

RAINFALL IN AND NEAR LAKE COUNTY, ILLINOIS, DECEMBER 1989–SEPTEMBER 1993

by James J. Duncker, Tracy J. Vail, and Steve M. Robinson

U.S. GEOLOGICAL SURVEY

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LAKE COUNTY STORMWATER MANAGEMENT COMMISSION



Urbana, Illinois

1994

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CONVERSION FACTORS AND VERTICAL DATUM

Multiply	By	To obtain
inch (in.)	25.4	millimeter
foot (ft)	0.3048	meter
mile (mi)	1.609	kilometer

Temperature may be converted from degrees Fahrenheit (°F) to degrees Celsius (°C) as follows:

$$^{\circ}\text{C} = 5/9 \times (^{\circ}\text{F} - 32)$$

Sea level: In this report, “sea level” refers to the National Geodetic Vertical Datum of 1929 (NGVD of 1929)—a geodetic datum derived from a general adjustment of the first-order level nets of both the United States and Canada, formerly called Sea Level Datum of 1929.

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ABSTRACT

Rainfall quantity data for 23 rainfall-gaging stations located in and near Lake County, Ill., are presented. The rainfall data were collected from December 1989 through September 1993 as part of an on-going rainfall-runoff investigation. Station descriptions identify the location of and equipment installed at each rainfall-gaging station. Total daily rainfall is tabulated for each rainfall-gaging station for each water year. Periods of missing record and snow-affected precipitation totals are identified. The data are presented graphically using annual hyetographs and mass plots.

INTRODUCTION

Rapid urbanization in the Chicago metropolitan area during the past decade has caused adverse changes to the hydrologic environment. An increased frequency of flooding and the costs associated with flood-related problems prompted State legislators to mandate counties in the metropolitan area to develop stormwater-management plans.

Inherent to the stormwater-management process is the collection of hydrologic data. Hydrologic data provide engineers and planners a means of quantifying the hydrologic environment. By accurately defining the magnitude and frequency of hydrologic events, engineering solutions to problems associated with rapid urbanization can be developed.

The U.S. Geological Survey (USGS) began an investigation in 1989, in cooperation with the Lake County Stormwater Management Commission (LCSMS), to collect and analyze rainfall and streamflow data from five watersheds in Lake County. The data collected will be used to calibrate a distributed-parameter, continuous-simulation, rainfall-runoff model. The calibrated model will be used to simulate stormflow hydrographs in order to evaluate a variety of watershed conditions. In this manner, the model becomes a tool that engineers and planners may use for mapping flood plains, regulating future developments, and evaluating flood and stormwater-control projects.

Lake County is located in northeastern Illinois, approximately 15 mi north of the city of Chicago (fig. 1). Urbanization has spread rapidly in the past few years as the county-wide population continues to grow. The suburban sprawl of the metropolitan Chicago area continues to infringe upon undeveloped areas of Lake County. The projected growth and development figures for the county and the effect of urbanization on the hydrologic environment illustrate the need for a comprehensive stormwater-management plan.

Purpose and Scope

The purpose of this report is to present rainfall data collected from 23 rainfall-gaging stations in and near Lake County, Ill., from December 1989 through September 1993. Daily and monthly rainfall totals are tabulated by water year for each rainfall-gaging station for the period of study. Station descriptions identifying the location of and equipment installed at each station are given. Annual hyetographs and mass plots provide graphic representation of the data.

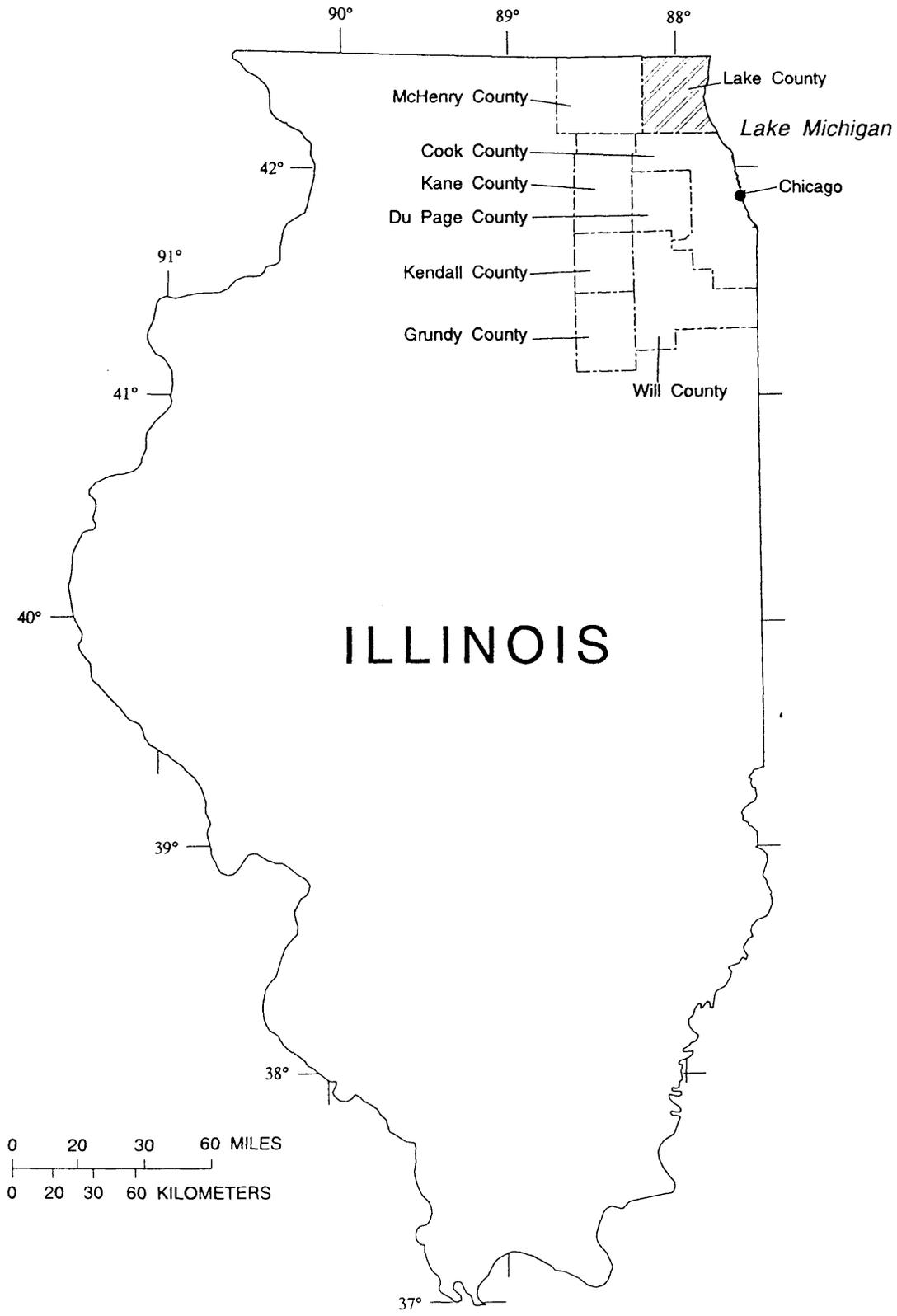


Figure 1. Location of Lake County, Ill.

Acknowledgments

The authors wish to acknowledge the assistance of the staffs of the municipal wastewater-treatment facilities and airports, and private landowners who allowed the installation of rainfall-gaging stations on their property.

DESCRIPTION OF STUDY AREA

Lake County is located in the extreme northeastern corner of Illinois. It is bounded to the east by Lake Michigan and to the north by the State of Wisconsin. The county forms the northern extent of the Chicago metropolitan area.

Physiography

The study area lies primarily within the Wheaton Morainal Region of the Central Lowlands Province (Leighton and others, 1948). The topography can be characterized generally as low lying and poorly drained. Low morainal ridges and other glacial landforms of the Wisconsinan glacial period provide slightly more topographical relief than adjacent areas to the south. A higher occurrence of wetland areas and shallow lakes is found in the study area than in adjacent areas. Land-surface elevations range from 481 ft in southeastern Lake County to 991 ft in the northwestern part of the county.

The major watersheds within the study area are drained by branches of the Chicago River, the Des Plaines River, and the Fox River. These rivers generally flow south and are tributaries to the Illinois River.

The extreme eastern edge of the study area lies within the Lake Michigan Basin. Watersheds within this basin are drained by typically short, relatively steep-gradient streams which have down-cut through the lake bluff sediments to flow into Lake Michigan.

Climate

Northeastern Illinois has a temperate, humid, continental climate that is slightly modified by Lake Michigan. Long-term climatic data are available for the National Oceanic and Atmospheric Administration (NOAA) gages in and near the study area (fig. 2). The long-term average annual precipitation for the study area is approximately 39 in., and the long-term mean annual temperature for the study area is approximately 49° F (U.S. Department of Commerce, National Oceanic and Atmospheric Administration, 1993). Wind speed and wind direction are measured at the NOAA gage at O'Hare International Airport, approximately 10 mi south of the study area.

METHODS OF STUDY

The spatial and temporal distribution of rainfall was defined by rainfall data collected at rainfall-gaging stations installed throughout the study area. The data collection and analysis effort began in December 1989.

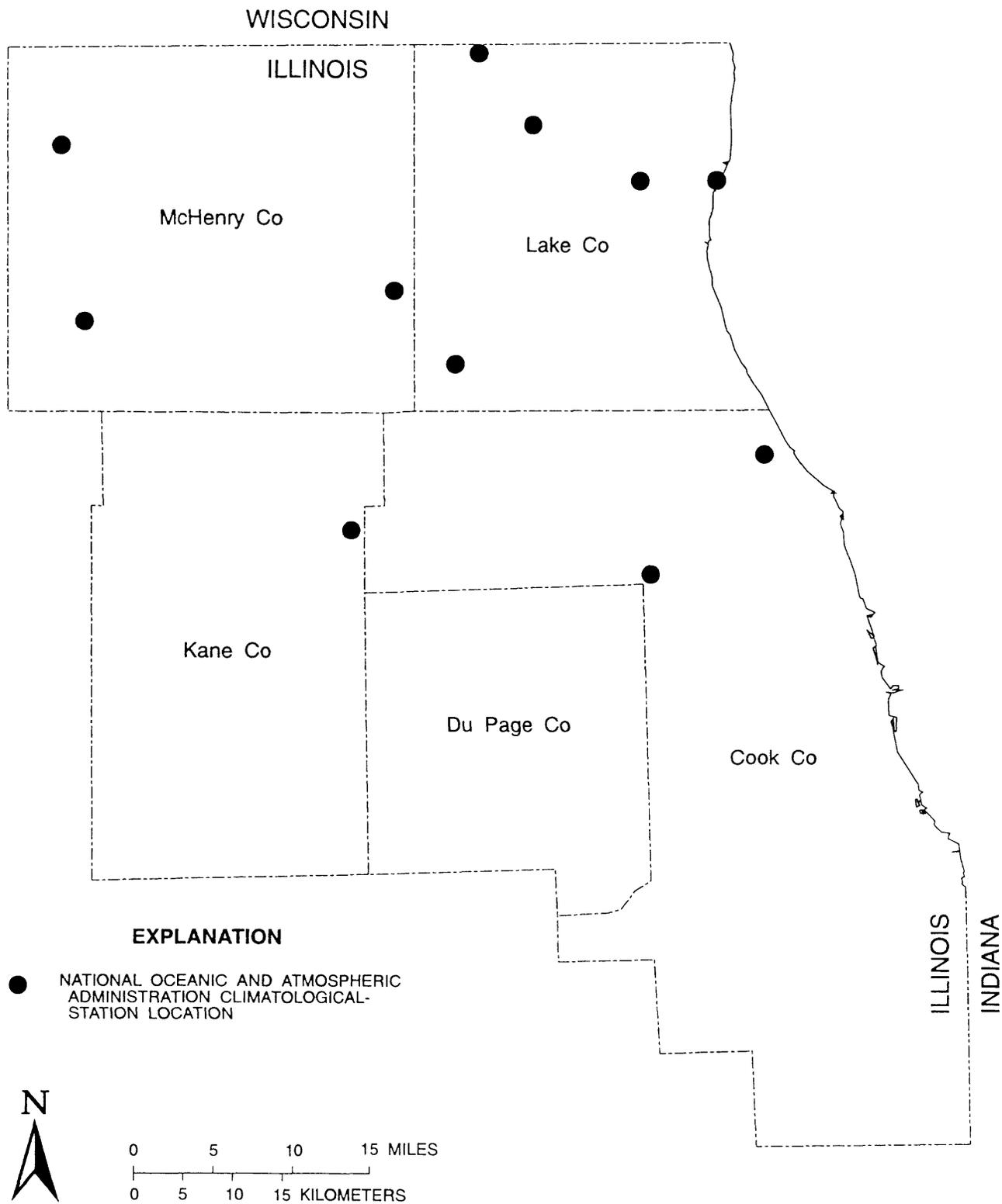


Figure 2. Locations of climatological stations in and near Lake County, Ill.

Data Collection

Rainfall data were collected using 8-in.-diameter, tipping-bucket rain gages. A network of 23 rainfall-gaging stations was installed throughout the study area (fig. 3; table 1). The rain gages were attached to electronic data loggers that recorded the amount of rainfall in 0.01-in. increments and also recorded the time of occurrence. Five of the twenty-three rain gages have thermostatically controlled heating elements, which provide water equivalents for snowfall.

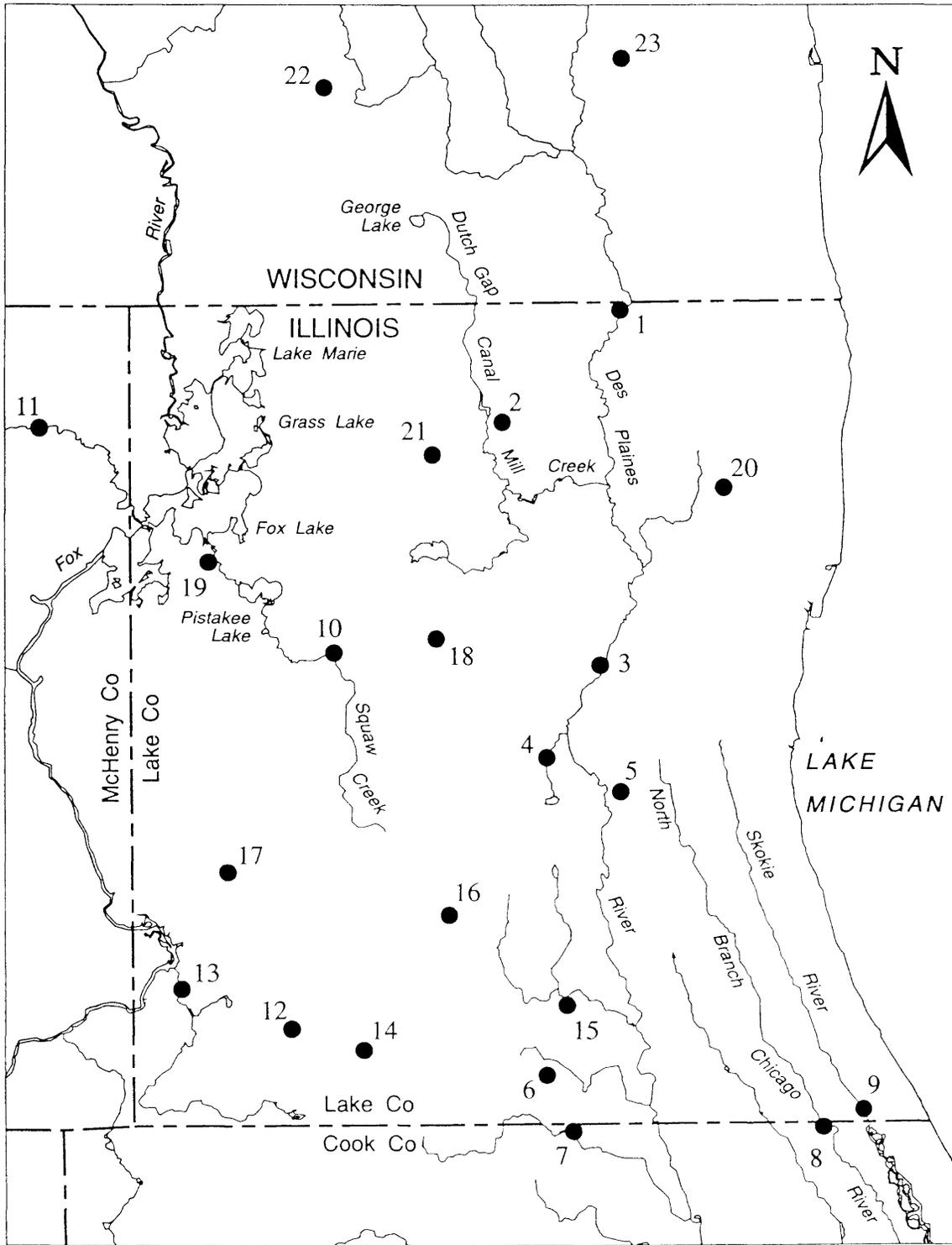
The locations of the rainfall-gaging stations were selected based on a distributed spatial coverage of the study area and site suitability. The proximity of structures and obstructions was considered when determining site suitability.

Data Analysis

Rainfall data were collected for 80 percent of the cumulative period of record for all of the stations. Six of the twenty-three rain gages had periods of missing record due to occasional equipment failure or debris clogging the rain-gage funnel. Periods of missing record and snowfall-affected precipitation are identified in the tabulated data. These periods were identified by periodically inspecting the rain gages and examining the rain-gage data in conjunction with snowfall, snow depth, temperature, and precipitation data from NOAA gages. Minor corrections to rainfall totals were made to periods of intense rainfall based upon the rain-gage manufacturer's specifications. This was done to correct for under-recording caused by overspill as water enters the tipping-bucket mechanism from the rain-gage funnel.

RAINFALL DATA

The rainfall-gaging stations are presented in order of increasing station number. A station description is presented for each rainfall-gaging station. Total daily rainfall is tabulated by water year for the period of record at each station. Five-minute values of rainfall at each station are available from the USGS Illinois District upon request.



EXPLANATION

- 14 U.S. GEOLOGICAL SURVEY RAIN GAGE LOCATION AND SITE NUMBER--See table 1



Figure 3. Locations of U.S. Geological Survey rain gages in and near the study area.

Table 1.--Rainfall data-collection sites

[Site identifiers correspond to those in figure 3; Lat, latitude; Long, longitude]

Site identifier	Station number	Station name and location
1	05527800	Des Plaines River at Russell, Ill. Lat: 42°29'22" Long: 87°55'32"
2	05527940	Tempel Farms Ditch near Old Mill Creek, Ill. Lat: 42°26'39" Long: 87°59'30"
3	05528000	Des Plaines River near Gurnee, Ill. Lat: 42°20'39" Long: 87°56'18"
4	05528030	Bull Creek near Libertyville, Ill. Lat: 42°18'22" Long: 87°58'07"
5	05528040	Terre Faire Ditch at Libertyville, Ill. Lat: 42°17'31" Long: 87°55'42"
6	05528475	Green Lake Ditch at Buffalo Grove, Ill. Lat: 42°10'30" Long: 87°58'14"
7	05528500	Buffalo Creek near Wheeling, Ill. Lat: 42°09'05" Long: 87°57'25"
8	05534500	North Branch Chicago River at Deerfield, Ill. Lat: 42°09'10" Long: 87°49'07"
9	05535070	Skokie River near Highland Park, Ill. Lat: 42°09'34" Long: 87°47'52"
10	05547755	Squaw Creek at Round Lake, Ill. Lat: 42°21'00" Long: 88°05'13"
11	05548280	Nippersink Creek near Spring Grove, Ill. Lat: 42°26'37" Long: 88°14'51"
12	05549835	Lakeview Plaza Ditch at Lake Zurich, Ill. Lat: 42°11'43" Long: 88°06'45"
13	05549850	Flint Creek near Fox River Grove, Ill. Lat: 42°12'40" Long: 88°10'23"
14	421113088042200	Lake Zurich Wastewater Treatment Facility at Lake Zurich, Ill. Lat: 42°11'13" Long: 88°04'22"
15	421215087573400	Vernon Hills Rain Gage at Prairie View, Ill. Lat: 42°12'15" Long: 87°57'34"
16	421428088012900	Diamond Lake Wastewater Treatment Facility at Diamond Lake, Ill. Lat: 42°14'28" Long: 88°01'29"
17	421533088084600	Wauconda Wastewater Treatment Facility at Wauconda, Ill. Lat: 42°15'33" Long: 88°08'46"

Table 1.--~~Rainfall data-collection sites~~--Continued

Site identifier	Station number	Station name and location
18	422118088014700	Grayslake Wastewater Treatment Facility at Grayslake, Ill. Lat: 42°21'18" Long: 88°01'47"
19	422315088091800	Fox Lake Rain Gage at Fox Lake, Ill. Lat: 42°23'15" Long: 88°09'18"
20	422459087520700	Waukegan Airport at Waukegan, Ill. Lat: 42°24'59" Long: 87°52'07"
21	422553088015300	Lindenhurst Wastewater Treatment Facility at Lindenhurst, Ill. Lat: 42°25'53" Long: 88°01'53"
22	423451088052400	Paddock Lake Wastewater Treatment Facility at Paddock Lake, Wis. Lat: 42°34'51" Long: 88°05'24"
23	423526087551800	Kenosha Airport Rain Gage at Kenosha, Wis. Lat: 42°35'26" Long: 87°55'18"

Des Plaines River at Russell, Ill.

Site identifier.--1

Station number.--05527800

Location.--Latitude 42°29'22", longitude 87°55'32", in SE¼ sec.3, T.46 N., R.11 E., Lake County, Hydrologic Unit 07120004, on right bank at upstream side of Russell Road bridge, 0.3 mi west of Russell (Wadsworth 7.5-minute quadrangle).

To reach gage.--From the intersection of Interstate 94 and Russell Road, drive east on Russell Road approximately 1.4 mi to gage.

Drainage basin.--Des Plaines River.

Gage.--An 8-in.-diameter, unheated, tipping-bucket rain gage mounted on a 2-in.-diameter steel post approximately 4 ft above the ground. An electronic data logger, housed inside a weatherproof electrical enclosure, is mounted on the steel post below the rain gage.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--December 5, 1989, to present. Periods of missing record exist due to equipment-related problems.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Illinois Department of Transportation, Division of Water Resources.

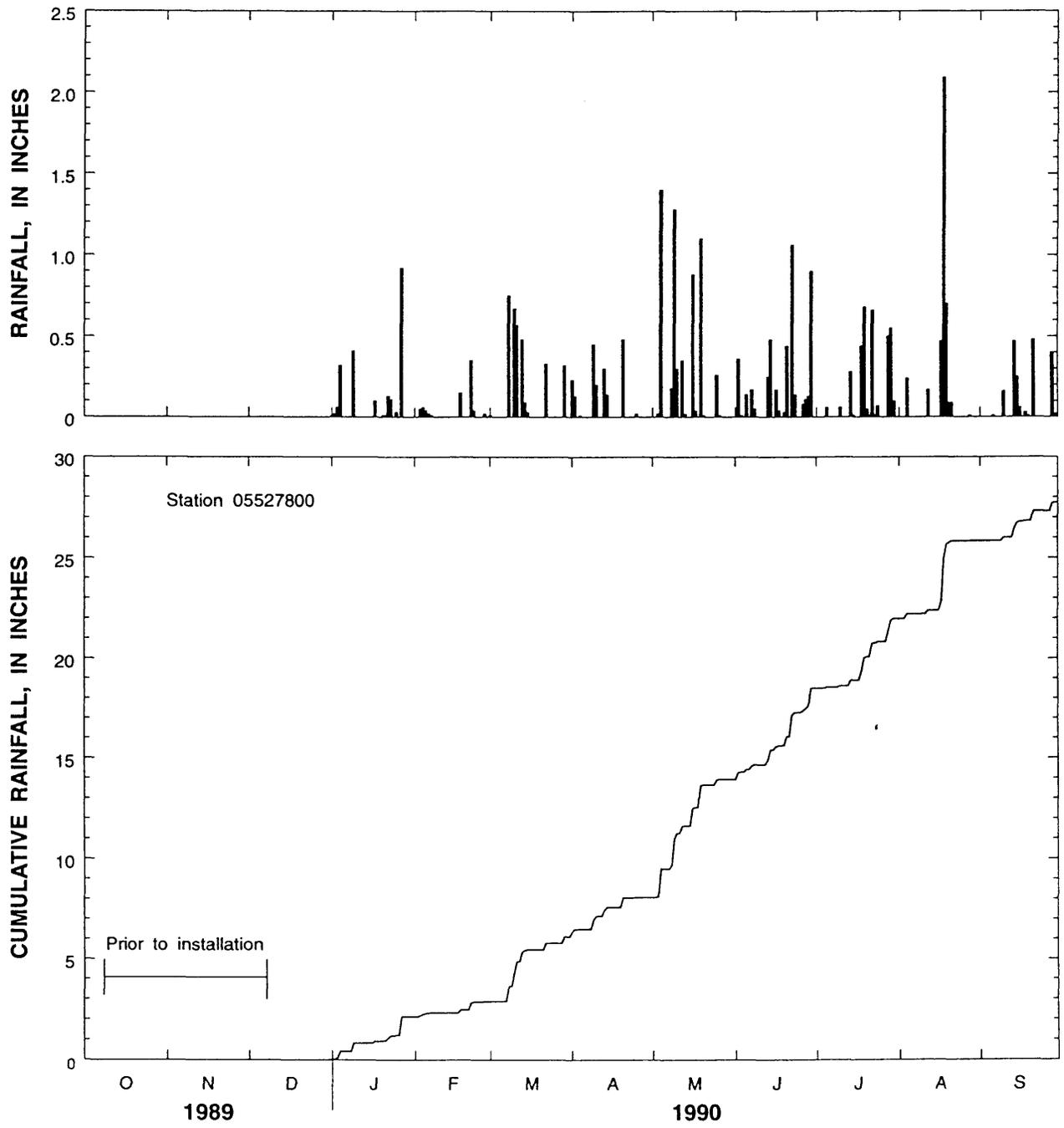


Figure 4. Daily rainfall totals and cumulative rainfall at Des Plaines River at Russell, Ill., water year 1990.

05527800 Des Plaines River at Russell, Ill.—Continued

Rainfall, in inches, water year October 1989 to September 1990

Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	s0.01	0.00	0.01	0.23	0.00	0.00	0.00	0.00	0.00
2	--	--	--	.02	s.00	.00	.13	.00	.36	.00	.00	.00
3	--	--	--	.06	s.05	.00	.00	.02	.01	.00	.00	.00
4	--	--	--	.32	.06	.00	.01	1.40	.00	.00	.24	.00
5	--	--	p0.00	.00	.04	.00	s.00	.00	.14	.06	.00	.00
6	--	--	.00	.00	.02	.00	s.00	.00	.00	.00	.00	.01
7	--	--	.00	.00	.01	.00	.00	.00	.17	.00	.00	.00
8	--	--	.00	.00	.00	.75	.00	.18	.05	.00	.00	.00
9	--	--	.00	.41	.00	.00	.45	1.28	.00	.00	.00	.00
10	--	--	s.00	.00	.00	.67	.20	.30	.00	.06	.00	.16
11	--	--	s.00	.00	.00	.57	s.00	.00	.00	.00	.00	.00
12	--	--	.00	s.00	.00	.00	s.00	.35	.00	.00	.17	.00
13	--	--	s.00	.00	.00	.48	.30	.02	.25	.00	.00	.00
14	--	--	s.00	.00	.00	.09	.14	.00	.48	.28	.00	.47
15	--	--	s.00	.00	s.00	.03	.00	.00	.00	.01	.00	.25
16			s.00	.00	s.00	.00	.00	.88	.17	.00	.00	.06
17	--	--	s.00	.10	s.00	.00	.00	.04	.04	.00	.47	.00
18	--	--	s.00	.00	.15	.00	.00	.00	.00	.44	2.09	.03
19	--	--	s.00	.00	.00	.00	.00	1.10	.03	.68	.70	.01
20	--	--	s.00	s.01	.00	.00	.48	.01	.44	.05	.09	.00
21	--	--	.00	s.01	.00	.00	.00	.00	.00	.01	.09	.48
22	--	--	.00	.13	.35	.33	.00	.00	1.06	.66	.00	.00
23	--	--	.00	.11	s.04	.00	.00	.00	.14	.01	.00	.00
24	--	--	s.00	.00	s.00	.00	.00	.00	.00	.07	.00	.00
25	--	--	s.00	s.03	.00	.00	.02	.26	.00	.00	.00	.00
26	--	--	s.00	s.00	.00	.00	.00	.01	.08	.00	.00	.00
27	--	--	s.00	.92	.02	.00	.00	.00	.11	.00	.00	.00
28	--	--	.00	.00	.00	.00	.00	.00	.13	.50	.01	.40
29	--	--	s.00	.00	--	.32	.00	.00	.90	.55	.00	.02
30	--	--	s.00	.00	--	.00	.00	.00	.00	.10	.00	.01
31	--	--	.00	.00	--	.00	--	.00	--	.00	.00	--
Total	--	--	--	2.13	0.74	3.25	1.96	5.85	4.56	3.48	3.86	1.90

p Partial record.

s Snowfall-affected precipitation.

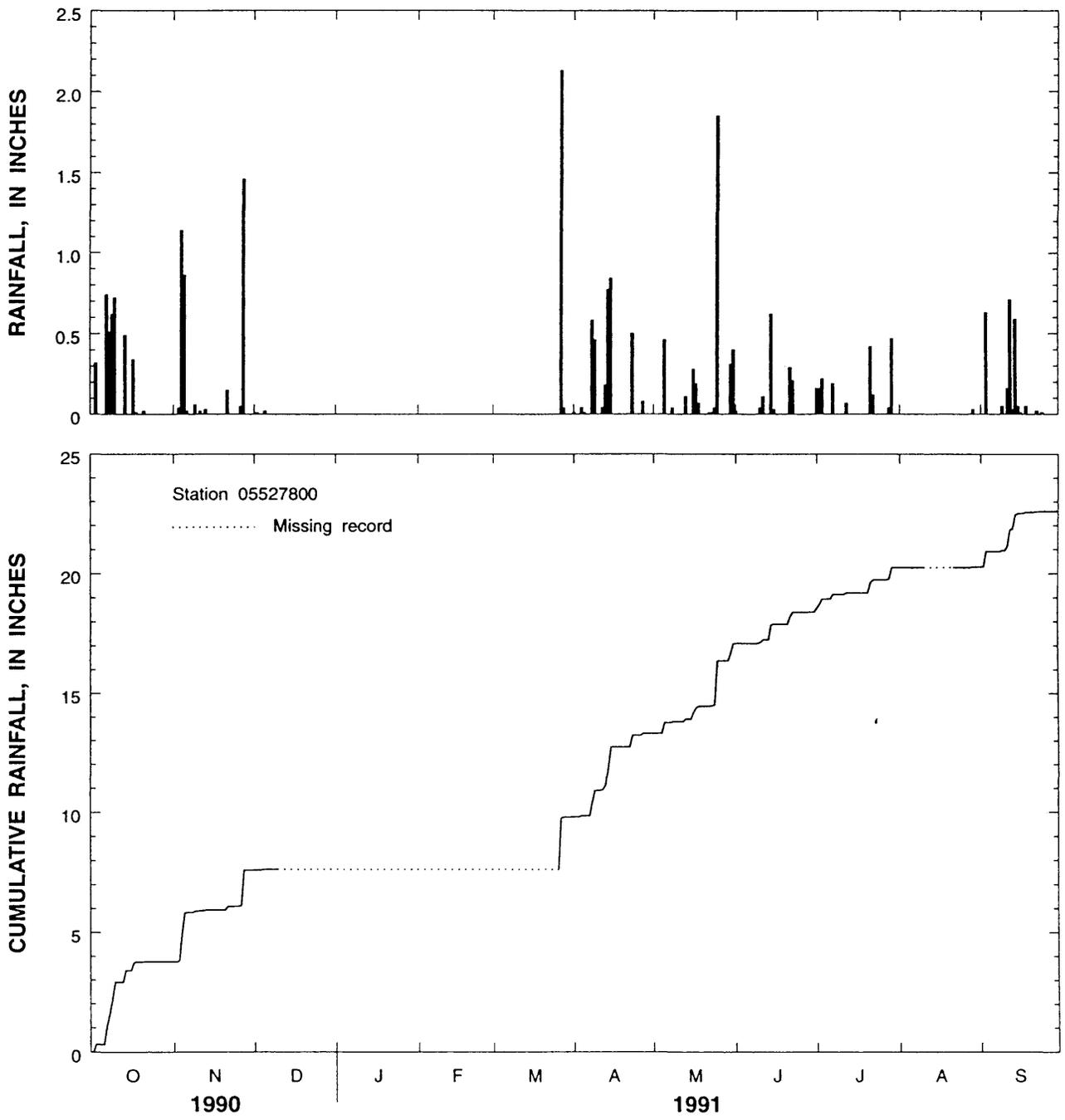


Figure 5. Daily rainfall totals and cumulative rainfall at Des Plaines River at Russell, Ill., water year 1991.

05527800 Des Plaines River at Russell, Ill.—Continued

Rainfall, in inches, water year October 1990 to September 1991
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.00	0.00	m	m	m	0.01	0.00	0.02	0.16	0.00	0.00
2	.00	.00	s.01	m	m	m	.00	.00	.00	.16	.00	.00
3	.32	.04	s.00	m	m	m	.00	.00	.00	.22	.00	.63
4	.00	s1.14	s.00	m	m	m	.04	.00	.00	.00	.00	.00
5	.00	s.86	.02	m	m	m	.01	.46	.00	.00	.00	.00
6	.00	s.02	.00	m	m	m	.00	.00	.00	.00	.00	.00
7	.74	.00	p.00	m	m	m	.00	.00	.00	.19	p.00	.00
8	.51	.00	m	m	m	m	.58	.04	.00	.00	m	.00
9	.62	s.06	m	m	m	m	.46	.00	.00	.00	m	.05
10	.72	.00	m	m	m	m	.00	.00	.04	.00	m	.00
11	.00	s.02	m	m	m	m	.00	.00	.11	.00	m	.16
12	.00	.00	m	m	m	m	.04	.00	.00	.07	m	.71
13	.00	.03	m	m	m	m	.18	.11	.00	.00	m	.03
14	.49	.00	m	m	m	m	.77	.00	.62	.00	m	.59
15	.00	.00	m	m	m	m	.84	.00	.03	.00	m	.05
16	.00	.00	m	m	m	m	.00	.28	.00	.00	m	.01
17	.34	.00	m	m	m	m	.00	.19	.00	.00	m	.00
18	.01	.00	m	m	m	m	.00	.07	.00	.00	m	.05
19	.00	.00	m	m	m	m	.00	.00	.00	.00	p.00	.00
20	.00	.00	m	m	m	m	.00	.00	.00	.00	.00	.00
21	.02	.15	m	m	m	m	.00	.00	.29	.42	.00	.00
22	.00	.00	m	m	m	m	.00	.01	.21	.12	.00	.02
23	.00	.00	m	m	m	m	.50	.01	.00	.00	.00	.00
24	.00	.00	m	m	m	m	.00	.04	.00	.00	.00	.01
25	.00	.00	m	m	m	m	.00	1.85	.00	.00	.00	.00
26	.00	.05	m	m	m	p0.00	.00	.00	.00	.00	.00	.00
27	.00	1.46	m	m	m	2.13	.08	.00	.00	.00	.00	.00
28	.00	.00	m	m	m	.04	.00	.00	.00	.04	.00	.00
29	.00	.00	m	m	--	.00	.00	.00	.00	.47	.03	.00
30	.00	.00	m	m	--	.00	.00	.31	.00	.00	.00	.00
31	.00	--	m	m	--	s.00	--	.40	--	.00	.00	--
Total	3.77	3.83	--	--	--	--	3.51	3.77	1.32	1.85	--	2.31

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

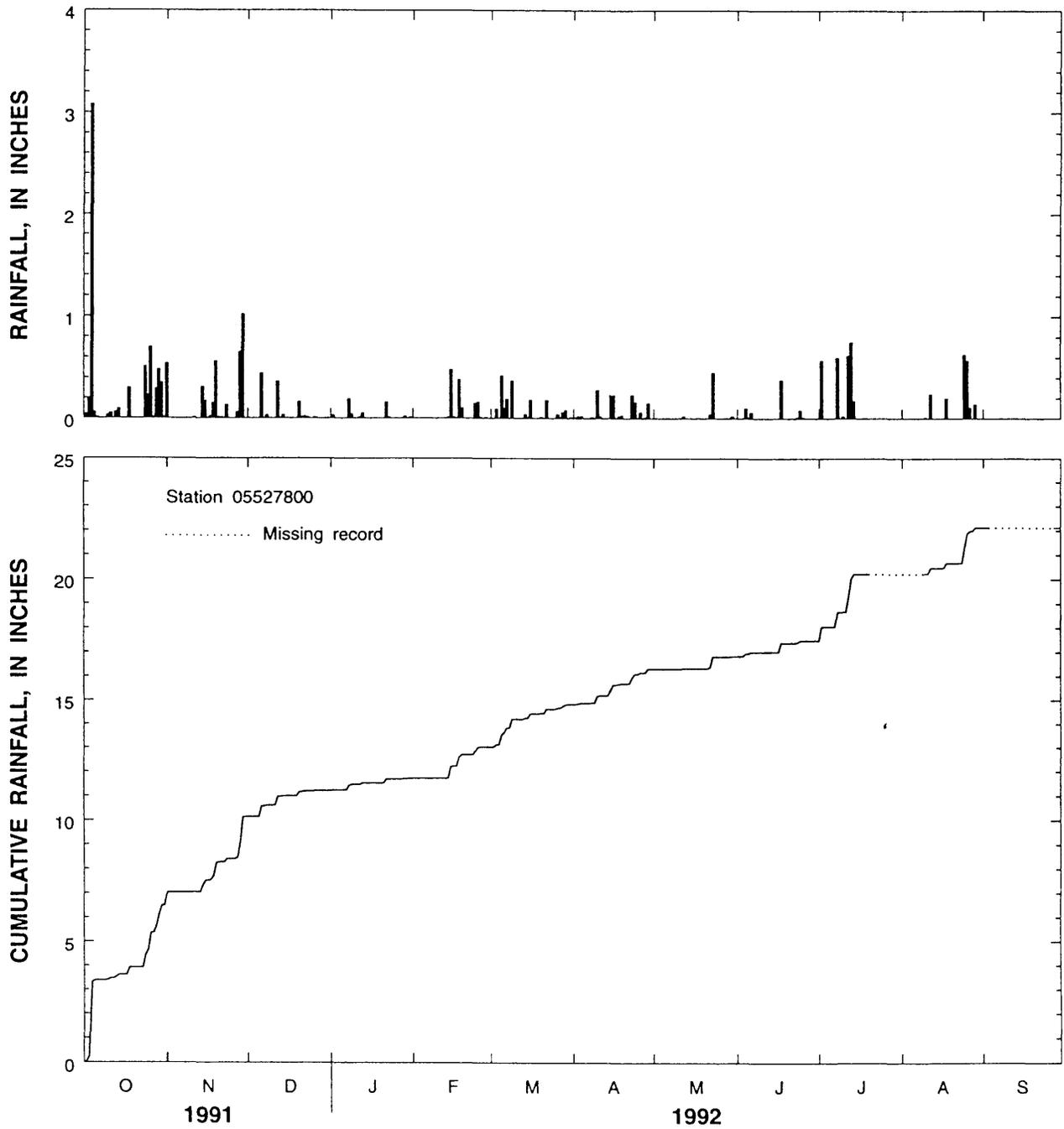


Figure 6. Daily rainfall totals and cumulative rainfall at Des Plaines River at Russell, Ill., water year 1992.

05527800 Des Plaines River at Russell, Ill.--Continued

Rainfall, in inches, water year October 1991 to September 1992

Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.54	0.00	0.00	0.00	0.00	s0.00	0.00	0.00	0.00	m	0.00
2	.04	s.00	.00	.03	.00	.00	s.01	.00	.00	.57	m	p.00
3	.20	s.00	s.00	.00	.00	.09	.02	.00	.00	.00	m	m
4	3.08	s.00	s.00	.00	.00	.00	.02	.00	.10	.00	m	m
5	.06	.00	s.00	.00	.00	.42	.00	.00	.01	.00	m	m
6	.01	.00	.44	.00	.00	.10	.00	.00	.06	.00	m	m
7	.00	.00	.00	.00	s.00	.19	.00	.00	.00	.00	m	m
8	.00	.00	.03	.19	s.00	.00	.01	.00	.00	.60	0.00	m
9	.00	.00	.00	.04	.00	.37	.00	.00	.00	.00	.00	m
10	.03	.00	.00	s.00	s.00	s.00	.28	.00	.00	.02	.01	m
11	.05	s.01	.00	.00	s.00	.00	.02	.00	.00	.00	.00	m
12	.00	s.00	.36	.01	s.00	.00	.00	.02	.00	.62	.24	m
13	.06	s.00	.00	.05	s.00	.00	.00	.00	.00	.75	.00	m
14	.09	.31	.03	s.00	s.01	s.04	.00	.00	.00	.17	.00	m
15	.00	.17	s.00	s.00	s.48	.01	.23	.00	.00	.00	.00	m
16	.00	.00	s.00	s.00	.01	.18	.23	.00	.00	m	.00	m
17	.00	.02	.00	.00	.00	.00	.00	.00	.38	m	.00	m
18	.30	.15	.00	.00	s.38	.00	.02	.00	.00	m	.20	m
19	.00	.56	.00	.00	s.10	.00	.03	.00	.00	m	.00	m
20	.00	.01	.16	.00	s.00	.01	.00	.00	.00	m	.00	m
21	.00	.01	s.01	.00	.00	s.00	.00	.00	.00	m	.00	m
22	.00	.00	.02	.16	.00	s.18	.00	.04	.00	m	.00	m
23	.00	s.13	.01	.01	.00	.00	.23	.45	.01	m	.00	m
24	.51	s.00	.00	s.00	s.15	.00	.16	.00	.08	m	.00	m
25	.23	s.00	.00	s.00	s.16	.00	.00	.00	.01	m	.63	m
26	.70	.00	.01	s.00	.01	s.04	.06	.00	.00	m	.57	m
27	.01	s.06	.00	.00	.00	s.01	.00	.00	.00	m	.11	p.00
28	.29	s.65	.00	.00	s.01	.06	.01	.00	.00	m	.00	.00
29	.48	1.02	.00	.02	s.00	.08	.15	.00	.00	m	.14	.00
30	.35	.00	.00	.00	--	.00	.00	.02	.00	m	.00	.00
31	.01	--	.00	.01	--	.01	--	.00	--	m	.00	--
Total	6.50	3.64	1.07	0.52	1.31	1.79	1.48	0.53	0.65	--	--	--

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

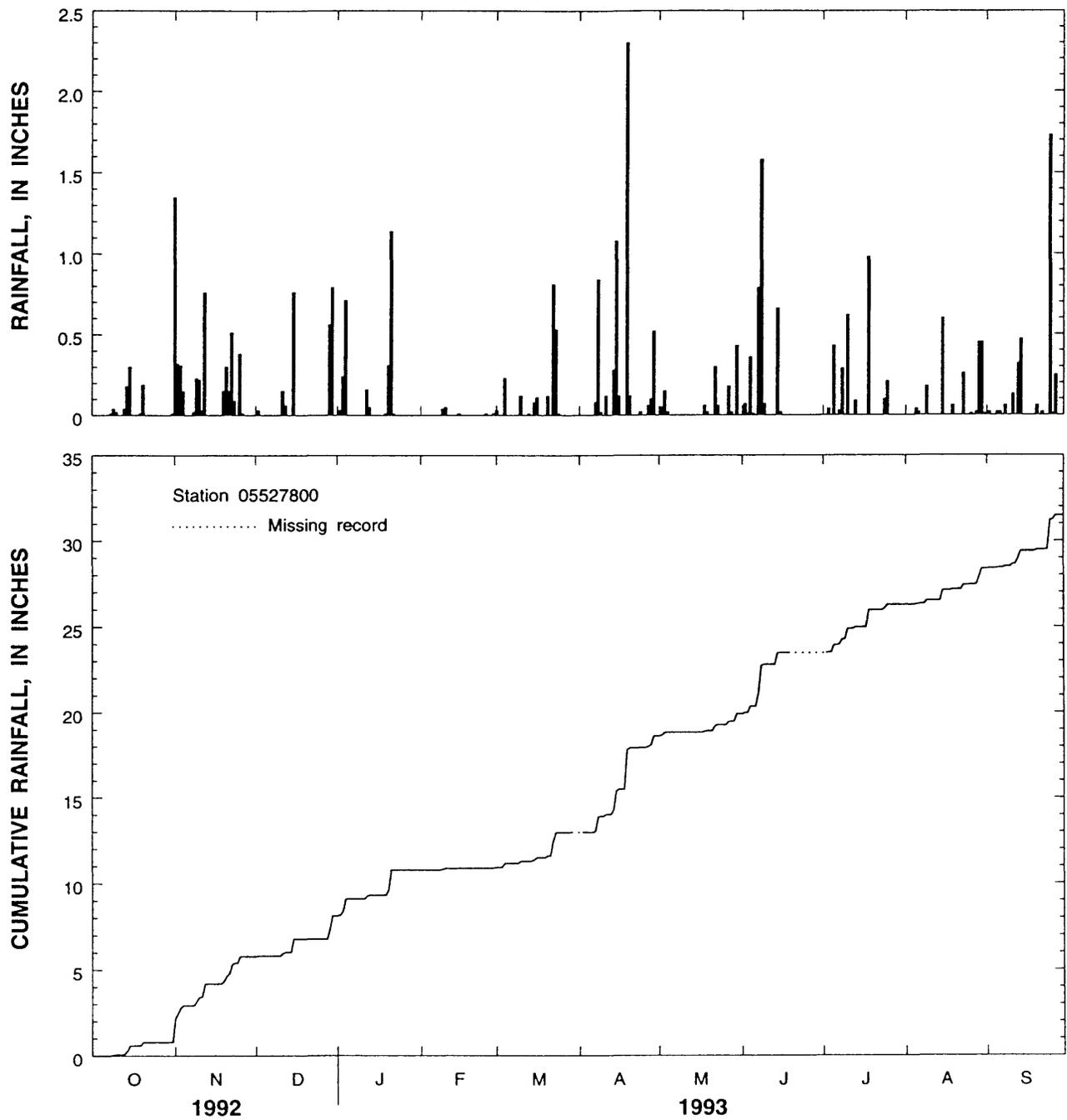


Figure 7. Daily rainfall totals and cumulative rainfall at Des Plaines River at Russell, Ill., water year 1993.

05527800 Des Plaines River at Russell, Ill.—Continued

Rainfall, in inches, water year October 1992 to September 1993

Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.35	s0.00	0.00	0.00	0.03	m	0.00	0.00	m	0.00	0.00
2	.00	.32	s.03	s.03	s.00	.00	m	.05	.07	0.00	.00	.02
3	.00	s.31	.00	s.24	s.00	.00	0.00	.15	.01	.04	.00	.00
4	.00	s.15	s.00	s.71	s.00	s.23	.00	.02	.36	.00	.00	.00
5	.00	s.00	.00	s.00	s.00	s.00	.00	.00	.01	.43	.04	.02
6	.00	s.00	.00	s.00	s.00	.00	.00	.00	.00	.00	.02	.02
7	.00	s.00	s.00	s.00	.00	.00	.08	.00	.79	.03	.00	.00
8	.01	s.02	.00	s.00	s.00	.00	.84	.00	1.58	.29	.00	.06
9	.04	.23	.00	s.00	s.04	.00	.02	.00	.07	.00	.18	.00
10	.02	.22	s.00	s.00	s.05	s.12	.00	.00	.00	.62	.00	.00
11	.00	.03	.15	s.00	s.00	s.00	.12	.00	.00	.00	.00	.13
12	.00	s.76	.06	s.16	s.00	s.00	.00	.00	.00	.00	.00	.00
13	.04	s.00	.00	s.05	s.00	s.01	.00	.00	.00	.09	.00	.32
14	.18	s.00	.00	s.00	s.00	s.00	.28	.00	.66	.00	.00	.47
15	.30	s.00	.76	s.00	.01	.08	1.08	.00	.02	.00	.60	.00
16	.00	.00	.00	s.00	s.00	.11	.12	.00	.00	.00	.00	.00
17	.00	.00	s.00	.00	s.00	.00	.00	.00	m	.00	.00	.00
18	.00	.00	.00	s.00	.00	s.00	.00	.06	m	.98	.00	.00
19	s.01	.15	.00	s.01	.00	.00	2.30	.02	m	.00	.06	.00
20	s.19	.30	.00	.31	s.00	s.12	.12	.00	m	.00	.00	.06
21	.00	.15	.00	1.14	s.00	.00	.00	.00	m	.00	.00	.00
22	.00	.51	.00	s.01	s.00	s.81	.00	.30	m	.00	.00	.02
23	.00	.09	.00	s.00	s.00	.53	.00	.06	m	.00	.26	.00
24	.00	.00	s.00	.00	.00	.01	.02	.00	m	.10	.00	.00
25	.00	.38	.00	.00	s.01	.00	.00	.00	m	.21	.00	1.73
26	.00	.01	.00	s.00	s.00	.00	.00	.00	m	.00	.01	.01
27	.00	.00	.00	s.00	.00	.00	.06	.18	m	.00	.00	.25
28	.00	.00	.00	s.00	.01	.00	.10	.02	m	.00	.02	.00
29	.00	.00	.56	s.00	--	.00	.52	.00	m	.00	.45	.00
30	.00	.00	.79	.00	--	.00	.00	.43	m	.00	.45	.00
31	.01	--	.00	.00	--	m	--	.00	--	.00	.01	--
Total	0.80	4.98	2.35	2.66	0.12	2.05	5.66	1.29	--	--	2.10	3.11

m Missing record.

s Snowfall-affected precipitation.

Tempel Farms Ditch near Old Mill Creek, Ill.

Site identifier.--2

Station number.--05527940

Location.--Latitude 42°26'39", longitude 87°59'30", in SW~~SW~~SE~~SE~~ sec.19, T.46 N., R.11 E., Lake County, Hydrologic Unit 07120004, on left bank at upstream side of culvert at intersection of Kelley and Crawford Roads, at west edge of Old Mill Creek (Wadsworth 7.5-minute quadrangle).

To reach gage.--From the intersection of Crawford and Millburn Roads, drive north approximately 1.5 mi to gage.

Drainage basin.--Mill Creek.

Gage.--An 8-in.-diameter, unheated, tipping-bucket rain gage mounted on a 2-in.-diameter steel post approximately 4 ft above the ground. An electronic data logger, housed inside a weatherproof electrical enclosure, is mounted on the steel post below the rain gage.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--July 11, 1991, to present.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Lake County Stormwater Management Commission.

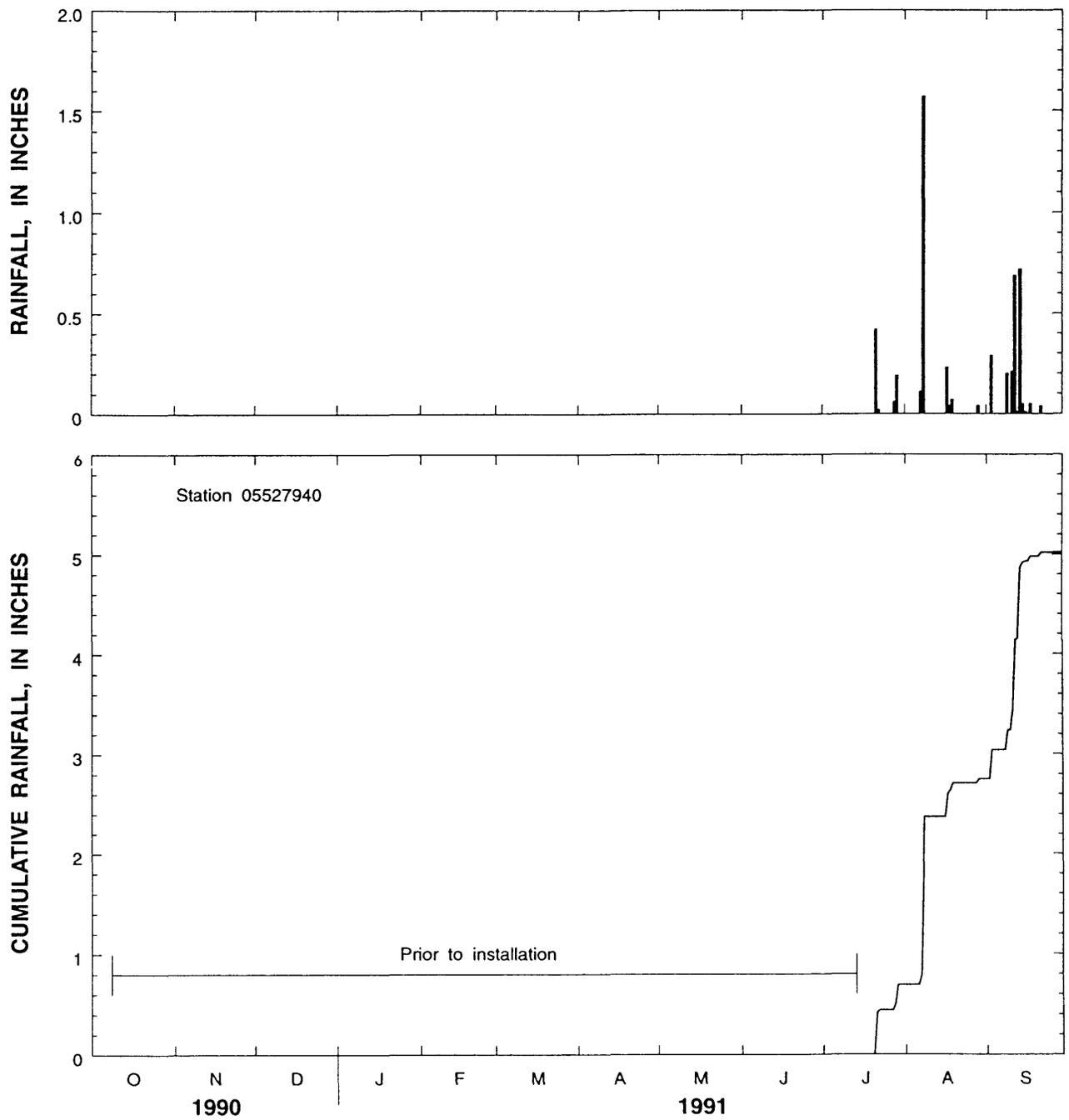


Figure 8. Daily rainfall totals and cumulative rainfall at Temple Farms Ditch near Old Mill Creek, Ill., water year 1991.

05527940 Tempel Farms Ditch near Old Mill Creek, Ill.—Continued

Rainfall, in inches, water year October 1990 to September 1991
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	--	--	--	--	--	--	--	0.00	0.00
2	--	--	--	--	--	--	--	--	--	--	.00	.00
3	--	--	--	--	--	--	--	--	--	--	.00	.29
4	--	--	--	--	--	--	--	--	--	--	.00	.00
5	--	--	--	--	--	--	--	--	--	--	.00	.00
6	--	--	--	--	--	--	--	--	--	--	.00	.00
7	--	--	--	--	--	--	--	--	--	--	.11	.00
8	--	--	--	--	--	--	--	--	--	--	1.57	.00
9	--	--	--	--	--	--	--	--	--	--	.00	.20
10	--	--	--	--	--	--	--	--	--	--	.00	.00
11	--	--	--	--	--	--	--	--	--	p0.00	.00	.21
12	--	--	--	--	--	--	--	--	--	.00	.00	.69
13	--	--	--	--	--	--	--	--	--	.00	.00	.01
14	--	--	--	--	--	--	--	--	--	.00	.00	.72
15	--	--	--	--	--	--	--	--	--	.00	.00	.05
16	--	--	--	--	--	--	--	--	--	.00	.00	.01
17	--	--	--	--	--	--	--	--	--	.00	.23	.00
18	--	--	--	--	--	--	--	--	--	.00	.04	.05
19	--	--	--	--	--	--	--	--	--	.00	.07	.00
20	--	--	--	--	--	--	--	--	--	.00	.00	.00
21	--	--	--	--	--	--	--	--	--	.42	.00	.00
22	--	--	--	--	--	--	--	--	--	.02	.00	.04
23	--	--	--	--	--	--	--	--	--	.00	.00	.00
24	--	--	--	--	--	--	--	--	--	.00	.00	.00
25	--	--	--	--	--	--	--	--	--	.00	.00	.00
26	--	--	--	--	--	--	--	--	--	.00	.00	.00
27	--	--	--	--	--	--	--	--	--	.00	.00	.00
28	--	--	--	--	--	--	--	--	--	.06	.00	.00
29	--	--	--	--	--	--	--	--	--	.19	.04	.00
30	--	--	--	--	--	--	--	--	--	.00	.00	.00
31	--	--	--	--	--	--	--	--	--	.00	.00	--
Total	--	--	--	--	--	--	--	--	--	--	2.06	2.27

p Partial record.

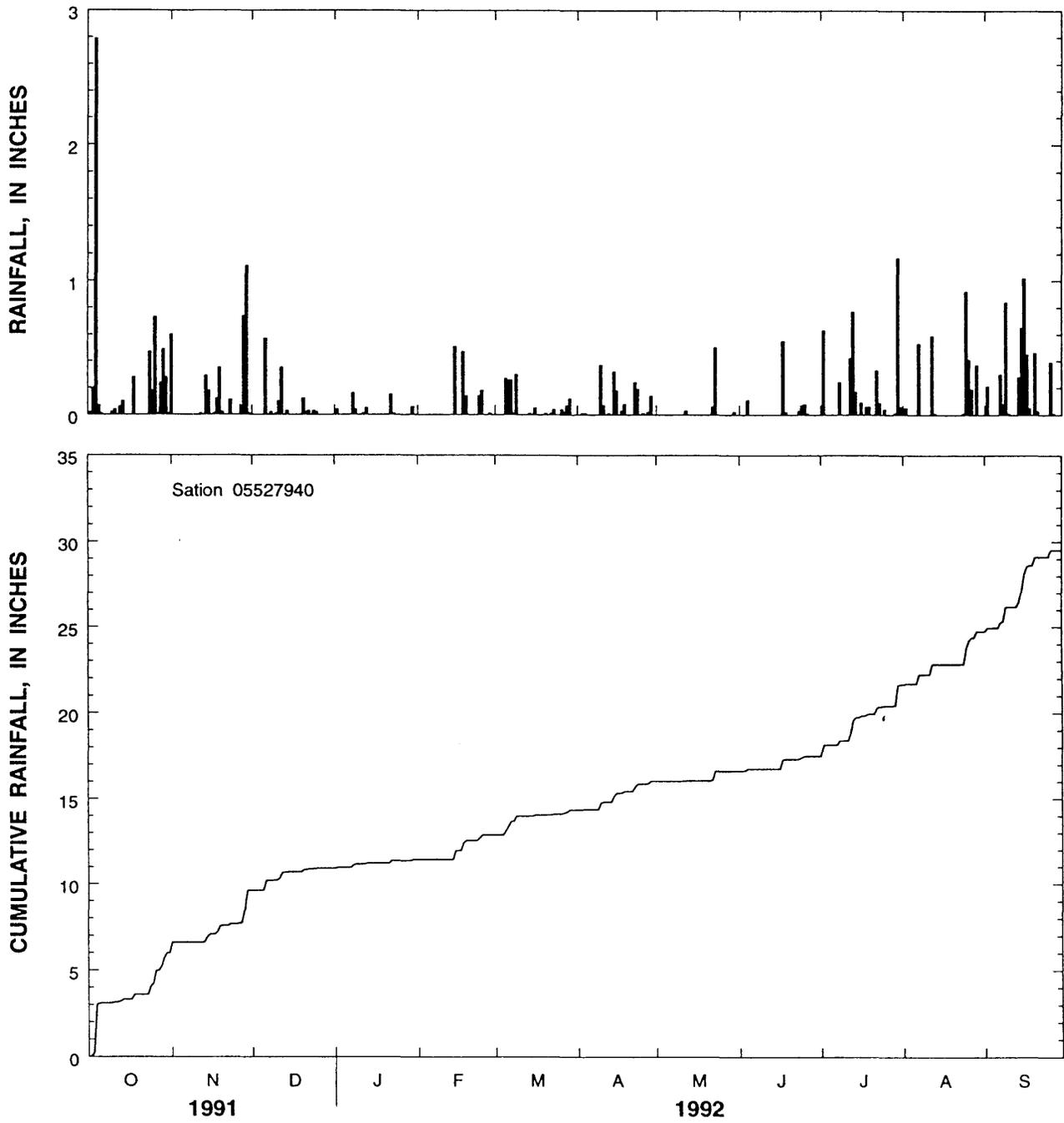


Figure 9. Daily rainfall totals and cumulative rainfall at Temple Farms Ditch near Old Mill Creek, Ill., water year 1992.

05527940 Tempel Farms Ditch near Old Mill Creek, Ill.—Continued

Rainfall, in inches, water year October 1991 to September 1992

Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.60	0.00	0.00	0.00	0.00	s0.00	0.00	0.00	0.00	0.00	0.00
2	.02	s.00	.00	.04	.00	.00	s.00	.00	.00	.63	.05	.21
3	.20	s.00	s.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
4	2.79	s.00	s.00	.00	.00	.00	.01	.00	.11	.00	.00	.00
5	.07	.00	s.00	.00	.00	.27	.00	.00	.00	.00	.00	.00
6	.01	.00	.57	.00	.00	.26	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	s.00	.26	.00	.00	.00	.00	.53	.30
8	.00	.00	.02	.16	s.00	.01	.00	.00	.00	.24	.00	.08
9	.00	.00	.00	.04	.00	.30	.00	.00	.00	.00	.00	.84
10	.02	.00	.01	s.00	s.00	s.00	.37	.00	.00	.00	.00	.01
11	.04	s.00	.10	.00	s.00	.00	.07	.00	.00	.00	.00	.00
12	.00	s.01	.35	.01	s.00	.00	.00	.03	.00	.42	.59	.00
13	.06	s.00	.00	.05	s.00	.00	.01	.00	.00	.77	.01	.00
14	.10	.29	.03	s.00	s.00	s.01	.00	.00	.00	.17	.00	.28
15	.00	.18	s.00	s.00	s.51	.00	.32	.00	.00	.00	.00	.65
16	.00	.00	s.00	s.00	.00	.05	.18	.00	.00	.09	.00	1.02
17	.00	.01	.00	.00	.00	.00	.00	.00	.55	.00	.00	.45
18	.28	.12	.00	.00	s.47	.00	.03	.00	.02	.06	.00	.05
19	.00	.35	.00	.00	s.14	.00	.08	.00	.00	.06	.00	.00
20	.00	.02	.12	.00	s.00	.01	.00	.00	.00	.00	.00	.46
21	.00	.00	s.02	.00	.00	s.00	.00	.00	.00	.00	.00	.03
22	.00	.00	.03	.15	.00	s.01	.00	.06	.00	.33	.00	.00
23	.00	s.11	.00	.01	.00	.04	.24	.50	.03	.09	.00	.00
24	.47	s.00	.03	s.00	s.14	.00	.19	.00	.07	.00	.01	.00
25	.18	s.00	.02	s.00	s.18	.00	.00	.00	.08	.04	.92	.00
26	.73	.00	.00	s.00	.00	s.04	.01	.00	.01	.00	.41	.39
27	.01	s.07	.00	.00	.00	s.02	.00	.00	.00	.00	.19	.01
28	.24	s.74	.00	.00	s.01	.07	.02	.00	.00	.00	.00	.00
29	.49	1.11	.00	.00	s.00	.12	.14	.00	.00	.01	.37	.00
30	.28	.01	.00	.06	--	.00	.00	.02	.00	1.17	.00	.00
31	.01	--	.00	.00	--	.00	--	.00	--	.06	.00	--
Total	6.00	3.62	1.30	0.52	1.45	1.47	1.68	0.61	0.87	4.14	3.08	4.78

s Snowfall-affected precipitation.

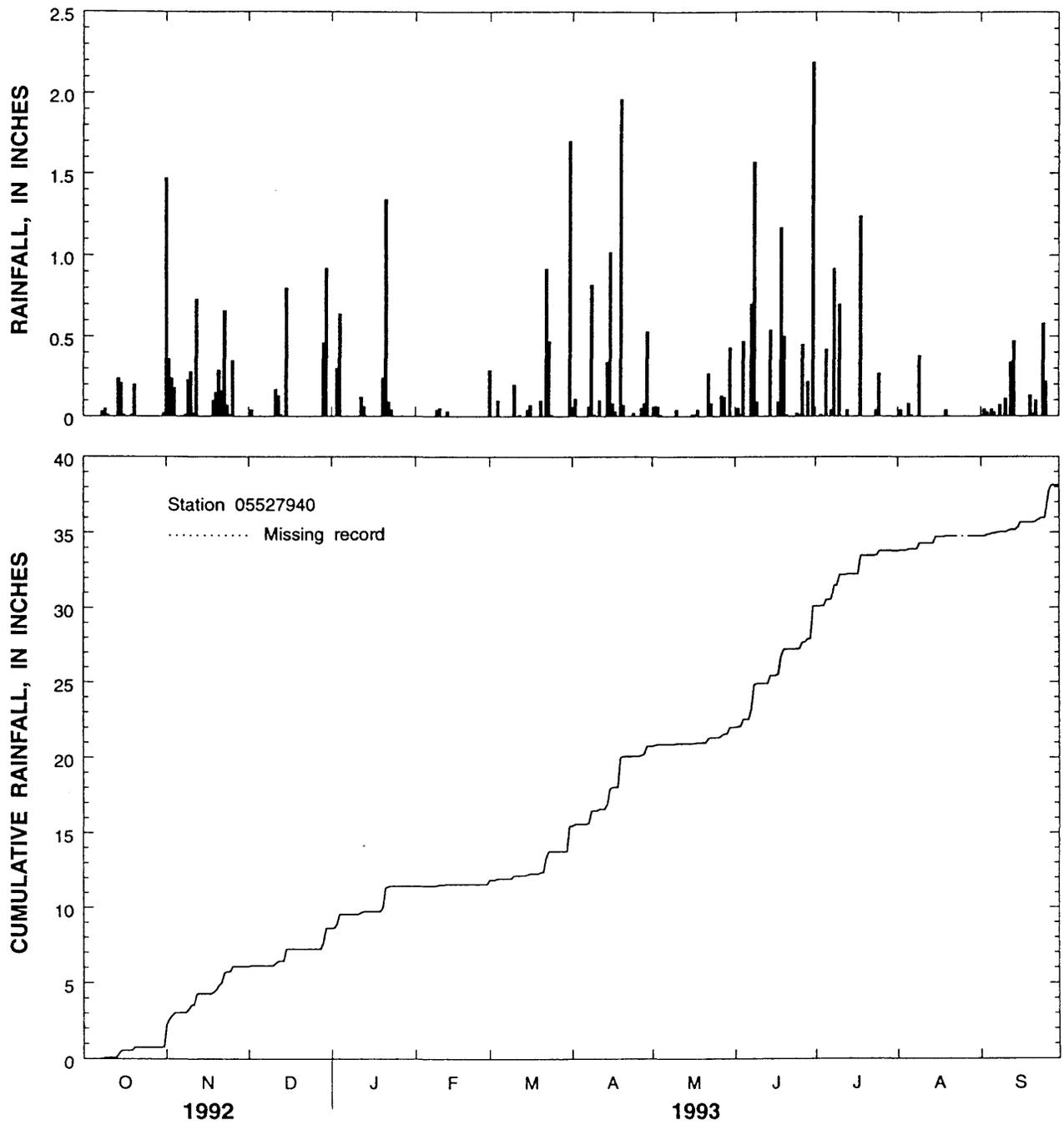


Figure 10. Daily rainfall totals and cumulative rainfall at Temple Farms Ditch near Old Mill Creek, Ill., water year 1993.

05527940 Tempel Farms Ditch near Old Mill Creek, Ill.—Continued

Rainfall, in inches, water year October 1992 to September 1993
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.47	s0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00
2	.00	.36	s.04	s.00	s.00	.00	.11	.06	.05	.00	.04	.03
3	.00	s.24	.00	s.30	s.00	.00	.00	.06	.01	.01	.00	.02
4	.00	s.18	s.00	s.64	s.00	s.10	.00	.01	.47	.00	.00	.00
5	.00	s.00	.00	s.00	s.00	s.00	.00	.00	.00	.42	.08	.03
6	.00	s.00	.00	s.00	s.00	.00	.00	.00	.00	.00	.01	.02
7	.00	s.00	s.00	s.00	.00	.00	.06	.00	.70	.04	.00	.00
8	.03	s.01	.00	s.00	s.00	.00	.82	.00	1.57	.92	.00	.07
9	.05	.23	.00	s.00	s.04	.00	.01	.00	.09	.00	.38	.00
10	.01	.28	s.00	s.00	s.05	s.20	.00	.04	.00	.70	.00	.00
11	.00	.02	.17	s.00	s.00	s.00	.10	.00	.00	.00	.00	.11
12	.00	s.73	.13	s.12	s.00	s.01	.00	.00	.00	.00	.00	.00
13	.00	s.00	.01	s.06	s.03	s.00	.00	.00	.00	.04	.00	.33
14	.24	s.00	.00	s.00	s.00	s.00	.34	.00	.54	.00	.00	.48
15	.21	s.00	.80	s.00	.00	.04	1.02	.00	.00	.00	.43	.00
16	.01	.00	.00	s.00	s.00	.07	.08	.01	.00	.00	.00	.00
17	.00	.00	s.00	.00	s.00	.00	.03	.01	.09	.00	.00	.00
18	.00	.10	.00	s.00	.00	s.00	.00	.04	1.17	1.24	.00	.00
19	s.01	.15	.00	s.00	.00	.00	1.96	.00	.50	.00	.04	.00
20	s.20	.29	.00	.24	s.00	s.10	.07	.00	.01	.00	.00	.13
21	.00	.16	.00	1.34	s.00	.00	.00	.00	.00	.00	p.00	.01
22	.00	.66	.00	s.09	s.00	s.92	.00	.27	.00	.00	m	.10
23	.00	.07	.00	s.04	s.00	.47	.00	.08	.00	.00	m	.00
24	.00	.01	s.00	.00	.00	.01	.02	.00	.02	.04	p.00	.00
25	.00	.35	.00	.00	s.00	.00	.00	.00	.01	.27	.00	1.80
26	.00	.00	.00	s.00	s.00	.00	.00	.00	.45	.00	.00	.21
27	.00	.00	.00	s.00	.00	.00	.05	.13	.00	.00	.00	.00
28	.00	.00	.00	s.00	.00	.00	.08	.12	.22	.00	.00	.00
29	.00	.00	.46	s.00	--	.00	.53	.00	.00	.00	.00	.00
30	.00	.00	.92	.00	--	.00	.00	.43	2.19	.00	.00	.00
31	.02	--	.00	.00	--	1.70	--	.00	--	.00	.00	--
Total	0.78	5.31	2.53	2.83	0.12	3.91	5.28	1.26	8.09	3.68	--	3.34

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

Des Plaines River near Gurnee, Ill.

Site identifier.--3

Station number.--05528000

Location.--Latitude 42°20'39", longitude 87°56'18", in SE¼SW¼ sec.27, T.45 N., R.11 E., Lake County, Hydrologic Unit 07120004, on left bank 800 ft upstream from bridge on State Highway 120, 2.5 mi southwest of Gurnee (Libertyville 7.5-minute quadrangle).

To reach gage.--Drive 0.8 mi west on State Highway 120 (Belvidere Road) from intersection of State Highway 120 and the Tri-State Tollway (Interstate Highway 94).

Drainage basin.--Des Plaines River.

Gage.--An 8-in.-diameter, unheated, tipping-bucket rain gage mounted on a steel post, 8 ft above the ground. A multiparameter electronic data logger is housed in a 4-ft corrugated iron shelter on the left bank, 800 ft upstream from the State Highway 120 bridge.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--December 6, 1989, to present. Periods of missing record exist due to equipment-related problems.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Illinois Department of Transportation, Division of Water Resources.

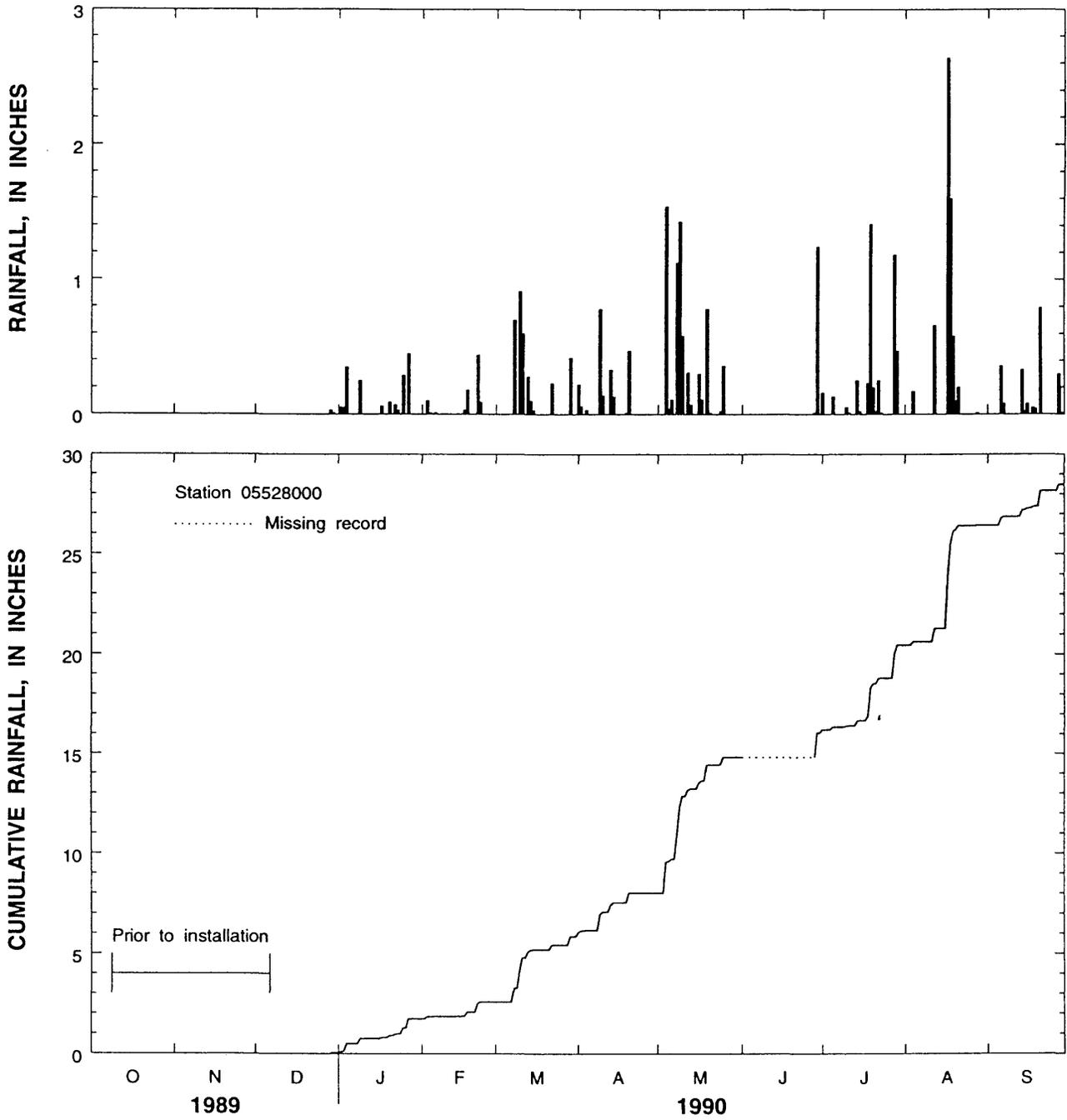


Figure 11. Daily rainfall totals and cumulative rainfall at Des Plaines River near Gurnee, Ill., water year 1990.

