

Quantity and Quality of Stormwater Runoff from Western Daytona Beach, Florida, and Adjacent Areas

By G.F. Taylor

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CONVERSION FACTORS, ABBREVIATIONS, AND DEFINITIONS

For use of those readers who may prefer to use metric (International System) units, conversion factors for the terms used in this report are listed below:

Multiply inch-pound unit	By	To obtain metric unit
Length		
inch (in.)	2.54	centimeter (cm)
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)
Area		
square mile (mi ²)	2.590	square kilometer (km ²)
Weight		
ton (ton)	908	kilogram (kg)
pound (lb)	0.454	kilogram (kg)
pound (lb)	454,000	milligram (mg)
pound per square mile (lb/mi ²)	0.454	kilogram per square mile (kg/mi ²)
Volume		
cubic foot (ft ³)	0.02832	cubic meter (m ³)
cubic foot (ft ³)	28.32	liter (L)
cubic foot (ft ³)	28,320	milliliter (mL)
Flow		
pound per day (lb/d)	0.454	kilogram per day (kg/d)
cubic foot per second (ft ³ /s)	0.02832	cubic meter per second (m ³ /s)

Additional abbreviations

μg/kg = microgram per kilogram

mg/L = milligram per liter

μg/L = microgram per liter

μS/cm at 25 °C = microsiemen per centimeter at 25 degrees Celsius

Temperature in degrees Fahrenheit (°F) can be converted to degrees Celsius (°C) as follows:

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

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.”

Altitude, as used in this report, refers to distance above or below sea level.

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ABSTRACT

Runoff from western Daytona Beach and adjacent areas was monitored from November 1982 through September 1985. Quantity and quality of stormwater-runoff data were collected at 12 surface-water sites and 8 rainfall sites, and then used in the hydrologic analysis of the upper Tomoka River basin and upper B-19 Canal basin.

Runoff, as a percentage of rainfall, for selected storm periods ranged from 1 to 77 percent for the Tomoka River basin, and 6 to 17 percent for the B-19 Canal basin. Few patterns were discernible from the rainfall-runoff plots.

Major nutrients were sampled at all sites; total phosphorus ranged from 0.01 to 0.52 milligram per liter, and total nitrogen concentrations ranged from 0.09 to 2.4 milligrams per liter. Dissolved-solids concentrations ranged from 46 to 458 milligrams per liter, and specific-conductance values ranged from 49 to 865 microsiemens per centimeter. The conservative constituent chloride ranged from 3.4 to 57 milligrams per liter.

Eighty-seven percent of all samples analyzed for color exceeded the 45 platinum-cobalt units criterion suggested by the U.S. Environmental Protection Agency. Except for low pH values in two tributaries draining swampy land in the Tomoka River basin, pH values for both basins were within the recommended limits established by the Florida Department of Environmental Regulation. Dissolved-oxygen concentrations in the 4- to 6-milligrams-per-liter range were common. Three insecticides (diazinon, heptachlor, and DDD) and one herbicide (2,4-D) were detected in water or bottom sediments. Mercury concentrations in a total of five samples from both basins exceeded the 0.2-microgram-per-liter criterion for potable water supplies. Zinc concentrations did not exceed the recommended limits in any samples from the B-19 Canal basin but exceeded the recommended limits in 25 percent of the samples from the Tomoka River basin.

INTRODUCTION

Stormwater runoff is rainwater that leaves an area by means of surface drainage. The quantity and quality of stormwater runoff are influenced by rainfall and

drainage-basin characteristics. Rainfall characteristics such as intensity, duration, and areal coverage influence mainly the quantity of stormwater runoff. Basin characteristics such as topography, geology, land use, vegetation, and soils influence both the quantity and quality of stormwater runoff.

Hydraulic and chemical properties of stormwater runoff are of primary concern in urban planning. The hydraulics of runoff control erosion, overbank flooding, and deposition of solids. In addition, the chemical quality of stormwater runoff affects the usefulness of the runoff water and the receiving waters.

Increased development within the western Daytona Beach area is anticipated in the near future. This development could possibly increase runoff volumes and constituent loads discharging to the Tomoka River and B-19 Canal. Information on the quantity and quality of stormwater runoff in developed and undeveloped areas in these basins is needed so that planners and managers can anticipate and minimize adverse effects of stormwater runoff on the receiving waters in the area. To provide the type of information needed by planners and managers, the U.S. Geological Survey in cooperation with the City of Daytona Beach, Fla., conducted a 3-year data collection and evaluation program for western Daytona Beach from 1982 to 1985.

The study area (fig. 1) is the upper parts of both the Tomoka River basin and the B-19 Canal basin, a tributary to Spruce Creek. This area includes western Daytona Beach and unincorporated adjacent areas west and south of the city, totaling about 71 mi² (square miles). Although most of the study area is undeveloped, the part within northwestern Daytona Beach north of U.S. Highway 92 is partly developed industrial-commercial. The study area south of State Road 400 within southwestern Daytona Beach is partly developed residential.

Purpose and Scope

This report presents results of the study to evaluate the quantity and quality of stormwater runoff from western Daytona Beach and adjacent areas, and summarizes the stormwater data collected. Rainfall, surface-water discharge, and water-quality data were collected from

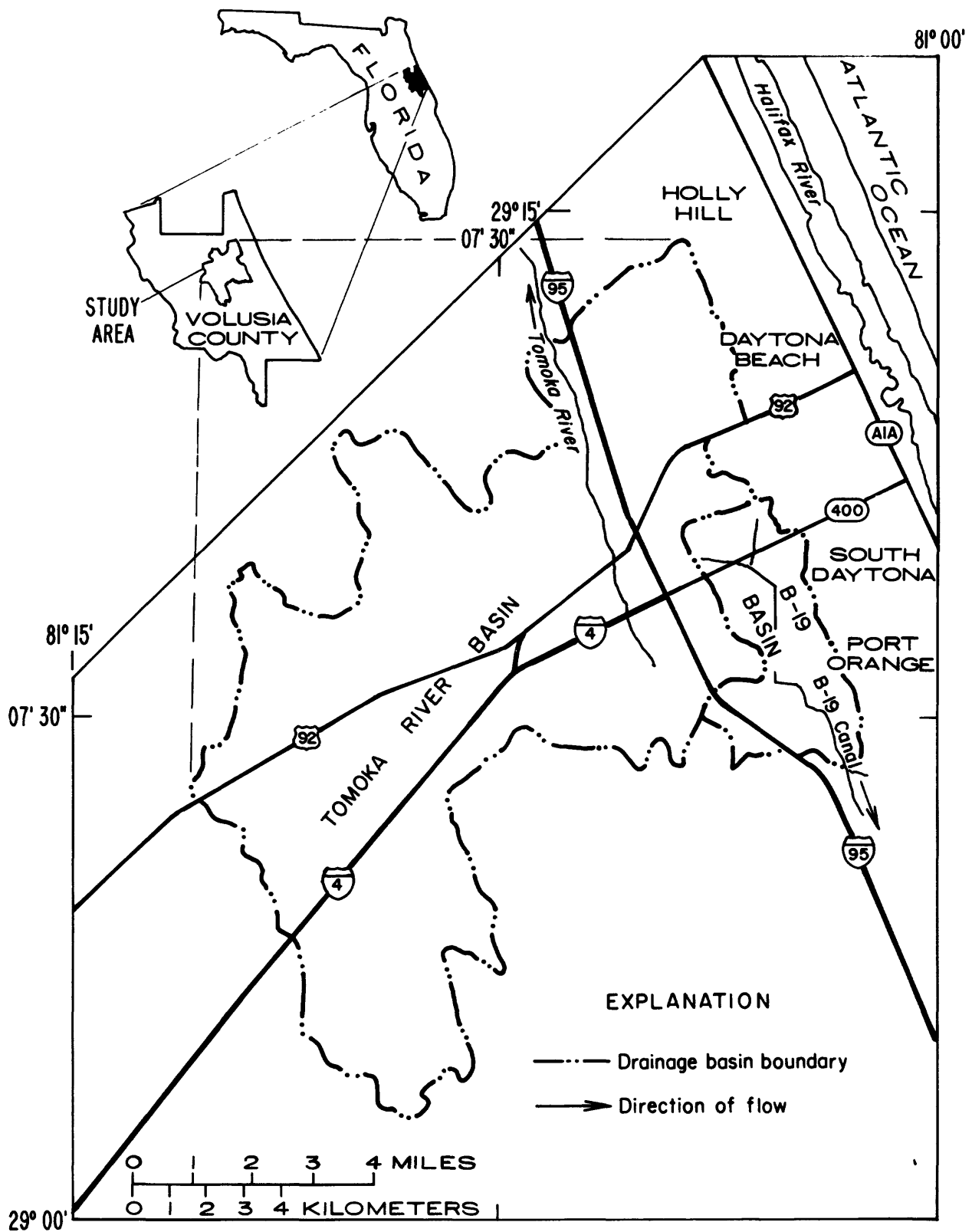


Figure 1. Study area.

November 1982 through September 1985. The data are summarized in tables, hydrographs, and plots. The evaluation of stormwater runoff quality is based on a comparison of the results of chemical analyses of samples collected during this study with results from previous studies, and on criteria published by the Florida Department of Environmental Regulation (FDER) and the U.S. Environmental Protection Agency (USEPA).

Description of the Study Area

Tomoka River Basin

The upper Tomoka River basin, that part upstream from Eleventh Street, constitutes an area of about 63 mi². Approximately 9.5 mi² of this area is within the corporate limits of Daytona Beach. Most of the Upper Tomoka River basin is fairly flat and covered with pines, palmettos, dense underbrush, and marshes. The part of the basin within northwestern Daytona Beach is composed primarily of woods and partly developed industrial parks.

Because the water table throughout the basin is at or near land surface most of the time and the potentiometric surface is about 5 to 10 feet below the land surface (Rutledge, 1985), recharge is poor and large marshy areas exist. Most of the Tomoka River basin drains slowly because of the large storage capacity within the marshy areas and canals that have little bed slope.

Many ditches and canals cross subbasin boundaries and intersect other ditches and canals. This allows flow to move in either direction in the canals, depending upon hydraulic gradient. Intersecting channels having little bed slope are prevalent in the urban areas of northwest Daytona Beach and the Tiger Bay area along U.S. Highway 92 (figs. 1 and 2).

B-19 Canal Basin

The B-19 Canal basin, a tributary to Spruce Creek, has topography and vegetative cover similar to that in the Tomoka River basin. The part of the B-19 Canal basin within the study area constitutes an area of about 7.6 mi² above Dunlawton Avenue and south of the Daytona Beach Regional Airport (fig. 2). This upper part of the basin generally is low and flat with dense underbrush. The water table in this part of the basin is at or near land surface.

At site 11, the channel gradient changes dramatically with the downstream slope being about four times the upstream slope. This steep gradient contributes to greater stormwater velocities and deeper channels with greater flow capacities, thereby allowing stormwater to leave the area more quickly. In the upper reaches, constrictions at culvert

entrances retard flow and cause water to go into temporary storage to such an extent that reversed flow was observed at site 10 on a number of occasions.

In the uppermost part of the basin, north of State Road 400, the basin is undeveloped, whereas south of State Road 400, the basin is partly developed residential. The area along the east bank of B-19 Canal is most heavily developed. The west bank downstream from site 11 is mostly undeveloped.

Previous Investigations

A report by the Volusia County Planning Board (1978), entitled "Tomoka River Watershed Water Quality Study," summarizes the water quality in the Tomoka River watershed at that time. According to that report, the quality of the Tomoka River water was typical of a basin with large swampy areas and high in organic material. Generally, the water in the river was characterized as having moderate-to-low biodegradable organic content, high color, low dissolved-oxygen (DO) concentrations, high coliform-bacterial levels, and moderate-to-high nutrient concentrations. The high bacterial levels and nutrient concentrations could not be attributed to a single point source of contamination.

A series of statewide map reports by the U.S. Geological Survey (Kaufman, 1975a, b, c, and d) cover various aspects of water quality and hydrogeology for the study area. The information is general and accuracy is limited by the scale of the map used to show the information. A 1971 report by the U.S. Geological Survey gives some more specific information about water quality of the Tomoka River (Knochenmus and Beard, 1971).

METHODS OF DATA COLLECTION

Rainfall, stage and discharge of streams and canals, and water-quality data were collected from November 1982 through September 1985. Data-collection sites (fig. 2) include 12 surface-water sites, 7 on canals contributing to the Tomoka River, 2 on the Tomoka River, and 3 on the B-19 Canal. Rainfall-collection sites include six in the Tomoka River basin and two in the B-19 Canal basin. Table 1 lists the surface water and rainfall data-collection sites shown in fig. 2. Other information concerning these sites, such as type of data collected, equipment type, number of samples taken, contributing surface area, and geographical location are presented in table 1.

Equipment used to collect data included digital stage recorders, tipping-bucket rain gages, volumetric rainfall collectors, water-quality field monitors, automatic water samplers, and standard stream-gaging equipment.

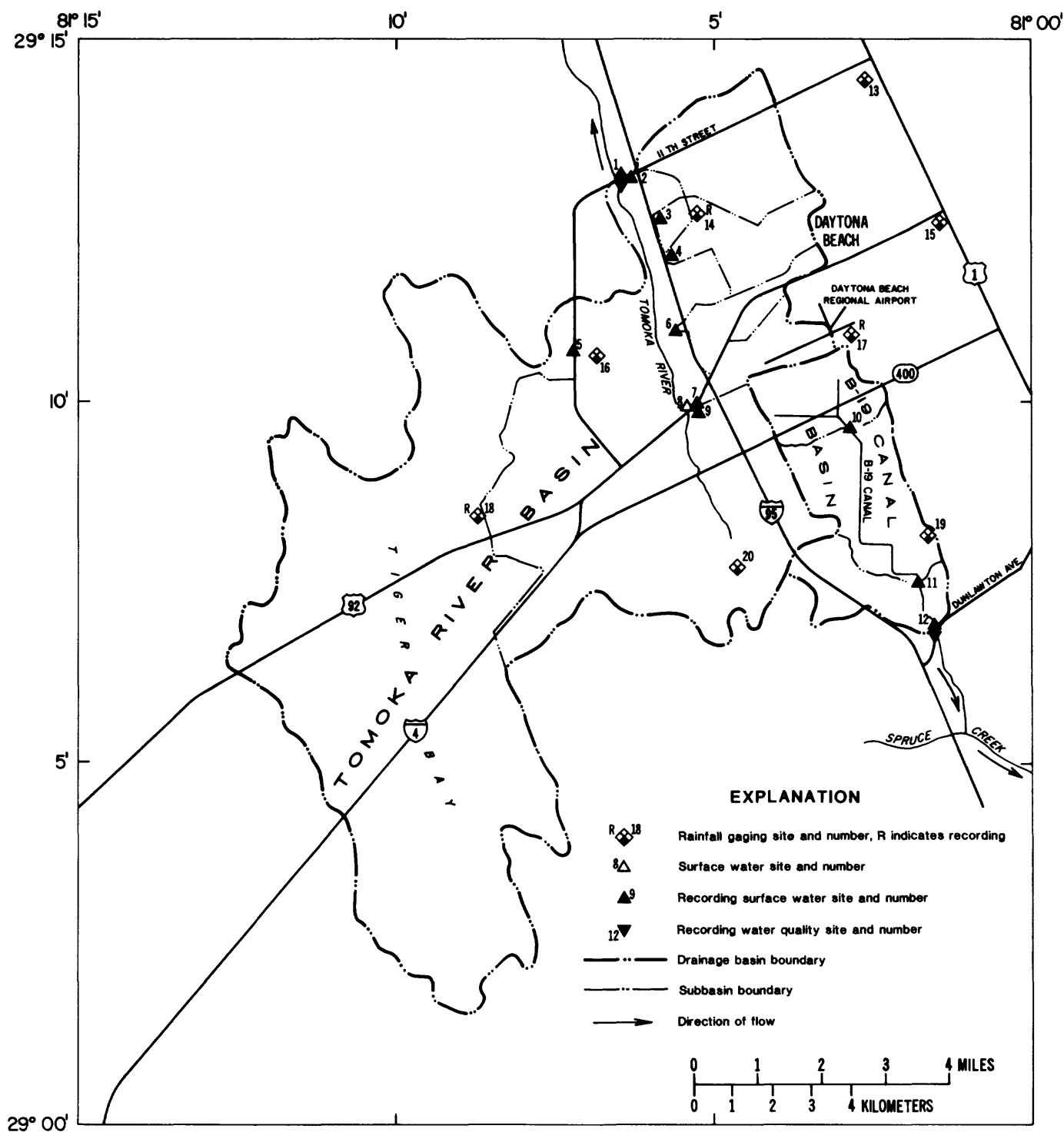


Figure 2. Location of data-collection sites and surface-water station drainage-basin boundaries.

Table 1. Hydrologic data-collection sites

[Type of data: S, stage; D, discharge; Q, water quality; P, precipitation. Equipment type: R, recording; N, nonrecording. Sampling period: A, aperiodic; C, continuous. Abbreviation: mi², square miles; — indicates no data]

Site No.	Location name	Type of data	Data interval (minutes)	Equipment type	Sampling period	Number of samples	Latitude	Longitude	Drainage area (mi ²)	Station No.
<u>Surface-water sites</u>										
Tomoka River basin										
1	Tomoka River near Holly Hill	SDQ	60	R	AC	2	291302	0810632	63	02247510
2	Eleventh Street Canal near Holly Hill	SDQ	15	R	A	5	291335	0810658	3.5	02247508
3	Williamson Boulevard Ditch at Daytona Beach	SDQ	15	R	A	6	291233	0810556	.3	02247499
4	Wally Hoffmeyer Canal at Daytona Beach	SDQ	15	R	A	5	290537	0811155	2.2	02247498
5	Thayer Canal near Daytona Beach	SDQ	15	R	A	4	291043	0810714	33	02247496
6	Bayless Boulevard Canal at Daytona Beach	SDQ	15	R	A	6	291101	0810538	1.4	02247493
7	Bellevue Canal at Daytona Beach	SDQ	15	R	A	6	290959	0810620	1.5	02247465
8	U.S. Highway 92 Canal near Daytona Beach	Q	A	R	A	3	290944	0810642	—	290944081064200
9	Tomoka River near Daytona Beach	SQ	15	R	A	4	291235	0810620	—	02247500
B-19 Canal basin										
10	B-19 Canal near Daytona Beach	SQ	15	R	A	3	290945	0810030	2.2	290945081003000
11	B-19 Canal at Willow Run Boulevard at Port Orange	SDQ	15	R	A	5	290730	0810145	5.8	02248037
12	B-19 Canal at Dunlawton Avenue at Port Orange	SDQ	15	R	AC	5	290654	0810128	7.6	02248040
<u>Rainfall sites</u>										
Tomoka River basin										
13	Holly Hill Water Plant	P	1,440	N	—	—	291433	0810247	—	291433081024700
14	Florida Power and Light Substation	P	60	R	—	—	291237	0810514	—	291237081051400
15	Daytona Marion Street Water Plant	P	1,440	N	—	—	291228	0810123	—	291228081012300
16	Daytona Brennan Water Plant	P	1,440	N	—	—	291037	0810657	—	291037081065700
17	NOAA Weather Station	P	60	R	—	—	291053	0810253	—	291053081025300
18	Civil Defense Center	P	60	R	—	—	290825	0810808	—	290825081080800
B-19 Canal basin										
19	Port Orange Water Plant	P	1,440	N	—	—	290843	0810141	—	290843081014100
20	Volusia County Landfill	P	1,440	N	—	—	290744	0810428	—	290744081042800

Water-quality data were collected at all surface-water sites. Some samples were collected by automatic sampling devices and some were collected manually.

Rainfall

Rainfall data were collected at eight sites, three recording and five nonrecording (fig. 2). One recording-rainfall site operated by the National Weather Service (site 17), and two operated by the U.S. Geological Survey (sites 14 and 18) collected rainfall data hourly. Daily totals from nonrecording sites (sites 13, 15, 16, 19, and 20) were furnished by the City of Daytona Beach and other governmental agencies that collect rainfall data for their own use. Daily rainfall totals are listed in appendix I.

Stage and Discharge

Stage and discharge data were collected at sites 1 through 12. Site 1, Tomoka River near Holly Hill, which provided data at the downstream study boundary on the Tomoka River, has been in operation since October 1964. Additional surface-water stations were established at 11 sites; 8 in the Tomoka River basin and 3 in the B-19 Canal basin. Stage data were collected at 15-minute intervals to allow adequate observation of hydrograph response, except for site 8 where stage was measured aperiodically. Discharge was measured at various stages, and rating curves relating discharge to stage were established for 8 of the 11 new sites. Three of the new sites (sites 8, 9, and 10) were judged to have hydraulic conditions making them too difficult to rate. Daily mean stage data for sites 9 and 10 are given in appendix II. Daily mean discharge data are given in appendix III for all sites rated (sites 1-7, 11, and 12).

The delineated drainage areas for the surface-water sites are shown in figure 2. Field reconnaissance and the best available topographic maps were used to define drainage areas. However, drainage divides for sites 8 and 9 were indeterminate due to large marshy areas, flat slopes, and manmade interconnecting canals.

Water Quality

Water samples were collected at surface-water sites (sites 1 through 12) in order to describe the water quality within the two basins. Water-quality data were collected using manual sampling, automatic samplers, and continuous-recording water-quality monitors.

Samples were collected manually during storm and nonstorm conditions at all sites. These samples were analyzed for major ions, nutrients, and metals. Near the most downstream site in each basin (sites 2 and 12), one bottom-sediment sample was collected for insecticide and herbicide analyses.

Some samples were collected automatically by sampling devices set to sample at a predetermined time interval after a selected stage was attained. These samplers were capable of collecting up to 28 discrete samples during a storm runoff event. The collected samples were then composited into one sample by discharge-weighting and analyzed for the same constituents and characteristics as individual samples. The results of the analyses for all samples are presented in appendix IV.

Water-quality monitors were used to collect long-term continuous temperature, conductance, and dissolved-oxygen data at sites 1 and 12, and short-term continuous temperature and conductance data at sites 2, 3, 4, and 6. These data are presented in appendixes V, VI, and VII.

QUANTITY OF STORMWATER RUNOFF

Discharge hydrographs for the 3-year study period were plotted for the nine sites having stage-discharge ratings to show the general long-term discharge patterns (figs. 3-11). Hydrographs for selected storms were also plotted to illustrate the runoff response more closely (figs. 12-20). As seen in these figures, hydrographs for the same site differ from storm to storm and response to the same storm differs from site to site. The hydrographs are affected by rainfall and basin characteristics. Rainfall characteristics include intensity, duration, and areal coverage of the rainfall. The basin characteristics include bed slope, channel geometry, vegetative cover, soil types, antecedent soil moisture, drainage area, and topographic relief.

In general, high-intensity, short-duration rainstorms produce quicker, higher peaks and have hydrographs that return to prestorm conditions faster. When one or more basin characteristic, such as dry soils, large contributing area, or vast swampy areas exist, the discharge hydrograph may show a reduced peak, a slower response, or longer-duration runoff. The effects of basin size can be seen when hydrographs for sites 3 and 2 are compared for the same storm. For example, the storm of September 1, 1985, (fig. 14), produced a peak at site 3 (Williamson Boulevard Ditch at Daytona Beach, drainage area = 0.3 mi²) in 3 hours, with a return to base-flow condition in about 21 hours.

