	5150	2041	1263	138278
1975	680	486	-3012	-1943	-3790	7774	26528	8260	4567	13896	10883	5830	70159
1976	8357	2527	1555	-1069	6316	16325	8746	37509	14770	13993	8260	1166	118455
1977	4178	1458	486	6511	3887	10009	18560	21475	12438	6802	4761	9620	100185
1978	5733	4664	14187	0	486	7677	34594	51988	18949	13410	5442	2527	159657
1979	47615	12827	2332	-1263	17686	5053	2429	8454	99991	59956	6316	10981	272377
1980	8746	-292	-27986	12924	3595	-1846	4470	2818	17783	1263	1458	1166	24099
1981	194	1360	97	0	0	0	0	-1555	6996	97	-1069	-777	5343
1982	0	-1749	-972	11175	4761	54223	37120	29735	21281	22739	4664	680	183657
1983	36051	46740	54903	18560	5733	-97	3498	5733	8746	10398	4470	4956	199691
1984	7968	10786	7385	6025	8065	7968	34399	3401	5539	1166	-583	-680	91439
1985	-292	-194	-583	-680	6608	3498	5636	5539	21767	6511	2915	-194	50531
1986	292	2332	1360	-1943	-1360	9912	25265	26334	13993	1069	4664	777	82695
1987	11175	-1458	-1652	7385	-3887	97	21087	9426	6413	27500	38869	12049	127004
1988	6025	11369	65689	11758	5928	7191	9717	29735	23322	5150	2915	3012	181811
1989	4761	5830	3595	-2818	-1846	2235	-1652	6511	292	31873	1069	-3887	45963
1990	17588	23030	9912	-33816	-10106	-2332	7385	5345	-5733	15548	-6025	-3887	16909
1991	-3401	-11952	-6899	1749	23322	6025	29735	81431	29249	17394	-11855	-6996	147802
1992	-10883	7482	-2624	16811	6122	583	-1458	18560	24391	-1069	-583	-3595	53737
1993	41396	14868	21378	41687	-5442	-194	-4567	-1263	389	-5733	-4956	-3207	94356
1994	-3790	-292	-972	-3498	-6705	7580	21281	11078	42562	58887	29152	16034	171317
1995	5928	5247	5733	8843	-4373	-4761	13896	57235	57527	54806	-7677	-16422	175982
1996	9037	6802	2721	13993	4178	19921	13507	14284	6219	6899	-1360	-3498	92703
1997	1846	8163	389	3110	9620	6316	10203	38092	19726	7968	11272	43145	159850
1998	52279	38383	52182	22058	1943	-3693	16034	33622	23127	--	--	--	235935

Statistic†	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	POR⊥
Mean	11078	11188	8826	7074	3488	8049	17300	20886	20824	19331	12435	7120	128946
SD	17868	20203	19807	13406	7823	12997	16749	19726	21114	23833	39391	25095	73958
Min	-10883	-11952	-27986	-33816	-10106	-4761	-4567	-1555	-5733	-5733	-11855	-16422	5343
Med	4761	5830	2332	6025	3595	6025	13896	14090	17248	13410	2915	1263	132252
Max	58498	96785	65689	41687	23322	54223	76961	81431	99991	103392	207659	127006	277334

† SD = standard deviation; Min = minimum; Med = median; Max = maximum; * indicates data not used in POR calculation.
⊥ POR = period of record statistic.