05528000 Des Plaines River near Gurnee, Ill.—Continued

Rainfall, in inches, water year October 1989 to September 1990

Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	s0.00	0.00	0.00	0.22	0.00	m	0.16	0.00	0.00
2	--	--	--	.05	s.00	.00	.06	.00	m	.00	.00	.00
3	--	--	--	.05	s.10	.00	.00	.00	m	.00	.00	.00
4	--	--	--	.35	.01	.00	.03	1.54	m	.00	.17	.00
5	--	--	--	.00	.00	.00	s.00	.04	m	.13	.00	.00
6	--	--	p0.00	.00	.01	.00	s.00	.11	m	.00	.00	.36
7	--	--	.00	.00	.00	.00	.00	.00	m	.00	.00	.08
8	--	--	.00	.00	.00	.70	.00	1.12	m	.00	1.66	.00
9	--	--	.00	.25	.00	.00	.78	1.43	m	.00	.00	.00
10	--	--	s.00	.00	.00	.91	.14	.58	m	.05	.00	.00
11	--	--	s.00	.00	.00	.60	s.00	.00	m	.01	.00	.00
12	--	--	.00	s.00	.00	.00	s.00	.31	m	.00	.66	.00
13	--	--	s.00	.00	.00	.28	.33	.07	m	.00	.00	.00
14	--	--	s.00	.00	.00	.10	.13	.00	m	.25	.00	.33
15	--	--	s.00	.00	s.00	.03	.00	.00	m	.02	.00	.02
16	--	--	s.00	.00	s.00	.00	.00	.30	m	.00	.00	.08
17	--	--	s.00	.06	s.03	.00	.00	.11	m	.00	2.64	.00
18	--	--	s.00	.00	.18	.00	.00	.00	m	.23	1.60	.05
19	--	--	s.00	.00	.00	.00	.01	.78	m	1.41	.58	.04
20	--	--	s.00	s.09	.00	.00	.47	.01	m	.20	.10	.00
21	--	--	.00	s.00	.00	.00	.00	.00	m	.02	.20	.79
22	--	--	.00	.07	.44	.23	.00	.00	m	.25	.00	.00
23	--	--	.00	.03	s.09	.00	.00	.00	m	.01	.00	.00
24	--	--	s.00	.00	s.00	.00	.00	.02	m	.00	.00	.00
25	--	--	s.00	s.29	.00	.00	.00	.36	m	.00	.00	.00
26	--	--	s.00	s.00	.00	.00	.00	.00	p.00	.00	.00	.00
27	--	--	s.00	.45	.00	.00	.00	.00	.00	.00	.00	.00
28	--	--	.00	.00	.00	.00	.00	.00	.01	1.18	.01	.30
29	--	--	s.03	.00	--	.42	.00	.00	1.24	.47	.04	.01
30	--	--	s.01	.00	--	.00	.00	p.00	.00	.00	.00	.01
31	--	--	s.00	.00	--	.00	--	m	--	.00	.00	--
Total	--	--	--	1.69	0.86	3.27	2.17	--	--	4.39	5.96	2.07

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

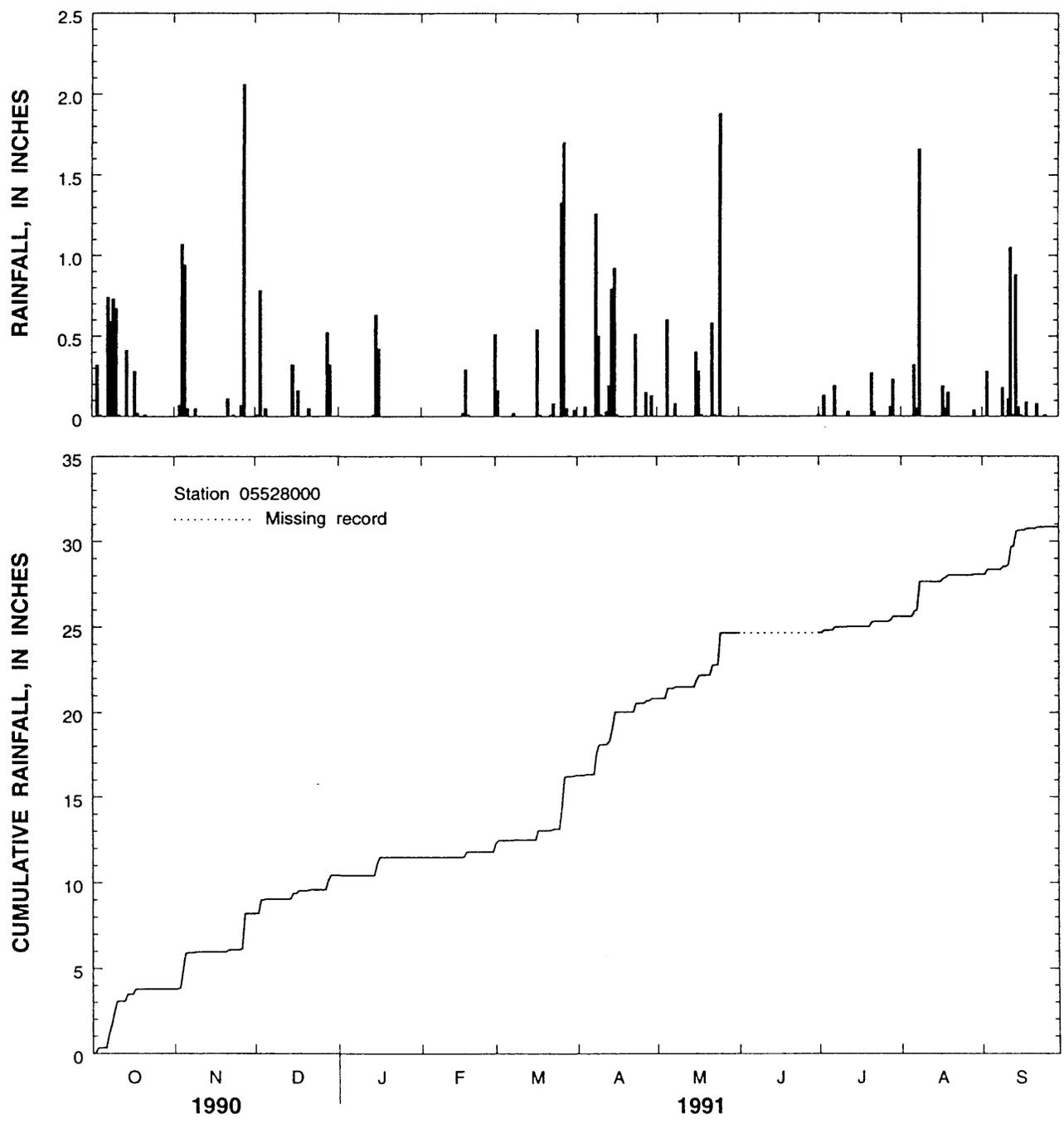


Figure 12. Daily rainfall totals and cumulative rainfall at Des Plaines River near Gurnee, Ill., water year 1991.

05528000 Des Plaines River near Gurnee, Ill.—Continued

Rainfall, in inches, water year October 1990 to September 1991
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.00	0.00	0.00	0.00	0.51	0.00	0.00	m	0.01	0.00	0.00
2	.00	.00	s.01	.00	.00	.16	.00	.00	m	.00	.00	.00
3	.32	.07	s.78	s.00	.00	s.00	.00	.00	m	.13	.00	.28
4	.01	s1.07	s.00	.00	.00	.00	.06	.00	m	.00	.00	.00
5	.00	s.94	.05	s.00	.00	.00	.00	.60	m	.00	.00	.00
6	.00	s.05	.00	s.00	.00	.00	.00	.00	m	.00	.32	.00
7	.74	.00	.00	.00	.00	.00	.00	.00	m	.19	.05	.00
8	.59	.00	.00	.00	.00	.02	1.26	.08	m	.00	1.66	.00
9	.73	s.05	.00	s.00	.00	.00	.50	.00	m	.00	.00	.18
10	.67	.00	.00	.00	.00	.00	.01	.00	m	.00	.00	.00
11	.01	s.00	.00	s.00	.00	.00	.00	.00	m	.00	.00	.11
12	.00	.00	.00	s.00	.00	s.00	.03	.00	m	.03	.00	1.05
13	.00	.00	.00	.00	.00	s.00	.19	.00	m	.00	.00	.01
14	.41	.00	s.00	.01	s.00	.00	.79	.00	m	.00	.00	.88
15	.00	.00	s.32	.63	.00	.00	.92	.00	m	.00	.00	.06
16	.00	.00	.00	.42	.00	.00	.01	.40	m	.00	.00	.01
17	.28	.00	.16	.00	.02	.54	.00	.28	m	.00	.19	.00
18	.02	.00	.00	.00	.29	.01	.00	.01	m	.00	.05	.09
19	.00	.00	.00	.00	.01	.00	.00	.00	m	.00	.15	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	m	.00	.00	.00
21	.01	.11	.05	s.00	.00	.00	.00	.00	m	.27	.00	.00
22	.00	.00	.00	.00	.00	.01	.00	.58	m	.03	.00	.08
23	.00	.01	.00	s.00	.00	.08	.51	.01	m	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	m	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	1.88	m	.00	.00	.01
26	.00	.07	.00	.00	.00	1.33	.00	.00	m	.00	.00	.00
27	.00	2.06	s.00	.00	s.00	1.70	.15	.00	m	.00	.00	.00
28	.00	.00	s.52	.00	.00	.05	.00	.00	m	.06	.00	.00
29	.00	.00	s.32	.00	--	.00	.13	.00	m	.23	.04	.00
30	.00	.00	s.00	s.00	--	.00	.00	m	m	.00	.00	.00
31	.00	--	s.00	s.00	--	s.04	--	m	--	.00	.00	--
Total	3.79	4.43	2.21	1.06	0.32	4.45	4.56	--	--	0.95	2.46	2.76

m Missing record.

s Snowfall-affected precipitation.

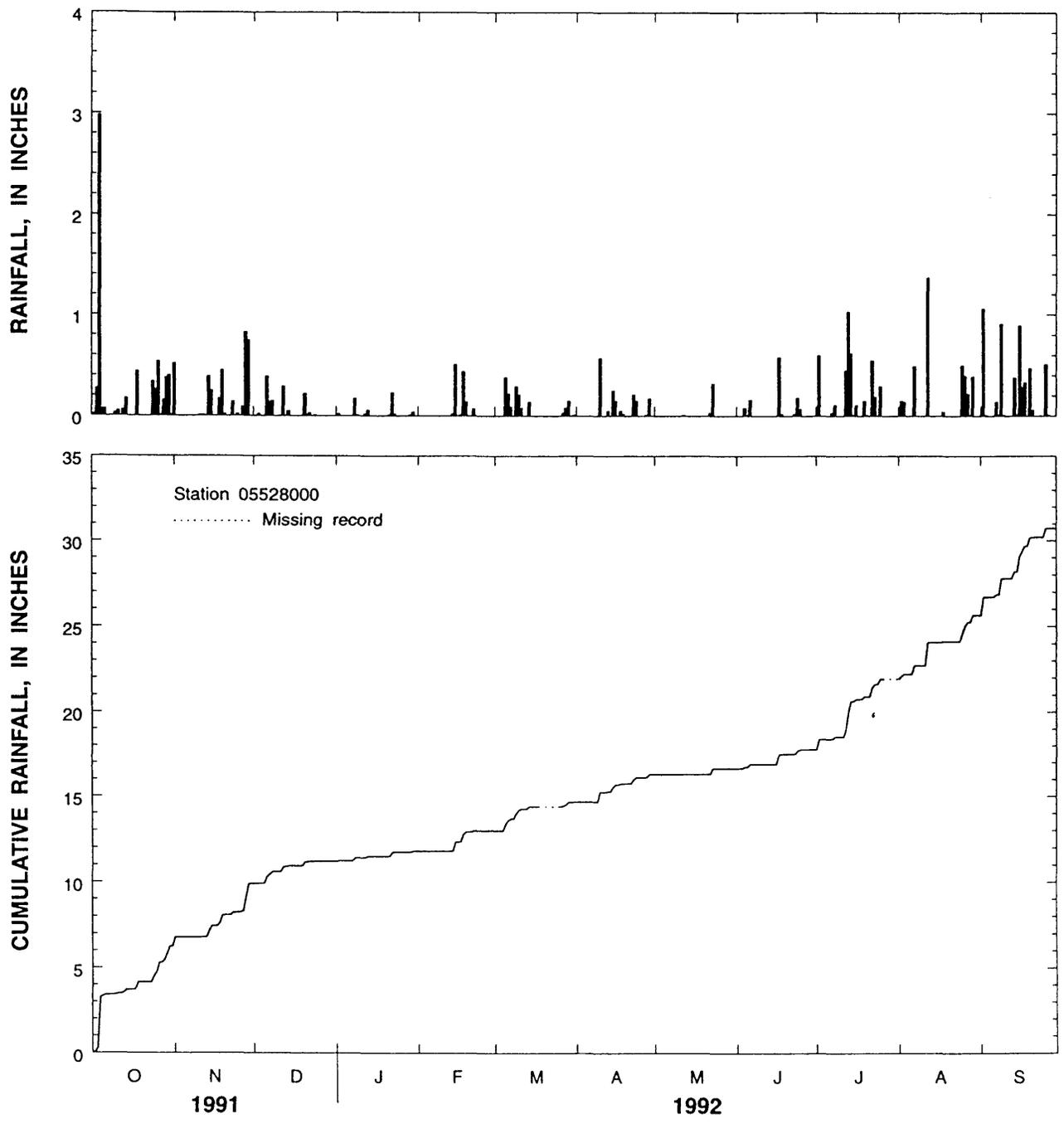


Figure 13. Daily rainfall totals and cumulative rainfall at Des Plaines River near Gurnee, Ill., water year 1992.

05528000 Des Plaines River near Gurnee, Ill.—Continued

Rainfall, in inches, water year October 1991 to September 1992
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.52	0.00	0.00	0.00	0.00	s0.00	0.00	0.00	0.00	0.00	0.00
2	.02	s.00	.00	.02	.00	.00	s.00	.00	.00	.60	.15	1.06
3	.27	s.00	s.02	.00	.00	.00	.00	.00	.00	.00	.14	.01
4	2.98	s.00	s.00	.00	.00	.00	.00	.00	.08	.00	.00	.00
5	.07	.00	s.00	.00	.00	.38	.00	.00	.01	.00	.00	.00
6	.07	.00	.39	.00	.00	.22	.00	.00	.16	.00	.00	.00
7	.00	.00	.14	.00	s.00	.09	.00	.00	.00	.03	.49	.14
8	.00	.00	.15	.17	s.00	.00	.00	.00	.00	.11	.00	.01
9	.00	.00	.00	.01	.00	.29	.00	.00	.00	.00	.00	.91
10	.03	.00	.00	s.00	s.00	s.21	.57	.00	.00	.00	.00	.01
11	.05	s.01	.00	.00	s.00	.08	.00	.00	.00	.00	.00	.00
12	.00	s.01	.29	.02	s.00	.00	.00	.01	.00	.45	1.37	.00
13	.06	s.00	.00	.06	s.00	.00	.05	.00	.00	1.03	.00	.00
14	.17	.39	.05	s.00	s.02	s.14	.00	.00	.00	.62	.00	.38
15	.00	.25	s.00	s.00	s.51	m	.25	.00	.00	.01	.00	.01
16	.00	.00	s.00	s.00	.00	m	.15	.00	.00	.11	.00	.89
17	.00	.00	.00	.00	.01	m	.00	.00	.58	.00	.00	.28
18	.44	.17	.00	.00	s.44	m	.05	.00	.02	.00	.04	.33
19	.00	.45	.00	.00	s.14	m	.02	.00	.00	.15	.00	.00
20	.00	.02	.22	.00	s.00	m	.00	.00	.00	.01	.00	.47
21	.00	.00	s.01	.01	.00	m	.00	.00	.00	.00	.00	.06
22	.00	.00	.03	.23	.07	m	.00	.03	.00	.55	.00	.00
23	.00	s.14	.00	.02	.00	m	.21	.32	.02	.19	.00	.00
24	.34	s.00	.01	s.00	s.00	m	.15	.00	.18	.00	.00	.00
25	.26	s.02	.00	s.00	s.00	m	.00	.00	.07	.29	.50	.00
26	.54	.00	.00	s.00	.00	p.00	.00	.00	.00	m	.40	.51
27	.01	s.09	.00	.00	.00	s.03	.00	.00	.00	m	.22	.01
28	.16	s.83	.00	.00	s.00	.08	.01	.00	.00	m	.01	.00
29	.38	.75	.00	.01	s.00	.15	.17	.00	.00	m	.39	.00
30	.40	.00	.00	.04	--	.00	.00	.00	.00	m	.00	.00
31	.01	--	.00	.00	--	.01	--	.00	--	m	.00	--
Total	6.26	3.65	1.31	0.59	1.19	--	1.63	0.36	1.12	--	3.71	5.08

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

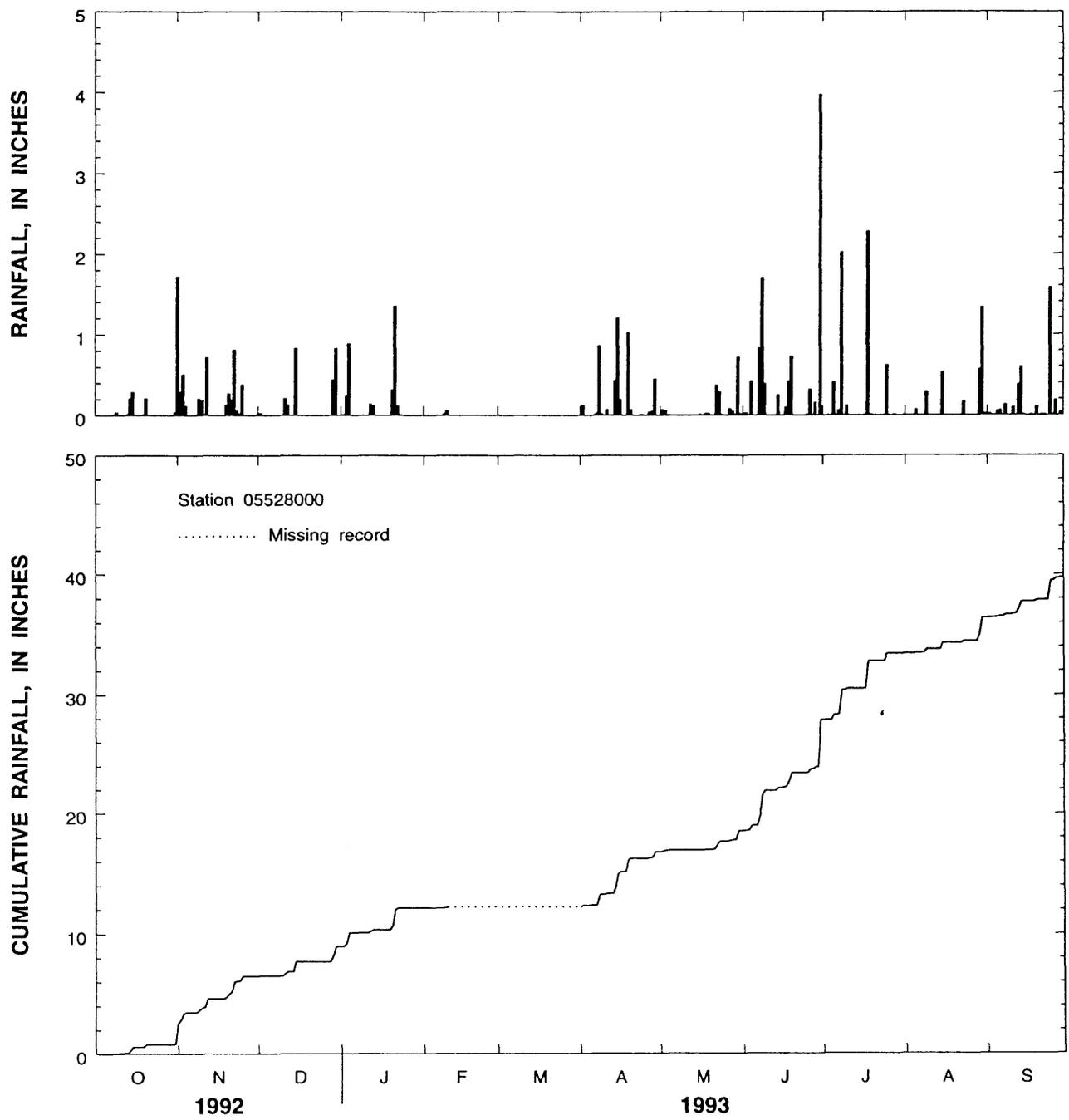


Figure 14. Daily rainfall totals and cumulative rainfall at Des Plaines River near Gurnee, Ill., water year 1993.

05528000 Des Plaines River near Gurnee, Ill.—Continued

Rainfall, in inches, water year October 1992 to September 1993
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.72	s0.01	0.00	0.00	p0.00	p0.00	0.00	0.00	0.00	0.00	0.00
2	.00	.29	s.03	s.01	s.00	m	.13	.07	.03	.00	.00	.02
3	.00	s.51	.00	s.24	s.00	m	.00	.06	.00	.00	.00	.00
4	.00	s.12	s.00	s.89	s.00	m	.00	.01	.42	.00	.00	.00
5	.00	s.00	.00	s.00	s.00	m	.00	.00	.00	.41	.07	.05
6	.00	s.00	.00	s.00	s.00	m	.00	.00	.00	.00	.00	.06
7	.00	s.00	s.00	s.00	.00	m	.02	.00	.83	.06	.00	.00
8	.01	s.01	.00	s.00	s.00	m	.86	.00	1.70	2.02	.00	.13
9	.04	.21	.00	s.00	s.02	m	.02	.00	.39	.00	.29	.00
10	.01	.19	s.00	s.00	s.06	m	.00	.00	.00	.12	.00	.00
11	.01	.01	.21	s.00	m	m	.07	.00	.00	.00	.00	.10
12	.00	s.72	.13	s.14	m	m	.00	.00	.00	.00	.00	.00
13	.01	s.00	.00	s.12	m	m	.00	.00	.00	.00	.00	.38
14	.21	s.00	.00	s.00	m	m	.43	.00	.25	.00	.00	.60
15	.29	s.00	.83	s.00	m	m	1.20	.00	.00	.00	.53	.01
16	.00	.00	.00	s.00	m	m	.20	.01	.00	.00	.00	.00
17	.00	.00	s.00	.00	m	m	.00	.00	.10	.00	.00	.00
18	.00	.00	.00	s.00	m	m	.00	.02	.42	2.28	.00	.01
19	s.01	.13	.00	s.00	m	m	1.02	.02	.73	.01	.00	.00
20	s.21	.27	.00	.32	m	m	.07	.00	.00	.00	.00	.11
21	.00	.19	.00	1.35	m	m	.00	.00	.00	.00	.00	.00
22	.00	.81	.00	s.12	m	m	.00	.37	.00	.00	.00	.01
23	.00	.06	.00	s.01	m	m	.00	.29	.00	.00	.17	.01
24	.00	.02	s.00	.00	m	m	.01	.01	.00	.00	.00	.00
25	.00	.38	.00	.00	m	m	.00	.00	.01	.62	.00	1.58
26	.00	.00	.00	s.00	m	m	.00	.00	.32	.00	.00	.01
27	.00	.00	.00	s.00	m	m	.04	.08	.01	.00	.00	.19
28	.00	.00	.00	s.00	m	m	.05	.05	.16	.01	.00	.00
29	.00	.00	.44	s.00	--	m	.45	.01	.00	.00	.57	.04
30	.00	.00	.83	.00	--	m	.00	.72	3.97	.00	1.33	.01
31	.04	--	.00	.00	--	m	--	.02	--	.00	.02	--
Total	0.84	5.64	2.48	3.20	--	--	4.57	1.74	9.34	5.53	2.98	3.32

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

Bull Creek near Libertyville, Ill.

Site identifier.--4

Station number.--05528030

Location.--Latitude 42°18'22", longitude 87°58'07", in SW~~NE~~ sec.8, T.44 N., R.11 E., Lake County, Hydrologic Unit 07120004, at center of downstream side of culvert on State Highway 137 (Buckley Road), at the northwest edge of Libertyville (Libertyville 7.5-minute quadrangle).

To reach gage.--From intersection of State Highway 21 (Milwaukee Avenue) and State Highway 137, drive 0.4 mi west to gage. From intersection of U.S. Highway 45 and State Highway 137, drive 2.2 mi east to gage.

Drainage basin.--Bull Creek.

Gage.--An 8-in.-diameter, unheated, tipping-bucket rain gage mounted on a 2-in. galvanized pipe attached to the left side of a Tennessee-type shelter mounted at the center of the downstream side of a two-barrel box culvert on Buckley Road. A multiparameter electronic data logger, housed in the Tennessee-type shelter, records rainfall data.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--December 4, 1989, to present.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Lake County Stormwater Management Commission.

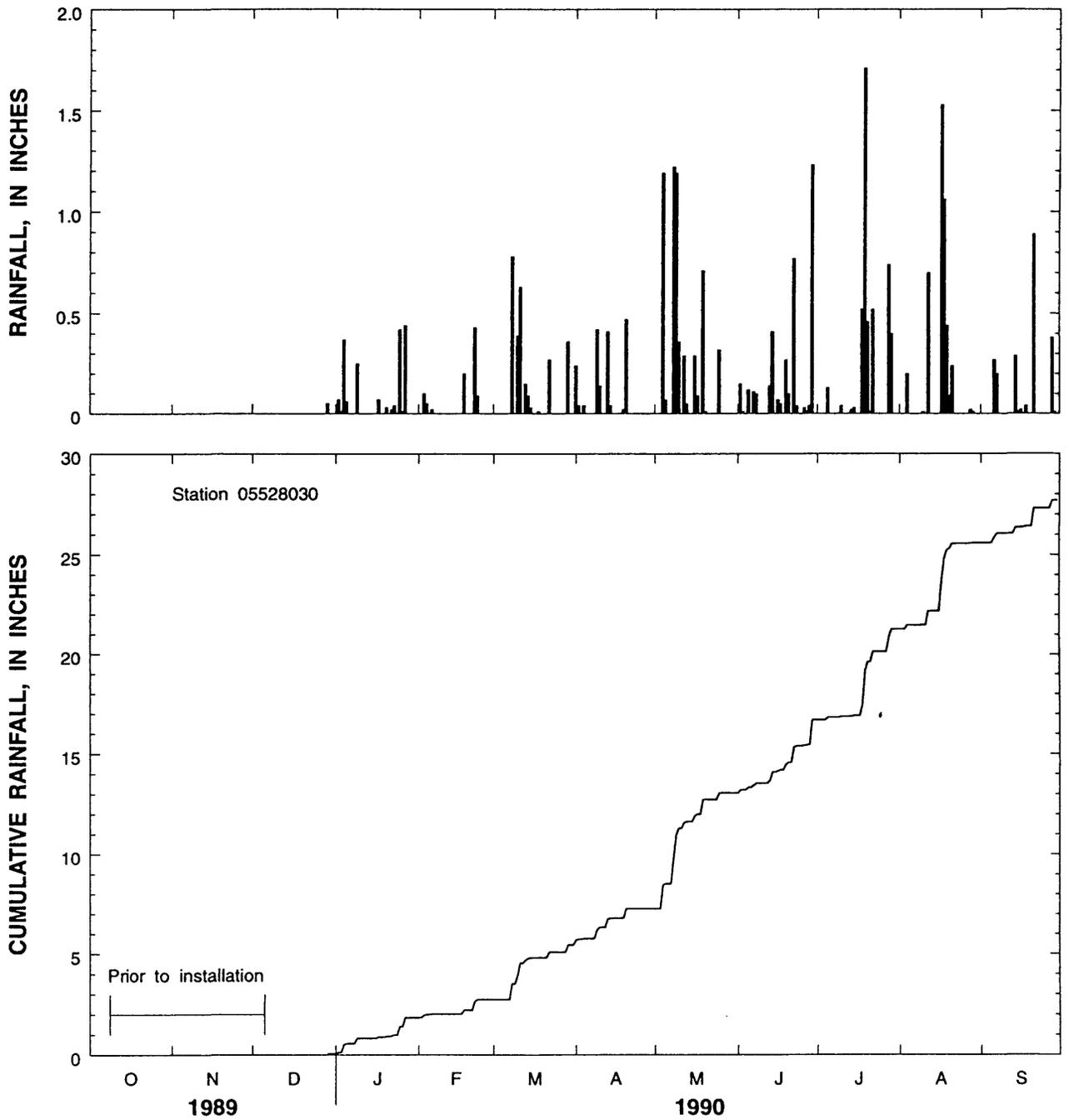


Figure 15. Daily rainfall totals and cumulative rainfall at Bull Creek near Libertyville, Ill., water year 1990.

05528030 Bull Creek near Libertyville, Ill.—Continued

Rainfall, in inches, water year October 1989 to September 1990

Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	s0.	0.00	0.00	0.24	0.00	0.00	0.00	0.00	0.00
2	--	--	--	.07	s.00	.00	.04	.00	.15	.00	.00	.00
3	--	--	--	.01	s.10	.00	.00	.00	.01	.00	.00	.00
4	--	--	p0.00	.37	.05	.00	.04	1.19	.00	.00	.20	.00
5	--	--	.00	.06	.00	.00	s.00	.07	.12	.13	.00	.00
6	--	--	.00	.00	.02	.00	s.00	.00	.00	.00	.00	.27
7	--	--	.00	.00	.00	.00	.00	.00	.11	.00	.00	.20
8	--	--	.00	.00	.00	.78	.00	1.22	.10	.00	.00	.00
9	--	--	.00	.25	.00	.00	.42	1.19	.00	.00	.00	.00
10	--	--	s.00	.00	.00	.39	.14	.36	.00	.04	.01	.00
11	--	--	s.00	.00	.00	.63	s.00	.00	.00	.00	.00	.00
12	--	--	.00	s.00	.00	.00	s.00	.29	.00	.00	.70	.00
13	--	--	s.00	.00	.00	.15	.41	.05	.14	.00	.00	.00
14	--	--	s.00	.00	.00	.09	.04	.00	.41	.02	.00	.29
15	--	--	s.00	.00	s.00	.03	.00	.00	.00	.03	.00	.01
16	--	--	s.00	.00	s.00	.00	.00	.29	.07	.00	.00	.02
17	--	--	s.00	.07	s.00	.00	.00	.09	.05	.00	1.53	.00
18	--	--	s.00	.00	.20	.01	.00	.00	.00	.52	1.06	.04
19	--	--	s.00	.00	.00	.00	.02	.71	.27	1.71	.44	.00
20	--	--	s.00	s.03	.00	.00	.47	.01	.10	.46	.09	.00
21	--	--	.00	s.00	.00	.00	.00	.00	.00	.01	.24	.89
22	--	--	.00	.02	.43	.27	.00	.00	.77	.52	.00	.00
23	--	--	.00	.04	s.09	.00	.00	.00	.04	.00	.00	.00
24	--	--	s.00	.00	s.00	.00	.00	.00	.00	.00	.00	.00
25	--	--	s.00	s.42	.00	.00	.00	.32	.00	.00	.00	.00
26	--	--	s.00	s.01	.00	.00	.00	.00	.03	.00	.00	.00
27	--	--	s.00	.44	.00	.00	.00	.00	.01	.00	.00	.00
28	--	--	.00	.00	.00	.00	.00	.00	.04	.74	.02	.38
29	--	--	s.05	.00	--	.36	.00	.00	1.23	.40	.01	.01
30	--	--	s.00	.00	--	.00	.00	.00	.00	.00	.00	.00
31	--	--	.00	.00	--	.00	--	.00	--	.00	.00	--
Total	--	--	--	1.79	0.89	2.71	1.82	5.79	3.65	4.58	4.30	2.11

p Partial record.

s Snowfall-affected precipitation.

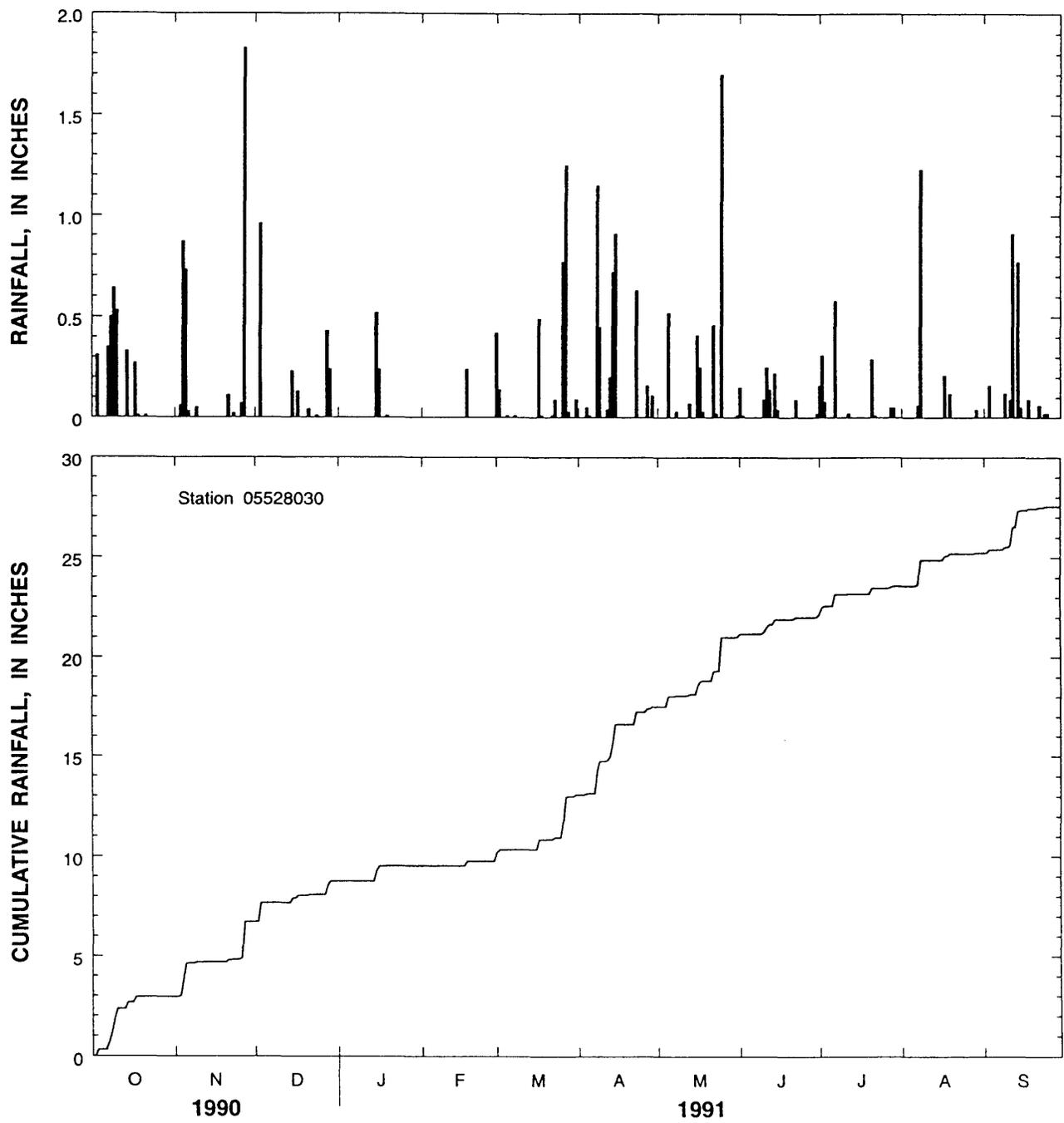


Figure 16. Daily rainfall totals and cumulative rainfall at Bull Creek near Libertyville, Ill., water year 1991.

05528030 Bull Creek near Libertyville, Ill.—Continued

Rainfall, in inches, water year October 1990 to September 1991
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.15	0.16	0.00	0.00
2	.00	.00	s.00	.00	.00	.14	.00	.00	.01	.31	.00	.00
3	.31	.06	s.96	s.00	.00	s.00	.00	.00	.00	.08	.00	.16
4	.00	s.87	s.00	.00	.00	.00	.05	.00	.00	.00	.00	.00
5	.00	s.73	.00	s.00	.00	.01	.01	.52	.00	.00	.00	.00
6	.00	s.03	.00	s.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.35	.00	.00	.00	.00	.00	.00	.00	.00	.58	.06	.00
8	.50	.00	.00	.00	.00	.01	1.15	.03	.00	.00	1.23	.00
9	.64	s.05	.00	s.00	.00	.00	.45	.00	.00	.00	.00	.12
10	.53	.00	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00
11	.00	s.00	.00	s.00	.00	.00	.00	.00	.25	.00	.00	.09
12	.00	.00	.00	s.00	.00	s.00	.04	.00	.14	.02	.00	.91
13	.00	.00	.00	.00	.00	s.00	.20	.07	.00	.00	.00	.00
14	.33	.00	s.00	.00	s.00	.00	.72	.00	.22	.00	.00	.77
15	.00	.00	s.23	.52	.00	.00	.91	.00	.04	.00	.00	.05
16	.00	.00	.00	.24	.00	.00	.00	.41	.00	.00	.00	.00
17	.27	.00	.13	.00	.00	.49	.00	.25	.00	.00	.21	.00
18	.01	.00	.00	.00	.24	.01	.00	.03	.00	.00	.00	.09
19	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.12	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.01	.11	.04	s.00	.00	.00	.00	.00	.00	.29	.00	.00
22	.00	.00	.00	.00	.00	.01	.00	.46	.09	.01	.00	.06
23	.00	.02	.00	s.00	.00	.09	.63	.02	.00	.00	.00	.00
24	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.02
25	.00	.00	.00	.00	.00	.00	.00	1.70	.00	.00	.00	.02
26	.00	.07	.00	.00	.00	.77	.00	.00	.00	.00	.00	.00
27	.00	1.83	s.00	.00	s.00	1.25	.16	.00	.00	.00	.00	.00
28	.00	.00	s.43	.00	.00	.03	.00	.00	.00	.05	.00	.00
29	.00	.00	s.24	.00	--	.00	.11	.00	.00	.05	.04	.00
30	.00	.00	s.00	s.00	--	.00	.00	.00	.02	.00	.00	.00
31	.00	--	s.00	s.00	--	s.09	--	.01	--	.00	.00	--
Total	2.95	3.77	2.04	0.77	0.24	3.32	4.43	3.50	1.01	1.55	1.66	2.29

s Snowfall-affected precipitation.

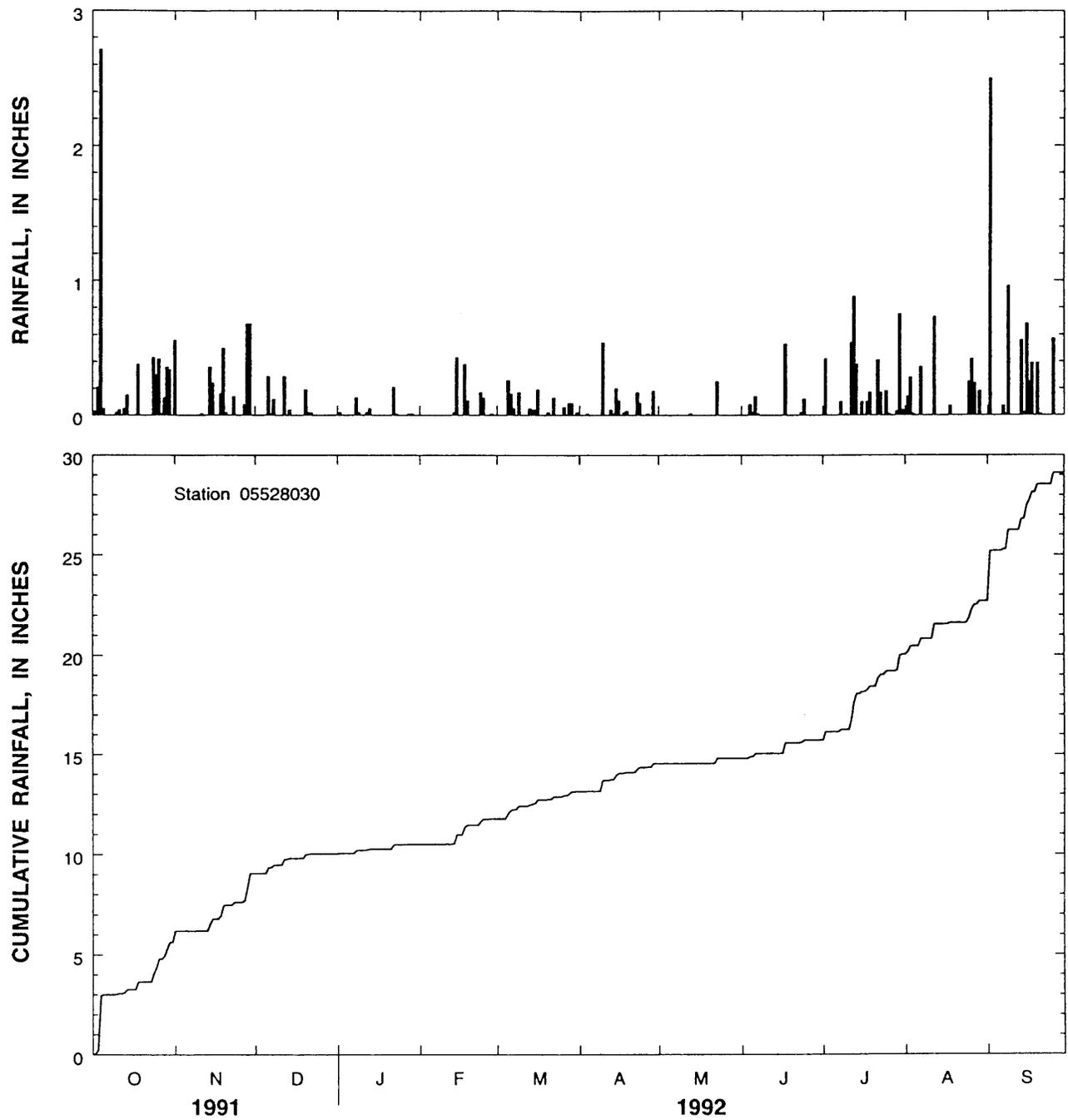


Figure 17. Daily total rainfall and cumulative rainfall at Bull Creek near Libertyville, Ill., water year 1992.

05528030 Bull Creek near Libertyville, Ill.—Continued

Rainfall, in inches, water year October 1991 to September 1992
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.56	0.00	0.00	0.00	0.00	s0.00	0.00	0.00	0.00	0.00	0.00
2	.03	s.00	.00	.02	.00	.00	s.00	.00	.00	.42	.14	2.50
3	.21	s.00	s.00	.00	.00	.00	.00	.00	.00	.00	.28	.00
4	2.71	s.00	s.00	.00	.00	.00	.01	.00	.08	.00	.01	.00
5	.05	.00	s.00	.00	.00	.26	.00	.00	.02	.00	.00	.00
6	.00	.00	.29	.00	.00	.16	.00	.00	.14	.00	.00	.00
7	.00	.00	.01	.00	s.00	.05	.00	.00	.01	.00	.36	.07
8	.00	.00	.12	.13	s.00	.00	.00	.00	.00	.10	.00	.01
9	.00	.00	.00	.02	.00	.17	.00	.00	.00	.00	.00	.96
10	.02	.00	.00	s.00	s.00	s.00	.54	.00	.00	.01	.00	.00
11	.04	s.01	.00	.00	s.00	.00	.00	.00	.00	.00	.00	.00
12	.00	s.00	.29	.02	s.00	.00	.00	.00	.00	.54	.73	.00
13	.05	s.00	.00	.05	s.00	.05	.04	.01	.00	.88	.00	.00
14	.15	.36	.04	s.00	s.02	s.04	.01	.00	.00	.38	.00	.56
15	.00	.24	s.00	s.00	s.43	.04	.20	.00	.00	.00	.00	.02
16	.00	.00	s.00	s.00	.00	.19	.11	.00	.00	.10	.00	.68
17	.00	.00	.00	.00	.00	.00	.00	.00	.53	.00	.00	.25
18	.38	.16	.00	.00	s.38	.00	.02	.00	.00	.10	.07	.39
19	.00	.50	.00	.00	s.11	.00	.03	.00	.00	.17	.00	.00
20	.00	.02	.19	.00	s.00	.02	.00	.00	.00	.00	.00	.39
21	.00	.00	s.02	.00	.00	s.00	.00	.00	.00	.00	.00	.01
22	.00	.00	.02	.21	.00	s.13	.00	.00	.00	.41	.00	.00
23	.00	s.14	.00	.01	.00	.00	.17	.25	.02	.17	.00	.00
24	.43	s.00	.00	s.00	s.17	.00	.09	.00	.12	.00	.00	.00
25	.30	s.00	.00	s.00	s.13	.00	.00	.00	.00	.18	.25	.00
26	.42	.00	.00	s.00	.00	s.06	.00	.00	.00	.01	.42	.57
27	.01	s.08	.00	.00	.00	s.00	.01	.00	.00	.00	.24	.00
28	.13	s.68	.00	.01	s.01	.09	.00	.00	.00	.00	.00	.00
29	.36	.68	.00	.01	s.00	.09	.18	.00	.00	.03	.18	.00
30	.34	.00	.00	.00	--	.00	.00	.00	.00	.75	.00	.00
31	.00	--	.00	.00	--	.02	--	.00	--	.04	.00	--
Total	5.63	3.43	0.98	0.48	1.25	1.37	1.41	0.26	0.92	4.29	2.68	6.41

s Snowfall-affected precipitation.

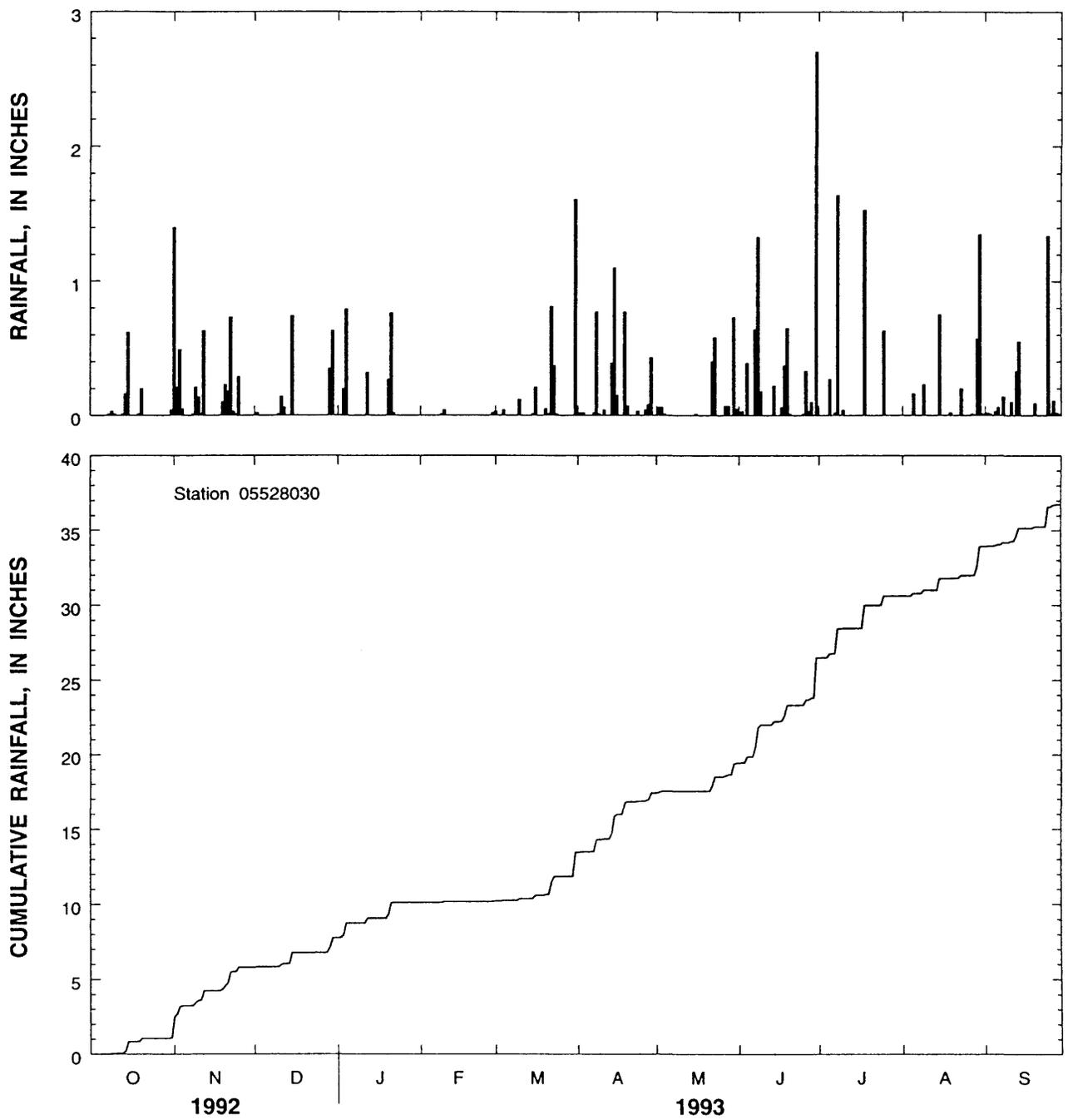


Figure 18. Daily rainfall totals and cumulative rainfall at Bull Creek near Libertyville, Ill., water year 1993.

05528030 Bull Creek near Libertyville, Ill.—Continued

Rainfall, in inches, water year October 1992 to September 1993
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.40	s0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00
2	.00	.21	s.02	s.00	s.00	.00	.02	.06	.03	.00	.00	.02
3	.00	s.49	.00	s.20	s.00	.00	.02	.06	.00	.00	.00	.01
4	.00	s.05	s.00	s.79	s.00	s.04	.00	.01	.39	.00	.00	.00
5	.00	s.00	.00	s.00	s.00	s.00	.00	.00	.00	.27	.16	.03
6	.00	s.00	.00	s.00	s.00	.00	.00	.00	.00	.00	.00	.06
7	.00	s.00	s.00	s.00	.00	.00	.02	.00	.64	.02	.00	.00
8	.01	s.01	.00	s.00	s.00	.00	.77	.00	1.33	1.64	.00	.14
9	.03	.21	.00	s.00	s.01	.00	.01	.00	.18	.00	.23	.00
10	.01	.14	s.01	s.00	s.04	s.12	.00	.00	.00	.04	.00	.00
11	.00	.01	.14	s.00	s.00	s.00	.04	.00	.00	.00	.00	.10
12	.00	s.63	.06	s.32	s.00	s.00	.00	.00	.00	.00	.00	.00
13	.01	s.00	.00	s.00	s.00	s.00	.00	.00	.00	.00	.00	.33
14	.16	s.00	.00	s.00	s.00	s.00	.39	.00	.22	.00	.00	.55
15	.62	s.00	.74	s.00	.00	.01	1.10	.00	.00	.00	.75	.00
16	.00	.00	.00	s.00	s.00	.21	.15	.01	.00	.00	.00	.00
17	.00	.00	s.00	.00	s.00	.00	.00	.00	.06	.00	.00	.00
18	.00	.00	.00	s.00	.00	s.00	.00	.00	.37	1.53	.00	.00
19	s.01	.10	.00	s.00	.00	.00	.77	.00	.65	.00	.02	.00
20	s.20	.23	.00	.27	s.00	s.05	.07	.00	.01	.00	.00	.09
21	.00	.18	.00	.76	s.00	.01	.00	.00	.00	.00	.00	.00
22	.00	.73	.00	s.02	s.00	s.81	.00	.40	.00	.00	.00	.00
23	.00	.03	.00	s.00	s.00	.37	.00	.58	.00	.00	.20	.00
24	.00	.01	s.00	.00	.00	.01	.03	.00	.00	.00	.00	.00
25	.00	.29	.00	.00	s.00	.00	.00	.00	.01	.63	.00	1.34
26	.00	.00	.00	s.00	s.00	.00	.00	.00	.33	.00	.00	.01
27	.00	.00	.00	s.00	.00	.00	.04	.07	.03	.00	.01	.11
28	.00	.00	.00	s.00	.02	.00	.08	.07	.10	.00	.00	.02
29	.00	.00	.35	s.00	--	.00	.43	.00	.00	.00	.57	.01
30	.00	.00	.63	.00	--	.00	.00	.73	2.70	.00	1.35	.00
31	.04	--	.00	.00	--	1.61	--	.05	--	.00	.01	--
Total	1.09	4.72	1.95	2.36	0.07	3.27	3.94	2.04	7.05	4.13	3.30	2.82

s Snowfall-affected precipitation.

Terre Faire Ditch at Libertyville, Ill.

Site identifier.--5

Station number.--05528040

Location.--Latitude 42°17'31", longitude 87°55'42", in SW¼SE¼NE¼ sec.15, T.44 N., R.11 E., Lake County, Hydrologic Unit 07120004, on upstream side of culvert on South Terre Drive, 1 mi east of Libertyville (Libertyville 7.5-minute quadrangle).

To reach gage.--From the intersection of St. Marys Road and South Terre Drive, drive west 0.2 mi to gage.

Drainage basin.--Des Plaines River.

Gage.--An 8-in.-diameter, unheated, tipping-bucket rain gage mounted on a 2-in.-diameter steel post approximately 4 ft above the ground. An electronic data logger, housed inside a weatherproof electrical enclosure, is mounted on the steel post below the rain gage.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--May 8, 1991, to present.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Lake County Stormwater Management Commission.

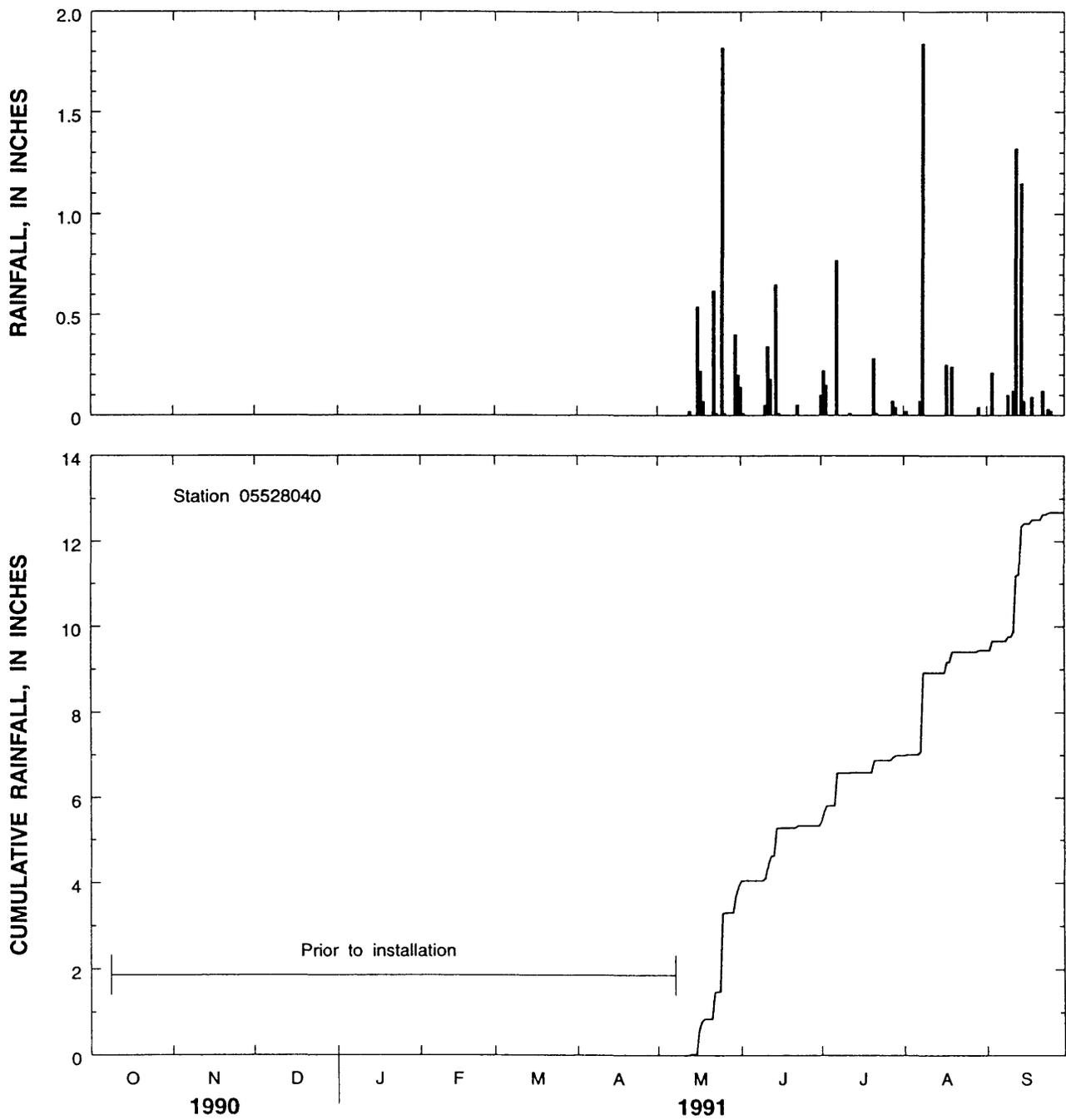


Figure 19. Daily rainfall totals and cumulative rainfall at Terre Faire Ditch at Libertyville, Ill., water year 1991.

05528040 Terre Faire Ditch at Libertyville, Ill.—Continued

Rainfall, in inches, water year October 1990 to September 1991

Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	--	--	--	--	--	0.14	0.10	0.00	0.00
2	--	--	--	--	--	--	--	--	.01	.22	.02	.00
3	--	--	--	--	--	--	--	--	.00	.15	.00	.21
4	--	--	--	--	--	--	--	--	.00	.00	.00	.00
5	--	--	--	--	--	--	--	--	.00	.00	.00	.00
6	--	--	--	--	--	--	--	--	.00	.00	.00	.00
7	--	--	--	--	--	--	--	--	.00	.77	.07	.00
8	--	--	--	--	--	--	--	p0.00	.00	.00	1.84	.00
9	--	--	--	--	--	--	--	.00	.00	.00	.00	.10
10	--	--	--	--	--	--	--	.00	.05	.00	.00	.00
11	--	--	--	--	--	--	--	.00	.34	.00	.00	.12
12	--	--	--	--	--	--	--	.00	.18	.01	.00	1.32
13	--	--	--	--	--	--	--	.02	.00	.00	.00	.00
14	--	--	--	--	--	--	--	.00	.65	.00	.00	1.15
15	--	--	--	--	--	--	--	.00	.01	.00	.00	.07
16	--	--	--	--	--	--	--	.54	.00	.00	.00	.00
17	--	--	--	--	--	--	--	.22	.00	.00	.25	.00
18	--	--	--	--	--	--	--	.07	.00	.00	.00	.09
19	--	--	--	--	--	--	--	.00	.00	.00	.24	.00
20	--	--	--	--	--	--	--	.00	.00	.00	.00	.00
21	--	--	--	--	--	--	--	.00	.00	.28	.00	.00
22	--	--	--	--	--	--	--	.62	.05	.01	.00	.12
23	--	--	--	--	--	--	--	.01	.00	.00	.00	.00
24	--	--	--	--	--	--	--	.00	.00	.00	.00	.03
25	--	--	--	--	--	--	--	1.82	.00	.00	.00	.02
26	--	--	--	--	--	--	--	.01	.00	.00	.00	.00
27	--	--	--	--	--	--	--	.00	.00	.00	.00	.00
28	--	--	--	--	--	--	--	.00	.00	.07	.00	.00
29	--	--	--	--	--	--	--	.00	.00	.04	.04	.00
30	--	--	--	--	--	--	--	.40	.00	.00	.00	.00
31	--	--	--	--	--	--	--	.20	--	.00	.00	--
Total	--	--	--	--	--	--	--	--	1.43	1.65	2.46	3.23

p Partial record.

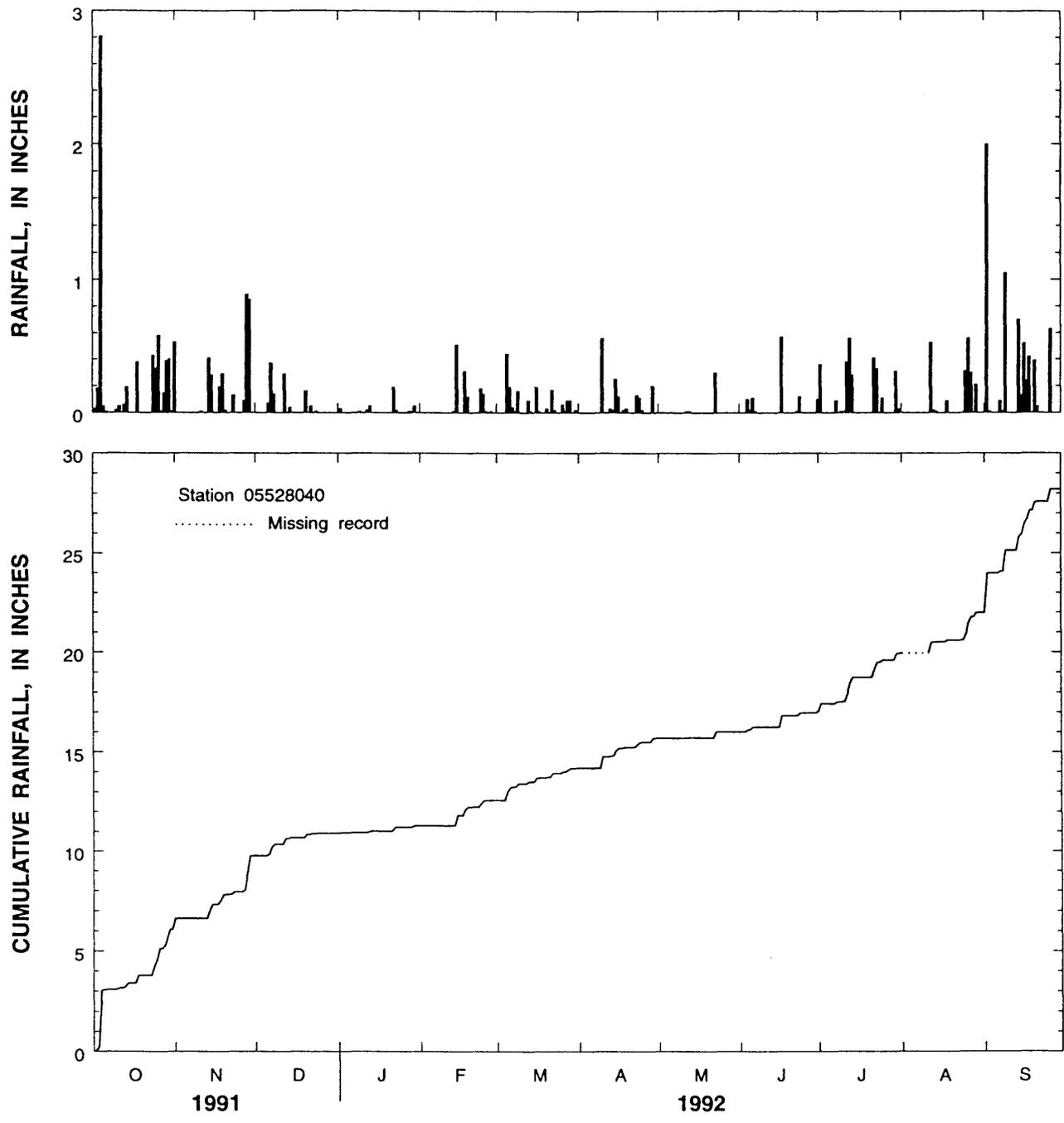


Figure 20. Daily rainfall totals and cumulative rainfall at Terre Faire Ditch at Libertyville, Ill., water year 1992.

05528040 Terre Faire Ditch at Libertyville, Ill.—Continued

Rainfall, in inches, water year October 1991 to September 1992
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.53	0.00	0.00	0.00	0.00	s0.00	0.00	0.00	0.10	0.00	0.00
2	.03	s.00	.00	.03	.00	.00	s.00	.00	.00	.36	m	2.00
3	.18	s.00	s.00	.00	.00	.00	.00	.00	.00	.00	m	.01
4	2.81	s.00	s.00	.00	.00	.00	.00	.00	.10	.00	m	.00
5	.05	.00	s.00	.00	.00	.44	.00	.00	.02	.00	m	.00
6	.01	.00	.07	.00	.00	.19	.00	.00	.11	.00	m	.00
7	.00	.00	.37	.00	s.00	.04	.00	.00	.01	.00	m	.09
8	.00	.00	.14	.00	s.00	.01	.00	.00	.00	.09	m	.01
9	.00	.00	.00	.01	.00	.16	.00	.00	.00	.00	m	1.05
10	.02	.00	.00	s.00	s.00	s.00	.56	.00	.00	.01	m	.00
11	.05	s.01	.00	.00	s.00	.00	.00	.00	.00	.01	p.00	.00
12	.00	s.00	.29	.02	s.00	.00	.00	.01	.00	.38	.53	.00
13	.06	s.00	.00	.05	s.00	.09	.03	.01	.00	.56	.02	.00
14	.19	.41	.04	s.00	s.01	s.01	.02	.00	.00	.28	.01	.70
15	.00	.28	s.00	s.00	s.51	.00	.25	.00	.00	.00	.00	.13
16	.00	.00	s.00	s.00	.00	.19	.12	.00	.00	.00	.00	.52
17	.00	.00	.00	.00	.00	.01	.00	.00	.57	.00	.00	.24
18	.38	.19	.00	.00	s.31	.00	.02	.00	.00	.00	.09	.42
19	.00	.29	.00	.00	s.12	.00	.03	.00	.00	.00	.00	.00
20	.00	.02	.16	.00	s.00	.03	.00	.00	.00	.00	.00	.39
21	.00	.00	s.00	.00	.00	s.00	.00	.00	.00	.00	.00	.05
22	.00	.00	.05	.19	.00	s.17	.00	.00	.00	.41	.00	.00
23	.00	s.13	.00	.02	.00	.02	.13	.30	.01	.33	.00	.00
24	.43	s.00	.01	s.00	s.18	.00	.11	.00	.12	.00	.00	.00
25	.33	s.00	.00	s.00	s.14	.00	.02	.00	.00	.11	.31	.00
26	.58	.00	.00	s.00	.01	s.06	.00	.00	.00	.00	.56	.63
27	.01	s.09	.00	.00	.00	s.01	.00	.00	.00	.00	.30	.00
28	.15	s.89	.00	.01	s.01	.09	.00	.00	.00	.00	.00	.00
29	.39	.85	.00	.01	s.00	.09	.20	.00	.00	.00	.21	.00
30	.40	.00	.00	.05	--	.00	.00	.00	.00	.31	.00	.00
31	.01	--	.00	.00	--	.02	--	.00	--	.03	.00	--
Total	6.08	3.69	1.13	0.39	1.29	1.63	1.49	0.32	0.94	2.98	--	6.24

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

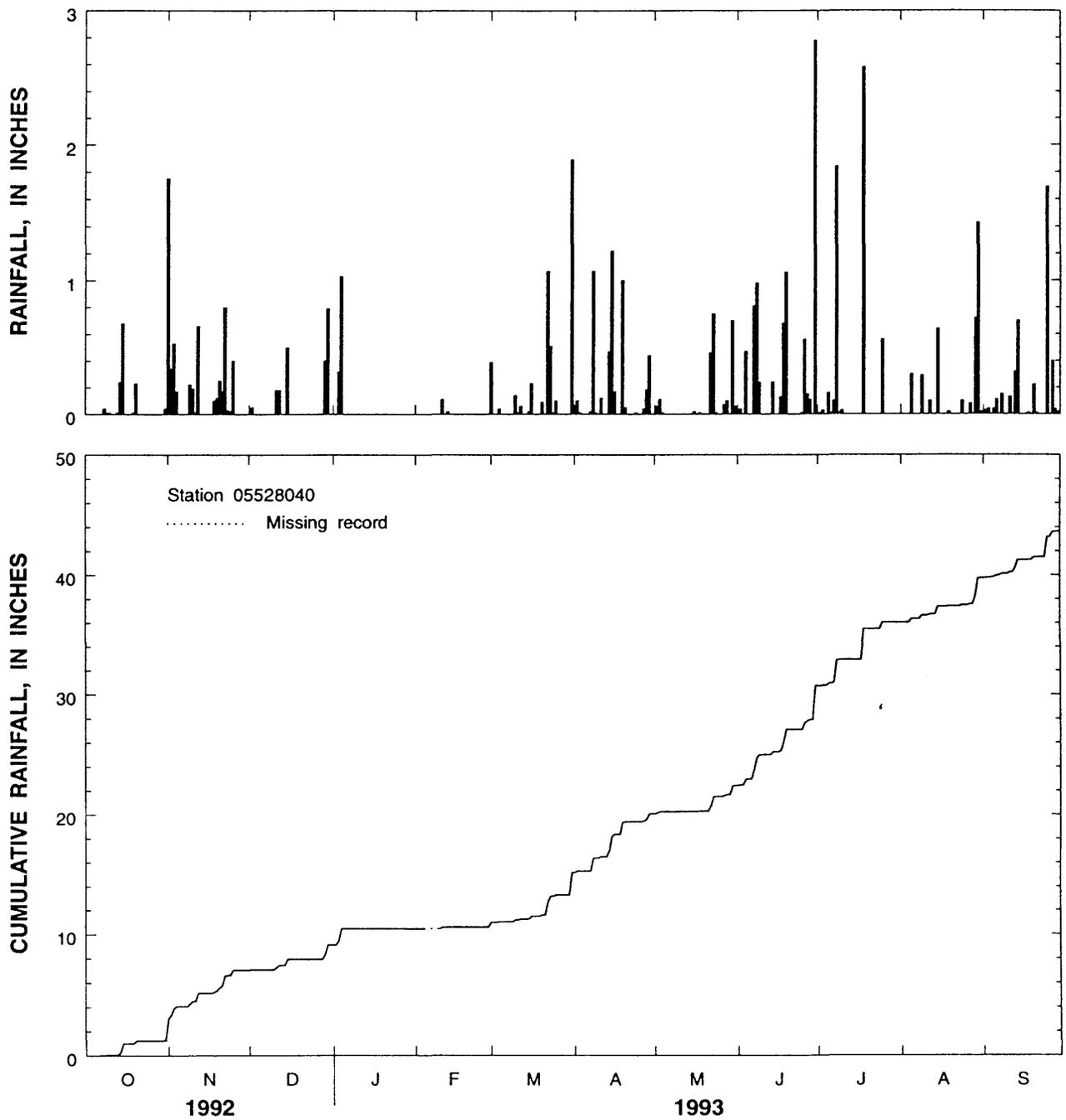


Figure 21. Daily rainfall totals and cumulative rainfall at Terre Faire Ditch at Libertyville, Ill., water year 1993.

05528040 Terre Faire Ditch at Libertyville, Ill.—Continued

Rainfall, in inches, water year October 1992 to September 1993
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.75	s0.00	0.00	0.00	0.39	0.00	0.00	0.00	0.00	0.00	0.00
2	.00	.34	s.05	s.00	s.00	.00	.10	.06	.04	.01	.00	.03
3	.00	s.53	.00	s.32	s.00	.00	.01	.11	.00	.03	.00	.04
4	.00	s.17	s.00	s1.03	p.00	s.04	.00	.01	.47	.00	.00	.00
5	.00	s.00	.00	s.00	m	s.00	.00	.00	.00	.16	.30	.04
6	.00	s.00	.00	s.00	m	.00	.00	.00	.00	.01	.00	.11
7	.00	s.00	s.00	s.00	m	.00	.02	.00	.81	.10	.00	.00
8	.04	s.00	.00	s.00	m	.00	1.07	.00	.98	1.84	.00	.15
9	.01	.22	.00	s.00	m	.00	.01	.00	.24	.01	.29	.00
10	.01	.19	s.00	s.00	p.00	s.14	.00	.00	.00	.03	.00	.00
11	.00	.01	.18	s.00	s.11	s.01	.12	.00	.00	.00	.00	.13
12	.00	s.66	.18	s.00	s.00	s.06	.00	.00	.00	.00	.10	.00
13	.01	s.00	.00	s.00	s.02	s.00	.00	.00	.00	.00	.00	.32
14	.24	s.00	.00	s.00	s.00	s.00	.47	.00	.24	.00	.00	.70
15	.68	s.00	.50	s.00	.00	.02	1.22	.00	.00	.00	.64	.00
16	.00	.00	.00	s.00	s.00	.23	.17	.02	.00	.00	.00	.00
17	.00	.00	s.00	.00	s.00	.00	.00	.00	.13	.00	.00	.00
18	.00	.10	.00	s.00	.00	s.00	.00	.01	.68	2.58	.00	.01
19	s.01	.12	.00	s.00	.00	.00	1.00	.00	1.06	.00	.02	.00
20	s.23	.25	.00	.00	s.00	s.09	.05	.00	.00	.00	.00	.22
21	.00	.17	.00	.00	s.00	.00	.00	.00	.00	.00	.00	.01
22	.00	.80	.00	s.00	s.00	s1.07	.00	.46	.00	.00	.00	.00
23	.00	.03	.00	s.00	s.00	.51	.00	.75	.00	.00	.00	.00
24	.00	.02	s.00	.00	.00	.01	.01	.01	.00	.00	.10	.00
25	.00	.40	.00	.00	s.00	.10	.00	.00	.01	.56	.00	1.69
26	.00	.00	.00	s.00	s.00	.00	.00	.00	.56	.00	.00	.00
27	.00	.00	.00	s.00	.00	.00	.04	.07	.15	.00	.08	.40
28	.00	.00	.00	s.00	.00	.00	.18	.10	.11	.00	.00	.04
29	.00	.00	.40	s.00	--	.00	.44	.00	.00	.00	.72	.02
30	.00	.00	.79	.00	--	.00	.00	.70	2.78	.00	1.43	.00
31	.04	--	.00	.00	--	1.89	--	.06	--	.00	.02	--
Total	1.27	5.76	2.10	1.35	--	4.56	4.91	2.36	8.26	5.33	3.70	3.91

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

Green Lake Ditch at Buffalo Grove, Ill.

Site identifier.--6

Station number.--05528475

Location.--Latitude 42°10'30", longitude 87°58'14", in ~~NE~~~~NW~~~~SE~~ sec.29, T.43 N., R.11 E., Lake County, Hydrologic Unit 07120004, 0.3 mi upstream from Green Lake, in northwest Buffalo Grove (Wheeling 7.5-minute quadrangle).

To reach gage.--From intersection of Busch and Buffalo Grove Roads, drive west 1.1 mi to Green Knolls Drive. Follow Green Knolls Drive about 800 ft to bike path. Take bike path toward park and follow east and north to gage.

Drainage basin.--Buffalo Creek.

Gage.--An 8-in.-diameter, unheated, tipping-bucket rain gage mounted on a 2-in.-diameter steel post approximately 4 ft above the ground. An electronic data logger, housed inside a weatherproof electrical enclosure, is mounted on the steel post below the rain gage.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--April 25, 1991, to present.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Lake County Stormwater Management Commission.