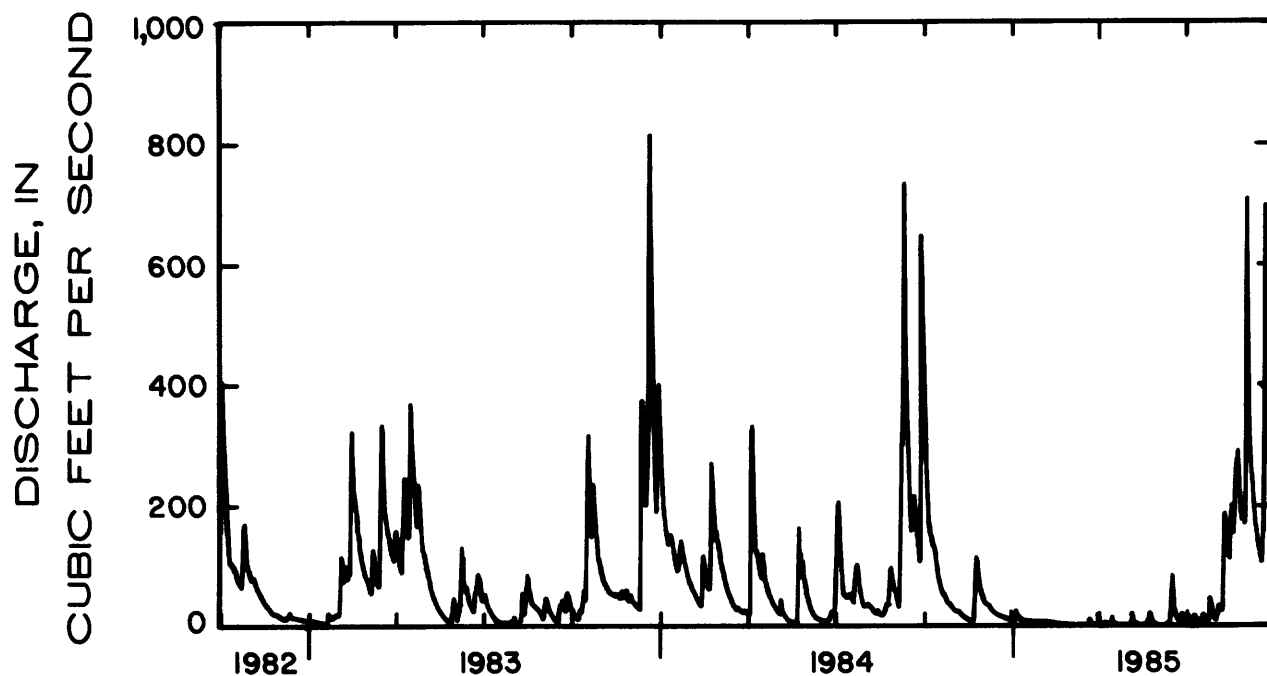


Figure 3. Daily discharges from October 1982 through September 1985 for site 1, Tomoka River near Holly Hill.

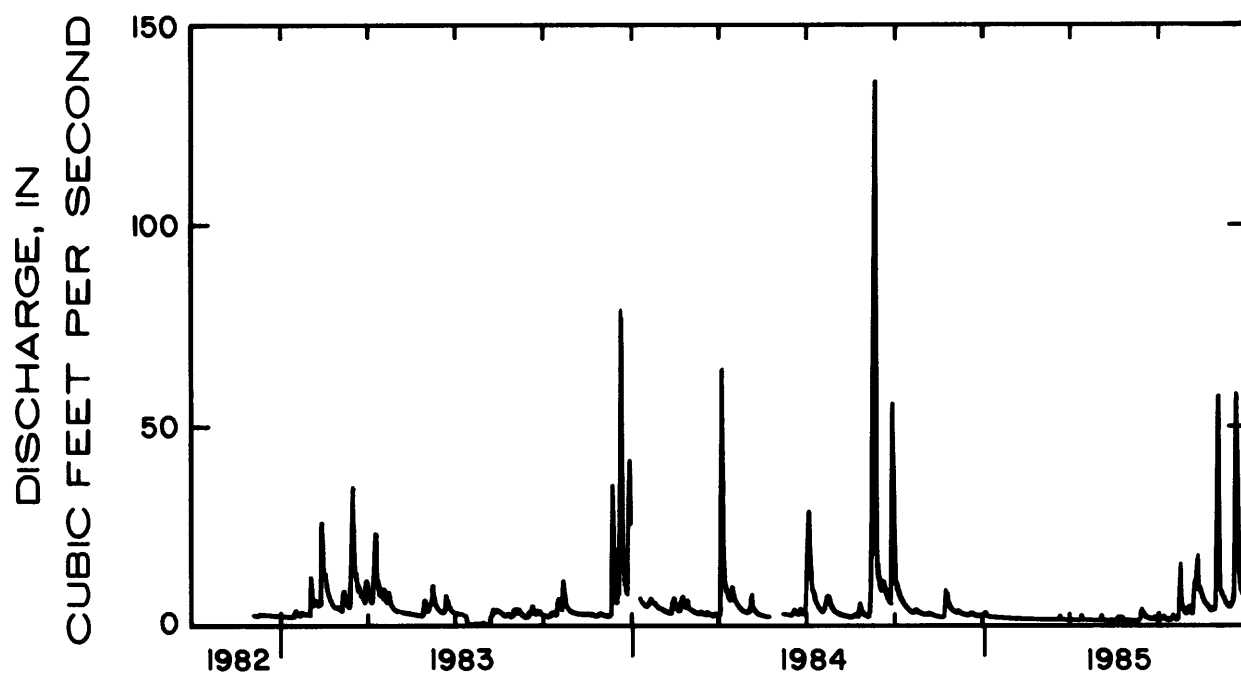


Figure 4. Daily discharges from October 1982 through September 1985 for site 2, Eleventh Street Canal near Holly Hill.

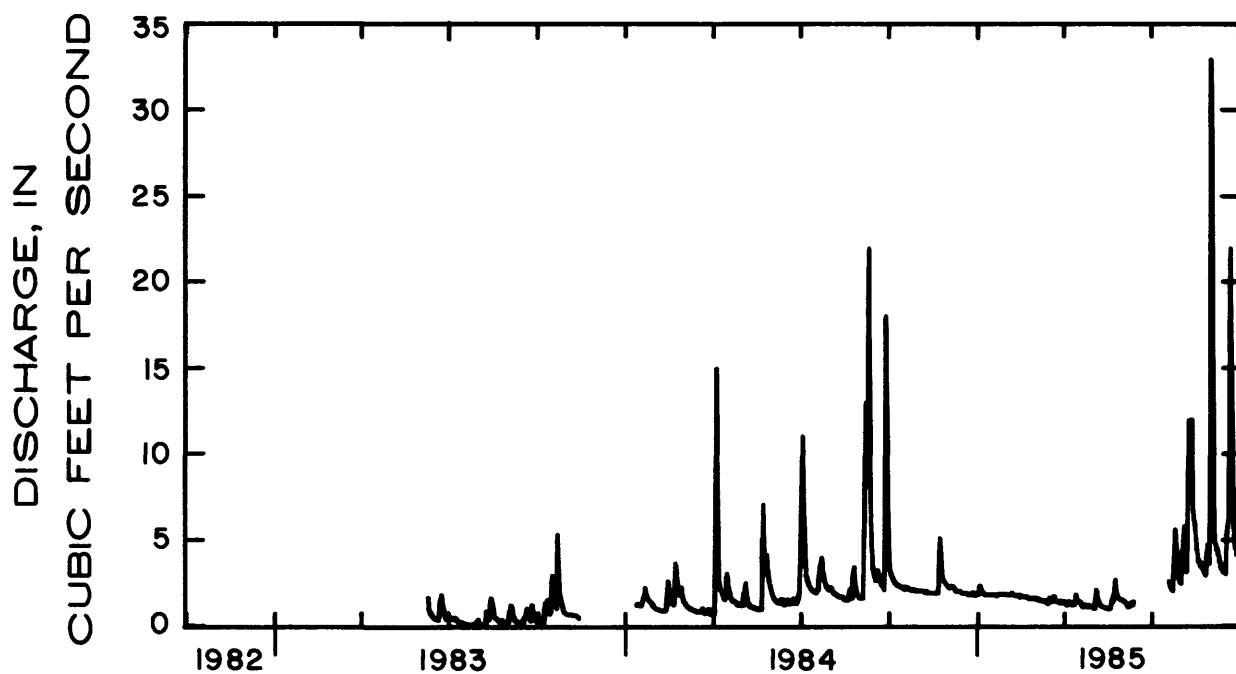


Figure 5. Daily discharges from October 1982 through September 1985 for site 3, Williamson Boulevard Ditch at Daytona Beach.

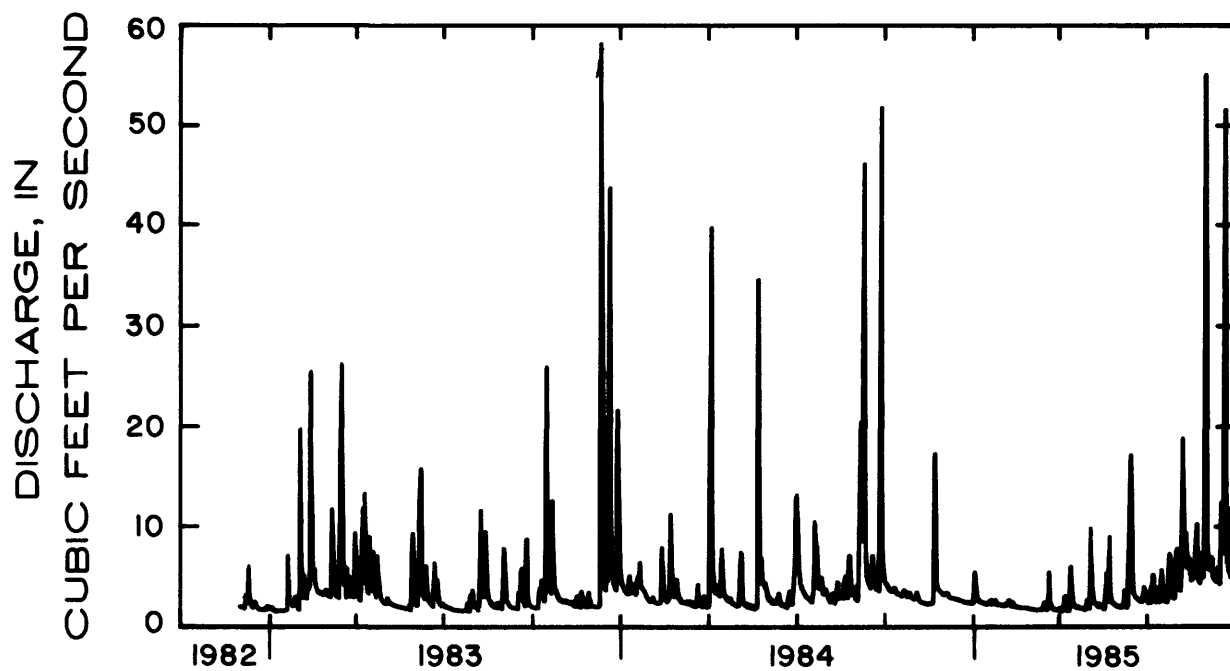


Figure 6. Daily discharges from October 1982 through September 1985 for site 4, Wally Hoffmeyer Canal at Daytona Beach.

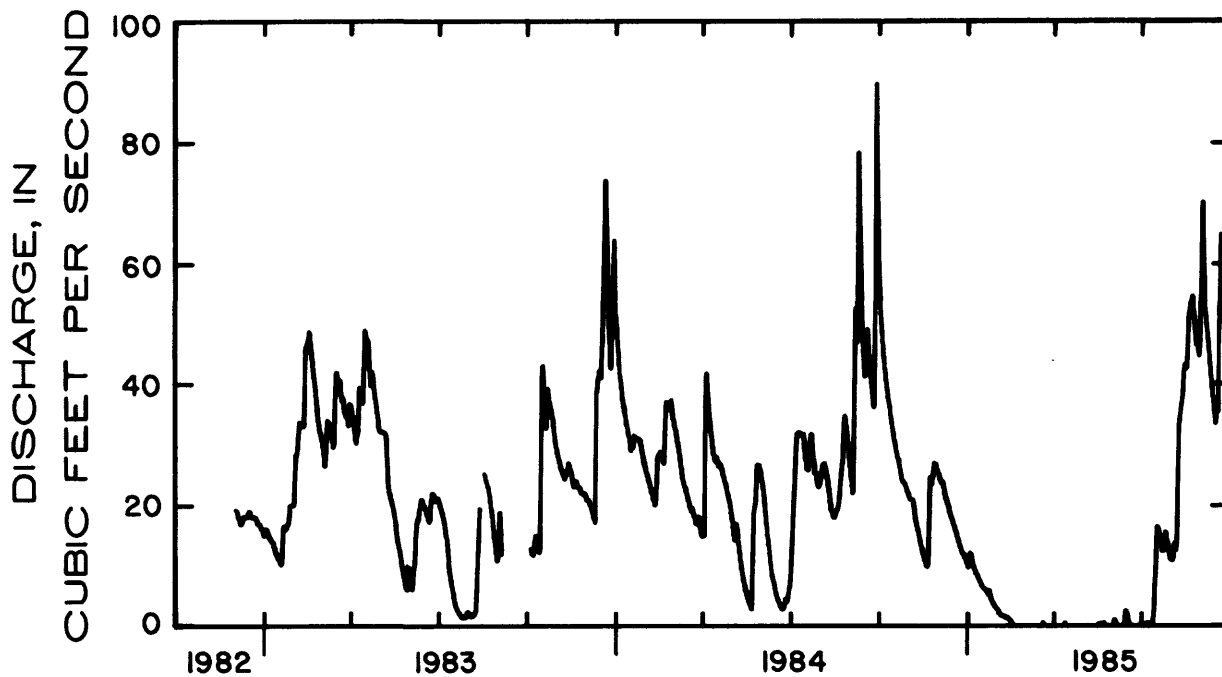


Figure 7. Daily discharges from October 1982 through September 1985 for site 5, Thayer Canal near Daytona Beach.

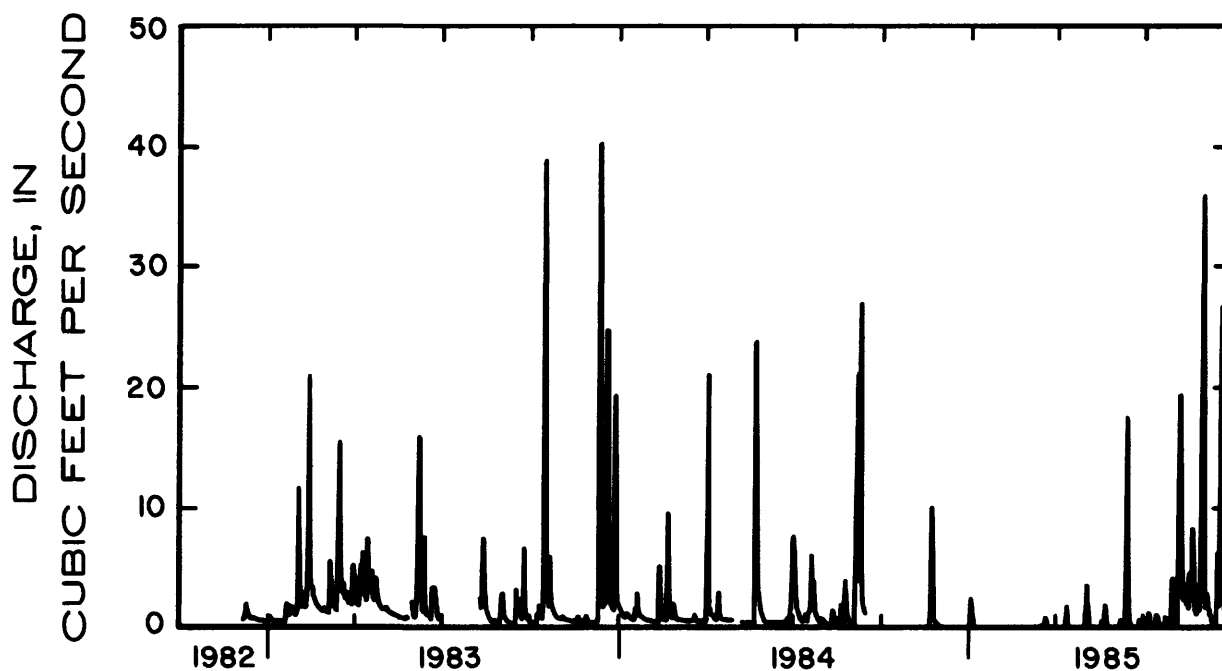


Figure 8. Daily discharges from October 1982 through September 1985 for site 6, Bayless Boulevard Canal at Daytona Beach.

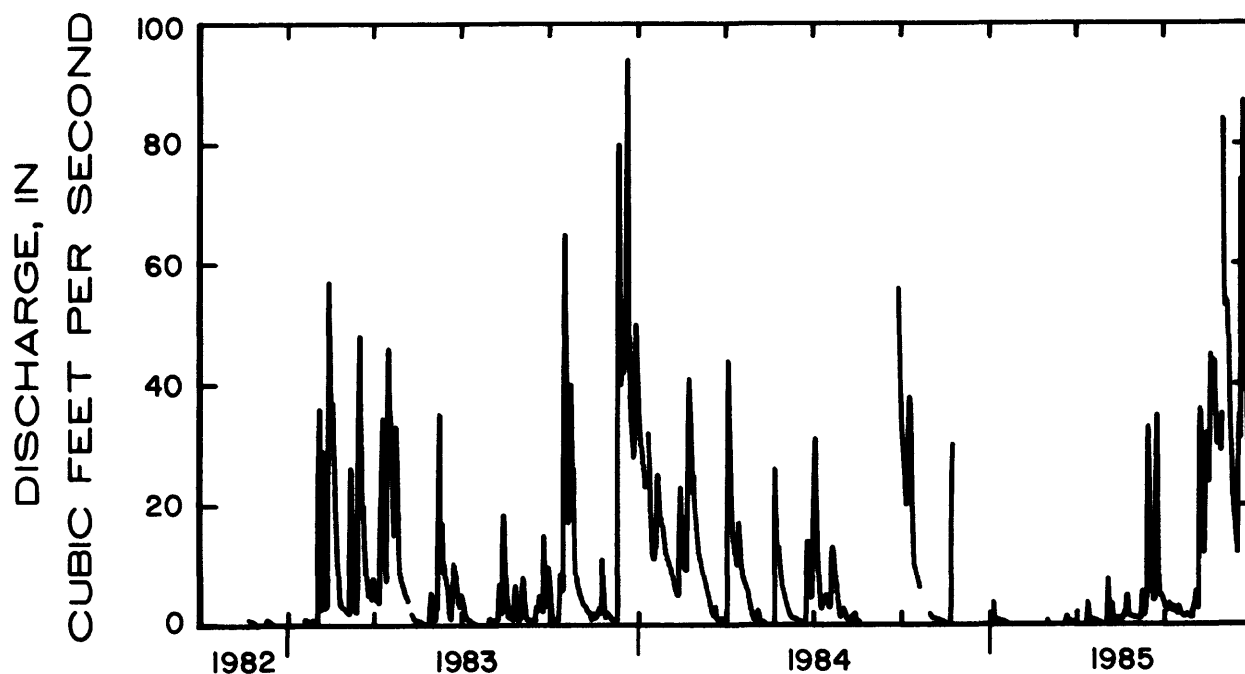


Figure 9. Daily discharges from October 1982 through September 1985 for site 7, Bellevue Canal at Daytona Beach.

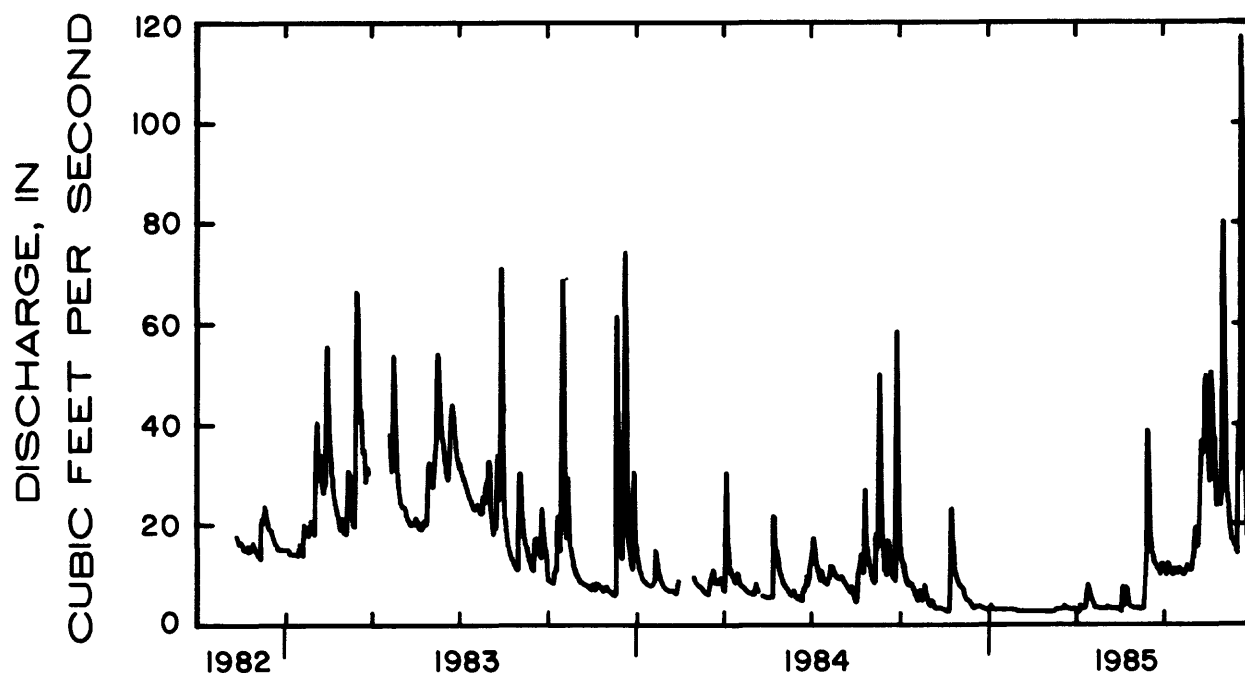


Figure 10. Daily discharges from October 1982 through September 1985 for site 11, B-19 Canal at Willow Run Boulevard at Port Orange.

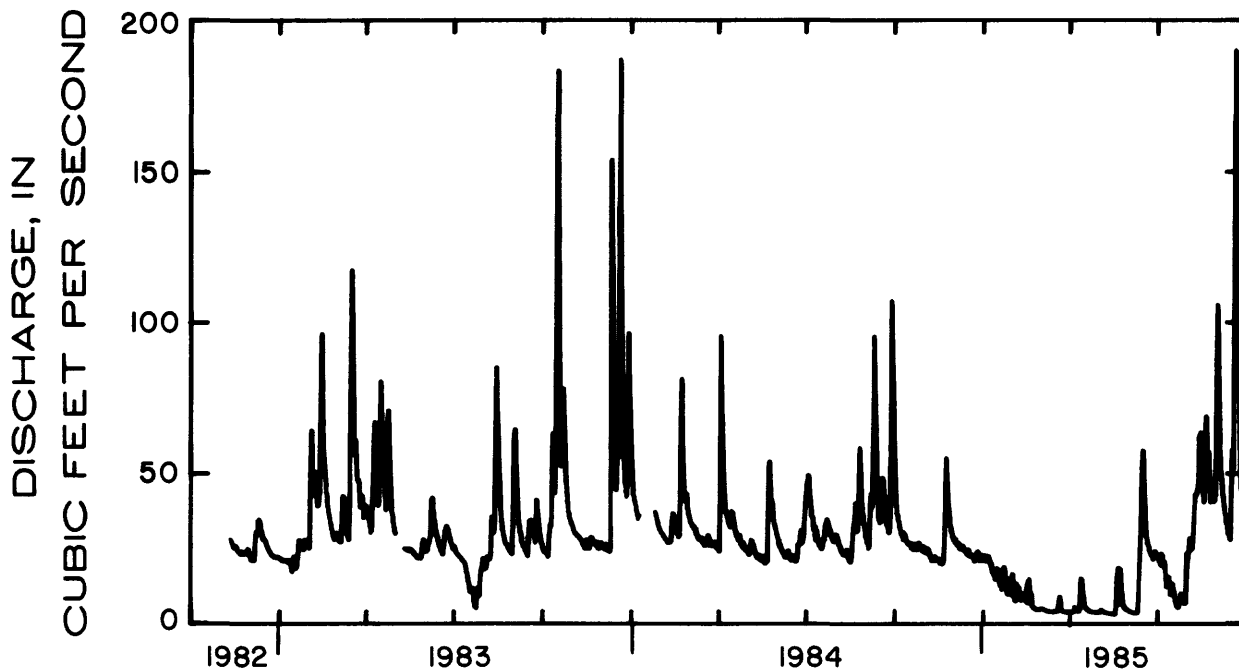


Figure 11. Daily discharges from October 1982 through September 1985 for site 12, B-19 Canal at Dunlawton Avenue at Port Orange.

At site 2 (Eleventh Street Canal near Holly Hill, drainage area = 3.5 mi²), the same storm produced a peak in 9 hours (fig. 13), and it took about 68 hours for the canal to return to base-flow condition.

Comparing two different storms of about the same size for the same site shows the effect of antecedent basin conditions on the discharge hydrograph. For example, the storms of September 27, 1984, and September 1, 1985, (fig. 14) at site 3 (Williamson Boulevard Ditch at Daytona Beach), both had between 4 and 5 inches of rainfall. When the basin soils are dry at the start of a storm, as on September 27, 1984, the hydrographic response is slower and the peak discharge is lower. When the basin soils are wet at the start of a storm, as on September 1, 1985, the response of the hydrograph is much faster and the peak discharge is higher.

Rainfall and runoff data for selected storms with a magnitude of 2 inches or greater, including those storm data shown in figures 12-20, are summarized in table 2. This table includes data for rainfall as depth in inches, storm runoff as volume in cubic feet and depth in inches uniformly distributed over the basin, and runoff as a percentage of rainfall. Total equivalent rainfall was determined from nearby rainfall sites using the Thiessen polygon method and is expressed as equivalent depth in inches over the entire basin (Gilman, 1964).

Storm runoff was computed from storm hydrographs by subtracting base flow from total discharge. Base flow was determined graphically by extending a line from prestorm base flow to an inflection point of the recession curve (see fig. 12). Plots of the rainfall-runoff data appear in figures 21-29.

In the Tomoka River basin, runoff generally was less than 2 inches and the ratio of runoff to rainfall varied widely, ranging from 1 to 77 percent for the storms documented in table 2. Site 2 (Eleventh Street Canal near Holly Hill) seems to have the most consistent ratios. In the B-19 Canal basin, runoff generally was less than 1 inch and varied between 6 and 17 percent of the total rainfall and showed little consistency. In general, ratios were widely varied and the rainfall-runoff plots appear to have few discernible patterns.

Variations in runoff values for the B-19 Canal are believed to be due, in part, to reversed flow and storage from backwater conditions caused by changes in channel geometry, such as culvert constrictions. Reverse flow was observed a number of times at site 10 (B-19 Canal near Daytona Beach). Variations in runoff values for the Tomoka River basin are believed partly due to interconnected channels that allow flow in either direction depending on the hydraulic gradient. Large marshy areas in this basin tend to allow storage and evaporation, thereby retarding or reducing runoff. Some runoff leaves the basin as an increase in base flow due to this retarding effect.

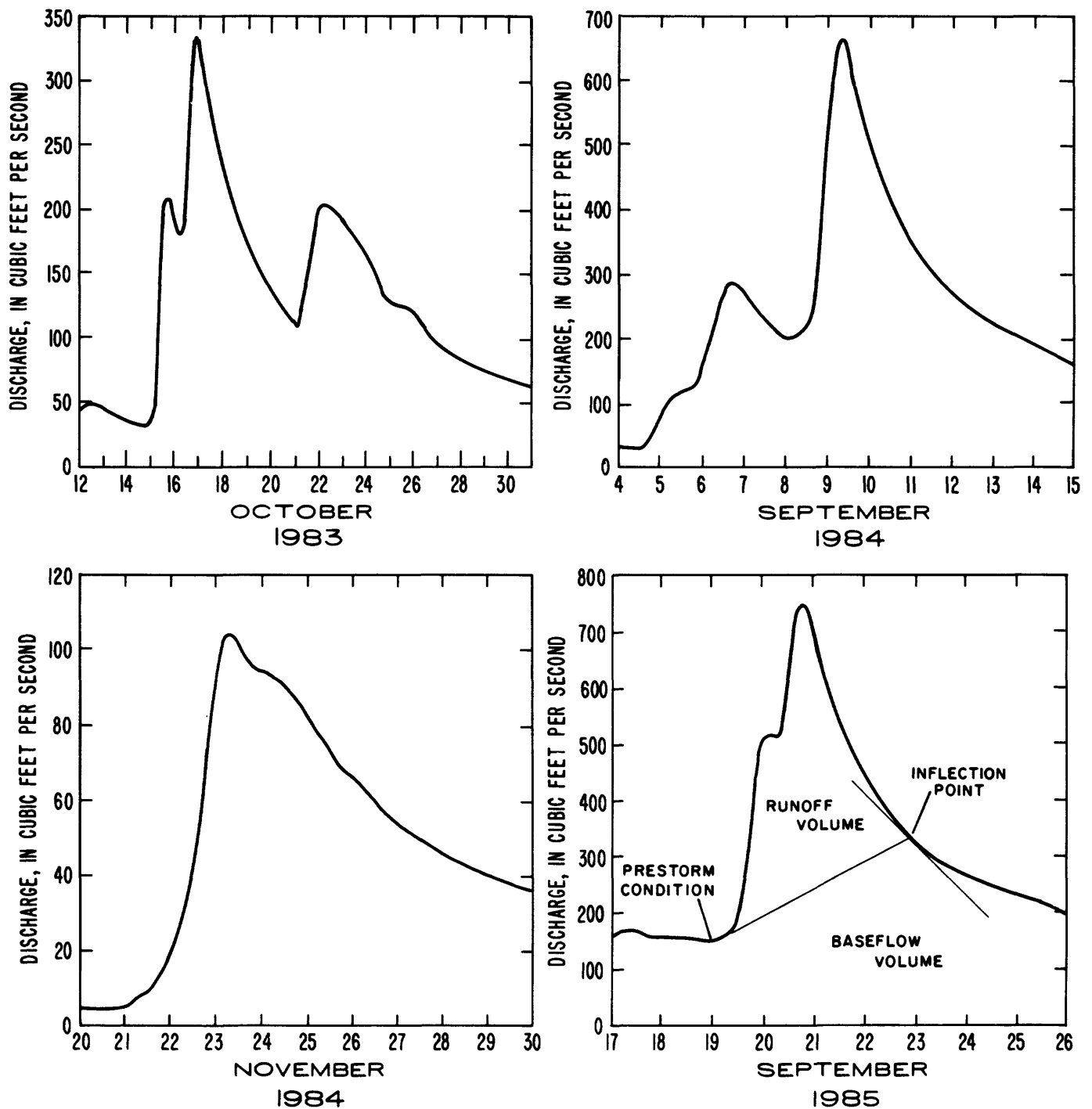


Figure 12. Selected storms at site 1, Tomoka River near Holly Hill.

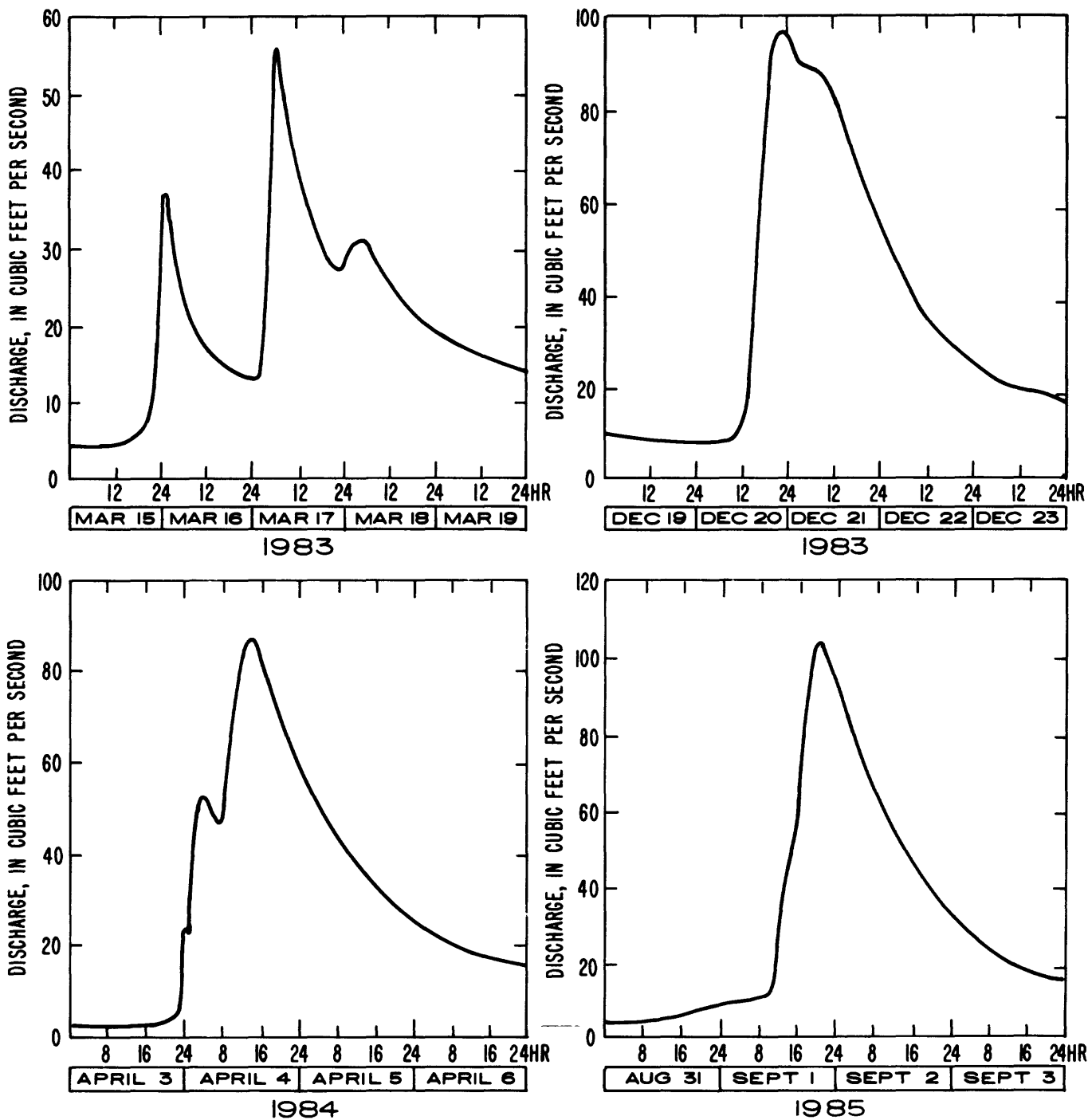


Figure 13. Selected storms at site 2, Eleventh Street Canal near Holly Hill.

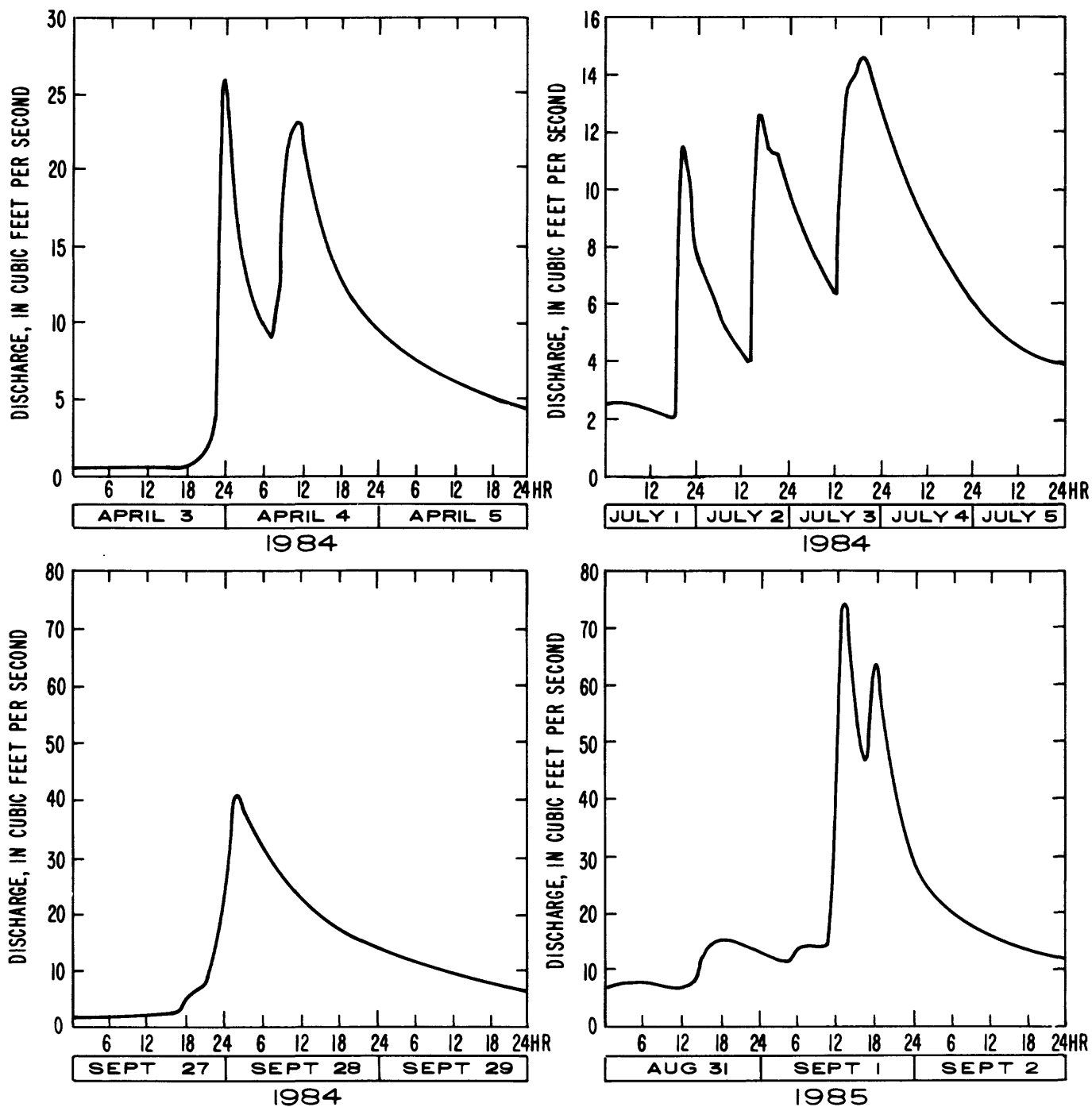


Figure 14. Selected storms at site 3, Williamson Boulevard Ditch at Daytona Beach.

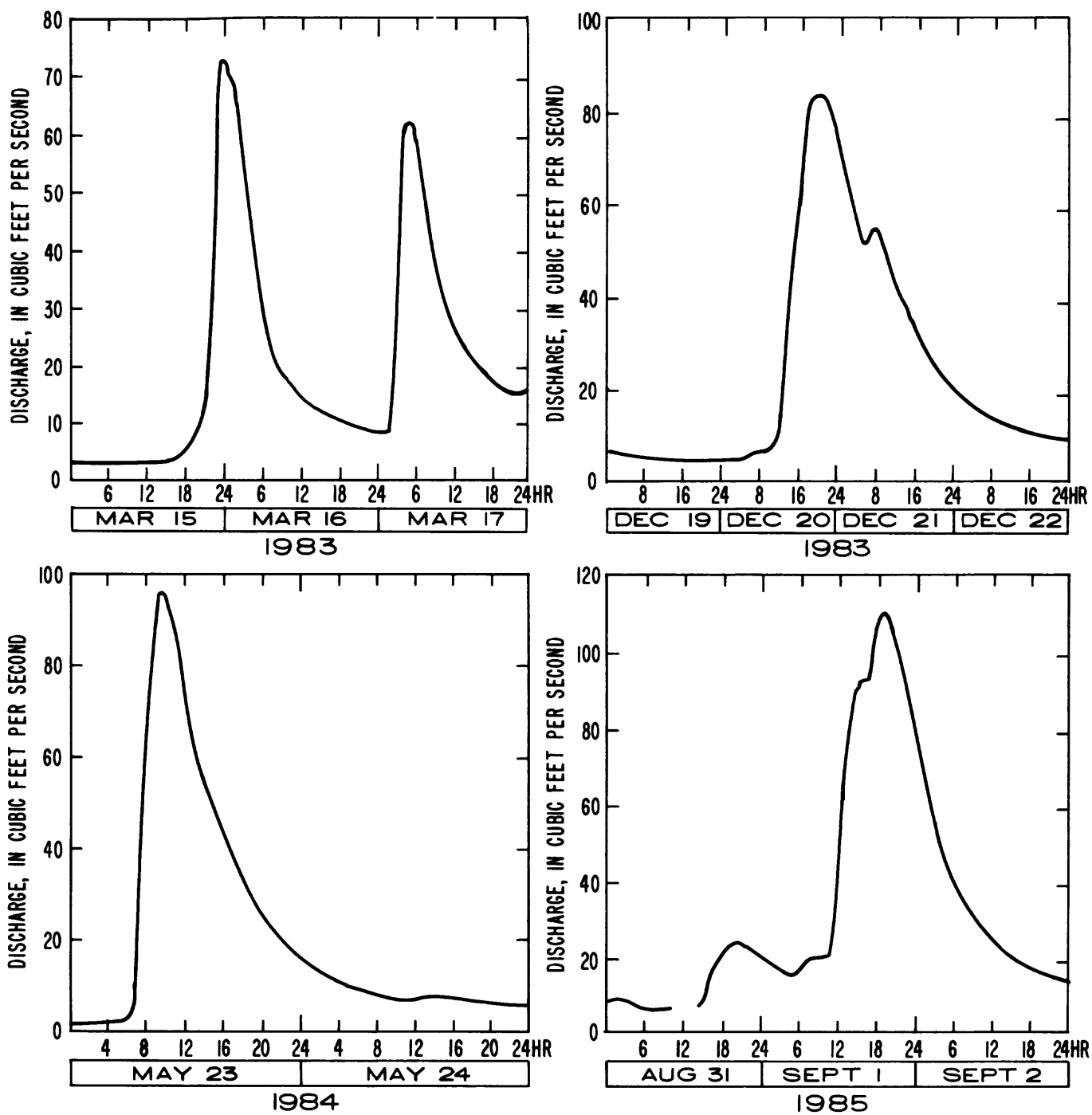


Figure 15. Selected storms at site 4, Wally Hoffmeyer Canal at Daytona Beach.

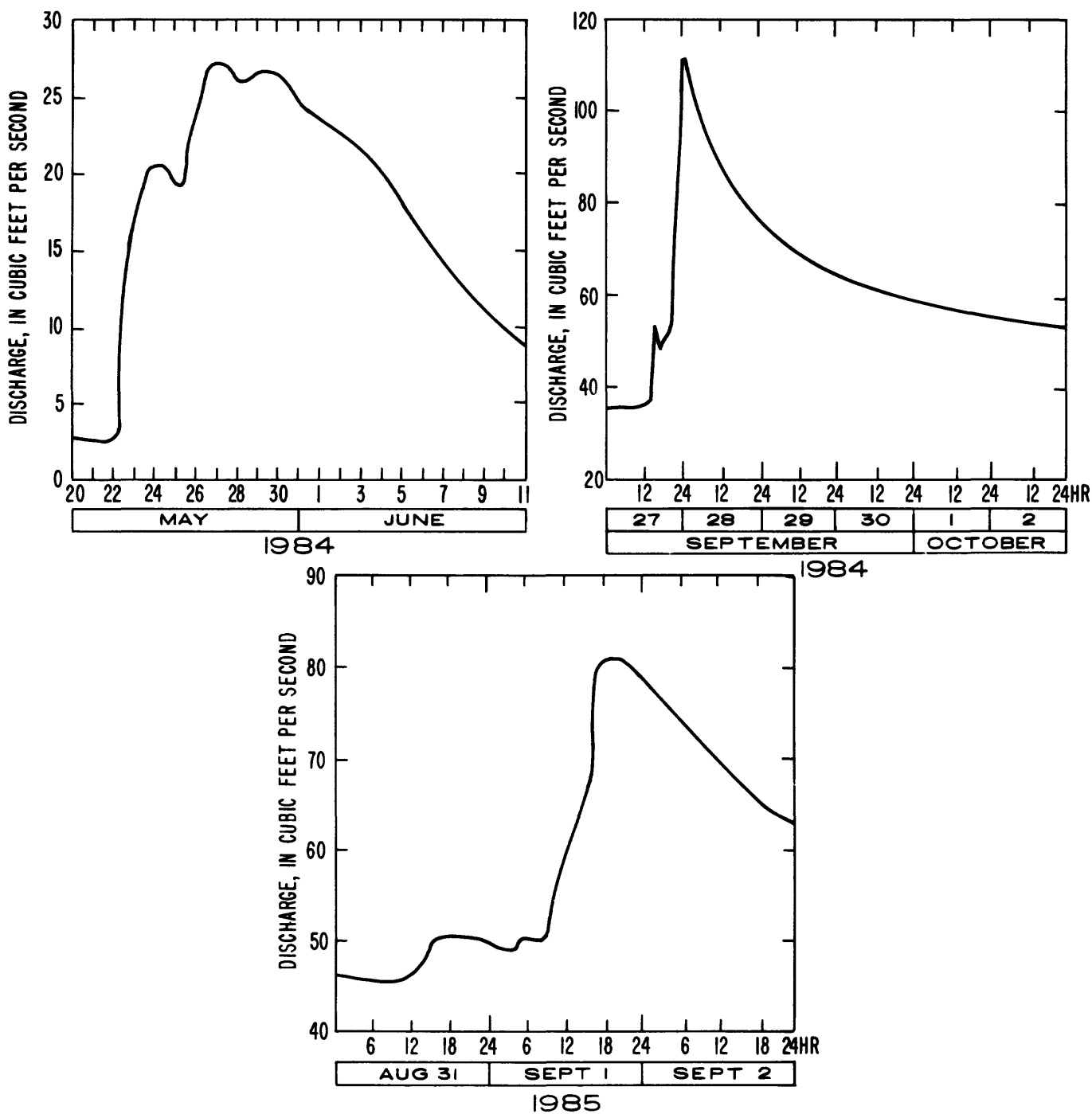


Figure 16. Selected storms at site 5, Thayer Canal near Daytona Beach.