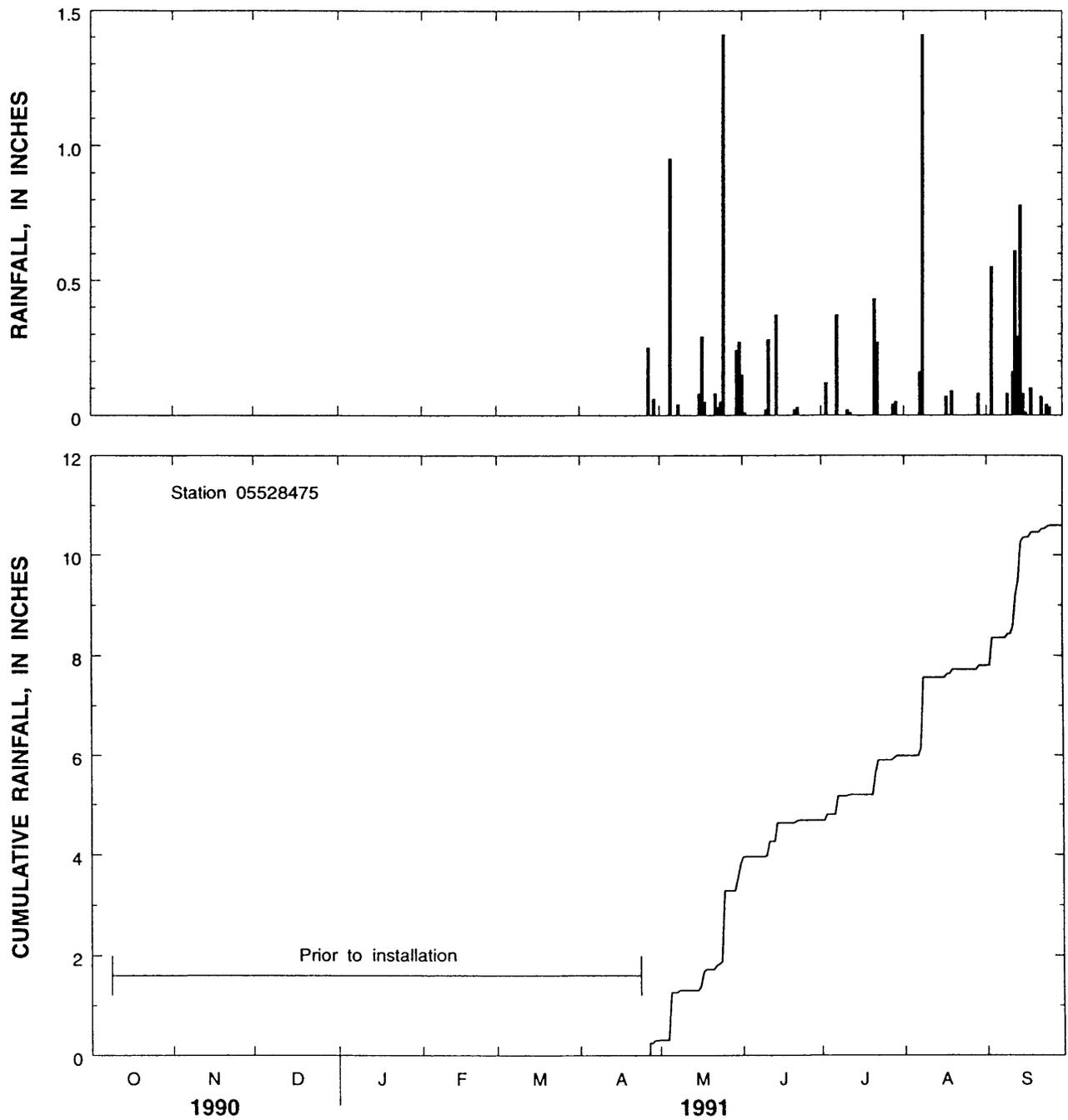


Figure 22. Daily rainfall totals and cumulative rainfall at Green Lake Ditch at Buffalo Grove, Ill., water year 1991.

05528475 Green Lake Ditch at Buffalo Grove, Ill.—Continued

Rainfall, in inches, water year October 1990 to September 1991
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	--	--	--	--	p0.00	0.15	0.00	0.00	0.00
2	--	--	--	--	--	--	--	.00	.01	.00	.00	.00
3	--	--	--	--	--	--	--	.00	.00	.12	.00	.55
4	--	--	--	--	--	--	--	.00	.00	.00	.00	.00
5	--	--	--	--	--	--	--	.95	.00	.00	.00	.00
6	--	--	--	--	--	--	--	.00	.00	.00	.00	.00
7	--	--	--	--	--	--	--	.00	.00	.37	.16	.00
8	--	--	--	--	--	--	--	.04	.00	.00	1.41	.00
9	--	--	--	--	--	--	--	.00	.00	.00	.00	.08
10	--	--	--	--	--	--	--	.00	.02	.00	.00	.00
11	--	--	--	--	--	--	--	.00	.28	.02	.00	.16
12	--	--	--	--	--	--	--	.00	.00	.01	.00	.61
13	--	--	--	--	--	--	--	.00	.00	.00	.00	.29
14	--	--	--	--	--	--	--	.00	.37	.00	.00	.78
15	--	--	--	--	--	--	--	.00	.00	.00	.00	.08
16	--	--	--	--	--	--	--	.08	.00	.00	.00	.01
17	--	--	--	--	--	--	--	.29	.00	.00	.07	.00
18	--	--	--	--	--	--	--	.05	.00	.00	.00	.10
19	--	--	--	--	--	--	--	.00	.00	.00	.09	.00
20	--	--	--	--	--	--	--	.00	.00	.00	.00	.00
21	--	--	--	--	--	--	--	.00	.02	.43	.00	.00
22	--	--	--	--	--	--	--	.08	.03	.27	.00	.07
23	--	--	--	--	--	--	--	.03	.00	.00	.00	.00
24	--	--	--	--	--	--	--	.05	.00	.00	.00	.04
25	--	--	--	--	--	--	p0.00	1.41	.00	.00	.00	.03
26	--	--	--	--	--	--	.00	.00	.00	.00	.00	.00
27	--	--	--	--	--	--	.25	.00	.00	.00	.00	.00
28	--	--	--	--	--	--	.00	.00	.00	.04	.00	.00
29	--	--	--	--	--	--	.06	.00	.00	.05	.08	.00
30	--	--	--	--	--	--	p.00	.24	.00	.00	.00	.00
31	--	--	--	--	--	--	--	.27	--	.00	.00	--
Total	--	--	--	--	--	--	--	3.49	0.88	1.31	1.81	2.80

p Partial record.

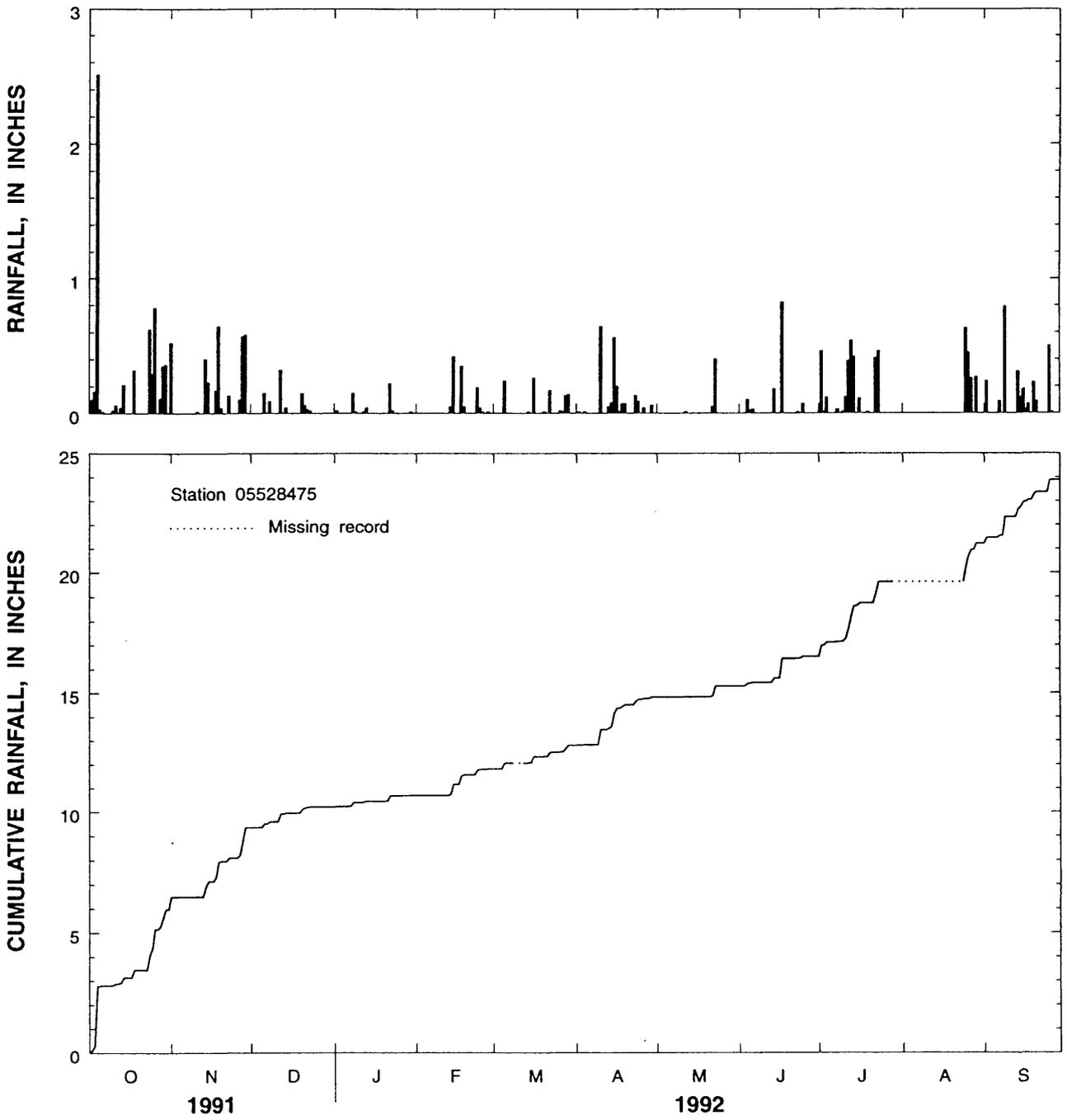


Figure 23. Daily rainfall totals and cumulative rainfall at Green Lake Ditch at Buffalo Grove, Ill., water year 1992.

05528475 Green Lake Ditch at Buffalo Grove, Ill.—Continued

Rainfall, in inches, water year October 1991 to September 1992
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.52	0.00	0.00	0.00	0.00	s0.00	0.00	0.00	0.00	m	0.00
2	.10	s.00	.00	.02	.00	.00	s.01	.00	.00	.46	m	.24
3	.16	s.00	s.00	.00	.00	.00	.00	.00	.00	.01	m	.00
4	2.51	s.00	s.00	.00	.00	.00	.01	.00	.10	.12	m	.00
5	.03	.00	s.00	.00	.00	.24	.00	.00	.02	.00	m	.00
6	.01	.00	.15	.00	.00	m	.00	.00	.03	.00	m	.00
7	.00	.00	.00	.00	s.00	m	.00	.00	.00	.00	m	.09
8	.00	.00	.09	.15	s.00	m	.00	.00	.00	.03	m	.00
9	.00	.00	.00	.01	.00	m	.00	.00	.00	.00	m	.79
10	.02	.00	.00	s.00	s.00	s.00	.64	.00	.00	.01	m	.00
11	.06	s.01	.00	.00	s.00	.00	.00	.00	.00	.12	m	.00
12	.00	s.00	.32	.01	s.00	.00	.00	.01	.00	.39	m	.00
13	.04	s.00	.00	.04	s.00	.00	.05	.00	.00	.54	m	.00
14	.21	.40	.04	s.00	s.05	s.01	.08	.00	.18	.42	m	.31
15	.00	.23	s.00	s.00	s.42	.00	.56	.00	.00	.00	m	.12
16	.00	.00	s.00	s.00	.00	.26	.20	.00	.00	.11	m	.18
17	.00	.00	.00	.00	.00	.00	.01	.00	.82	.00	m	.03
18	.32	.17	.00	.00	s.35	.00	.07	.00	.00	.00	m	.07
19	.00	.64	.00	.00	s.05	.00	.07	.00	.00	.01	m	.00
20	.00	.04	.15	.00	s.00	.01	.00	.00	.00	.00	p0.00	.23
21	.00	.00	s.06	.00	.00	s.00	.00	.00	.00	.00	.00	.09
22	.00	.00	.03	.22	.00	s.17	.00	.05	.00	.41	.00	.00
23	.00	s.13	.02	.02	.00	.00	.13	.40	.01	.46	.00	.00
24	.62	s.00	.00	s.00	s.19	.00	.09	.00	.00	.00	.00	.00
25	.29	s.00	.00	s.00	s.04	.00	.00	.00	.07	m	.63	.00
26	.78	.00	.00	s.00	.01	s.02	.04	.00	.00	m	.45	.50
27	.00	s.10	.00	.00	.00	s.01	.00	.00	.00	m	.26	.01
28	.11	s.57	.00	.00	s.01	.13	.00	.00	.00	m	.00	.00
29	.35	.58	.00	.00	s.00	.14	.06	.00	.00	m	.27	.00
30	.36	.00	.00	.01	--	.00	.00	.00	.00	m	.00	.00
31	.00	--	.00	.00	--	.00	--	.00	--	m	.00	--
Total	5.97	3.39	0.86	0.48	1.12	--	2.02	0.46	1.23	--	--	2.66

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

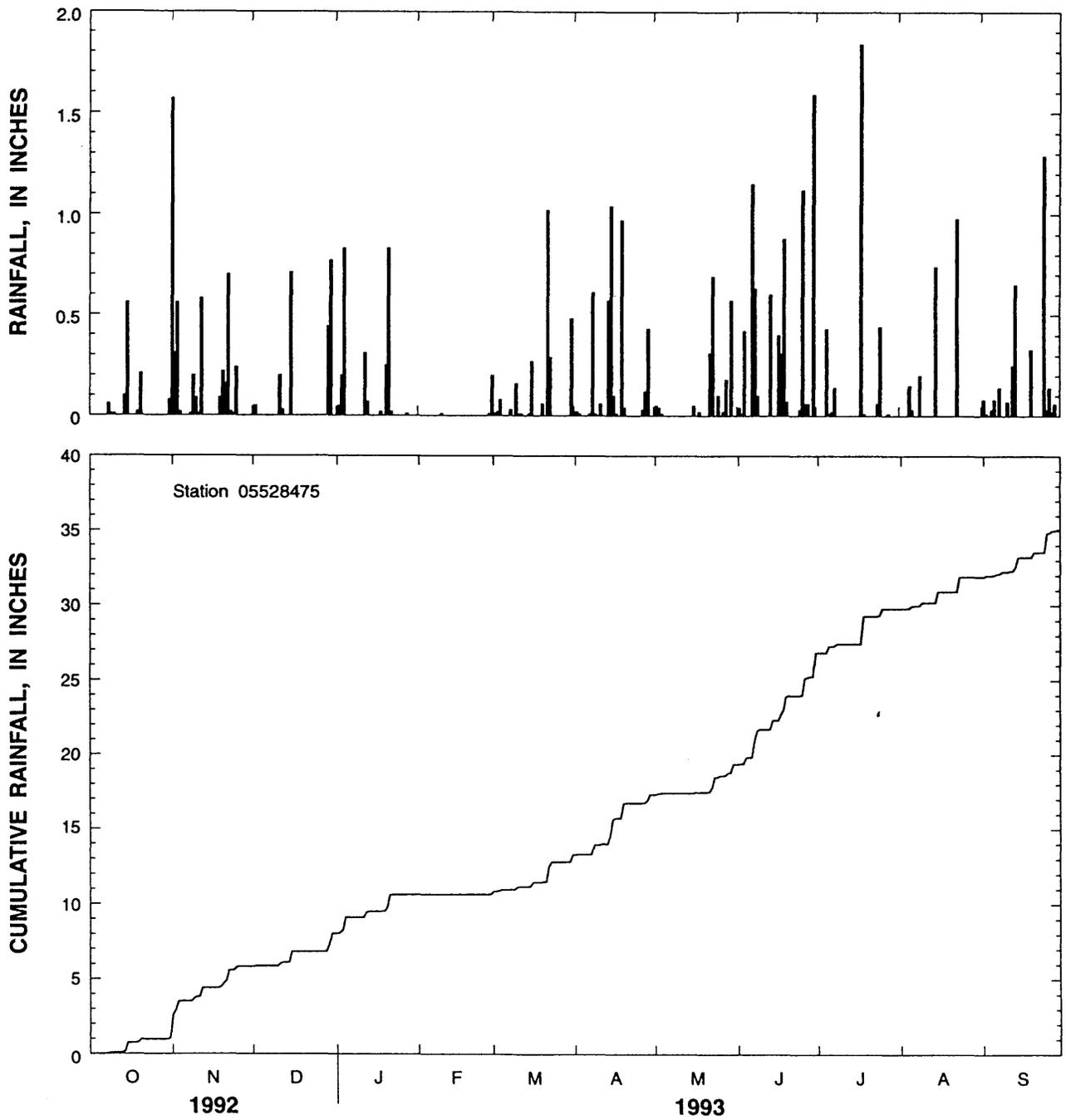


Figure 24. Daily rainfall totals and cumulative rainfall at Green Lake Ditch at Buffalo Grove, Ill., water year 1993.

05528475 Green Lake Ditch at Buffalo Grove, Ill.—Continued

Rainfall, in inches, water year October 1992 to September 1993
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.57	s0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00
2	.00	.31	s.05	s.05	s.00	.01	.02	.05	.04	.00	.00	.08
3	.00	s.56	.00	s.20	s.00	.02	.01	.04	.01	.00	.00	.01
4	.00	s.02	s.00	s.83	s.00	s.08	.00	.01	.42	.00	.00	.00
5	.00	s.00	.00	s.00	s.00	s.00	.00	.00	.00	.43	.15	.03
6	.00	s.00	.00	s.00	s.00	.00	.00	.00	.00	.01	.03	.08
7	.00	s.00	s.00	s.00	.00	.00	.01	.00	1.15	.02	.00	.00
8	.06	s.01	.00	s.00	s.00	.03	.61	.00	.63	.14	.00	.14
9	.01	.20	.00	s.00	s.00	.00	.01	.00	.10	.00	.20	.00
10	.01	.09	s.00	s.00	s.01	s.16	.00	.00	.00	.00	.00	.00
11	.00	.01	.20	s.00	s.00	s.01	.06	.00	.00	.00	.00	.07
12	.00	s.58	.03	s.31	s.00	s.01	.00	.00	.00	.00	.00	.00
13	.00	s.00	.00	s.07	s.00	s.00	.00	.00	.00	.00	.00	.25
14	.10	s.00	.00	s.00	s.00	s.00	.57	.00	.60	.00	.00	.65
15	.56	s.00	.71	s.00	.00	.01	1.04	.00	.00	.00	.74	.00
16	.00	.00	.00	s.00	s.00	.27	.10	.05	.00	.00	.00	.00
17	.00	.00	s.00	.00	s.00	.00	.01	.00	.40	.00	.00	.00
18	.00	.00	.00	s.02	.00	s.00	.00	.02	.31	1.84	.00	.00
19	s.02	.09	.00	s.00	.00	.00	.97	.00	.88	.01	.00	.00
20	s.21	.22	.00	.25	s.00	s.06	.04	.00	.07	.00	.00	.33
21	.00	.16	.00	.83	s.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.70	.00	s.02	s.00	s1.02	.00	.31	.00	.00	.00	.00
23	.00	.02	.00	s.00	s.00	.29	.00	.69	.00	.00	.98	.00
24	.00	.01	s.00	.00	.00	.00	.00	.00	.00	.06	.00	.00
25	.00	.24	.00	.00	s.00	.00	.00	.10	.03	.44	.00	1.29
26	.00	.00	.00	s.00	s.00	.00	.00	.00	1.12	.00	.00	.03
27	.00	.00	.00	s.00	.00	.00	.03	.02	.06	.00	.00	.14
28	.00	.00	.00	s.01	.01	.00	.12	.18	.06	.01	.00	.02
29	.00	.00	.44	s.00	--	.00	.43	.00	.00	.00	.00	.06
30	.00	.00	.77	.00	--	.00	.00	.57	1.59	.00	.00	.00
31	.08	--	.00	.00	--	p.48	--	.00	--	.00	.00	--
Total	1.05	4.79	2.20	2.59	0.02	2.65	4.03	2.04	7.47	2.96	2.10	3.18

p Partial record.

s Snowfall-affected precipitation.

Buffalo Creek near Wheeling, Ill.

Site identifier.--7

Station number.--05528500

Location.--Latitude 42°09'05", longitude 87°57'25" in NE¼/NW¼ sec.4, T.42 N., R.11 E., Cook County, Hydrologic Unit 07120004, on left bank at downstream side of bridge on Buffalo Grove Road, 1.0 mi downstream from unnamed tributary and 2.5 mi west of Wheeling (Wheeling 7.5-minute quadrangle).

To reach gage.--Gage is on Weiland Road just south of the intersection of State Highway 83 and Lake-Cook Road at southeast side of Buffalo Grove.

Drainage basin.--Buffalo Creek.

Gage.--An 8-in.-diameter, unheated, tipping-bucket rain gage mounted on a 2-in. pipe attached to a 48-in. corrugated iron shelter on left bank at downstream side of bridge.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--April 17, 1990, to present. Periods of missing record exist due to equipment-related problems.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Illinois Department of Transportation, Division of Water Resources.

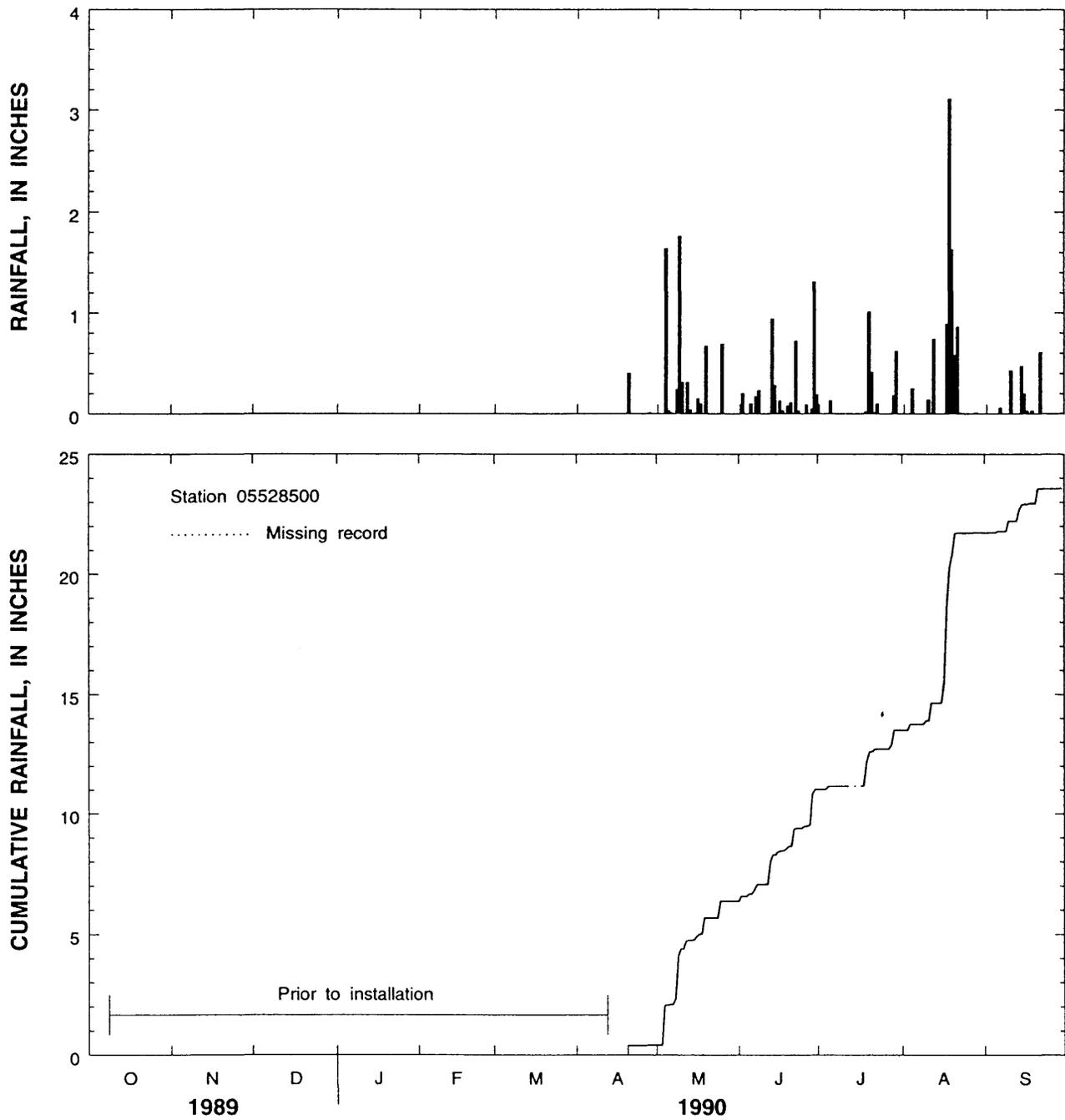


Figure 25. Daily rainfall totals and cumulative rainfall at Buffalo Creek near Wheeling, Ill., water year 1990.

05528500 Buffalo Creek near Wheeling, Ill.—Continued

Rainfall, in inches, water year October 1989 to September 1990
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	--	--	--	--	0.00	0.00	0.00	0.00	0.00
2	--	--	--	--	--	--	--	.00	.20	.00	.00	.00
3	--	--	--	--	--	--	--	.00	.00	.00	.00	.00
4	--	--	--	--	--	--	--	1.64	.00	.00	.25	.00
5	--	--	--	--	--	--	--	.03	.10	.13	.00	.00
6	--	--	--	--	--	--	--	.01	.00	.00	.00	.06
7	--	--	--	--	--	--	--	.00	.17	.00	.00	.00
8	--	--	--	--	--	--	--	.24	.23	.00	.00	.00
9	--	--	--	--	--	--	--	1.76	.00	.00	.00	.00
10	--	--	--	--	--	--	--	.31	.00	p.00	.14	.43
11	--	--	--	--	--	--	--	.00	.00	m	.00	.00
12	--	--	--	--	--	--	--	.31	.00	m	.74	.00
13	--	--	--	--	--	--	--	.04	.94	m	.00	.00
14	--	--	--	--	--	--	--	.00	.28	m	.00	.47
15	--	--	--	--	--	--	--	.01	.00	m	.00	.20
16	--	--	--	--	--	--	--	.15	.13	m	.00	.03
17	--	--	--	--	--	--	p0.00	.10	.03	m	.89	.00
18	--	--	--	--	--	--	.00	.00	.00	p.02	3.11	.03
19	--	--	--	--	--	--	.00	.67	.08	1.01	1.63	.00
20	--	--	--	--	--	--	.40	.00	.11	.41	.58	.00
21	--	--	--	--	--	--	.00	.00	.00	.01	.86	.61
22	--	--	--	--	--	--	.00	.00	.72	.10	.01	.00
23	--	--	--	--	--	--	.00	.00	.03	.00	.00	.00
24	--	--	--	--	--	--	.00	.00	.00	.00	.00	.00
25	--	--	--	--	--	--	.00	.69	.00	.00	.00	.00
26	--	--	--	--	--	--	.00	.00	.09	.00	.00	.00
27	--	--	--	--	--	--	.00	.00	.00	.00	.00	.00
28	--	--	--	--	--	--	.01	.00	.05	.18	.01	.00
29	--	--	--	--	--	--	.00	.00	1.31	.62	.00	.01
30	--	--	--	--	--	--	.00	.00	.19	.00	.00	.00
31	--	--	--	--	--	--	--	.00	--	.00	.00	--
Total	--	--	--	--	--	--	--	5.96	4.66	--	8.22	1.84

m Missing record.

p Partial record.

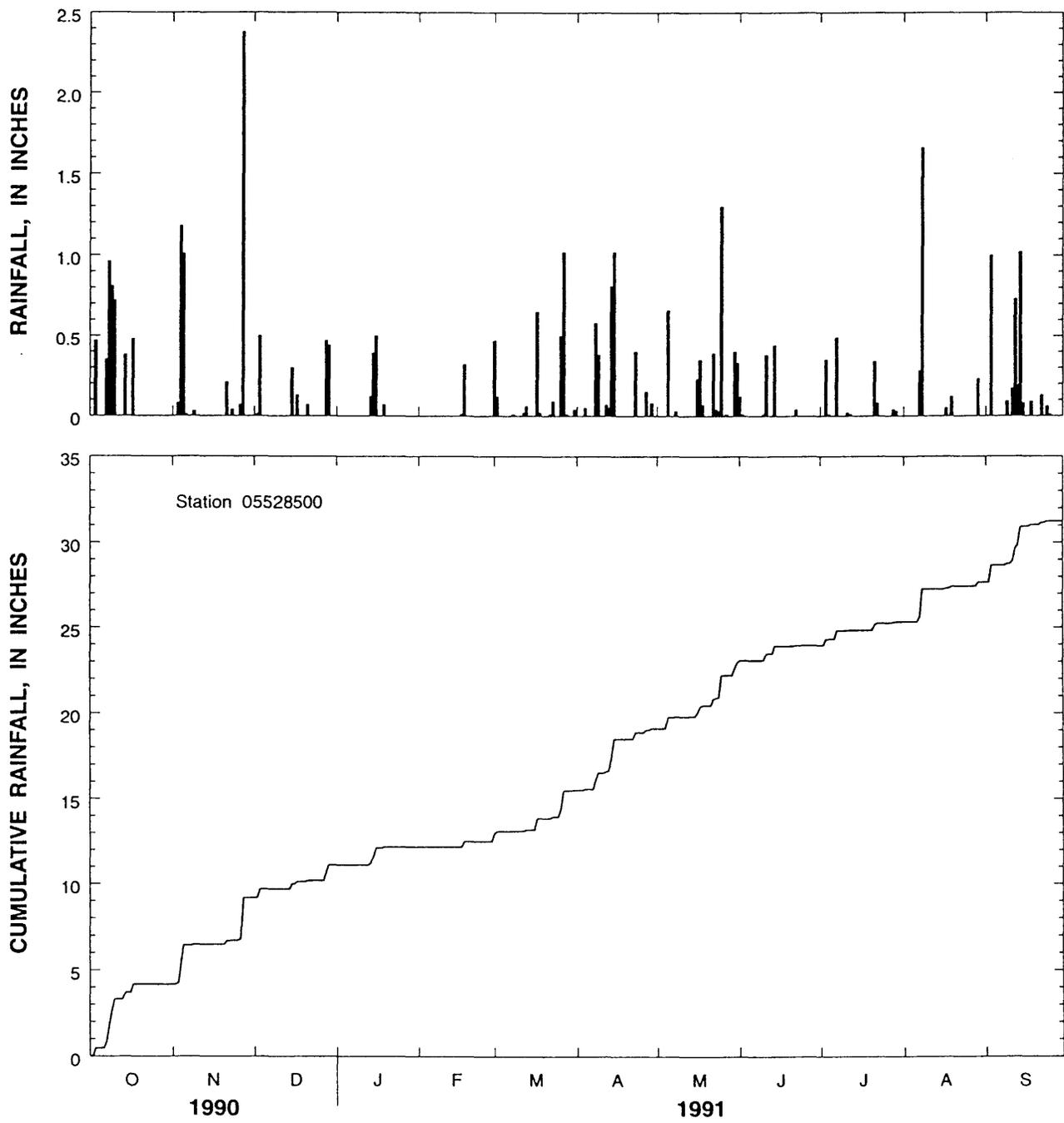


Figure 26. Daily rainfall totals and cumulative rainfall at Buffalo Creek near Wheeling, Ill., water year 1991.

05528500 Buffalo Creek near Wheeling, Ill.—Continued

Rainfall, in inches, water year October 1990 to September 1991
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.12	0.00	0.00	0.00
2	.00	.00	s.01	.00	.00	.12	.00	.00	.01	.00	.00	.00
3	.47	.08	s.50	s.00	.00	s.00	.00	.00	.00	.35	.00	1.00
4	.00	s1.18	s.00	.00	.00	.00	.05	.00	.00	.01	.00	.00
5	.00	s1.01	.00	s.00	.00	.00	.00	.66	.00	.00	.00	.00
6	.00	s.01	.00	s.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.35	.00	.00	.00	.00	.00	.00	.00	.00	.49	.28	.00
8	.96	.00	.00	.00	.00	.01	.58	.03	.00	.00	1.66	.00
9	.81	s.03	.00	s.00	.00	.00	.38	.00	.00	.00	.00	.09
10	.72	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00
11	.00	s.00	.00	s.00	.00	.00	.00	.00	.38	.02	.00	.17
12	.00	.00	.00	s.00	.00	s.02	.07	.00	.00	.01	.00	.73
13	.00	.00	.00	.00	.00	s.06	.05	.00	.00	.00	.00	.19
14	.38	.00	s.00	.12	s.00	.00	.81	.00	.44	.00	.00	1.02
15	.00	.00	s.30	.39	.00	.00	1.02	.00	.00	.00	.00	.08
16	.00	.00	.00	.50	.00	.00	.00	.23	.00	.00	.00	.00
17	.48	.00	.13	.00	.01	.65	.00	.35	.00	.00	.05	.00
18	.00	.00	.00	.00	.32	.02	.00	.07	.00	.00	.00	.09
19	.00	.00	.00	.07	.00	.00	.00	.00	.00	.00	.12	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.21	.07	s.00	.00	.00	.00	.00	.00	.34	.00	.00
22	.00	.00	.00	.00	.00	.01	.00	.39	.04	.08	.00	.13
23	.00	.04	.00	s.00	.00	.09	.40	.04	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.06
25	.00	.00	.00	.00	.00	.00	.00	1.30	.00	.00	.00	.01
26	.00	.07	.00	.00	.00	.50	.00	.00	.00	.00	.00	.00
27	.00	2.38	s.00	.00	s.00	1.02	.15	.01	.00	.00	.00	.00
28	.00	.00	s.47	.00	.00	.01	.00	.00	.00	.04	.00	.00
29	.00	.00	s.44	.00	--	.00	.08	.00	.00	.03	.23	.00
30	.00	.00	s.00	s.00	--	.00	.00	.40	.00	.00	.00	.00
31	.00	--	s.00	s.00	--	s.04	--	.33	--	.00	.00	--
Total	4.17	5.01	1.92	1.08	0.33	3.02	3.59	3.84	1.00	1.37	2.34	3.57

s Snowfall-affected precipitation.

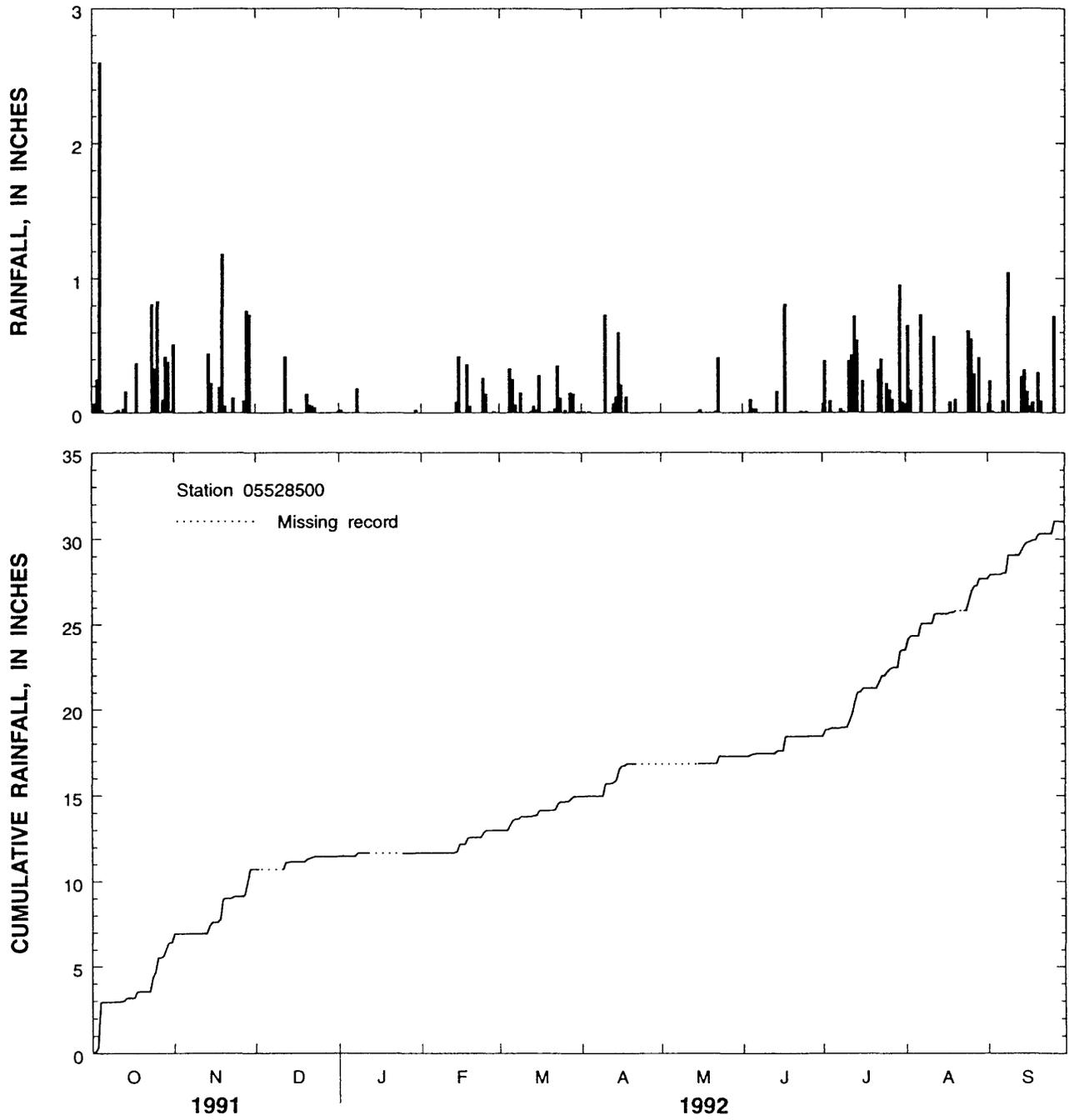


Figure 27. Daily rainfall totals and cumulative rainfall at Buffalo Creek near Wheeling, Ill., water year 1992.

05528500 Buffalo Creek near Wheeling, Ill.—Continued

Rainfall, in inches, water year October 1991 to September 1992
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.51	0.00	0.01	0.00	0.00	s0.00	m	0.00	0.00	0.00	0.00
2	.07	s.00	p.00	.02	.00	.00	s.01	m	.00	.39	.65	.24
3	.25	s.00	m	.00	.00	.00	.00	m	.00	.00	.17	.01
4	2.60	s.00	m	.00	.00	.00	.01	m	.10	.09	.00	.00
5	.02	.00	m	.00	.00	.33	.00	m	.03	.00	.00	.00
6	.00	.00	m	.00	.00	.25	.00	m	.03	.00	.00	.00
7	.00	.00	m	.00	s.00	.06	.00	m	.00	.00	.73	.09
8	.00	.00	m	.18	s.00	.00	.00	m	.00	.03	.00	.00
9	.00	.00	p.00	p.00	.00	.15	.00	m	.00	.01	.00	1.04
10	.01	.00	.00	m	s.00	s.00	.73	m	.00	.00	.00	.00
11	.02	s.01	.00	m	s.00	.00	.00	m	.00	.39	.00	.00
12	.00	s.00	.42	m	s.00	.00	.00	m	.00	.43	.57	.00
13	.03	s.00	.00	m	s.00	.01	.07	m	.00	.72	.00	.00
14	.16	.44	.03	m	s.08	s.05	.12	m	.16	.54	.00	.27
15	.00	.22	s.00	m	s.42	.02	.60	p0.00	.00	.00	.00	.32
16	.00	.00	s.00	m	.00	.28	.21	.02	.00	.24	.00	.16
17	.00	.00	.00	m	.00	.00	.00	.00	.81	.00	.00	.05
18	.37	.19	.00	m	s.36	.00	.12	.00	.00	.00	p.08	.08
19	.00	1.18	.00	m	s.05	.00	m	.00	.00	.00	m	.00
20	.00	.05	.14	m	s.00	.01	m	.00	.00	.00	p.10	.30
21	.00	.00	s.06	m	.00	s.00	m	.00	.00	.00	.00	.09
22	.00	.00	.05	m	.00	s.03	m	.01	.00	.32	.00	.00
23	.00	s.11	.04	p.00	.00	.35	m	.41	.01	.40	.00	.00
24	.81	s.00	.00	s.00	s.26	.11	m	.00	.00	.00	.00	.00
25	.33	s.00	.00	s.00	s.14	.00	m	.00	.01	.22	.61	.00
26	.83	.00	.00	s.00	.00	s.02	m	.00	.00	.17	.55	.72
27	.00	s.09	.00	.00	.00	s.00	m	.00	.00	.10	.29	.00
28	.10	s.76	.00	.00	s.01	.15	m	.00	.00	.00	.00	.00
29	.42	.73	.00	.00	s.00	.14	m	.00	.00	.01	.41	.00
30	.38	.00	.00	.02	--	.00	m	.00	.00	.95	.00	.00
31	.01	--	.00	.00	--	.01	--	.00	--	.08	.00	--
Total	6.41	4.29	--	--	1.32	1.97	--	--	1.15	5.09	--	3.37

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

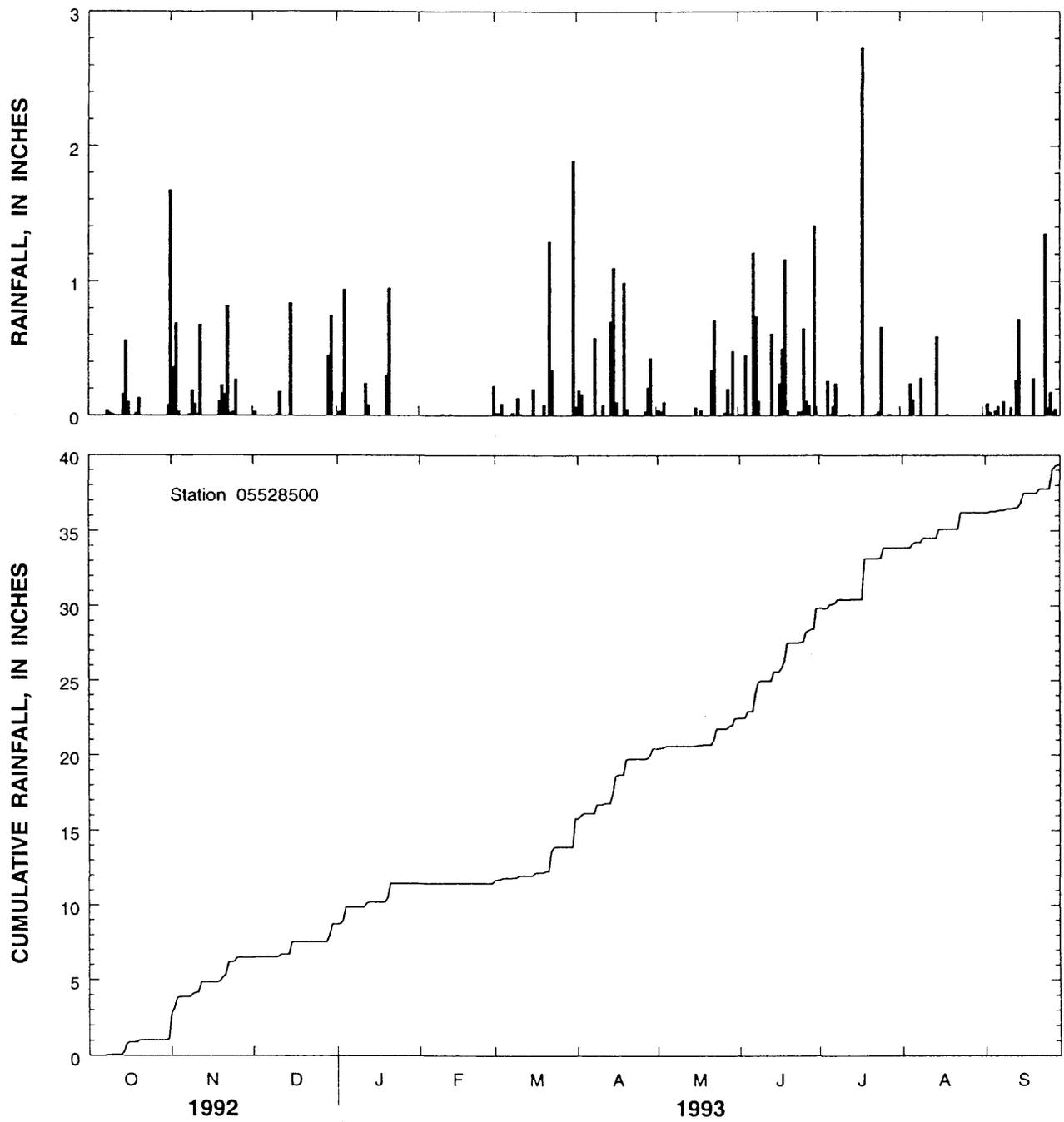


Figure 28. Daily rainfall totals and cumulative rainfall at Buffalo Creek near Wheeling, Ill., water year 1993.

05528500 Buffalo Creek near Wheeling, Ill.—Continued

Rainfall, in inches, water year October 1992 to September 1993
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.67	s0.00	0.00	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00
2	.00	.36	s.03	s.03	s.00	.02	.19	.04	.01	.00	.00	.10
3	.00	s.69	.00	s.17	s.00	.02	.16	.03	.01	.00	.00	.03
4	.00	s.03	s.00	s.94	s.00	s.09	.00	.10	.45	.00	.00	.00
5	.00	s.00	.00	s.00	s.00	s.00	.00	.00	.00	.26	.24	.04
6	.00	s.00	.00	s.00	s.00	.00	.00	.00	.00	.01	.12	.08
7	.00	s.00	s.00	s.00	.00	.00	.01	.00	1.21	.07	.00	.00
8	.04	s.01	.00	s.00	s.00	.02	.58	.00	.74	.24	.00	.11
9	.02	.19	.00	s.00	s.00	.00	.00	.00	.11	.00	.28	.00
10	.01	.09	s.01	s.00	s.01	s.13	.00	.00	.00	.00	.00	.00
11	.00	.01	.18	s.00	s.00	s.01	.08	.00	.00	.00	.00	.07
12	.00	s.68	.00	s.24	s.00	s.00	.00	.00	.00	.00	.00	.00
13	.00	s.00	.00	s.08	s.01	s.00	.00	.00	.00	.01	.00	.26
14	.16	s.00	.00	s.00	s.00	s.00	.70	.00	.61	.00	.00	.71
15	.56	s.00	.84	s.00	.00	.00	1.10	.00	.00	.00	.59	.00
16	.10	.00	.00	s.00	s.00	.20	.10	.06	.00	.00	.00	.00
17	.00	.00	s.00	.00	s.00	.00	.00	.00	.24	.00	.00	.00
18	.00	.00	.00	s.00	.00	s.00	.00	.04	.50	2.73	.00	.00
19	s.02	.11	.00	s.00	.00	.00	.99	.00	1.16	.00	.01	.00
20	s.13	.23	.00	.30	s.00	s.08	.05	.00	.04	.00	.00	.28
21	.00	.16	.00	.95	s.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.82	.00	s.00	s.00	s1.29	.00	.34	.00	.00	.00	.00
23	.00	.02	.00	s.00	s.00	.34	.00	.71	.00	.01	1.10	.00
24	.00	.03	s.00	.00	.00	.00	.00	.00	.03	.03	.00	.00
25	.00	.27	.00	.00	s.00	.00	.00	.00	.03	.66	.00	1.35
26	.00	.00	.00	s.00	s.00	.00	.00	.00	.65	.00	.00	.06
27	.00	.00	.00	s.00	.00	.00	.03	.02	.11	.00	.00	.18
28	.00	.00	.00	s.00	.00	.00	.21	.20	.08	.01	.00	.02
29	.00	.00	.45	s.00	--	.00	.43	.01	.00	.00	.00	.05
30	.00	.00	.75	.00	--	.00	.00	.48	1.41	.00	.00	.00
31	.08	--	.00	.00	--	1.89	--	.00	--	.00	.00	--
Total	1.12	5.37	2.26	2.71	0.02	4.31	4.63	2.03	7.39	4.03	2.34	3.34

s Snowfall-affected precipitation.

North Branch Chicago River at Deerfield, Ill.

Site identifier.--8

Station number.--05534500

Location.--Latitude 42°09'10", longitude 87°49'07", in SW¼SE¼ sec.34, T.43 N., R.12 E., Lake County, Hydrologic Unit 07120003, on right bank at upstream side of bridge on Lake-Cook Road, 1.7 mi southeast of Deerfield and 5.7 mi upstream from Skokie River (Highland Park 7.5-minute quadrangle).

To reach gage.--From the intersection of State Highway 43 and Lake-Cook Road, drive east 0.9 mi to gage. From intersection of Edens Expressway and Lake-Cook Road, drive west 0.8 mi to gage.

Drainage basin.--North Branch Chicago River.

Gage.--An 8-in.-diameter, unheated, tipping-bucket rain gage mounted on a 2-in.-diameter steel post approximately 4 ft above the ground. A multiparameter electronic data logger, housed in a 5-ft by 5-ft steel shelter on right bank at upstream side of bridge, records rainfall data.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--December 4, 1989, to present.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Illinois Department of Transportation, Division of Water Resources.

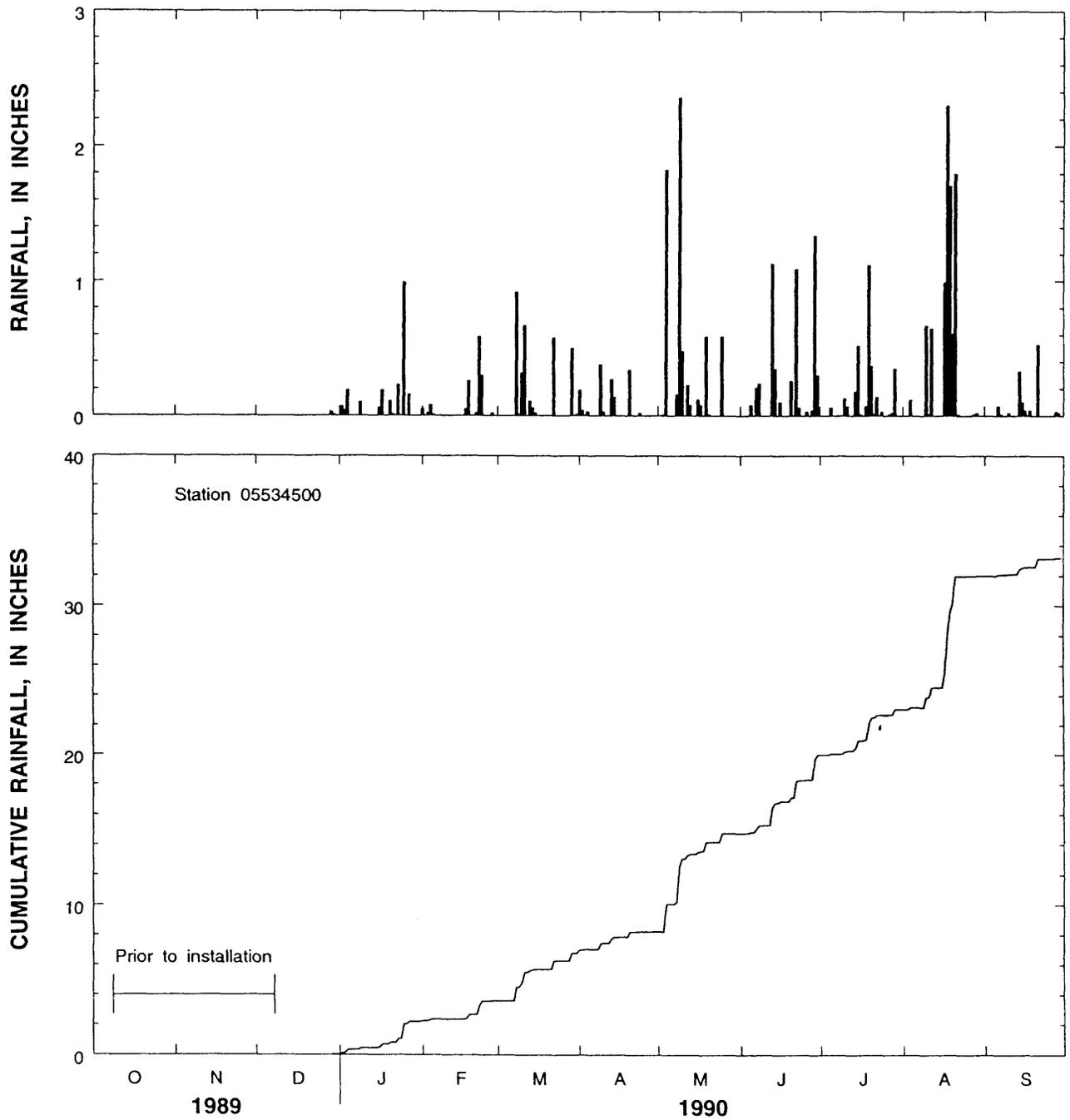


Figure 29. Daily rainfall totals and cumulative rainfall at North Branch Chicago River at Deerfield, Ill., water year 1990.

05534500 North Branch Chicago River at Deerfield, Ill.—Continued

Rainfall, in inches, water year October 1989 to September 1990
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	s0.00	0.05	0.00	0.19	0.00	0.00	0.00	0.00	0.00
2	--	--	--	.07	s.00	.00	.04	.00	.00	.00	.00	.00
3	--	--	--	.04	s.02	.00	.00	.01	.00	.00	.00	.00
4	--	--	p0.00	.19	.08	.00	.03	1.83	.00	.00	.12	.00
5	--	--	.00	.00	.01	.00	s.00	.00	.08	.06	.00	.00
6	--	--	.00	.00	.00	.00	s.00	.00	.00	.00	.00	.07
7	--	--	.00	.00	.00	.00	.00	.00	.21	.00	.00	.01
8	--	--	.00	.00	.00	.92	.00	.16	.24	.00	.00	.00
9	--	--	.00	.10	.00	.01	.38	2.36	.00	.00	.00	.00
10	--	--	s.00	.00	.00	.32	.03	.48	.00	.13	.67	.02
11	--	--	s.00	.00	.00	.67	s.00	.00	.00	.07	.01	.00
12	--	--	.00	s.00	.00	.00	s.00	.23	.00	.00	.65	.00
13	--	--	s.00	.00	.00	.11	.27	.08	1.13	.00	.00	.00
14	--	--	s.00	.00	.00	.06	.14	.00	.35	.18	.00	.33
15	--	--	s.00	.00	s.00	.02	.00	.00	.00	.52	.00	.10
16	--	--	s.00	.06	s.00	.00	.00	.12	.10	.01	.00	.04
17	--	--	s.00	.19	s.05	.00	.00	.08	.00	.00	.99	.00
18	--	--	s.00	.00	.26	.00	.00	.00	.00	.07	2.30	.04
19	--	--	s.00	.00	.00	.00	.00	.59	.00	1.12	1.71	.00
20	--	--	s.00	s.11	.00	.00	.34	.01	.26	.37	.61	.00
21	--	--	.00	s.01	.02	.00	.00	.00	.00	.01	1.80	.53
22	--	--	.00	.00	.59	.58	.00	.00	1.09	.14	.01	.00
23	--	--	.00	.23	s.30	.00	.00	.00	.06	.00	.00	.00
24	--	--	s.00	.00	s.00	.00	.02	.00	.00	.03	.00	.00
25	--	--	s.00	s.99	.00	.00	.00	.59	.00	.00	.00	.00
26	--	--	s.00	s.00	.00	.00	.00	.00	.03	.00	.00	.00
27	--	--	s.00	.16	.02	.00	.00	.00	.00	.01	.00	.00
28	--	--	.00	.00	.00	.00	.00	.00	.04	.02	.01	.03
29	--	--	s.03	.00	--	.50	.00	.00	1.34	.35	.02	.02
30	--	--	s.01	.00	--	.00	.00	.00	.30	.00	.00	.00
31	--	--	.00	.00	--	.01	--	.00	--	.00	.00	--
Total	--	--	--	2.15	1.40	3.20	1.44	6.54	5.23	3.09	8.90	1.19

p Partial record.

s Snowfall-affected precipitation.

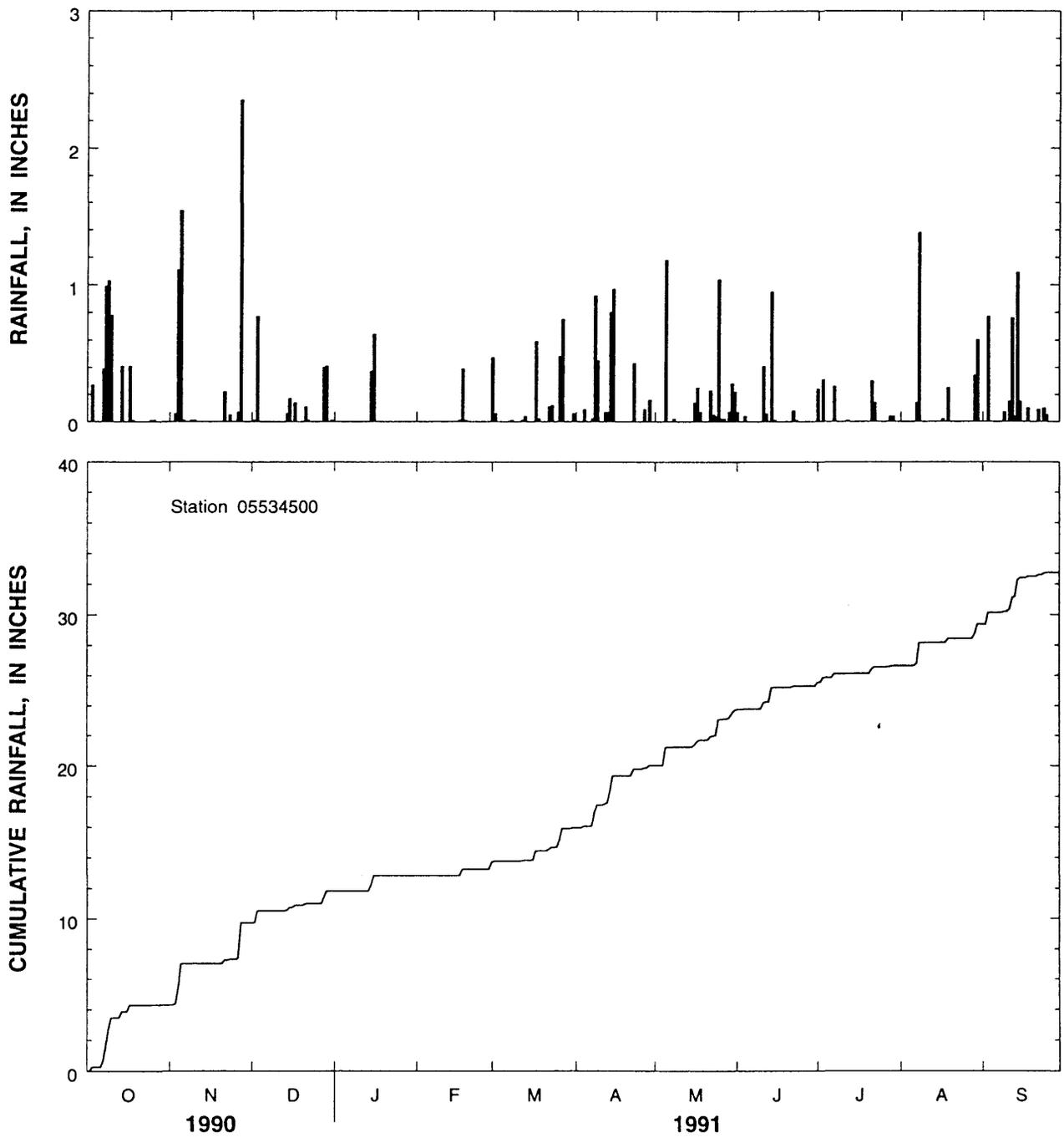


Figure 30. Daily rainfall totals and cumulative rainfall at North Branch Chicago River at Deerfield, Ill., water year 1991.

05534500 North Branch Chicago River at Deerfield, Ill.—Continued

Rainfall, in inches, water year October 1990 to September 1991
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.07	0.24	0.00	0.00
2	.00	.00	s.01	.00	.00	.06	.00	.00	.00	.00	.00	.00
3	.27	.06	s.77	s.00	.00	s.00	.00	.00	.00	.31	.00	.77
4	.00	s1.11	s.00	.00	.00	.00	.09	.00	.04	.00	.00	.00
5	.00	s1.54	.00	s.00	.00	.00	.00	1.18	.00	.00	.00	.00
6	.00	s.01	.00	s.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.39	.00	.00	.00	.00	.00	.02	.00	.00	.26	.14	.00
8	.99	.00	.00	.00	.00	.01	.92	.02	.00	.00	1.38	.00
9	1.03	s.01	.00	s.00	.00	.00	.45	.00	.00	.00	.00	.07
10	.78	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	s.00	.00	s.00	.00	.00	.00	.00	.41	.00	.00	.15
12	.00	.00	.00	s.00	.00	s.01	.07	.00	.06	.01	.00	.76
13	.00	.00	.00	.00	.00	s.04	.07	.00	.00	.00	.00	.04
14	.41	.00	s.06	.00	s.00	.00	.80	.00	.95	.00	.00	1.09
15	.00	.00	s.17	.37	.00	.00	.97	.00	.01	.00	.00	.15
16	.00	.00	.00	.64	.00	.00	.00	.14	.00	.00	.00	.00
17	.41	.00	.14	.00	.01	.59	.00	.25	.00	.00	.02	.00
18	.01	.00	.00	.00	.39	.02	.00	.07	.00	.00	.00	.10
19	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00	.25	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.22	.11	s.00	.00	.00	.00	.00	.00	.30	.00	.00
22	.00	.00	.01	.00	.00	.11	.00	.23	.08	.14	.00	.09
23	.00	.05	.00	s.00	.00	.12	.43	.05	.01	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.00	.10
25	.01	.00	.00	.00	.00	.00	.00	1.04	.00	.00	.00	.05
26	.01	.07	.00	.00	.00	.48	.00	.02	.00	.00	.00	.00
27	.00	2.35	s.00	.00	s.00	.75	.09	.02	.00	.00	.00	.00
28	.00	.00	s.40	.00	.00	.00	.00	.00	.00	.04	.00	.00
29	.00	.00	s.41	.00	--	.00	.16	.07	.00	.04	.34	.00
30	.00	.00	s.00	s.00	--	.00	.00	.28	.00	.00	.60	.00
31	.00	--	s.01	s.00	--	s.06	--	.22	--	.00	.00	--
Total	4.31	5.43	2.09	1.01	0.41	2.72	4.07	3.63	1.63	1.34	2.73	3.37

s Snowfall-affected precipitation.

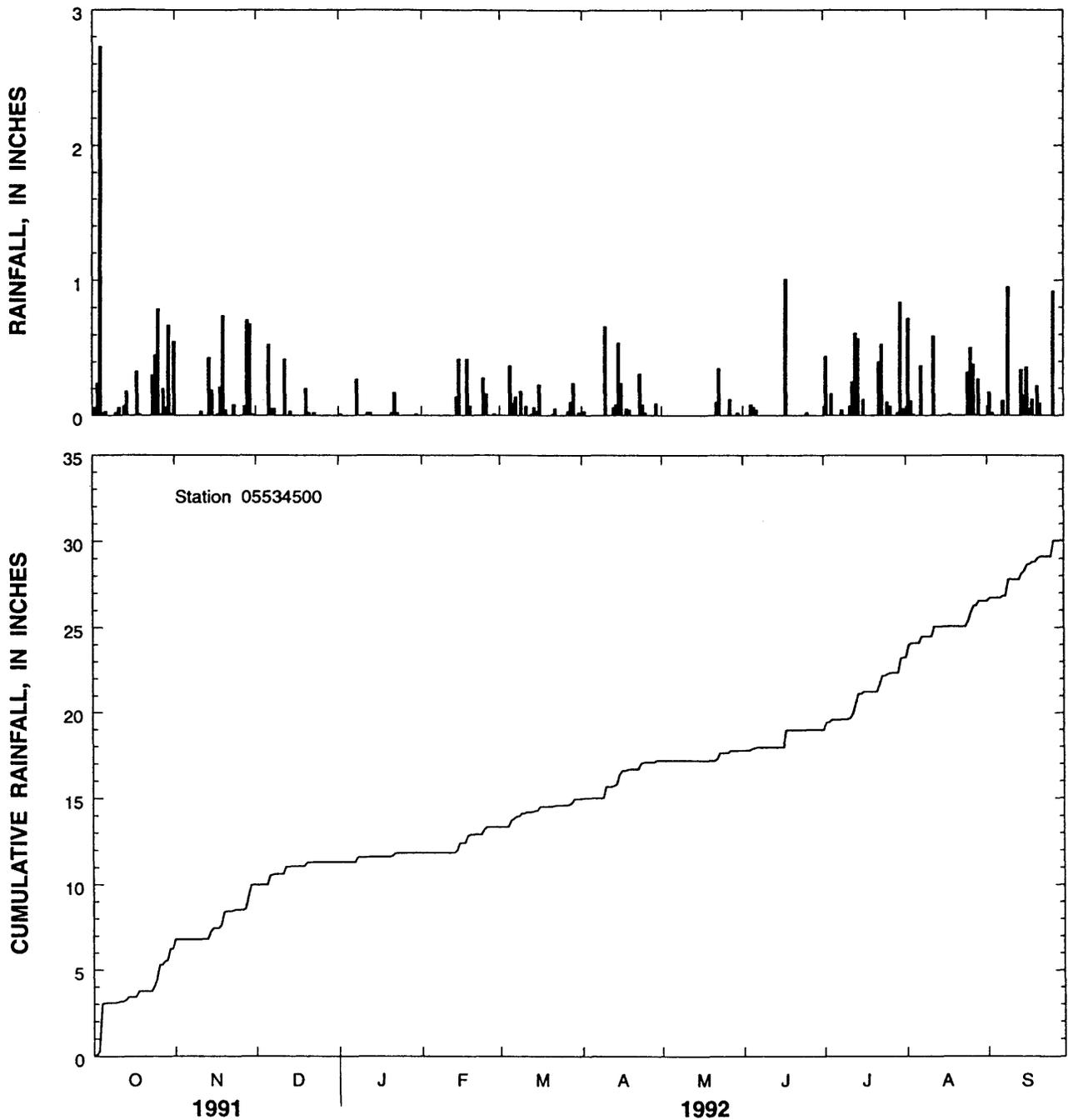


Figure 31. Daily rainfall totals and cumulative rainfall at North Branch Chicago River at Deerfield, Ill., water year 1992.

05534500 North Branch Chicago River at Deerfield, Ill.—Continued

Rainfall, in inches, water year October 1991 to September 1992
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.55	0.00	0.00	0.00	0.00	s0.00	0.00	0.00	0.00	0.00	0.00
2	.06	s.00	.00	.01	.00	.00	s.03	.00	.00	.44	.72	.17
3	.24	s.00	s.00	.00	.00	.00	.00	.00	.00	.00	.11	.02
4	2.73	s.00	s.00	.00	.00	.00	.00	.00	.08	.16	.01	.00
5	.02	.00	s.00	.00	.00	.37	.00	.00	.06	.00	.00	.00
6	.03	.00	.53	.00	.00	.09	.00	.00	.04	.00	.00	.00
7	.00	.00	.05	.00	s.00	.14	.00	.00	.00	.00	.37	.11
8	.00	.00	.05	.27	s.00	.00	.00	.00	.00	.04	.00	.00
9	.00	.00	.00	.00	.00	.18	.00	.00	.00	.00	.00	.95
10	.02	.00	.00	s.00	s.00	s.00	.66	.00	.00	.00	.00	.00
11	.06	s.03	.00	.00	s.00	.07	.00	.00	.00	.07	.00	.00
12	.00	s.00	.42	.02	s.00	.00	.00	.00	.00	.25	.59	.00
13	.07	s.00	.00	.02	s.00	.01	.06	.00	.00	.61	.00	.00
14	.18	.43	.03	s.00	s.14	s.06	.08	.00	.00	.57	.00	.34
15	.00	.19	s.00	s.00	s.42	.03	.54	.00	.00	.00	.00	.15
16	.00	.00	s.00	s.00	.00	.23	.24	.00	.00	.12	.00	.36
17	.00	.01	.00	.00	.00	.00	.00	.00	1.01	.00	.00	.05
18	.33	.21	.00	.00	s.42	.00	.05	.00	.00	.00	.01	.12
19	.01	.74	.00	.00	s.07	.00	.04	.00	.00	.00	.00	.00
20	.00	.04	.20	.00	s.00	.00	.00	.00	.00	.00	.00	.22
21	.00	.00	s.02	.02	.00	s.01	.00	.00	.00	.00	.00	.09
22	.00	.00	.00	.17	.00	s.05	.00	.10	.00	.40	.00	.00
23	.00	s.08	.02	.02	.00	.00	.31	.35	.00	.53	.00	.00
24	.30	s.00	.00	s.00	s.28	.00	.08	.00	.00	.00	.00	.00
25	.45	s.00	.00	s.00	s.16	.00	.02	.00	.02	.10	.32	.00
26	.79	.00	.00	s.00	.00	s.00	.00	.00	.00	.07	.50	.92
27	.01	s.07	.00	.00	.00	s.03	.00	.12	.00	.00	.38	.00
28	.20	s.71	.00	.00	s.01	.10	.00	.00	.00	.00	.00	.00
29	.06	.68	.00	.00	s.00	.24	.09	.00	.00	.02	.27	.00
30	.67	.01	.00	.01	--	.00	.00	.02	.00	.84	.00	.00
31	.01	--	.00	.00	--	.02	--	.00	--	.05	.00	--
Total	6.24	3.75	1.32	0.54	1.50	1.63	2.20	0.59	1.21	4.27	3.28	3.50

s Snowfall-affected precipitation.

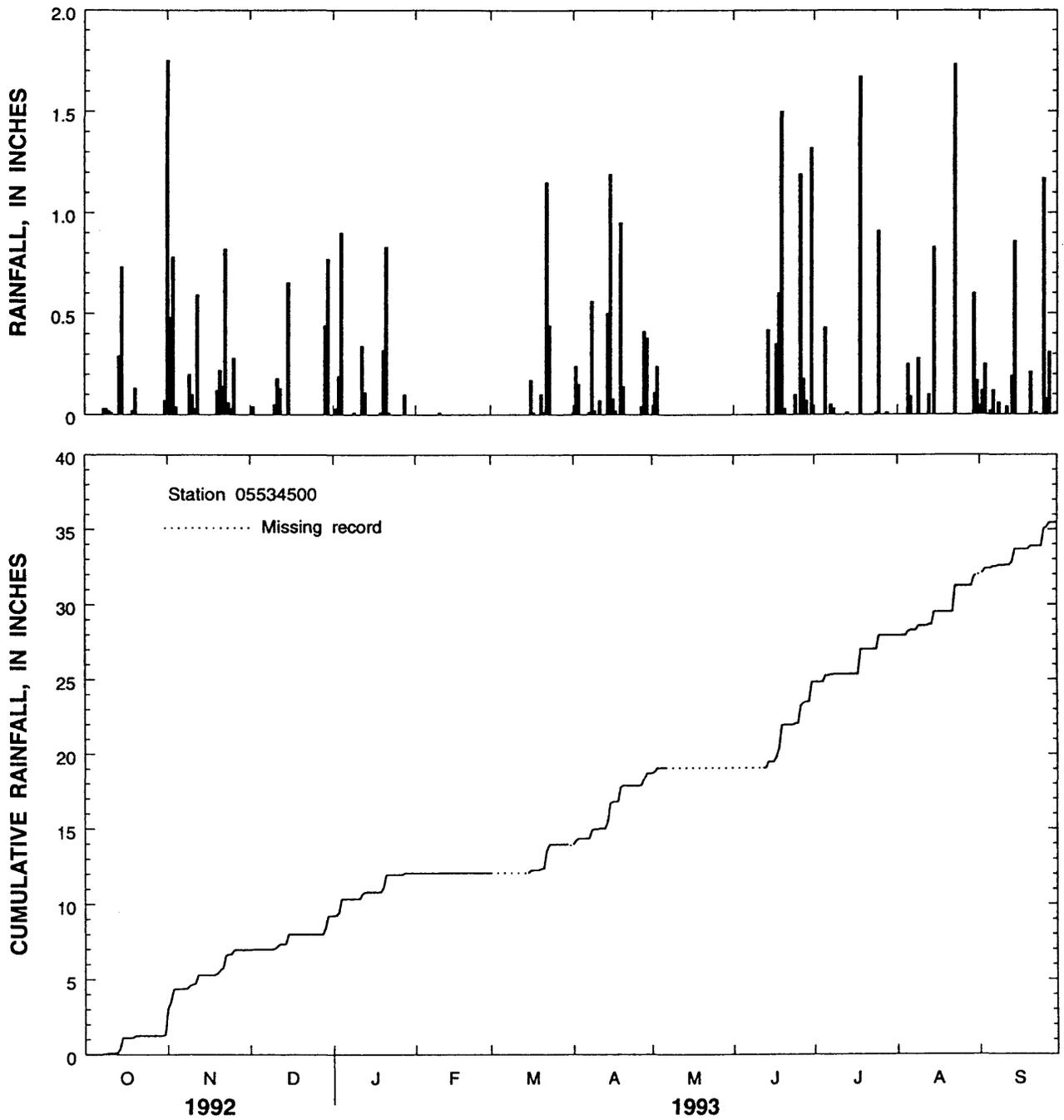


Figure 32. Daily rainfall totals and cumulative rainfall at North Branch Chicago River at Deerfield, Ill., water year 1993.

05534500 North Branch Chicago River at Deerfield, Ill.—Continued

Rainfall, in inches, water year October 1992 to September 1993
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.75	s0.00	0.00	0.00	m	0.01	0.00	m	0.00	0.00	0.00
2	.00	.48	s.04	s.03	s.00	m	.24	.11	m	.00	.00	.12
3	.00	s.78	.00	s.19	s.00	m	.15	.24	m	.00	.00	.25
4	.00	s.04	s.00	s.90	s.00	m	.00	m	m	.00	.00	.00
5	.00	s.00	.00	s.00	s.00	m	.00	m	m	.43	.25	.02
6	.00	s.00	.00	s.00	s.00	m	.00	m	m	.00	.09	.12
7	.00	s.00	s.00	s.00	.00	m	.01	m	m	.05	.00	.00
8	.03	s.00	.00	s.00	s.00	m	.56	m	m	.03	.00	.06
9	.03	.20	.00	s.01	s.00	m	.02	m	m	.00	.28	.00
10	.02	.10	s.05	s.00	s.01	m	.00	m	m	.00	.00	.00
11	.01	.03	.18	s.00	s.00	m	.07	m	p0.00	.00	.00	.04
12	.00	s.59	.13	s.34	s.00	m	.00	m	.00	.00	.00	.00
13	.00	s.00	.00	s.11	s.00	m	.00	m	.00	.01	.10	.19
14	.29	s.00	.00	s.00	s.00	s0.00	.50	m	.42	.00	.00	.86
15	.73	s.00	.65	s.00	.00	.00	1.19	m	.00	.00	.83	.00
16	.00	.00	.00	s.00	s.00	.17	.08	m	.00	.00	.00	.00
17	.00	.00	s.00	.00	s.00	.01	.02	m	.35	.00	.00	.00
18	.00	.00	.00	s.00	.00	s.00	.00	m	.60	1.67	.00	.00
19	s.02	.12	.00	s.01	.00	.00	.95	m	1.50	.00	.00	.00
20	s.13	.22	.00	.32	s.00	s.10	.14	m	.03	.00	.00	.21
21	.00	.14	.00	.83	s.00	.01	.00	m	.00	.00	.00	.00
22	.00	.82	.00	s.01	s.00	s1.15	.00	m	.00	.00	.00	.01
23	.00	.06	.00	s.00	s.00	.44	.00	m	.00	.00	1.73	.00
24	.00	.03	s.00	.00	.00	.00	.00	m	.10	.01	.00	.00
25	.00	.28	.00	.00	s.00	.00	.00	m	.00	.91	.00	1.17
26	.00	.00	.00	s.00	s.00	.00	.00	m	1.19	.00	.00	.08
27	.00	.00	.00	s.00	.00	.00	.04	m	.18	.00	.00	.31
28	.00	.00	.00	s.10	.00	.00	.41	m	.07	.01	.00	.00
29	.00	.00	.44	s.00	--	.00	.38	m	.00	.00	m	.01
30	.00	.00	.77	.00	--	.00	.00	m	1.32	.00	.60	.00
31	.07	--	.00	.00	--	m	--	m	--	.00	.17	--
Total	1.33	5.64	2.26	2.85	0.01	--	4.77	--	--	3.12	--	3.45

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

Skokie River near Highland Park, Ill.