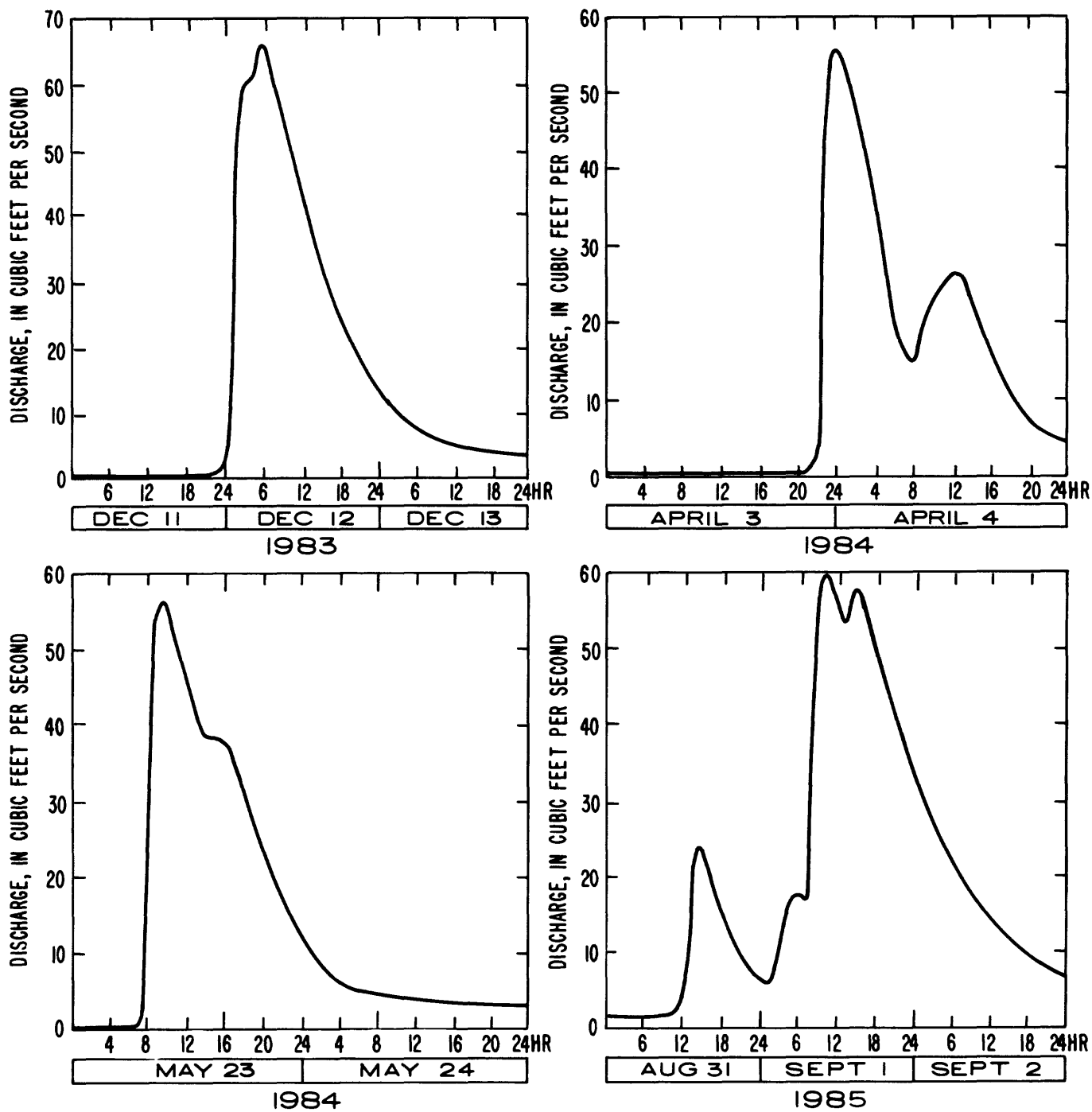


Figure 17. Selected storms at site 6, Bayless Boulevard Canal at Daytona Beach.

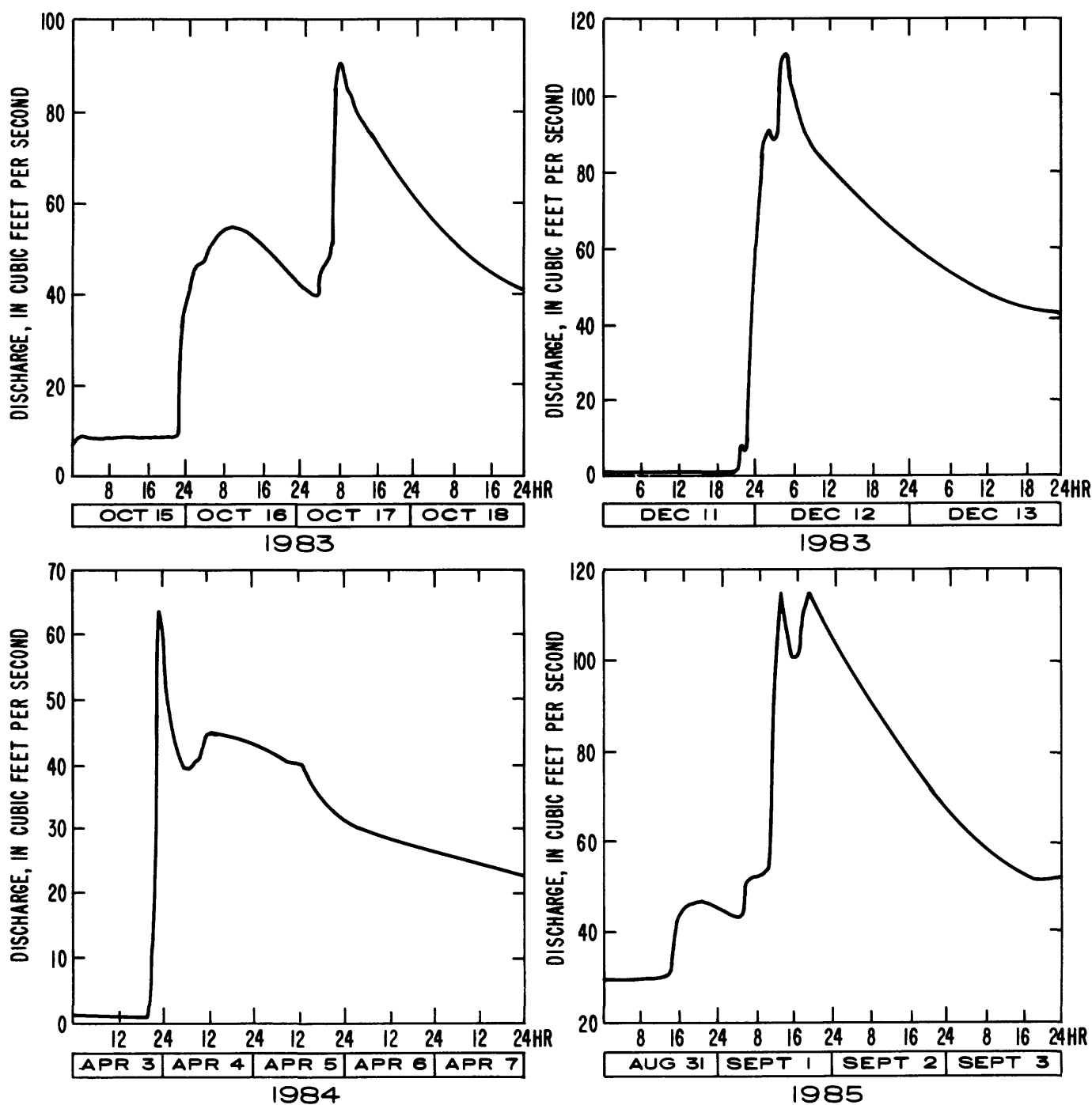


Figure 18. Selected storms at site 7, Bellevue Canal at Daytona Beach.

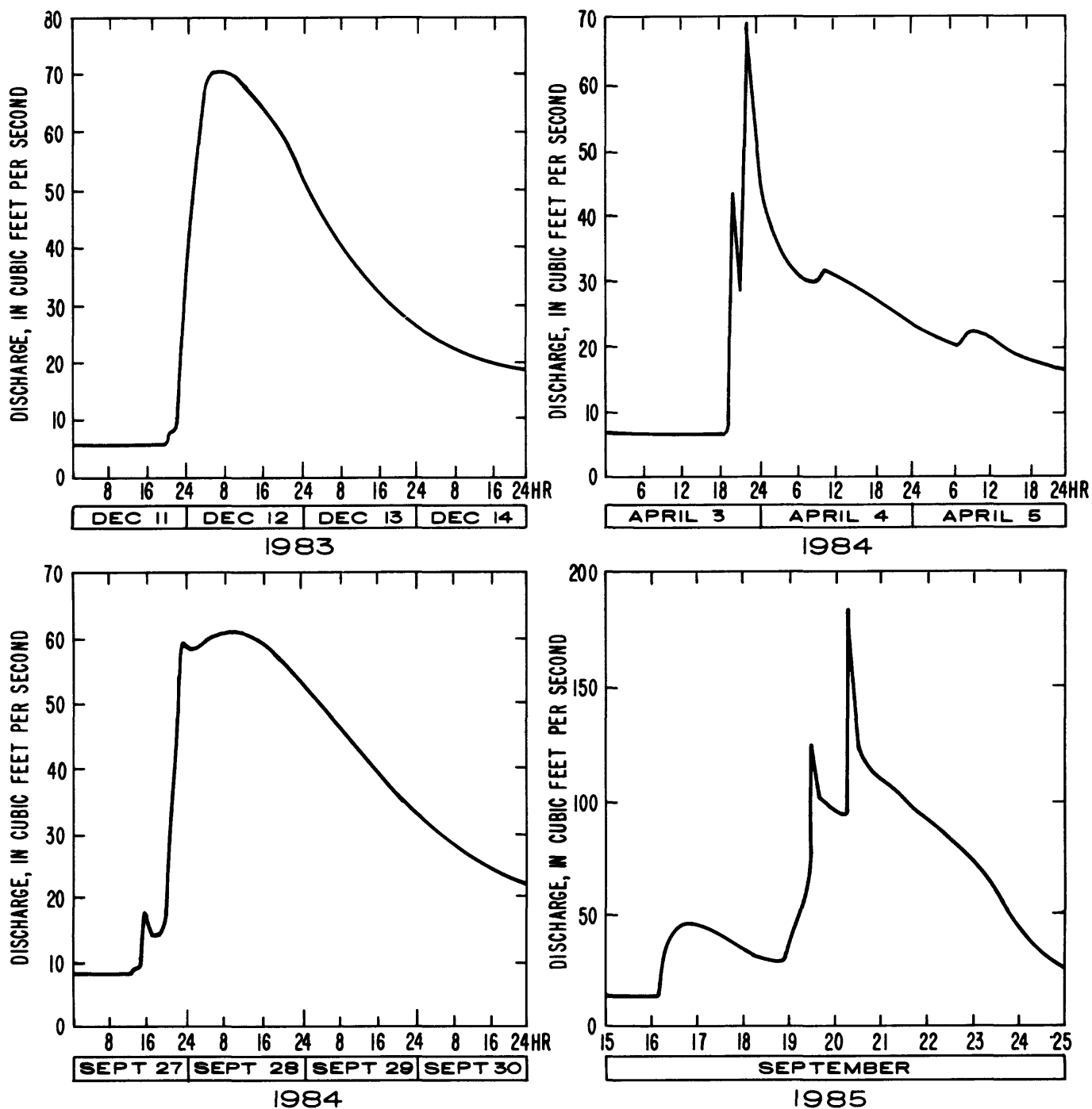


Figure 19. Selected storms at site 11, B-19 Canal at Willow Run Boulevard at Port Orange.

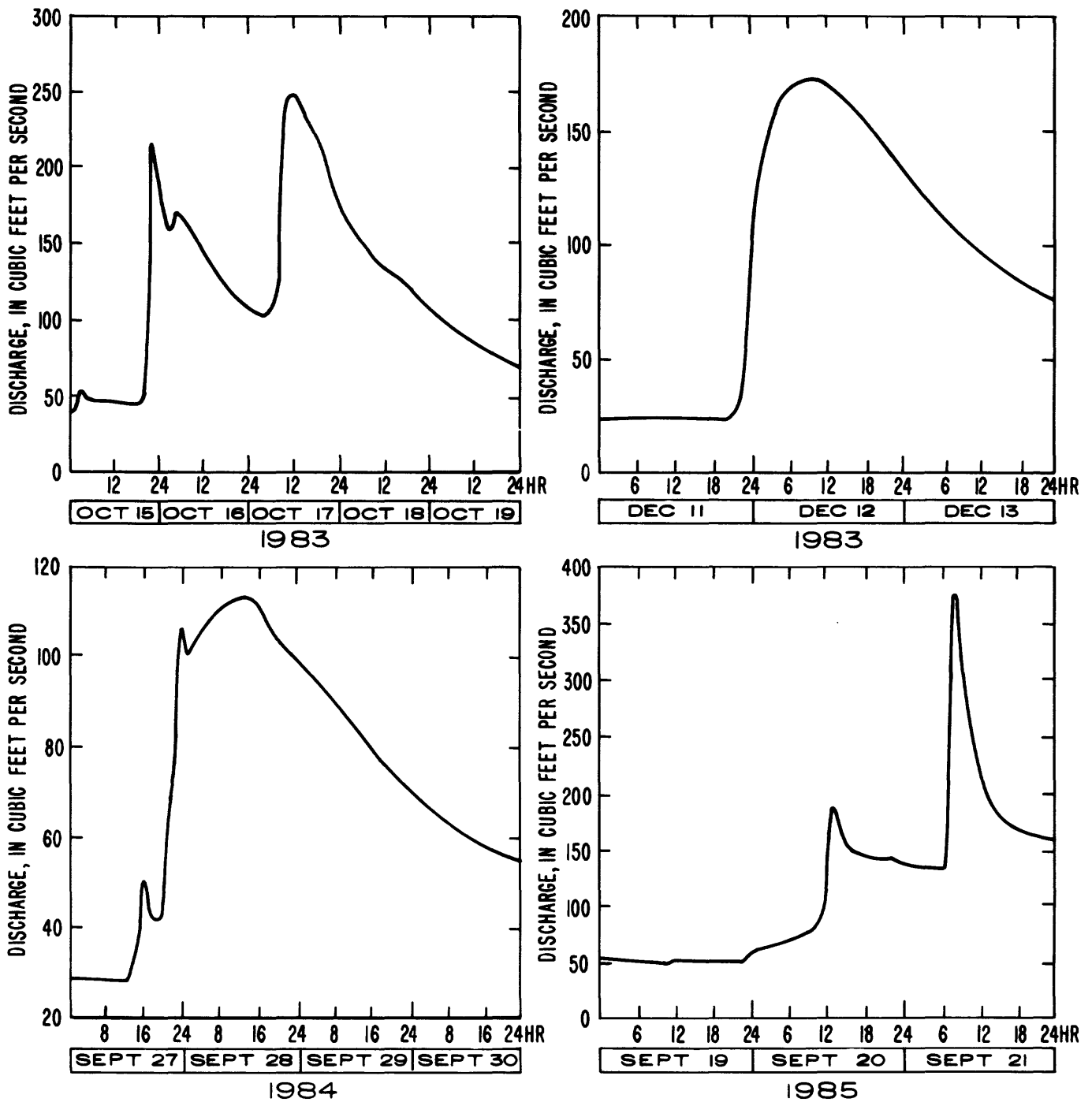


Figure 20. Selected storms at site 12, B-19 Canal at Dunlawton Avenue at Port Orange.

Table 2. Summary of Thiessen-method rainfall and resulting runoff for selected storms
[ft³, cubic feet]

Site No.	Date of peak discharge	Drainage area (square miles)	Rainfall	Runoff		Ratio of runoff to rainfall (percent)
			Equivalent depth (inches)	Volume (million ft ³)	Depth (inches)	
Tomoka River basin						
1	10-17-83	63	6.48	108	0.74	11.4
	09-09-84		7.51	82.9	.57	7.6
	11-23-84		3.84	17.5	.12	3.1
	09-20-85		6.33	76.7	.52	8.2
2	03-17-83	3.5	3.55	2.97	.38	10.7
	12-20-83		3.50	9.35	1.18	33.7
	04-04-84		6.18	6.37	.80	12.9
	09-28-84		4.07	3.97	.50	12.3
	09-01-85		4.95	6.60	.83	16.8
3	04-04-84	.3	6.18	1.05	1.51	24.4
	07-03-84		4.68	1.52	2.18	46.6
	09-28-84		4.07	.95	1.36	33.4
	09-01-85		¹ 4.95	2.09	3.00	60.6
	09-21-85		¹ 6.87	1.81	2.59	37.7
4	03-15-83	2.2	3.45	3.06	.61	17.7
	12-12-83		5.74	4.16	.82	14.3
	12-20-83		3.54	4.87	.96	27.1
	04-04-84		6.18	3.17	.62	10.2
	05-23-84		4.98	2.45	.49	9.8
	09-01-85		4.95	5.13	1.00	20.2
5	04-03-84	33	3.69	4.95	.07	1.9
	05-26-84		5.09	7.35	.10	2.0
	09-27-84		5.18	8.10	.11	2.1
	09-01-85		3.09	2.06	.03	1.0
6	12-12-83	1.4	5.65	3.10	.95	16.8
	04-04-84		6.00	1.78	.55	9.2
	05-23-84		4.97	1.94	.58	11.7
	09-01-85		4.75	4.09	1.26	26.5
7	10-17-83	1.5	6.73	5.77	1.66	24.7
	12-12-83		5.21	4.62	1.32	25.3
	04-03-84		3.79	5.96	1.72	45.4
	09-01-85		3.10	8.32	2.38	76.7
B-19 Canal basin						
11	12-12-83	5.8	4.81	5.88	.44	9.2
	04-03-84		2.56	2.64	.19	7.4
	09-28-84		3.78	7.33	.54	14.3
	09-21-85		5.08	4.12	.31	6.1
12	10-17-83	7.6	6.31	18.9	1.07	17.0
	12-12-83		4.67	11.6	.66	14.1
	09-28-84		3.67	9.90	.56	15.3
	09-21-85		5.34	6.01	.34	6.4

¹Estimated.

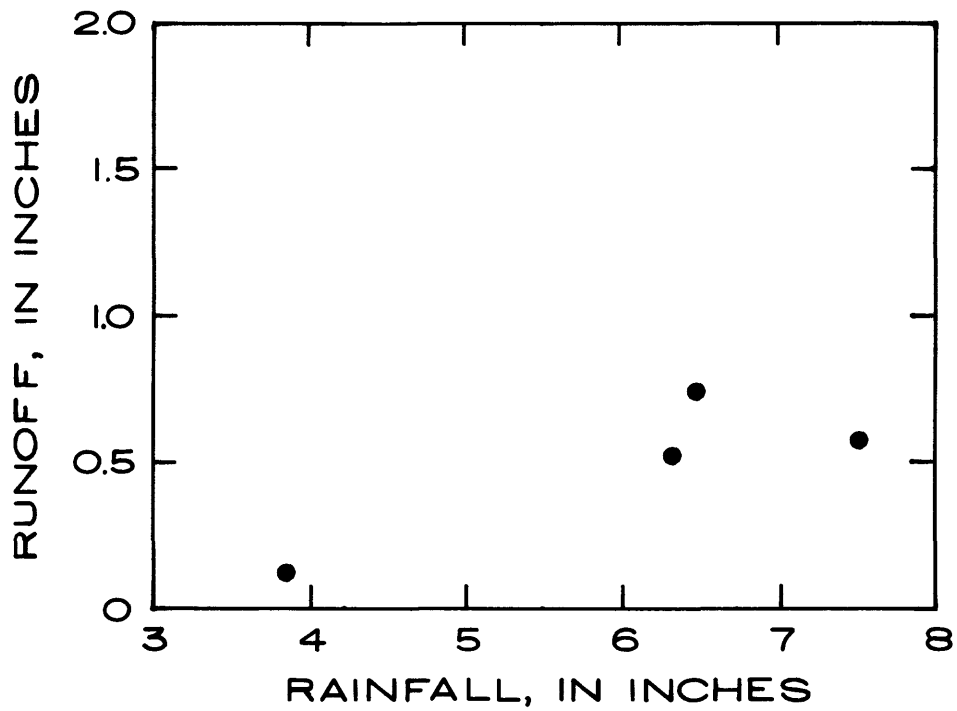


Figure 21. Rainfall-runoff plots for site 1, Tomoka River near Holly Hill.

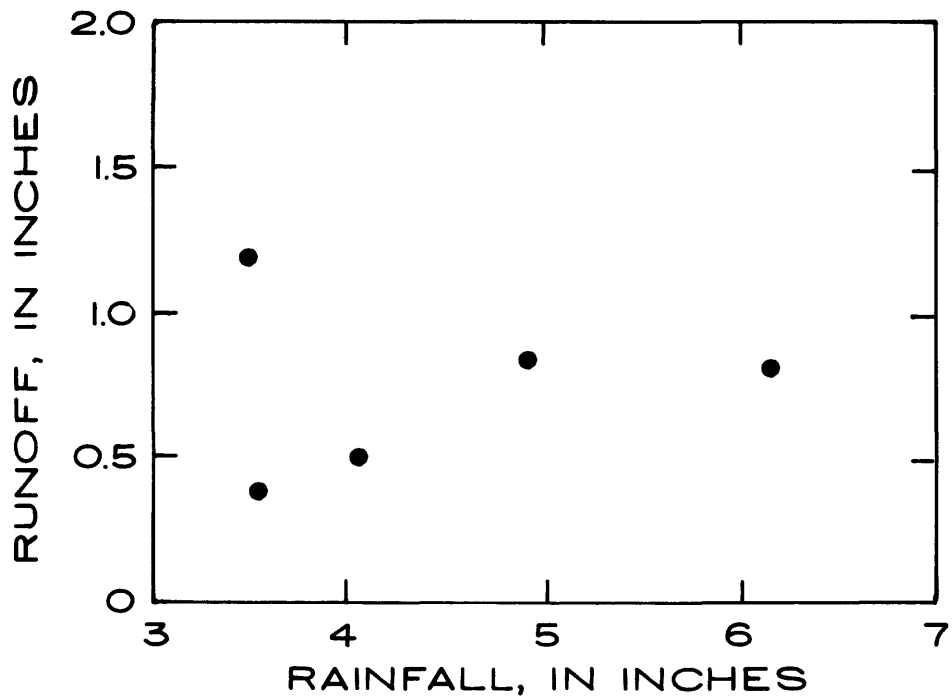


Figure 22. Rainfall-runoff plots for site 2, Eleventh Street Canal near Holly Hill.

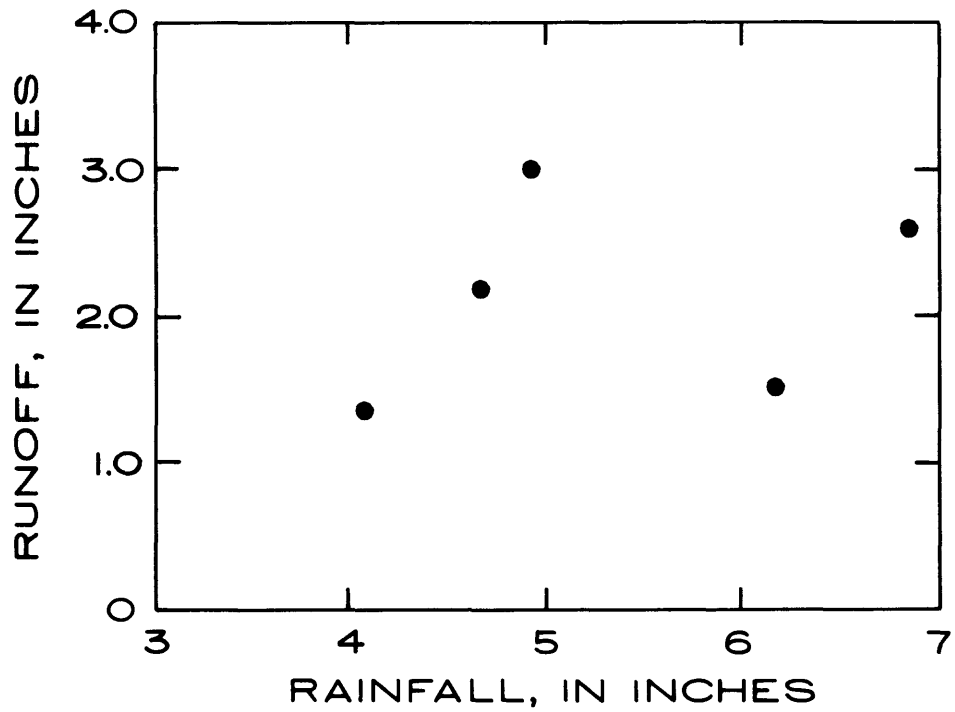


Figure 23. Rainfall-runoff plots for site 3, Williamson Boulevard Ditch at Daytona Beach.

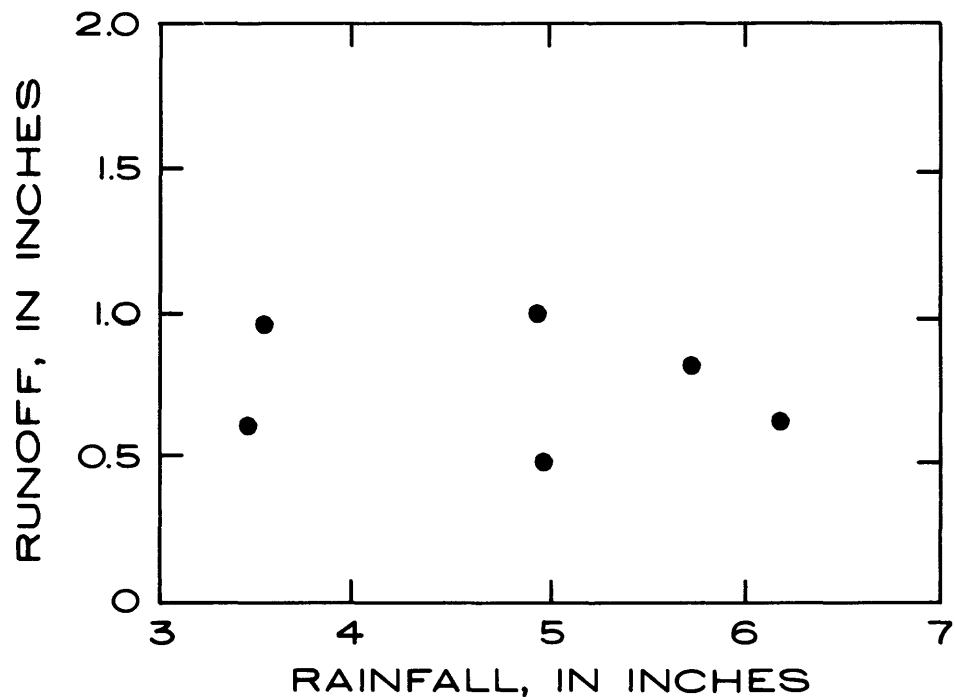


Figure 24. Rainfall-runoff plots for site 4, Wally Hoffmeyer Canal at Daytona Beach.

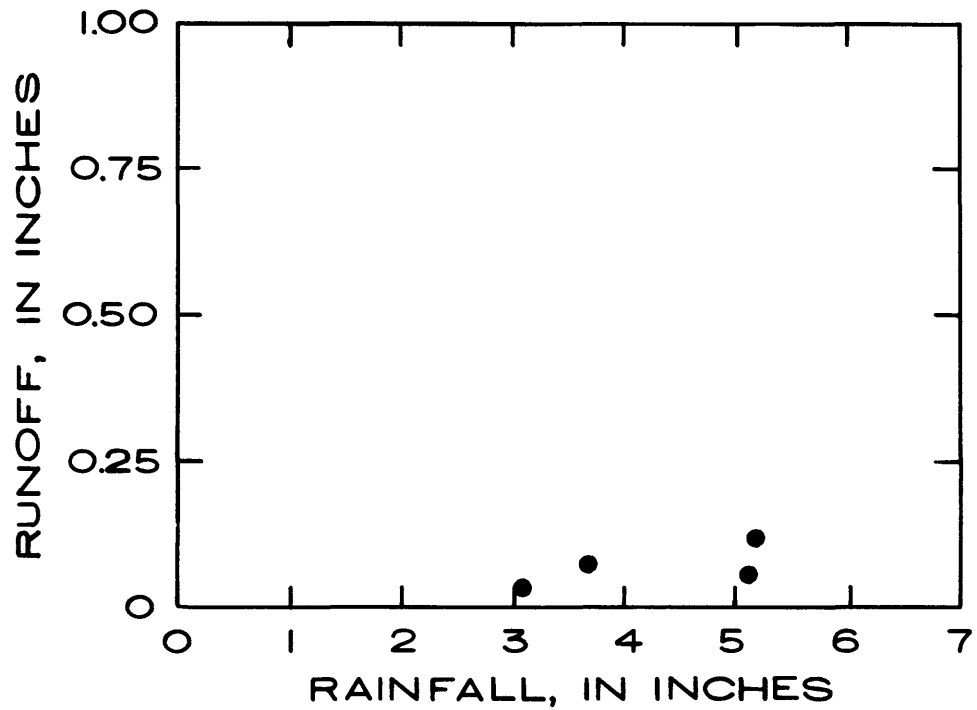


Figure 25. Rainfall-runoff plots for site 5, Thayer Canal near Daytona Beach.

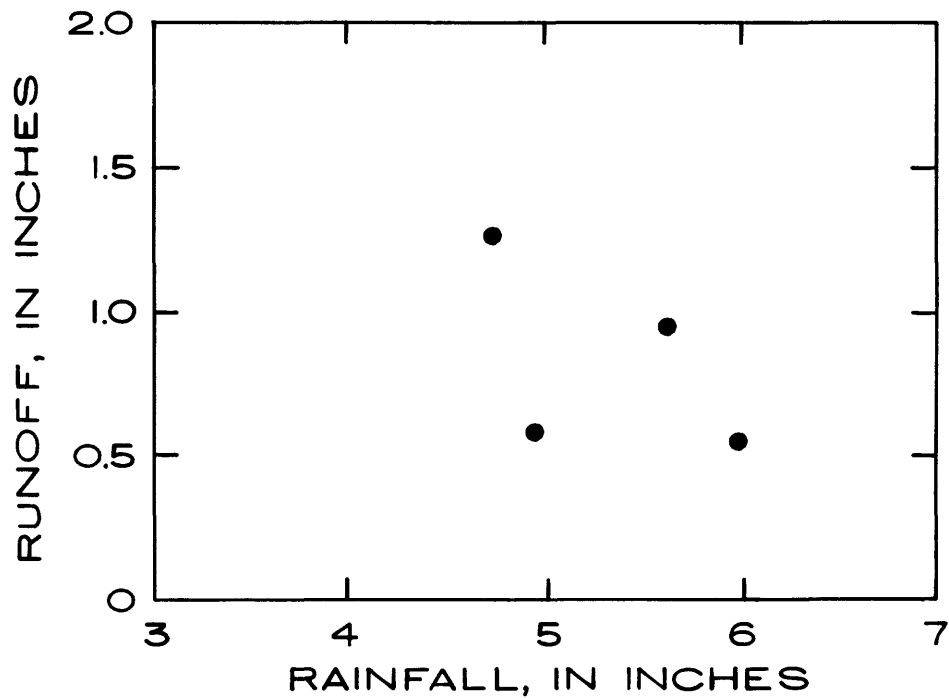


Figure 26. Rainfall-runoff plots for site 6, Bayless Boulevard Canal at Daytona Beach.

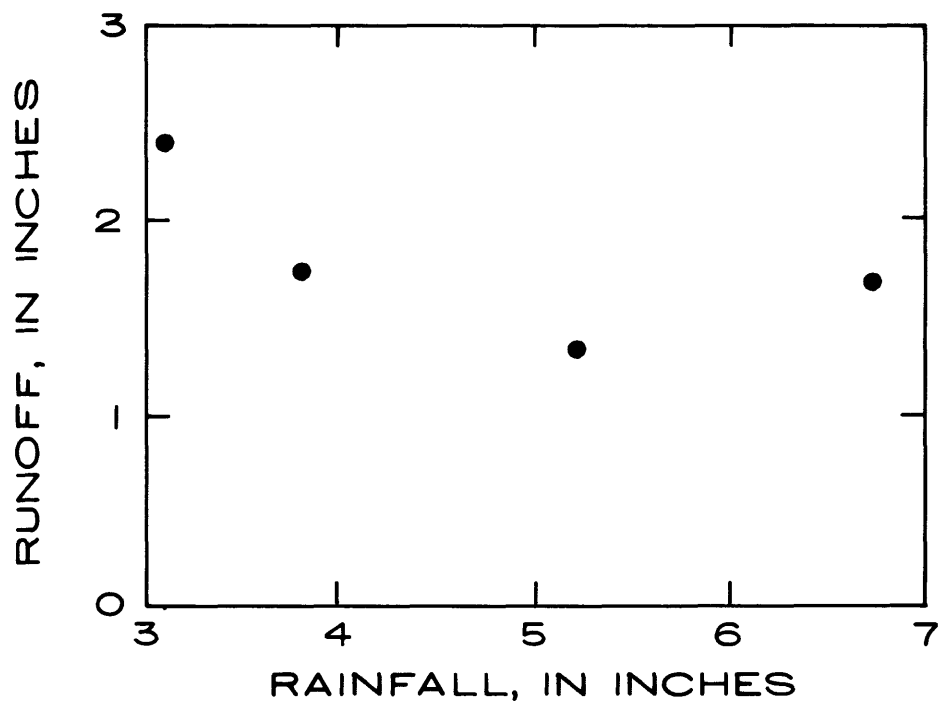


Figure 27. Rainfall-runoff plots for site 7, Bellevue Canal at Daytona Beach.

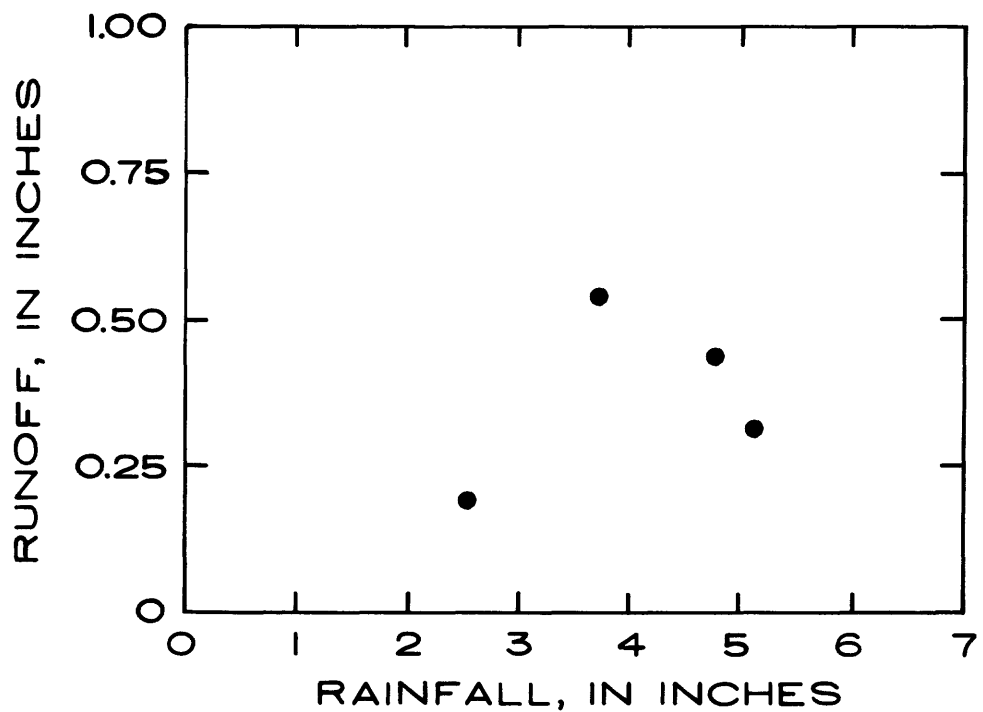


Figure 28. Rainfall-runoff plots for site 11, B-19 Canal at Willow Run Boulevard at Port Orange.

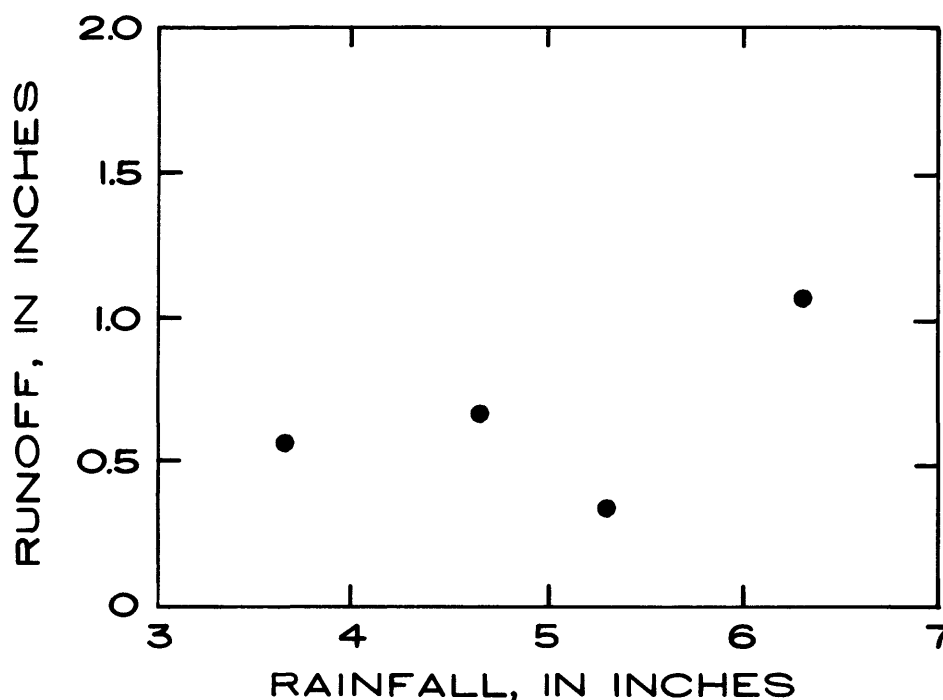


Figure 29. Rainfall-runoff plots for site 12, B-19 Canal at Dunlawton Avenue at Port Orange.

QUALITY OF STORMWATER RUNOFF

The report "Tomoka River Watershed Water Quality Study" (Volusia County Planning Board, 1978) shows the following ranges of constituents concentrations:

[Units are in milligrams per liter, except where noted;
<, less than; col/100 mL, colonies per 100 milliliters]

Constituent or property	Range
pH (units)	6.45 — 7.4
Total solids	06 — 303
Suspended solids	< 1 — 21
Total nitrogen	.62 — 1.29
Total phosphorus	.03 — 0.29
Orthophosphate (as P)	.01 — 0.2
Dissolved oxygen	3.2 — 8.6
Coliform bacteria	7,100 — 26,000

Ranges in concentrations of selected constituents for previously published studies and for samples collected during this study are given in table 3. Also listed are limits for these constituents recommended by the USEPA and the FDER, or suggested by McKee and Wolf (1963) and the Federal Water Pollution Control Administration (1968). Limits for constituents or characteristics discussed in the text but not listed in table 3 are based on FDER class III surface waters, except where specified differently. These limits were used because the Tomoka River is classified as a class III waters by FDER.

Analyses of samples collected during this study show some differences from the 1978 Tomoka River watershed report. Of 26 samples collected in the Tomoka River basin during this study, only 1 total phosphorus concentration exceeded the previous maximum value reported, whereas 7 concentrations were below the previous minimum. Thirty-three percent of the samples analyzed had total phosphorus concentrations greater than the 0.05 mg/L suggested limit to prevent enormous plant growth in surface waters (Federal Water Pollution Control Administration, 1968). The median concentration was 0.04 mg/L (milligrams per liter). Of 10 samples taken from the B-19 Canal basin, 90 percent had total phosphorus concentrations greater than the 0.05 mg/L recommended limit. Two of these samples had concentrations greater than the previous 1978 maximum reported for the nearby Tomoka River basin. The median concentration for the B-19 Canal analyses was 0.16 mg/L.

Orthophosphate (as phosphorus) concentrations reported during the present study also showed some differences from previous results. Two samples in the Tomoka River basin exceeded the previous maximum concentration for the Tomoka River basin, whereas all samples from the B-19 Canal were below the previous minimum. The median concentrations during this study were 0.01 mg/L for the Tomoka River basin, and 0.07 mg/L for the B-19 Canal basin.

During the present study, total nitrogen concentrations for samples collected ranged from 0.09 to 2.4 mg/L. Eleven percent of the samples from the Tomoka River basin had greater concentrations than the previously reported maximum for that basin. Total nitrogen concentrations for all of the samples from the B-19 Canal basin and for 75 percent of the samples from the Tomoka River basin exceeded 0.6 mg/L, the suggested limit to prevent enormous amounts of plant growth (McKee and Wolf, 1963).

Dissolved-solids concentrations in 16 of 41 samples from the Tomoka River basin and 9 of 13 samples from the B-19 Canal basin were outside the previously reported ranges for these basins. The median dissolved-solids concentration of the samples collected was 114 mg/L for the Tomoka River basin and 204 mg/L for the B-19 Canal basin. Concentrations ranged from a low of 46 mg/L in the Tomoka River basin to a high of 458 mg/L in the B-19 Canal basin. All samples collected had concentrations well below the 1,000 mg/L criteria set for a potable water supply (Florida Department of Environmental Regulation, 1983).

Specific-conductance values for samples collected during this study ranged from less than 50 to more than 650 $\mu\text{S}/\text{cm}$ (microsiemens per centimeter). Three samples from the B-19 Canal had concentrations that exceeded the 500 $\mu\text{S}/\text{cm}$ limit set by the Florida Department of

Environmental Regulation (1983) for a potable water supply. The median value for the B-19 Canal was 293 $\mu\text{S}/\text{cm}$ compared to 121 $\mu\text{S}/\text{cm}$ for the Tomoka River basin. The range of all mean daily conductance data from the monitors was 70 to 865 $\mu\text{S}/\text{cm}$ (appendix VI). Mean daily conductance exceeded 500 $\mu\text{S}/\text{cm}$ at sites 3 and 12 during the study period.

Chloride concentrations in the study area ranged from 3.4 to 57 mg/L. All sample concentrations were well below the 250 mg/L criteria for a potable water supply (Florida Department of Environmental Regulation, 1983). Of the 54 samples collected, 4 samples had chloride concentrations greater than the previous maximum of 36 mg/L, and 39 samples had concentrations lower than the previous minimum of 18 mg/L.

Color of water in both basins generally was greater than the recommended limit of 45 Pt-Co (platinum-cobalt) units based on photosynthesis interference (U.S. Environmental Protection Agency, 1986). Of the samples collected during this study, 100 percent of the B-19 Canal samples and 84 percent of the Tomoka River samples exceeded this criterion. The maximum color observed was 360 Pt-Co units in the Tomoka River basin and 340 Pt-Co units in the B-19 Canal.

Table 3. Summary of selected constituent limits and data from samples collected at surface-water sites

[Units are milligrams per liter, except where indicated; < indicates less than; — indicates no data; $\mu\text{S}/\text{cm}$, microsiemens per centimeter; °C, degree Celsius; Pt-Co, Platinum-Cobalt]

Property or constituent	Suggested limits	Stream	Data statistics					
			Previous studies		Current study			Samples
			Minimum	Maximum	Minimum	Median	Maximum	
Phosphorus, total (as P)	¹ < 0.05	Tomoka River	² 0.03	² 0.29	0.01	0.04	.52	26
		B-19 Canal	—	—	.04	.16	.42	10
Orthophosphate (as P)	—	Tomoka River	² 0.1	² 2	.01	.01	.44	26
		B-19 Canal	² 2	¹ 5	.05	.07	.19	10
Nitrogen, total (as N)	³ < .6	Tomoka River	² 62	² 1.29	.09	.8	2	21
		B-19 Canal	⁴ 6	⁴ 1.2	.8	1.4	2.4	10
Dissolved solids, residue at 180 °C	⁵ 1,000	Tomoka River	⁶ 77	² 303	46	114	322	41
		B-19 Canal	⁷ 200	⁷ 300	107	204	458	13
Specific conductance ($\mu\text{S}/\text{cm}$ at 25 °C)	⁵ 500	Tomoka River	⁸ 250	⁸ 499	49	121	492	41
		B-19 Canal	⁸ 250	⁸ 499	98	293	673	13
Chloride	⁵ 250	Tomoka River	⁶ 18	⁶ 36	3.4	14	42	49
		B-19 Canal	⁶ 18	⁶ 36	13	27	57	13
Color (Pt-Co units)	⁹ < 45	Tomoka River	⁶ 120	⁶ 400	30	120	360	41
		B-19 Canal	¹⁰ 300	¹⁰ 400	55	120	340	13
pH (units)	⁵ 6.0 to 8.5	Tomoka River	⁶ 6.4	⁶ 7.7	4.0	6.7	7.5	41
	⁵ 6.0 to 8.5	B-19 Canal	¹¹ 6.0	7.0	6.0	7.2	7.8	13

¹Federal Water Pollution Control Administration, 1968.

²Volusia County Planning Board, 1978.

³McKee and Wolf, 1963.

⁴Slack and Goolsby, 1976.

⁵Florida Department of Environmental Regulation, 1983.

⁶Knochenmus and Beard, 1971.

⁷Dysart and Goolsby, 1977.

⁸Slack and Kaufman, 1975.

⁹U.S. Environmental Protection Agency, 1986.

¹⁰Kaufman, 1975a.

¹¹Kaufman, 1975c.

The Tomoka River and B-19 Canal generally had pH values within the 6.0 to 8.5 range specified by the Florida Department of Environmental Regulation (1983) for class III waters. The only significant deviations were noted at site 5 (Thayer Canal near Daytona Beach which was consistently low), and site 8 (U.S. Highway 92 Canal at Daytona Beach which was generally low). These canals drain swampy areas with abundant decaying organic matter that produce tannic-acid-colored water with a pH in the 4.0 to 4.6 range, (appendix IV). The maximum observed pH during the study was 7.8 in the B-19 Canal.

The DO content of surface water gives a general indication of its ability to support aquatic life. The daily mean DO concentrations ranged from 3.5 to 9.1 mg/L at the Tomoka River near Holly Hill (fig. 2, site 1), and from 3.7 to 8.6 mg/L in the B-19 Canal at Dunlawton Avenue (fig. 2, site 12). Within the two basins, the DO concentration commonly fluctuated between 4 and 6 mg/L with many values below the 5.0 mg/L minimum criterion for freshwater, and occasionally below the 4.0 mg/L absolute minimum criterion set by Florida Department of Environmental Regulation (1983) for class III waters. Appendix VII presents the DO data for the two streams.

Water samples and bed-material samples were collected near the most downstream sites on the two major streams (sites 2 and 12) and analyzed for insecticides and herbicides. Only three organic insecticides, diazinon, DDD, and heptachlor, and one herbicide, 2,4-D, were detected, and all were found at both sites. Diazinon concentrations in the water were 0.01 µg/L (micrograms per liter) in the Tomoka River basin (site 2) and 0.23 µg/L in the B-19 Canal basin (site 12) (appendix IV). The 2,4-D concentrations in the water were <0.01 µg/L at site 2 and 0.09 µg/L at site 12. In the bottom material, DDD concentrations were 0.3 µg/kg (micrograms per kilogram) at site 2 and <0.1 µg/kg at site 12. Heptachlor concentrations were 0.2 µg/kg at site 2 and <0.01 µg/kg at site 12.

No criteria have been established for diazinon or DDD, and the 100 µg/L limit for 2,4-D is for water and fish ingestion set by the U.S. Environmental Protection Agency (1986). The criterion for heptachlor, 0.52 µg/L, is for heptachlor in solution, and should not be compared with bed-sediment concentrations detected (micrograms per kilogram, solids). Because limits do not exist, or are for a different medium, no conclusions were drawn from the detected concentrations of these pesticides.

Water analyses were also run for aluminum, arsenic, copper, iron, lead, mercury, and zinc during the current study (appendix IV). Aluminum concentrations generally were in the few hundreds of micrograms per liter, although concentrations ranged from 30 to 8,200 µg/L in the Tomoka River

basin, and from 30 to 4,100 µg/L in the B-19 Canal. The only criterion for aluminum is for marine waters; of the samples collected, three had concentrations exceeding the 1,500 µg/L limit set by the Florida Department of Environmental Regulation (1983) for marine waters.

None of the samples collected (appendix IV) had concentrations that exceeded FDER limits set for class III waters for copper (30 µg/L), iron (1.0 mg/L), and lead (30 µg/L) (Florida Department of Environmental Regulation, 1983). No sample concentrations exceeded the arsenic limit (50 µg/L) set by the U.S. Environmental Protection Agency (1986) for a potable water supply.

Three samples (15 percent) from the Tomoka River basin had concentrations of mercury greater than the 0.2 µg/L criteria set by the Florida Department of Environmental Regulation (1983) for class III waters, whereas 2, or 25 percent, of the B-19 Canal samples exceeded the 0.2 µg/L criteria.

No samples from the B-19 Canal had zinc concentrations that exceeded the 30-µg/L limit set by the Florida Department of Environmental Regulation (1983) for class III waters. Twenty-five percent of the zinc concentrations for samples collected from the Tomoka River basin were greater than the 30-µg/L standard.