Site identifier.--9

Station number.--05535070

Location.--Latitude 42°09'34", longitude 87°47'52", in NW¼SE¼ sec.35, T.43 N., R.12 E., Lake County, Hydrologic Unit 07120003, on right bank at downstream side of bridge on Clavey Road in Highland Park (Highland Park 7.5-minute quadrangle).

To reach gage.--From the intersection of U.S. Highway 41 and Clavey Road, drive 0.4 mi east to gage.

Drainage basin.--Skokie River.

Gage.--An 8-in.-diameter, unheated, tipping-bucket rain gage mounted on a 2-in. pipe attached to the side of a 5-ft by 5-ft Armco shelter on the right bank of the downstream side of the bridge.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--December 4, 1989, to present.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Illinois Department of Transportation, Division of Water Resources.

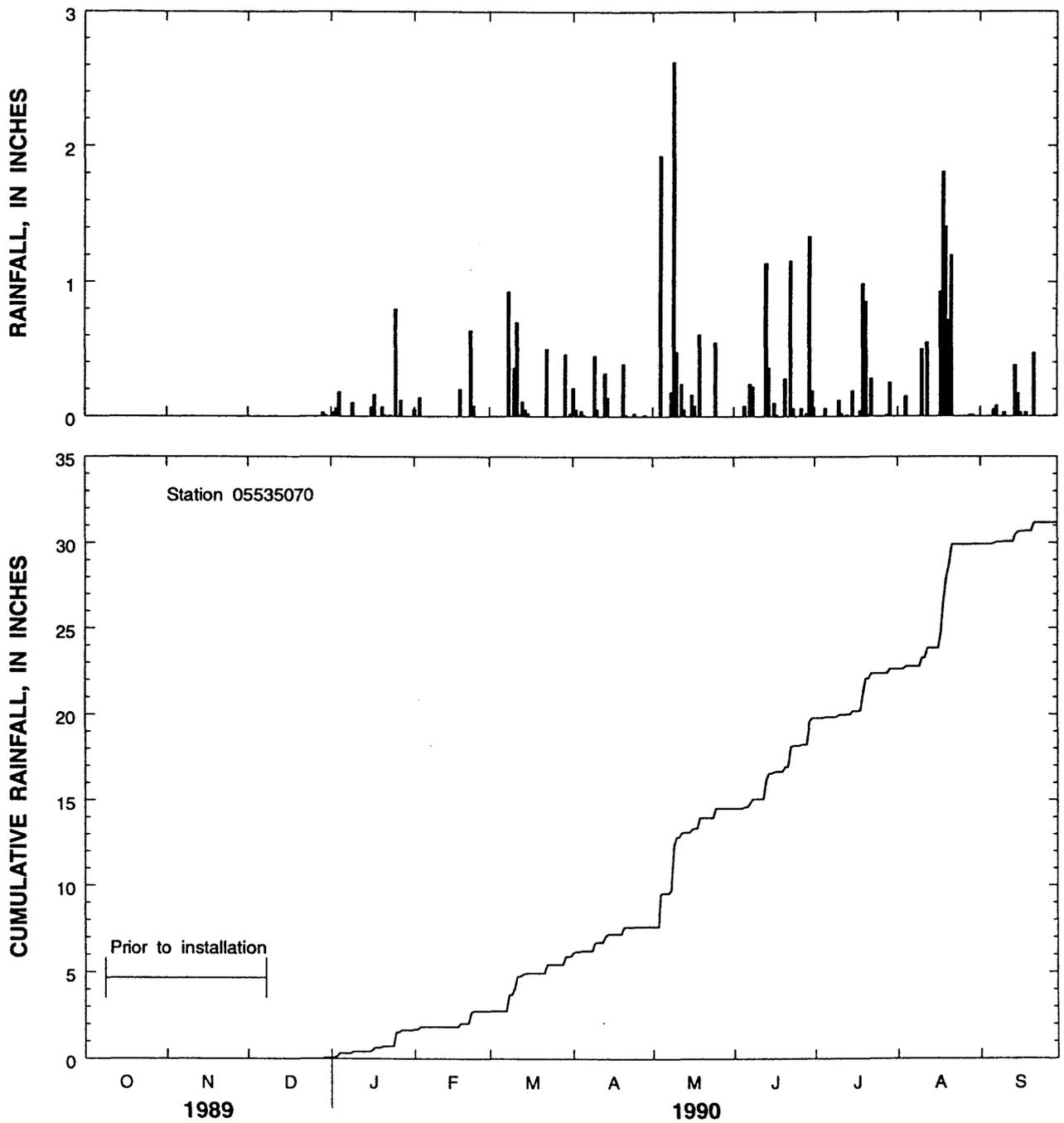


Figure 33. Daily rainfall totals and cumulative rainfall at Skokie River near Highland Park, Ill., water year 1990.

05535070 Skokie River near Highland Park, Ill.—Continued

Rainfall, in inches, water year October 1989 to September 1990
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	s0.00	0.05	0.00	0.21	0.00	0.00	0.00	0.00	0.00
2	--	--	--	.03	s.00	.00	.05	.00	.00	.00	.00	.00
3	--	--	--	.06	s.14	.00	.00	.00	.00	.00	.00	.00
4	--	--	p0.00	.18	.00	.00	.04	1.93	.00	.00	.15	.00
5	--	--	.00	.00	.00	s.00	.01	.00	.08	.06	.00	.00
6	--	--	.00	.00	.00	s.00	.00	.00	.00	.00	.00	.05
7	--	--	.00	.00	.00	.00	.00	.00	.24	.00	.00	.08
8	--	--	.00	.00	.00	.93	.00	.18	.22	.00	.00	.00
9	--	--	.00	.10	.00	.00	.45	2.63	.00	.00	.00	.00
10	--	--	s.00	.00	.00	.36	.05	.48	.00	.12	.50	.03
11	--	--	s.00	.00	.00	s.70	.00	.00	.00	.02	.00	.00
12	--	--	.00	s.00	.00	s.01	.00	.24	.00	.00	.55	.00
13	--	--	s.00	.00	.00	.11	.32	.05	1.14	.01	.00	.00
14	--	--	s.00	.00	.00	.05	.14	.00	.36	.00	.00	.38
15	--	--	s.00	.00	s.00	.02	.00	.00	.00	.19	.00	.17
16	--	--	s.00	.07	s.00	.00	.00	.16	.10	.00	.00	.03
17	--	--	s.00	.16	s.00	.00	.00	.08	.01	.00	.93	.00
18	--	--	s.00	.00	.20	.00	.00	.00	.00	.04	1.81	.03
19	--	--	s.00	.00	.00	.00	.00	.61	.00	.99	1.41	.00
20	--	--	s.00	s.07	.00	.00	.39	.00	.28	.86	.72	.00
21	--	--	.00	s.01	.00	.00	.01	.00	.00	.01	1.20	.47
22	--	--	.00	.00	.64	.50	.00	.00	1.16	.28	.00	.00
23	--	--	.00	.01	s.08	.00	.00	.00	.06	.00	.00	.00
24	--	--	s.00	.00	s.00	.00	.02	.00	.00	.00	.00	.00
25	--	--	s.00	s.80	.00	.00	.00	.55	.00	.00	.00	.00
26	--	--	s.00	s.00	.00	.00	.00	.00	.06	.00	.00	.00
27	--	--	s.00	.12	.00	.00	.00	.00	.00	.00	.00	.00
28	--	--	.00	.00	.00	.00	.01	.00	.02	.01	.01	.00
29	--	--	s.03	.00	--	.46	.00	.00	1.34	.25	.01	.01
30	--	--	s.01	.00	--	.00	.00	.00	.19	.00	.00	.01
31	--	--	.00	.00	--	.02	--	.00	--	.00	.00	--
Total	--	--	--	1.61	1.11	3.16	1.70	6.91	5.26	2.84	7.29	1.26

p Partial record.

s Snowfall-affected precipitation.

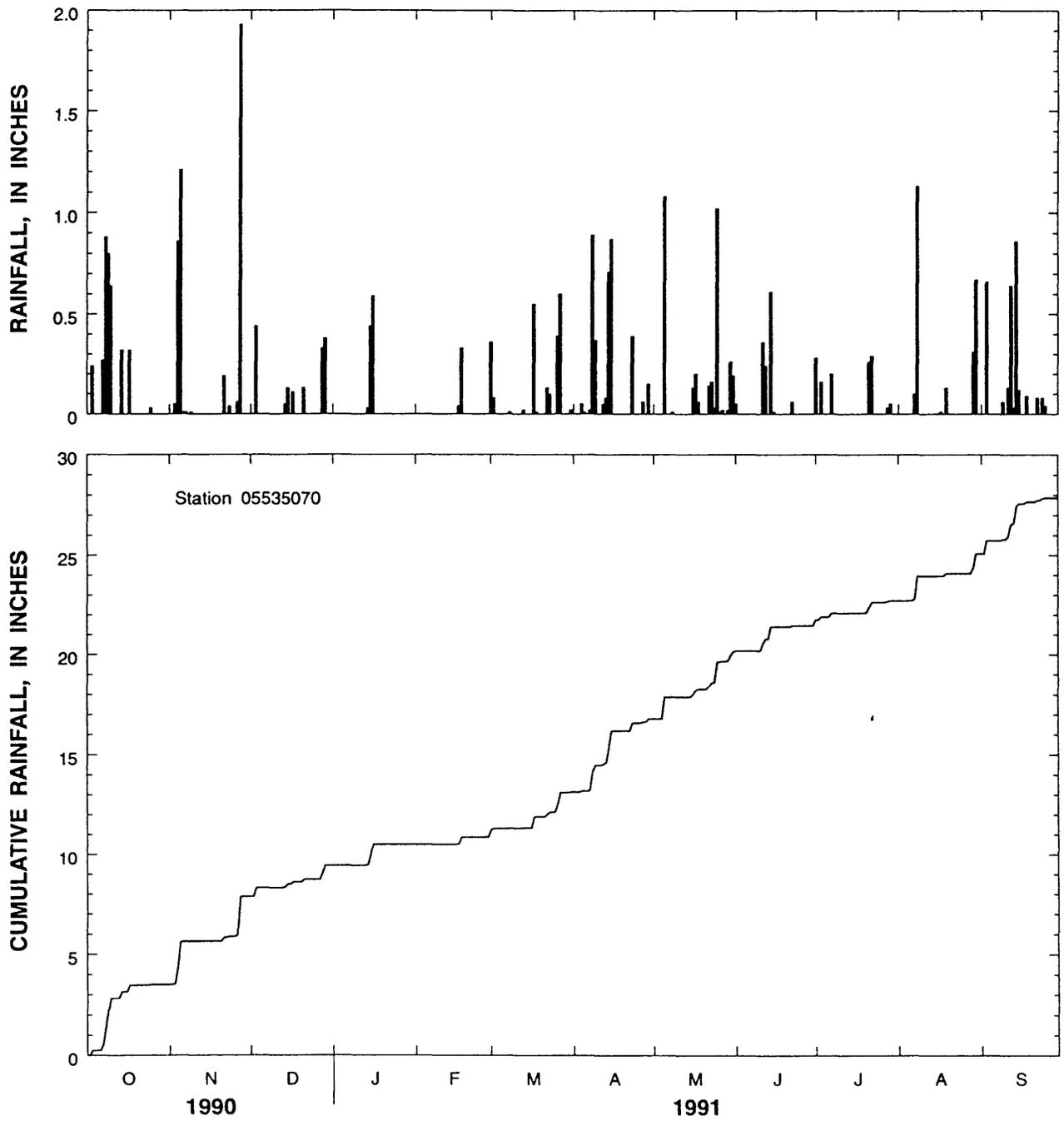


Figure 34. Daily rainfall totals and cumulative rainfall at Skokie River near Highland Park, Ill., water year 1991.

05535070 Skokie River near Highland Park, Ill.—Continued

Rainfall, in inches, water year October 1990 to September 1991
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.05	0.28	0.00	0.00
2	.00	.00	s.00	.00	.00	.08	.00	.00	.00	.00	.00	.00
3	.24	.05	s.44	s.00	.00	s.00	.00	.00	.00	.16	.00	.66
4	.00	s.86	s.00	.00	.00	.00	.05	.00	.00	.00	.00	.00
5	.00	s1.21	.00	s.00	.00	.00	.01	1.08	.00	.00	.00	.00
6	.00	s.01	.00	s.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.27	.01	.00	.00	.00	.00	.02	.00	.00	.20	.10	.00
8	.88	.00	.00	.00	.00	.01	.89	.01	.00	.00	1.13	.00
9	.80	s.01	.00	s.00	.00	.00	.37	.00	.00	.00	.00	.06
10	.64	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	s.00	.00	s.00	.00	.00	.00	.00	.36	.00	.00	.13
12	.00	.00	.00	s.00	.00	s.00	.05	.00	.24	.00	.00	.64
13	.00	.00	.00	.00	.00	s.02	.08	.00	.00	.00	.00	.03
14	.32	.00	s.05	.03	s.00	.00	.71	.00	.61	.00	.00	.86
15	.00	.00	s.13	.44	.00	.00	.87	.00	.01	.00	.00	.12
16	.00	.00	.00	.59	.00	.00	.00	.13	.00	.00	.00	.00
17	.32	.00	.11	.00	.04	.55	.00	.20	.00	.00	.01	.00
18	.00	.00	.00	.00	.33	.01	.00	.06	.00	.00	.00	.09
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.13	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.19	.13	s.00	.00	.00	.00	.00	.00	.26	.00	.00
22	.00	.00	.00	.00	.00	.13	.00	.14	.06	.29	.00	.08
23	.00	.04	.00	s.00	.00	.10	.39	.16	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.08
25	.03	.00	.00	.00	.00	.00	.00	1.02	.00	.00	.00	.04
26	.00	.06	.00	.00	.00	.39	.00	.01	.00	.00	.00	.00
27	.00	1.93	s.00	.00	s.00	.60	.06	.02	.00	.00	.00	.00
28	.00	.00	s.33	.00	.00	.00	.00	.00	.00	.03	.00	.00
29	.00	.00	s.38	.00	--	.00	.15	.02	.00	.05	.31	.00
30	.00	.00	s.00	s.00	--	.00	.00	.26	.00	.00	.67	.00
31	.00	--	s.00	s.00	--	s.02	--	.19	--	.00	.00	--
Total	3.50	4.37	1.57	1.06	0.37	2.27	3.65	3.33	1.33	1.27	2.35	2.79

s Snowfall-affected precipitation.

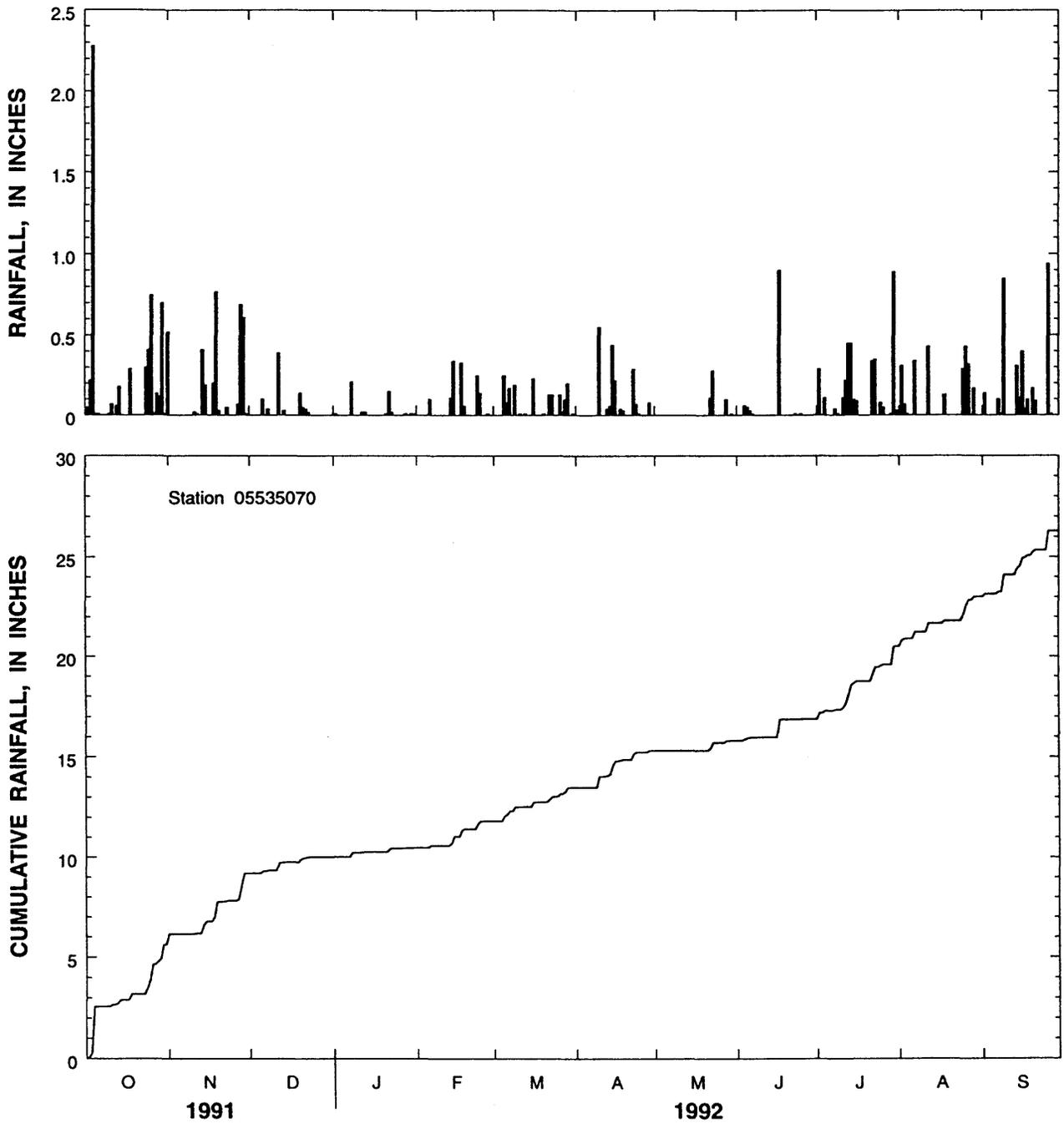


Figure 35. Daily rainfall totals and cumulative rainfall at Skokie River near Highland Park, Ill., water year 1992.

05535070 Skokie River near Highland Park, Ill.—Continued

Rainfall, in inches, water year October 1991 to September 1992
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.52	0.00	0.00	0.00	0.00	s0.00	0.00	0.00	0.00	0.00	0.00
2	.05	s.00	.00	.01	.00	.00	s.00	.00	.00	.29	.31	.14
3	.22	s.00	s.00	.00	.00	.00	.00	.00	.00	.00	.07	.00
4	2.28	s.00	s.00	.00	.00	.00	.00	.00	.06	.11	.01	.00
5	.01	.00	s.00	.00	.00	.25	.00	.00	.05	.00	.00	.00
6	.01	.00	.10	.00	.10	.08	.00	.00	.03	.00	.00	.00
7	.00	.00	.00	.00	s.00	.17	.00	.00	.01	.00	.34	.10
8	.00	.00	.04	.21	s.00	.00	.00	.00	.00	.04	.00	.01
9	.00	.00	.00	.00	.00	.19	.00	.00	.00	.01	.00	.85
10	.01	.00	.00	s.00	s.00	s.00	.55	.00	.00	.00	.00	.00
11	.07	s.02	.00	.00	s.00	.01	.00	.00	.00	.11	.00	.00
12	.00	s.01	.39	.02	s.00	.00	.00	.00	.00	.22	.43	.00
13	.06	s.00	.00	.02	s.00	.01	.04	.00	.00	.45	.00	.00
14	.18	.41	.03	s.00	s.11	s.00	.06	.00	.00	.45	.00	.31
15	.00	.19	s.00	s.00	s.34	.00	.44	.00	.00	.10	.00	.11
16	.00	.00	s.00	s.00	.00	.23	.22	.00	.00	.09	.00	.40
17	.00	.00	.00	.00	.00	.00	.00	.00	.90	.00	.00	.04
18	.29	.20	.00	.00	s.33	.00	.04	.00	.00	.00	.13	.10
19	.00	.77	.00	.00	s.06	.00	.03	.00	.00	.00	.00	.00
20	.00	.03	.14	.00	s.00	.01	.00	.00	.00	.00	.00	.17
21	.00	.00	s.05	.01	.00	s.00	.00	.00	.00	.00	.00	.09
22	.00	.00	.04	.15	.00	s.13	.00	.11	.00	.34	.00	.00
23	.00	s.05	.02	.02	.00	.13	.29	.28	.01	.35	.00	.00
24	.30	s.00	.00	s.00	s.25	.00	.07	.00	.00	.00	.00	.00
25	.41	s.00	.00	s.00	s.14	.00	.01	.00	.01	.08	.29	.00
26	.75	.00	.00	s.00	.00	s.13	.00	.00	.00	.05	.43	.94
27	.01	s.07	.00	.00	.00	s.02	.00	.00	.00	.00	.32	.01
28	.14	s.69	.00	.01	s.01	.10	.00	.10	.00	.00	.00	.00
29	.12	.61	.00	.00	s.00	.20	.08	.00	.00	.01	.17	.00
30	.70	.01	.00	.01	--	.00	.00	.01	.00	.89	.00	.00
31	.01	--	.00	.01	--	.01	--	.00	--	.03	.00	--
Total	5.62	3.58	0.81	0.47	1.34	1.67	1.83	0.50	1.07	3.62	2.50	3.27

s Snowfall-affected precipitation.

05535070 Skokie River near Highland Park, Ill.—Continued

Rainfall, in inches, water year October 1992 to September 1993
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.43	s0.00	0.00	0.00	0.18	0.03	0.00	0.01	0.00	0.00	0.00
2	.00	.40	s.14	s.01	s.00	.01	.12	.12	.01	.00	.00	.09
3	.00	s.65	.00	s.16	s.00	.00	.00	.24	.01	.00	.00	.20
4	.00	s.03	s.00	s.81	s.00	s.07	.00	.02	.45	.00	.00	.00
5	.00	s.00	.00	s.00	s.00	s.00	.00	.00	.00	.31	.20	.01
6	.00	s.00	.00	s.01	s.00	.00	.00	.00	.00	.01	.07	.10
7	.00	s.00	s.00	s.00	.00	.00	.01	.00	1.18	.03	.00	.00
8	.08	s.00	.00	s.00	s.00	.01	.44	.00	.37	.02	.00	.06
9	.04	.19	.00	s.00	s.00	.00	.01	.00	.03	.00	.25	.00
10	.04	.05	s.00	s.00	s.01	s.11	.00	.00	.00	.00	.00	.00
11	.00	.02	.16	s.00	s.00	s.00	.07	.00	.00	.00	.00	.05
12	.00	s.47	.04	s.15	s.00	s.01	.00	.00	.00	.00	.00	.00
13	.00	s.00	.00	s.06	s.00	s.00	.00	.00	.00	.02	.00	.18
14	.27	s.00	.00	s.00	s.00	s.00	.41	.00	.32	.00	.00	.76
15	.68	s.00	.55	s.00	.00	.05	1.04	.00	.00	.00	.65	.00
16	.01	.00	.00	s.00	s.00	.15	.08	.04	.00	.00	.00	.00
17	.00	.00	s.00	.00	s.00	.00	.00	.00	.32	.00	.00	.00
18	.00	.00	.00	s.00	.00	s.00	.00	.04	.56	1.18	.00	.00
19	s.02	.09	.00	s.00	.00	.00	.74	.00	1.30	.00	.00	.00
20	s.12	.18	.00	.25	s.00	s.07	.11	.00	.01	.00	.00	.22
21	.00	.10	.00	.78	s.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.69	.00	s.01	s.01	s1.00	.00	.27	.00	.00	.00	.00
23	.00	.04	.00	s.00	s.00	.32	.00	.44	.00	.00	.86	.00
24	.00	.02	s.00	.00	.00	.00	.00	.00	.11	.01	.00	.00
25	.00	.25	.00	.00	s.00	.00	.00	.00	.01	.75	.00	1.06
26	.00	.00	.00	s.00	s.00	.00	.00	.00	1.13	.00	.00	.07
27	.00	.00	.00	s.00	.00	.00	.03	.03	.20	.00	.00	.27
28	.00	.00	.00	s.10	.01	.00	.30	.18	.06	.01	.00	.00
29	.00	.00	.39	s.00	--	.00	.29	.00	.00	.00	.89	.00
30	.00	.00	.64	.00	--	.00	.00	.54	1.15	.00	.77	.00
31	.06	--	.00	.00	--	1.89	--	.07	--	.00	.13	--
Total	1.32	4.61	1.92	2.34	0.03	3.87	3.68	1.99	7.23	2.34	3.82	3.07

s Snowfall-affected precipitation.

Squaw Creek at Round Lake, Ill.

Site identifier.--10

Station number.--05547755

Location.--Latitude 42°21'00", longitude 88°05'13", in SW¹/₄NE¹/₄ sec.29, T.45 N., R.10 E., Lake County, Hydrologic Unit 07120006, on downstream side of bridge on MacGillis Road at Round Lake (Grayslake 7.5-minute quadrangle).

To reach gage.--From the intersection of State Highway 134 and MacGillis Road, drive south on MacGillis Road approximately 0.1 mi to gage.

Drainage basin.--Fox River.

Gage.--An 8-in.-diameter, unheated, tipping-bucket rain gage mounted on a 2-in.-diameter steel post approximately 4 ft above the ground. An electronic data logger, housed inside a weatherproof electrical enclosure, is mounted on the steel post below the rain gage.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--December 6, 1989, to present. Periods of missing record exist due to equipment-related problems.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Lake County Stormwater Management Commission.

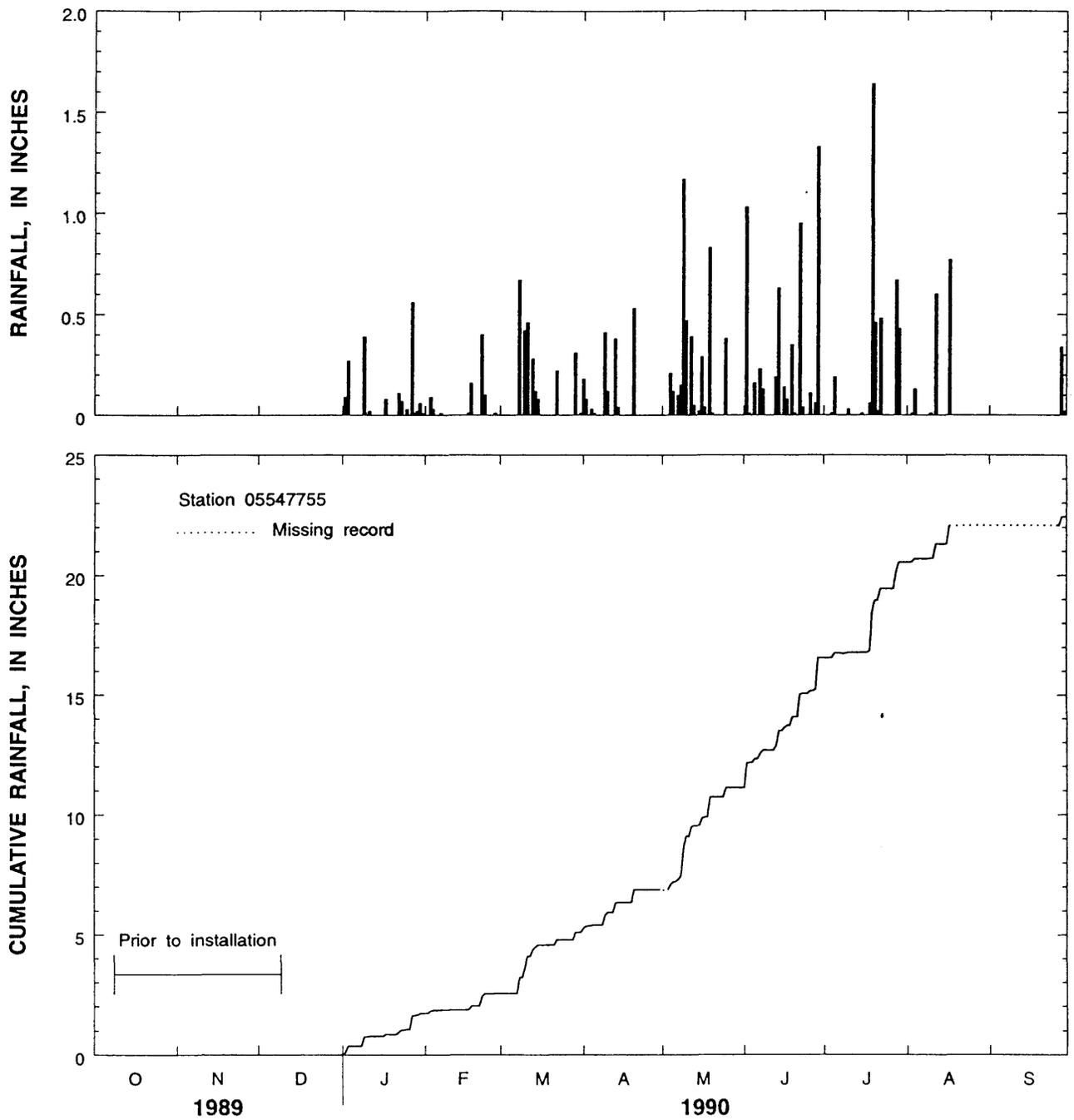


Figure 37. Daily rainfall totals and cumulative rainfall at Squaw Creek at Round Lake, Ill., water year 1990.

05547755 Squaw Creek at Round Lake, Ill.—Continued

Rainfall, in inches, water year October 1989 to September 1990
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	s0.00	0.00	0.00	0.18	m	0.00	0.00	0.00	m
2	--	--	--	.09	s.00	.00	.08	m	1.03	.00	.00	m
3	--	--	--	.27	s.09	.00	.00	m	.01	.00	.01	m
4	--	--	--	.00	.03	.00	.03	p0.21	.00	.01	.13	m
5	--	--	--	.00	.00	.00	s.01	.12	.16	.19	.00	m
6	--	--	p0.00	.00	.00	.00	s.00	.00	.00	.00	.00	m
7	--	--	.00	.00	.01	.00	.00	.10	.23	.00	.00	m
8	--	--	.00	.00	.00	.67	.00	.15	.13	.00	.00	m
9	--	--	.00	.39	.00	.00	.41	1.17	.00	.00	.00	m
10	--	--	s.00	.00	.00	.42	.12	.47	.00	.03	.01	m
11	--	--	s.00	.02	.00	.46	s.00	.00	.00	.00	.00	m
12	--	--	.00	s.00	.00	.00	s.00	.39	.00	.00	.60	m
13	--	--	s.00	.00	.00	.28	.38	.05	.19	.00	.00	m
14	--	--	s.00	.00	.00	.12	.04	.00	.63	.00	.00	m
15	--	--	s.00	.00	s.00	.08	.00	.02	.00	.01	.00	m
16	--	--	s.00	.00	s.00	.00	.00	.29	.14	.00	.00	m
17	--	--	s.00	.08	s.01	.00	.00	.04	.08	.00	p.77	m
18	--	--	s.00	.00	.16	.00	.00	.00	.00	.06	m	m
19	--	--	s.00	.00	.00	.00	.00	.83	.35	1.64	m	m
20	--	--	s.00	s.00	.00	.00	.53	.01	.01	.46	m	m
21	--	--	.00	s.00	.00	.00	.00	.00	.00	.02	m	m
22	--	--	.00	.11	.40	.22	.00	.00	.95	.48	m	m
23	--	--	.00	.07	s.10	.00	.00	.00	.04	.00	m	m
24	--	--	s.00	.00	s.00	.00	.00	.00	.00	.00	m	m
25	--	--	s.00	s.03	.00	.00	.00	.38	.00	.00	m	m
26	--	--	s.00	s.00	.00	.00	.00	.00	.11	.00	m	p0.00
27	--	--	s.00	.56	.01	.00	.00	.00	.00	.00	m	.00
28	--	--	.00	.01	.00	.00	.00	.00	.06	.67	m	.34
29	--	--	s.00	.02	--	.31	.00	.00	1.33	.43	m	.02
30	--	--	s.00	.06	--	.00	.00	.00	.00	.00	m	.00
31	--	--	.00	.01	--	.01	--	.00	--	.00	m	--
Total	--	--	--	1.72	0.81	2.57	1.78	--	5.45	4.00	--	--

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

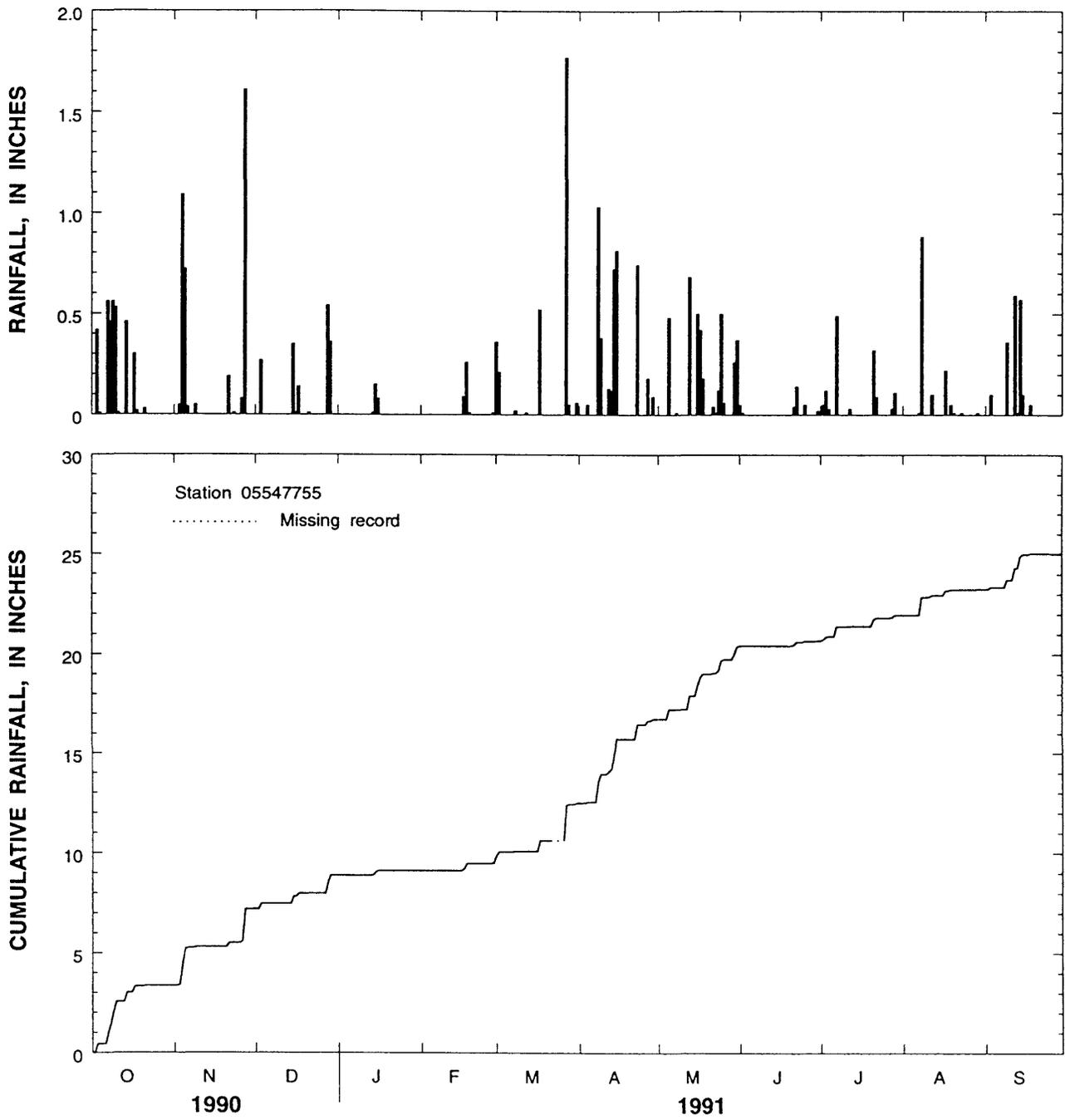


Figure 38. Daily rainfall totals and cumulative rainfall at Squaw Creek at Round Lake, Ill., water year 1991.

05547755 Squaw Creek at Round Lake, Ill.—Continued

Rainfall, in inches, water year October 1990 to September 1991
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.05	0.01	0.00	0.00
2	.00	.00	s.00	.00	.00	.21	.00	.00	.01	.05	.00	.00
3	.42	.05	s.27	s.00	.00	s.00	.00	.00	.00	.12	.00	.10
4	.01	s1.09	s.00	.00	.00	.00	.05	.00	.00	.03	.00	.00
5	.00	s.72	.00	s.00	.00	.00	.00	.48	.00	.00	.00	.00
6	.00	s.04	.00	s.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.56	.00	.00	.00	.00	.00	.00	.00	.00	.49	.01	.00
8	.46	.00	.00	.00	.00	.02	1.03	.01	.00	.00	.88	.00
9	.56	s.05	.00	s.00	.00	.00	.38	.00	.00	.00	.00	.36
10	.53	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.01	s.00	.00	s.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	s.00	.00	s.01	.13	.00	.00	.03	.10	.59
13	.00	.00	.00	.00	.00	s.00	.12	.68	.00	.00	.00	.01
14	.46	.00	s.00	.01	s.00	.00	.72	.00	.00	.00	.00	.57
15	.00	.00	s.35	.15	.00	.00	.81	.00	.00	.00	.00	.10
16	.00	.00	.01	.08	.00	.00	.00	.50	.00	.00	.00	.00
17	.30	.00	.14	.00	.09	.52	.00	.42	.00	.00	.22	.00
18	.02	.00	.00	.00	.26	.00	.00	.18	.00	.00	.00	.05
19	.00	.00	.00	.00	.01	m	.00	.00	.00	.00	.05	.00
20	.00	.00	.00	.00	.00	m	.00	.00	.00	.00	.01	.00
21	.03	.19	.01	s.00	.00	m	.00	.00	.04	.32	.00	.00
22	.00	.00	.00	.00	.00	m	.00	.04	.14	.09	.00	.00
23	.00	.01	.00	s.00	.00	m	.74	.01	.00	.00	.01	.00
24	.00	.00	.00	.00	.00	m	.00	.12	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	m	.00	.50	.05	.00	.00	.00
26	.00	.08	.00	.00	.00	p.00	.00	.06	.00	.00	.00	.00
27	.00	1.61	s.00	.00	s.00	1.77	.18	.00	.00	.00	.00	.00
28	.00	.00	s.54	.00	.01	.05	.00	.00	.00	.03	.00	.00
29	.00	.00	s.36	.00	--	.00	.09	.00	.00	.11	.01	.00
30	.00	.00	s.00	s.00	--	.00	.00	.26	.02	.00	.00	.00
31	.00	--	s.00	s.00	--	s.06	--	.37	--	.00	.00	--
Total	3.36	3.84	1.68	0.24	0.37	--	4.25	3.63	0.31	1.28	1.29	1.78

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

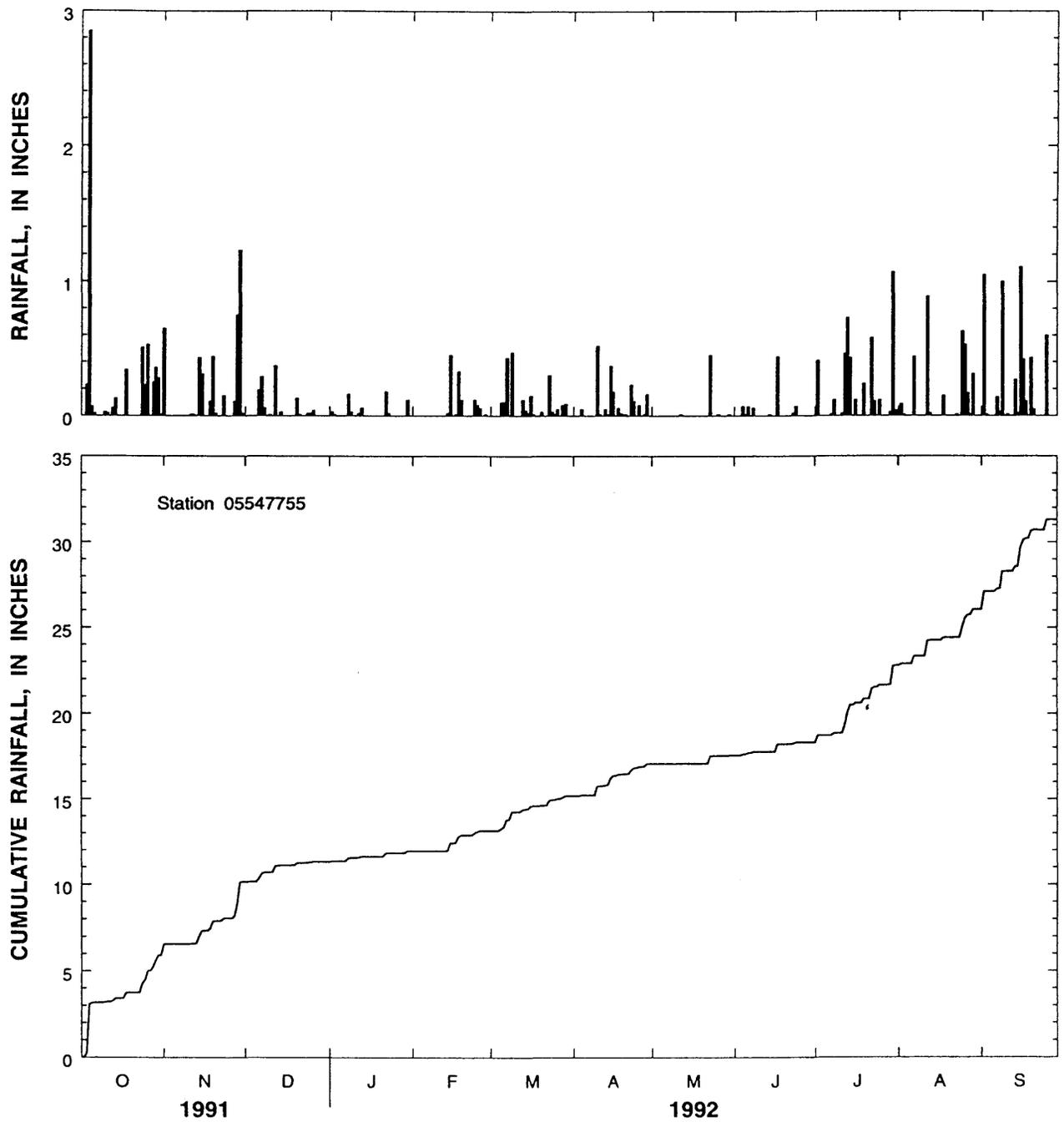


Figure 39. Daily rainfall totals and cumulative rainfall at Squaw Creek at Round Lake, Ill., water year 1992.

05547755 Squaw Creek at Round Lake, Ill.—Continued

Rainfall, in inches, water year October 1991 to September 1992
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.65	0.00	0.00	0.00	0.00	s0.00	0.00	0.00	0.00	0.00	0.00
2	.00	s.00	.00	.03	.00	.00	s.00	.00	.00	.41	.09	1.05
3	.23	s.00	s.00	.01	.00	.00	.00	.00	.00	.00	.01	.01
4	2.85	s.00	s.00	.00	.00	.00	.05	.00	.07	.00	.00	.00
5	.07	.00	s.00	.00	.00	.10	.00	.00	.01	.00	.00	.00
6	.02	.00	.19	.00	.00	.10	.00	.00	.07	.00	.00	.00
7	.00	.00	.29	.00	s.00	.43	.00	.00	.00	.01	.44	.14
8	.00	.00	.06	.16	s.00	.00	.00	.00	.06	.12	.00	.03
9	.00	.00	.00	.03	.00	.47	.00	.00	.00	.00	.00	1.00
10	.03	.00	.01	s.00	s.00	s.00	.52	.00	.00	.00	.00	.00
11	.02	s.01	.00	.00	s.00	.00	.01	.00	.00	.02	.00	.01
12	.00	s.01	.37	.02	s.00	.00	.00	.01	.00	.46	.89	.00
13	.06	s.00	.00	.06	s.00	.12	.05	.00	.00	.73	.02	.00
14	.13	.43	.03	s.00	s.02	s.04	.01	.00	.01	.43	.00	.27
15	.00	.31	s.00	s.00	s.45	.02	.37	.00	.00	.00	.00	.02
16	.00	.00	s.00	s.00	.00	.15	.18	.00	.00	.12	.00	1.11
17	.00	.00	.00	.00	.01	.01	.00	.00	.44	.00	.00	.42
18	.34	.11	.00	.00	s.33	.00	.06	.00	.00	.00	.15	.11
19	.00	.44	.00	.00	s.12	.00	.02	.00	.00	.24	.00	.00
20	.00	.02	.13	.00	s.00	.03	.01	.00	.00	.00	.00	.43
21	.00	.00	s.01	.00	.00	s.00	.01	.00	.00	.00	.00	.05
22	.00	.00	.00	.18	.00	s.00	.00	.00	.00	.58	.00	.00
23	.00	s.15	.00	.02	.00	.30	.23	.45	.02	.11	.01	.00
24	.51	s.00	.02	s.00	s.12	.03	.11	.00	.07	.00	.00	.00
25	.23	s.00	.02	s.00	s.08	.01	.00	.00	.00	.12	.63	.00
26	.53	.00	.04	s.00	.06	s.05	.08	.01	.00	.00	.53	.60
27	.00	s.11	.00	.00	.00	s.00	.00	.00	.00	.00	.17	.00
28	.25	s.75	.00	.00	s.01	.08	.01	.00	.00	.00	.01	.00
29	.36	1.23	.00	.00	s.00	.09	.16	.00	.00	.03	.31	.00
30	.28	.02	.00	.12	--	.00	.00	.01	.00	1.07	.00	.00
31	.01	--	.00	.00	--	.00	--	.00	--	.04	.00	--
Total	5.92	4.24	1.17	0.63	1.20	2.03	1.88	0.48	0.75	4.49	3.26	5.25

s Snowfall-affected precipitation.

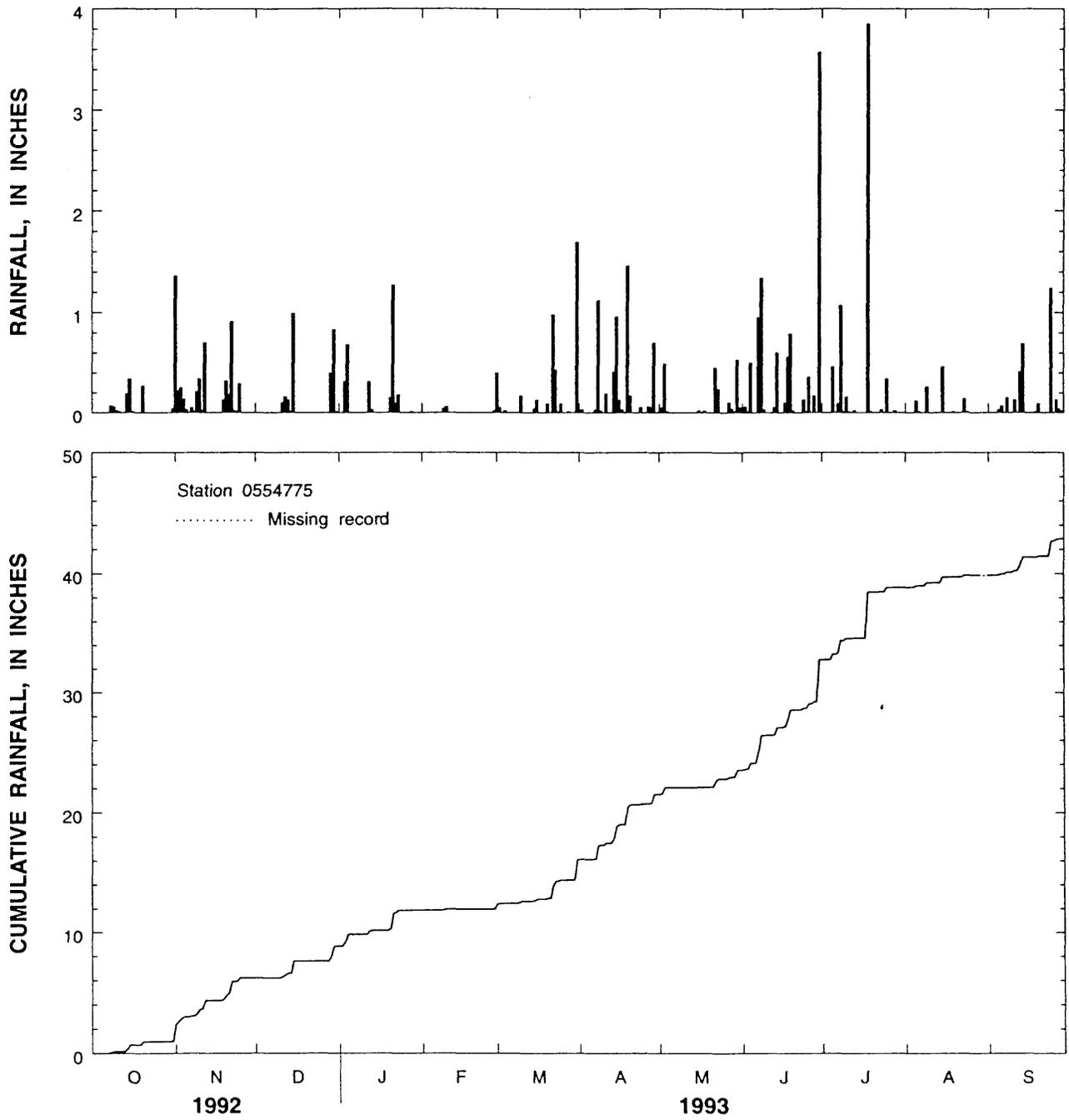


Figure 40. Daily rainfall totals and cumulative rainfall at Squaw Creek at Round Lake, Ill., water year 1993.

05547755 Squaw Creek at Round Lake, Ill.—Continued

Rainfall, in inches, water year October 1992 to September 1993
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.36	s.00	0.00	0.00	0.40	0.01	0.01	0.00	0.00	0.00	0.00
2	.00	.22	s.00	s.00	s.00	.05	.03	.05	.06	.00	.00	.00
3	.00	s.25	.00	s.31	s.00	.00	.00	.49	.01	.00	.00	.00
4	.00	s.14	s.00	s.68	s.00	s.02	.00	.01	.50	.00	.00	.00
5	.00	s.03	.00	s.00	s.00	s.00	.00	.00	.00	.46	.12	.03
6	.00	s.00	.00	s.00	s.00	.00	.00	.00	.00	.00	.01	.07
7	.00	s.05	s.00	s.00	.00	.00	.03	.00	.95	.09	.00	.00
8	.07	s.01	.00	s.00	s.00	.00	1.12	.00	1.34	1.07	.00	.15
9	.06	.21	.00	s.00	s.04	.00	.02	.00	.03	.01	.26	.00
10	.02	.34	s.00	s.00	s.06	s.17	.00	.00	.00	.16	.00	.00
11	.01	.02	.10	s.00	s.00	s.00	.19	.00	.00	.01	.00	.13
12	.00	s.70	.16	s.31	s.00	s.00	.00	.00	.00	.00	.00	.00
13	.00	s.00	.13	s.03	s.00	s.00	.00	.00	.05	.02	.00	.41
14	.19	s.00	.01	s.00	s.00	s.00	.41	.00	.60	.00	.00	.69
15	.34	s.00	.99	s.00	.00	.04	.96	.00	.00	.00	.46	.00
16	.01	.00	.00	s.00	s.00	.13	.13	.02	.00	.00	.00	.00
17	.00	.00	s.00	.00	s.00	.00	.03	.00	.10	.00	.00	.00
18	.00	.00	.00	s.00	.00	s.00	.00	.02	.56	3.85	.00	.00
19	s.00	.13	.00	s.00	.00	.00	1.46	.00	.79	.01	.01	.01
20	s.27	.32	.00	.15	s.00	s.09	.17	.00	.02	.00	.00	.09
21	.00	.18	.00	1.27	s.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.91	.00	s.09	s.00	s.98	.00	.45	.00	.00	.00	.00
23	.00	.02	.00	s.18	s.00	.43	.00	.24	.00	.03	.14	.00
24	.00	.01	s.00	.00	.00	.01	.05	.00	.13	.00	.01	.00
25	.00	.29	.00	.00	s.00	.09	.00	.00	.01	.34	.00	1.24
26	.00	.00	.00	s.00	s.00	.00	.00	.00	.36	.00	.00	.00
27	.00	.00	.00	s.00	.00	.00	.06	.10	.00	.00	.00	.13
28	.00	.00	.00	s.01	.02	.01	.05	.04	.17	.02	.00	.04
29	.00	.00	.40	s.00	--	.00	.70	.01	.00	.00	m	.02
30	.00	.00	.83	.00	--	.00	.00	.53	3.57	.00	m	.00
31	.04	--	.01	.00	--	1.69	--	.05	--	.00	p.00	--
Total	1.01	5.19	2.63	3.03	0.12	4.11	5.42	2.02	9.25	6.07	--	3.01

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

Nippersink Creek near Spring Grove, Ill.

Site identifier.--11

Station number.--05548280

Location.--Latitude 42°26'37", longitude 88°14'51", in NE~~NW~~ sec.25, T.46 N., R.8 E., McHenry County, Hydrologic Unit 07120006, on right bank at upstream side of bridge on Winn Road, 0.6 mi west of Spring Grove (Fox Lake 7.5-minute quadrangle).

To reach gage.--From intersection of U.S. Highway 12 and Winn Road, drive north on Winn Road for 0.5 mi to gage. From intersection of State Route (SR) 173 and Winn Road, drive 1.5 mi south to gage.

Drainage basin.--Nippersink Creek.

Gage.--An 8-in.-diameter, unheated, tipping-bucket rain gage with a multiparameter electronic data logger mounted on a 2-in. pipe attached to the right upstream bridge wingwall.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--March 13, 1991, to present. Periods of missing record exist due to equipment-related problems.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Lake County Stormwater Management Commission.

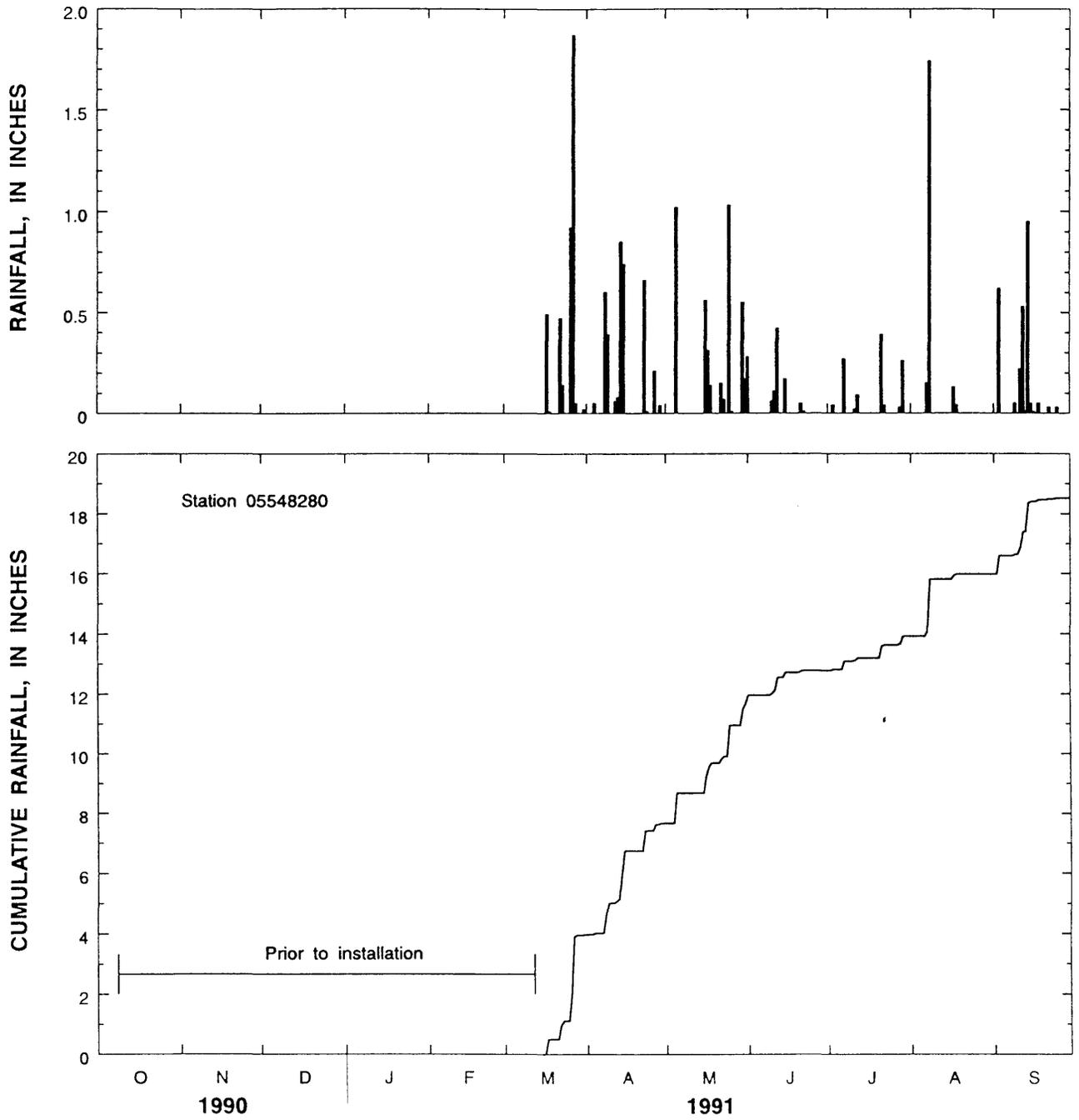


Figure 41. Daily rainfall totals and cumulative rainfall at Nippersink Creek near Spring Grove, Ill., water year 1991.

05548280 Nippersink Creek near Spring Grove, Ill.—Continued

Rainfall, in inches, water year October 1990 to September 1991
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	--	--	--	0.00	0.00	0.28	0.00	0.00	0.00
2	--	--	--	--	--	--	.00	.00	.00	.00	.00	.00
3	--	--	--	--	--	--	.00	.00	.00	.04	.00	.62
4	--	--	--	--	--	--	.05	.00	.00	.00	.00	.00
5	--	--	--	--	--	--	.00	1.02	.00	.00	.00	.00
6	--	--	--	--	--	--	.00	.00	.00	.00	.00	.00
7	--	--	--	--	--	--	.00	.00	.00	.27	.15	.00
8	--	--	--	--	--	--	.60	.00	.00	.00	1.74	.00
9	--	--	--	--	--	--	.39	.00	.00	.00	.00	.05
10	--	--	--	--	--	--	.00	.00	.06	.00	.00	.00
11	--	--	--	--	--	--	.00	.00	.11	.02	.00	.22
12	--	--	--	--	--	--	.06	.00	.42	.09	.00	.53
13	--	--	--	--	--	p0.00	.08	.00	.00	.00	.00	.01
14	--	--	--	--	--	.00	.85	.00	.00	.00	.00	.95
15	--	--	--	--	--	.00	.74	.00	.17	.00	.00	.05
16	--	--	--	--	--	.00	.00	.56	.00	.00	.00	.01
17	--	--	--	--	--	.49	.00	.31	.00	.00	.13	.00
18	--	--	--	--	--	.01	.00	.14	.00	.00	.04	.05
19	--	--	--	--	--	.00	.00	.00	.00	.00	.00	.00
20	--	--	--	--	--	.00	.00	.00	.00	.00	.00	.00
21	--	--	--	--	--	.00	.00	.00	.05	.39	.00	.00
22	--	--	--	--	--	.47	.00	.15	.01	.04	.00	.03
23	--	--	--	--	--	.14	.66	.07	.00	.00	.00	.00
24	--	--	--	--	--	.00	.01	.00	.00	.00	.00	.00
25	--	--	--	--	--	.00	.00	1.03	.00	.00	.00	.03
26	--	--	--	--	--	.92	.00	.01	.00	.00	.00	.00
27	--	--	--	--	--	1.87	.21	.00	.00	.00	.00	.00
28	--	--	--	--	--	.05	.00	.00	.00	.03	.00	.00
29	--	--	--	--	--	.00	.04	.00	.00	.26	.00	.00
30	--	--	--	--	--	.00	.00	.55	.00	.00	.00	.00
31	--	--	--	--	--	s.02	--	.17	--	.00	.00	--
Total	--	--	--	--	--	--	3.69	4.01	1.10	1.14	2.06	2.55

p Partial record.

s Snowfall-affected precipitation.

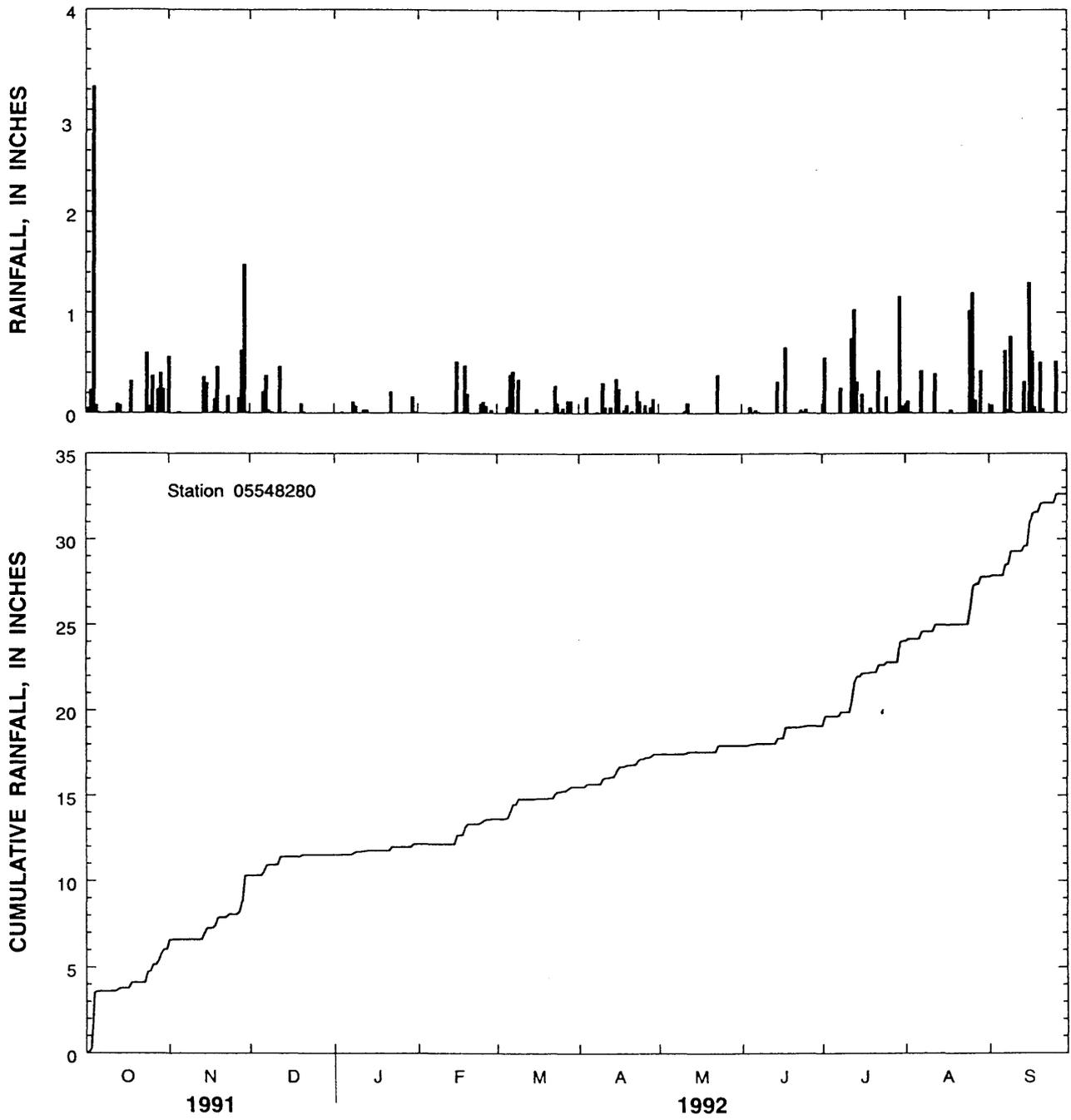


Figure 42. Daily rainfall totals and cumulative rainfall at Nippersink Creek near Spring Grove, Ill., water year 1992.

05548280 Nippersink Creek near Spring Grove, Ill.—Continued

Rainfall, in inches, water year October 1991 to September 1992
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.56	0.00	0.00	0.00	0.00	s0.00	0.00	0.00	0.00	0.00	0.00
2	.05	s.00	.00	.00	.00	.00	s.00	.00	.00	.55	.12	.08
3	.23	s.00	s.00	.00	.00	.00	.00	.00	.00	.00	.01	.00
4	3.23	s.00	s.00	.01	.00	.00	.16	.00	.06	.00	.00	.00
5	.08	.01	s.00	.00	.00	.06	.00	.00	.00	.00	.00	.00
6	.01	.00	.21	.00	.00	.38	.00	.00	.03	.00	.00	.00
7	.00	.00	.37	.00	s.00	.41	.00	.00	.01	.00	.42	.62
8	.00	.00	.03	.11	s.00	.00	.01	.00	.00	.25	.00	.03
9	.00	.00	.01	.07	.00	.33	.00	.00	.00	.00	.00	.76
10	.01	.00	.00	s.00	s.00	s.00	.30	.00	.00	.00	.00	.01
11	.01	s.00	.00	.00	s.00	.00	.06	.02	.00	.00	.00	.00
12	.00	s.00	.46	.03	s.00	.00	.00	.10	.00	.74	.39	.00
13	.09	s.00	.00	.03	s.00	.00	.06	.00	.00	1.03	.00	.00
14	.08	.36	.01	s.00	s.01	s.00	.00	.00	.31	.31	.00	.31
15	.00	.30	s.00	s.00	s.51	.00	.34	.00	.00	.00	.00	.01
16	.00	.00	s.00	s.00	.00	.04	.24	.00	.00	.19	.00	1.30
17	.00	.01	.00	.00	.01	.00	.00	.00	.65	.00	.00	.61
18	.32	.14	.00	.00	s.47	.00	.03	.00	.00	.00	.03	.06
19	.00	.46	.00	.00	s.19	.00	.08	.00	.00	.05	.00	.00
20	.00	.01	.09	.00	s.00	.01	.00	.00	.00	.00	.00	.50
21	.00	.00	s.01	.00	.00	s.00	.02	.00	.00	.00	.00	.04
22	.00	.01	.00	.21	.00	s.00	.00	.00	.00	.42	.00	.00
23	.00	s.17	.00	.00	.00	.27	.22	.38	.03	.01	.00	.00
24	.60	s.00	.00	s.00	s.09	.10	.12	.00	.01	.00	.00	.00
25	.07	s.00	.00	s.00	s.11	.01	.00	.00	.04	.16	1.02	.00
26	.37	.00	.00	s.00	.07	s.05	.08	.00	.00	.00	1.20	.51
27	.00	s.15	.00	.00	.00	s.00	.00	.00	.00	.00	.13	.01
28	.24	s.62	.00	.00	s.03	.12	.06	.00	.00	.00	.00	.00
29	.40	1.48	.00	.00	s.00	.12	.14	.00	.00	.01	.42	.00
30	.24	.01	.00	.16	--	.00	.00	.00	.00	1.16	.00	.00
31	.00	--	.00	.01	--	.00	--	.00	--	.07	.00	--
Total	6.03	4.29	1.19	0.63	1.49	1.90	1.92	0.50	1.14	4.95	3.74	4.85

s Snowfall-affected precipitation.

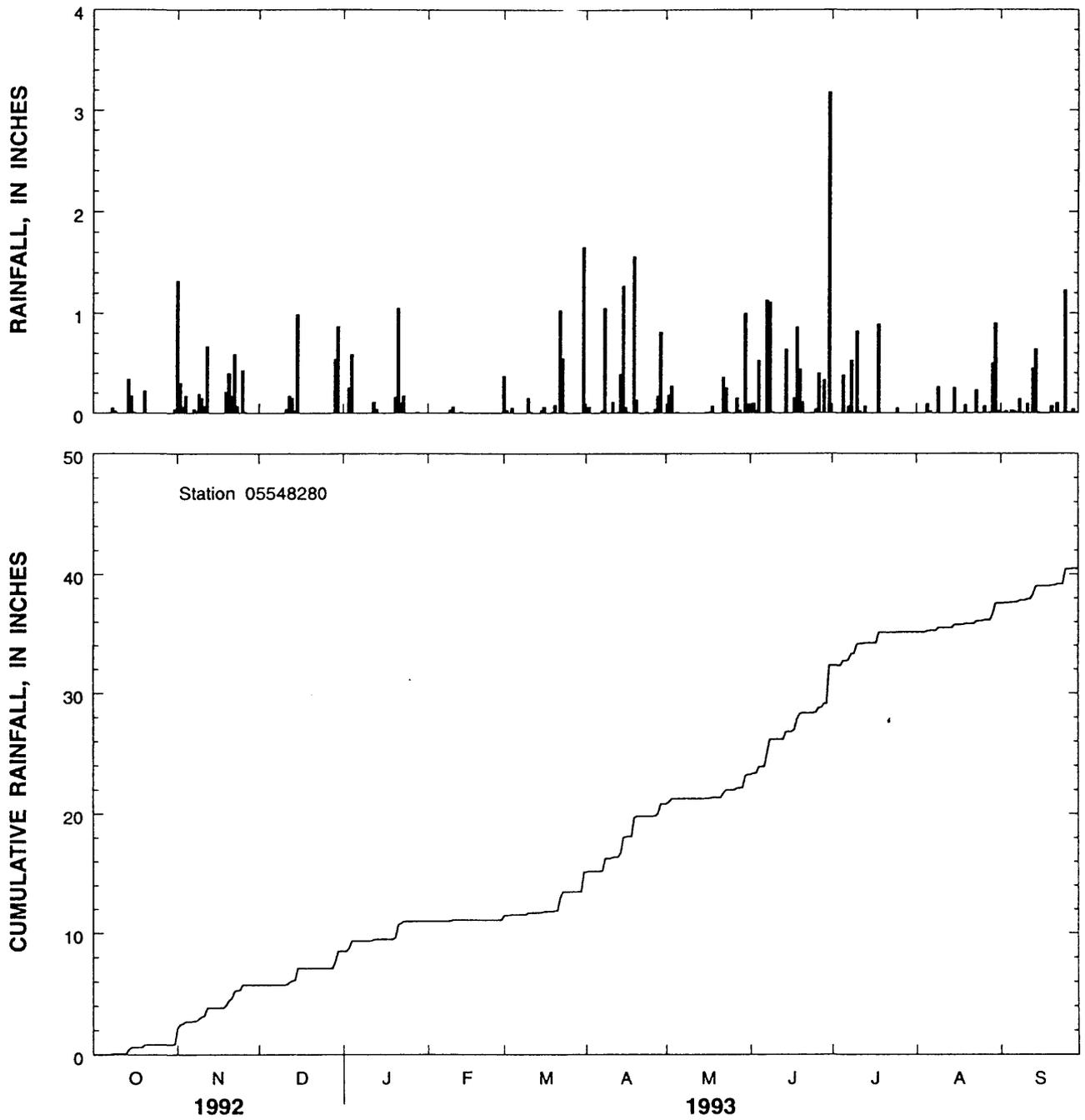


Figure 43. Daily rainfall totals and cumulative rainfall at Nippersink Creek near Spring Grove, Ill., water year 1993.

05548280 Nippersink Creek near Spring Grove, Ill.—Continued

Rainfall, in inches, water year October 1992 to September 1993
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.32	s0.00	0.00	0.00	0.37	0.01	0.00	0.01	0.00	0.00	0.00
2	.00	.30	s.00	s.00	s.00	.03	.06	.18	.10	.00	.00	.01
3	.00	s.06	.00	s.25	s.00	.00	.00	.27	.02	.00	.00	.02
4	.00	s.17	s.00	s.59	s.00	s.05	.00	.00	.53	.00	.00	.00
5	.00	s.00	.00	s.00	s.00	s.00	.00	.01	.00	.38	.09	.03
6	.00	s.00	.00	s.00	s.00	.00	.00	.00	.00	.00	.02	.02
7	.00	s.04	s.00	s.00	.00	.00	.02	.00	1.13	.07	.00	.01
8	.05	s.02	.00	s.00	s.00	.00	1.05	.00	1.11	.53	.00	.14
9	.02	.19	.00	s.00	s.03	.00	.00	.00	.01	.00	.26	.01
10	.00	.15	s.00	s.00	s.06	s.15	.00	.00	.00	.82	.00	.00
11	.00	.07	.04	s.00	s.00	s.01	.11	.00	.00	.02	.00	.09
12	.00	s.67	.17	s.11	s.00	s.00	.00	.00	.00	.00	.00	.00
13	.00	s.00	.15	s.04	s.01	s.00	.01	.00	.00	.07	.00	.45
14	.34	s.00	.02	s.00	s.00	s.00	.39	.00	.64	.00	.00	.64
15	.17	s.00	.99	s.00	.00	.03	1.27	.00	.00	.00	.25	.01
16	.01	.00	.00	s.00	s.00	.06	.06	.01	.00	.00	.00	.00
17	.00	.00	s.00	.00	s.00	.00	.01	.01	.15	.00	.00	.00
18	.00	.00	.00	s.00	.00	s.00	.00	.07	.86	.89	.00	.00
19	s.00	.21	.00	s.00	.00	.01	1.56	.00	.44	.00	.08	.00
20	s.22	.40	.00	.16	s.00	s.08	.13	.00	.11	.00	.00	.07
21	.00	.17	.00	1.05	s.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.59	.00	s.10	s.00	s1.03	.00	.36	.00	.00	.00	.10
23	.00	.07	.00	s.17	s.00	.55	.00	.25	.00	.00	.23	.00
24	.00	.00	s.00	.00	.00	.01	.01	.01	.00	.00	.00	.00
25	.00	.43	.00	.00	s.00	.00	.00	.00	.04	.05	.00	1.23
26	.00	.01	.00	s.00	s.00	.00	.00	.00	.40	.00	.07	.01
27	.00	.00	.00	s.00	.00	.00	.04	.15	.00	.00	.00	.01
28	.00	.00	.00	s.01	.00	.00	.17	.03	.33	.00	.01	.04
29	.00	.00	.54	s.00	--	.00	.81	.00	.00	.00	.50	.01
30	.00	.00	.87	.00	--	.00	.00	1.00	3.18	.00	.90	.00
31	.04	--	.00	.00	--	1.65	--	.09	--	.00	.02	--
Total	0.85	4.87	2.78	2.48	0.10	4.03	5.71	2.44	9.06	2.83	2.43	2.90

s Snowfall-affected precipitation.

Lakeview Plaza Ditch at Lake Zurich, Ill.

Site identifier.--12

Station number.--05549835

Location.--Latitude 42°11'43", longitude 88°06'45", in NE~~NW~~ sec.19, T.43 N., R.10 E., Lake County, Hydrologic Unit 07120006, at storm sewer outlet near retention pond, 200 ft west of Lakeview Plaza Shopping Center on U.S. Highway 12, 500 ft west of Lake Zurich (Lake Zurich 7.5-minute quadrangle).