Analyses for alkalinity (appendix IV) showed that 39 percent of the samples from the Tomoka River basin and 23 percent of the samples from the B-19 Canal basin were below the minimum 20 mg/L set by Florida Department of Environmental Regulation (1983) for class III freshwater.

The quality of water in the Tomoka River basin in October 1985 generally was within the FDER criteria for class III waters, about the same findings as reported by the Volusia County Planning Board in 1978. The water in the B-19 Canal tends to have higher concentrations of total phosphorus, total nitrogen, and dissolved solids, and higher specific-conductance values than does water in the Tomoka River. Two tributaries to the Tomoka River, however, had higher color and lower pH.

LOADS FOR SELECTED CONSTITUENTS

Constituent load is the amount, by weight, of a constituent transported within the streamflow during some time period. Commonly, this rate is expressed in pounds per day; but for this report, load is expressed as the total pounds of a constituent that flowed past a particular point (the gaging site) during the selected storm period. Loads for phosphorus, nitrogen, and dissolved solids were calculated for selected storms at nine surface-water sites (table 4).

Table 4. Phosphorus, nitrogen, and dissolved-solids loads for selected storms in the Tomoka River and B-19 Canal basins [mi², square miles; ft³, cubic feet; lb, pounds; lb/mi², pounds per square mile; —, indicates no data]

Site No.	Station name	Drainage area (mi ²)	Storm date	Storm runoff (million ft ³)	Storm loads					
					Phosphorus		Nitrogen		Dissolved solids	
					(lb)	(lb/mi ²)	(lb)	(lb/mi ²)	(tons)	(tons/mi ²)
<u>Tomoka River basin</u>										
1	Tomoka River near Holly Hill	63	09-28-84	164	824	13.1	8,240	131	393.5	6.2
2	Eleventh Street Canal near Holly Hill	3.5	12-12-83	5.70	—	—	—	—	23.2	6.6
			09-28-84	9.65	66.4	19.0	664	190	20.5	5.8
3	Williamson Boulevard Ditch at Daytona Beach	3	04-04-84	2.20	4.12	13.7	151	503	3.2	10.8
			05-23-84	1.38	5.17	17.2	17.2	57.3	2.4	8.0
4	Wally Hoffmeyer Canal at Daytona Beach	2.2	12-21-83	8.67	—	—	—	—	31.4	14.3
5	Thayer Canal near Daytona Beach	33	09-28-84	26.2	16.4	0.5	1,163	35.2	—	—
6	Bayless Boulevard Canal at Daytona Beach	1.4	12-21-83	5.45	—	—	—	—	17.0	12.2
7	Bellevue Canal at Daytona Beach	1.5	04-04-84	7.94	14.9	9.9	546	364	22.4	14.9
<u>B-19 Canal basin</u>										
11	B-19 Canal at Willow Run Boulevard at Port Orange	5.8	04-04-84	7.44	97.4	16.8	974	168	29.5	5.1
12	B-19 Canal at Dunlawton Avenue at Port Orange	7.6	04-04-84	24.1	286	37.6	3,310	436	80.5	10.6

The equation for calculating loads is:

$$L = K * C * V \quad (1)$$

where

L = load for storm, in pounds,

K = conversion factor of 6.24×10^{-5} for converting between milligram per liter and pound per cubic foot,

C = concentration of the constituent, in milligrams per liter, and

V = total runoff volume for the storm, in cubic feet.

To compare loads from drainage basins of different sizes more easily, load values are expressed in table 4 as yields, in pounds per square mile of drainage area. Total phosphorus yields ranged from 0.5 to 19 lb/mi² (pounds per square mile) in the Tomoka River basin, and from 16.8 to 37.6 lb/mi² in the B-19 Canal basin. Total nitrogen yields ranged from 35.2 to 503 lb/mi² in the Tomoka River basin,

and from 168 to 436 lb/mi² in the B-19 Canal basin. Dissolved-solids yields ranged from 5.8 to 14.9 tons/mi² (tons per square mile) within the Tomoka River basin, and from 5.1 to 10.6 tons/mi² in the B-19 Canal basin.

SUMMARY

Rainfall, streamflow, and water-quality data were collected from the Tomoka River and the B-19 Canal basins from October 1982 through September 1985 to better understand the quantity and quality of stormwater runoff from western Daytona Beach and adjacent areas. Data were collected at 12 surface-water sites and 8 rainfall sites. Stage-discharge ratings were developed for eight sites; a ninth site already had an established rating. At three sites, hydraulic conditions were unsatisfactory for developing a rating.

Hydrographs plotted for selected storms at each of the nine rated sites were used to compute storm runoff. Runoff for the Tomoka River ranged from 1 to 77 percent of basin rainfall. For the B-19 Canal, runoff ranged from 6 to 17 percent of rainfall. Ratios of runoff to rainfall were widely varied, even for storms occurring at the same sites; few patterns were discernible from the rainfall-runoff plots. Poor relations between runoff and rainfall probably are due to (1) interconnecting canals that allow flow to move through the basins by several routes, (2) backwater conditions that resulted in reversed flow, and (3) storage in large marshy areas that retarded runoff.

Total phosphorus concentrations for the samples collected within the two basins ranged from 0.01 to 0.52 mg/L. The highest concentration occurred in the Tomoka River basin, but the B-19 Canal basin had the largest median value, 0.16 mg/L. Thirty-three percent of the samples from the Tomoka River basin and 90 percent from the B-19 Canal basin had total phosphorus concentrations exceeding 0.05 mg/L. Median orthophosphate concentrations were 0.01 and 0.07 mg/L for the Tomoka River basin and the B-19 Canal basin, respectively.

Total nitrogen concentrations for the samples collected ranged from 0.09 to 2.4 mg/L. All of the samples collected in the B-19 Canal basin and 75 percent from the Tomoka River basin exceeded 0.6 mg/L.

The maximum dissolved-solids concentration observed during the study was 458 mg/L in a sample from the B-19 Canal basin. The range for all samples was 46 to 458 mg/L, well below the 1,000 mg/L dissolved solids set by the FDER as the criterion for a potable water supply.

Specific-conductance values ranged from 49 to 865 $\mu\text{S}/\text{cm}$, the latter being a mean daily value recorded by monitoring. Mean daily conductance exceeded the 500 $\mu\text{S}/\text{cm}$ limit at one site in each basin during the study period. Chloride concentrations for all samples ranged from 3.4 to 57 mg/L. These values are below the 250 mg/L criterion set by the FDER for a potable water supply.

The maximum color observed in samples from the study area was 360 Pt-Co units in the Tomoka River basin. All samples from the B-19 Canal basin exceeded the 45 Pt-Co unit criterion set by the USEPA, whereas 84 percent of the samples from the Tomoka River basin exceeded this limit. All but two of the sites in the study area had pH values within the FDER specified range for class III waters, 6.0 to 8.5 pH units. Thayer Canal and U.S. Highway 92 Canal, which drain swampy areas, had water with pH as low as 4.0.

Dissolved-oxygen concentrations at Tomoka River near Holly Hill, the most downstream site in the Tomoka River basin, ranged from 3.5 to 9.1 mg/L. Dissolved-oxygen concentrations for the B-19 Canal at Dunlawton Avenue, the most downstream site in the B-19 Canal basin, ranged from 3.7 to 8.6 mg/L. Frequently, the

dissolved-oxygen concentrations were below the 5.0-mg/L criterion set by the FDER as the minimum daily average. Concentrations between 4.0 and 6.0 were common.

Analysis of water and bed-material samples near each of the most downstream sites detected the insecticides diazinon, DDD, and heptachlor and the herbicide 2,4-D. Diazinon concentrations in water were 0.01 $\mu\text{g}/\text{L}$ in the Tomoka River basin and 0.23 $\mu\text{g}/\text{L}$ in the B-19 Canal basin, and 2,4-D concentrations in water were <0.01 $\mu\text{g}/\text{L}$ in the Tomoka River basin and 0.09 $\mu\text{g}/\text{L}$ in the B-19 Canal basin. DDD concentrations of 0.3 $\mu\text{g}/\text{kg}$ and <0.1 $\mu\text{g}/\text{kg}$ and heptachlor concentrations of 0.2 $\mu\text{g}/\text{kg}$ and <0.1 $\mu\text{g}/\text{kg}$ were detected in bottom sediments in the Tomoka River basin and B-19 Canal basin, respectively.

Analyses of water were also run for aluminum, arsenic, copper, iron, lead, mercury, and zinc. Of these, mercury and zinc were the only constituents with concentrations that exceeded the recommended limits for FDER class III waters. A total of five samples from both basins exceeded the 0.2- $\mu\text{g}/\text{L}$ mercury criterion for a potable water supply. Twenty-five percent of the Tomoka River samples and none from the B-19 Canal exceeded the 30- $\mu\text{g}/\text{L}$ limit for zinc.

Loads (yields) of total phosphorus, total nitrogen, and dissolved solids were calculated for selected storms at rated sites. Total phosphorus yields ranged from 0.5 to 37.6 lb/mi², with the higher yield occurring in the B-19 Canal basin. Total nitrogen yields ranged from 35.2 to 503 lb/mi²; the highest yield was in the Tomoka River basin. Dissolved-solids yields ranged between 5.1 and 14.9 tons/mi², with the highest yield being in the Tomoka River basin.

SELECTED REFERENCES

- Baskerville-Donovan Engineers, Inc., 1985, B-19 Canal upper basin study: Volusia County, 100 p.
- Bush, P.W., 1978, Hydrologic evaluation of part of central Volusia County, Florida: U.S. Geological Survey Water-Resources Investigation 78-89, 50 p.
- Dysart, J.E., and Goolsby, D.A., 1977, Dissolved solids concentrations and loads in Florida surface waters: Florida Bureau of Geology Map Series 77, 1 sheet.
- Florida Department of Environmental Regulation, 1983, Water-quality standards: chap. 17-3, in Florida Administrative Code.
- Federal Water Pollution Control Administration, 1968, Water-quality criteria—Report of the National Technical Advisory Committee to the Secretary of the Interior, 234 p.
- Gilman, C.S., 1964, Section 9, Rainfall, in Chow, V.T., ed., Handbook of applied hydrology: New York, McGraw-Hill, 68 p.
- Hardee, Jack, Miller, R.A., and Mattraw, H.C., Jr., 1979, Stormwater-runoff data for a multifamily residential area, Dade County, Florida: U.S. Geological Survey Open-File Report 79-1295, 68 p.

- Hem, J.D., 1985, Study and interpretation of the chemical characteristics of natural water (3d ed.): U.S. Geological Survey Water-Supply Paper 2254, 263 p.
- Hughes, G.H., 1978, Runoff from hydrologic units in Florida: Florida Bureau of Geology Map Series 81, 1 sheet.
- Kaufman, M.I., 1975a, Color of water in Florida streams and canals (2d ed.): Florida Bureau of Geology Map Series 35, 1 sheet.
- _____, 1975b, Generalized distribution and concentration of orthophosphate in Florida streams (2d ed.): Florida Bureau of Geology Map Series 33, 1 sheet.
- _____, 1975c, The chemical type of water in Florida streams (2d ed.): Florida Bureau of Geology Map Series 51, 1 sheet.
- _____, 1975d, The pH of water in Florida streams and canals (2d ed.): Florida Bureau of Geology Map Series 37, 1 sheet.
- Knochenmus, D.D., 1968, Surface drainage characteristics in Volusia County, Florida: Florida Division of Geology Map Series 30, 1 sheet.
- Knochenmus, D.D., and Beard, M.E., 1971, Evaluation of the quantity and quality of the water resources of Volusia County, Florida: Florida Bureau of Geology Report of Investigations 57, 59 p.
- McKee, J.E., and Wolf, H.W., 1963, Water quality criteria: State Water Quality Control Board, pub. 3A, Sacramento, Calif., 548 p.
- Rutledge, A.T., 1985, Ground-water hydrology of Volusia County, Florida, with emphasis on occurrence and movement of brackish water: U.S. Geological Survey Water-Resources Investigations Report 84-4206, 84 p.
- Slack, L.J., and Goolsby, D.A., 1976, Nitrogen loads and concentrations in Florida streams: Florida Bureau of Geology Map Series 75, 1 sheet.
- Slack, L.J., and Kaufman, M.I., 1975, Specific conductance of water in Florida streams and canals (2d ed.): Florida Bureau of Geology Map Series 58, 1 sheet.
- U.S. Environmental Protection Agency, 1986, Quality criteria for water, 1986: Office of Water Regulations and Standards, EPA 440/5-86-001, update 1.0, 2 p.
- U.S. Soil Conservation Service, 1985, Flood plain management study, tributaries to the Tomoka River, Volusia County, Florida: Gainesville, Florida, U.S. Department of Agriculture, 81 p.
- Volusia County Planning Board, 1978, Tomoka River watershed water quality study, *in* Volusia Council of Governments 208 Water Quality Management Plan, Volusia County, Florida, 150 p.

Appendix I

APPENDIX I--Daily rainfall
[Rainfall in inches]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 13--Holly Hill Water Plant [Water year October 1982 to September 1983]												
1	0.80	0.00	0.00	0.00	0.00	0.15	0.00	0.00	0.00	0.00	0.00	2.05
2	.00	.00	.00	.15	2.50	.00	.10	.00	.00	.00	.00	.35
3	.00	.25	.00	.00	.00	.00	.00	.00	.00	.00	.20	.00
4	.00	.10	.00	.00	.00	.00	.00	.40	.30	.00	.30	.00
5	.20	.00	.00	.00	.00	.00	.00	.00	.80	.00	.10	.10
6	.00	.00	.00	.00	.65	.00	.00	.00	.80	.00	.50	.00
7	.00	.20	.70	.00	.00	1.70	.90	.00	1.20	.00	.12	.00
8	.00	.00	.30	.00	.00	.00	.10	.00	.60	.70	.00	.00
9	.00	.00	.10	.10	.00	.00	.85	.00	.00	.00	.60	.00
10	.00	.00	1.60	.00	.50	.20	.30	.00	.00	.00	.50	.00
11	.50	.00	.00	.00	.00	.00	.00	.00	.30	.00	.00	.00
12	.00	.00	.20	.00	.80	.00	.00	.00	.00	.00	.40	.00
13	.00	.00	.00	.00	1.70	.00	.00	.00	.00	.00	.70	.00
14	.80	.00	.00	.00	.00	.00	.00	.00	.00	.00	.70	.40
15	.00	.10	.00	.00	.00	2.50	.50	.00	.00	.00	.00	.00
16	.00	.10	.00	.00	.50	.00	.00	.00	1.50	.00	.00	.10
17	.00	.00	.00	.00	.15	1.90	.00	.00	.40	.00	.00	3.00
18	.00	.00	.00	.00	.00	.00	.70	.00	.65	.00	.00	.30
19	.20	.00	.00	.00	.00	.00	.00	.00	.10	.20	.00	.90
20	.20	.00	.00	1.30	.00	.00	.00	.00	.00	.00	.00	.80
21	.00	.00	.00	.20	.10	.30	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	1.25	.00	.00	.20	.00	.00	.80	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.50	.00	.00	.00	.00	.00	.20
25	.00	.00	.00	.00	.00	.00	.00	.20	.00	.10	.50	.30
26	.00	.70	.00	.00	.00	.00	.00	.00	.00	.10	.00	.20
27	.00	.00	.10	.50	.00	.40	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.10	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	2.20	.00	.10	.00	.00
30	.00	.00	.00	.00	---	.00	.00	1.10	.10	.10	.00	.00
31	.00	---	.00	.00	---	1.20	---	.00	---	.30	.00	---
Site 13--Holly Hill Water Plant [Water year October 1983 to September 1984]												
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.30	0.00	0.00
2	.00	.00	.00	.00	.10	.00	.00	.00	.00	1.10	.00	.00
3	.00	.00	.00	.00	.20	.00	4.50	.00	.00	1.00	.00	.00
4	.00	.00	.20	.00	.00	.00	1.30	1.80	.00	.00	.00	.30
5	.00	.16	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00
6	.00	.00	.10	.00	.00	.00	.00	.00	.00	.00	.00	1.50
7	.00	.10	.00	.00	.00	.15	.00	.00	.00	.00	.00	1.00
8	.30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.20	.00	.00	.00	.00	.00	.10	.00	.00	.00	.00	4.00
10	.00	.00	.00	.25	.00	.00	.00	.00	.00	.00	.00	.10
11	1.20	.10	3.80	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	1.60	.00	.20	.10	.00	.00	.10	.00	.60	.00
13	.20	.00	.00	.10	.00	.20	.10	.00	.20	.10	.00	.00
14	.00	.00	.00	.00	.00	.00	.80	.00	.00	.00	.00	.00
15	.20	.15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	1.20	.25	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.75	.00	1.50	.00	.00	.00	.00	.00	.00	.00	.30	.00
18	.00	.00	.10	.20	.00	.20	.00	.00	.00	.00	.10	1.10
19	.10	.00	.20	.50	.00	.00	.00	.00	.00	.70	.90	.05
20	.00	.45	3.20	.50	.00	.60	.00	.00	.00	.20	.70	.00
21	.10	.00	.40	.00	.50	.00	.00	.00	.00	.80	.40	.00
22	2.26	.00	.05	.00	1.00	.00	.00	.10	.30	.80	.00	.00
23	.10	.00	.00	.10	.05	.00	.10	3.90	.60	.10	.00	.00
24	.00	.20	.00	.00	.00	.10	.00	.10	.00	.00	.10	.00
25	.00	.00	.00	.25	.00	.00	.00	.00	.10	.00	.70	.00
26	.00	.00	.00	.10	.00	.10	.00	.80	.00	.00	.00	.00
27	.00	.00	.00	.00	.60	.50	.00	.00	.00	.00	.00	2.80
28	.00	.00	.10	.00	.00	.00	.00	.00	.00	.00	.00	.10
29	.00	.70	2.40	.00	.00	.00	.00	.00	.50	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.10	1.00	.15	.00	.00
31	.20	---	.00	.00	---	.00	---	.00	---	.05	.00	---

APPENDIX I--Daily rainfall--Continued
[Rainfall in inches]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
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Site 13--Holly Hill Water Plant
[Water year October 1984 to September 1985]

1	0.10	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	---	---	---
2	.00	.20	.00	.00	.10	.00	.00	.00	.00	---	---	---
3	.00	.70	.00	1.10	.00	.00	.00	.00	.00	---	---	---
4	.00	.10	.50	.00	.00	.00	.00	1.40	.00	---	---	---
5	.00	.00	.40	.00	.30	.00	.00	.00	.00	---	---	---
6	.00	.00	.00	.00	.00	.00	.50	.00	.00	---	---	---
7	.00	.00	.00	.00	.00	.00	.10	.00	.00	---	---	---
8	.00	.00	.00	.00	.10	.00	.00	.00	.15	---	---	---
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
10	.10	.00	.00	.00	.00	.00	.00	.00	.20	---	---	---
11	.10	.00	.00	.00	.20	.00	.00	.00	.00	---	---	---
12	.00	.00	.00	.00	.10	.00	.10	.00	1.00	---	---	---
13	.00	.00	.00	.00	.00	.00	.20	.00	2.50	---	---	---
14	.00	.00	.00	.10	.00	.00	.10	.00	.90	---	---	---
15	.00	.00	.00	.00	.00	.00	.00	.00	2.00	---	---	---
16	.00	.00	.00	.00	.00	.40	.00	.00	.20	---	---	---
17	.00	.00	.00	.00	.00	.40	.00	.00	.00	---	---	---
18	.00	.00	.00	.20	.00	.00	.00	.00	.00	---	---	---
19	.00	.00	.00	.10	.00	.00	.00	.00	.00	---	---	---
20	.00	.00	.00	.10	.00	.00	.00	1.50	.00	---	---	---
21	.20	.30	.00	.00	.00	1.40	.00	.00	.10	---	---	---
22	.00	1.80	.00	.00	.00	.10	.00	.20	.00	---	---	---
23	.00	2.00	.00	.00	.00	.00	.00	1.00	.00	---	---	---
24	.00	.10	.00	.00	.00	.00	.00	.00	.10	---	---	---
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---	---
26	.20	.00	.00	.00	.00	.00	.00	.00	.20	---	---	---
27	.20	.00	.30	.00	.00	.00	.00	.00	.00	---	---	---
28	.00	.00	.00	.00	.00	.00	.00	.00	1.50	---	---	---
29	.00	.00	.00	.00	---	.00	.00	.00	.60	---	---	---
30	.00	.00	.00	.00	---	.00	.70	.00	.20	---	---	---
31	.00	---	.00	.00	---	.00	---	.00	---	---	---	---

Site 14--Florida Power and Light
[Water year October 1982 to September 1983]

1	---	---	---	---	---	---	0.00	0.00	0.00	0.05	0.00	1.63
2	---	---	---	---	---	---	.11	.00	.00	.02	.03	.40
3	---	---	---	---	---	---	.00	.00	.00	.00	.00	.65
4	---	---	---	---	---	---	.00	.37	.76	.00	.03	.00
5	---	---	---	---	---	---	.00	.02	.40	.28	.00	.00
6	---	---	---	---	---	---	.00	.00	.79	.00	.16	.00
7	---	---	---	---	---	---	.21	.00	1.22	.03	.44	.00
8	---	---	---	---	---	---	.00	.00	.24	.32	.10	.00
9	---	---	---	---	---	---	.97	.10	.00	.00	1.83	.00
10	---	---	---	---	---	.00	.07	.00	.02	.00	.36	.00
11	---	---	---	---	---	.00	.00	.07	.01	.02	.00	.00
12	---	---	---	---	---	.00	.00	.00	.00	.01	.56	.00
13	---	---	---	---	---	.00	.35	.00	.06	.00	1.19	.00
14	---	---	---	---	---	.00	.00	.00	.00	.07	.63	.11
15	---	---	---	---	---	2.06	.89	.00	.00	.00	.02	.01
16	---	---	---	---	---	.00	.00	.00	.01	.00	.01	.00
17	---	---	---	---	---	1.39	.00	.00	.00	.00	.00	.79
18	---	---	---	---	---	.10	.84	.00	.00	.00	.02	.12
19	---	---	---	---	---	.00	.00	.09	.00	.00	.00	.18
20	---	---	---	---	---	.01	.00	.00	.03	.02	.00	.99
21	---	---	---	---	---	.51	.00	.00	1.72	.00	.00	.23
22	---	---	---	---	---	.00	.00	.00	.43	.00	.00	.01
23	---	---	---	---	---	.00	.98	.00	.66	.00	.00	.00
24	---	---	---	---	---	.49	.00	.00	.02	.00	.00	.84
25	---	---	---	---	---	.00	.00	.17	.00	.00	.45	.16
26	---	---	---	---	---	.00	.00	.01	.00	.42	.00	.12
27	---	---	---	---	---	.44	.00	.00	.00	.01	.00	.00
28	---	---	---	---	---	.01	.00	.00	.00	.05	.27	.00
29	---	---	---	---	---	.00	.00	1.39	.03	.76	.03	.00
30	---	---	---	---	---	.02	.00	1.65	.12	.10	.00	.00
31	---	---	---	---	---	1.16	---	.00	---	.68	.00	---