To reach gage.--From the intersection of State Highway 22 and U.S. Highway 12, drive north on U.S. Highway 12 approximately 0.4 mi to Lakeview Plaza Shopping Center. The gage is located in the fenced enclosure west of the shopping center. Access to the gage is through a hinged gate in the fence.

Drainage basin.--Fox River.

Gage.--An 8-in.-diameter, unheated, tipping-bucket rain gage mounted on a 2-in.-diameter steel post approximately 4 ft above the ground. An electronic data logger, housed inside a weatherproof electrical enclosure, is mounted on the steel post below the rain gage.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--April 8, 1991, to present. Periods of missing record exist due to equipment-related problems.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Lake County Stormwater Management Commission.

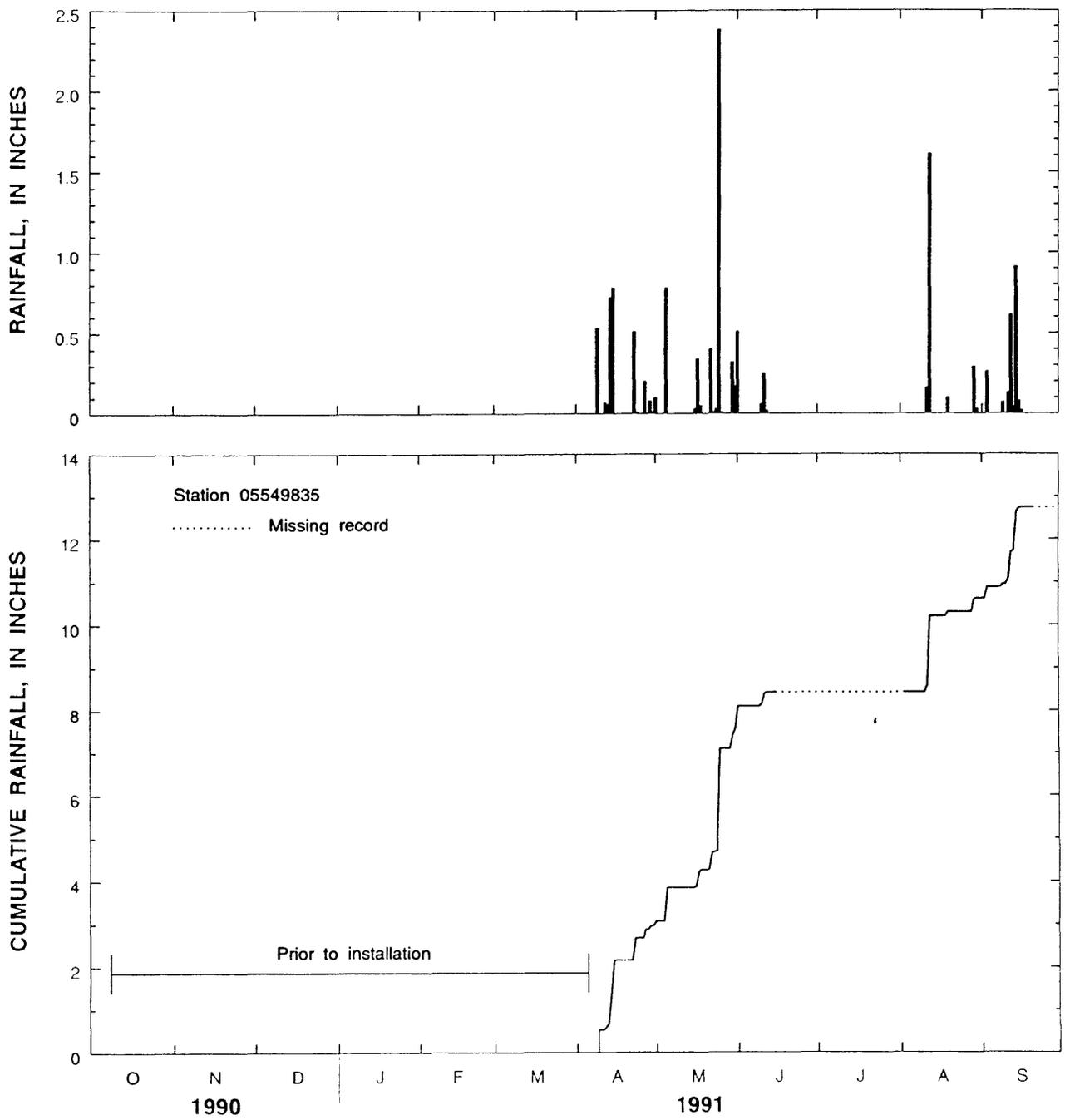


Figure 44. Daily rainfall totals and cumulative rainfall at Lakeview Plaza Ditch at Lake Zurich, Ill., water year 1991.

05549835 Lakeview Plaza Ditch at Lake Zurich, Ill.—Continued

Rainfall, in inches, water year October 1990 to September 1991
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	--	--	--	--	0.10	0.51	m	0.00	0.00
2	--	--	--	--	--	--	--	.00	.00	m	.00	.00
3	--	--	--	--	--	--	--	.00	.00	m	.00	.26
4	--	--	--	--	--	--	--	.00	.00	m	.00	.00
5	--	--	--	--	--	--	--	.78	.00	m	.00	.00
6	--	--	--	--	--	--	--	.00	.00	m	.00	.00
7	--	--	--	--	--	--	--	.00	.00	m	.00	.00
8	--	--	--	--	--	--	p0.00	.00	.00	m	.00	.00
9	--	--	--	--	--	--	.53	.00	.00	m	.00	.07
10	--	--	--	--	--	--	.00	.00	.06	m	.00	.00
11	--	--	--	--	--	--	.00	.00	.25	m	.16	.13
12	--	--	--	--	--	--	.07	.00	.02	m	1.61	.61
13	--	--	--	--	--	--	.06	.00	.00	m	.00	.04
14	--	--	--	--	--	--	.72	.00	m	m	.00	.91
15	--	--	--	--	--	--	.78	.00	m	m	.00	.08
16	--	--	--	--	--	--	p.00	.03	m	m	.00	.02
17	--	--	--	--	--	--	m	.34	m	m	.00	p.00
18	--	--	--	--	--	--	p.00	.05	m	m	.00	m
19	--	--	--	--	--	--	.00	.00	m	m	.10	m
20	--	--	--	--	--	--	.00	.00	m	m	.00	m
21	--	--	--	--	--	--	.00	.00	m	m	.00	m
22	--	--	--	--	--	--	.00	.40	m	m	.00	m
23	--	--	--	--	--	--	.51	.01	m	m	.00	m
24	--	--	--	--	--	--	.01	.03	m	m	.00	m
25	--	--	--	--	--	--	.00	2.38	m	m	.00	m
26	--	--	--	--	--	--	.00	.01	m	m	.00	m
27	--	--	--	--	--	--	.20	.00	m	m	.00	m
28	--	--	--	--	--	--	.00	.00	m	m	.00	m
29	--	--	--	--	--	--	.08	.00	m	m	.29	m
30	--	--	--	--	--	--	.01	.32	m	m	.03	m
31	--	--	--	--	--	--	--	.17	--	m	.00	--
Total	--	--	--	--	--	--	--	4.62	--	--	2.19	--

m Missing record.

p Partial record.

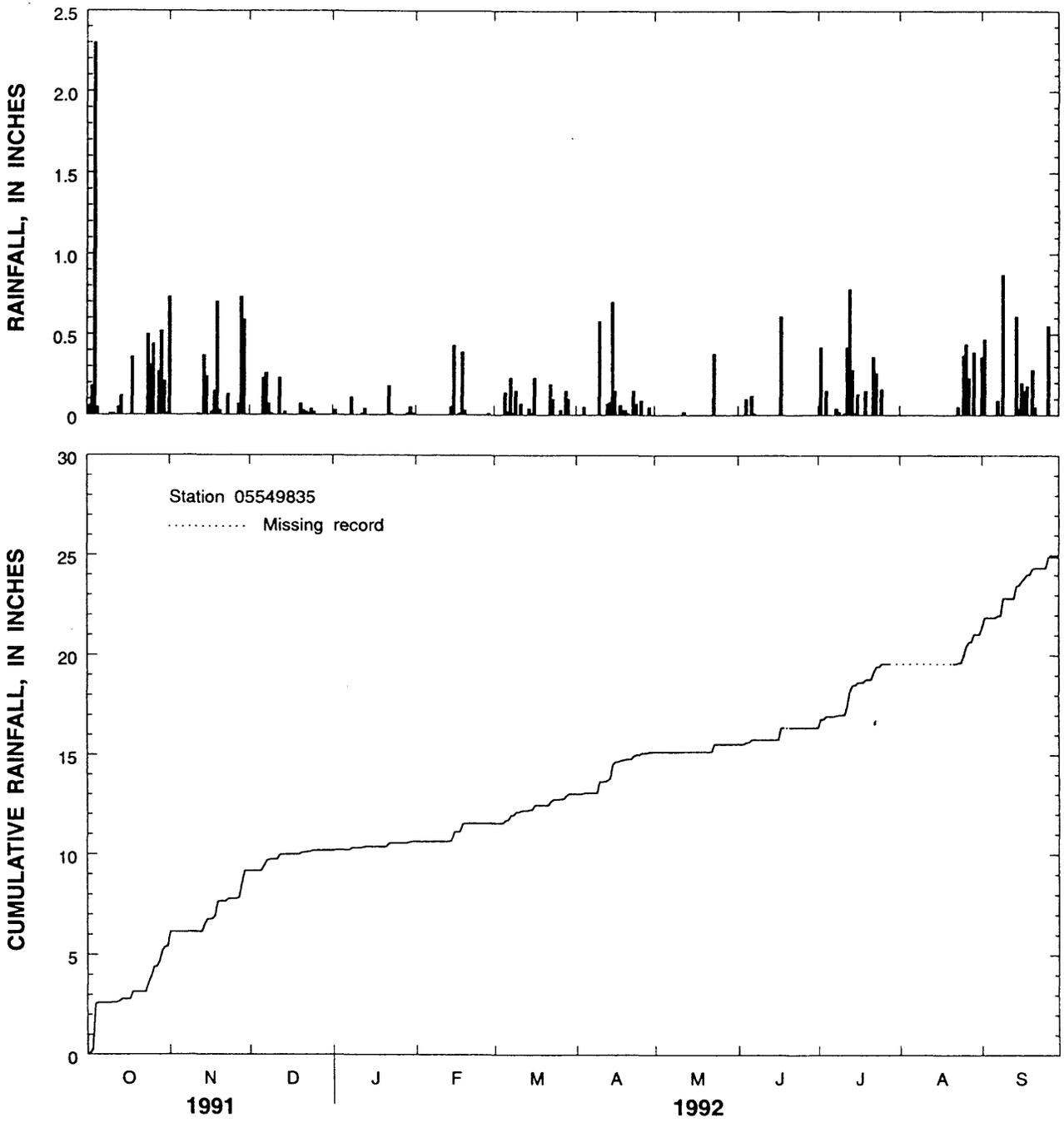


Figure 45. Daily rainfall totals and cumulative rainfall at Lakeview Plaza Ditch at Lake Zurich, Ill., water year 1992.

05549835 Lakeview Plaza Ditch at Lake Zurich, Ill.—Continued

Rainfall, in inches, water year October 1991 to September 1992
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	p0.00	0.73	0.00	0.00	0.00	0.00	s0.00	0.00	0.00	0.00	m	0.36
2	.06	s.00	.00	.03	.00	.00	s.00	.00	.00	.42	m	.47
3	.18	s.00	s.00	.00	.00	.00	.00	.00	.00	.00	m	.00
4	2.30	s.00	s.00	.00	.00	.00	.05	.00	.10	.15	m	.00
5	.05	.00	s.00	.00	.00	.14	.00	.00	.00	.00	m	.00
6	.00	.00	.23	.00	.00	.02	.00	.00	.12	.00	m	.00
7	.00	.00	.26	.00	s.00	.23	.00	.00	.01	.00	m	.09
8	.00	.00	.07	.11	s.00	.01	.00	.00	.00	.04	m	.00
9	.00	.00	.01	.00	.00	.15	.00	.00	.00	.02	m	.87
10	.01	.00	.00	s.00	s.00	s.00	.58	.00	.00	.00	m	.00
11	.01	s.00	.00	.00	s.00	.07	.00	.00	.00	.01	m	.00
12	.00	s.01	.23	.01	s.00	.00	.00	.02	.00	.42	m	.00
13	.05	s.00	.00	.04	s.00	.00	.07	.00	.00	.78	m	.00
14	.12	.37	.02	s.00	s.05	s.04	.08	.00	.00	.28	m	.61
15	.00	.24	s.00	s.00	s.43	.01	.70	.00	.00	.01	m	.04
16	.00	.00	s.00	s.00	.00	.23	.15	.00	.00	.13	m	.20
17	.00	.02	.00	.00	.01	.00	.00	.00	.61	.00	m	.15
18	.36	.15	.00	.00	s.39	.00	.06	.00	.00	.00	p0.00	.18
19	.00	.70	.00	.00	s.03	.00	.03	.00	.00	.15	.00	.00
20	.00	.03	.07	.00	s.00	.00	.03	.00	.00	.00	.00	.28
21	.00	.00	s.03	.00	.00	s.00	.01	.00	.00	.00	.00	.05
22	.00	.00	.02	.18	.00	s.19	.00	.00	.00	.36	.00	.00
23	.00	s.13	.01	.01	.00	.10	.15	.38	.00	.26	.05	.00
24	.50	s.00	.04	s.00	s.00	.00	.07	.00	.00	.00	.00	.00
25	.31	s.00	.02	s.00	s.00	.00	.00	.00	.00	.16	.37	.00
26	.44	.00	.00	s.00	.00	s.03	.09	.00	.00	.00	.44	.55
27	.00	s.07	.00	.00	.00	s.00	.00	.00	.00	.00	.23	.00
28	.27	s.73	.00	.00	s.01	.15	.00	.00	.00	m	.00	.00
29	.52	.59	.00	.01	s.00	.10	.05	.00	.00	m	.39	.00
30	.21	.00	.00	.05	--	.00	.00	.00	.00	m	.00	.00
31	.01	--	.00	.01	--	.00	--	.00	--	m	.00	--
Total	5.40	3.77	1.01	0.45	0.92	1.47	2.12	0.40	0.84	--	--	3.85

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

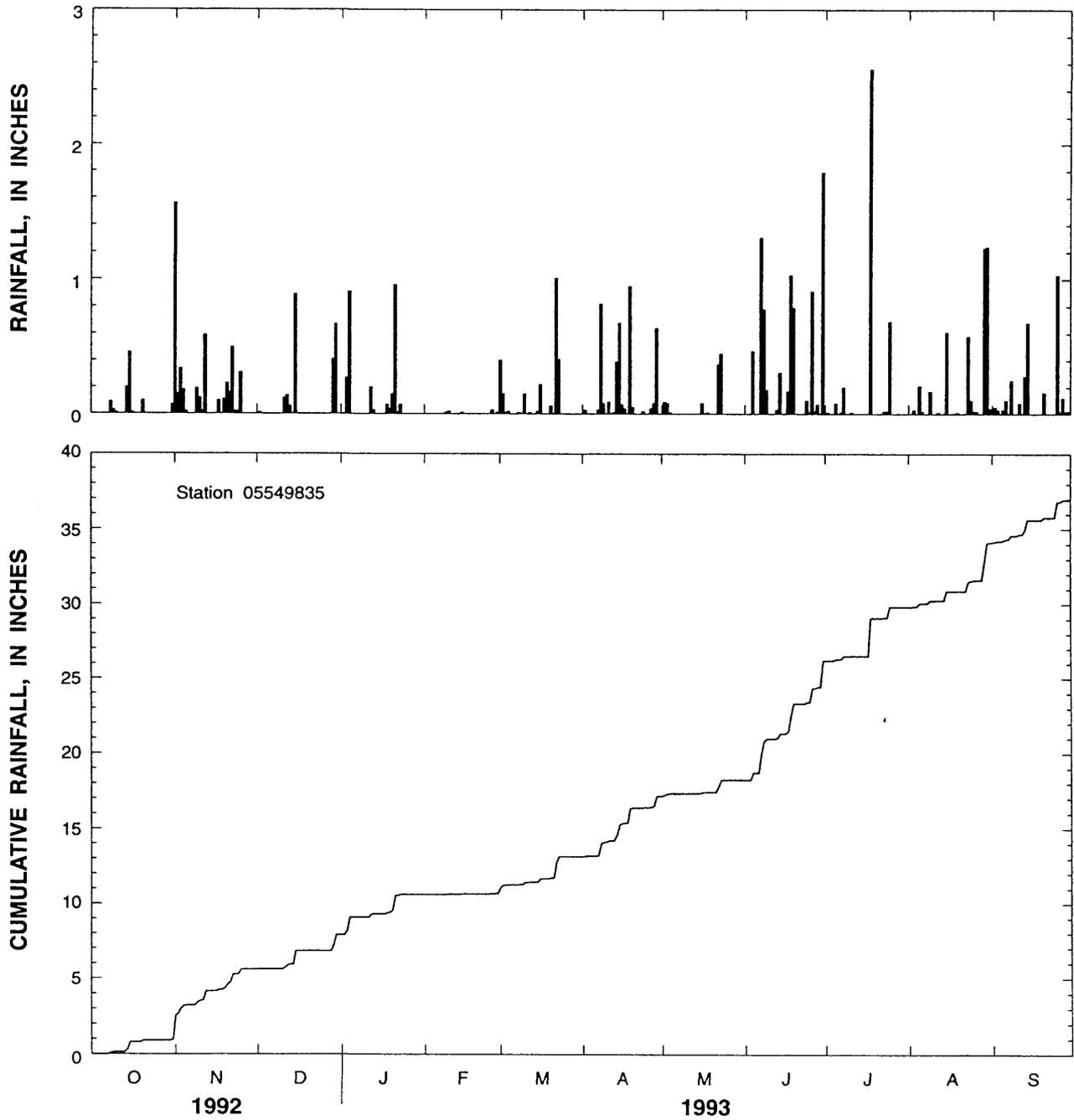


Figure 46. Daily rainfall totals and cumulative rainfall at Lakeview Plaza Ditch at Lake Zurich, Ill., water year 1993.

05549835 Lakeview Plaza Ditch at Lake Zurich, Ill.—Continued

Rainfall, in inches, water year October 1992 to September 1993
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.56	s0.00	0.00	0.00	0.40	0.00	0.00	0.00	0.00	0.00	0.00
2	.00	.15	s.01	s.00	s.00	.15	.03	.09	.00	.01	.00	.05
3	.00	s.34	.00	s.27	s.00	.01	.00	.08	.00	.00	.03	.03
4	.00	s.18	s.00	s.91	s.00	s.02	.00	.01	.47	.00	.00	.00
5	.00	s.02	.00	s.00	s.00	s.00	.00	.00	.00	.08	.21	.03
6	.00	s.00	.00	s.00	s.00	.00	.00	.00	.00	.00	.02	.10
7	.00	s.00	s.00	s.00	.00	.00	.03	.00	1.31	.01	.00	.00
8	.09	s.00	.00	s.00	s.00	.01	.82	.00	.78	.20	.00	.25
9	.03	.19	.00	s.00	s.01	.00	.08	.00	.18	.00	.17	.00
10	.01	.12	s.00	s.00	s.02	s.15	.00	.00	.00	.00	.00	.00
11	.00	.02	.12	s.00	s.00	s.00	.09	.00	.00	.01	.00	.08
12	.00	s.59	.14	s.20	s.00	s.01	.00	.00	.00	.00	.01	.00
13	.00	s.00	.06	s.03	s.00	s.00	.01	.00	.03	.00	.00	.28
14	.20	s.00	.00	s.00	s.00	s.00	.39	.00	.31	.00	.00	.68
15	.46	s.00	.89	s.00	.01	.02	.68	.00	.00	.00	.61	.00
16	.01	.00	.00	s.00	s.00	.22	.07	.08	.00	.00	.00	.00
17	.00	.10	s.00	.00	s.00	.00	.04	.00	.17	.00	.00	.00
18	.00	.00	.00	s.07	.00	s.00	.00	.01	1.03	2.56	.00	.00
19	s.00	.11	.00	s.04	.00	.00	.95	.00	.79	.00	.01	.00
20	s.10	.23	.00	.15	s.00	s.06	.05	.00	.00	.00	.00	.16
21	.00	.16	.00	.96	s.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.50	.00	s.01	s.00	s1.01	.00	.37	.00	.00	.00	.00
23	.00	.02	.00	s.07	s.00	.41	.00	.45	.00	.02	.58	.00
24	.00	.02	s.00	.00	.00	.00	.02	.00	.10	.02	.10	.00
25	.00	.31	.00	.00	s.00	.00	.00	.00	.01	.69	.02	1.03
26	.00	.00	.00	s.00	s.03	.00	.00	.00	.91	.00	.02	.01
27	.00	.00	.00	s.00	.00	.00	.04	.00	.02	.00	.00	.12
28	.00	.00	.00	s.00	.01	.00	.08	.00	.07	.00	.00	.02
29	.00	.00	.41	s.00	--	.00	.64	.00	.00	.00	1.23	.02
30	.00	.00	.67	.00	--	.00	.00	.00	1.79	.00	1.24	.00
31	.07	--	.00	.00	--	m	--	.00	--	.00	.04	--
Total	0.97	4.62	2.30	2.71	0.08	2.47	4.02	1.09	7.97	3.60	4.29	2.86

m Missing record.

s Snowfall-affected precipitation.

Flint Creek near Fox River Grove, Ill.

Site identifier.--13

Station number.--05549850

Location.--Latitude 42°12'40", longitude 88°10'23", in NE~~1~~/~~4~~ sec.15, T.43 N., R.9 E., Lake County, Hydrologic Unit 07120006, on left upstream guardrail of bridge on Kelsey Road, 2.5 mi northeast of Fox River Grove (Barrington 7.5-minute quadrangle).

To reach gage.--From State Highway 22, drive approximately 1.5 mi north on Kelsey Road to gage. From State Highway 59, drive approximately 2.0 mi southwest on Kelsey Road to gage.

Drainage basin.--Flint Creek.

Gage.--An 8-in.-diameter, unheated, tipping-bucket rain gage mounted on a 2-in. galvanized pipe attached to the left upstream guardrail of Kelsey Road Bridge.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--December 6, 1989, to present. Periods of missing record exist due to equipment-related problems.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Lake County Stormwater Management Commission.

Flint Creek near Fox River Grove, Ill.

Site identifier.--13

Station number.--05549850

Location.--Latitude 42°12'40", longitude 88°10'23", in NE~~1~~/~~4~~ sec.15, T.43 N., R.9 E., Lake County, Hydrologic Unit 07120006, on left upstream guardrail of bridge on Kelsey Road, 2.5 mi northeast of Fox River Grove (Barrington 7.5-minute quadrangle).

To reach gage.--From State Highway 22, drive approximately 1.5 mi north on Kelsey Road to gage. From State Highway 59, drive approximately 2.0 mi southwest on Kelsey Road to gage.

Drainage basin.--Flint Creek.

Gage.--An 8-in.-diameter, unheated, tipping-bucket rain gage mounted on a 2-in. galvanized pipe attached to the left upstream guardrail of Kelsey Road Bridge.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--December 6, 1989, to present. Periods of missing record exist due to equipment-related problems.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Lake County Stormwater Management Commission.

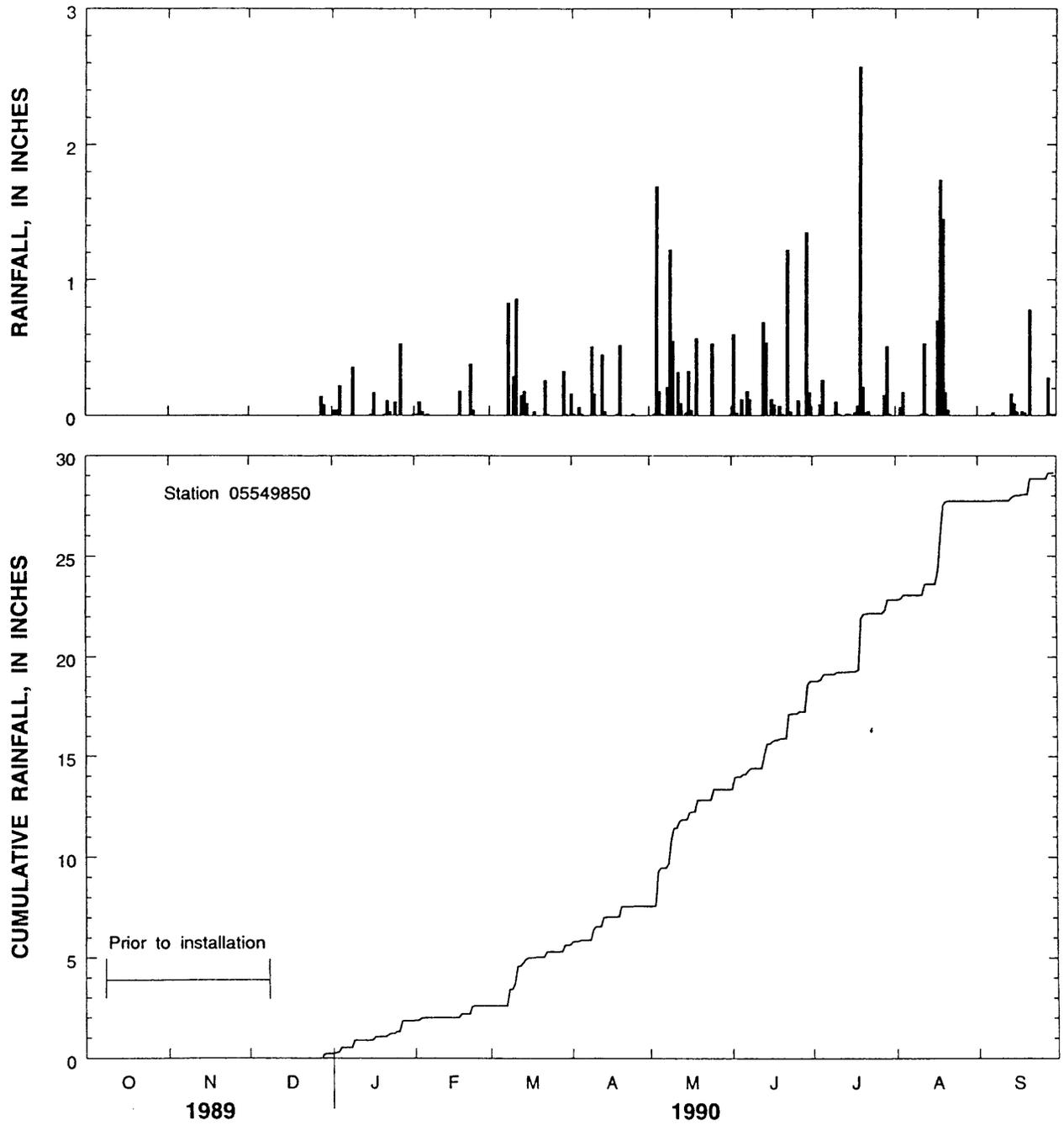


Figure 47. Daily rainfall totals and cumulative rainfall at Flint Creek near Fox River Grove, Ill., water year 1990.

05549850 Flint Creek near Fox River Grove, Ill.—Continued

Rainfall, in inches, water year October 1989 to September 1990
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	s0.00	0.01	0.00	0.16	0.00	0.01	0.00	0.00	0.00
2	--	--	--	.04	s.01	.00	.01	.00	.60	.00	.00	.00
3	--	--	--	.04	s.10	.00	.00	.01	.02	.00	.06	.00
4	--	--	--	.22	.03	.00	.06	1.69	.00	.08	.17	.00
5	--	--	--	.00	.00	.00	s.01	.18	.12	.26	.00	.00
6	--	--	p0.00	.00	.01	.00	s.00	.01	.00	.00	.00	.00
7	--	--	.00	.00	.00	.00	.00	.00	.18	.00	.00	.02
8	--	--	.00	.00	.00	.83	.00	.21	.12	.00	.00	.00
9	--	--	.00	.36	.00	.00	.51	1.22	.00	.00	.00	.00
10	--	--	s.00	.00	.00	.29	.16	.55	.00	.10	.00	.00
11	--	--	s.00	.00	.00	.86	s.00	.00	.00	.01	.01	.00
12	--	--	.00	s.00	.00	.00	s.00	.32	.00	.00	.53	.00
13	--	--	s.00	.00	.00	.15	.45	.09	.69	.00	.01	.00
14	--	--	s.00	.00	.00	.18	.03	.00	.54	.01	.00	.16
15	--	--	s.00	.00	s.00	.09	.00	.02	.00	.01	.00	.09
16	--	--	s.00	.01	s.00	.00	.00	.33	.12	.00	.00	.03
17	--	--	s.00	.17	s.00	.00	.00	.04	.08	.02	.70	.00
18	--	--	s.00	.00	.18	.03	.00	.00	.00	.07	1.74	.03
19	--	--	s.00	.00	.00	.00	.01	.57	.07	2.57	1.45	.02
20	--	--	s.00	s.00	.00	.00	.52	.00	.01	.21	.17	.00
21	--	--	.00	s.01	.00	.00	.00	.00	.00	.02	.04	.78
22	--	--	.00	.11	.38	.26	.00	.00	1.22	.03	.00	.00
23	--	--	.00	.03	s.04	.01	.00	.00	.03	.00	.00	.00
24	--	--	s.00	.00	s.00	.00	.00	.00	.00	.00	.00	.00
25	--	--	s.00	s.10	.00	.00	.01	.53	.00	.00	.00	.00
26	--	--	s.00	s.00	.00	.00	.00	.00	.11	.00	.00	.00
27	--	--	s.00	.53	.00	.00	.00	.00	.00	.00	.00	.00
28	--	--	.14	.00	.00	.00	.00	.00	.00	.15	.00	.28
29	--	--	s.08	.00	--	.33	.00	.00	1.35	.51	.00	.01
30	--	--	s.00	.00	--	.01	.00	.00	.17	.01	.00	.01
31	--	--	.00	.00	--	.00	--	.00	--	.00	.00	--
Total	--	--	--	1.62	0.76	3.04	1.93	5.77	5.44	4.06	4.88	1.43

p Partial record.

s Snowfall-affected precipitation.

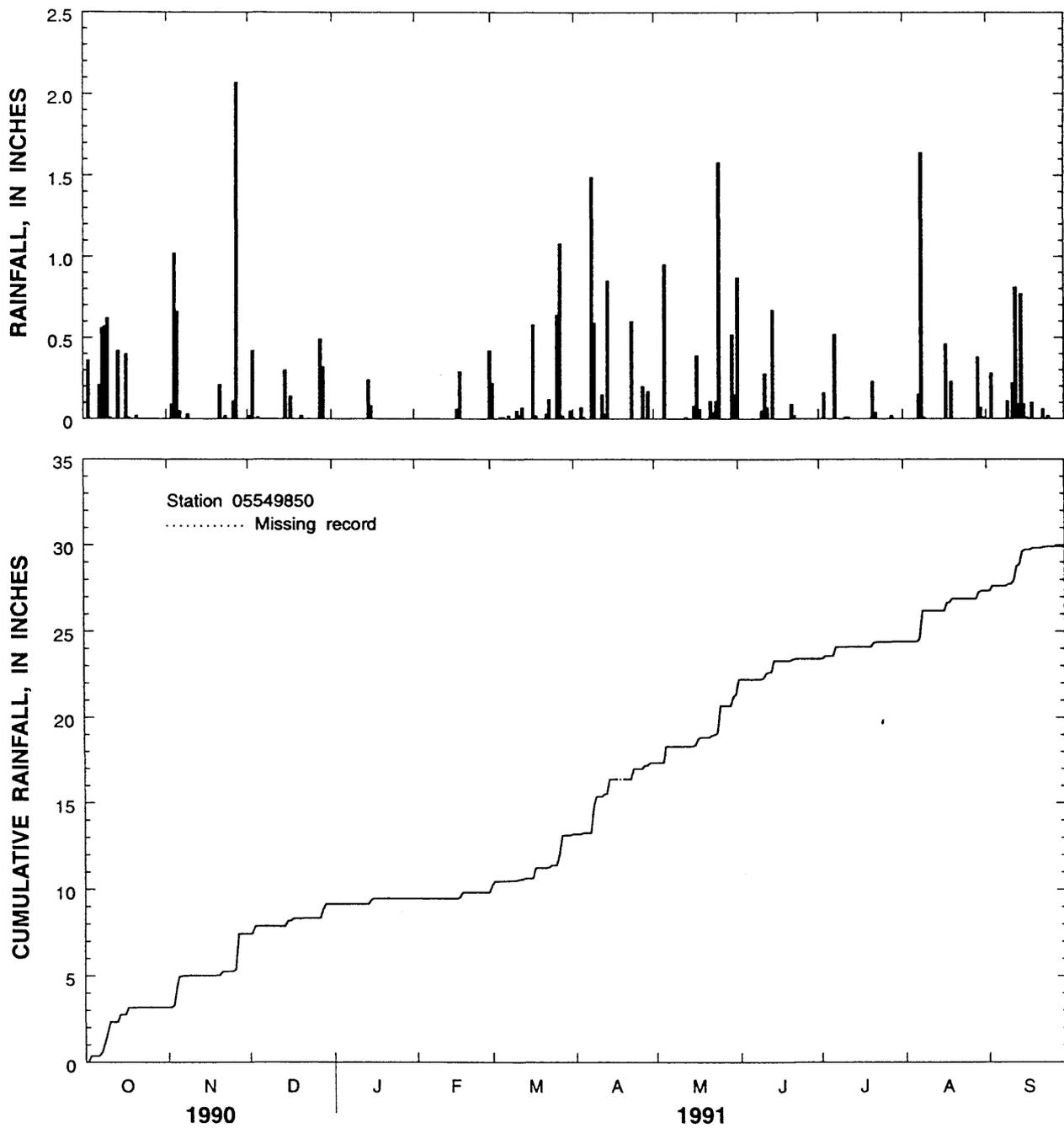


Figure 48. Daily rainfall totals and cumulative rainfall at Flint Creek near Fox River Grove, Ill., water year 1991.

05549850 Flint Creek near Fox River Grove, Ill.—Continued

Rainfall, in inches, water year October 1990 to September 1991
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.00	0.00	0.00	0.00	0.42	0.01	0.00	0.87	0.00	0.00	0.00
2	.00	.00	s.02	.00	.00	.22	.00	.00	.00	.00	.00	.00
3	.36	.09	s.42	s.00	.00	s.00	.00	.00	.00	.16	.00	.28
4	.00	s1.02	s.00	.00	.00	.00	.07	.00	.00	.00	.00	.00
5	.00	s.66	.01	s.00	.00	.01	.01	.95	.00	.00	.00	.00
6	.00	s.05	.00	s.00	.00	.01	.00	.00	.00	.00	.00	.00
7	.21	.00	.00	.00	.00	.00	.00	.00	.00	.52	.15	.00
8	.56	.00	.00	.00	.00	.02	1.49	.00	.00	.00	1.64	.00
9	.57	s.03	.00	s.00	.00	.00	.59	.00	.00	.00	.01	.11
10	.62	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00
11	.01	s.00	.00	s.00	.00	.05	.00	.00	.28	.01	.00	.22
12	.00	.00	.00	s.00	.00	s.02	.15	.00	.07	.01	.00	.81
13	.00	.00	.00	.00	.00	s.07	.03	.01	.00	.00	.00	.09
14	.42	.00	s.00	.00	s.00	.00	p.85	.00	.67	.00	.00	.77
15	.00	.00	s.30	.24	.00	.00	m	.00	.00	.00	.00	.09
16	.00	.00	.00	.08	.00	.00	p.00	.08	.00	.00	.00	.01
17	.40	.00	.14	.00	.06	.58	.00	.39	.00	.00	.46	.00
18	.01	.00	.00	.00	.29	.02	.00	.06	.00	.00	.00	.10
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.23	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.02	.21	.02	s.00	.00	.00	.00	.00	.09	.23	.00	.00
22	.00	.00	.00	.00	.00	.03	.00	.11	.02	.04	.00	.06
23	.00	.02	.00	s.00	.00	.12	.60	.04	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.11	.00	.00	.00	.02
25	.00	.00	.00	.00	.00	.00	.00	1.58	.00	.00	.00	.00
26	.00	.11	.00	.00	.00	.64	.00	.00	.00	.00	.00	.00
27	.00	2.07	s.00	.00	s.00	1.08	.20	.00	.00	.00	.00	.00
28	.00	.00	s.49	.00	.00	.02	.00	.00	.00	.02	.00	.00
29	.00	.00	s.32	.00	--	.00	.17	.00	.00	.00	.38	.00
30	.00	.00	s.00	s.00	--	.00	.00	.52	.00	.00	.07	.00
31	.00	--	s.00	s.00	--	s.05	--	.15	--	.00	.01	--
Total	3.18	4.26	1.72	0.32	0.35	3.36	--	4.00	2.05	0.99	2.95	2.56

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

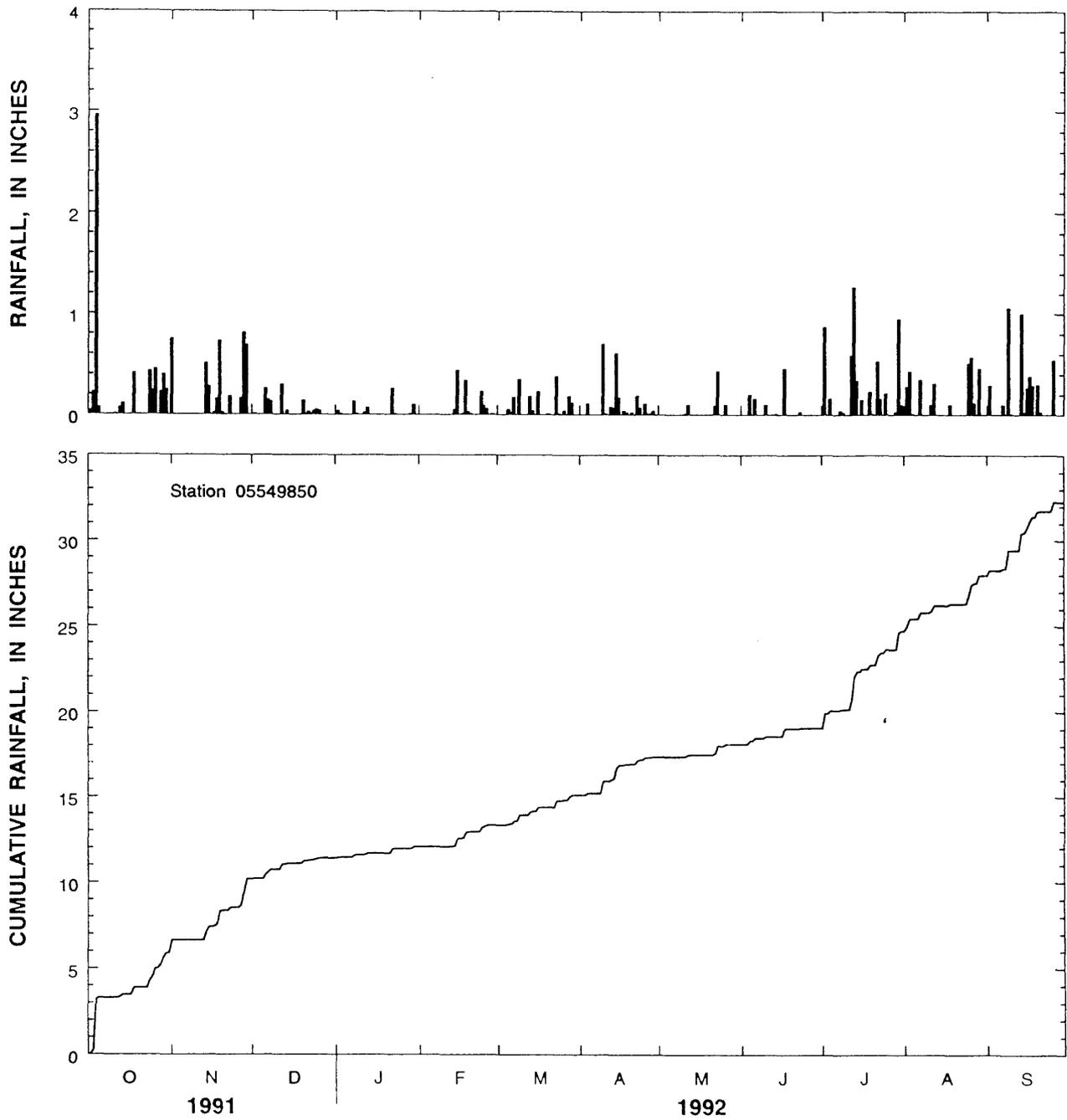


Figure 49. Daily rainfall totals and cumulative rainfall at Flint Creek near Fox River Grove, Ill., water year 1992.

05549850 Flint Creek near Fox River Grove, Ill.—Continued

Rainfall, in inches, water year October 1991 to September 1992
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.75	0.00	0.00	0.00	0.00	s0.00	0.00	0.00	0.00	0.00	0.00
2	.04	s.00	.01	.04	.00	.00	s.00	.00	.00	.87	.28	.29
3	.22	s.00	s.00	.01	.00	.00	.00	.00	.00	.00	.43	.00
4	2.96	s.00	s.00	.00	.00	.00	.11	.00	.20	.16	.01	.00
5	.07	.00	s.00	.00	.00	.05	.00	.00	.00	.00	.00	.00
6	.00	.00	.26	.00	.00	.02	.00	.00	.16	.00	.00	.00
7	.00	.00	.15	.00	s.00	.17	.00	.00	.00	.00	.35	.10
8	.00	.00	.13	.13	s.00	.00	.00	.00	.00	.04	.00	.01
9	.00	.00	.00	.01	.00	.35	.00	.00	.00	.02	.00	1.06
10	.00	.00	.00	s.00	s.00	s.00	.70	.00	.10	.00	.00	.01
11	.01	s.00	.00	.00	s.00	.00	.01	.01	.00	.00	.10	.00
12	.00	s.00	.30	.02	s.00	.00	.00	.10	.00	.59	.31	.00
13	.07	s.00	.00	.07	s.00	.18	.08	.00	.00	1.27	.00	.00
14	.11	.51	.04	s.00	s.05	s.04	.07	.00	.01	.34	.00	1.00
15	.00	.28	s.00	s.00	s.44	.00	.61	.00	.00	.00	.00	.02
16	.00	.00	s.00	s.00	.00	.23	.17	.00	.00	.15	.00	.27
17	.00	.02	.00	.00	.01	.00	.00	.00	.46	.00	.00	.38
18	.41	.16	.00	.00	s.34	.00	.04	.00	.00	.00	.10	.29
19	.00	.73	.00	.00	s.03	.00	.02	.00	.00	.23	.00	.00
20	.00	.02	.14	.00	s.01	.01	.00	.00	.00	.01	.00	.30
21	.00	.00	s.01	.00	.00	s.00	.02	.00	.00	.00	.00	.03
22	.00	.00	.03	.26	.00	s.00	.00	.09	.00	.53	.00	.00
23	.00	s.18	.01	.01	.00	.38	.19	.43	.03	.16	.00	.00
24	.43	s.00	.04	s.00	s.23	.01	.07	.00	.00	.00	.00	.00
25	.24	s.00	.05	s.00	s.09	.00	.00	.00	.00	.21	.51	.00
26	.45	.00	.04	s.00	.06	s.04	.11	.10	.00	.00	.57	.54
27	.00	s.16	.00	.00	.00	s.00	.01	.00	.00	.00	.12	.00
28	.23	s.81	.00	.00	s.01	.18	.01	.00	.00	.00	.00	.00
29	.40	.69	.00	.01	s.00	.12	.04	.00	.00	.03	.46	.00
30	.25	.00	.00	.10	--	.00	.00	.00	.00	.95	.00	.00
31	.00	--	.00	.00	--	.00	--	.00	--	.10	.00	--
Total	5.89	4.31	1.21	0.66	1.27	1.78	2.26	0.73	0.96	5.66	3.24	4.30

s Snowfall-affected precipitation.

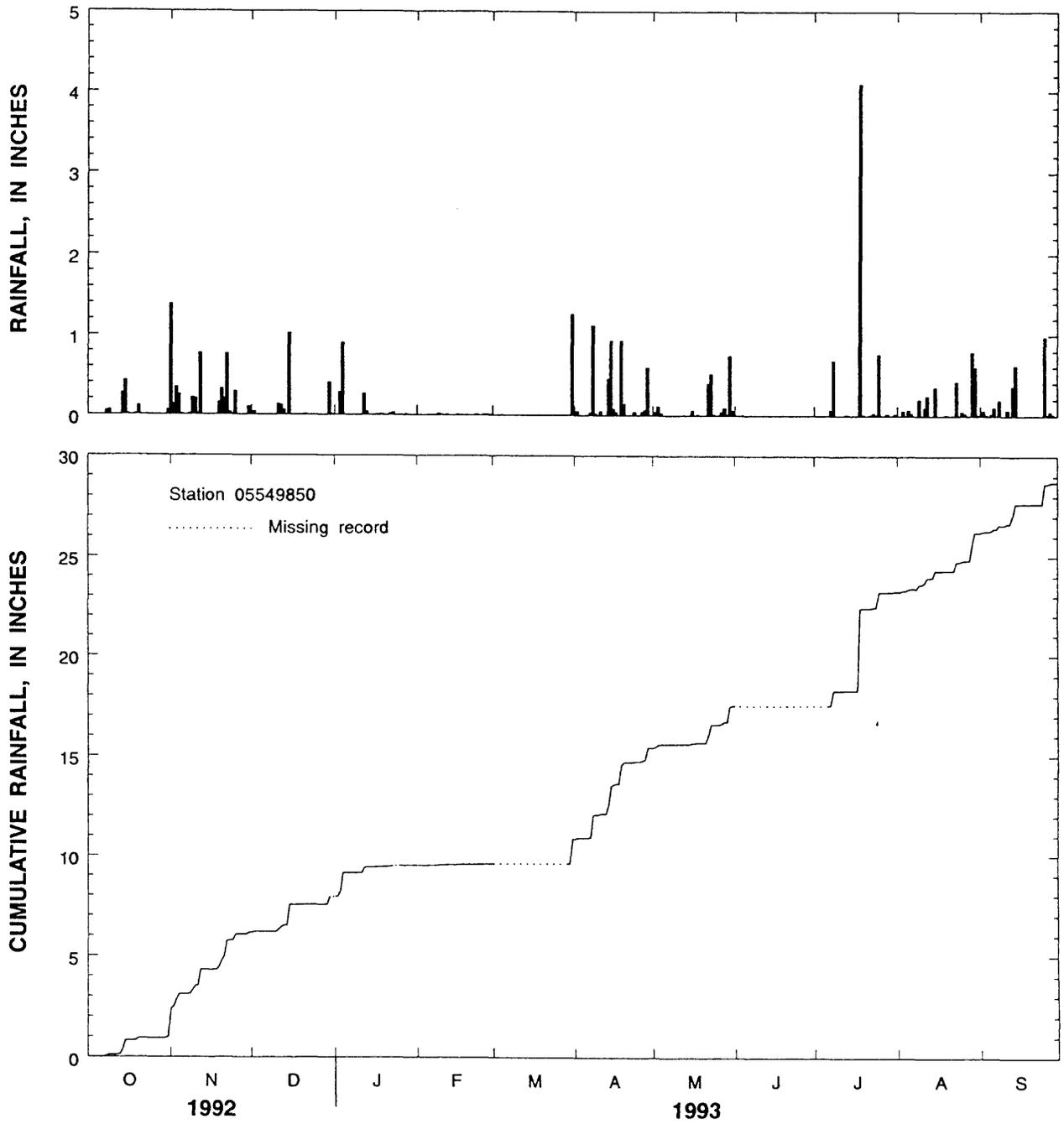


Figure 50. Daily rainfall totals and cumulative rainfall at Flint Creek near Fox River Grove, Ill., water year 1993.

05549850 Flint Creek near Fox River Grove, Ill.—Continued

Rainfall, in inches, water year October 1992 to September 1993
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.38	s.00	0.00	0.00	m	0.00	0.00	m	m	0.00	.00
2	.00	.13	s.04	s.00	s.00	m	.05	.04	m	m	.00	.06
3	.00	s.34	.00	s.28	s.00	m	.00	.11	m	m	.06	.01
4	.00	s.25	s.00	s.90	s.00	m	.00	.03	m	m	.00	.00
5	.00	s.01	.00	s.00	s.00	m	.00	.00	m	m	.07	.02
6	.00	s.00	.00	s.00	s.00	m	.00	.00	m	m	.03	.10
7	.00	s.00	s.00	s.00	.00	m	.03	.00	m	p0.07	.00	.00
8	.05	s.01	.00	s.00	s.00	m	1.12	.00	m	.68	.00	.19
9	.06	.21	.00	s.00	s.02	m	.02	.00	m	.00	.20	.00
10	.00	.20	s.00	s.00	s.01	m	.00	.00	m	.00	.00	.00
11	.00	.01	.13	s.00	s.00	m	.05	.00	m	.00	.10	.07
12	.00	s.77	.12	s.26	s.01	m	.00	.00	m	.00	.24	.00
13	.00	s.00	.06	s.04	s.00	m	.00	.00	m	.01	.00	.36
14	.27	s.00	.00	s.00	s.00	m	.45	.00	m	.00	.00	.62
15	.42	s.00	1.02	s.00	.00	m	.93	.00	m	.00	.35	.00
16	.01	.00	.00	s.00	s.01	m	.08	.06	m	.00	.00	.00
17	.00	.00	s.00	.01	s.00	m	.04	.00	m	.00	.00	.00
18	.00	.00	.00	s.01	.00	m	.00	.01	m	4.10	.00	.00
19	s.01	.15	.00	s.01	.00	m	.93	.00	m	.01	.01	.00
20	s.11	.32	.00	m	s.00	m	.14	.00	m	.00	.00	.00
21	.00	.20	.01	m	s.00	m	.00	.00	m	.00	.00	.00
22	.00	.76	.00	s.02	s.00	m	.00	.39	m	.01	.00	.00
23	.00	.03	.00	s.03	s.01	m	.00	.51	m	.03	.42	.00
24	.00	.01	s.00	.00	.00	m	.04	.01	m	.01	.00	.00
25	.00	.29	.00	.00	s.00	m	.00	.00	m	.76	.05	.98
26	.00	.00	.00	s.00	s.01	p0.00	.00	.00	m	.00	.03	.01
27	.00	.00	.00	s.00	.01	.00	.04	.04	m	.00	.00	.05
28	.00	.00	.00	s.01	.01	.00	.06	.09	m	.02	.00	.02
29	.00	.00	m	s.00	--	.00	.59	.01	m	.00	.79	.00
30	.00	.10	p.40	.00	--	.00	.00	.74	p0.00	.00	.60	.00
31	.06	--	.01	.00	--	1.26	--	p.06	--	.02	.01	--
Total	0.99	5.17	--	--	0.09	--	4.57	2.10	--	--	2.96	2.49

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

Lake Zurich Wastewater Treatment Facility at Lake Zurich, Ill.

Site identifier.--14

Station number.--421113088042200

Location.--Latitude 42°11'13", longitude 88°04'22", in sec.21, T.43 N., R.10 E., Lake County, Hydrologic Unit 07120004, at Lake Zurich Wastewater Treatment Facility on Old Mill Grove Road in Lake Zurich (Lake Zurich 7.5-minute quadrangle).

To reach gage.--From the intersection of State Highway 22 and Old Mill Grove Road, drive south approximately 0.7 mi to wastewater-treatment facility.

Drainage basin.--Buffalo Creek.

Gage.--An 8-in.-diameter, heated, tipping-bucket rain gage mounted on a 2-in.-diameter steel post approximately 4 ft above the ground. An electronic data logger, housed inside a weatherproof electrical enclosure, is mounted on the steel post below the rain gage.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--February 13, 1990, to present. Periods of missing record exist due to equipment-related problems.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Lake County Stormwater Management Commission.

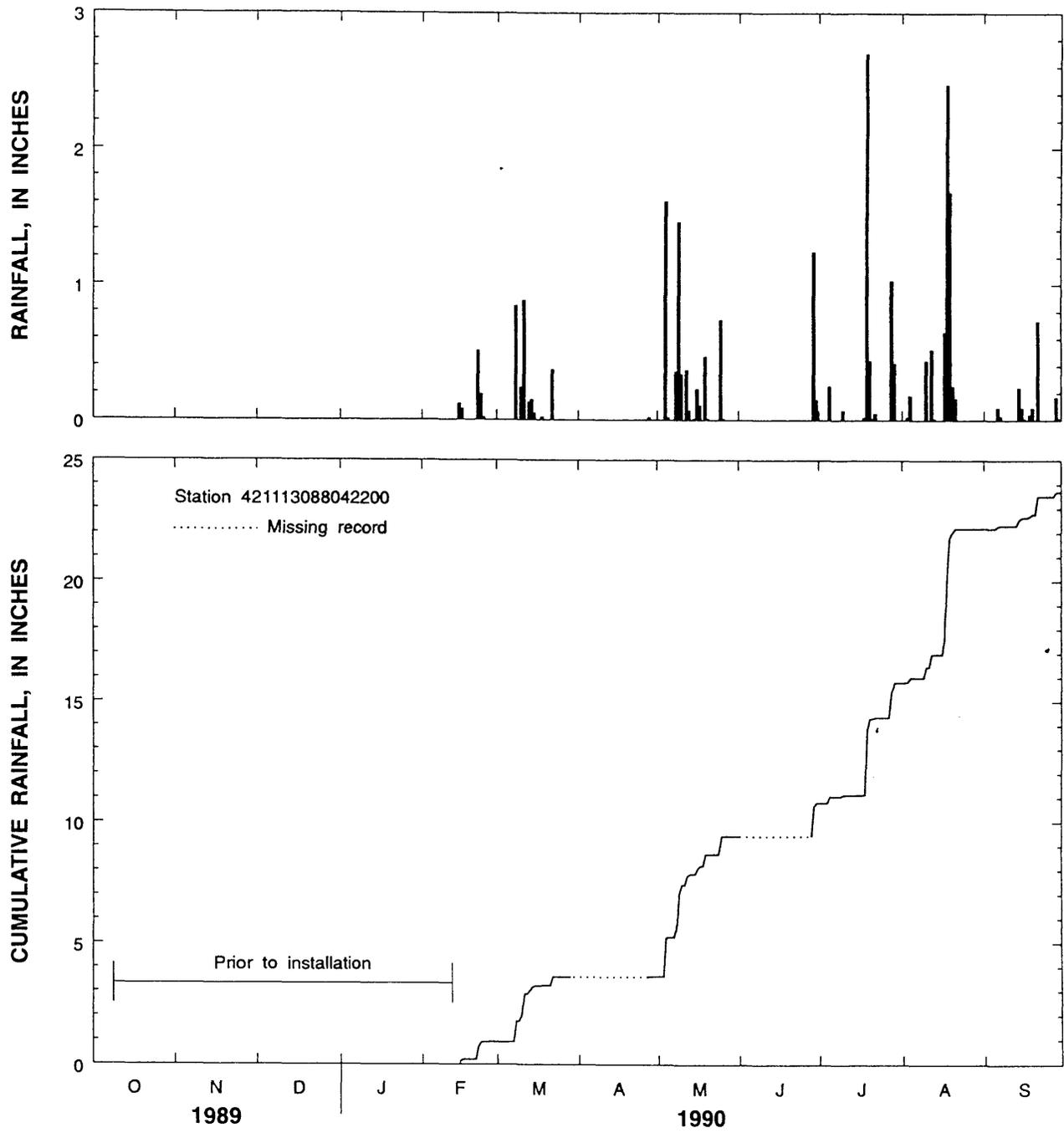


Figure 51. Daily rainfall totals and cumulative rainfall at Lake Zurich Wastewater Treatment Facility at Lake Zurich, Ill., water year 1990.

421113088042200 Lake Zurich Wastewater Treatment Facility at
Lake Zurich, Ill.—Continued

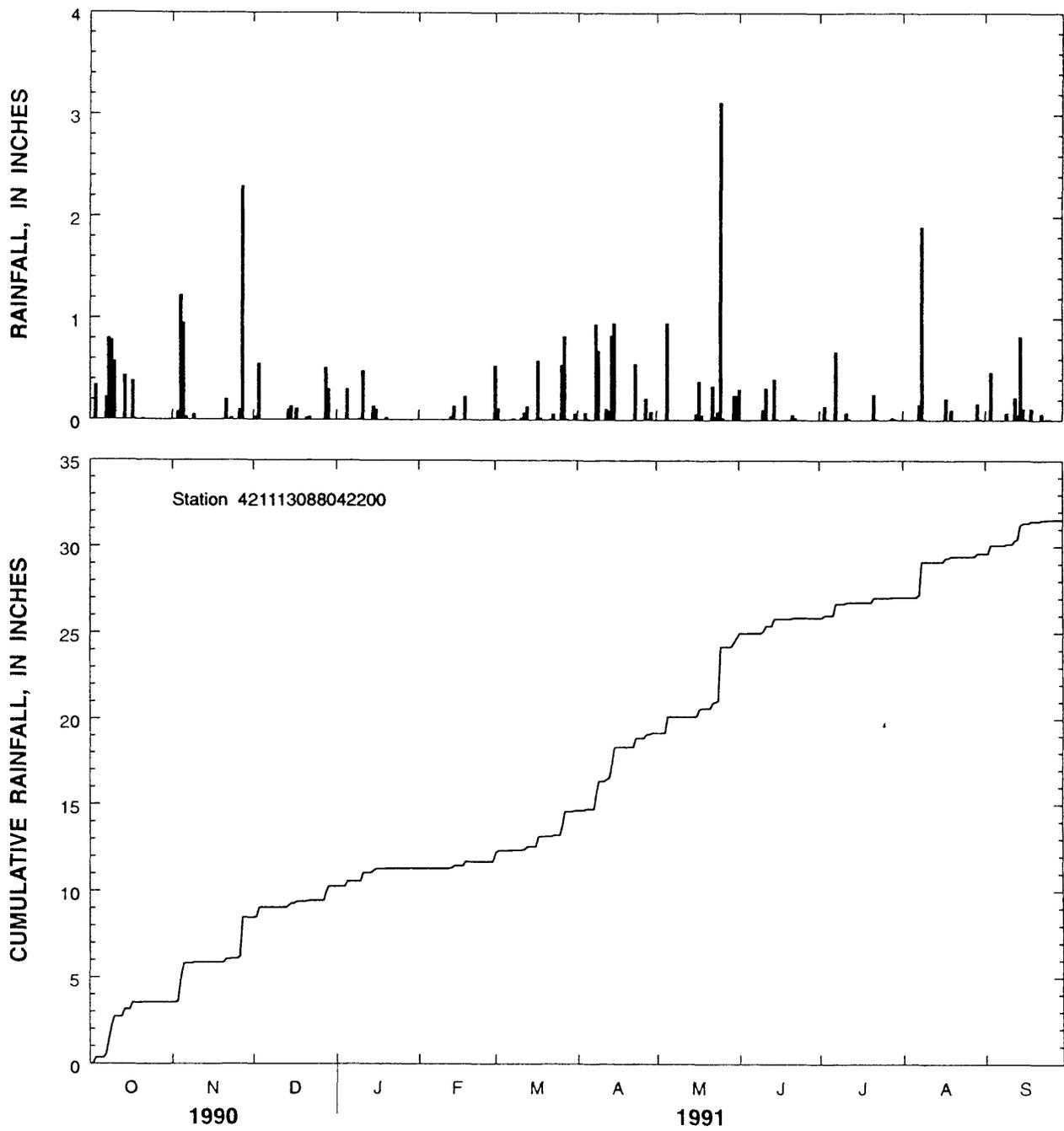
Rainfall, in inches, water year October 1989 to September 1990
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	--	--	0.00	m	0.00	m	0.00	0.00	0.00
2	--	--	--	--	--	.00	m	.00	m	.00	.00	.00
3	--	--	--	--	--	.00	m	.00	m	.00	.02	.00
4	--	--	--	--	--	.00	m	1.61	m	.00	.18	.00
5	--	--	--	--	--	.00	m	.02	m	.25	.00	.00
6	--	--	--	--	--	.00	m	.00	m	.00	.00	.09
7	--	--	--	--	--	.00	m	.00	m	.00	.00	.03
8	--	--	--	--	--	.84	m	.36	m	.00	.00	.00
9	--	--	--	--	--	.00	m	1.46	m	.00	.00	.00
10	--	--	--	--	--	.24	m	.34	m	.07	.44	.00
11	--	--	--	--	--	.88	m	.00	m	.00	.00	.00
12	--	--	--	--	--	.00	m	.37	m	.00	.52	.00
13	--	--	--	--	p0.00	.13	m	.07	m	.00	.01	.00
14	--	--	--	--	.00	.15	m	.00	m	.00	.00	.24
15	--	--	--	--	s.12	.05	m	.01	m	.00	.00	.09
16	--	--	--	--	s.08	.00	m	.23	m	.00	.00	.01
17	--	--	--	--	s.00	.00	m	.11	m	.00	.65	.00
18	--	--	--	--	.00	.02	m	.00	m	.02	2.47	.04
19	--	--	--	--	.00	.00	m	.47	m	2.70	1.68	.09
20	--	--	--	--	.00	.00	m	.01	m	.44	.25	.00
21	--	--	--	--	.00	.00	m	.00	m	.01	.16	.73
22	--	--	--	--	.51	.37	m	.00	m	.05	.00	.00
23	--	--	--	--	s.19	.00	m	.00	m	.00	.00	.00
24	--	--	--	--	s.02	.00	m	.00	m	.00	.00	.00
25	--	--	--	--	.00	.00	m	.74	m	.00	.00	.00
26	--	--	--	--	.00	.00	p0.00	.01	m	.00	.00	.00
27	--	--	--	--	.00	.00	.00	.00	p0.00	.00	.00	.00
28	--	--	--	--	.00	p.00	.02	.00	.00	1.03	.00	.17
29	--	--	--	--	--	m	.00	.00	1.24	.42	.00	.01
30	--	--	--	--	--	m	.00	.00	.15	.00	.00	.01
31	--	--	--	--	--	m	--	p.00	--	.00	.00	--
Total	--	--	--	--	--	--	--	5.81	--	4.99	6.38	1.51

m Missing record.

p Partial record.

s Snowfall-affected precipitation



421113088042200 Lake Zurich Wastewater Treatment Facility at
Lake Zurich, Ill.—Continued

Rainfall, in inches, water year October 1990 to September 1991
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.00	0.00	0.00	0.00	0.53	0.00	0.00	0.30	0.00	0.00	0.00
2	.00	.00	s.03	.00	.00	.11	.00	.00	.00	.00	.00	.00
3	.34	.08	s.55	s.00	.00	s.00	.00	.00	.00	.13	.00	.47
4	.00	s1.22	s.00	.00	.00	.00	.07	.00	.00	.01	.00	.00
5	.00	s.95	.00	s.30	.00	.00	.01	.95	.00	.00	.00	.00
6	.00	s.03	.00	s.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.22	.00	.00	.00	.00	.00	.00	.00	.00	.67	.15	.00
8	.80	.00	.00	.00	.00	.01	.94	.00	.00	.00	1.90	.00
9	.78	s.05	.00	s.00	.00	.00	.68	.00	.00	.00	.01	.07
10	.57	.00	.00	.01	.00	.00	.00	.00	.10	.00	.00	.00
11	.00	s.00	.00	s.48	.00	.02	.00	.00	.31	.07	.00	m
12	.00	.00	.00	s.00	.00	s.07	.11	.00	.00	.01	.00	p.22
13	.00	.00	.00	.00	.03	s.13	.09	.00	.00	.00	.00	.05
14	.43	.00	s.10	.00	s.13	.00	.83	.00	.40	.00	.00	.82
15	.00	.00	s.13	.13	.00	.00	.95	.00	.01	.00	.00	.11
16	.00	.00	.00	.10	.00	.00	.00	.06	.00	.00	.00	.01
17	.38	.00	.11	.00	.00	.58	.00	.38	.00	.00	.21	.00
18	.01	.00	.00	.00	.23	.02	.00	.05	.00	.00	.00	.11
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00
20	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00
21	.01	.20	.02	s.00	.00	.00	.00	.00	.05	.25	.00	.00
22	.00	.00	.03	.00	.00	.01	.00	.33	.02	.01	.00	.06
23	.00	.02	.00	s.00	.00	.06	.55	.03	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.08	.00	.00	.00	.01
25	.00	.00	.00	.00	.00	.00	.00	3.12	.00	.00	.00	.01
26	.00	.10	.00	.00	.00	.54	.00	.02	.00	.00	.00	.00
27	.00	2.29	s.00	.00	s.00	.82	.21	.00	.00	.00	.00	.00
28	.00	.00	s.51	.00	.00	.01	.01	.00	.00	.02	.00	.00
29	.00	.00	s.30	.00	--	.00	.08	.00	.00	.01	.16	.00
30	.00	.00	s.00	s.00	--	.00	.00	.24	.00	.00	.01	.00
31	.00	--	s.00	s.00	--	s.06	--	.24	--	.00	.00	--
Total	3.54	4.94	1.78	1.04	0.39	2.97	4.53	5.50	1.19	1.18	2.54	--

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

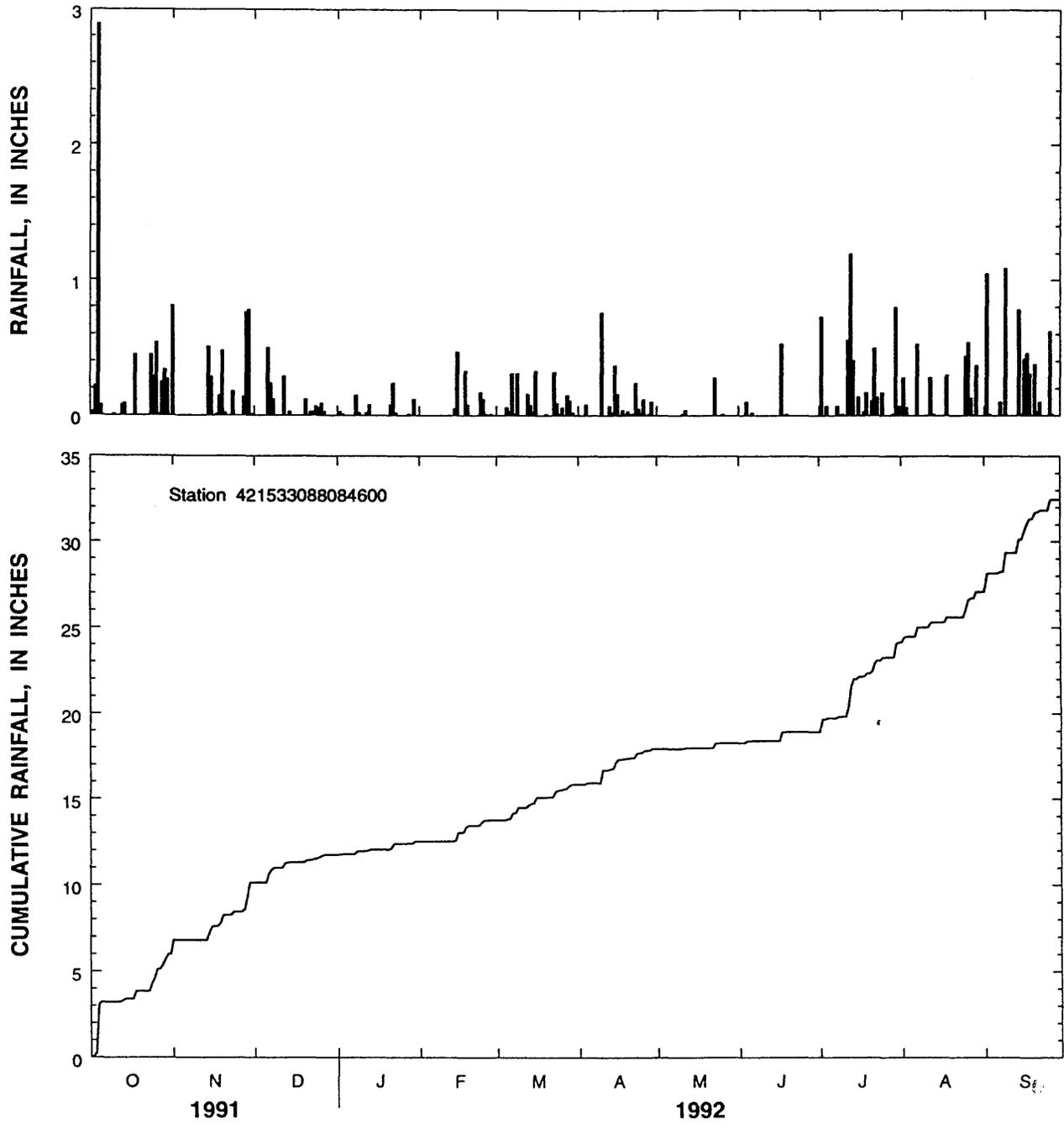


Figure 65. Daily rainfall totals and cumulative rainfall at Wauconda Wastewater Treatment Facility at Wauconda, Ill., water year 1992.

421113088042200 Lake Zurich Wastewater Treatment Facility at
Lake Zurich, Ill.—Continued

Rainfall, in inches, water year October 1991 to September 1992
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	p0.00	m	m	m	0.00	0.00	s0.00	0.00	0.00	0.00	0.00	0.00
2	m	m	m	m	.00	.00	s.00	.00	.00	.54	.27	.42
3	m	m	m	m	.00	.00	.00	.00	.00	.00	.18	.00
4	m	m	m	m	.00	.00	.03	.00	.15	.15	.00	.00
5	m	m	m	m	.00	.17	.00	.00	.01	.00	.00	.00
6	m	m	m	m	.00	.17	.00	.00	.10	.00	.00	.00
7	m	m	m	m	s.00	.52	.00	.00	.00	.00	.44	.07
8	m	m	m	m	s.00	.00	.00	.00	.00	.03	.00	.00
9	m	m	m	p0.00	.00	.53	.00	.00	.00	.01	.00	.99
10	m	m	m	s.00	s.00	s.13	.70	.00	.00	.01	.00	.01
11	m	m	m	.00	s.00	.00	.00	.00	.10	.05	.00	.00
12	m	m	m	.01	s.00	.00	.00	.00	.00	.38	.24	.00
13	m	m	m	.06	s.00	.00	.06	.00	.00	.92	.01	.00
14	m	m	m	s.00	s.12	s.01	.07	.00	.03	.45	.00	.45
15	m	m	m	s.00	s.35	.00	.69	.02	.00	.00	.00	.08
16	m	m	m	s.00	.00	.24	.19	.00	.00	.14	.00	.16
17	m	m	m	.00	.00	.00	.00	.00	.55	.00	.00	.15
18	m	m	m	.00	s.38	.00	.03	.00	.00	.00	.17	.16
19	m	m	m	.00	s.02	.00	.01	.00	.00	.14	.00	.00
20	m	m	m	.00	s.00	.01	.00	.00	.00	.00	.00	.38
21	m	m	m	.00	.00	s.17	.01	.00	.00	.00	.00	.08
22	m	m	m	.22	.00	s.34	.00	.10	.00	.40	.00	.00
23	m	m	m	.01	.00	.00	.10	.65	.05	.30	.16	.00
24	m	m	m	s.00	s.37	.00	.06	.00	.00	.00	.00	.00
25	m	m	m	s.07	s.00	.00	.00	.00	.00	.18	.44	.00
26	m	m	m	s.00	.00	s.03	.23	.00	.00	.00	.53	.68
27	m	m	m	.00	.00	s.00	.00	.00	.00	.00	.28	.00
28	m	m	m	.00	s.01	.15	.00	.00	.00	.00	.00	.00
29	m	m	m	.00	s.00	.12	.05	.00	.00	.02	.40	.00
30	m	m	m	.00	--	.00	.00	.00	.00	.93	.00	.00
31	m	--	m	.00	--	.00	--	.00	--	.08	.00	--
Total	--	--	--	--	1.25	2.59	2.23	0.77	0.99	4.73	3.12	3.63

m Missing record.

p Partial record.

s Snowfall-affected precipitation

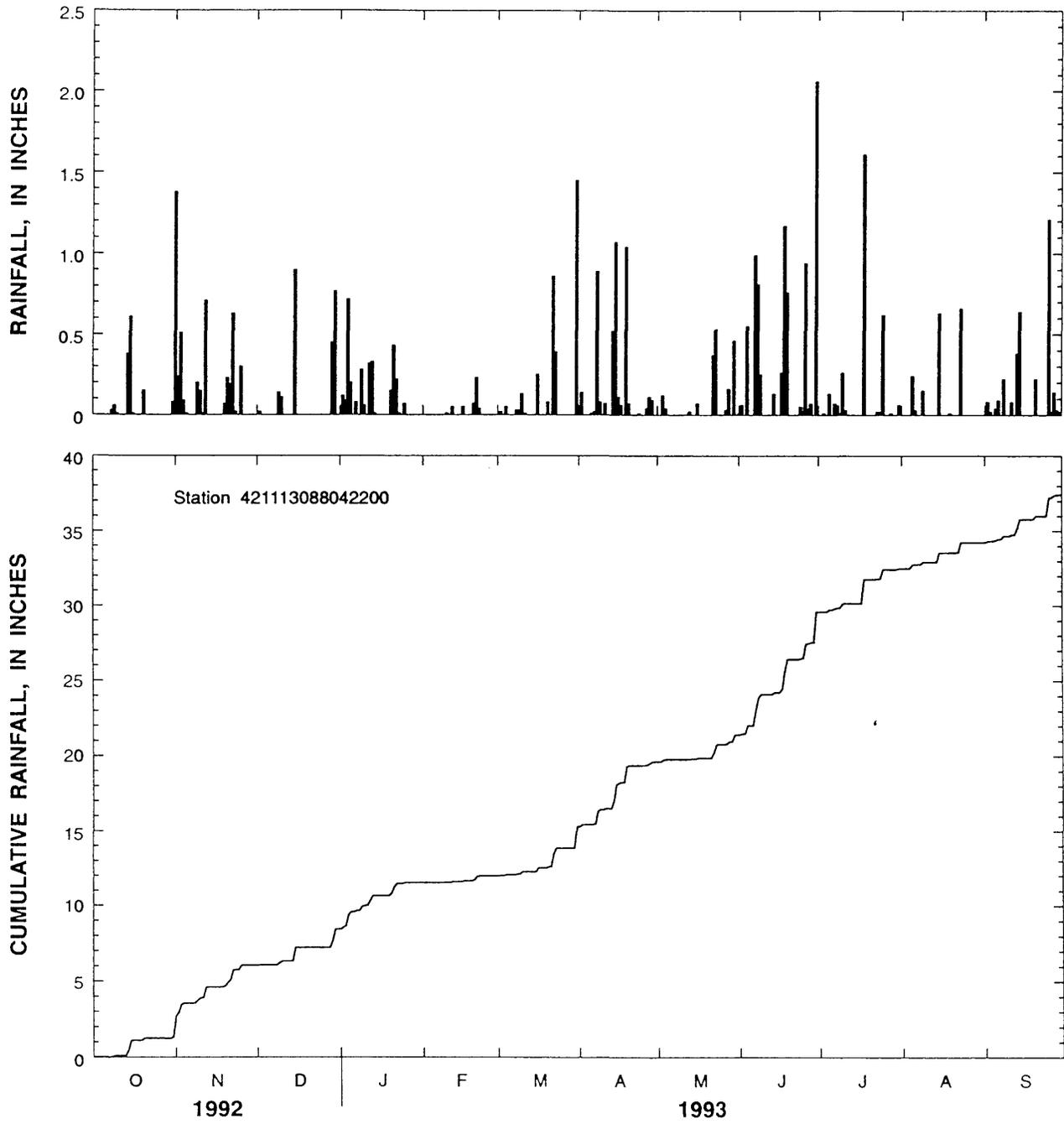


Figure 54. Daily rainfall totals and cumulative rainfall at Lake Zurich Wastewater Treatment Facility at Lake Zurich, Ill., water year 1993.