APPENDIX I--Daily rainfall--Continued
[Rainfall in inches]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 14--Florida Power and Light [Water year October 1983 to September 1984]												
1	0.00	0.17	0.00	0.00	0.01	0.00	0.00	0.00	0.00	1.93	0.27	0.00
2	.00	.04	.00	.00	.01	.00	.00	.03	.00	1.45	.00	.00
3	.00	.00	.00	.00	.00	.00	4.37	.00	.00	1.07	.00	.00
4	.00	.00	.01	.00	.00	.00	1.81	2.25	.00	.00	.00	.78
5	.00	.20	.00	.00	.00	.00	.00	.01	.00	.23	.00	2.28
6	.00	.01	.05	.00	.00	.00	.00	.00	.00	.00	.00	.99
7	.00	.05	.00	.00	.00	.06	.00	.00	.00	.05	.00	2.10
8	1.14	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.12
9	.62	.18	.00	.00	.00	.00	.26	.01	.00	.00	.00	3.16
10	.31	.00	.00	.23	.00	.00	.00	.00	.00	.00	.00	.27
11	.72	.10	3.79	.00	.00	.00	.00	.00	.26	.00	.00	.00
12	.01	.00	1.95	.00	.49	.08	.00	.00	.00	.00	.18	.00
13	.13	.02	.00	.13	1.63	.01	.00	.00	.17	.19	.00	.00
14	.01	.00	.01	.03	.00	.00	1.25	.00	.00	.00	.00	.00
15	.72	.26	.21	.00	.01	.00	.02	.00	.00	.00	.00	.00
16	.94	.08	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	1.03	.00	.06	.01	.00	.00	.06	.00	.00	.01	.02	.05
18	.04	.01	.65	.06	.00	.11	.00	.00	.56	.00	.07	.72
19	.00	.00	.06	.47	.00	.00	.00	.00	.00	.50	.30	.18
20	.01	.71	3.10	.50	.00	.52	.00	.00	.00	.63	.78	.01
21	.12	.02	.38	.40	.51	.00	.00	.00	.04	.74	.88	.00
22	2.49	.01	.02	.02	1.53	.00	.03	.01	.03	.59	.02	.00
23	.04	.00	.00	.00	.00	.00	.11	4.81	.84	.46	.00	.13
24	.00	.11	.00	.00	.00	.01	.00	.16	.00	.14	1.37	.00
25	.00	.00	.00	.06	.00	.00	.00	.00	.45	.00	1.28	.00
26	.00	.00	.00	.05	.00	.12	.00	.77	.00	.00	.00	.00
27	.43	.00	.00	.00	.63	.45	.00	.50	.02	.00	.01	4.06
28	.00	.00	.17	.00	.00	.00	.00	.00	.33	.00	.00	.01
29	.00	.67	2.49	.00	.00	.00	.00	.00	.52	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.06	.82	.19	.00	.00
31	.09	---	.00	.00	---	.00	---	.00	---	.11	.00	---
Site 14--Florida Power and Light [Water year October 1984 to September 1985]												
1	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	---	---
2	.00	.01	.00	.02	.02	.00	.00	.00	.00	.00	---	---
3	.00	.02	.00	1.39	.01	.00	.00	.00	.00	.00	---	---
4	.01	.00	.00	.01	.00	.01	.00	3.53	.00	.00	---	---
5	.00	.00	.39	.00	.00	.00	.02	.00	.00	.95	---	---
6	.00	.00	.00	.00	.44	.00	.69	.00	.00	.01	---	---
7	.00	.01	.00	.01	.16	.00	.01	.00	.02	1.33	---	---
8	.12	.00	.01	.00	.08	.00	.00	.00	.20	.00	---	---
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	---	---
10	.13	.00	.01	.01	.01	.00	.00	.00	.08	.00	---	---
11	.11	.00	.00	.00	.15	.00	.00	.00	.00	.17	---	---
12	.00	.00	.02	.00	.04	.00	1.28	.00	.75	.76	---	---
13	.00	.00	.00	.00	.00	.00	.23	.00	1.43	.00	---	---
14	.00	.00	.00	.01	.00	.00	.09	.00	.63	.00	---	---
15	.00	.01	.00	.01	.02	.00	.00	.00	1.93	.01	---	---
16	.00	.00	.00	.00	.00	.00	.00	.00	.26	1.02	---	---
17	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	---	---
18	.00	.00	.02	.17	.00	---	---	.00	.00	---	---	---
19	.00	.00	.00	.00	.00	---	---	.00	.00	---	---	---
20	.00	.00	.01	.02	.00	1.25	---	2.09	.01	---	---	---
21	.32	.13	.00	.00	.00	.01	---	.01	.02	---	---	---
22	.01	2.27	.00	.00	.00	.00	---	.59	.01	---	---	---
23	.20	2.54	.00	.00	.00	.00	---	1.66	.00	---	---	---
24	.00	.01	.02	.00	.00	.00	---	.01	.01	---	---	---
25	.00	.02	.00	.00	.00	.00	---	.00	.00	---	---	---
26	.24	.01	.00	.00	.00	.00	---	.00	.01	---	---	---
27	.01	.02	.07	.00	.00	.00	---	.00	.01	---	---	---
28	.00	.01	.00	.00	.00	.00	---	.00	.41	---	---	---
29	.00	.00	.02	.00	---	.00	---	.00	.13	---	---	---
30	.13	.01	.00	.00	---	.00	.00	.00	.26	---	---	---
31	.00	---	.00	.00	---	.14	---	.00	---	---	---	---

APPENDIX I--Daily rainfall--Continued
[Rainfall in inches]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
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Site 15--Daytona Marion Street Water Plant
[Water year October 1982 to September 1983]

1	0.00	0.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.50
2	.00	.00	.00	.15	1.99	.00	.00	.00	.00	.00	.00	1.00
3	.00	.25	.00	.00	.00	.00	.00	.00	.00	.00	.30	.35
4	.00	.00	.00	.00	.00	.00	.00	.20	.20	.00	.00	.00
5	.06	.00	.00	.00	.00	.00	.00	.00	.95	.00	.00	.00
6	.00	.00	.00	.00	.62	.00	.00	.00	.20	.00	.10	.00
7	.00	.15	1.60	.00	.02	1.45	1.60	.00	1.15	.00	.20	.00
8	.00	.00	.25	.00	.00	.00	.00	.00	.70	.20	.00	.00
9	.00	.00	.00	.00	.00	.00	.83	.00	.00	.00	1.55	.00
10	.00	.00	1.35	.00	.40	.00	.27	.00	.00	.00	.40	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.15	.00	.00	.00
12	.05	.00	.10	.00	1.04	.00	.00	.00	.00	.00	.60	.00
13	.00	.00	.00	.00	1.65	.00	.00	.00	.00	.00	1.25	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.20	.00
15	.00	1.00	.00	.00	.00	2.65	.75	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.37	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.90	.00	.00	.00	.00	.00	1.10
18	.00	.00	.00	.00	.00	.00	.65	.00	.00	.00	.00	.50
19	.20	.00	.00	.00	.00	.20	.00	.30	.00	.00	.00	.39
20	.00	.00	.00	1.05	.00	.00	.00	.00	.00	.00	.00	1.06
21	.00	.00	.00	.00	.05	.45	.00	.00	.90	.00	.00	.10
22	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00
23	.65	.00	.00	.00	.00	.00	.85	.00	.60	.00	.00	.10
24	.60	.00	.00	.00	.00	.40	.00	.00	.00	.00	.00	.05
25	.00	.00	.00	.00	.00	.00	.00	.19	.00	.00	.35	.00
26	.00	.50	.00	.00	.00	.00	.00	.00	.00	.80	.00	.10
27	.00	.00	.02	.45	.00	.40	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.10	.00	.00	2.17	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.45	.00	.20
30	.00	.00	.00	.00	---	.00	.00	.85	.00	.00	.00	.00
31	.00	---	.00	.89	---	.00	---	.00	---	.40	.00	---

Site 15--Daytona Marion Street Water Plant
[Water year October 1983 to September 1984]

1	0.00	---	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80	0.00	0.00
2	.00	---	.00	.00	.05	.00	.00	.00	.00	.65	.00	.00
3	.00	---	.00	.00	.05	.00	2.40	.00	.00	.65	.00	.00
4	.00	---	.02	.00	.00	.00	.90	.00	.00	.00	.00	.00
5	.00	---	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.20
6	.00	---	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	---	.00	.00	.00	.00	.00	1.25	.00	.00	.00	.30
8	.00	.15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.50	.00	.00	.00	.00	.00	.10	.00	.00	.00	.00	.30
10	.10	.00	.00	.20	.00	.00	.00	.00	.00	.00	.00	.97
11	1.70	.05	2.46	.00	.00	.00	.00	.00	.00	.00	.05	.00
12	.00	.00	2.78	.00	.25	.00	.00	.00	.45	.00	.45	.00
13	.13	.00	.00	.00	.65	.05	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.95	.00	.00	.00	.00	.00
15	1.55	.19	.12	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.60	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	1.15	.00	.30	.00	.00	.00	.00	.00	.05	.00	.32	.15
18	.00	.00	1.04	.02	.00	.12	.00	.00	.00	.00	.45	.90
19	.00	.00	.00	.35	.00	.00	.00	.00	.00	.11	.00	.00
20	.00	.55	4.45	.40	.00	.60	.00	.00	.00	.70	.15	.10
21	.00	.02	.95	.45	.35	.00	.00	.00	.00	.80	.38	.00
22	.98	.00	.00	.00	1.75	.00	.00	.00	.48	.45	.00	.00
23	.10	.00	.00	.00	.00	.00	.05	3.15	.58	.10	.00	.20
24	.00	.15	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.28	.00	.73	.00
26	.00	.00	.00	.00	.00	.00	.00	.65	.00	.00	.00	.00
27	.00	.00	.00	.05	.35	.35	.00	.00	.00	.00	.00	1.01
28	.00	.00	.15	.00	.00	.00	.00	.00	.15	.00	.00	1.60
29	.00	.55	2.00	.00	.00	.00	.00	.00	.55	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.02	.75	.10	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---

APPENDIX I--Daily rainfall--Continued
[Rainfall in inches]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 15--Daytona Marion Street Water Plant [Water year October 1984 to September 1985]												
1	0.03	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.00	0.05	0.07	2.35
2	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00
3	.00	.20	.00	.40	.00	.00	.00	.00	.00	.00	1.15	.00
4	.00	.30	.00	.00	.00	.00	.00	.55	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.65	.00	.00
6	.00	.00	.00	.00	.00	.00	.40	.00	.00	.15	.00	.00
7	.00	.00	.00	.00	.00	.00	.01	.00	.00	.40	.85	.00
8	.00	.00	.00	.00	.10	.00	.00	.00	.85	.00	.60	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.33	.00	.00	.00	.15	.00	.00	.00	.00	.03	.65	.00
12	.00	.00	.00	.00	.00	.00	.05	.00	.82	.30	.00	.00
13	.00	.00	.00	.00	.00	.00	1.00	.00	1.25	.00	.06	.00
14	.00	.00	.00	.00	.00	.00	.13	.00	.71	.00	.12	.10
15	.00	.00	.00	.00	.00	.00	.00	.00	2.05	.00	.25	.00
16	.00	.00	.00	.00	.00	.05	.00	.00	.13	.20	.13	.07
17	.00	.00	.00	.00	.00	.55	.00	.00	.00	.00	.55	1.53
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.08	.05
19	.00	.00	.00	.10	.00	.00	.00	.00	.00	.00	1.21	.40
20	.00	.00	.00	.00	.00	.00	.00	1.25	.00	.00	.65	1.63
21	.30	.00	.00	.00	.00	1.05	.00	.01	.27	.00	.00	1.86
22	.00	1.63	.00	.00	.00	.00	.00	.60	.00	.00	.20	.00
23	.10	1.72	.00	.00	.00	.00	.00	1.45	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.05	.85	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.25	.00	.00
26	.30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.85	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.36	.00	.00	1.45
29	.00	.00	.00	.00	---	.00	.00	.00	.05	.00	.05	.25
30	.00	.00	.00	.00	---	.00	.30	.00	.22	.00	.25	.10
31	.00	---	.00	.00	---	.00	---	.00	---	.73	1.25	---
Site 16--Daytona Brennan Water Plant [Water year October 1982 to September 1983]												
1	0.00	0.02	0.00	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.00	1.00
2	.00	.20	.00	.25	2.75	.00	.00	.00	.00	.05	.00	.52
3	.00	.23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.71
4	.00	.08	.00	.00	.00	.00	.00	.26	.80	.00	.25	.00
5	.11	.00	.05	.00	.00	.00	.00	.00	.24	.00	.00	.00
6	.01	.00	.00	.00	.70	.00	.00	.00	.54	.00	.25	.00
7	.00	.07	.04	.00	.03	1.87	.66	.00	1.55	.00	.25	.00
8	.00	.04	.20	.00	.00	.01	.02	.00	.22	.04	.04	.00
9	.00	.05	.15	.00	.00	.00	.99	.00	.00	.00	1.20	.00
10	.10	.01	.40	.00	.39	.00	.16	.00	.00	.00	.12	.00
11	.40	.00	.00	.00	.02	.00	.00	.60	.00	.00	.00	.00
12	.02	.00	.16	.00	.80	.00	.00	.00	.00	.00	.10	.00
13	.00	.00	.00	.00	1.50	.00	.00	.00	.42	.00	.62	.00
14	.40	.00	.00	.00	.01	.00	.00	.00	.07	.00	.25	.13
15	.01	.08	.01	.00	.00	1.80	1.80	.00	.00	.00	.00	.00
16	.00	.04	.15	.00	.50	.01	.00	.00	.00	.00	.00	.44
17	.00	.05	.00	.00	.01	1.27	.00	.00	.00	.00	.04	.42
18	.00	.02	.00	.00	.00	.02	.66	.00	.00	.00	.00	.00
19	.02	.04	.00	.00	.00	.00	.00	.16	.00	.00	.00	.62
20	.00	.00	.00	1.60	.00	.00	.00	.00	.00	.00	.00	.15
21	.00	.00	.00	.09	.00	1.10	.00	.00	1.05	.00	.00	.18
22	.00	.00	.00	.15	.01	.00	.00	.00	.65	.00	.00	.00
23	2.00	.00	.00	.15	.00	.00	.94	.00	1.40	.00	.00	.00
24	.03	.00	.00	.00	.00	.44	.00	.00	.03	.00	.23	1.40
25	.00	.00	.00	.00	.00	.00	.00	.07	.00	.00	.00	.04
26	.00	.36	.00	.00	.00	.00	.00	.00	.00	.36	.00	.10
27	.00	.02	.04	.48	.02	.51	.00	.00	.00	.65	.00	.00
28	.00	.00	.00	.00	.05	.00	.00	.00	.00	.00	.05	.00
29	.00	.00	.00	.00	---	.00	.00	.84	.70	.45	.00	.00
30	.00	.00	.00	.00	---	.00	.00	1.32	.20	.00	.00	.00
31	.00	---	.00	1.10	---	.00	---	.00	---	1.06	.00	---

APPENDIX I--Daily rainfall--Continued
[Rainfall in inches]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 16--Daytona Brennan Water Plant [Water year October 1983 to September 1984]												
1	0.00	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.65	0.07	0.00
2	.00	.00	.00	.00	.06	.00	.00	.00	.00	.80	.00	.00
3	.00	.00	.00	.00	.00	.00	3.20	.00	.00	1.00	.00	.00
4	.00	.00	.05	.00	.00	.00	1.86	.00	.00	.00	.00	.70
5	.00	.20	.00	.00	.00	.00	.00	.02	.00	.00	.00	2.90
6	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00
7	.00	.04	.00	.00	.00	.02	.00	.00	.00	.08	.00	1.40
8	1.30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10
9	.28	.30	.00	.00	.00	.00	.25	.03	.00	.00	.00	2.30
10	.07	.00	.00	.20	.00	.00	.00	.00	.00	.00	.00	.80
11	.72	.08	2.77	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.02	.00	1.70	.00	.70	.14	.00	.00	.00	.00	.00	.00
13	.10	.00	.00	.00	1.28	.00	.00	.00	.60	.70	.00	.00
14	.00	.00	.05	.01	.00	.00	.74	.00	.00	.00	.00	.00
15	2.47	.34	.17	.00	.00	.00	.00	.00	.00	.19	.00	.00
16	.34	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	2.50	.00	.01	.00	.00	.00	.00	.00	.00	.05	.80	.22
18	.02	.00	.90	.02	.00	.05	.00	.00	.00	.00	.15	1.05
19	.00	.00	.09	.47	.00	.00	.00	.00	.00	.92	.00	.07
20	.00	.77	1.92	.45	.00	.57	.00	.00	.00	.90	.30	.00
21	.02	.00	.37	.17	.29	.00	.00	.00	.00	.14	.90	.00
22	1.56	.00	.00	.00	1.60	.00	.00	.00	.00	.70	.00	.00
23	.05	.00	.00	.00	.00	.00	.26	5.80	.56	.08	.00	.07
24	.00	.18	.00	.00	.00	.00	.00	.00	.00	.00	.60	.00
25	.00	.00	.00	.04	.00	.00	.00	.00	1.05	.00	1.00	.00
26	.00	.00	.00	.07	.00	.13	.00	.00	.00	.05	.00	.00
27	.00	.00	.00	.00	.57	.40	.00	.44	.00	.04	.00	.46
28	.00	.01	.14	.00	.00	.01	.00	.00	.42	.00	.00	.00
29	.00	.56	2.19	.00	.00	.00	.00	.02	1.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.02	.65	.36	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.20	.00	---
Site 16--Daytona Brennan Water Plant [Water year October 1984 to September 1985]												
1	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.00	0.19	2.15
2	.00	.03	.00	.00	.00	.00	.00	.00	.00	.00	.17	.00
3	.00	.07	.00	.70	.00	.00	.00	.00	.00	.00	.60	.00
4	.00	.00	.01	.00	.00	.00	.00	.64	.00	.00	.00	.05
5	.00	.00	.15	.00	.00	.00	.00	.00	.00	.79	3.70	.00
6	.00	.00	.00	.00	.15	.00	.52	.00	.00	.11	.00	.00
7	.00	.00	.00	.00	.11	.00	.14	.00	.00	1.10	3.66	.00
8	.00	.00	.00	.00	.06	.00	.00	.00	.50	.00	.68	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.64	.00
10	.12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.16	.00
11	.05	.00	.00	.00	.12	.00	.00	.00	.00	.70	.50	.00
12	.00	.00	.00	.00	.05	.00	.07	.00	.82	1.00	.00	.00
13	.00	.00	.00	.00	.00	.00	1.40	.00	.92	.00	.00	.50
14	.00	.00	.00	.00	.00	.00	.18	.00	.98	.00	.68	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	1.75	.00	.00	.00
16	.00	.00	.00	.00	.00	.10	.00	.00	.27	1.74	.03	.01
17	.00	.00	.00	.03	.00	.34	.00	.00	.00	.00	.00	1.37
18	.00	.00	.00	.15	.00	.00	.00	.00	.00	.00	1.08	.32
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	.82
20	.00	.00	.00	.00	.00	.00	.00	1.30	.01	.00	.30	1.75
21	.32	.30	.00	.00	.00	1.35	.00	.00	.02	.18	.18	.95
22	.00	1.60	.00	.00	.00	.00	.00	.80	.00	.04	1.15	.00
23	.00	2.00	.00	.00	.00	.00	.00	.80	.00	.11	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.02	.00	.60	.05	.00
25	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.45	.00	.07	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	1.50	.00	.00	.00	.00	.00	.00	.00	1.03	.19
28	.00	.05	.00	.00	.00	.00	.00	.00	.31	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.13	.00	.22	.46
30	.20	.00	.00	.00	---	.00	.35	.00	.00	.00	.00	.27
31	.00	---	.00	.00	---	.00	---	.00	---	1.20	.65	---

APPENDIX I--Daily rainfall--Continued
[Rainfall in inches]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 17--NOAA weather station [Water year October 1982 to September 1983]												
1	1.24	0.21	0.00	0.00	0.00	0.12	0.00	0.00	0.00	0.06	0.00	2.30
2	.00	.17	.00	.25	1.95	.00	.04	.00	.00	.00	.00	1.10
3	.00	.55	.00	.00	.00	.00	.00	.00	.00	.00	.00	.41
4	.00	.03	.00	.00	.00	.00	.00	.22	.18	.00	.36	.00
5	.06	.00	.00	.00	.00	.00	.00	.00	.86	.00	.00	.00
6	.00	.00	.03	.00	.74	.00	.00	.00	.19	.01	.21	.00
7	.00	.10	.72	.00	.00	1.50	1.86	.00	2.24	.00	.35	.00
8	.00	.00	.32	.00	.00	.01	.01	.00	.14	.00	.02	.00
9	.00	.00	.15	.10	.00	.00	.95	.00	.00	.00	2.15	.00
10	.00	.00	.99	.00	.40	.00	.26	.00	.00	.00	.00	.00
11	.08	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00	.00
12	.00	.00	.11	.00	.85	.00	.00	.00	.83	.00	.67	.00
13	.00	.00	.00	.00	1.50	.00	.00	.00	.04	.00	1.04	.00
14	.23	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.56	.06
15	.00	.08	.01	.00	.00	2.48	1.28	.00	.00	.00	.00	.00
16	.00	.02	.14	.00	.36	.00	.00	.00	.00	.00	.01	.03
17	.00	.00	.00	.00	.04	1.54	.00	.00	.00	.00	.00	1.23
18	.00	.00	.00	.00	.00	.02	.63	.00	.00	.00	.00	.25
19	.06	.02	.00	.00	.00	.00	.00	.04	.00	.00	.00	.15
20	.00	.00	.00	1.27	.00	.00	.00	.00	.00	.00	.00	1.13
21	.00	.00	.00	.23	.02	.39	.00	.00	1.26	.00	.00	.09
22	.00	.00	.00	.01	.02	.00	.00	.00	.12	.00	.00	.00
23	1.55	.00	.00	.18	.00	.00	1.14	.00	.40	.00	.00	.00
24	.01	.00	.00	.00	.00	.37	.00	.00	.00	.00	.00	1.68
25	.00	.00	.00	.00	.00	.00	.00	.06	.00	.00	.21	.01
26	.00	.38	.00	.00	.00	.00	.00	.00	.00	.57	.00	.06
27	.00	.01	.06	.47	.01	.48	.00	.00	.00	.00	.00	.00
28	.00	.01	.00	.00	.07	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	2.61	.00	.49	.24	.09
30	.00	.00	.00	.00	---	.00	.00	.93	.01	.04	.00	.00
31	.00	---	.00	.00	---	.80	---	.00	---	.75	.00	---
Site 17--NOAA weather station [Water year October 1983 to September 1984]												
1	0.00	2.01	0.05	0.00	0.00	0.00	0.00	0.00	0.00	1.04	0.06	0.00
2	.00	.14	.00	.00	.02	.00	.00	.00	.00	.71	.00	.00
3	.00	.00	.00	.00	.01	.00	3.08	.00	.00	.48	.00	.00
4	.00	.00	.00	.00	.00	.00	.68	.93	.00	.37	.00	.17
5	.00	.16	.00	.00	.00	.00	.00	.01	.00	.00	.00	1.10
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.57
7	.00	.01	.00	.00	.00	.02	.00	.00	.00	.02	.00	.05
8	.18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01
9	.05	.01	.00	.00	.00	.00	.17	.02	.00	.00	.00	2.49
10	.14	.00	.00	.18	.00	.00	.00	.00	.00	.00	.00	.20
11	1.57	.02	3.65	.00	.00	.00	.00	.00	.08	.00	.26	.00
12	.14	.00	1.57	.00	.27	.12	.00	.00	.24	.00	.91	.00
13	.05	.00	.00	.07	.85	.01	.00	.00	.02	.04	.00	.00
14	.02	.00	.03	.00	.00	.00	1.05	.00	.00	.00	.00	.00
15	2.48	.34	.15	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	1.36	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	2.90	.00	.79	.00	.00	.00	.05	.00	.01	.01	.26	.20
18	.03	.00	.57	.12	.00	.08	.00	.00	.00	.01	.00	.82
19	.00	.00	.07	.26	.00	.00	.00	.00	.00	1.08	.27	.03
20	.00	.63	2.51	.45	.00	.56	.00	.00	.00	.48	.12	.00
21	.12	.00	.61	.30	.30	.00	.00	.00	.03	1.48	.66	.00
22	1.02	.00	.00	.01	1.57	.00	.00	.00	.12	.47	.00	.00
23	.03	.00	.00	.00	.00	.00	.26	4.02	.36	.32	.00	.03
24	.00	.17	.00	.00	.00	.05	.00	.06	.00	.06	.32	.00
25	.00	.00	.00	.07	.00	.00	.00	.00	.55	.00	1.16	.00
26	.00	.00	.00	.00	.00	.10	.00	.77	.00	.00	.00	.00
27	.00	.00	.00	.00	.42	.37	.00	.08	.00	.00	.00	4.06
28	.00	.00	.14	.00	.00	.00	.00	.00	.43	.00	.00	.00
29	.00	.51	1.84	.00	.00	.00	.00	.00	.23	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.13	.77	.18	.00	.00
31	.02	---	.00	.00	---	.00	---	.00	---	.02	.00	---