421113088042200 Lake Zurich Wastewater Treatment Facility at
Lake Zurich, Ill.—Continued

Rainfall, in inches, water year October 1992 to September 1993
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.38	s0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
2	.00	.24	s.02	s.12	s.00	.02	.14	.00	.06	.00	.00	.08
3	.00	s.51	.00	s.09	s.00	.00	.00	.12	.00	.01	.00	.02
4	.00	s.09	s.00	s.72	s.00	s.05	.00	.04	.55	.00	.00	.00
5	.00	s.01	.00	s.20	s.00	s.00	.00	.00	.00	.13	.24	.04
6	.00	s.00	.00	s.00	s.00	.00	.01	.00	.00	.00	.03	.09
7	.00	s.00	s.00	s.08	.00	.00	.02	.00	.99	.07	.00	.00
8	.03	s.00	.00	s.00	s.00	.03	.89	.00	.81	.06	.00	.22
9	.06	.20	.14	s.28	s.00	.03	.08	.00	.25	.01	.15	.00
10	.01	.15	s.11	s.06	s.01	s.13	.00	.00	.00	.26	.00	.00
11	.00	.01	.00	s.00	s.00	s.01	.07	.00	.00	.03	.00	.08
12	.00	s.71	.00	s.32	s.05	s.00	.00	.00	.00	.00	.00	.00
13	.00	s.00	.00	s.33	s.00	s.00	.00	.02	.00	.00	.00	.38
14	.38	s.00	.00	s.01	s.00	s.00	.52	.00	.13	.00	.00	.64
15	.61	s.00	.90	s.00	.00	.00	1.07	.00	.00	.00	.63	.00
16	.01	.00	.00	s.00	s.05	.25	.11	.07	.00	.00	.00	.00
17	.00	.00	s.00	.00	s.00	.00	.06	.00	.26	.00	.00	.00
18	.00	.00	.00	s.00	.00	s.00	.00	.00	1.17	1.61	.00	.00
19	s.00	.07	.00	s.00	.00	.00	1.04	.00	.76	.00	.01	.00
20	s.15	.23	.00	.15	s.07	s.08	.07	.00	.00	.00	.00	.22
21	.00	.19	.00	.43	s.23	.00	.00	.00	.00	.00	.00	.00
22	.00	.63	.00	s.22	s.04	s.86	.00	.37	.00	.00	.00	.00
23	.00	.02	.00	s.01	s.00	.39	.00	.53	.00	.02	.66	.00
24	.00	.00	s.00	.00	.00	.00	.01	.00	.05	.02	.00	.00
25	.00	.30	.00	.07	s.00	.00	.00	.00	.02	.62	.00	1.21
26	.00	.00	.00	s.00	s.00	.00	.00	.00	.94	.00	.00	.02
27	.00	.00	.00	s.00	.00	.00	.04	.03	.04	.00	.00	.14
28	.00	.00	.00	s.00	.00	.00	.11	.16	.07	.01	.00	.03
29	.00	.00	.45	s.00	--	.00	.09	.00	.00	.00	.00	.02
30	.00	.00	.77	.00	--	.00	.00	.46	2.06	.00	.00	.01
31	.08	--	.00	.00	--	1.45	--	.00	--	.06	.00	--
Total	1.33	4.74	2.39	3.09	0.45	3.30	4.33	1.80	8.17	2.91	1.72	3.20

s Snowfall-affected precipitation.

Vernon Hills Rain Gage at Prairie View, Ill.

Site identifier.--15

Station number.--421215087573400

Location.--Latitude 42°12'15", longitude 87°57'34", in NE¼SW¼ sec.16, T.43 N., R.11 E., Lake County, Hydrologic Unit 07120004, at Vernon Hills Township Building on Main Street, approximately 0.5 mi northwest of Prairie View (Wheeling 7.5-minute quadrangle).

To reach gage.--From the intersection of State Highway 22 and Main Street, drive north 0.6 mi to gage.

Drainage basin.--Indian Creek.

Gage.--An 8-in.-diameter, unheated, tipping-bucket rain gage mounted on a 2-in.-diameter steel post approximately 4 ft above the ground. An electronic data logger, housed inside a weatherproof electrical enclosure, is mounted on the steel post below the rain gage.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--April 17, 1990, to present. Periods of missing record exist due to equipment-related problems.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Lake County Stormwater Management Commission.

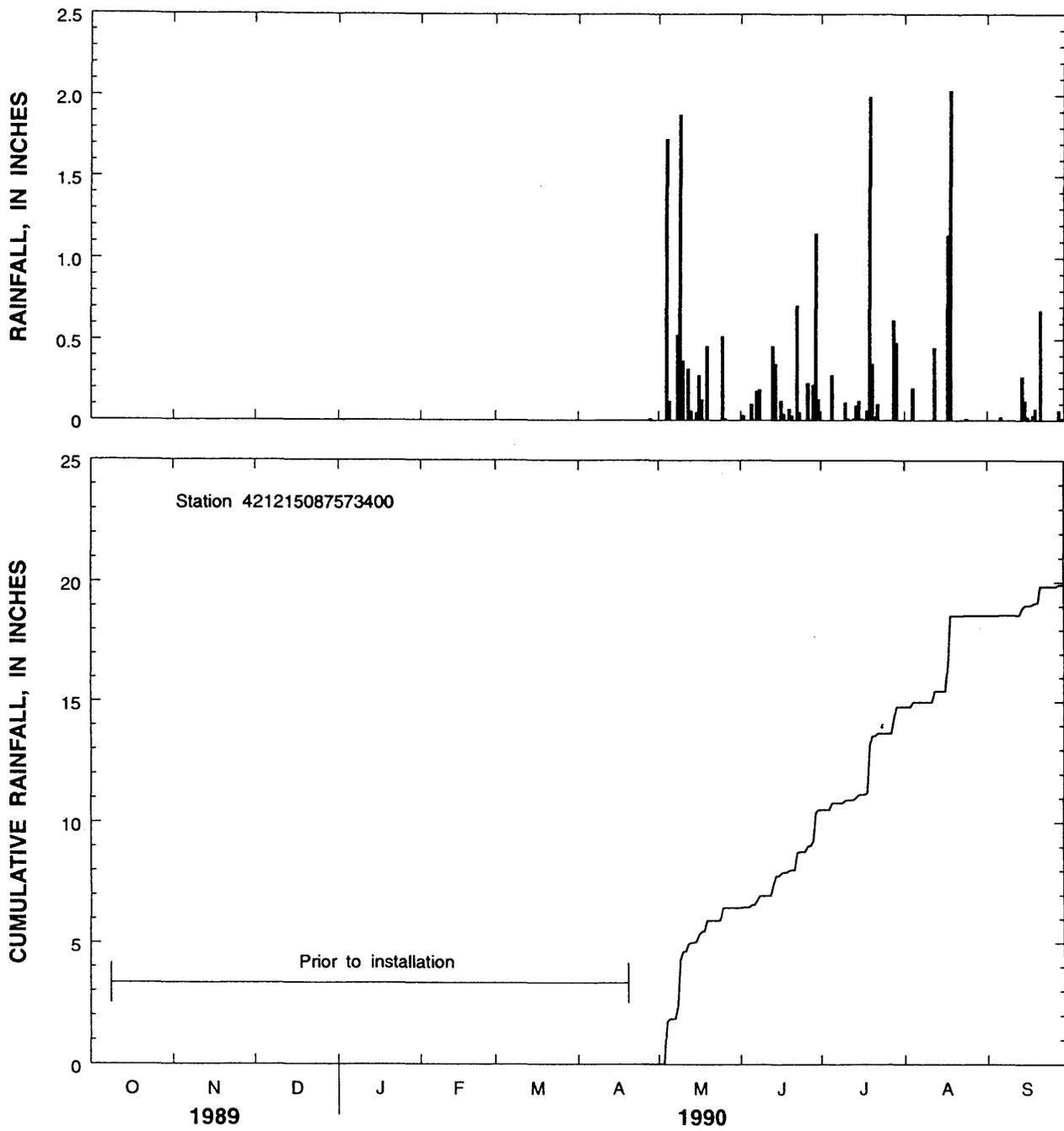


Figure 55. Daily rainfall totals and cumulative rainfall at Vernon Hills Rain Gage at Prairie View, Ill., water year 1990.

421215087573400 Vernon Hills Rain Gage at Prairie View, Ill.—Continued

Rainfall, in inches, water year October 1989 to September 1990

Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	--	--	--	--	0.00	0.00	0.00	0.00	0.00
2	--	--	--	--	--	--	--	.00	.03	.00	.00	.00
3	--	--	--	--	--	--	--	.00	.00	.00	.00	.00
4	--	--	--	--	--	--	--	1.73	.00	.00	.20	.00
5	--	--	--	--	--	--	--	.12	.10	.28	.00	.00
6	--	--	--	--	--	--	--	.00	.00	.00	.00	.02
7	--	--	--	--	--	--	--	.00	.18	.00	.00	.00
8	--	--	--	--	--	--	--	.53	.19	.00	.00	.00
9	--	--	--	--	--	--	--	1.88	.00	.00	.00	.00
10	--	--	--	--	--	--	--	.37	.00	.11	.00	.00
11	--	--	--	--	--	--	--	.00	.00	.01	.00	.00
12	--	--	--	--	--	--	--	.32	.00	.00	.45	.00
13	--	--	--	--	--	--	--	.06	.46	.01	.00	.00
14	--	--	--	--	--	--	--	.00	.35	.09	.00	.27
15	--	--	--	--	--	--	--	.05	.00	.12	.00	.12
16	--	--	--	--	--	--	--	.28	.12	.01	.00	.02
17	--	--	--	--	--	--	--	p0.00	.13	.04	.00	1.14
18	--	--	--	--	--	--	--	.00	.00	.00	.06	2.03
19	--	--	--	--	--	--	--	.00	.46	.07	1.99	.00
20	--	--	--	--	--	--	--	.00	.00	.03	.35	.00
21	--	--	--	--	--	--	--	.00	.00	.00	.02	.00
22	--	--	--	--	--	--	--	.00	.00	.71	.10	.00
23	--	--	--	--	--	--	--	.00	.00	.05	.00	.00
24	--	--	--	--	--	--	--	.00	.00	.00	.00	.01
25	--	--	--	--	--	--	--	.00	.52	.00	.00	.00
26	--	--	--	--	--	--	--	.00	.01	.23	.00	.00
27	--	--	--	--	--	--	--	.00	.00	.00	.00	.00
28	--	--	--	--	--	--	--	.01	.00	.22	.62	.00
29	--	--	--	--	--	--	--	.00	.00	1.15	.48	.00
30	--	--	--	--	--	--	--	.00	.00	.13	.00	.00
31	--	--	--	--	--	--	--	.00	.00	--	.00	--
Total	--	--	--	--	--	--	--	6.46	4.06	4.25	3.83	1.29

p Partial record.

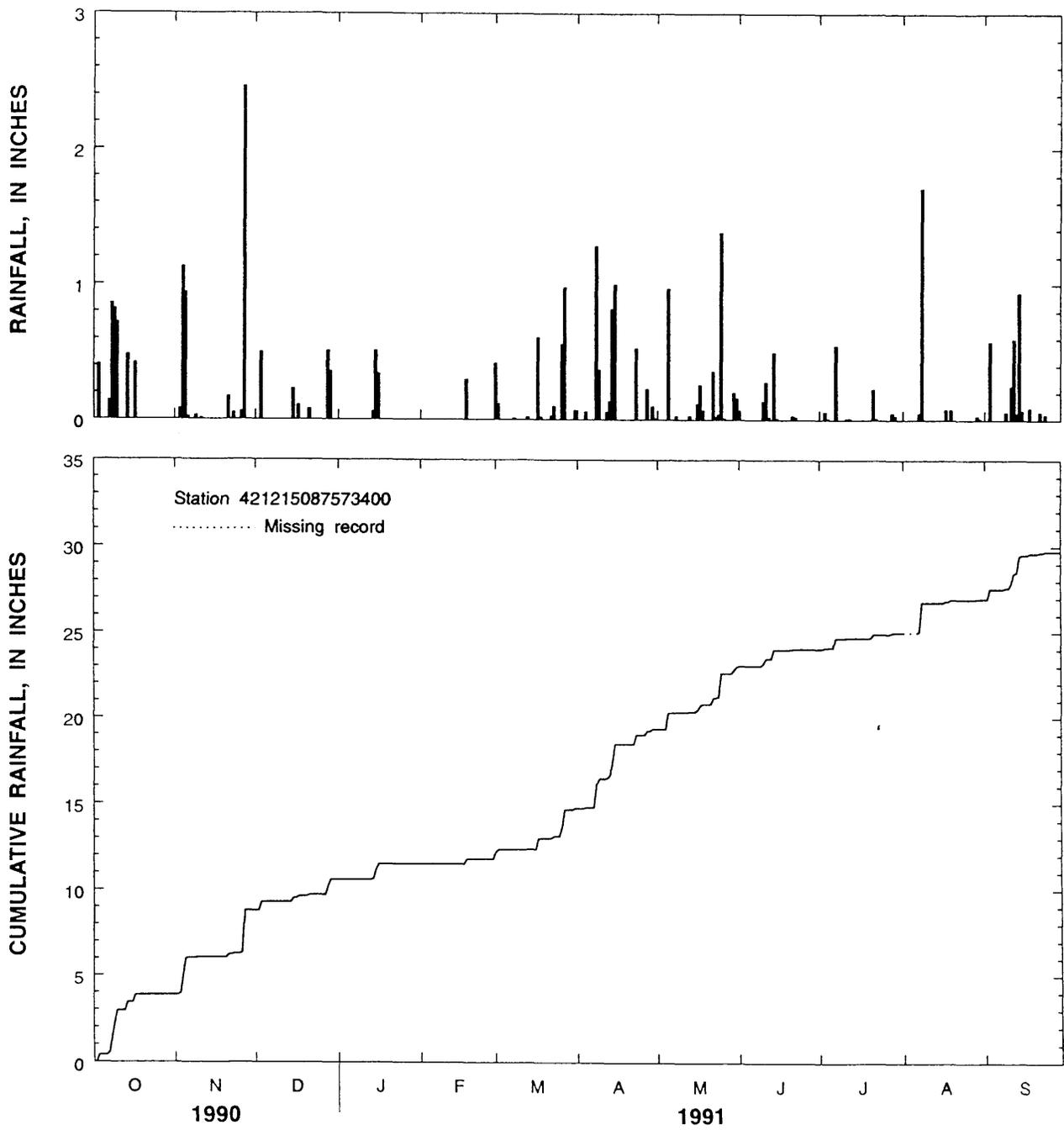


Figure 56. Daily rainfall totals and cumulative rainfall at Vernon Hills Rain Gage at Prairie View, Ill., water year 1991.

421215087573400 Vernon Hills Rain Gage at Prairie View, Ill.—Continued

Rainfall, in inches, water year October 1990 to September 1991
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.00	0.00	0.00	0.00	0.42	0.00	0.00	0.07	0.00	m	0.00
2	.00	.00	s.00	.00	.00	.12	.00	.00	.00	.00	m	.00
3	.41	.08	s.50	s.00	.00	s.00	.00	.00	.00	.06	m	.58
4	.00	s1.13	s.00	.00	.00	.00	.06	.00	.00	.01	m	.00
5	.00	s.94	.00	s.00	.00	.00	.00	.97	.00	.00	m	.00
6	.00	s.02	.00	s.00	.00	.00	.00	.00	.00	.00	m	.00
7	.14	.00	.00	.00	.00	.00	.00	.00	.00	.55	p0.05	.00
8	.86	.00	.00	.00	.00	.01	1.28	.03	.00	.00	1.71	.00
9	.82	s.03	.00	s.00	.00	.00	.37	.00	.00	.00	.00	.06
10	.72	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00
11	.00	s.01	.00	s.00	.00	.00	.00	.00	.28	.01	.00	.25
12	.00	.00	.00	s.00	.00	s.00	.06	.00	.02	.01	.00	.60
13	.00	.00	.00	.00	.00	s.02	.14	.03	.00	.00	.00	.05
14	.48	.00	s.00	.06	s.00	.00	.82	.00	.50	.00	.00	.94
15	.00	.00	s.23	.51	.00	.00	1.00	.00	.01	.00	.00	.07
16	.00	.00	.00	.34	.00	.00	.00	.12	.00	.00	.00	.00
17	.42	.00	.11	.00	.00	.61	.00	.26	.00	.00	.08	.00
18	.00	.00	.00	.00	.30	.02	.00	.07	.00	.00	.00	.09
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.17	.08	s.00	.00	.00	.00	.00	.03	.23	.00	.00
22	.00	.00	.00	.00	.00	.03	.00	.36	.02	.01	.00	.06
23	.00	.05	.00	s.00	.00	.10	.53	.02	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.00	.04
25	.00	.00	.00	.00	.00	.00	.00	1.38	.00	.00	.00	.00
26	.00	.06	.00	.00	.00	.56	.00	.01	.00	.00	.00	.00
27	.00	2.46	s.00	.00	s.00	.98	.23	.00	.00	.00	.00	.00
28	.00	.00	s.51	.00	.00	.00	.00	.00	.00	.05	.00	.00
29	.00	.00	s.36	.00	--	.00	.10	.00	.00	.03	.03	.00
30	.00	.00	s.00	s.00	--	.00	.01	.20	.00	.00	.01	.00
31	.00	--	s.00	s.00	--	s.07	--	.16	--	p.00	.00	--
Total	3.85	4.95	1.79	0.91	0.30	2.94	4.60	3.65	1.07	0.96	--	2.74

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

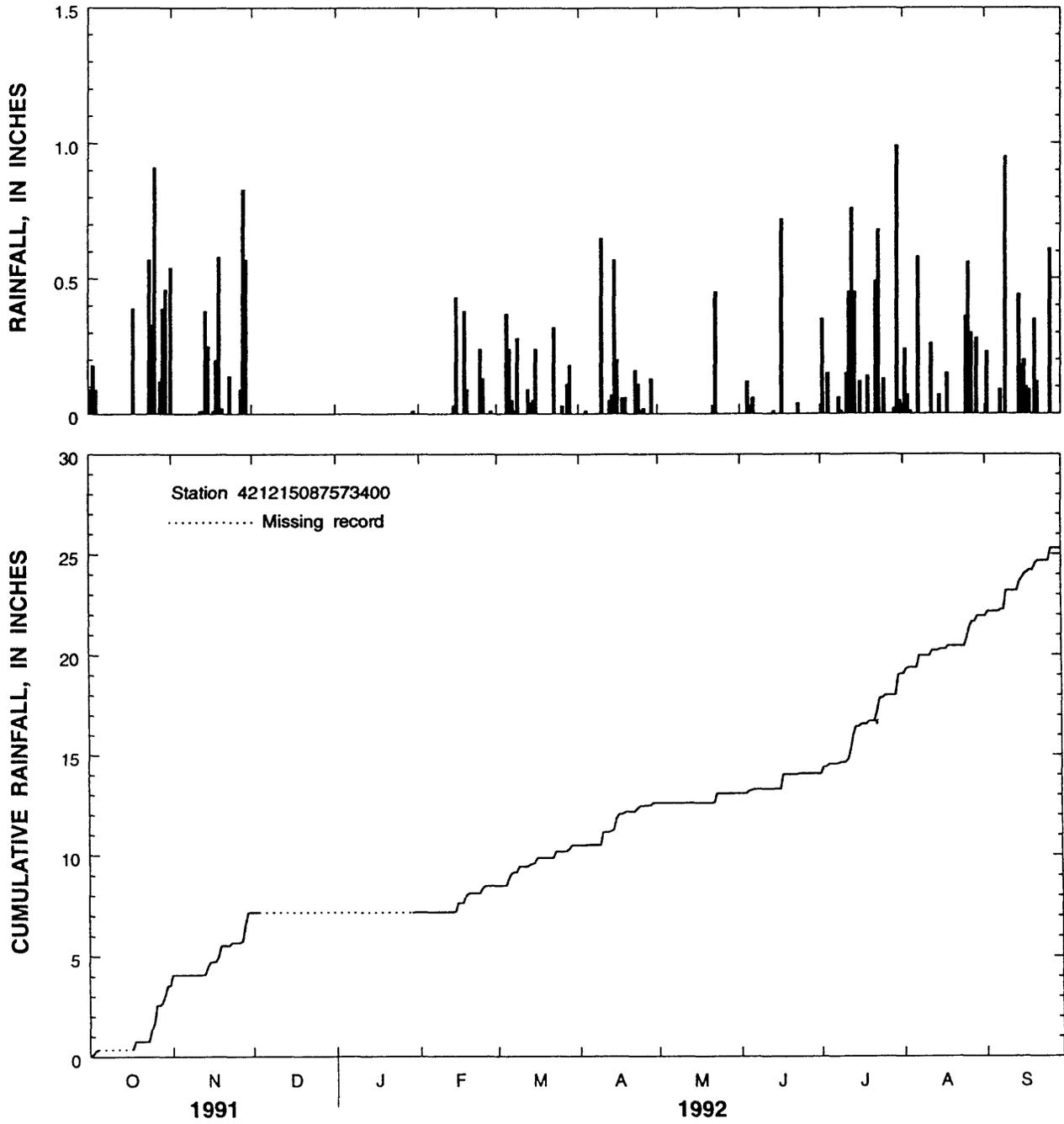


Figure 57. Daily rainfall totals and cumulative rainfall at Vernon Hills Rain Gage at Prairie View, Ill., water year 1992.

421215087573400 Vernon Hills Rain Gage at Prairie View, Ill.—Continued

Rainfall, in inches, water year October 1991 to September 1992
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.54	p0.00	m	0.00	0.00	s0.00	0.00	0.00	0.00	0.00	0.00
2	.09	s.00	m	m	.00	.00	s.00	.00	.00	.35	.24	.23
3	.18	s.00	m	m	.00	.00	.00	.00	.00	.00	.07	.00
4	p.09	s.00	m	m	.00	.00	.01	.00	.12	.15	.01	.00
5	m	.00	m	m	.00	.37	.00	.00	.03	.00	.00	.00
6	m	.00	m	m	.00	.24	.00	.00	.06	.00	.00	.00
7	m	.00	m	m	s.00	.05	.00	.00	.00	.00	.58	.09
8	m	.00	m	m	s.00	.01	.00	.00	.00	.06	.00	.00
9	m	.00	m	m	.00	.28	.00	.00	.00	.01	.00	.95
10	m	.00	m	m	s.00	s.00	.65	.00	.00	.00	.00	.00
11	m	s.00	m	m	s.00	.00	.00	.00	.00	.15	.00	.00
12	m	s.01	m	m	s.00	.00	.00	.00	.00	.45	.26	.00
13	m	s.01	m	m	s.00	.09	.05	.00	.00	.76	.00	.00
14	m	.38	m	m	s.03	s.04	.07	.00	.01	.45	.00	.44
15	p.00	.25	m	m	s.43	.05	.57	.00	.00	.00	.07	.18
16	.00	.00	m	m	.00	.24	.20	.00	.00	.12	.00	.20
17	.00	.01	m	m	.00	.00	.00	.00	.72	.00	.00	.10
18	.39	.20	m	m	s.38	.00	.06	.00	.00	.00	.15	.09
19	.00	.58	m	m	s.09	.00	.06	.00	.00	.14	.00	.00
20	.00	.02	m	m	s.00	.00	.00	.00	.00	.00	.00	.35
21	.00	.00	m	m	.00	s.00	.00	.00	.00	.00	.00	.12
22	.00	.00	m	m	.00	s.00	.00	.03	.00	.49	.00	.00
23	.00	s.14	m	p0.00	.00	.32	.16	.45	.04	.68	.00	.00
24	.57	s.00	m	.00	s.24	.00	.11	.00	.00	.00	.00	.00
25	.33	s.00	m	s.00	s.13	.00	.01	.00	.00	.13	.36	.00
26	.91	.00	m	s.00	.00	s.03	.02	.00	.00	.00	.56	.61
27	.00	s.09	m	.00	.00	s.00	.00	.00	.00	.00	.30	.00
28	.12	s.83	m	.00	s.01	.11	.00	.00	.00	.00	.00	.00
29	.39	.57	m	.00	s.00	.18	.13	.00	.00	.02	.28	.00
30	.46	.00	m	.01	--	.00	.00	.00	.00	.99	.00	.00
31	.00	--	m	.00	--	.00	--	.00	--	.05	.00	--
Total	--	3.63	--	--	1.31	2.01	2.10	0.48	0.98	5.00	2.88	3.36

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

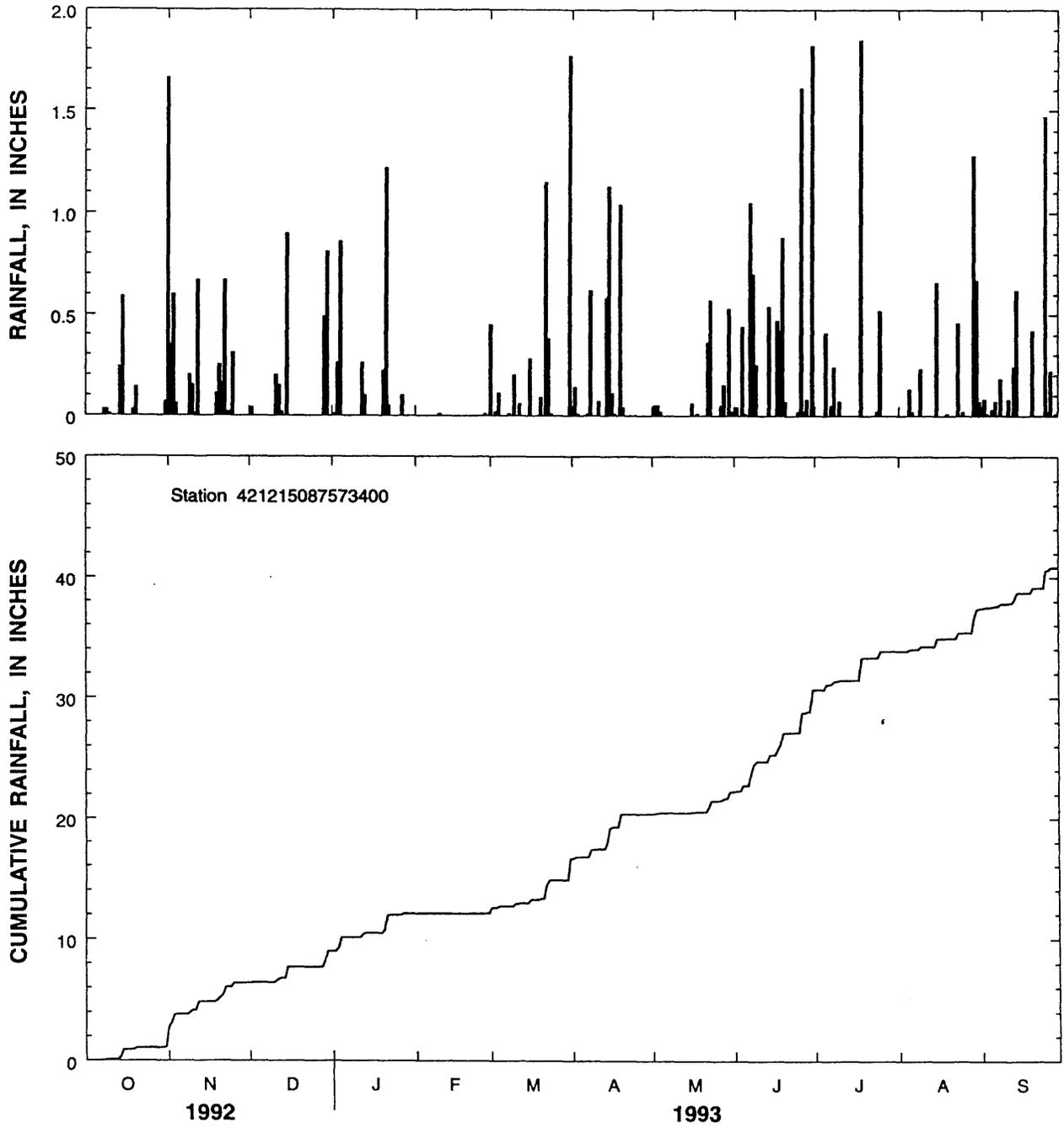


Figure 58. Daily rainfall totals and cumulative rainfall at Vernon Hills Rain Gage at Prairie View, Ill., water year 1993.

421215087573400 Vernon Hills Rain Gage at Prairie View, Ill.—Continued

Rainfall, in inches, water year October 1992 to September 1993
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.66	s0.00	0.00	0.00	0.45	0.00	0.00	0.02	0.00	0.00	0.00
2	.00	.35	s.04	s.01	s.00	.00	.14	.05	.04	.00	.00	.08
3	.00	s.60	.00	s.26	s.00	.02	.01	.05	.00	.00	.00	.01
4	.00	s.06	s.00	s.86	s.00	s.11	.00	.02	.44	.00	.00	.00
5	.00	s.00	.00	s.00	s.00	s.00	.00	.00	.01	.41	.13	.03
6	.00	s.00	.00	s.00	s.00	.00	.00	.00	.00	.00	.02	.07
7	.00	s.00	s.00	s.00	.00	.00	.01	.00	1.05	.05	.00	.00
8	.03	s.00	.00	s.00	s.00	.01	.62	.00	.70	.24	.00	.18
9	.03	.20	.00	s.00	s.00	.00	.00	.00	.25	.00	.23	.00
10	.01	.15	s.00	s.00	s.01	s.20	.00	.00	.00	.07	.00	.00
11	.00	.01	.20	s.00	s.00	s.00	.07	.00	.00	.00	.00	.08
12	.00	s.67	.15	s.26	s.00	s.06	.00	.00	.00	.00	.00	.00
13	.00	s.00	.02	s.10	s.00	s.00	.00	.00	.00	.00	.00	.24
14	.24	s.00	.00	s.00	s.00	s.00	.58	.00	.54	.00	.00	.62
15	.59	s.00	.90	s.00	.00	.00	1.13	.00	.00	.00	.66	.00
16	.00	.00	.00	s.00	s.00	.28	.11	.06	.00	.00	.00	.00
17	.00	.00	s.00	.00	s.00	.00	.01	.00	.47	.00	.00	.00
18	.00	.00	.00	s.00	.00	s.00	.00	.01	.42	1.85	.00	.00
19	s.03	.11	.00	s.00	.00	.00	1.04	.00	.88	.00	.01	.00
20	s.14	.25	.00	.22	s.00	s.09	.04	.00	.07	.00	.00	.42
21	.00	.16	.00	1.22	s.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.67	.00	s.05	s.00	s1.15	.00	.36	.00	.00	.00	.00
23	.00	.02	.00	s.00	s.00	.38	.00	.57	.00	.00	.46	.00
24	.00	.02	s.00	.00	.00	.01	.00	.00	.00	.02	.00	.00
25	.00	.31	.00	.00	s.00	.00	.00	.00	.02	.52	.02	1.47
26	.00	.00	.00	s.00	s.00	.00	.00	.00	1.61	.00	.00	.02
27	.00	.00	.00	s.10	.01	.00	.00	.05	.02	.00	.00	.22
28	.00	.00	.00	s.00	.00	.00	.00	.15	.08	.00	.00	.00
29	.00	.00	.49	s.00	--	.00	.00	.00	.00	.00	1.28	.01
30	.00	.00	.81	.00	--	.00	.00	.53	1.82	.00	.67	.00
31	.07	--	.00	.00	--	1.77	--	.02	--	.00	.07	--
Total	1.14	5.24	2.61	3.08	0.02	4.53	3.76	1.87	8.44	3.16	3.55	3.45

s Snowfall-affected precipitation.

Diamond Lake Wastewater Treatment Facility at Diamond Lake, Ill.

Site identifier.--16

Station number.--421428088012900

Location.--Latitude 42°14'28", longitude, 88°01'29", in SE~~SE~~ sec.35, T.44 N., R.10 E., Lake County, Hydrologic Unit 07120004, at Diamond Lake Wastewater Treatment Facility on Midlothian Road in Diamond Lake (Lake Zurich 7.5-minute quadrangle).

To reach gage.--From the intersection of State Highway 22 and Midlothian Road, drive northeast on Midlothian Road approximately 4.8 mi. A gated, unmarked dirt road runs southeast to the wastewater-treatment facility and the rain gage.

Drainage basin.--Indian Creek.

Gage.--An 8-in.-diameter, heated, tipping-bucket rain gage mounted on a 2-in.-diameter steel post approximately 4 ft above the ground. An electronic data logger, housed inside a weatherproof electrical enclosure, is mounted on the steel post below the rain gage.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--February 13, 1990, to present. Periods of missing record exist due to equipment-related problems.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Lake County Stormwater Management Commission.

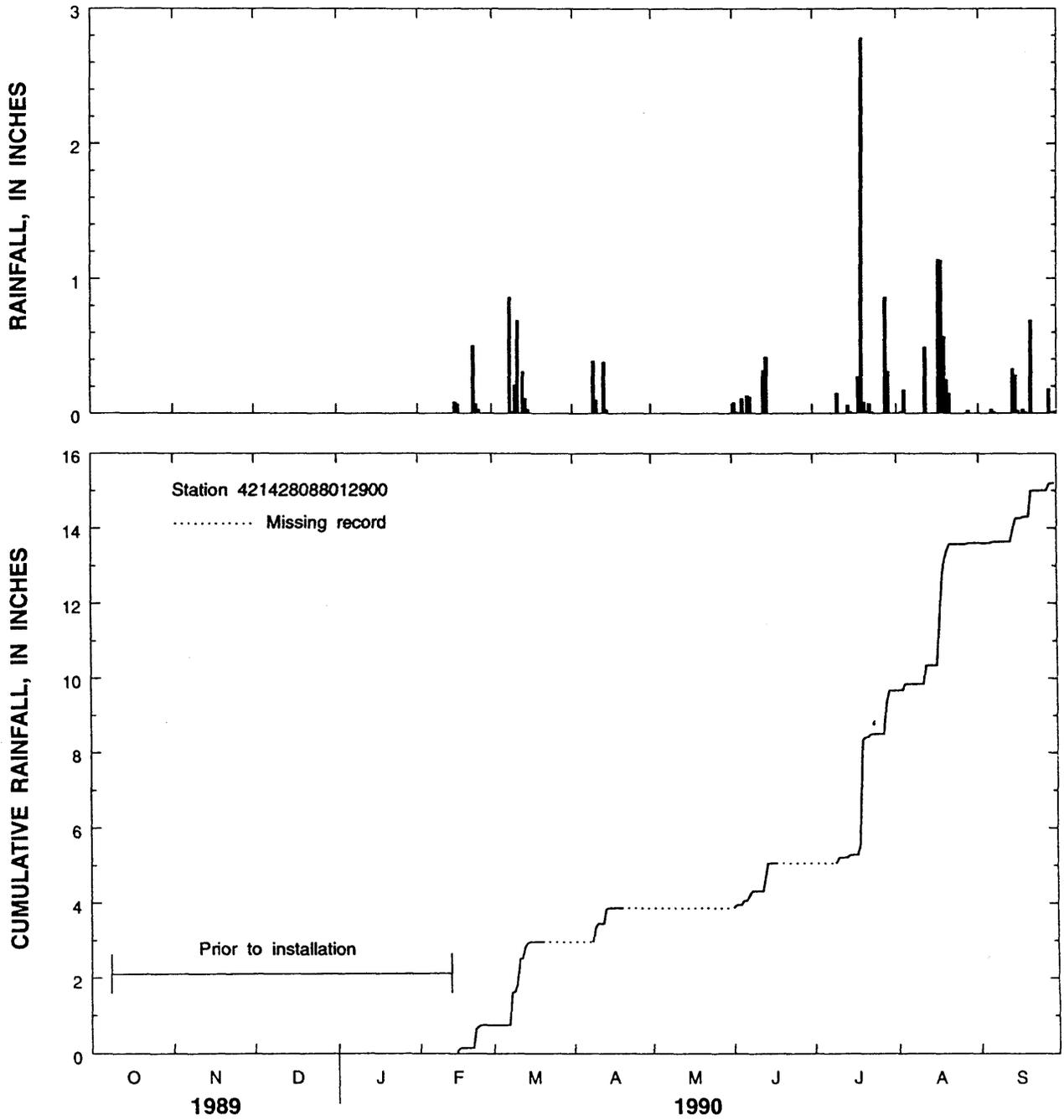


Figure 59. Daily rainfall totals and cumulative rainfall at Diamond Lake Wastewater Treatment Facility at Diamond Lake, Ill., water year 1990.

421428088012900 Diamond Lake Wastewater Treatment Facility at
Diamond Lake, Ill.—Continued

Rainfall, in inches, water year October 1989 to September 1990
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	--	--	0.00	m	m	0.00	m	0.00	0.00
2	--	--	--	--	--	.00	m	m	.08	m	.00	.00
3	--	--	--	--	--	.00	m	m	.01	m	.01	.00
4	--	--	--	--	--	.00	m	m	.00	m	.17	.00
5	--	--	--	--	--	.00	m	m	.11	m	.00	.00
6	--	--	--	--	--	.00	m	m	.00	m	.00	.03
7	--	--	--	--	--	.00	m	m	.13	m	.00	.01
8	--	--	--	--	--	.86	p0.00	m	.12	m	.00	.00
9	--	--	--	--	--	.01	.39	m	.00	m	.00	.00
10	--	--	--	--	--	.21	.10	m	.00	p0.15	.00	.00
11	--	--	--	--	--	.69	s.00	m	.00	.00	.00	.00
12	--	--	--	--	--	.00	s.00	m	.00	.00	.49	.00
13	--	--	--	--	p0.00	.31	.38	m	.32	.00	.00	.00
14	--	--	--	--	.00	.11	.03	m	.42	.06	.00	.33
15	--	--	--	--	s.08	.03	.00	m	.00	.01	.00	.28
16	--	--	--	--	s.07	.00	.00	m	m	.00	.00	.02
17	--	--	--	--	s.00	.00	.00	m	m	.00	1.14	.00
18	--	--	--	--	.00	.00	p.00	m	m	.27	1.13	.03
19	--	--	--	--	.00	.00	m	m	m	2.78	.57	.01
20	--	--	--	--	.00	m	m	m	m	.08	.25	.00
21	--	--	--	--	.00	m	m	m	m	.01	.15	.69
22	--	--	--	--	.50	m	m	m	m	.07	.00	.00
23	--	--	--	--	s.07	m	m	m	m	.01	.00	.00
24	--	--	--	--	s.03	m	m	m	m	.00	.00	.00
25	--	--	--	--	.00	m	m	m	m	.00	.00	.00
26	--	--	--	--	.00	m	m	m	m	.00	.00	.00
27	--	--	--	--	.00	m	m	m	m	.00	.00	.00
28	--	--	--	--	.00	m	m	m	m	.86	.02	.18
29	--	--	--	--	--	m	m	m	m	.31	.00	.01
30	--	--	--	--	--	m	m	m	m	.00	.00	.01
31	--	--	--	--	--	m	--	p0.00	--	.00	.00	--
Total	--	--	--	--	--	--	--	--	--	--	3.93	1.60

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

421428088012900 Diamond Lake Wastewater Treatment Facility at
Diamond Lake, Ill.—Continued

Rainfall, in inches, water year October 1990 to September 1991
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.00	0.29	0.00	0.00	m
2	.00	.00	s.02	.00	.00	.12	.00	.00	.00	.11	.00	m
3	.34	.08	s.63	s.00	.00	s.00	.00	.00	.00	.19	.00	m
4	.01	s1.07	s.00	.00	.00	.00	.06	.00	.03	.00	.00	m
5	.00	s.98	.00	s.29	.00	.00	.00	.71	.00	.00	.00	m
6	.00	s.04	.00	s.00	.00	.00	.00	.00	.00	.00	.00	m
7	.14	.00	.00	.00	.00	.00	.00	.00	.00	.56	.06	m
8	.75	.00	.00	.00	.00	.00	1.91	.01	.00	.00	1.54	m
9	.75	s.04	.00	s.00	.00	.00	.58	.00	.00	.00	.00	m
10	.57	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	m
11	.00	s.01	.00	s.35	.00	.00	.00	.00	.21	.01	.00	m
12	.00	.00	.00	s.03	.00	s.05	.03	.00	.03	.01	.00	m
13	.00	.00	.00	.00	.01	s.05	.14	.00	.00	.00	.00	m
14	.39	.00	s.10	.06	s.07	.00	.71	.00	.48	.00	.00	m
15	.00	.00	s.10	.12	.00	.00	1.00	.00	.00	.00	p.00	m
16	.00	.00	.00	.10	.00	.00	.00	.18	.00	.01	m	m
17	.35	.00	.11	.00	.00	.55	.00	.27	.00	.00	m	m
18	.01	.00	.00	.00	.24	.01	.00	.07	.00	.00	m	m
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	m	m
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	m	m
21	.01	.08	.03	s.00	.00	.00	.00	.00	.00	.22	m	m
22	.00	.00	.02	.00	.00	.00	.00	.94	.03	.02	m	m
23	.00	.02	.00	s.00	.00	.09	.57	.03	.00	.00	m	m
24	.00	.00	.00	.00	.00	.00	.00	.03	.00	.00	m	m
25	.00	.00	.00	.00	.00	.00	.00	2.76	.00	.00	m	m
26	.00	.07	.00	.00	.00	.58	.00	.00	.00	.00	m	m
27	.00	2.13	s.00	.00	s.00	1.01	.24	.00	.00	.00	m	m
28	.00	.00	s.41	.00	.00	.02	.00	.00	.00	.04	m	m
29	.00	.00	s.29	.00	--	.00	.09	.00	.00	.00	m	m
30	.00	.00	s.00	s.00	--	.00	.00	.47	.00	.00	m	m
31	.00	--	s.00	s.00	--	s.07	--	.17	--	.00	m	--
Total	3.32	4.52	1.71	0.95	0.32	2.98	5.33	5.64	1.11	1.17	--	--

m Missing record.

p Partial record.

s Snowfall affected precipitation.

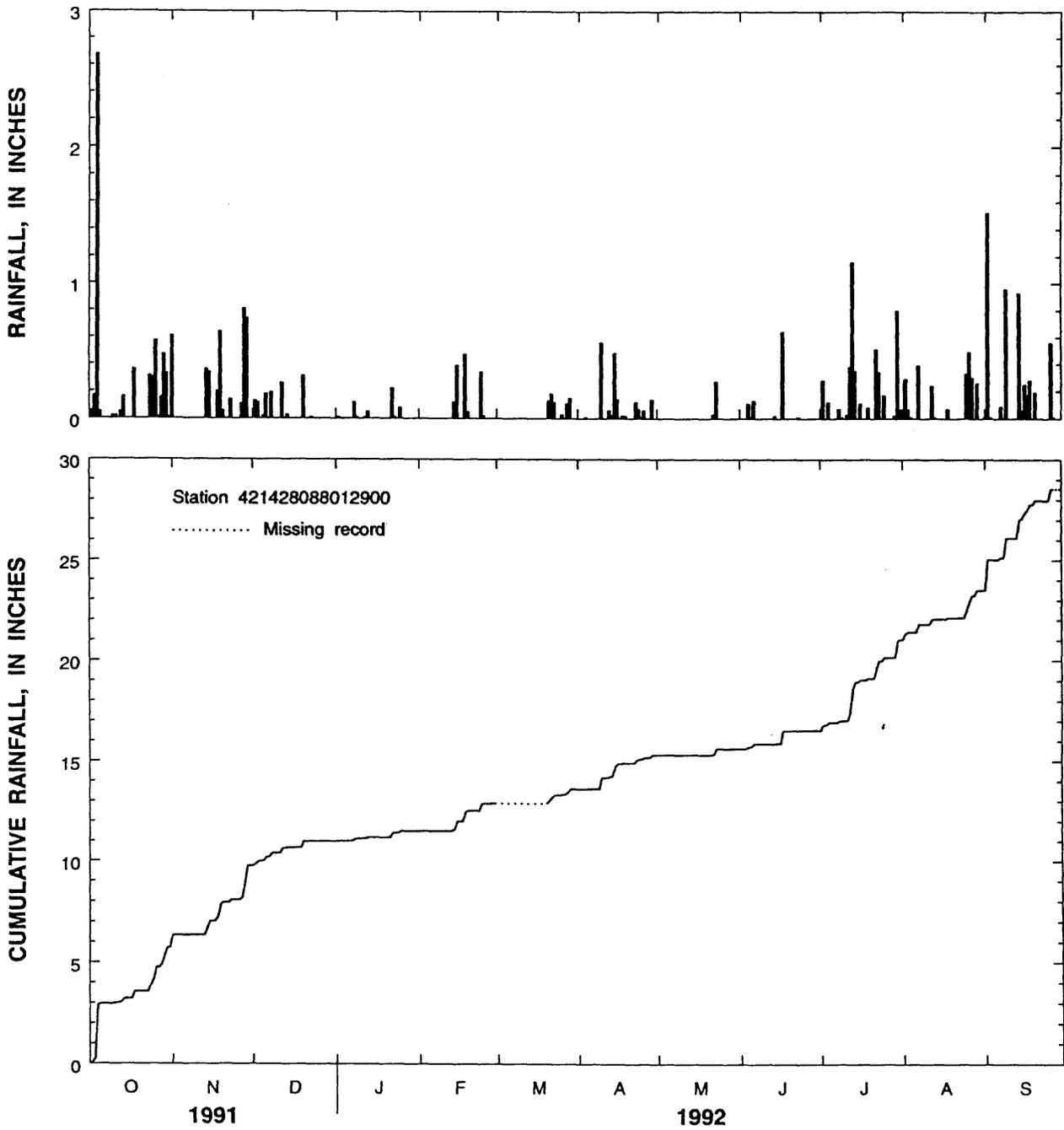


Figure 61. Daily rainfall totals and cumulative rainfall at Diamond Lake Wastewater Treatment Facility at Diamond Lake, Ill., water year 1992.

421428088012900 Diamond Lake Wastewater Treatment Facility at
Diamond Lake, Ill.—Continued

Rainfall, in inches, water year October 1991 to September 1992
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	p0.00	0.61	0.00	0.00	0.00	m	s0.00	0.00	0.00	0.00	0.00	0.01
2	.06	s.00	.13	.01	.00	m	s.00	.00	.00	.28	.29	1.52
3	.17	s.00	s.12	.00	.00	m	.00	.00	.00	.00	.07	.01
4	2.68	s.00	s.00	.00	.00	m	.01	.00	.11	.12	.01	.00
5	.05	.00	s.02	.00	.00	m	.00	.00	.01	.00	.00	.00
6	.00	.00	.18	.00	.00	m	.00	.00	.13	.00	.00	.00
7	.00	.00	.00	.00	s.00	m	.00	.00	.00	.00	.39	.09
8	.00	.00	.19	.12	s.00	m	.00	.00	.00	.07	.00	.00
9	.00	.00	.00	.01	.00	m	.00	.00	.00	.01	.00	.96
10	.02	.00	.00	s.00	s.00	m	.56	.00	.00	.00	.00	.00
11	.02	s.00	.00	.00	s.00	m	.00	.00	.00	.03	.00	.00
12	.00	s.00	.26	.01	s.00	m	.00	.00	.00	.38	.24	.00
13	.05	s.00	.00	.05	s.00	m	.06	.00	.00	1.16	.01	.00
14	.16	.36	.03	s.00	s.12	m	.02	.00	.02	.35	.00	.93
15	.00	.34	s.00	s.00	s.39	m	.48	.00	.00	.00	.00	.06
16	.00	.00	s.00	s.00	.00	m	.14	.00	.00	.11	.00	.25
17	.00	.00	.00	.00	.00	m	.00	.00	.64	.00	.00	.17
18	.36	.20	.00	.00	s.47	p0.00	.02	.00	.00	.00	.07	.28
19	.00	.64	.00	.00	s.05	.00	.02	.00	.00	.08	.00	.00
20	.00	.06	.31	.00	s.00	.00	.00	.00	.00	.00	.00	p.19
21	.00	.00	s.00	.00	.00	s.13	.00	.00	.00	.00	.00	m
22	.00	.00	.00	.22	.00	s.18	.00	.03	.00	.51	.00	p.00
23	.00	s.14	.01	.01	.00	.12	.12	.27	.01	.34	.00	.00
24	.31	s.00	.00	s.00	s.34	.00	.07	.00	.00	.00	.00	.00
25	.30	s.00	.00	s.08	s.02	.00	.01	.00	.00	.17	.33	.00
26	.57	.00	.00	s.00	.00	s.03	.06	.00	.00	.00	.49	.56
27	.01	s.11	.00	.00	p.00	s.00	.00	.00	.00	.00	.30	.01
28	.16	s.81	.00	.00	m	.11	.00	.00	.00	.00	.00	.00
29	.47	.74	.00	.00	m	.15	.14	.00	.00	.02	.26	.00
30	.33	.00	.00	.00	--	.00	.00	.00	.00	.80	.00	.00
31	.01	--	.00	.00	--	.00	--	.00	--	.07	.00	--
Total	5.73	4.01	1.25	0.51	--	--	1.71	0.30	0.92	4.50	2.46	--

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

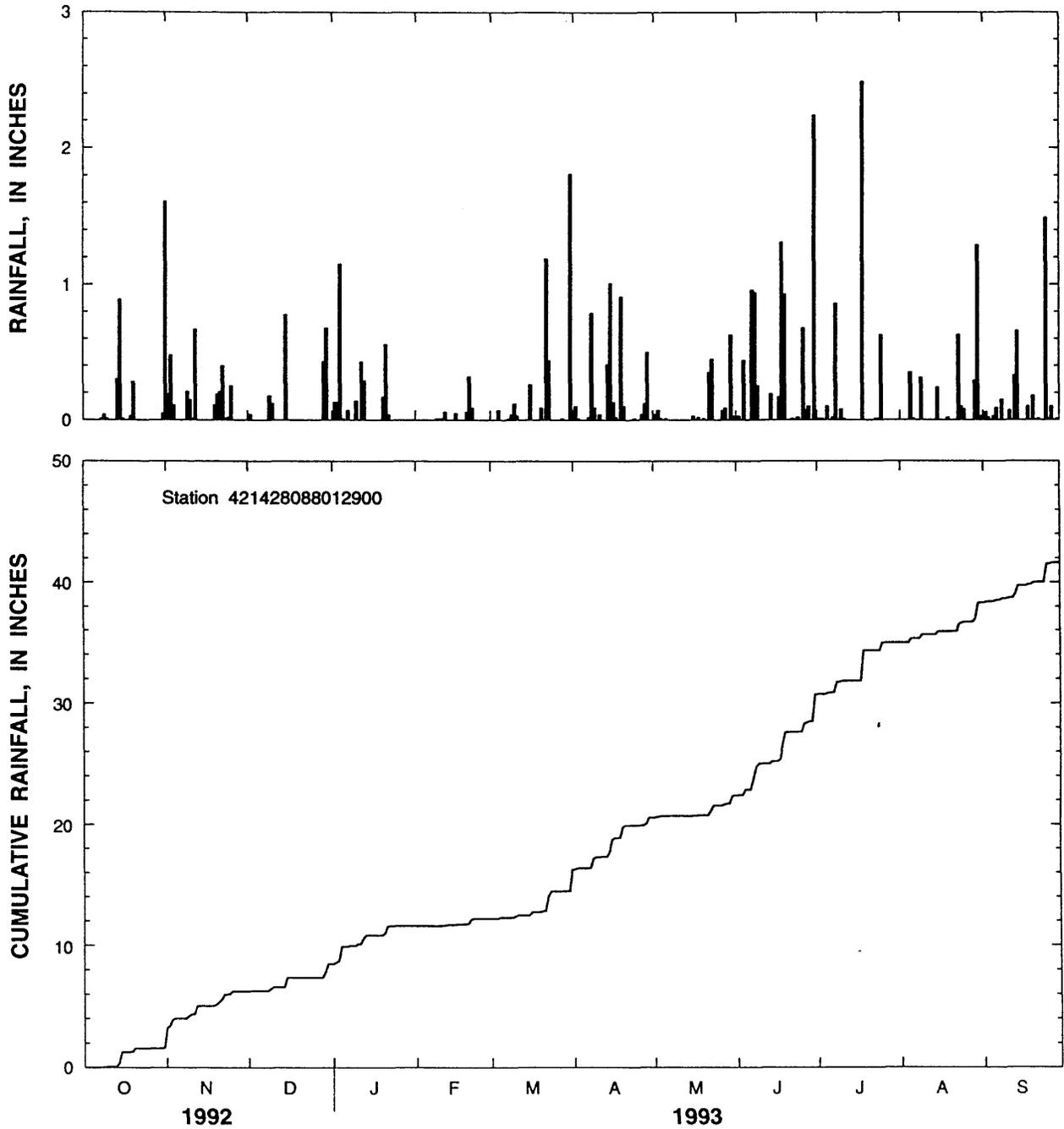


Figure 62. Daily rainfall totals and cumulative rainfall at Diamond Lake Wastewater Treatment Facility at Diamond Lake, Ill., water year 1993.

421428088012900 Diamond Lake Wastewater Treatment Facility at
Diamond Lake, Ill.—Continued

Rainfall, in inches, water year October 1992 to September 1993
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.61	s0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00
2	.00	.19	s.04	s.13	s.00	.00	.10	.04	.03	.01	.00	.06
3	.00	s.48	.00	s.13	s.00	.00	.01	.07	.00	.01	.00	.02
4	.00	s.11	s.00	s1.15	s.00	s.07	.00	.01	.44	.00	.00	.00
5	.00	s.00	.00	s.01	s.00	s.00	.00	.00	.00	.10	.35	.03
6	.00	s.00	.00	s.00	s.00	.00	.00	.01	.00	.00	.01	.09
7	.00	s.00	s.00	s.07	.00	.00	.02	.00	.96	.02	.00	.00
8	.01	s.00	.00	s.00	s.00	.01	.79	.00	.94	.86	.00	.15
9	.04	.21	.18	s.00	s.01	.04	.09	.00	.25	.00	.31	.00
10	.01	.15	s.12	s.14	s.01	s.12	.00	.00	.00	.08	.00	.00
11	.00	.01	.00	s.00	s.01	s.03	.04	.00	.00	.01	.00	.07
12	.00	s.67	.00	s.43	s.06	s.00	.00	.00	.00	.00	.00	.00
13	.00	s.00	.00	s.29	s.00	s.00	.00	.00	.00	.00	.00	.33
14	.30	s.00	.00	s.00	s.00	s.00	.41	.00	.19	.00	.00	.66
15	.89	s.00	.78	s.00	.00	.00	1.01	.00	.00	.00	.24	.00
16	.01	.00	.00	s.00	s.05	.26	.13	.03	.00	.00	.00	.00
17	.00	.00	s.00	.00	s.00	.00	.02	.00	.17	.00	.00	.00
18	.00	.00	.00	s.00	.00	s.00	.00	.02	1.31	2.49	.00	.10
19	s.03	.11	.00	s.00	.00	.00	.91	.00	.93	.00	.02	.00
20	s.28	.19	.00	.17	s.06	s.09	.10	.01	.00	.00	.00	.18
21	.00	.21	.00	.56	s.32	.00	.00	.00	.00	.00	.00	.00
22	.00	.40	.00	s.04	s.09	s1.19	.00	.35	.01	.00	.00	.01
23	.00	.01	.00	s.00	s.00	.44	.00	.45	.00	.01	.63	.00
24	.00	.02	s.00	.00	.00	.00	.01	.00	.02	.01	.10	.00
25	.00	.25	.00	.00	s.00	.00	.00	.00	.00	.63	.08	1.49
26	.00	.00	.00	s.00	s.00	.00	.00	.00	.68	.00	.00	.01
27	.00	.00	.00	s.00	.00	.00	.04	.07	.07	.00	.00	.10
28	.00	.00	.00	s.00	.00	.01	.12	.09	.10	.00	.00	.00
29	.00	.00	.43	s.00	--	.00	.50	.00	.00	.00	.29	.01
30	.00	.00	.68	.00	--	.00	.00	.63	2.24	.00	1.29	.00
31	.05	--	.00	.00	--	1.81	--	.03	--	.00	.03	--
Total	1.62	4.62	2.23	3.12	0.61	4.07	4.30	1.81	8.35	4.23	3.35	3.31

s Snowfall-affected precipitation.

Wauconda Wastewater Treatment Facility at Wauconda, Ill.

Site identifier.--17

Station number.--421533088084600

Location.--Latitude 42°15'33", longitude 88°08'46", in NW¼SE¼ sec.26, T.44 N., R.9 E., Lake County, Hydrologic Unit 07120006, at Wauconda Wastewater Treatment Facility in Wauconda (Wauconda 7.5-minute quadrangle).

To reach gage.--From the intersection of State Highway 176 and U.S. Highway 12, drive east approximately 0.1 mi on State Highway 176 to Brown Street. Drive north on Brown Street to intersection with Slocum Lake Road. Drive east on Slocum Lake Road approximately 500 ft to wastewater-treatment facility.

Drainage basin.--Fox River.

Gage.--An 8-in.-diameter, unheated, tipping-bucket rain gage mounted on a 2-in.-diameter steel post approximately 4 ft above the ground. An electronic data logger, housed inside a weatherproof electrical enclosure, is mounted on the steel post below the rain gage.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--February 12, 1990, to present. Periods of missing record exist due to equipment-related problems.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Lake County Stormwater Management Commission.

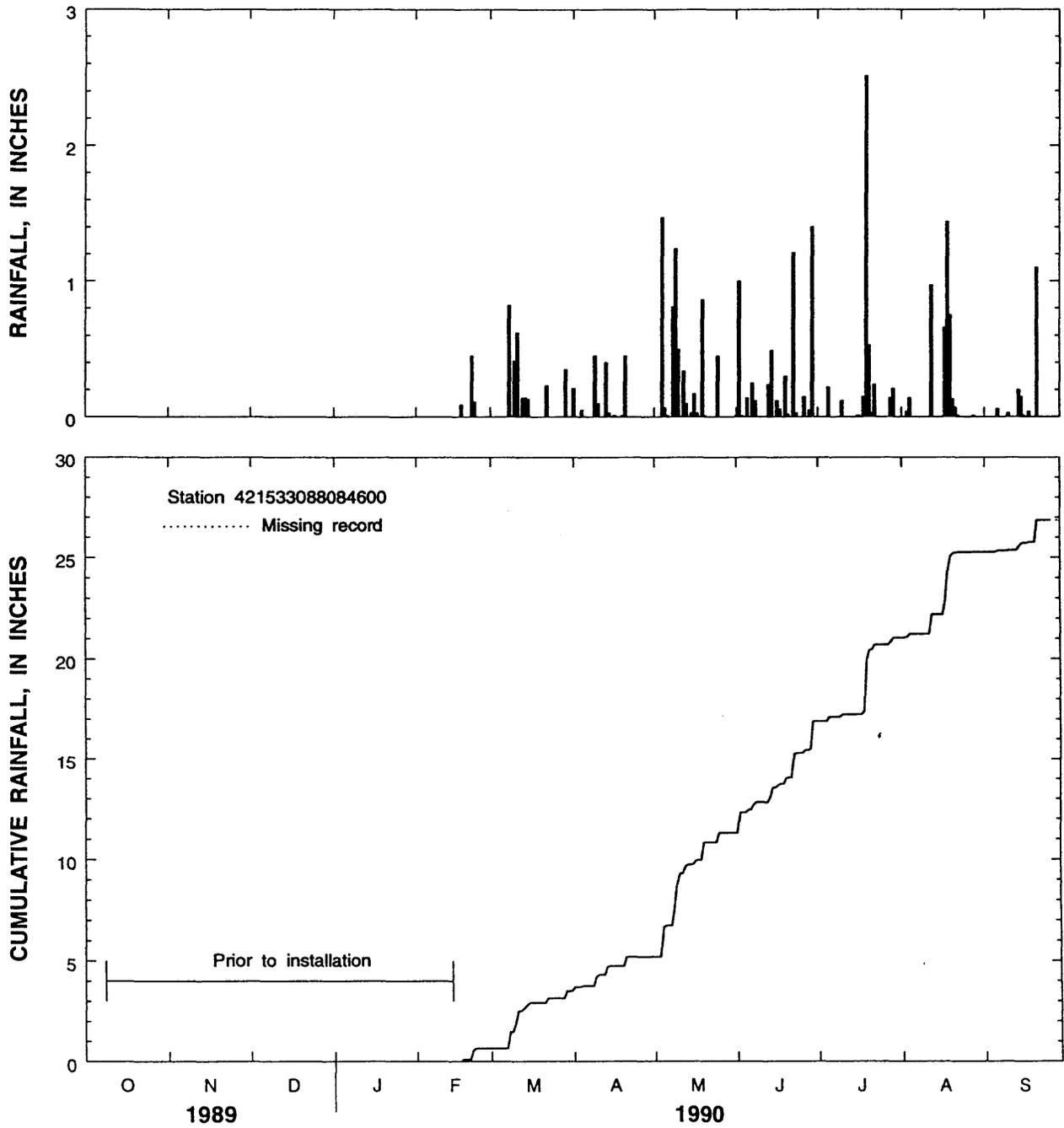


Figure 63. Daily rainfall totals and cumulative rainfall at Wauconda Wastewater Treatment Facility at Wauconda, Ill., water year 1990.

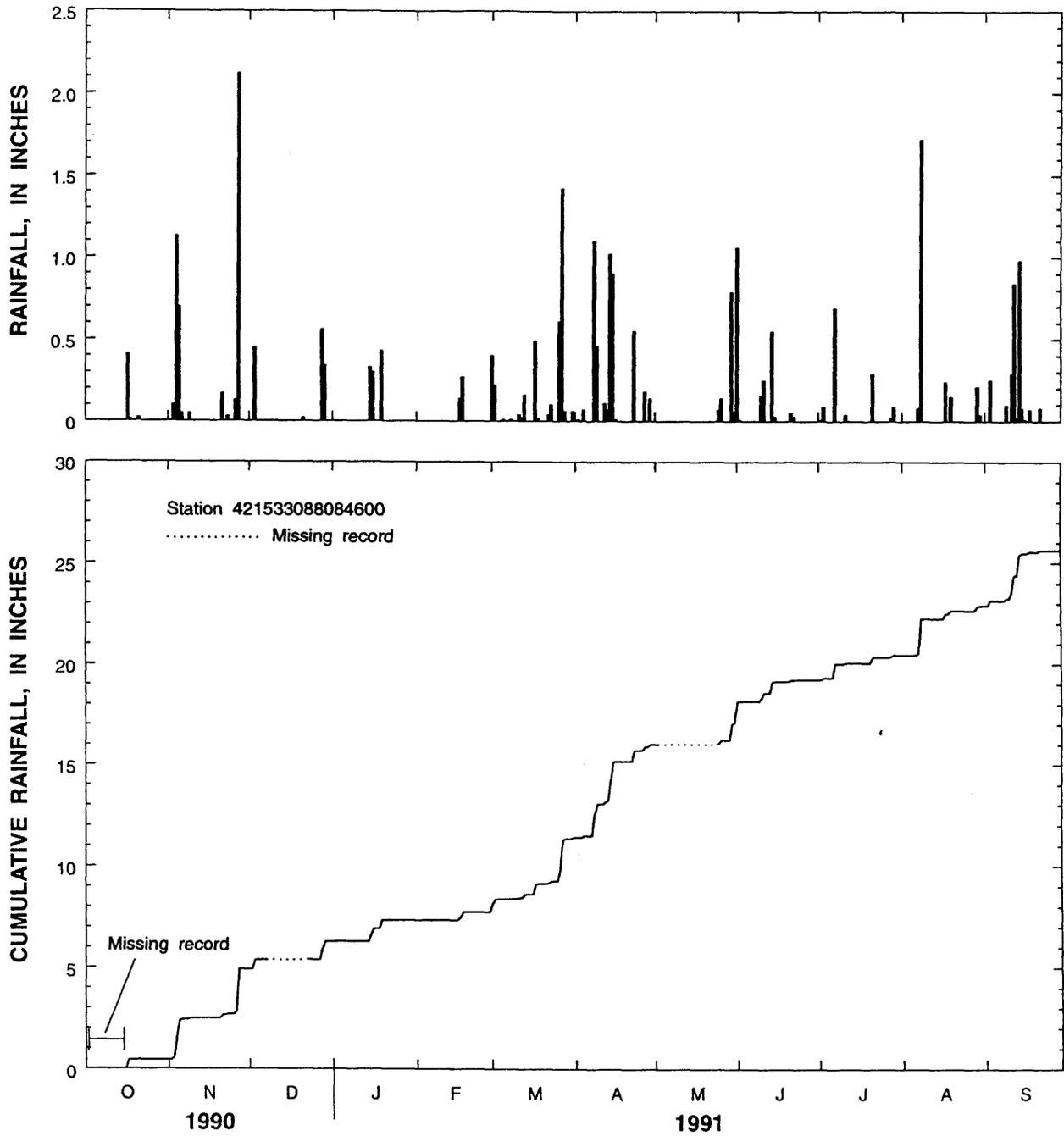


Figure 64. Daily rainfall totals and cumulative rainfall at Wauconda Wastewater Treatment Facility at Wauconda, Ill., water year 1991.

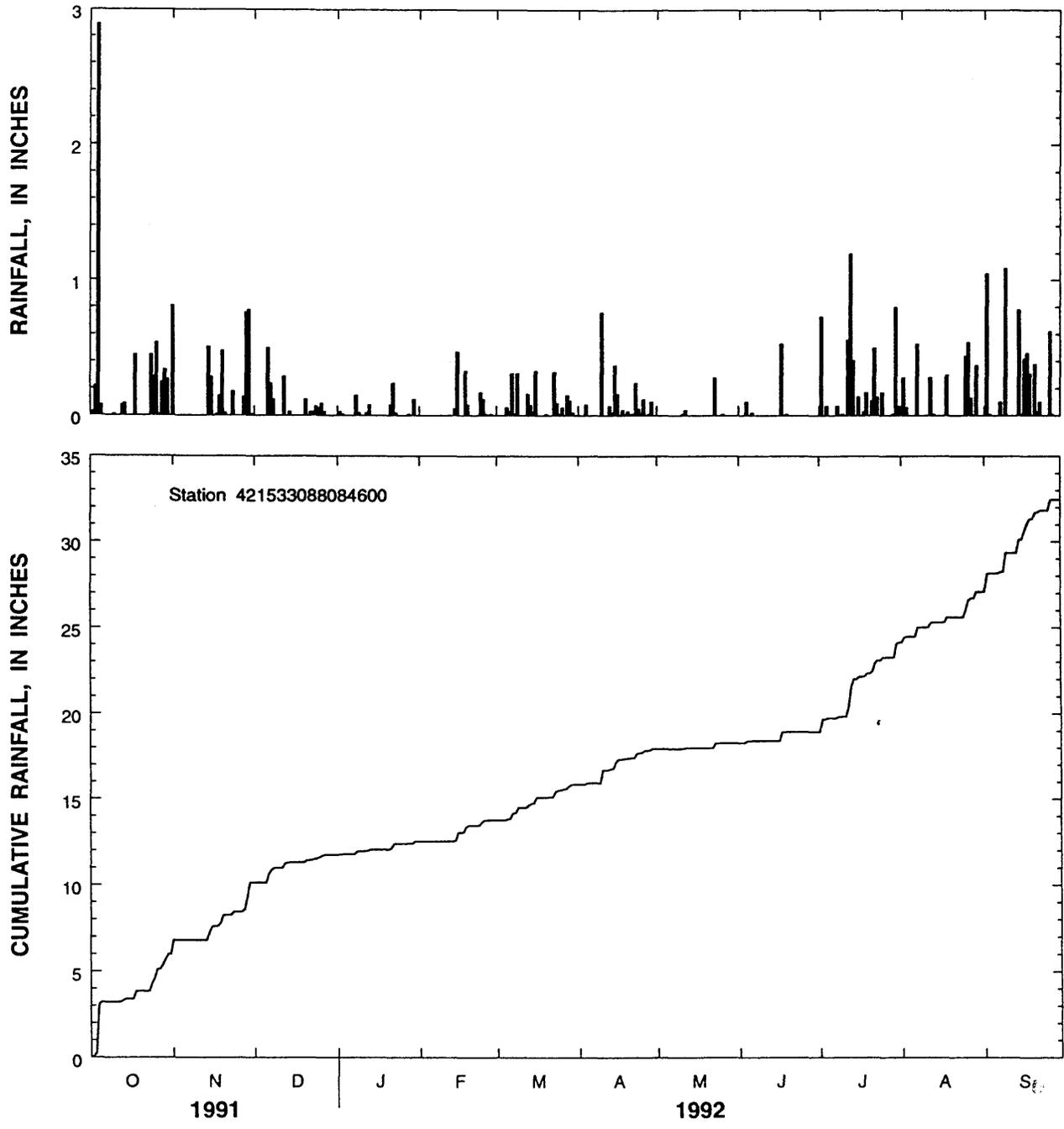


Figure 65. Daily rainfall totals and cumulative rainfall at Wauconda Wastewater Treatment Facility at Wauconda, Ill., water year 1992.

421533088084600 Wauconda Wastewater Treatment Facility at
Wauconda, Ill.—Continued

Rainfall, in inches, water year October 1991 to September 1992
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.81	0.00	0.00	0.00	0.00	s0.00	0.00	0.00	0.00	0.00	0.00
2	.03	s.00	.00	.03	.00	.00	s.00	.00	.00	.73	.28	1.05
3	.22	s.00	s.00	.01	.00	.00	.00	.00	.00	.00	.06	.01
4	2.89	s.00	s.00	.00	.00	.00	.08	.00	.10	.07	.00	.00
5	.08	.00	s.00	.00	.00	.06	.00	.00	.00	.00	.00	.00
6	.00	.00	.50	.00	.00	.03	.00	.00	.02	.00	.00	.00
7	.00	.00	.24	.00	s.00	.31	.00	.00	.00	.00	.53	.10
8	.00	.00	.12	.15	s.00	.01	.00	.00	.00	.07	.00	.00
9	.00	.00	.00	.02	.00	.31	.00	.00	.00	.01	.00	1.09
10	.01	.00	.00	s.00	s.00	s.00	.76	.00	.00	.01	.00	.00
11	.00	s.00	.00	.00	s.00	.00	.00	.01	.00	.00	.00	.00
12	.00	s.00	.29	.02	s.00	.00	.00	.04	.00	.56	.28	.00
13	.08	s.00	.00	.08	s.00	.16	.07	.00	.00	1.20	.01	.00
14	.09	.51	.03	s.00	s.05	s.08	.02	.00	.00	.41	.00	.78
15	.00	.29	s.00	s.00	s.47	.03	.37	.00	.00	.00	.00	.01
16	.00	.00	s.00	s.00	.00	.33	.16	.00	.00	.14	.00	.42
17	.00	.01	.00	.00	.00	.00	.00	.00	.53	.00	.00	.46
18	.45	.15	.00	.00	s.33	.00	.04	.00	.00	.03	.30	.31
19	.00	.48	.00	.00	s.08	.00	.01	.00	.01	.17	.00	.00
20	.00	.02	.12	.00	s.00	.01	.03	.00	.00	.00	.00	.38
21	.00	.00	s.00	.08	.00	s.00	.01	.00	.00	.11	.00	.03
22	.00	.00	.03	.24	.00	s.00	.01	.00	.00	.50	.00	.10
23	.00	s.18	.03	.02	.00	.32	.24	.28	.00	.14	.00	.00
24	.45	s.00	.07	s.00	s.17	.09	.05	.00	.00	.00	.00	.00
25	.29	s.00	.06	s.00	s.12	.01	.01	.00	.00	.17	.44	.00
26	.54	.00	.09	s.00	.01	s.06	.12	.01	.00	.00	.54	.62
27	.01	s.14	.03	.00	.00	s.00	.00	.00	.00	.00	.13	.01
28	.25	s.76	.00	.01	s.01	.15	.01	.00	.00	.00	.00	.00
29	.34	.78	.00	.00	s.00	.11	.10	.00	.00	.01	.37	.00
30	.27	.01	.00	.12	--	.02	.00	.00	.00	.80	.00	.00
31	.00	--	.00	.00	--	.00	--	.00	--	.07	.00	--
Total	6.00	4.14	1.61	0.78	1.24	2.09	2.09	0.34	0.66	5.20	2.94	5.37

s Snowfall-affected precipitation

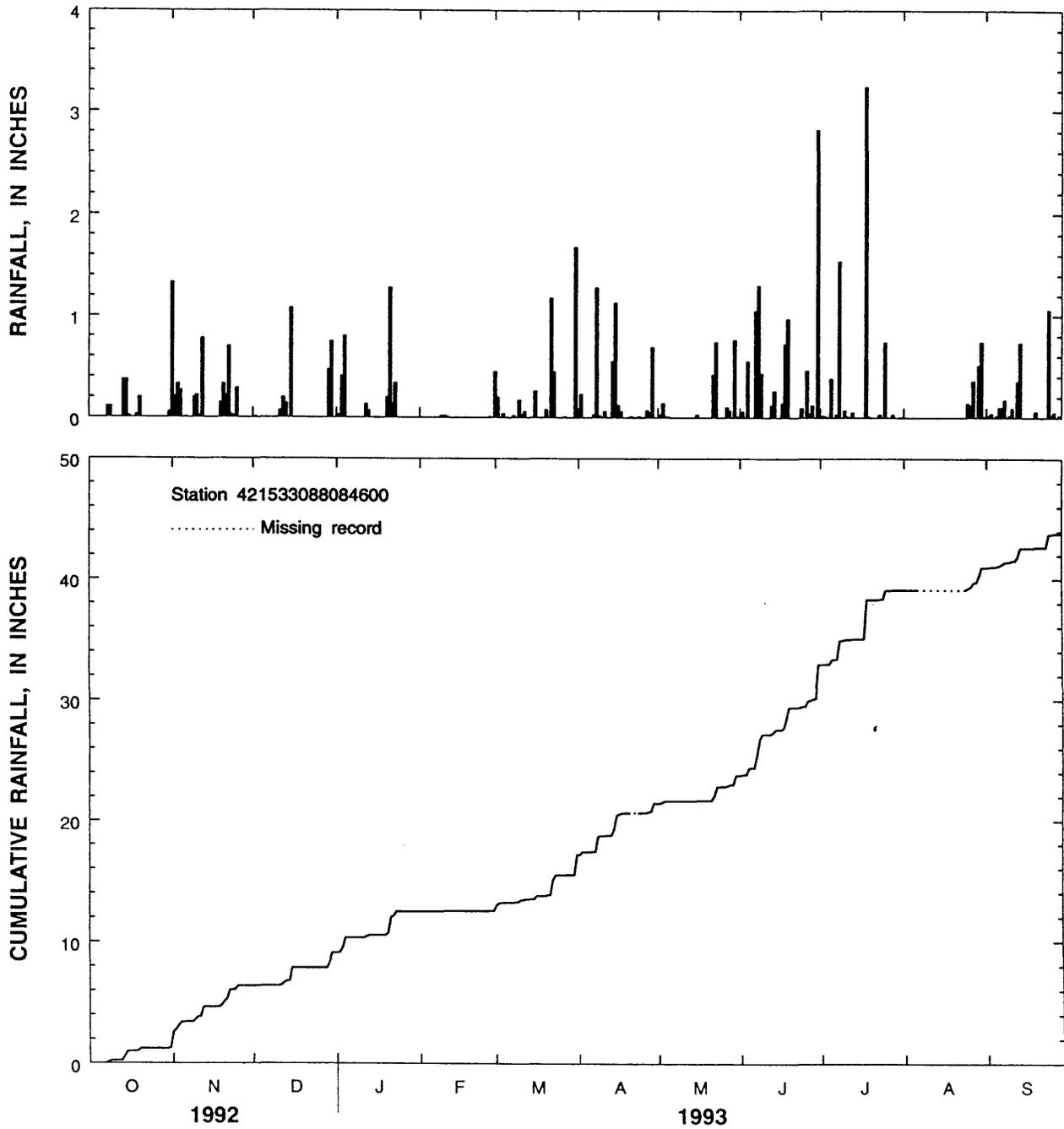


Figure 66. Daily rainfall totals and cumulative rainfall at Wauconda Wastewater Treatment Facility at Wauconda, Ill., water year 1993.

421533088084600 Wauconda Wastewater Treatment Facility at
Wauconda, Ill.—Continued

Rainfall, in inches, water year October 1992 to September 1993
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.33	s.00	0.00	0.00	0.45	0.00	0.00	0.01	0.00	0.00	0.00
2	.00	.21	s.01	s.03	s.00	.20	.23	.03	.06	.02	.00	.02
3	.00	s.33	.00	s.41	s.00	.00	.00	.14	.00	.01	.00	.04
4	.00	s.27	s.00	s.80	s.00	s.04	.00	.01	.55	.00	.00	.00
5	.00	s.00	.00	s.00	s.00	s.00	.00	.01	.00	.38	p.00	.02
6	.00	s.01	.00	s.00	s.00	.00	.00	.00	.00	.00	m	.10
7	.00	s.00	s.00	s.00	.00	.00	.03	.00	1.05	.03	m	.10
8	.11	s.00	.00	s.00	s.00	.02	1.28	.00	1.30	1.54	m	.17
9	.11	.20	.00	s.00	s.02	.00	.02	.00	.43	.00	m	.00
10	.00	.22	s.00	s.00	s.02	s.17	.00	.00	.00	.07	m	.02
11	.00	.02	.07	s.00	s.01	s.03	.06	.00	.00	.01	m	.09
12	.00	s.78	.20	s.13	s.00	s.06	.00	.00	.00	.00	m	.00
13	.00	s.00	.14	s.07	s.00	s.00	.00	.00	.12	.05	m	.35
14	.37	s.00	.00	s.00	s.00	s.00	.55	.00	.26	.00	m	.73
15	.37	s.00	1.08	s.00	.00	.00	1.13	.00	.00	.00	m	.00
16	.02	.00	.00	s.00	s.00	.26	.12	.03	.00	.00	m	.00
17	.00	.00	s.00	.00	s.00	.00	.06	.00	.14	.00	m	.00
18	.00	.00	.00	s.00	.00	s.00	.00	.00	.72	3.24	m	.00
19	s.03	.15	.00	s.00	.00	.00	m	.00	.97	.01	m	.00
20	s.20	.33	.00	.20	s.00	s.08	m	.00	.00	.00	m	.06
21	.00	.22	.00	1.28	s.00	.00	.01	.00	.00	.00	m	.00
22	.00	.70	.00	s.13	s.00	s.1.18	.00	.42	.00	.00	m	.00
23	.00	.03	.00	s.34	s.00	.45	.00	.74	.00	.03	m	.00
24	.00	.02	s.00	.00	.00	.00	.01	.00	.09	.00	p.00	.00
25	.00	.29	.00	.00	s.00	.00	.00	.00	.00	.74	.14	1.06
26	.00	.00	.00	s.00	s.00	.00	.00	.00	.46	.00	.12	.02
27	.00	.00	.00	s.00	.01	.01	.07	.10	.04	.00	.36	.05
28	.00	.00	.00	s.00	.00	.00	.05	.07	.12	.03	.00	.00
29	.00	.00	.47	s.00	--	.00	.69	.00	.00	.00	.51	.02
30	.00	.00	.75	.00	--	.00	.00	.76	2.82	.00	.74	.00
31	.06	--	.00	.00	--	1.68	--	.01	--	.00	.01	--
Total	1.27	5.11	2.72	3.39	0.06	4.63	--	2.32	9.14	6.16	--	2.85

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

421533088084600 Wauconda Wastewater Treatment Facility at
Wauconda, Ill.—Continued

Rainfall, in inches, water year October 1990 to September 1991
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	m	0.00	0.00	0.00	0.00	0.40	0.00	m	1.06	0.00	0.00	0.00
2	m	.00	s.00	.00	.00	.22	.01	m	.01	.01	.00	.00
3	m	.10	s.45	s.00	.00	s.00	.00	m	.00	.09	.00	.25
4	m	s1.13	p.00	.00	.00	.00	.07	m	.00	.00	.00	.00
5	m	s.70	m	s.00	.00	.01	.00	m	.00	.00	.00	.00
6	m	s.05	m	s.00	.00	.00	.00	m	.00	.00	.00	.00
7	m	.00	m	.00	.00	.00	.00	m	.00	.69	.08	.00
8	m	.00	m	.00	.00	.01	1.10	m	.00	.00	1.72	.00
9	m	s.05	m	s.00	.00	.00	.46	m	.00	.00	.00	.10
10	m	.00	m	.00	.00	.00	.00	m	.16	.00	.00	.00
11	m	s.00	m	s.00	.00	.04	.00	m	.25	.04	.00	.29
12	m	.00	m	s.00	.00	s.02	.11	m	.00	.00	.00	.84
13	m	.00	m	.00	.00	s.16	.07	m	.00	.00	.00	.02
14	m	.00	m	.00	s.00	.00	1.02	m	.55	.00	.00	.98
15	m	.00	m	.33	.00	.00	.90	m	.03	.00	.00	.08
16	p0.00	.00	m	.30	.00	.00	.01	m	.00	.00	.00	.01
17	.41	.00	m	.00	.14	.49	.00	m	.00	.00	.24	.00
18	.01	.00	m	.00	.27	.02	.00	m	.00	.00	.00	.07
19	.00	.00	m	.43	.00	.00	.00	m	.00	.00	.15	.00
20	.00	.00	p.00	.00	.00	.00	.00	m	.00	.00	.00	.00
21	.02	.17	.02	s.00	.00	.00	.00	m	.05	.29	.00	.00
22	.00	.00	.00	.00	.00	.04	.00	m	.03	.00	.00	.08
23	.00	.03	.00	s.00	.00	.10	.55	m	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	m	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	p0.07	.00	.00	.00	.00
26	.00	.13	.00	.00	.00	.61	.00	.14	.00	.00	.00	.00
27	.00	2.12	s.00	.00	s.00	1.42	.18	.00	.00	.00	.00	.00
28	.00	.00	s.56	.00	.00	.06	.00	.00	.00	.02	.00	.00
29	.00	.00	s.34	.00	--	.00	.14	.00	.00	.09	.21	.00
30	.00	.00	s.00	s.00	--	.00	p.00	.79	.00	.00	.04	.00
31	.00	--	s.00	s.00	--	s.06	--	.06	--	.00	.00	--
Total	--	4.48	--	1.06	0.41	3.66	4.62	--	2.14	1.23	2.44	2.72

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

Grayslake Wastewater Treatment Facility at Grayslake, Ill.

Site identifier.--18

Station number.--422118088014700

Location.--Latitude 42°21'18", longitude 88°01'47", in NE¼ sec.26, T.45 N., R.10 E., Lake County, Hydrologic Unit 07120004, at Public Works Building in Grayslake (Grayslake 7.5-minute quadrangle).

To reach gage.--From the intersection of State Highways 120 and 83, drive north approximately 1.0 mi to Berry Avenue. Turn east on Berry Avenue to Public Works Building.

Drainage basin.--Mill Creek.

Gage.--An 8-in.-diameter, heated, tipping-bucket rain gage mounted on a 2-in.-diameter steel post approximately 4 ft above the ground. An electronic data logger, housed inside a weatherproof electrical enclosure, is mounted on the steel post below the rain gage.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--February 1, 1990, to present. Periods of missing record exist due to equipment-related problems.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Lake County Stormwater Management Commission.

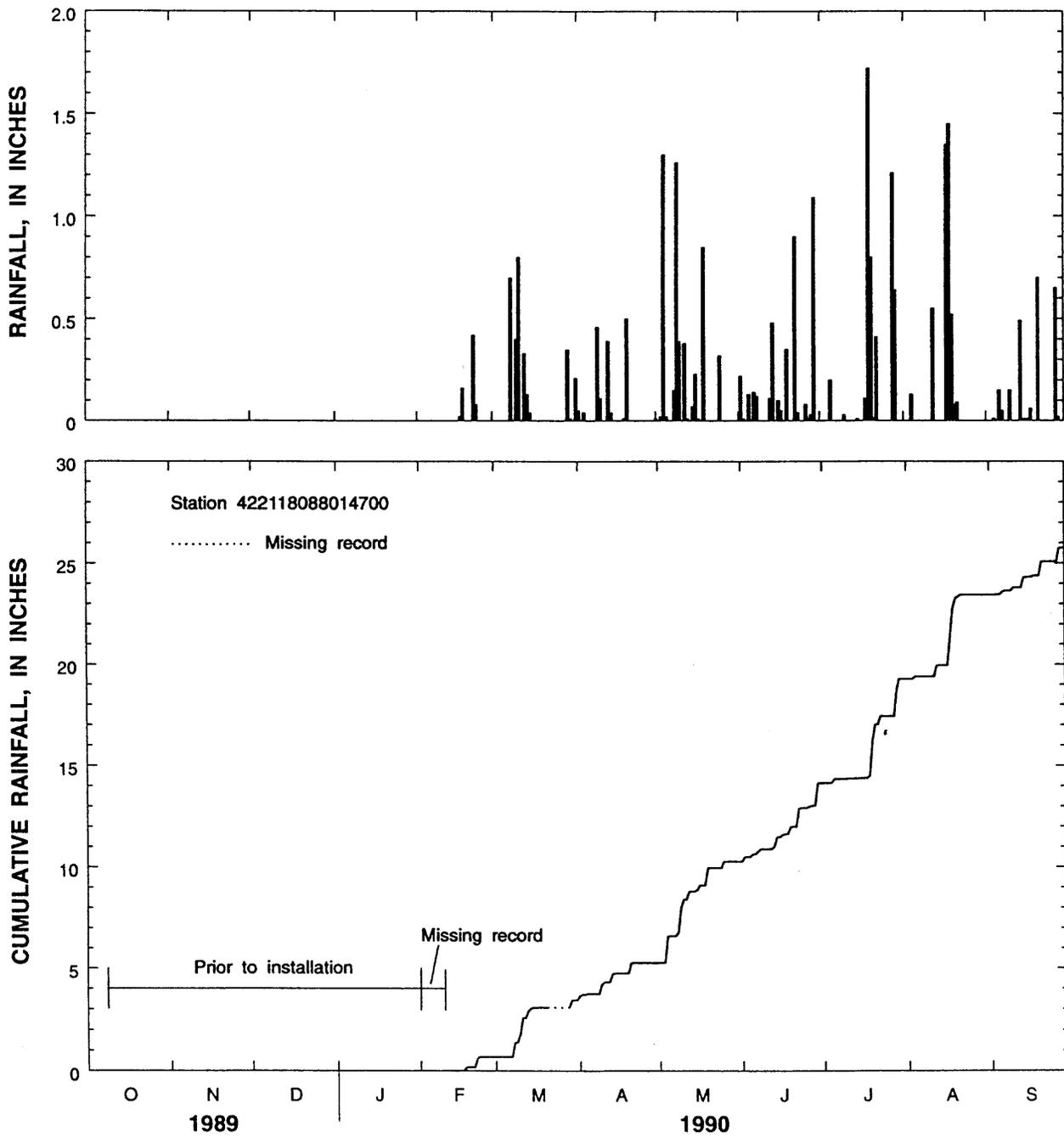


Figure 67. Daily rainfall totals and cumulative rainfall at Grayslake Wastewater Treatment Facility at Grayslake, Ill., water year 1990.

422118088014700 Grayslake Wastewater Treatment Facility at
Grayslake, Ill.—Continued

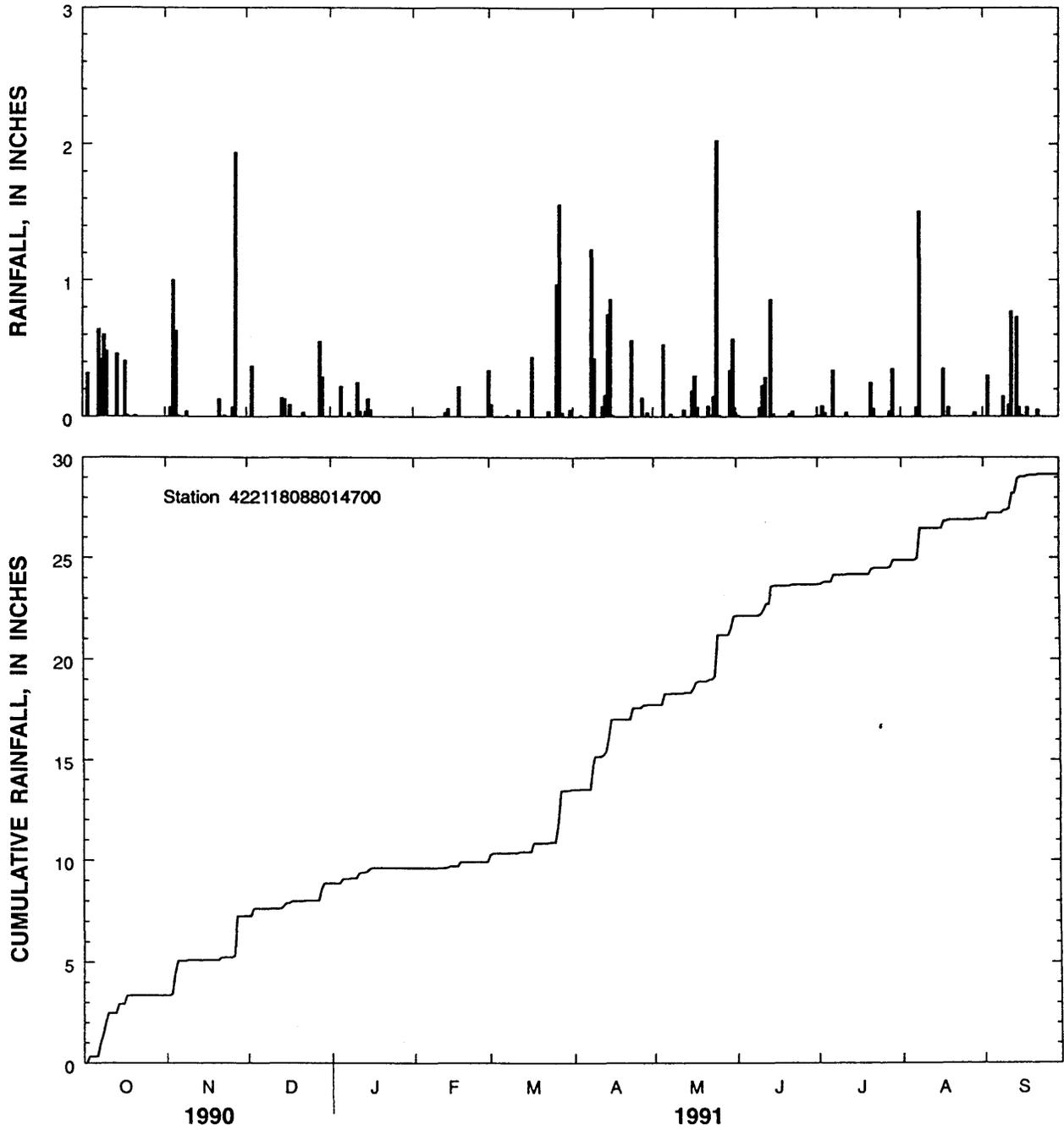
Rainfall, in inches, water year October 1989 to September 1990
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	--	m	0.00	0.21	0.01	0.00	0.00	0.00	0.00
2	--	--	--	--	m	.00	.05	.00	.22	.00	.00	.00
3	--	--	--	--	m	.00	.00	.02	.01	.00	.00	.00
4	--	--	--	--	m	.00	.04	1.30	.00	.00	.13	.01
5	--	--	--	--	m	.00	s.00	.02	.13	.20	.00	.00
6	--	--	--	--	m	.00	s.00	.00	.00	.00	.00	.15
7	--	--	--	--	m	.00	.00	.00	.14	.00	.00	.05
8	--	--	--	--	m	.70	.00	.15	.12	.00	.00	.00
9	--	--	--	--	p0.00	.00	.46	1.26	.00	.00	.00	.00
10	--	--	--	--	.00	.40	.11	.39	.00	.03	.00	.15
11	--	--	--	--	.00	.80	s.00	.00	.00	.00	.00	.00
12	--	--	--	--	.00	.00	s.00	.38	.00	.00	.55	.00
13	--	--	--	--	.00	.33	.39	.01	.11	.00	.00	.00
14	--	--	--	--	.00	.13	.04	.00	.48	.00	.00	.49
15	--	--	--	--	s.00	.04	.00	.07	.00	.01	.00	.01
16	--	--	--	--	s.00	.00	.00	.23	.10	.00	.00	.01
17	--	--	--	--	s.02	.00	.00	.01	.05	.00	1.35	.01
18	--	--	--	--	.16	.00	.00	.00	.00	.11	1.45	.06
19	--	--	--	--	.00	.00	.01	.85	.35	1.72	.52	.00
20	--	--	--	--	.00	p.00	.50	.00	.00	.80	.08	.00
21	--	--	--	--	.00	m	.00	.00	.00	.01	.09	.70
22	--	--	--	--	.42	m	.00	.00	.90	.41	.00	.00
23	--	--	--	--	s.08	m	.00	.00	.04	.00	.00	.00
24	--	--	--	--	s.00	m	.00	.00	.00	.00	.00	.00
25	--	--	--	--	.00	m	.00	.32	.00	.00	.00	.00
26	--	--	--	--	.00	m	.00	.00	.08	.00	.00	.00
27	--	--	--	--	.00	m	.00	.00	.01	.00	.00	.00
28	--	--	--	--	.00	p.00	.00	.00	.03	1.21	.00	.65
29	--	--	--	--	--	.35	.00	.00	1.09	.64	.00	.02
30	--	--	--	--	--	.01	.00	.00	.00	.00	.00	.00
31	--	--	--	--	--	.00	--	.00	--	.00	.00	--
Total	--	--	--	--	--	--	1.81	5.02	3.86	5.14	4.17	2.31

m Missing record.

p Partial record.

s Snowfall-affected precipitation.



422118088014700 Grayslake Wastewater Treatment Facility at
Grayslake, Ill.—Continued

Rainfall, in inches, water year October 1990 to September 1991
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.00	0.00	0.00	0.00	0.34	0.00	0.00	0.03	0.01	0.00	0.00
2	.00	.00	s.00	.00	.00	.09	.00	.00	.01	.01	.00	.00
3	.32	.07	s.37	s.00	.00	s.00	.00	.00	.00	.08	.00	.30
4	.00	s1.00	s.00	.00	.00	.00	.01	.00	.00	.03	.00	.00
5	.00	s.63	.00	s.22	.00	.00	.00	.53	.00	.00	.00	.00
6	.00	s.01	.00	s.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.64	.00	.00	.00	.00	.00	.00	.00	.00	.34	.07	.00
8	.42	.00	.00	.03	.00	.01	1.23	.02	.00	.00	1.51	.00
9	.60	s.04	.00	s.00	.00	.00	.43	.00	.00	.00	.00	.15
10	.48	.00	.00	.00	.00	.00	.00	.00	.07	.00	.00	.00
11	.00	s.00	.00	s.25	.00	.00	.00	.00	.23	.00	.00	.09
12	.00	.00	.00	s.04	.00	s.05	.08	.00	.29	.03	.00	.77
13	.00	.00	.00	.00	.03	s.00	.16	.05	.00	.00	.00	.00
14	.46	.00	s.14	.04	s.06	.00	.75	.00	.86	.00	.00	.73
15	.00	.00	s.13	.13	.00	.00	.86	.00	.02	.00	.00	.07
16	.00	.00	.00	.05	.00	.00	.01	.19	.00	.00	.00	.01
17	.41	.00	.09	.00	.00	.44	.00	.30	.00	.00	.35	.00
18	.01	.00	.00	.00	.22	.00	.00	.07	.00	.00	.00	.07
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.07	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.01	.13	.00	s.00	.00	.00	.00	.00	.02	.25	.00	.00
22	.00	.00	.03	.00	.00	.00	.00	.08	.04	.06	.00	.05
23	.00	.01	.00	s.00	.00	.04	.56	.01	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.15	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	2.03	.00	.00	.00	.00
26	.00	.07	.00	.00	.00	.97	.00	.01	.00	.00	.00	.00
27	.00	1.94	s.00	.00	s.00	1.56	.14	.00	.00	.00	.00	.00
28	.00	.00	s.55	.00	.00	.03	.00	.00	.00	.04	.00	.00
29	.00	.00	s.29	.00	--	.00	.03	.00	.00	.35	.03	.00
30	.00	.00	s.00	s.00	--	.00	.00	.34	.00	.00	.00	.00
31	.00	--	s.00	s.00	--	s.05	--	.57	--	.00	.00	--
Total	3.35	3.90	1.60	0.76	0.31	3.58	4.26	4.35	1.57	1.20	2.03	2.24

s Snowfall-affected precipitation.

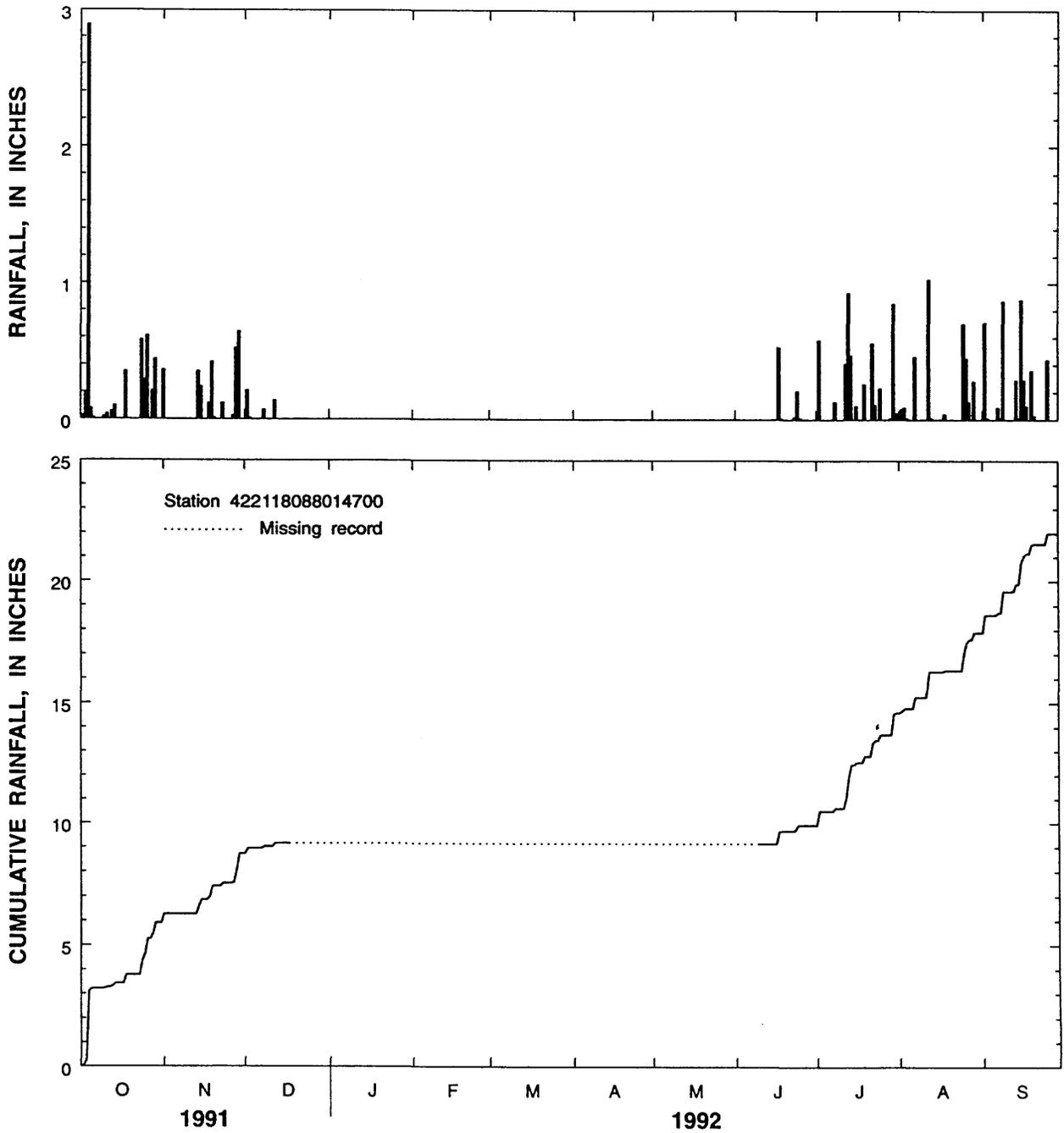


Figure 69. Daily rainfall totals and cumulative rainfall at Grayslake Wastewater Treatment Facility at Grayslake, Ill., water year 1992.

422118088014700 Grayslake Wastewater Treatment Facility at
Grayslake, Ill.—Continued

Rainfall, in inches, water year October 1991 to September 1992
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.36	0.02	m	m	m	m	m	m	0.00	0.00	0.00
2	.03	s.00	.21	m	m	m	m	m	m	.58	.08	.71
3	.20	s.00	s.01	m	m	m	m	m	m	.00	.09	.01
4	2.89	s.00	s.00	m	m	m	m	m	m	.00	.01	.00
5	.08	.00	s.00	m	m	m	m	m	m	.00	.00	.00
6	.01	.00	.00	m	m	m	m	m	m	.00	.00	.00
7	.00	.00	.00	m	m	m	m	m	m	.00	.46	.09
8	.00	.00	.07	m	m	m	m	m	m	.13	.00	.01
9	.00	.00	.00	m	m	m	m	m	p0.00	.00	.00	.87
10	.02	.00	.00	m	m	m	m	m	.00	.00	.00	.00
11	.04	s.00	.00	m	m	m	m	m	.00	.00	.00	.00
12	.00	s.00	.14	m	m	m	m	m	.00	.41	1.03	.00
13	.06	s.00	.00	m	m	m	m	m	.00	.93	.01	.00
14	.10	.35	.00	m	m	m	m	m	.00	.47	.00	.29
15	.00	.24	s.00	m	m	m	m	m	.00	.00	.00	.01
16	.00	.00	p.00	m	m	m	m	m	.00	.10	.00	.88
17	.00	.00	m	m	m	m	m	m	.53	.00	.00	.29
18	.35	.12	m	m	m	m	m	m	.01	.00	.04	.10
19	.00	.42	m	m	m	m	m	m	.00	.26	.00	.00
20	.00	.01	m	m	m	m	m	m	.00	.00	.00	.36
21	.00	.00	m	m	m	m	m	m	.00	.00	.00	.03
22	.00	.00	m	m	m	m	m	m	.00	.56	.00	.00
23	.00	s.12	m	m	m	m	m	m	.02	.11	.00	.00
24	.58	s.00	m	m	m	m	m	m	.21	.00	.00	.00
25	.29	s.00	m	m	m	m	m	m	.01	.23	.70	.00
26	.61	.00	m	m	m	m	m	m	.00	.00	.45	.44
27	.00	s.03	m	m	m	m	m	m	.00	.00	.13	.00
28	.21	s.52	m	m	m	m	m	m	.00	.00	.00	.00
29	.44	.64	m	m	m	m	m	m	.00	.01	.28	.00
30	.00	.00	m	m	--	m	m	m	.00	.85	.00	.00
31	.00	--	m	m	--	m	--	m	--	.05	.00	--
Total	5.91	2.81	--	--	--	--	--	--	--	4.69	3.28	4.09

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

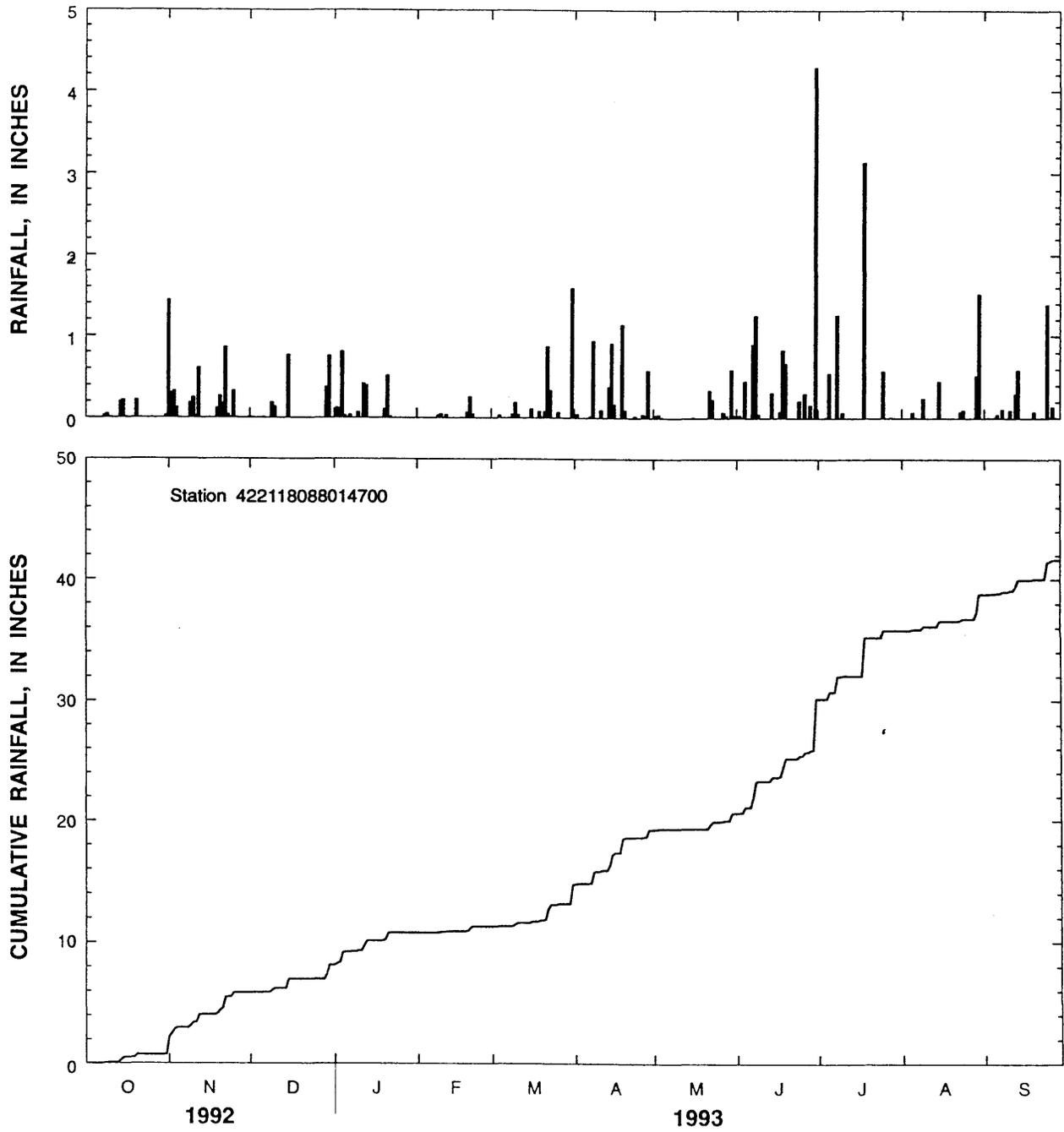


Figure 70. Daily rainfall totals and cumulative rainfall at Grayslake Wastewater Treatment Facility at Grayslake, Ill., water year 1993.

422118088014700 Grayslake Wastewater Treatment Facility at
Grayslake, Ill.—Continued

Rainfall, in inches, water year October 1992 to September 1993
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.44	s0.01	0.00	0.00	0.00	0.03	0.00	0.00	0.00	0.00	0.00
2	.00	.31	s.01	s.13	s.00	.00	.05	.03	.03	.00	.00	.01
3	.00	s.33	.00	s.12	s.00	.00	.00	.04	.01	.00	.00	.01
4	.00	s.13	s.00	s.81	s.00	s.03	.00	.01	.45	.01	.00	.00
5	.00	s.00	.00	s.03	s.00	s.00	.00	.00	.00	.55	.07	.01
6	.00	s.00	.01	s.00	s.00	.00	.00	.00	.00	.00	.01	.05
7	.00	s.00	s.00	s.04	.00	.00	.02	.00	.90	.00	.00	.00
8	.03	s.00	.00	s.00	s.00	.00	.94	.00	1.25	1.26	.00	.11
9	.05	.19	.19	s.00	s.03	.05	.00	.00	.05	.00	.24	.00
10	.01	.25	s.14	s.07	s.05	s.19	.00	.00	.00	.07	.00	.00
11	.00	.02	.00	s.00	s.00	s.04	.10	.00	.00	.00	.00	.10
12	.00	s.61	.00	s.42	s.04	s.00	.00	.00	.00	.00	.00	.00
13	.00	s.00	.00	s.40	s.00	s.00	.00	.00	.00	.00	.00	.30
14	.20	s.00	.00	s.00	s.00	s.00	.38	.00	.31	.00	.00	.59
15	.22	s.00	.77	s.00	.00	.00	.91	.00	.00	.00	.45	.00
16	.01	.00	.00	s.00	s.00	.11	.17	.01	.00	.00	.00	.00
17	.00	.00	s.00	.00	s.00	.00	.00	.00	.08	.00	.00	.00
18	.00	.00	.00	s.00	.00	s.00	.00	.00	.83	3.14	.00	.00
19	s.00	.12	.00	s.00	.00	.08	1.14	.00	.67	.00	.00	.00
20	s.22	.27	.00	.11	s.07	s.01	.10	.00	.00	.00	.00	.08
21	.00	.18	.00	.52	s.26	.08	.00	.00	.00	.00	.00	.00
22	.00	.86	.00	s.02	s.05	s.87	.00	.34	.00	.00	.00	.00
23	.00	.04	.00	s.00	s.00	.34	.00	.23	.00	.00	.08	.01
24	.00	.01	s.00	.00	.00	.00	.02	.00	.21	.00	.10	.00
25	.00	.33	.00	.00	s.00	.00	.00	.00	.00	.57	.00	1.39
26	.00	.01	.00	s.00	s.00	.07	.00	.00	.30	.00	.00	.01
27	.00	.00	.00	s.00	.00	.00	.04	.07	.00	.00	.00	.14
28	.00	.00	.00	s.00	.00	.00	.03	.03	.16	.01	.00	.01
29	.00	.00	.38	s.00	--	.00	.58	.00	.00	.00	.52	.00
30	.00	.00	.76	.00	--	.00	.00	.59	4.29	.00	1.52	.00
31	.03	--	.00	.00	--	1.59	--	.03	--	.00	.00	--
Total	0.77	5.10	2.27	2.67	0.50	3.46	4.51	1.38	9.54	5.61	2.99	2.82

s Snowfall-affected precipitation.

Fox Lake Rain Gage at Fox Lake, Ill.

Site identifier.--19

Station number.--422315088091800

Location.--Latitude 42°23'15", longitude 88°09'18", in SW¼SW¼ sec.11, T.45 N., R.9 E., Lake County, Hydrologic Unit 07120006, at Fox Lake Fire Department on Washington Street in Fox Lake (Fox Lake 7.5-minute quadrangle).

To reach gage.--From the intersection of State Highway 59, State Highway 132 (Grand Avenue), and Washington Street, drive south approximately 0.3 mi on Washington Street to gage. The gage is in the public area south of the fire department.

Drainage basin.--Buffalo Creek.

Gage.--An 8-in.-diameter, unheated, tipping-bucket rain gage mounted on a 2-in.-diameter steel post approximately 4 ft above the ground. An electronic data logger, housed inside a weatherproof electrical enclosure, is mounted on the steel post below the rain gage.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--April 23, 1990, to present. Periods of missing record exist due to equipment-related problems.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Lake County Stormwater Management Commission.

422315088091800 Fox Lake Rain Gage at Fox Lake, Ill.—Continued

Rainfall, in inches, water year October 1989 to September 1990

Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	--	--	--	--	0.00	0.00	0.00	0.00	0.00
2	--	--	--	--	--	--	--	.00	.29	.00	.00	.00
3	--	--	--	--	--	--	--	.03	.01	.00	.02	.00
4	--	--	--	--	--	--	--	1.45	.00	.06	.10	.00
5	--	--	--	--	--	--	--	.09	.16	.13	.00	.00
6	--	--	--	--	--	--	--	.00	.00	.00	.00	.03
7	--	--	--	--	--	--	--	.00	.21	.00	.00	.02
8	--	--	--	--	--	--	--	.29	.11	.00	.00	.00
9	--	--	--	--	--	--	--	1.18	.00	.00	.00	.00
10	--	--	--	--	--	--	--	.44	.00	.02	.09	.85
11	--	--	--	--	--	--	--	.00	.00	.00	.00	.00
12	--	--	--	--	--	--	--	.37	.00	.01	.39	.00
13	--	--	--	--	--	--	--	.01	.61	.00	.00	.00
14	--	--	--	--	--	--	--	.00	.71	.04	.00	.36
15	--	--	--	--	--	--	--	.12	.00	.01	.00	.02
16	--	--	--	--	--	--	--	.59	.25	.00	.00	.06
17	--	--	--	--	--	--	--	.00	.16	.00	.78	.00
18	--	--	--	--	--	--	--	.00	.00	.12	1.21	.02
19	--	--	--	--	--	--	--	.97	.43	1.26	.58	.01
20	--	--	--	--	--	--	--	.00	.01	.24	.07	.00
21	--	--	--	--	--	--	--	.00	.00	.02	.01	.65
22	--	--	--	--	--	--	--	.00	1.16	.57	.00	.00
23	--	--	--	--	--	--	p0.00	.00	.03	.00	.00	.00
24	--	--	--	--	--	--	.00	.00	.00	.00	.00	.00
25	--	--	--	--	--	--	.00	.35	.00	.00	.00	.00
26	--	--	--	--	--	--	.00	.00	.13	.00	.00	.00
27	--	--	--	--	--	--	.00	.00	.00	.00	.00	.00
28	--	--	--	--	--	--	.00	.00	.16	.14	.01	.35
29	--	--	--	--	--	--	.00	.00	1.13	.72	.00	.01
30	--	--	--	--	--	--	.00	.00	.00	.00	.00	.01
31	--	--	--	--	--	--	--	.00	--	.00	.00	--
Total	--	--	--	--	--	--	--	5.89	5.56	3.34	3.26	2.39

p Partial record.

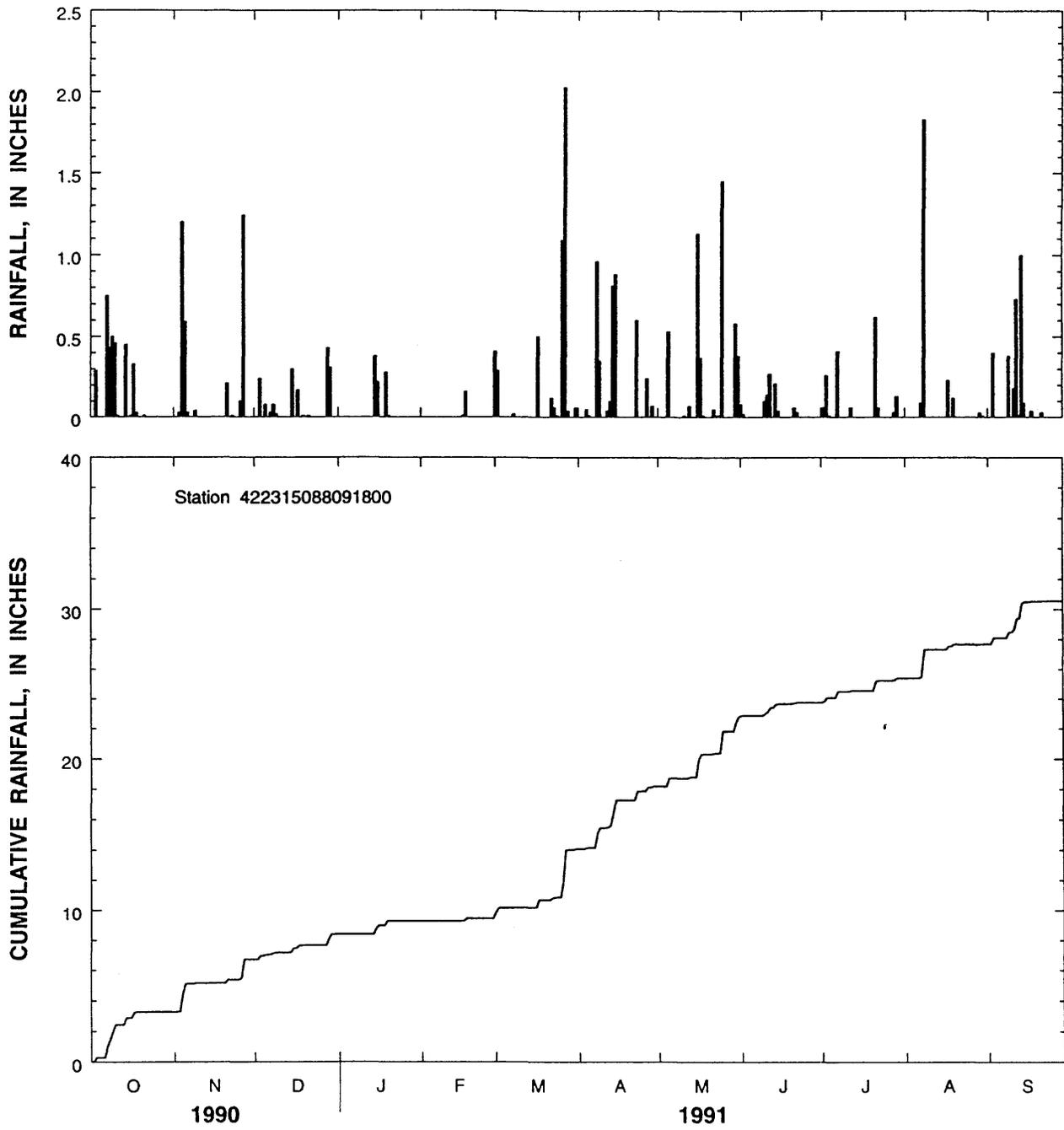


Figure 72. Daily rainfall totals and cumulative rainfall at Fox Lake Rain Gage at Fox Lake, Ill., water year 1991.

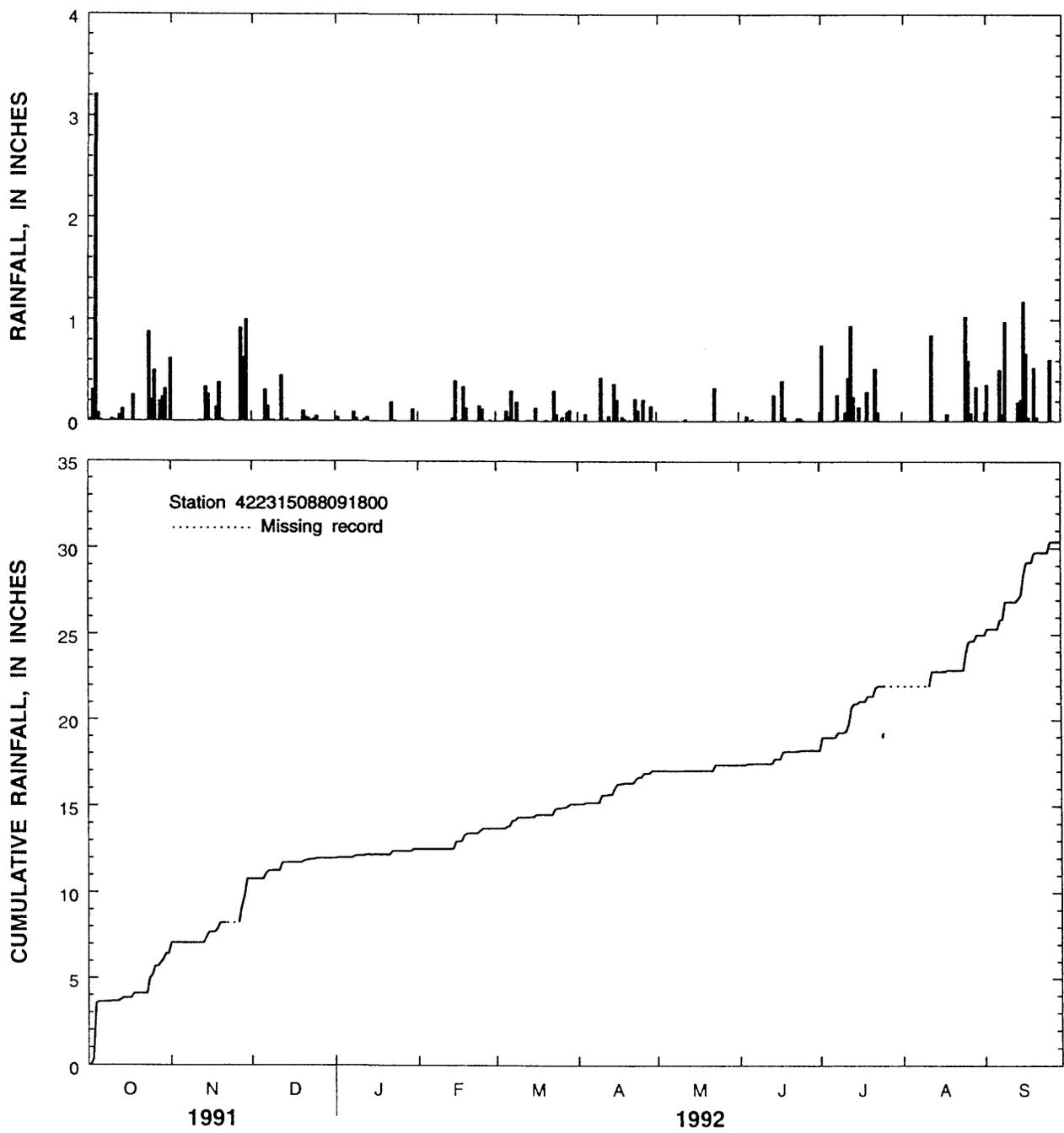


Figure 73. Daily rainfall totals and cumulative rainfall at Fox Lake Rain Gage at Fox Lake, Ill., water year 1992.

422315088091800 Fox Lake Rain Gage at Fox Lake, Ill.—Continued

Rainfall, in inches, water year October 1991 to September 1992
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.62	0.00	0.00	0.00	0.00	s.00	0.00	0.00	0.00	m	0.00
2	.02	s.00	.00	.04	.00	.00	s.00	.00	.00	.75	m	.36
3	.31	s.00	s.00	.00	.00	.00	.00	.00	.00	.00	m	.00
4	3.21	s.00	s.00	.00	.00	.00	.07	.00	.05	.00	m	.00
5	.08	.00	s.00	.00	.00	.10	.00	.00	.00	.00	m	.00
6	.01	.00	.31	.00	.00	.04	.00	.00	.02	.00	m	.00
7	.00	.00	.15	.00	s.00	.30	.00	.00	.00	.01	m	.51
8	.00	.00	.01	.09	s.00	.01	.00	.00	.00	.26	m	.07
9	.00	.00	.01	.03	.00	.19	.00	.00	.00	.00	m	.98
10	.02	.00	.00	s.00	s.00	s.00	.43	.00	.00	.01	m	.00
11	.01	s.00	.00	.00	s.00	.00	.01	.00	.00	.09	m	.00
12	.00	s.01	.45	.02	s.00	.00	.00	.02	.00	.43	0.85	.00
13	.06	s.00	.00	.04	s.00	.01	.05	.00	.00	.94	.01	.00
14	.12	.34	.02	s.00	s.03	s.01	.00	.00	.26	.24	.00	.19
15	.00	.27	s.00	s.00	s.40	.00	.37	.00	.00	.00	.00	.21
16	.00	.01	s.00	s.00	.00	.13	.21	.00	.00	.14	.00	1.18
17	.00	.00	.00	.00	.01	.00	.00	.00	.40	.00	.00	.67
18	.26	.14	.00	.00	s.34	.00	.04	.00	.04	.00	.07	.04
19	.00	.38	.00	.00	s.13	.00	.02	.00	.00	.29	.00	.00
20	.00	.02	.10	.00	s.00	.01	.00	.00	.00	.00	.00	.53
21	.00	.00	s.04	.00	.00	s.00	.01	.00	.00	.00	.00	.04
22	.00	.00	.03	.19	.00	s.00	.00	.00	.00	.52	.00	.00
23	.00	m	.01	.01	.00	.30	.22	.33	.03	.09	.00	.00
24	.88	m	.02	s.00	s.15	.07	.11	.00	.03	.00	.00	.00
25	.21	m	.05	s.00	s.12	.00	.00	.00	.01	m	1.03	.00
26	.50	m	.00	s.00	.00	s.04	.21	.00	.00	m	.60	.61
27	.00	p.92	.00	.00	.00	s.00	.00	.00	.00	m	.08	.01
28	.20	s.63	.00	.00	s.01	.09	.00	.00	.00	m	.00	.00
29	.24	1.00	.00	.00	s.00	.11	.15	.00	.00	m	.34	.00
30	.32	.00	.00	.12	--	.00	.00	.00	.00	m	.00	.00
31	.00	--	.00	.00	--	.00	--	.00	--	m	.00	--
Total	6.45	--	1.20	0.54	1.19	1.41	1.90	0.35	0.84	--	--	5.40

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

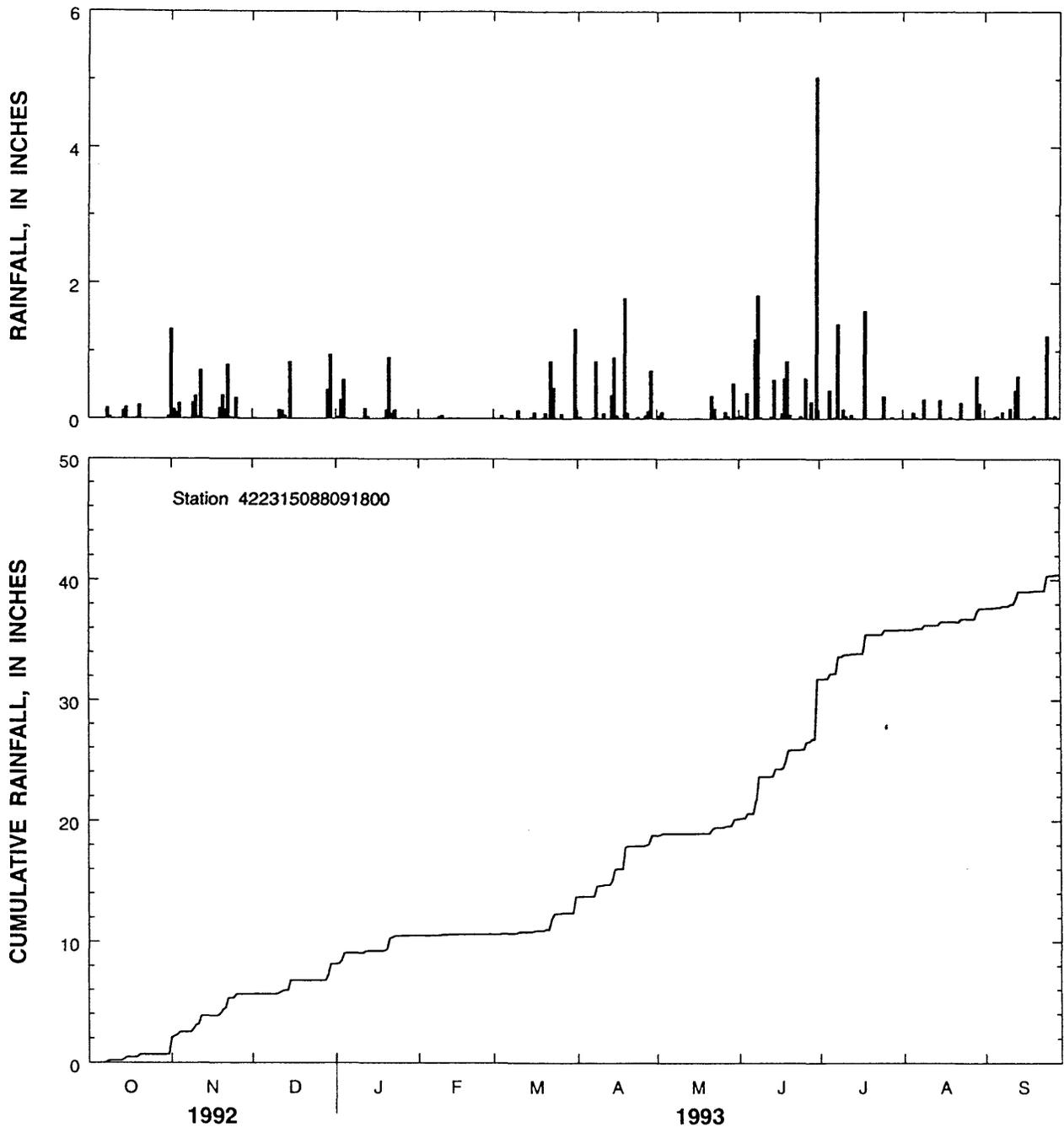


Figure 74. Daily rainfall totals and cumulative rainfall at Fox Lake Rain Gage at Fox Lake, Ill., water year 1993.

422315088091800 Fox Lake Rain Gage at Fox Lake, Ill.—Continued

Rainfall, in inches, water year October 1992 to September 1993
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.33	s0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.00	0.00	0.00
2	.00	.14	s.01	s.03	s.00	.00	.03	.05	.05	.00	.00	.01
3	.00	s.09	.00	s.28	s.00	.00	.00	.10	.02	.00	.00	.01
4	.00	s.23	s.00	s.58	s.00	s.05	.00	.01	.38	.00	.00	.00
5	.00	s.00	.00	s.01	s.00	s.00	.00	.00	.00	.42	.09	.02
6	.00	s.01	.00	s.00	s.00	.00	.00	.00	.00	.01	.02	.04
7	.00	s.00	s.00	s.00	.00	.00	.02	.00	1.18	.02	.00	.00
8	.16	s.00	.00	s.00	s.00	.00	.85	.00	1.82	1.40	.00	.10
9	.03	.24	.00	s.00	s.03	.00	.01	.00	.02	.00	.29	.00
10	.00	.34	s.00	s.00	s.05	s.12	.00	.00	.00	.14	.00	.00
11	.00	.02	.13	s.00	s.00	s.00	.08	.00	.00	.04	.00	.15
12	.00	s.72	.12	s.15	s.00	s.00	.00	.00	.00	.00	.00	.00
13	.00	s.00	.05	s.03	s.01	s.00	.00	.00	.03	.06	.00	.42
14	.12	s.00	.00	s.00	s.00	s.00	.35	.00	.58	.01	.00	.63
15	.17	s.00	.84	s.00	.00	.02	.91	.00	.00	.00	.28	.00
16	.00	.00	.00	s.00	s.01	.09	.05	.01	.00	.00	.00	.00
17	.00	.00	s.00	.00	s.00	.00	.01	.01	.08	.00	.00	.00
18	.00	.00	.00	s.00	.00	s.00	.00	.00	.60	1.59	.00	.00
19	s.01	.16	.00	s.01	.00	.01	1.78	.00	.85	.01	.02	.01
20	s.20	.35	.00	.13	s.00	s.08	.09	.00	.06	.00	.00	.04
21	.00	.13	.00	.91	s.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.80	.00	s.08	s.00	s.85	.00	.34	.00	.00	.00	.01
23	.00	.02	.00	s.13	s.00	.46	.00	.15	.00	.00	.24	.01
24	.00	.01	s.00	.00	.00	.01	.02	.00	.04	.01	.00	.00
25	.00	.31	.00	.00	s.00	.00	.00	.00	.01	.33	.00	1.22
26	.00	.01	.00	s.01	s.00	.07	.00	.00	.60	.00	.00	.02
27	.00	.00	.00	s.00	.00	.00	.05	.10	.00	.00	.00	.01
28	.00	.00	.00	s.01	.00	.00	.11	.04	.25	.02	.00	.04
29	.00	.00	.43	s.00	--	.00	.71	.00	.00	.00	.63	.01
30	.00	.00	.95	.00	--	.00	.00	.53	5.04	.00	.23	.00
31	.04	--	.00	.00	--	1.33	--	.03	--	.01	.01	--
Total	0.73	4.91	2.53	2.36	0.10	3.10	5.07	1.37	11.62	4.07	1.81	2.75

s Snowfall-affected precipitation.

Waukegan Airport at Waukegan, Ill.

Site identifier.--20

Station number.--422459087520700

Location.--Latitude 42°24'59", longitude 87°52'07", in SE¼ sec.31, T.46 N., R.12 E., Lake County, Hydrologic Unit 04040002, at Waukegan Memorial Airport in Waukegan (Zion 7.5-minute quadrangle).

To reach gage.--From the intersection of State Highway 131 (Green Bay Road) and Yorkhouse Road, drive east approximately 0.5 mi to McAree Street. Head north on McAree Street to airport and rain gage.

Drainage basin.--Lake Michigan.

Gage.--An 8-in.-diameter, unheated, tipping-bucket rain gage mounted on a 2-in.-diameter steel post approximately 4 ft above the ground. An electronic data logger, housed inside a weatherproof electrical enclosure, is mounted on the steel post below the rain gage.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--April 17, 1990, to present. Periods of missing record exist due to equipment-related problems.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Lake County Stormwater Management Commission.

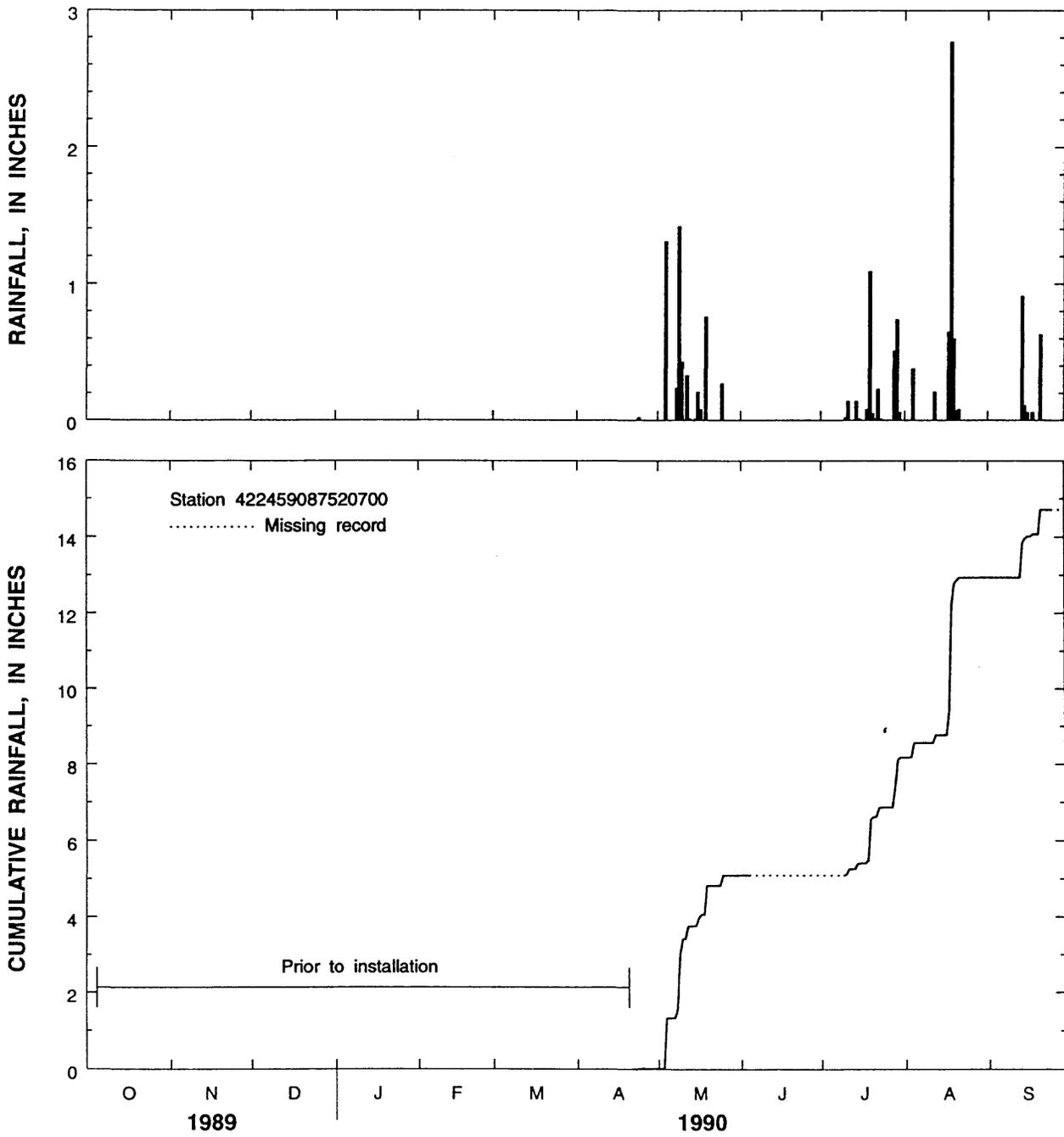


Figure 75. Daily rainfall totals and cumulative rainfall at Waukegan Airport at Waukegan, Ill., water year 1990.

422459087520700 Waukegan Airport at Waukegan, Ill.—Continued

Rainfall, in inches, water year October 1989 to September 1990
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	--	--	--	--	0.00	0.00	m	0.00	0.00
2	--	--	--	--	--	--	--	.00	m	m	.00	.00
3	--	--	--	--	--	--	--	.00	m	m	.00	.00
4	--	--	--	--	--	--	--	1.31	m	m	.38	.00
5	--	--	--	--	--	--	--	.00	m	m	.00	.00
6	--	--	--	--	--	--	--	.00	m	m	.00	.00
7	--	--	--	--	--	--	--	.00	m	m	.00	.00
8	--	--	--	--	--	--	--	.24	m	m	.00	.00
9	--	--	--	--	--	--	--	1.42	m	m	.00	.00
10	--	--	--	--	--	--	--	.43	m	p0.02	.00	.00
11	--	--	--	--	--	--	--	.00	m	.14	.00	.00
12	--	--	--	--	--	--	--	.33	m	.00	.21	.00
13	--	--	--	--	--	--	--	.01	m	.00	.00	.00
14	--	--	--	--	--	--	--	.00	m	.14	.00	.91
15	--	--	--	--	--	--	--	.01	m	.01	.00	.11
16	--	--	--	--	--	--	--	.21	m	.00	.00	.06
17	--	--	--	--	--	--	p0.00	.08	m	.00	.65	.00
18	--	--	--	--	--	--	.00	.00	m	.08	2.77	.06
19	--	--	--	--	--	--	.00	.76	m	1.09	.60	.00
20	--	--	--	--	--	--	.00	.00	m	.05	.07	.00
21	--	--	--	--	--	--	.00	.00	m	.01	.08	.63
22	--	--	--	--	--	--	.00	.00	m	.23	.00	.00
23	--	--	--	--	--	--	.00	.00	m	.01	.00	.00
24	--	--	--	--	--	--	.02	.00	m	.00	.00	.00
25	--	--	--	--	--	--	.00	.27	m	.00	.00	.00
26	--	--	--	--	--	--	.00	.00	m	.00	.00	p.00
27	--	--	--	--	--	--	.00	.00	m	.00	.00	m
28	--	--	--	--	--	--	.00	.00	m	.51	.00	m
29	--	--	--	--	--	--	.00	.00	m	.74	.00	m
30	--	--	--	--	--	--	.00	.00	m	.06	.00	m
31	--	--	--	--	--	--	--	.00	--	.00	.00	--
Total	--	--	--	--	--	--	--	5.07	--	--	4.76	--

m Missing record.

p Partial record.

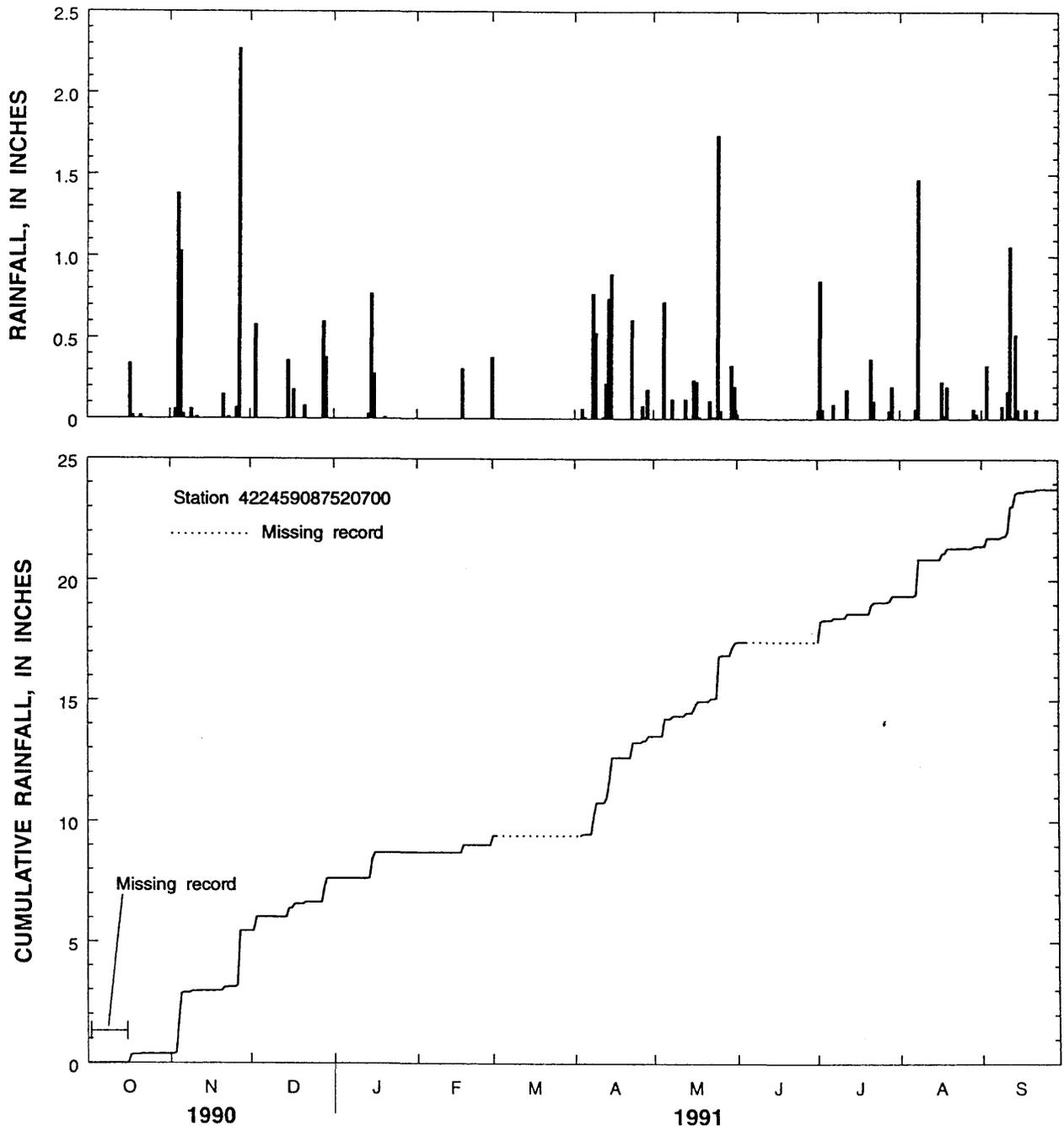


Figure 76. Daily rainfall totals and cumulative rainfall at Waukegan Airport at Waukegan, Ill., water year 1991.

422459087520700 Waukegan Airport at Waukegan, Ill.—Continued

Rainfall, in inches, water year October 1990 to September 1991
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	m	0.00	0.00	0.00	0.00	p0.38	m	0.00	0.03	0.00	0.00	0.00
2	m	.00	s.00	.00	.00	m	p0.00	.00	m	.85	.00	.00
3	m	.06	s.58	s.00	.00	m	.00	.00	m	.06	.00	.33
4	m	s1.38	s.00	.00	.00	m	.06	.00	m	.00	.00	.00
5	m	s1.03	.00	s.00	.00	m	.01	.72	m	.00	.00	.00
6	m	s.03	.00	s.00	.00	m	.00	.00	m	.00	.00	.00
7	m	.00	.00	.00	.00	m	.00	.00	m	.09	.06	.00
8	m	.00	.00	.00	.00	m	.77	.12	m	.00	1.47	.00
9	m	s.06	.00	s.00	.00	m	.53	.00	m	.00	.00	.08
10	m	.00	.00	.00	.00	m	.00	.00	m	.00	.00	.00
11	m	s.01	.00	s.00	.00	m	.00	.00	m	.00	.00	.17
12	m	.00	.00	s.00	.00	m	.01	.00	m	.18	.00	1.06
13	m	.00	.00	.00	.00	m	.22	.12	m	.00	.00	.01
14	m	.00	s.00	.03	s.00	m	.74	.00	m	.00	.00	.52
15	m	.00	s.36	.77	.00	m	.89	.00	m	.00	.00	.06
16	p0.00	.00	.00	.28	.00	m	.00	.24	m	.00	.00	.00
17	.34	.00	.18	.00	.00	m	.00	.23	m	.00	.23	.00
18	.02	.00	.00	.00	.31	m	.00	.01	m	.00	.02	.06
19	.00	.00	.00	.00	.00	m	.00	.00	m	.00	.20	.00
20	.00	.00	.00	.01	.00	m	.00	.00	m	.00	.00	.00
21	.02	.15	.08	s.00	.00	m	.00	.00	m	.37	.00	.00
22	.00	.00	.00	.00	.00	m	.00	.11	m	.11	.00	.06
23	.00	.01	.00	s.00	.00	m	.61	.01	m	.00	.00	.00
24	.00	.00	.00	.00	.00	m	.00	.01	m	.00	.00	.00
25	.00	.00	.00	.00	.00	m	.00	1.74	m	.00	.00	.00
26	.00	.07	.00	.00	.00	m	.00	.05	p.00	.00	.00	.00
27	.00	2.27	s.00	.00	s.00	m	.08	.00	.00	.00	.00	.00
28	.00	.00	s.60	.00	.00	m	.01	.00	.00	.05	.00	.00
29	.00	.00	s.38	.00	--	m	.18	.00	.00	.20	.06	.00
30	.00	.00	s.00	s.00	--	m	.00	.33	.00	.00	.03	.00
31	.00	--	s.00	s.00	--	m	--	.20	--	.00	.00	--
Total	--	5.07	2.18	1.09	0.31	--	--	3.89	--	1.91	2.07	2.35

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

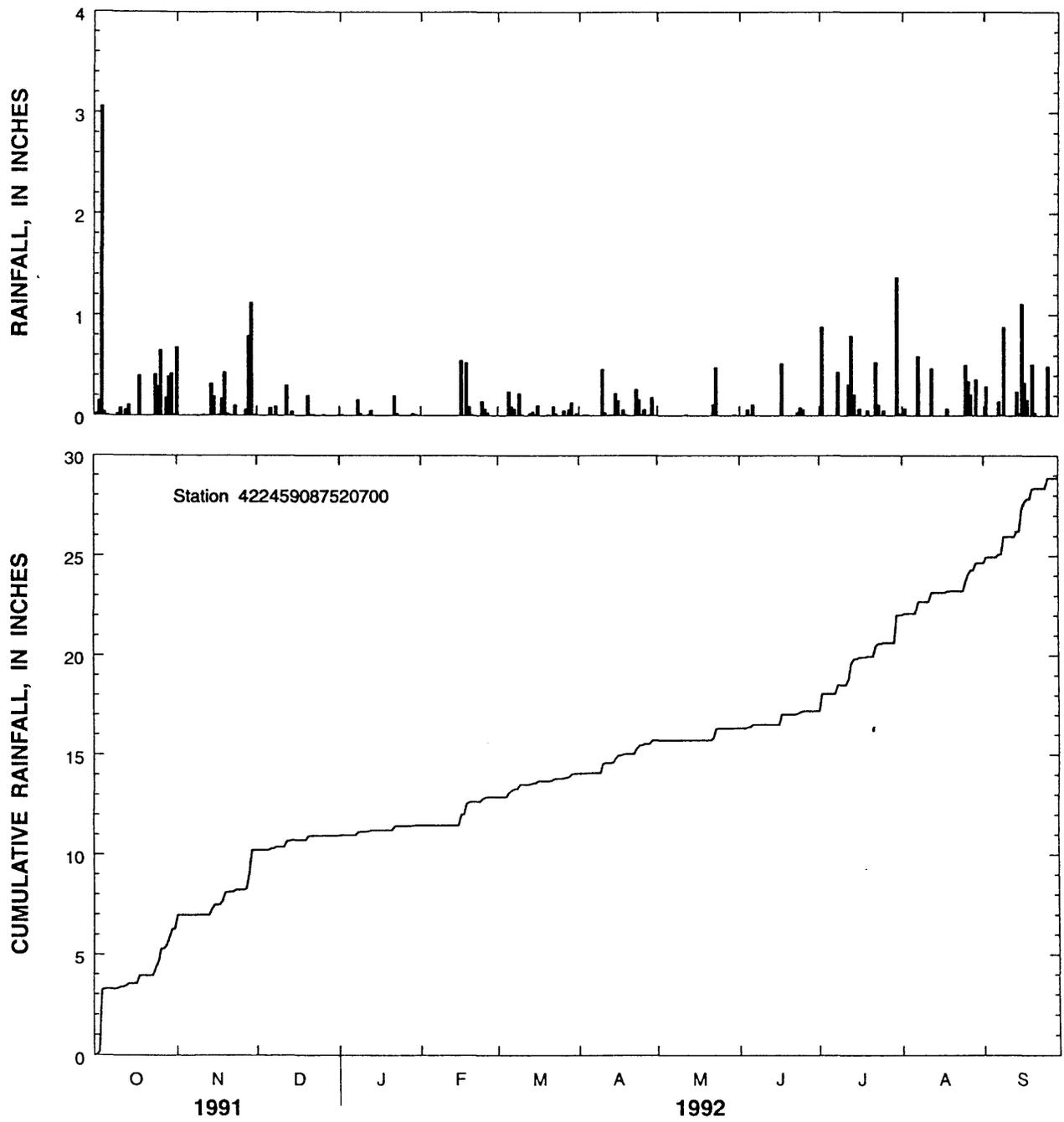


Figure 77. Daily rainfall totals and cumulative rainfall at Waukegan Airport at Waukegan, Ill., water year 1992.

422459087520700 Waukegan Airport at Waukegan, Ill.—Continued

Rainfall, in inches, water year October 1991 to September 1992
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.68	0.00	0.01	0.00	0.00	s0.00	0.00	0.00	0.00	0.00	0.00
2	.02	s.00	.00	.01	.00	.00	s.00	.00	.00	.88	.07	.29
3	.15	s.00	s.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
4	3.06	s.00	s.00	.00	.00	.00	.01	.00	.06	.00	.00	.00
5	.04	.00	s.00	.00	.00	.24	.00	.00	.01	.00	.00	.00
6	.01	.00	.08	.00	.00	.09	.00	.00	.11	.00	.00	.00
7	.00	.00	.00	.00	s.00	.07	.00	.00	.00	.00	.59	.14
8	.00	.00	.09	.16	s.00	.00	.00	.00	.00	.43	.00	.01
9	.00	.00	.00	.02	.00	.22	.00	.00	.00	.00	.00	.88
10	.02	.00	.00	s.00	s.00	s.01	.46	.00	.00	.00	.00	.00
11	.08	s.01	.00	.00	s.00	.00	.03	.00	.00	.00	.00	.00
12	.00	s.00	.30	.01	s.00	.00	.00	.01	.00	.31	.47	.00
13	.06	s.00	.00	.05	s.00	.02	.01	.00	.00	.79	.00	.00
14	.11	.32	.04	s.00	s.00	s.04	.01	.00	.00	.21	.00	.24
15	.00	.19	s.00	s.00	s.00	.01	.22	.00	.00	.01	.00	.02
16	.00	.00	s.00	s.00	.55	.10	.15	.00	.00	.07	.00	1.11
17	.00	.01	.00	.00	.00	.00	.00	.00	.52	.00	.00	.33
18	.40	.17	.00	.00	s.53	.00	.06	.00	.00	.00	.07	.16
19	.00	.43	.00	.00	s.09	.00	.01	.00	.00	.05	.00	.00
20	.00	.02	.20	.00	s.01	.01	.00	.00	.00	.00	.00	.51
21	.00	.01	s.01	.00	.00	s.00	.00	.00	.00	.00	.00	.03
22	.00	.00	.01	.20	.00	s.09	.00	.11	.00	.53	.00	.00
23	.00	s.10	.00	.02	.00	.02	.26	.48	.03	.11	.00	.00
24	.41	s.00	.00	s.00	s.14	.00	.16	.00	.08	.00	.00	.00
25	.29	s.00	.00	s.00	s.07	.00	.01	.00	.06	.05	.50	.00
26	.65	.00	.01	s.00	.03	s.05	.06	.00	.00	.00	.34	.49
27	.00	s.06	.00	.00	.00	s.00	.00	.00	.00	.00	.21	.01
28	.18	s.79	.00	.00	s.00	.06	.01	.00	.00	.00	.00	.00
29	.39	1.12	.00	.02	s.00	.13	.18	.00	.00	.00	.36	.00
30	.42	.01	.00	.01	--	.00	.00	.01	.00	1.37	.00	.00
31	.01	--	.00	.00	--	.02	--	.00	--	.02	.00	--
Total	6.30	3.92	0.74	0.51	1.42	1.18	1.65	0.61	0.87	4.83	2.61	4.22

s Snowfall-affected precipitation.

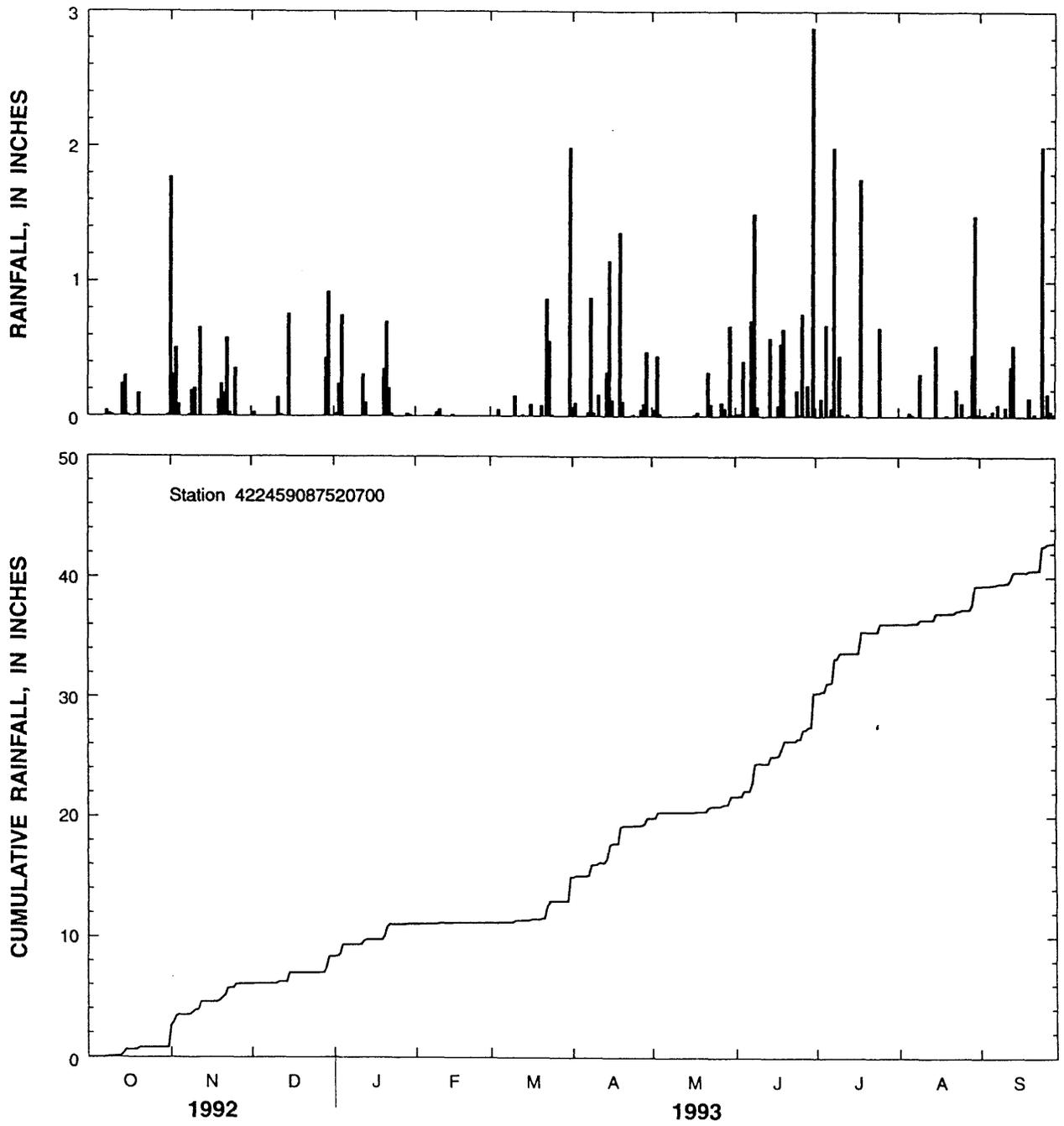


Figure 78. Daily rainfall totals and cumulative rainfall at Waukegan Airport at Waukegan, Ill., water year 1993.

422459087520700 Waukegan Airport at Waukegan, Ill.—Continued

Rainfall, in inches, water year October 1992 to September 1993
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.77	s0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	.00	.31	s.03	s.02	s.00	.00	.10	.05	.02	.00	.00	.01
3	.00	s.51	.00	s.24	s.00	.00	.00	.45	.02	.13	.00	.02
4	.00	s.09	s.00	s.75	s.00	s.05	.00	.02	.41	.00	.00	.00
5	.00	s.00	.00	s.00	s.00	s.00	.00	.00	.00	.68	.03	.01
6	.00	s.00	.00	s.00	s.00	.00	.00	.00	.00	.00	.01	.04
7	.00	s.00	s.00	s.00	.00	.00	.03	.00	.71	.06	.00	.00
8	.04	s.01	.00	s.00	s.00	.00	.88	.00	1.50	1.99	.00	.09
9	.02	.19	.00	s.00	s.03	.00	.03	.00	.07	.00	.32	.00
10	.01	.21	s.00	s.00	s.05	s.15	.00	.00	.00	.45	.00	.00
11	.00	.00	.14	s.00	s.00	s.00	.16	.00	.00	.01	.00	.07
12	.00	s.66	.01	s.31	s.00	s.00	.00	.00	.00	.00	.00	.00
13	.00	s.00	.00	s.10	s.00	s.01	.00	.00	.00	.02	.00	.37
14	.24	s.00	.00	s.00	s.00	s.00	.33	.00	.58	.00	.00	.53
15	.30	s.00	.76	s.00	.01	.00	1.15	.00	.00	.00	.53	.00
16	.01	.00	.00	s.00	s.00	.09	.12	.00	.00	.00	.00	.00
17	.00	.00	s.00	.00	s.00	.00	.00	.01	.08	.00	.00	.00
18	.00	.00	.00	s.00	.00	s.00	.00	.03	.54	1.76	.00	.00
19	s.01	.12	.00	s.00	.00	.00	1.36	.00	.65	.00	.01	.00
20	s.17	.24	.00	.35	s.00	s.08	.11	.00	.00	.00	.00	.14
21	.00	.17	.00	.70	s.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.58	.00	s.21	s.00	s.87	.00	.33	.00	.00	.00	.02
23	.00	.03	.00	s.02	s.00	.56	.00	.09	.00	.00	.20	.00
24	.00	.00	s.00	.00	.00	.01	.01	.00	.19	.00	.00	.00
25	.00	.36	.00	.00	s.00	.00	.00	.00	.01	.66	.10	2.00
26	.00	.00	.00	s.00	s.00	.00	.00	.00	.76	.00	.00	.01
27	.00	.00	.00	s.00	.00	.00	.05	.10	.00	.00	.00	.17
28	.00	.00	.00	s.00	.00	.00	.09	.06	.23	.00	.01	.04
29	.00	.00	.43	s.02	--	.00	.48	.00	.00	.00	.46	.02
30	.00	.00	.92	.01	--	.00	.00	.67	2.88	.00	1.49	.00
31	.01	--	.00	.00	--	1.99	--	.01	--	.00	.02	--
Total	0.81	5.25	2.29	2.73	0.09	3.81	4.90	1.82	8.65	5.76	3.18	3.54

s Snowfall-affected precipitation.

Lindenhurst Wastewater Treatment Facility at Lindenhurst, Ill.

Site identifier.--21

Station number.--422553088015300

Location.--Latitude 42°25'53", longitude 88°01'53", in SW¼SE¼ sec.26, T.46 N., R.10 E., Lake County, Hydrologic Unit 07120004, at Lindenhurst Wastewater Treatment Facility in Lindenhurst (Antioch 7.5-minute quadrangle).

To reach gage.--From U.S. Highway 45, drive 1.5 mi west on Grass Lake Road to wastewater-treatment facility.

Drainage basin.--Mill Creek.

Gage.--An 8-in.-diameter, unheated, tipping-bucket rain gage mounted on a 2-in.-diameter steel post approximately 4 ft above the ground. An electronic data logger, housed inside a weatherproof electrical enclosure, is mounted on the steel post below the rain gage.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--December 6, 1989, to present. Periods of missing record exist due to equipment-related problems.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Lake County Stormwater Management Commission.

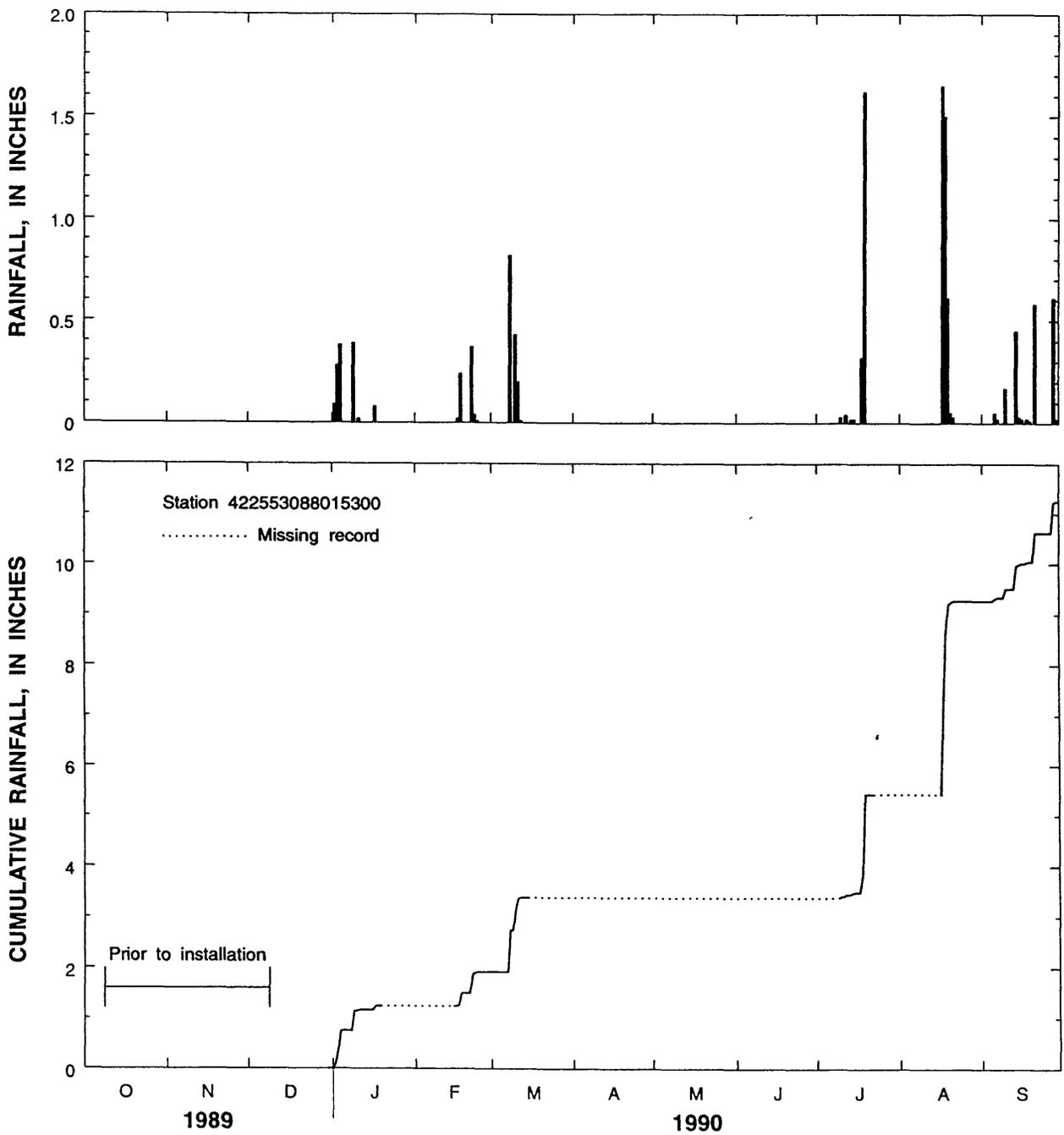


Figure 79. Daily rainfall totals and cumulative rainfall at Lindenhurst Wastewater Treatment Facility at Lindenhurst, Ill., water year 1990.

422553088015300 Lindenhurst Wastewater Treatment Facility at
Lindenhurst, Ill.—Continued

Rainfall, in inches, water year October 1989 to September 1990
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	s0.00	m	0.00	m	m	m	m	m	0.00
2	--	--	--	.09	m	.00	m	m	m	m	m	.00
3	--	--	--	.28	m	.00	m	m	m	m	m	.00
4	--	--	--	.38	m	.00	m	m	m	m	m	.00
5	--	--	--	.00	m	.00	m	m	m	m	m	.00
6	--	--	p0.00	.00	m	.00	m	m	m	m	m	.05
7	--	--	.00	.00	m	.00	m	m	m	m	m	.02
8	--	--	.00	.00	m	.82	m	m	m	m	m	.00
9	--	--	.00	.39	m	.00	m	m	m	m	m	.00
10	--	--	s.00	.00	m	.43	m	m	m	p0.03	m	.17
11	--	--	s.00	.02	m	.20	m	m	m	.00	m	.00
12	--	--	.00	s.00	m	p.01	m	m	m	.04	m	.00
13	--	--	s.00	.00	p0.00	m	m	m	m	.00	m	.00
14	--	--	s.00	.00	.00	m	m	m	m	.02	m	.45
15	--	--	s.00	.00	s.00	m	m	m	m	.02	m	.03
16	--	--	s.00	.00	s.00	m	m	m	m	.00	p0.00	.02
17	--	--	s.00	p.08	s.02	m	m	m	m	.00	1.65	.00
18	--	--	s.00	m	.24	m	m	m	m	.32	1.50	.02
19	--	--	s.00	m	.00	m	m	m	m	1.62	.61	.01
20	--	--	s.00	m	.00	m	m	m	m	p.00	.05	.00
21	--	--	.00	m	.00	m	m	m	m	m	.03	.58
22	--	--	.00	m	.37	m	m	m	m	m	.00	.00
23	--	--	.00	m	s.04	m	m	m	m	m	.00	.00
24	--	--	s.00	m	s.01	m	m	m	m	m	.00	.00
25	--	--	s.00	m	.00	m	m	m	m	m	.00	.00
26	--	--	s.00	m	.00	m	m	m	m	m	.00	.00
27	--	--	s.00	m	.00	m	m	m	m	m	.00	.00
28	--	--	.00	m	.00	m	m	m	m	m	.00	.61
29	--	--	s.00	m	--	m	m	m	m	m	.00	.02
30	--	--	s.00	m	--	m	m	m	m	m	.00	.00
31	--	--	.00	m	--	m	--	m	--	m	.00	--
Total	--	--	--	--	--	--	--	--	--	--	--	1.98

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

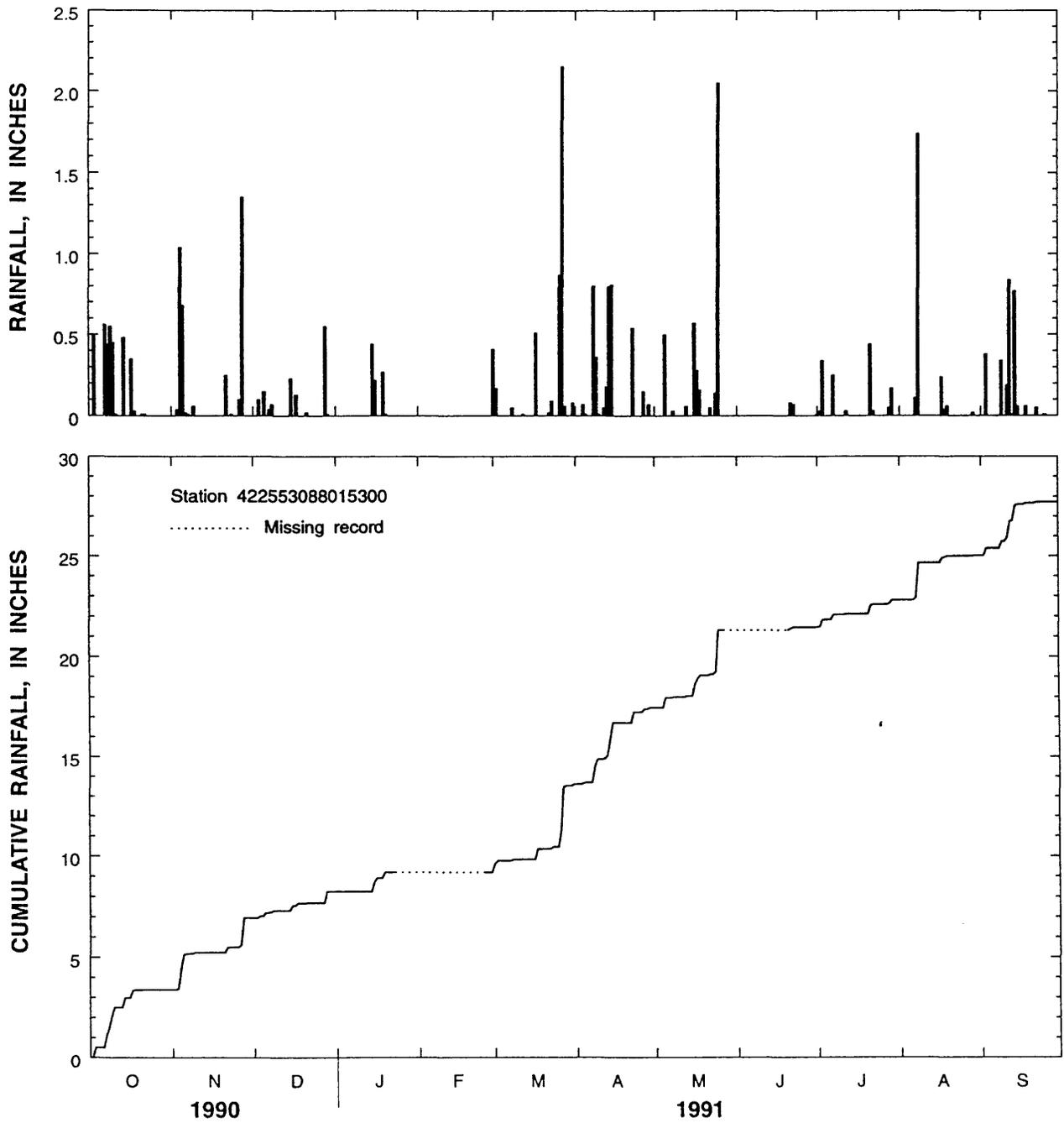


Figure 80. Daily rainfall totals and cumulative rainfall at Lindenhurst Wastewater Treatment Facility at Lindenhurst, Ill., water year 1991.

422553088015300 Lindenhurst Wastewater Treatment Facility at
Lindenhurst, Ill.—Continued

Rainfall, in inches, water year October 1990 to September 1991
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.00	0.00	0.00	m	0.41	0.00	0.00	m	0.01	0.00	0.00
2	.00	.00	.00	.00	m	.17	.00	.00	m	.03	.00	.00
3	.50	.04	.10	s.00	m	s.00	.00	.00	m	.34	.00	.38
4	.00	s1.04	.00	.00	m	.00	.07	.00	m	.00	.00	.00
5	.00	s.68	.15	s.00	m	.00	.01	.50	m	.00	.00	.00
6	.00	s.02	.00	s.00	m	.00	.00	.00	m	.00	.00	.00
7	.56	.01	.04	.00	m	.00	.00	.00	m	.25	.11	.00
8	.44	.00	.07	.00	m	.05	.80	.03	m	.00	1.74	.00
9	.55	s.06	.00	s.00	m	.00	.36	.00	m	.00	.00	.34
10	.45	.00	.00	.00	m	.00	.01	.00	m	.00	.00	.00
11	.01	s.00	.00	s.00	m	.00	.00	.00	m	.00	.00	.19
12	.00	.00	.00	s.00	m	s.01	.05	.00	m	.03	.00	.84
13	.00	.00	.00	.00	m	s.00	.18	.06	m	.00	.00	.01
14	.48	.00	s.00	.00	m	.00	.80	.00	m	.00	.00	.77
15	.00	.00	s.23	.44	m	.00	.81	.00	m	.00	.00	.06
16	.00	.00	.00	.22	m	.00	.00	.57	m	.00	.00	.00
17	.35	.00	.13	.00	m	.51	.00	.28	p0.00	.00	.24	.00
18	.03	.00	.00	.00	m	.00	.00	.16	.00	.00	.04	.06
19	.00	.00	.00	.27	m	.00	.00	.00	.00	.00	.06	.00
20	.00	.00	.00	.01	m	.00	.00	.00	.00	.00	.00	.00
21	.01	.25	.02	m	m	.00	.00	.00	.08	.44	.00	.00
22	.01	.00	.00	m	p0.00	.02	.00	.05	.07	.03	.00	.05
23	.00	.01	.00	m	.00	.09	.54	.00	.00	.00	.00	.00
24	.00	.00	.00	m	.00	.00	.00	.14	.00	.00	.00	.00
25	.00	.00	.00	m	.00	.00	.00	p2.05	.00	.00	.00	.01
26	.00	.10	.00	m	.00	.87	.00	m	.00	.00	.00	.00
27	.00	1.35	s.00	m	s.00	2.15	.15	m	.00	.00	.00	.00
28	.00	.00	s.55	m	.00	.06	.00	m	.00	.05	.00	.00
29	.00	.00	s.01	m	--	.00	.07	m	.00	.17	.02	.00
30	.00	.00	s.00	m	--	.00	.00	m	.00	.00	.00	.00
31	.00	--	s.00	m	--	s.08	--	m	--	.00	.00	--
Total	3.39	3.56	1.30	--	--	4.42	3.85	--	--	1.35	2.21	2.71

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

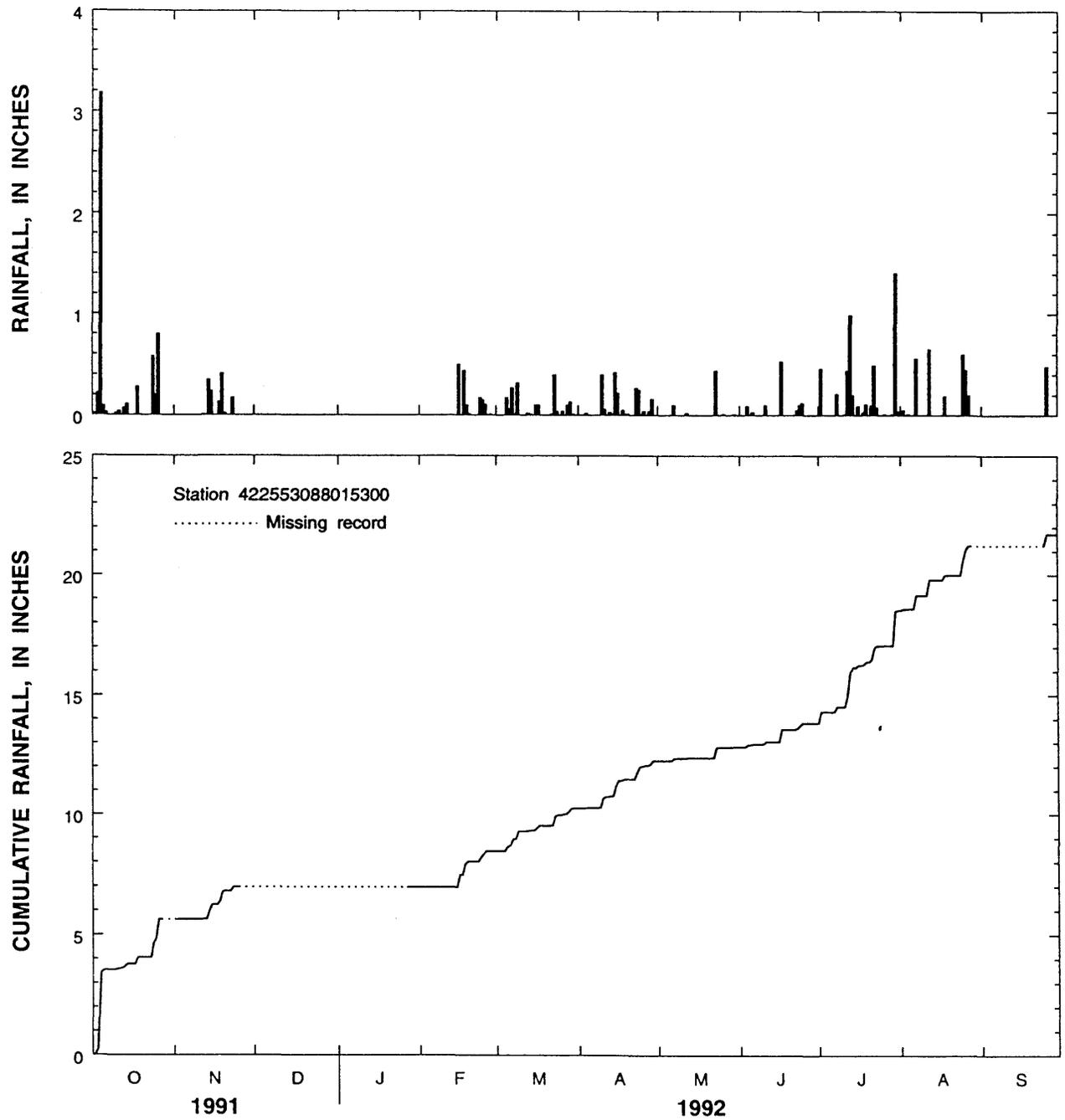


Figure 81. Daily rainfall totals and cumulative rainfall at Lindenhurst Wastewater Treatment Facility at Lindenhurst, Ill., water year 1992.

422553088015300 Lindenhurst Wastewater Treatment Facility at
Lindenhurst, Ill.—Continued

Rainfall, in inches, water year October 1991 to September 1992
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	m	m	m	0.00	0.00	s0.00	0.00	0.00	0.00	0.00	m
2	.02	s0.00	m	m	.00	.00	s.00	.00	.00	.46	.05	m
3	.22	s.00	m	m	.00	.00	.00	.00	.00	.00	.00	m
4	3.18	s.00	m	m	.00	.00	.02	.00	.09	.00	.01	m
5	.09	.00	m	m	.00	.17	.00	.00	.00	.00	.00	m
6	.03	.00	m	m	.00	.06	.00	.00	.03	.00	.00	m
7	.00	.00	m	m	s.00	.27	.00	.10	.00	.00	.56	m
8	.00	.00	m	m	s.00	.01	.00	.00	.00	.21	.00	m
9	.00	.00	m	m	.00	.32	.00	.00	.00	.00	.00	m
10	.02	.00	m	m	s.00	s.00	.40	.00	.00	.00	.00	m
11	.04	s.00	m	m	s.00	.00	.06	.00	.10	.01	.00	m
12	.00	s.01	m	m	s.00	.00	.00	.02	.00	.44	.65	m
13	.07	s.00	m	m	s.00	.02	.03	.00	.00	.99	.00	m
14	.11	.35	m	m	s.00	s.01	.01	.00	.00	.20	.00	m
15	.00	.24	m	m	s.00	.00	.42	.00	.00	.00	.00	m
16	.00	.00	m	m	.50	.10	.22	.00	.00	.09	.00	m
17	.00	.00	m	m	.00	.10	.00	.00	.53	.00	.00	m
18	.28	.13	m	m	s.44	.00	.05	.00	.00	.03	.19	m
19	.00	.41	m	m	s.10	.00	.01	.00	.00	.11	.00	m
20	.00	.02	m	m	s.01	.00	.01	.00	.00	.00	.00	m
21	.00	.00	m	m	.00	s.00	.00	.00	.00	.10	.00	m
22	.00	.00	m	m	.00	s.01	.00	.00	.00	.49	.00	p0.00
23	.00	s.17	m	p0.00	.00	.40	.27	.44	.05	.08	.00	.00
24	.58	s.00	m	s.00	s.17	.04	.25	.00	.10	.00	.00	.00
25	.20	s.00	m	s.00	s.15	.00	.01	.00	.12	.00	.60	.00
26	.80	p.00	m	s.00	.11	s.04	.04	.01	.00	.01	.45	.48
27	m	m	m	.00	.00	s.00	.00	.00	.00	.00	.20	.00
28	m	m	m	.00	s.01	.10	.04	.00	.00	.00	p.00	.00
29	m	m	m	.00	s.00	.13	.16	.00	.00	.01	m	.00
30	m	m	m	.00	--	.01	.00	.01	.00	1.41	m	.00
31	m	--	m	.00	--	.00	--	.00	--	.04	m	--
Total	--	--	--	--	1.49	1.79	2.00	0.58	1.02	4.68	--	--

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

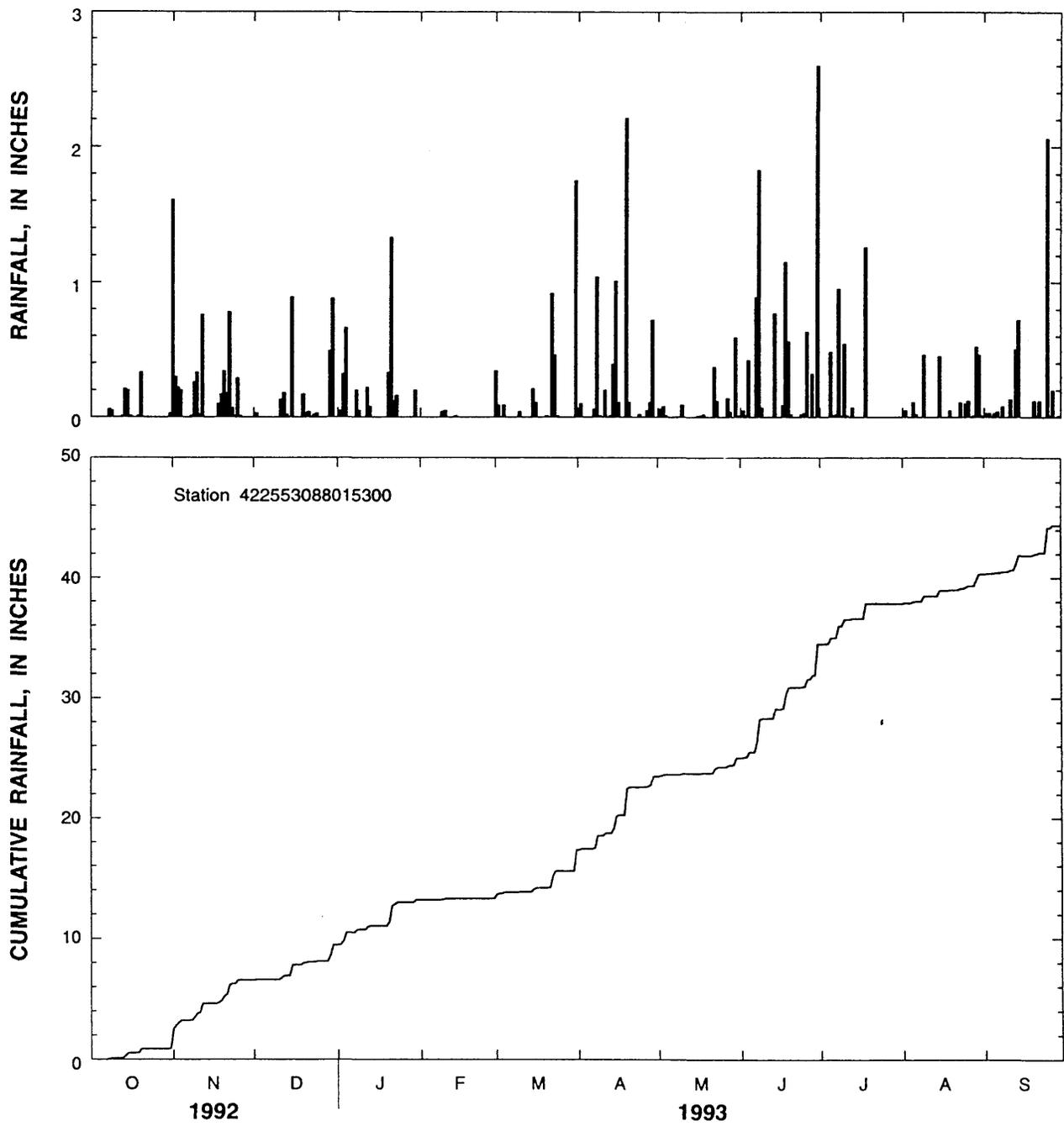


Figure 82. Daily rainfall totals and cumulative rainfall at Lindenhurst Wastewater Treatment Facility at Lindenhurst, Ill., water year 1993.

422553088015300 Lindenhurst Wastewater Treatment Facility at
Lindenhurst, Ill.—Continued

Rainfall, in inches, water year October 1992 to September 1993
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.61	s0.00	0.00	0.00	0.34	0.00	0.00	0.00	0.00	0.00	0.00
2	.00	.30	s.03	s.05	s.00	.09	.10	.06	.05	.00	.05	.03
3	.00	s.22	.00	s.32	s.00	.00	.00	.08	.01	.00	.00	.03
4	.00	s.20	s.00	s.66	s.00	s.09	.00	.01	.42	.00	.00	.00
5	.00	s.00	.00	s.00	s.00	s.00	.00	.00	.00	.48	.11	.03
6	.00	s.00	.00	s.00	s.00	.00	.00	.00	.00	.01	.02	.04
7	.00	s.00	s.00	s.00	.00	.00	.06	.00	.89	.02	.00	.00
8	.06	s.01	.00	s.20	s.00	.00	1.04	.00	1.83	.95	.00	.08
9	.05	.26	.00	s.05	s.04	.00	.01	.00	.07	.01	.46	.00
10	.00	.33	s.00	s.00	s.05	s.04	.00	.09	.00	.54	.00	.00
11	.00	.02	.13	s.00	s.00	s.00	.20	.00	.00	.01	.00	.13
12	.00	s.76	.18	s.22	s.00	s.00	.00	.00	.00	.00	.00	.00
13	.01	s.00	.02	s.08	s.00	s.00	.01	.00	.00	.07	.00	.50
14	.21	s.00	.00	s.00	s.01	s.00	.39	.00	.77	.00	.00	.72
15	.20	s.00	.89	s.00	.00	.21	1.01	.00	.00	.00	.45	.00
16	.01	.00	.00	s.00	s.00	.11	.11	.01	.00	.00	.00	.00
17	.00	.00	s.00	.00	s.00	.00	.00	.01	.09	.00	.00	.00
18	.00	.10	.00	s.00	.00	s.00	.00	.02	1.15	1.26	.00	.00
19	s.01	.17	.17	s.00	.00	.00	2.21	.00	.56	.00	.05	.00
20	s.33	.34	.03	.33	s.00	s.01	.11	.00	.02	.00	.00	.12
21	.00	.18	.04	1.33	s.00	.00	.00	.00	.00	.00	.00	.01
22	.00	.78	.00	s.12	s.00	s.92	.00	.37	.00	.00	.00	.12
23	.00	.07	.02	s.16	s.00	.46	.00	.12	.00	.00	.11	.00
24	.00	.01	s.03	.00	.00	.01	.02	.00	.02	.00	.00	.00
25	.00	.29	.00	.00	s.00	.00	.00	.00	.03	.00	.10	2.06
26	.00	.01	.00	s.00	s.00	.00	.00	.00	.63	.00	.12	.01
27	.00	.00	.00	s.00	.00	.00	.05	.14	.00	.00	.00	.20
28	.00	.00	.00	s.00	.00	.00	.11	.04	.32	.00	.01	.00
29	.00	.00	.49	s.00	--	.00	.72	.00	.00	.00	.52	.01
30	.00	.00	.88	.20	--	.00	.00	.59	2.60	.00	.46	.00
31	.03	--	.00	.00	--	1.75	--	.01	--	.00	.01	--
Total	0.91	5.66	2.91	3.72	0.10	4.03	6.15	1.55	9.46	3.35	2.47	4.09

s Snowfall-affected precipitation.

Paddock Lake Wastewater Treatment Facility at Paddock Lake, Wis.

Site identifier.--22

Station number.--423451088052400

Location.--Latitude 42°34'51", longitude 88°05'24", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec.2, T.1 N., R.20 E., Kenosha County, Hydrologic Unit 07120004, at Paddock Lake Wastewater Treatment Facility in Paddock Lake (Paddock Lake 7.5-minute quadrangle).

To reach gage.--From the intersection of State Highway 50 and 236th Avenue, drive north to 62nd Place. Drive east on 62nd Place to the wastewater-treatment facility.

Drainage basin.--Des Plaines River.

Gage.--An 8-in.-diameter, heated, tipping-bucket rain gage mounted on a 2-in.-diameter steel post approximately 4 ft above the ground. An electronic data logger, housed inside a weatherproof electrical enclosure, is mounted on the steel post below the rain gage.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--February 6, 1990, to present. Periods of missing record exist due to equipment-related problems.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Lake County Stormwater Management Commission.

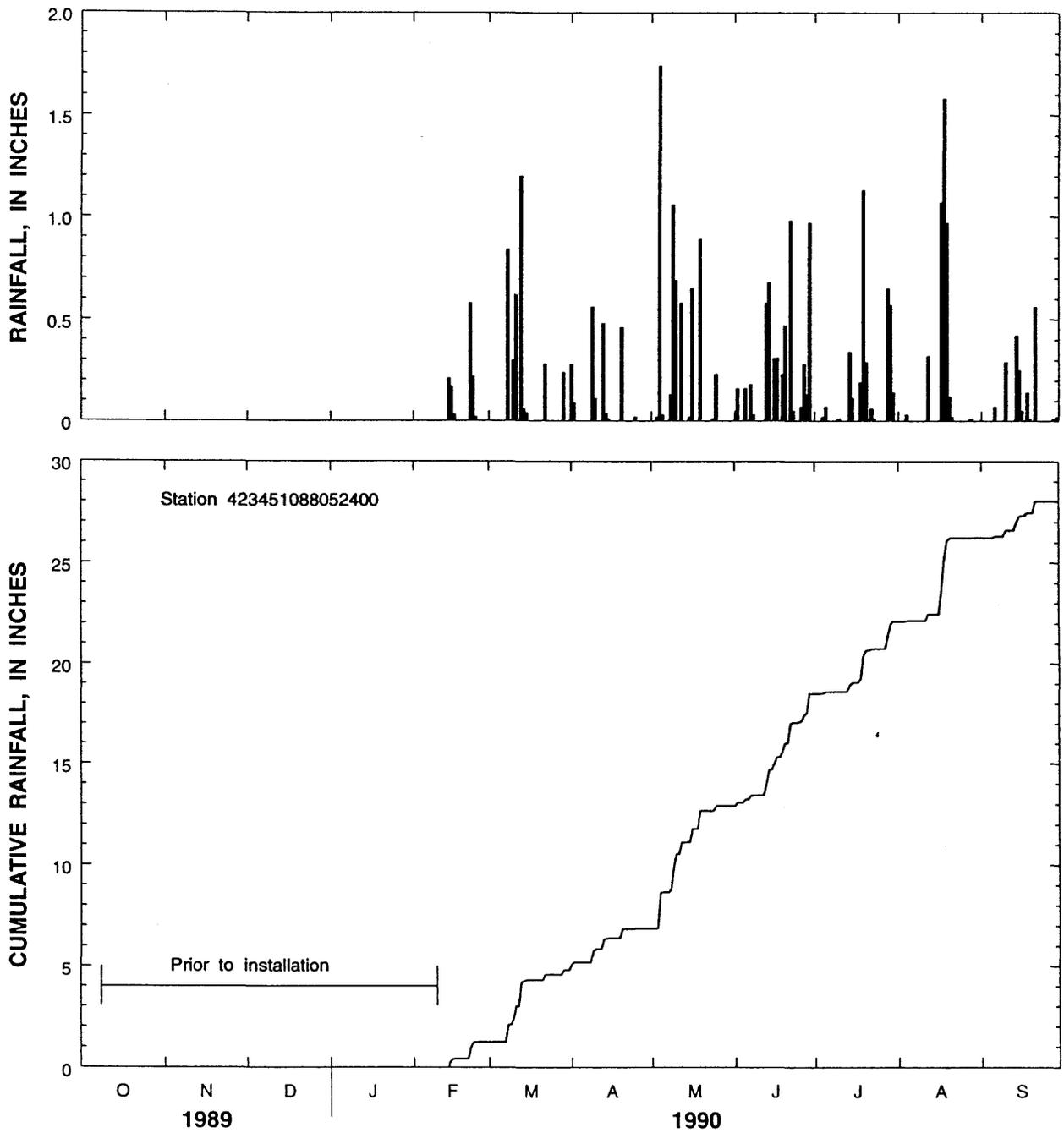


Figure 83. Daily rainfall totals and cumulative rainfall at Paddock Lake Wastewater Treatment Facility at Paddock Lake, Wis., water year 1990.

423451088052400 Paddock Lake Wastewater Treatment Facility at
Paddock Lake, Wis.—Continued

Rainfall, in inches, water year October 1989 to September 1990
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	--	--	0.00	0.28	0.00	0.00	0.00	0.00	0.00
2	--	--	--	--	--	.00	.09	.00	.16	.00	.00	.00
3	--	--	--	--	--	.00	.00	.02	.00	.00	.00	.00
4	--	--	--	--	--	.00	.00	1.74	.00	.02	.03	.00
5	--	--	--	--	--	.00	s.00	.03	.16	.07	.00	.00
6	--	--	--	--	p0.00	.00	s.00	.00	.00	.00	.00	.07
7	--	--	--	--	.00	.00	.00	.00	.18	.00	.00	.00
8	--	--	--	--	.00	.84	.00	.13	.03	.00	.00	.00
9	--	--	--	--	.00	.00	.56	1.06	.00	.00	.00	.00
10	--	--	--	--	.00	.30	.11	.69	.00	.01	.00	.29
11	--	--	--	--	.00	.62	s.00	.00	.00	.00	.00	.00
12	--	--	--	--	.00	.00	s.00	.58	.00	.00	.32	.00
13	--	--	--	--	.00	1.20	.48	.00	.58	.00	.00	.00
14	--	--	--	--	.21	.06	.04	.00	.68	.34	.00	.42
15	--	--	--	--	s.17	.04	.01	.02	.00	.11	.00	.25
16	--	--	--	--	s.03	.00	.00	.65	.31	.00	.00	.05
17	--	--	--	--	s.00	.00	.00	.00	.31	.00	1.07	.00
18	--	--	--	--	.00	.00	.00	.00	.00	.19	1.58	.14
19	--	--	--	--	.00	.00	.00	.89	.23	1.13	.97	.01
20	--	--	--	--	.00	.00	.46	.00	.47	.29	.12	.00
21	--	--	--	--	.00	.00	.00	.00	.00	.01	.02	.56
22	--	--	--	--	.58	.28	.00	.00	.98	.06	.00	.00
23	--	--	--	--	s.22	.00	.00	.00	.05	.01	.00	.00
24	--	--	--	--	s.02	.00	.00	.01	.00	.00	.00	.00
25	--	--	--	--	.00	.00	.02	.23	.00	.00	.00	.00
26	--	--	--	--	.00	.00	.00	.00	.07	.00	.00	.00
27	--	--	--	--	.00	.00	.00	.00	.28	.00	.00	.00
28	--	--	--	--	.00	.00	.00	.00	.13	.65	.01	.01
29	--	--	--	--	--	.24	.00	.00	.97	.57	.00	.02
30	--	--	--	--	--	.00	.00	.00	.00	.14	.00	.00
31	--	--	--	--	--	.00	--	.00	--	.00	.00	--
Total	--	--	--	--	--	3.58	2.05	6.05	5.59	3.60	4.12	1.82

p Partial record.

s Snowfall-affected precipitation.

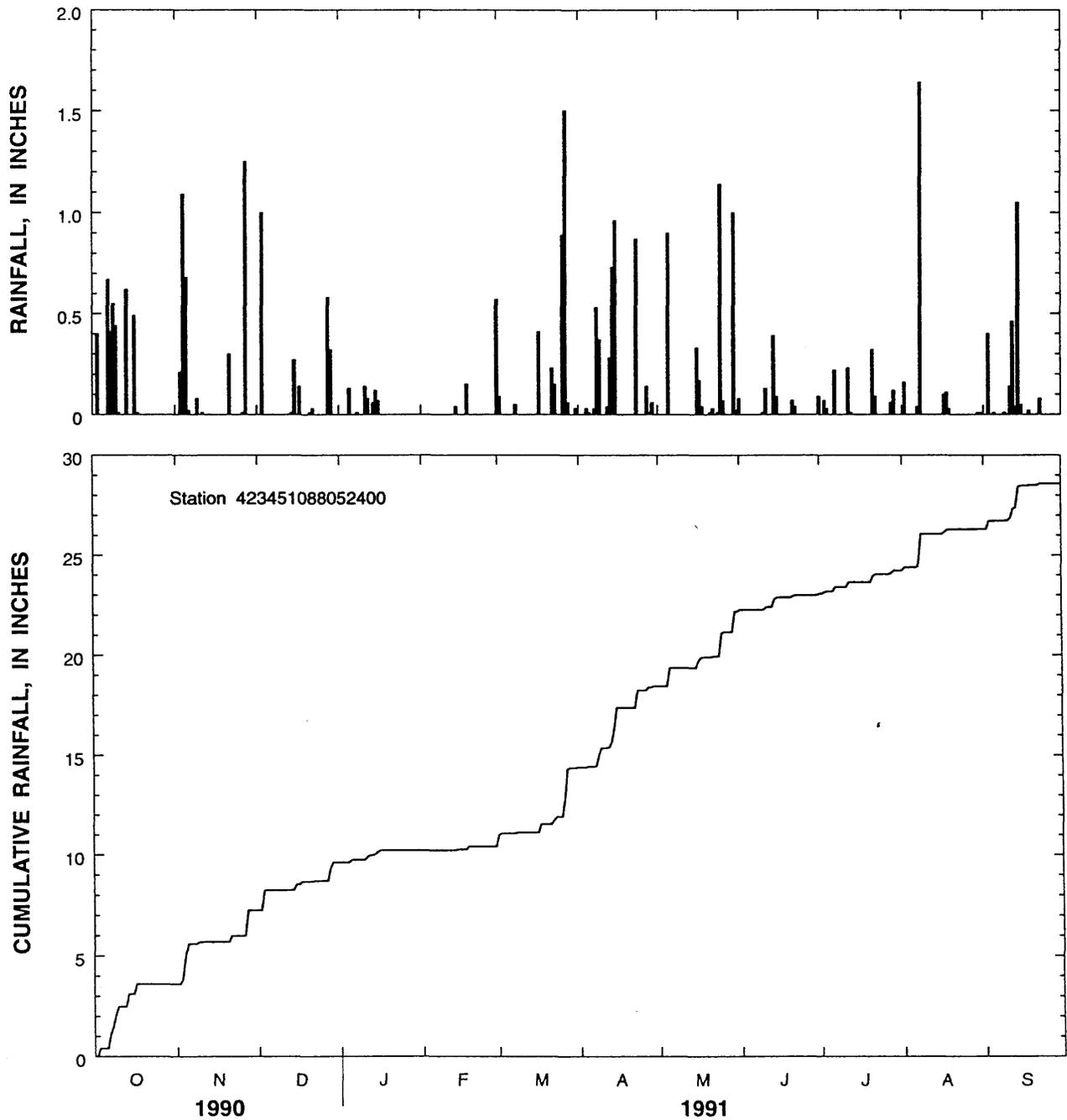


Figure 84. Daily rainfall totals and cumulative rainfall at Paddock Lake Wastewater Treatment Facility at Paddock Lake, Wis., water year 1991.

423451088052400 Paddock Lake Wastewater Treatment Facility at
Paddock Lake, Wis.—Continued

Rainfall, in inches, water year October 1990 to September 1991
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	0.00	0.00	0.00	0.00	0.57	0.00	0.00	0.08	0.09	0.00	0.00
2	.00	.00	s.00	.00	.00	.09	.00	.00	.00	.00	.16	.00
3	.40	.21	s1.00	s.00	.00	s.00	.00	.00	.00	.07	.00	.40
4	.00	s1.09	s.00	.00	.00	.00	.03	.00	.00	.03	.00	.00
5	.00	s.68	.00	s.13	.00	.00	.01	.90	.00	.00	.00	.01
6	.00	s.02	.00	s.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.67	.00	.00	.00	.00	.00	.03	.00	.00	.22	.04	.00
8	.41	.00	.00	.01	.00	.05	.53	.00	.00	.00	1.64	.00
9	.55	s.08	.00	s.00	.00	.00	.37	.00	.00	.00	.00	.01
10	.44	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00
11	.01	s.01	.00	s.14	.00	.00	.00	.00	.13	.00	.00	.14
12	.00	.00	.00	s.08	.00	s.00	.04	.00	.00	.23	.00	.46
13	.00	.00	.00	.00	.00	s.00	.28	.00	.00	.01	.00	.04
14	.62	.00	s.01	.06	s.04	.00	.73	.00	.39	.00	.00	1.05
15	.00	.00	s.27	.12	.00	.00	.96	.00	.09	.00	.00	.05
16	.00	.00	.00	.07	.00	.00	.00	.33	.00	.00	.00	.00
17	.49	.00	.14	.00	.00	.41	.00	.17	.00	.00	.10	.00
18	.01	.00	.00	.00	.15	.00	.00	.04	.00	.00	.11	.02
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.30	.01	s.00	.00	.00	.00	.01	.07	.32	.00	.00
22	.00	.00	.03	.00	.00	.23	.00	.03	.04	.09	.00	.08
23	.00	.00	.00	s.00	.00	.15	.87	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	1.14	.00	.00	.00	.00
26	.00	.01	.00	.00	.00	.89	.00	.07	.00	.00	.00	.00
27	.00	1.25	s.00	.00	s.00	1.50	.14	.00	.00	.00	.00	.00
28	.00	.00	s.58	.00	.00	.06	.01	.00	.00	.06	.00	.00
29	.00	.00	s.32	.00	--	.00	.06	.00	.00	.12	.00	.00
30	.00	.00	s.00	s.00	--	.00	.00	1.00	.00	.00	.01	.00
31	.00	--	s.00	s.00	--	s.03	--	.02	--	.00	.01	--
Total	3.60	3.65	2.36	0.61	0.19	3.98	4.06	3.72	0.81	1.24	2.10	2.26

s Snowfall-affected precipitation.

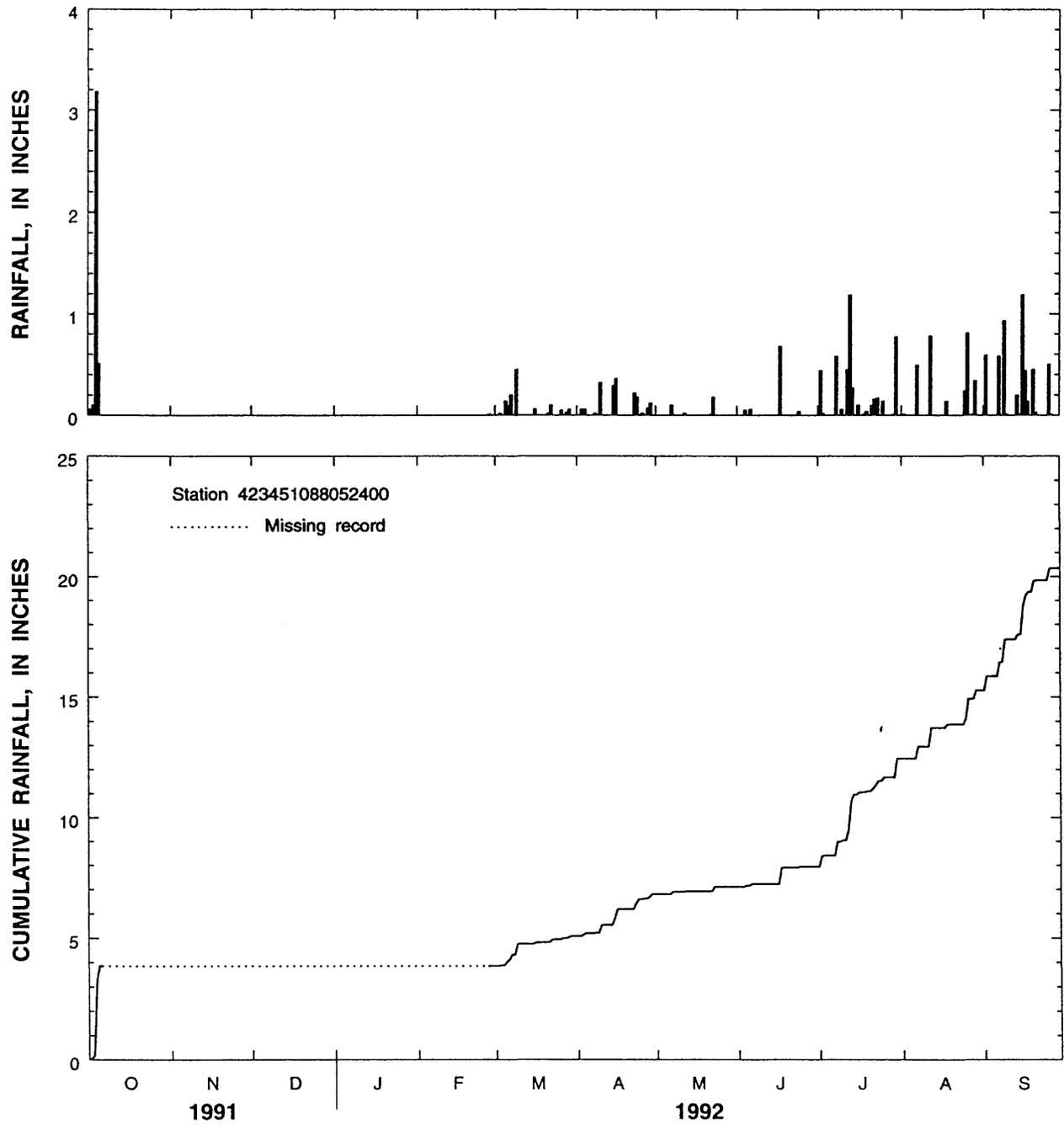


Figure 85. Daily rainfall totals and cumulative rainfall at Paddock Lake Wastewater Treatment Facility at Paddock Lake, Wis., water year 1992.

423451088052400 Paddock Lake Wastewater Treatment Facility at
Paddock Lake, Wis.—Continued

Rainfall, in inches, water year October 1991 to September 1992
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	m	m	m	m	0.00	s0.00	0.00	0.00	0.00	0.00	0.00
2	.06	m	m	m	m	.00	s.00	.00	.00	.44	.01	.59
3	.10	m	m	m	m	.02	.06	.00	.00	.02	.00	.00
4	3.18	m	m	m	m	.00	.06	.00	.05	.00	.00	.00
5	.51	m	m	m	m	.14	.00	.00	.00	.00	.00	.00
6	m	m	m	m	m	.09	.00	.00	.06	.00	.00	.00
7	m	m	m	m	m	.20	.00	.10	.00	.00	.49	.58
8	m	m	m	m	m	.00	.02	.00	.00	.58	.00	.00
9	m	m	m	m	m	.45	.00	.00	.00	.00	.00	.93
10	m	m	m	m	m	s.00	.32	.00	.00	.06	.00	.01
11	m	m	m	m	m	.00	.00	.00	.00	.00	.00	.00
12	m	m	m	m	m	.00	.00	.02	.00	.45	.78	.00
13	m	m	m	m	m	.00	.00	.00	.00	1.19	.00	.00
14	m	m	m	m	m	s.00	.00	.00	.00	.27	.00	.20
15	m	m	m	m	m	.00	.29	.00	.00	.00	.00	.01
16	m	m	m	m	m	.06	.36	.00	.00	.10	.00	1.19
17	m	m	m	m	m	.00	.00	.00	.68	.00	.00	.44
18	m	m	m	m	m	.00	.00	.00	.00	.01	.14	.14
19	m	m	m	m	m	.00	.00	.00	.00	.04	.00	.00
20	m	m	m	m	m	.00	.00	.00	.00	.00	.00	.45
21	m	m	m	m	m	s.02	.00	.00	.00	.10	.00	.03
22	m	m	m	m	m	s.10	.00	.01	.00	.16	.00	.00
23	m	m	m	m	m	.00	.22	.18	.00	.17	.00	.00
24	m	m	m	m	m	.00	.18	.00	.04	.00	.00	.00
25	m	m	m	m	m	.00	.00	.00	.00	.14	.24	.00
26	m	m	m	m	p0.00	s.05	.02	.00	.00	.00	.81	.50
27	m	m	m	m	.00	s.00	.00	.00	.00	.00	.00	.01
28	m	m	m	m	s.01	.03	.07	.00	.00	.00	.01	.00
29	m	m	m	m	s.00	.06	.12	.00	.00	.01	.34	.00
30	m	m	m	m	--	.00	.00	.00	.00	.77	.00	.00
31	m	--	m	m	--	.00	--	.00	--	.00	.00	--
Total	--	--	--	--	--	1.22	1.72	0.31	0.83	4.51	2.82	5.08

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

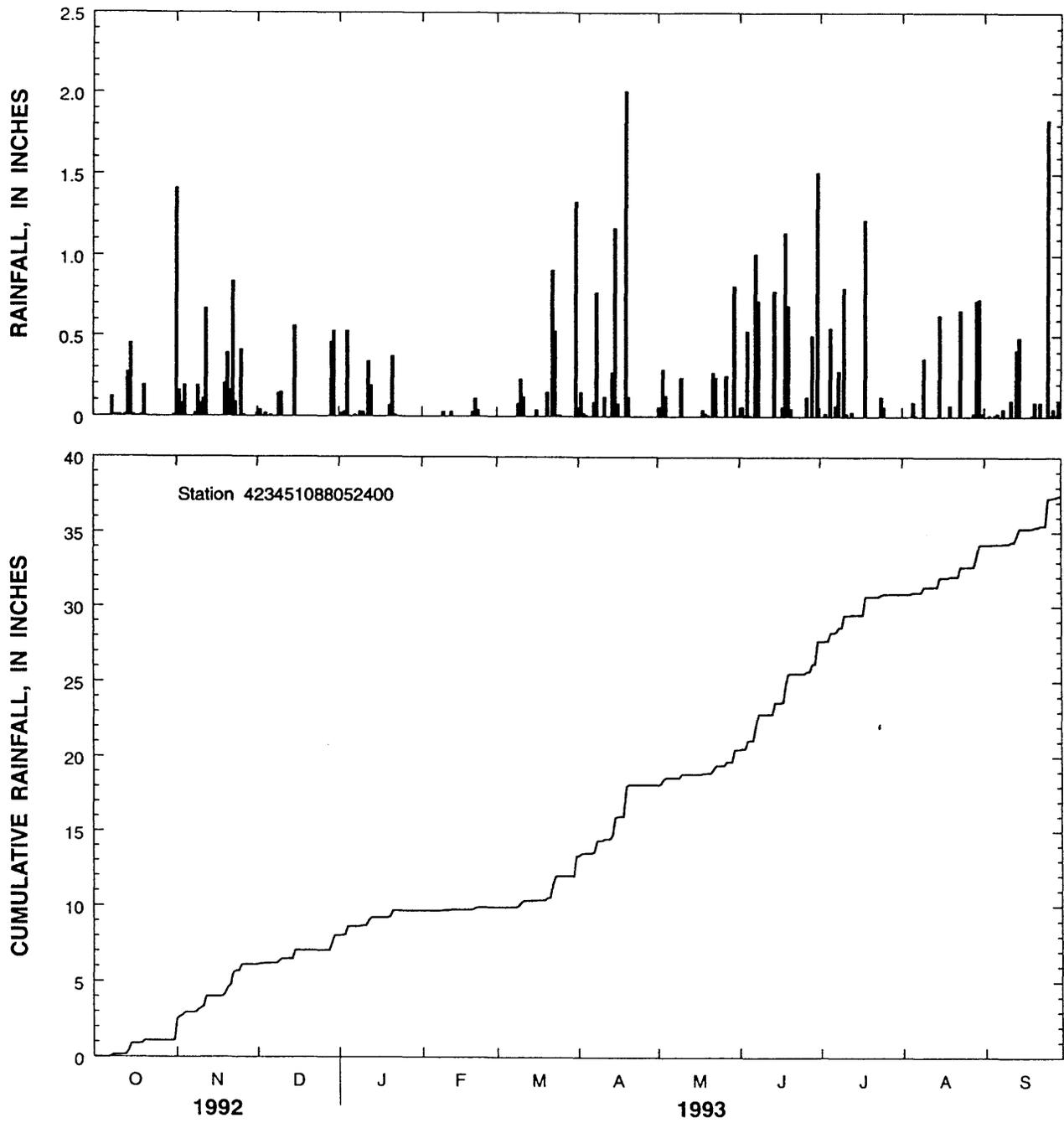


Figure 86. Daily rainfall totals and cumulative rainfall at Paddock Lake Wastewater Treatment Facility at Paddock Lake, Wis., water year 1993.

423451088052400 Paddock Lake Wastewater Treatment Facility at
Paddock Lake, Wis.—Continued

Rainfall, in inches, water year October 1992 to September 1993
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	1.41	s0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	.00	.16	s.04	s.02	.00	.00	.15	.06	.06	.00	.00	.00
3	.00	s.08	.00	s.03	.00	.00	.02	.29	.01	.02	.00	.01
4	.00	s.19	s.02	s.53	.00	s.00	.01	.13	.53	.00	.00	.00
5	.00	s.00	.00	s.00	.00	s.00	.00	.00	.01	.55	.09	.01
6	.00	s.00	.01	s.00	.00	.00	.00	.00	.00	.00	.01	.02
7	.00	s.00	s.00	s.01	.00	.00	.09	.00	1.01	.07	.00	.00
8	.12	s.02	.00	s.00	.00	.00	.77	.00	.72	.28	.00	.05
9	.01	.19	.14	s.03	.03	.08	.00	.00	.00	.00	.36	.00
10	.01	.08	s.15	s.03	.00	s.23	.00	.24	.00	.80	.00	.00
11	.01	.11	.00	s.00	.00	s.12	.12	.00	.00	.02	.00	.10
12	.00	s.67	.00	s.34	.03	s.00	.00	.00	.00	.00	.00	.00
13	.01	s.00	.00	s.19	.04	s.00	.00	.00	.00	.03	.00	.41
14	.27	s.00	.00	s.00	.00	s.00	.27	.00	.78	.00	.00	.49
15	.45	s.00	.56	s.00	.00	.00	1.17	.00	.00	.00	.63	.00
16	.01	.00	.00	s.00	.00	.04	.08	.00	.00	.00	.00	.00
17	.00	.00	s.00	.00	.00	.00	.00	.00	.06	.00	.00	.00
18	.00	.10	.00	s.00	.00	s.00	.00	.04	1.14	1.22	.00	.00
19	s.01	.20	.00	s.00	.00	.00	2.01	.02	.69	.00	.07	.01
20	s.19	.39	.00	.07	.03	s.15	.12	.01	.05	.00	.00	.09
21	.00	.16	.00	.37	.11	.00	.00	.00	.00	.00	.00	.00
22	.00	.84	.00	s.01	.00	s.91	.00	.27	.00	.00	.00	.09
23	.00	.09	.00	s.00	.00	.53	.00	.24	.00	.00	.96	.00
24	.00	.00	s.00	.00	.00	.01	.00	.00	.00	.12	.00	.00
25	.00	.41	.00	p.00	.00	.01	.00	.00	.00	.06	.00	1.83
26	.00	.01	.00	.00	p.00	.00	.00	.00	.12	.00	.00	.01
27	.00	.00	.00	.00	.00	.00	.00	.25	.00	.00	.00	.05
28	.00	.00	.00	.00	.00	.00	.00	.00	.50	.00	.02	.01
29	.00	.00	.46	.00	--	.00	.00	.00	.00	.00	.72	.09
30	.00	.00	.53	.00	--	.00	.00	.81	1.51	.00	.73	.00
31	.01	--	.00	.00	--	1.33	--	.01	--	.00	.02	--
Total	1.10	5.11	1.93	1.63	0.24	3.41	4.81	2.37	7.19	3.17	3.61	3.27

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

Kenosha Airport Rain Gage at Kenosha, Wis.

Site identifier.--23

Station number.--423526087551800

Location.--Latitude 42°35'26", longitude 87°55'18", in SE~~SW~~~~NE~~ sec.32, T.2 N., R.22 E., Kenosha County, Hydrologic Unit 04040002, at Kenosha Municipal Airport in Kenosha (Pleasant Prairie 7.5-minute quadrangle).

To reach gage.--From the intersection of Interstate 94 and State Highway 158, drive east approximately 0.7 mi to airport.

Drainage basin.--Lake Michigan.

Gage.--An 8-in.-diameter, heated, tipping-bucket rain gage mounted on a 2-in.-diameter steel post approximately 4 ft above the ground. An electronic data logger, housed inside a weatherproof electrical enclosure, is mounted on the steel post below the rain gage.

Accuracy.--The rain gage provides a continuous recording of rainfall in 0.01-in. increments.

Period of record.--February 6, 1990, to present.

Cooperation.--The rain gage is maintained under a cooperative agreement with the Lake County Stormwater Management Commission.

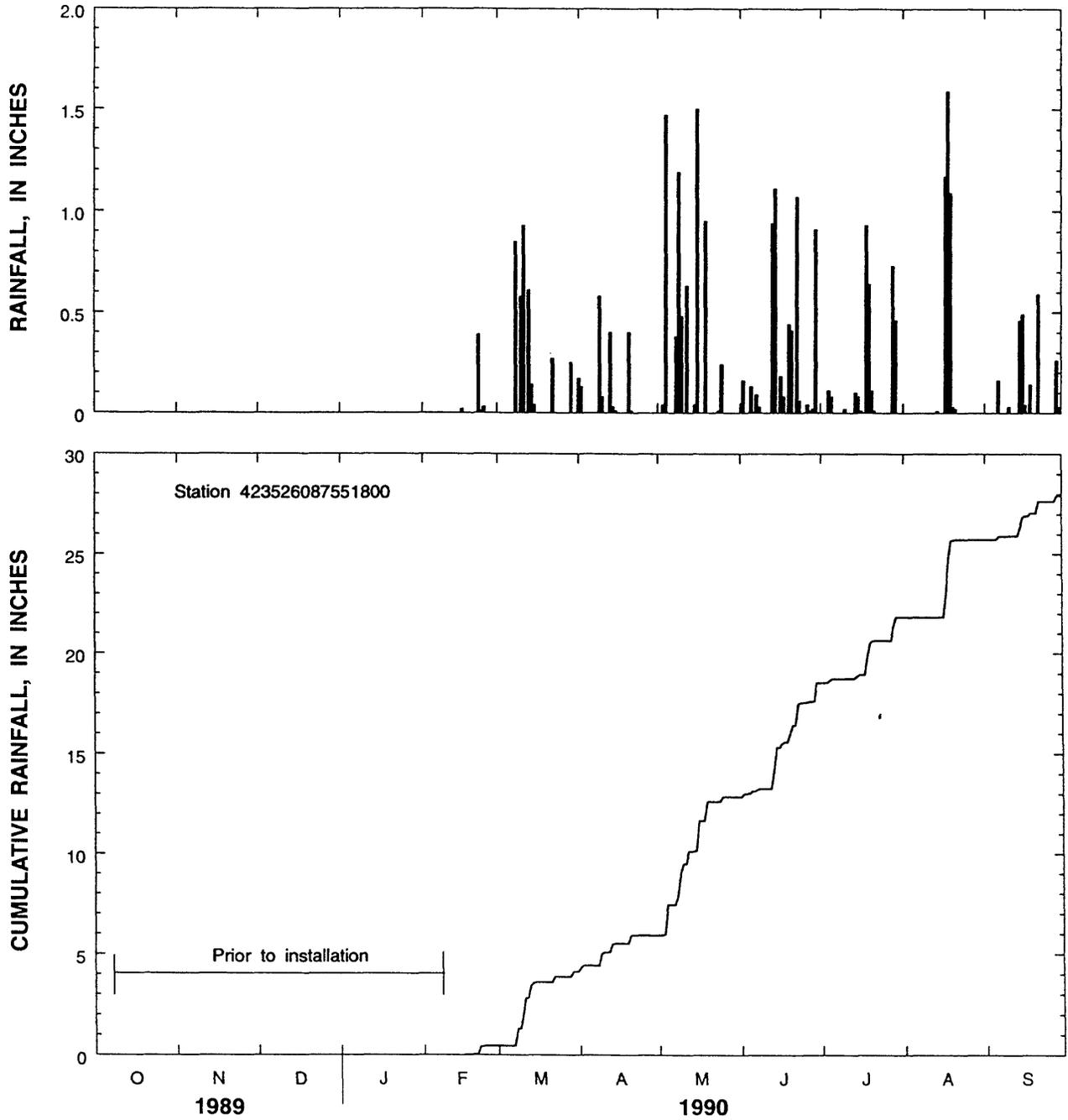


Figure 87. Daily rainfall totals and cumulative rainfall at Kenosha Airport Rain Gage at Kenosha, Wis., water year 1990.

423526087551800 Kenosha Airport Rain Gage near Kenosha, Wis.—Continued

Rainfall, in inches, water year October 1989 to September 1990
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	--	--	--	--	--	0.00	0.17	0.00	0.00	0.00	0.00	0.00
2	--	--	--	--	--	.00	.13	.00	.16	.00	.00	.00
3	--	--	--	--	--	.00	.00	.04	.00	.00	.00	.00
4	--	--	--	--	--	.00	.00	1.47	.00	.11	.00	.00
5	--	--	--	--	--	.00	s.00	.00	.13	.08	.00	.00
6	--	--	--	--	p0.00	.00	s.00	.00	.00	.00	.00	.16
7	--	--	--	--	.00	.00	.00	.00	.09	.00	.00	.00
8	--	--	--	--	.00	.85	.00	.38	.03	.00	.00	.00
9	--	--	--	--	.00	.00	.58	1.19	.00	.00	.00	.00
10	--	--	--	--	.00	.58	.08	.48	.00	.02	.00	.03
11	--	--	--	--	.00	.93	s.00	.00	.00	.00	.00	.00
12	--	--	--	--	.00	.00	s.00	.63	.00	.00	.00	.00
13	--	--	--	--	.00	.61	.40	.00	.94	.00	.00	.00
14	--	--	--	--	.00	.14	.03	.00	1.11	.10	.01	.46
15	--	--	--	--	s.05	.04	.01	.04	.00	.08	.00	.49
16	--	--	--	--	s.02	.00	.00	1.50	.18	.01	.00	.04
17	--	--	--	--	s.00	.00	.00	.00	.08	.00	1.17	.00
18	--	--	--	--	.00	.00	.00	.00	.00	.93	1.59	.14
19	--	--	--	--	.00	.00	.00	.95	.44	.64	1.09	.00
20	--	--	--	--	.00	.00	.40	.00	.41	.11	.03	.00
21	--	--	--	--	.00	.00	.01	.00	.00	.01	.02	.59
22	--	--	--	--	.39	.27	.00	.00	1.07	.00	.00	.00
23	--	--	--	--	s.01	.00	.00	.00	.06	.00	.00	.00
24	--	--	--	--	s.03	.00	.00	.01	.00	.00	.00	.00
25	--	--	--	--	.00	.00	.00	.24	.00	.00	.00	.00
26	--	--	--	--	.00	.00	.00	.00	.04	.00	.00	.00
27	--	--	--	--	.00	.00	.00	.00	.01	.00	.00	.00
28	--	--	--	--	.00	.00	.00	.00	.02	.73	.00	.26
29	--	--	--	--	--	.25	.00	.00	.91	.46	.00	.03
30	--	--	--	--	--	.00	.00	.00	.00	.00	.00	.00
31	--	--	--	--	--	.00	--	.00	--	.00	.00	--
Total	--	--	--	--	--	3.67	1.81	6.93	5.68	3.28	3.91	2.20

p Partial record.

s Snowfall-affected precipitation.

423526087551800 Kenosha Airport Rain Gage at Kenosha, Wis.—Continued

Rainfall, in inches, water year October 1991 to September 1992
Daily totals

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.00	m	0.00	0.00	m	0.00	m	0.00	m	m	0.00	0.00
2	p.01	m	.00	.04	m	.00	m	.00	m	m	.06	.26
3	m	m	s.00	.01	m	.00	m	.00	m	m	.05	.00
4	m	m	s.00	.00	m	.00	m	.00	m	m	.00	.00
5	m	m	s.00	.00	m	.25	m	.00	m	m	.00	.00
6	m	m	.26	.00	m	.11	m	.00	m	m	.00	.00
7	m	m	.00	.00	m	.19	m	p.00	m	m	.52	.58
8	m	m	.06	.16	m	.00	m	m	m	m	.00	.22
9	m	m	.00	.04	m	.42	0.00	m	m	m	.00	.90
10	m	m	.00	p.00	m	s.00	.36	m	m	m	.00	.00
11	m	m	.00	m	m	.00	.01	m	m	m	.00	.00
12	m	m	.56	m	m	.00	.00	m	m	m	.41	.00
13	m	m	.00	m	m	.00	.00	m	m	m	.01	.00
14	m	m	.01	m	m	s.00	.00	m	m	m	.00	.17
15	m	m	s.00	m	m	.00	.30	m	m	m	.00	.07
16	m	m	s.00	m	m	.04	.33	m	m	m	.00	.75
17	m	m	.00	m	m	.00	.00	m	m	m	.00	.58
18	m	m	.00	m	m	.00	.00	m	m	m	.00	.09
19	m	m	.00	m	m	.00	.00	m	m	m	.00	.00
20	m	m	.17	m	m	.00	.00	m	m	m	.00	.63
21	m	m	s.02	m	m	s.12	.00	m	m	m	.00	.03
22	m	m	.03	m	m	s.34	.00	m	m	m	.00	.00
23	m	m	.01	m	m	.02	.22	m	m	m	.00	.00
24	m	m	.00	m	m	.00	.12	m	m	m	.00	.00
25	m	m	.00	m	m	.01	.01	m	m	m	.56	.00
26	m	p0.00	.01	m	p0.00	s.09	.00	m	m	m	1.00	.50
27	m	s.05	.00	m	.00	s.00	.00	m	m	m	.23	.01
28	m	s.59	.00	m	s.00	.02	.03	m	m	m	.00	.00
29	m	1.15	.00	m	s.00	.04	.11	m	m	p0.00	.21	.00
30	m	.01	.00	m	--	.01	.00	m	m	.82	.00	.00
31	m	--	.00	m	--	m	--	m	--	.01	.00	--
Total	--	--	1.13	--	--	--	--	--	--	--	3.05	4.79

m Missing record.

p Partial record.

s Snowfall-affected precipitation.

REFERENCES CITED

Leighton, M.M., Ekblaw, G.E., and Horberg, Leland, 1948, Physiographic divisions of Illinois: Illinois State Geological Survey, Report of Investigations 129, 33 p.

U.S. Department of Commerce, National Oceanic and Atmospheric Administration, 1989-93, Climatological data, Illinois: Asheville, N.C., Environmental Data and Information Service (published monthly).