APPENDIX I--Daily rainfall--Continued
[Rainfall in inches]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 17--NOAA weather station [Water year October 1984 to September 1985]												
1	0.06	0.00	0.00	0.00	0.00	0.00	0.11	0.00	0.00	0.00	1.06	2.35
2	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.25	.00	.64	.01	.00	.00	.00	.00	.00	.65	.00
4	.00	.06	.02	.00	.00	.00	.00	.70	.00	.00	.00	.00
5	.00	.00	.05	.00	.00	.00	.00	.00	.00	.44	.00	.01
6	.00	.00	.00	.00	.18	.00	.51	.00	.00	.02	.00	.47
7	.00	.00	.00	.00	.11	.00	.08	.00	.00	.16	1.17	.00
8	.00	.00	.00	.00	.07	.00	.00	.00	.80	.00	.47	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.55	.00
10	.07	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06	.00
11	.32	.00	.00	.00	.17	.00	.07	.00	.00	.03	.08	.00
12	.00	.00	.00	.00	.03	.00	1.63	.00	.83	.34	.01	.00
13	.00	.00	.00	.00	.00	.00	.39	.00	.45	.00	.06	.47
14	.00	.00	.00	.00	.00	.00	.00	.00	.94	.00	.35	.00
15	.00	.00	.00	.00	.01	.00	.00	.00	1.92	.00	.09	.00
16	.00	.00	.00	.00	.00	.02	.00	.00	.21	.38	.26	.01
17	.00	.00	.00	.02	.00	.28	.00	.00	.00	.00	.15	2.29
18	.00	.00	.00	.13	.00	.00	.00	.00	.00	.00	.28	.16
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.72	.73
20	.00	.00	.00	.00	.00	.00	.00	.97	.02	.00	.80	1.63
21	.35	.21	.00	.00	.00	1.19	.00	.00	.51	.02	.00	1.96
22	.03	1.57	.00	.00	.00	.00	.00	.95	.00	.00	.79	.00
23	.07	1.37	.00	.00	.00	.00	.00	.80	.00	.01	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.05	.33	.22	.00
25	.01	.02	.00	.00	.00	.00	.00	.00	.11	.41	.00	.00
26	.17	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.08	.00	.00	.00	.00	.00	.00	.00	.87	.40
28	.00	.03	.00	.00	.00	.00	.00	.00	.68	.00	.00	.02
29	.00	.00	.00	.00	---	.00	.00	.00	.03	.00	.17	.01
30	.01	.00	.00	.00	---	.00	.35	.00	.26	.00	.26	.11
31	.00	---	.00	.00	---	.00	---	.00	---	.02	.76	---
Site 18--Civil Defense Center [Water year October 1982 to September 1983]												
1	---	---	---	---	---	0.00	0.00	0.00	0.00	0.07	0.00	0.69
2	---	---	---	---	---	.00	.09	.00	.00	.02	.11	.88
3	---	---	---	---	---	.00	.00	.00	.00	.01	.01	.67
4	---	---	---	---	---	.00	.00	.26	.53	.00	.16	.00
5	---	---	---	---	---	.00	.00	.01	.49	.03	.02	.00
6	---	---	---	---	---	.00	.00	.00	.60	.03	.76	.00
7	---	---	---	---	---	1.93	2.09	.00	1.24	.00	.04	.00
8	---	---	---	---	---	.01	.13	.00	.25	.00	.00	.00
9	---	---	---	---	.02	1.38	.00	.00	.00	.33	.00	.00
10	---	---	---	---	---	.00	.00	.00	.01	.00	.57	.00
11	---	---	---	---	---	.00	.00	.01	.00	.00	.00	.00
12	---	---	---	---	---	.00	.00	.00	.00	.00	1.45	.00
13	---	---	---	---	---	.00	.00	.00	1.28	.00	.59	.01
14	---	---	---	---	---	.00	3.00	.00	.05	.00	2.13	.11
15	---	---	---	---	---	1.66	.00	.00	.00	.00	.00	.00
16	---	---	---	---	---	.01	.84	.00	.00	.00	.13	1.98
17	---	---	---	---	---	1.64	.00	.00	.01	.00	.34	.54
18	---	---	---	---	---	.00	.00	.00	.00	.00	.00	.02
19	---	---	---	---	---	.00	.00	.18	.00	.35	.00	.26
20	---	---	---	---	---	.01	.00	.00	.00	.00	.00	.30
21	---	---	---	---	---	.20	.00	.00	2.10	.01	.00	.08
22	---	---	---	---	---	.00	.00	.00	.32	.00	.00	.03
23	---	---	---	---	---	.00	1.59	.00	.81	.00	.00	.00
24	---	---	---	---	---	.38	.00	.00	.01	.00	.00	.92
25	---	---	---	---	---	.00	.00	.37	.00	.00	.23	.49
26	---	---	---	---	---	.00	.00	.00	.00	1.00	.00	.03
27	---	---	---	---	---	.57	.00	.00	.00	.00	.01	.03
28	---	---	---	---	---	.01	.00	.00	.00	.01	.00	.00
29	---	---	---	---	---	.00	.00	.59	1.52	.36	.00	.00
30	---	---	---	---	---	.00	.00	1.02	.21	.08	.00	.01
31	---	---	---	---	---	.92	---	.00	---	1.94	.00	---

APPENDIX I--Daily rainfall--Continued
[Rainfall in inches]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 18--Civil Defense Center [Water year October 1983 to September 1984]												
1	0.00	0.05	0.00	0.00	---	0.00	0.00	0.00	0.00	1.11	0.27	0.00
2	.00	.00	.00	.00	---	.00	.00	.00	.00	.71	.00	.00
3	.00	.01	.00	.00	---	.00	2.85	.00	.00	1.18	.00	.00
4	.00	.00	.06	.00	---	.00	.69	.49	.00	.00	.00	1.28
5	.00	.19	.01	.00	---	.00	.00	.06	.00	.01	.00	1.65
6	.00	.00	.02	.00	---	.00	.00	.00	.00	.00	.00	1.47
7	.00	.05	.00	.00	---	.04	.00	.00	.00	.10	.00	.42
8	.01	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.05
9	.24	.95	.00	.00	.00	.00	.24	.05	.00	.00	.00	2.12
10	.08	.02	.00	.21	.00	.00	.01	.00	.00	.00	.00	.18
11	.29	.05	1.98	.00	.00	.00	.00	.00	.11	.00	.00	.00
12	.02	.00	2.59	.00	.61	.05	.00	.00	.02	.00	1.57	.00
13	.08	.00	.00	.09	1.35	.00	.00	.01	.53	.41	.03	.00
14	.00	.00	.02	---	.01	.00	.96	.00	.01	.00	.00	.00
15	1.38	.53	.15	---	.00	.00	.00	.00	.00	.02	.00	.00
16	2.25	.11	.00	---	.00	.00	.00	.00	.00	.01	.00	.00
17	1.39	.00	.25	---	.00	.00	.00	.00	.13	.00	.06	.32
18	.07	.00	.92	---	.00	.02	.00	.00	.05	.02	.36	1.55
19	.01	.00	.09	---	.00	.00	.00	.00	.01	1.72	.93	.06
20	.00	.87	1.29	---	.00	.56	.00	.00	.00	.46	.22	.11
21	.02	.00	.32	---	.54	.00	.00	.00	.07	.26	.45	.00
22	1.06	.00	.04	---	1.66	.04	.00	.02	.29	.79	.01	.00
23	.02	.00	.00	---	.00	.00	.25	3.84	.26	.08	.00	.02
24	.00	.16	.00	---	.00	.17	.00	.32	.00	.01	.67	.00
25	.01	.00	.00	---	.00	.00	.00	.01	.84	.00	1.79	.00
26	.00	.00	.00	---	.00	.11	.00	.64	.02	.00	.00	.00
27	.01	.00	.00	---	.47	.44	.00	.16	.35	.01	.00	1.84
28	.00	.02	.03	---	.04	.00	.00	.01	.45	.00	.00	.00
29	.01	.48	2.19	---	.00	.00	.00	.03	.21	.00	.00	.00
30	.01	.00	.01	---	---	.00	.00	.01	.54	.78	.18	.00
31	.23	---	.01	---	---	.00	---	.01	---	.80	.00	---
Site 18--Civil Defense Center [Water year October 1984 to September 1985]												
1	0.00	0.00	0.00	0.00	0.00	0.00	0.14	0.00	0.00	0.02	0.73	2.49
2	.00	.02	.00	.00	.01	.00	.01	.00	.00	.00	.00	.00
3	.00	.50	.00	.50	.01	.00	.00	.00	.00	.00	.66	.01
4	.00	.09	.04	.02	.00	.00	.00	.32	.00	.00	.02	.46
5	.00	.00	.13	.00	.00	.00	.00	.00	.00	.63	.00	.05
6	.00	.00	.01	.00	.17	.00	.45	.00	.00	.06	.01	.00
7	.00	.00	.00	.00	.02	.00	.02	.00	.02	.67	2.57	.00
8	.00	.00	.00	.00	.02	.00	.00	.00	.67	.01	.69	.00
9	.00	.00	.00	.00	.00	.00	.02	.00	.00	.00	.38	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.03	.00
11	.01	.00	.00	.00	.19	.00	.00	.00	.01	.42	.02	.00
12	.00	.00	.00	.00	.00	.00	.06	.00	1.39	.76	.02	.00
13	.00	.00	.00	.00	.00	.00	.44	.00	.87	.01	.94	.18
14	.00	.00	.00	.00	.00	.00	.27	.00	.71	.00	1.28	.14
15	.00	.01	.00	.00	.02	.00	.01	.00	.81	.16	.17	.01
16	.00	.00	.00	.00	.00	.10	.01	.00	.07	.17	.00	.05
17	.00	.00	.00	.04	.00	.31	.01	.00	.02	.18	.87	.99
18	.00	.00	.00	.11	.00	.00	.02	.00	.00	.00	1.49	.31
19	.00	.00	.00	.00	.00	.00	.01	.00	.00	.27	2.29	1.20
20	.00	.00	.02	.00	.00	.00	.00	1.41	.00	.01	.10	2.15
21	.00	.09	.00	.00	.00	.43	.00	.00	.02	.03	.00	.58
22	.00	1.39	.00	.00	.00	.05	.00	.78	.00	.14	.03	.00
23	.12	1.89	.00	.00	.00	.00	.00	.67	.01	.05	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.06	.00	.19	.28	.00
25	.00	.02	.00	.00	.00	.00	.00	.00	.00	.21	.00	.00
26	.18	.00	.00	.00	.01	.00	.00	.00	.21	.00	.00	.00
27	.02	.01	.09	.00	.00	.00	.00	.00	.01	.00	.72	.00
28	.00	.04	.00	.00	.00	.00	.00	.00	1.84	.02	.01	.45
29	.00	.00	.02	.00	---	.00	.00	.00	.17	.00	.37	.16
30	1.62	.00	.00	.00	---	.00	.73	.00	.50	.00	.70	.10
31	.01	---	.00	.00	---	.00	---	.00	---	.08	.62	---

APPENDIX I--Daily rainfall--Continued
[Rainfall in inches]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
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Site 19--Port Orange Water Plant
[Water year October 1982 to September 1983]

1	0.75	0.00	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.00	0.14	0.40
2	1.50	.00	.00	.00	1.10	.06	.00	.00	.00	.00	.00	1.10
3	.00	.00	.00	.00	.06	.00	.01	.00	.00	.70	.00	.43
4	.00	.30	.00	.01	.06	.00	.00	.00	.00	.00	.00	.16
5	.00	.10	.00	.00	.00	.00	.00	.00	.10	.00	.75	.00
6	.10	.00	.00	.00	.50	.00	.00	.00	.85	.00	.00	.00
7	.00	.00	1.50	.00	.73	1.10	.00	.00	.14	.20	.21	.00
8	.00	.30	.60	.00	.00	.50	.87	.00	1.27	.31	.30	.00
9	.00	.00	.10	.00	.00	.00	.00	.00	.05	.00	.20	.00
10	.00	.00	.60	.17	.00	.01	.00	.00	.00	.00	1.00	.00
11	.00	.00	.30	.01	.00	.00	.01	.00	.00	.00	1.75	.00
12	.20	.00	.02	.00	.00	.00	.00	.90	.00	.00	.00	.00
13	.00	.00	.03	.00	2.50	.00	.00	.32	.07	.00	.64	.00
14	.00	.00	.00	.00	.33	.00	.00	.00	.26	.00	.20	.00
15	.50	.10	.01	.00	.00	.05	.00	.00	.00	.00	1.82	.11
16	.00	.00	.00	.00	.00	2.65	2.10	.00	.00	.00	.00	.00
17	.00	.00	.20	.00	.47	.70	.00	.00	.00	.00	.50	.00
18	.00	.00	.00	.00	.01	.10	.00	.00	.00	.00	.00	1.91
19	.00	.00	.00	.00	.00	.00	.50	.06	.00	.00	.00	.16
20	.00	.00	.00	.42	.00	.00	.01	.01	.00	.90	.00	.40
21	.00	.00	.00	1.16	.00	.82	.00	.00	.02	.00	.00	.30
22	.20	.00	.00	.00	.20	.00	.00	.00	1.40	.00	.00	.12
23	.30	.00	.00	.50	.00	.00	.10	.00	.15	.00	.00	.00
24	1.50	.00	.00	.02	.00	.51	1.92	.00	.52	.00	.00	.00
25	.00	.00	.01	.00	.00	.01	.00	.00	.00	.00	.50	.97
26	.00	.00	.00	.00	.00	.00	.00	.45	.10	.00	1.30	.05
27	.00	.50	.05	.00	.00	.50	.00	.16	.00	.82	.00	.00
28	.00	.00	.00	.00	.07	.45	.00	.00	.00	.25	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.35	.20	.01
30	.00	.00	.00	.00	---	.00	.00	1.68	.00	.12	.00	.20
31	.00	---	.00	.00	---	.72	---	.75	---	.32	.00	---

Site 19--Port Orange Water Plant
[Water year October 1983 to September 1984]

1	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.30	0.07	0.00
2	.00	.04	.00	.00	.00	.00	.00	.00	.00	.40	.60	.00
3	.00	.00	.00	.00	.03	.00	.00	.00	.00	.33	.00	.00
4	.00	.00	.00	.00	.00	.00	.98	.00	.00	.60	.00	.00
5	.00	.10	.00	.00	.00	.00	.10	.96	.00	.04	.00	.18
6	.00	.09	.07	.00	.00	.00	.00	.06	.00	.00	.00	.52
7	.00	.00	.17	.00	.00	.10	.00	.00	.00	.00	.00	1.63
8	.00	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10
9	1.03	.00	.00	.00	.00	.00	.06	.10	.00	.00	.00	.70
10	.19	.00	.00	.15	.00	.00	.26	.00	.00	.00	.00	2.32
11	.03	.00	.00	.07	.00	.00	.00	.00	.15	.00	.00	.00
12	2.35	.00	4.30	.00	.00	.00	.00	.00	.07	.00	.60	.10
13	.12	.00	.00	.10	.36	.19	.04	.00	.16	.16	.17	.00
14	.15	.00	.00	.02	1.10	.00	.00	.00	.03	.08	.00	.00
15	.65	.00	.30	.01	.00	.00	.86	.00	.00	.00	.00	.00
16	4.10	.50	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	1.11	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.96	.03	.00	.07	.02	.00	.00	.03	.24	.01
19	.48	.00	.06	.34	.00	.00	.00	.00	.38	.00	.91	1.15
20	.00	.00	.45	.00	.00	.00	.00	.00	.00	.85	1.09	.40
21	.00	.90	.98	1.06	.06	.60	.00	.00	.00	.64	.50	.00
22	1.12	.00	1.00	.00	.88	.00	.00	.00	.02	.41	.99	.00
23	.08	.00	.00	.03	2.05	.00	.00	1.92	.10	.46	.00	.00
24	.00	.00	.00	.00	.00	.10	.06	1.86	1.00	.25	.18	.04
25	.00	.15	.00	.00	.00	.00	.00	.06	.00	.00	1.61	.00
26	.00	.00	.00	.00	.00	.06	.00	.61	1.60	.00	.00	.00
27	.00	.00	.00	.00	.08	.27	.00	.38	.00	.00	.00	.00
28	.00	.00	.00	.00	.37	.25	.00	.00	.00	.04	.00	3.40
29	.00	.38	.40	.00	.02	.00	.00	.00	.45	.00	.00	.00
30	.00	.02	1.80	.00	---	.00	.00	1.20	.55	.00	.00	.00
31	.16	---	.01	.00	---	.00	---	.00	---	.43	.00	---

APPENDIX I--Daily rainfall--Continued
[Rainfall in inches]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 19--Port Orange Water Plant [Water year October 1984 to September 1985]												
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.25	0.42	1.57
2	.00	.00	.01	.00	.00	.00	.10	.00	.00	.00	.32	1.09
3	.00	.23	.02	.00	.01	.01	.00	.00	.00	.00	.33	.00
4	.00	.24	.01	1.06	.00	.01	.00	.25	.00	.00	.88	.00
5	.00	.01	.02	.00	.00	.00	.00	.30	.00	.00	.00	.10
6	.00	.00	.02	.00	.00	.00	.00	.00	.00	.90	.00	.01
7	.00	.00	.00	.00	.14	.07	.82	.00	.00	.00	.24	.00
8	.03	.00	.00	.00	.15	.00	.00	.00	.00	.23	.77	.00
9	.01	.00	.00	.00	.00	.00	.00	.00	.11	.00	.55	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.31	.00
11	.55	.00	.00	.00	.00	.00	.00	.00	.00	.00	.02	.00
12	.00	.00	.00	.00	.22	.00	.00	.00	.00	.08	.39	.00
13	.00	.00	.00	.00	.00	.00	1.15	.00	1.68	.40	.50	.00
14	.00	.00	.00	.00	.00	.00	.55	.00	1.20	.00	.73	.23
15	.00	.00	.00	.01	.03	.00	.09	.00	2.57	.00	.92	.04
16	.00	.00	.01	.00	.00	.00	.00	.00	.03	.00	.10	.00
17	.00	.00	.01	.00	.00	.20	.00	.00	.06	.02	.45	2.50
18	.00	.00	.02	.04	.00	.12	.00	.10	.00	.01	.01	.15
19	.00	.00	.00	.15	.00	.00	.00	.00	.00	.00	.07	.62
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.74	1.80
21	.00	.00	.00	.00	.00	.01	.00	2.70	.01	.00	3.13	3.60
22	.42	.65	.10	.00	.00	.96	.01	.00	.01	.00	.00	.00
23	.20	2.40	.00	.00	.00	.00	.00	.78	.01	.02	.40	.00
24	.04	1.16	.01	.00	.00	.00	.00	.23	.00	.22	.00	.00
00	.00	.02	.00	.00	.00	.00	.00	.16	.28	.14	.49	.00
26	.28	.00	.00	.00	.00	.00	.00	.00	.00	.23	.01	.00
27	.62	.00	.05	.00	.00	.00	.00	.00	.04	.00	.75	.00
28	.00	.03	.03	.02	.00	.00	.00	.00	.00	.00	.27	3.25
29	.00	.04	.00	.01	---	.00	.01	.00	.67	.02	.10	.18
30	.00	.00	.01	.01	---	.00	.16	.00	.15	.00	.15	.23
31	.00	---	.00	.01	---	.00	---	.00	---	.00	.18	---
Site 20--Volusia County Landfill [Water year October 1982 to September 1983]												
1	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09	0.03	0.29
2	.80	.00	.00	.00	2.50	.00	.03	.00	.00	.00	.00	2.87
3	.00	.40	.00	.00	.00	.00	.00	.00	.00	.00	.00	.49
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.40	.00	.00	.28	.00
6	.20	.00	.00	.00	1.50	.00	.00	.00	.83	.00	.40	.00
7	.00	.00	.50	.00	.00	1.40	1.17	.00	.28	.00	.15	.00
8	.00	.00	.50	.00	.00	.00	.00	.00	1.22	.00	.02	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.06	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	1.60	.00	.00	.00	.64	.00
11	.00	.00	.00	.00	.50	.00	.00	.00	.00	.00	.05	.00
12	.70	.00	.50	.00	.00	.00	.00	.00	.00	.00	.10	.00
13	.00	.00	.20	.00	2.00	.00	.00	.00	.58	.00	.37	.00
14	4.00	.00	.00	.00	.70	.00	.00	.00	.00	.00	4.47	.00
15	.00	.30	.00	.00	.00	.00	2.20	.00	.00	.00	.00	.06
16	.00	.00	.00	.00	.00	2.35	.00	.00	.00	.00	.70	.00
17	.00	.00	.00	.00	.00	1.41	.00	.00	.00	.00	.10	.30
18	.00	.00	.00	.00	.00	.21	.65	.00	.00	.00	.00	1.35
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.26	.00	.00
20	.00	.00	.00	.30	.00	.00	.00	.16	.00	.00	.00	.70
21	.00	.00	.00	1.40	.00	.80	.00	.00	.00	2.80	.00	.60
22	.00	.00	.00	.00	.00	.00	.00	.00	1.78	.00	.00	.22
23	.00	.00	.00	.00	.00	.00	.00	.00	.58	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.10	.00	.95	.00	.00	1.15
25	.00	.00	.00	.00	.00	.55	.00	.00	.03	.00	.00	.03
26	.00	.00	.00	.00	.00	.00	.00	.10	.00	.00	.20	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.75	.00	.03
28	.00	.00	.00	.00	.00	.63	.00	.00	.00	.43	.26	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.15	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.42	.22	.00
31	.00	---	.00	.00	---	.73	---	2.40	---	.61	.00	---

APPENDIX I--Daily rainfall--Continued
[Rainfall in inches]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 20--Volusia County Landfill [Water year October 1983 to September 1984]												
1	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.02	0.10	0.00
2	.00	.14	.00	.00	.00	.00	.00	.00	.00	.43	.00	.00
3	.00	.00	.00	.00	.06	.00	.00	.00	.00	.70	.00	.00
4	.00	.00	.00	.00	.00	.00	3.80	.00	.00	.08	.00	.00
5	.00	.18	.06	.00	.00	.00	.00	.95	.00	.00	.00	.52
6	.00	.00	.00	.00	.00	.00	.00	.08	.00	.00	.00	.42
7	.00	.04	.00	.00	.00	.11	.00	.00	.00	.00	.00	.78
8	1.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.84
9	.21	.00	.00	.00	.00	.00	.30	.00	.00	.00	.00	2.11
10	.00	.02	.00	.21	.00	.00	.00	.00	.00	.00	.00	.00
11	.05	.00	.00	.02	.00	.00	.00	.00	.00	.00	.26	.00
12	2.45	.00	5.22	.00	.00	.10	.00	.00	.18	.00	.20	.00
13	.30	.00	.00	.00	.50	.00	1.10	.00	.25	.00	.00	.00
14	.00	.00	.00	.00	1.29	.00	.00	.00	.00	.05	.00	.00
15	.67	.00	.28	.02	.00	.00	.00	.00	.00	.44	.00	.00
16	2.32	.56	.08	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	1.75	.00	.00	.00	.00	.04	.02	.00	.00	.08	.00	.00
18	.03	.00	1.10	.00	.00	.00	.00	.00	.30	.00	1.10	.12
19	.00	.00	.00	.33	.00	.00	.00	.00	.00	.40	.56	1.58
20	.00	1.10	.43	.00	.00	.50	.00	.00	.00	.00	.90	.00
21	.00	.00	2.48	1.22	.00	.00	.00	.00	.00	1.30	1.46	.00
22	1.42	.00	.05	.08	1.05	.00	.00	.00	.00	.55	.00	.78
23	.70	.00	.00	.00	1.97	.00	.06	4.08	1.06	1.00	.00	.07
24	.00	.00	.00	.00	.00	.21	.00	.17	.00	.00	.20	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.83	.00
26	.00	.00	.00	.00	.00	.00	.00	.97	1.58	.00	.00	.00
27	.00	.00	.00	.00	.20	.00	.00	.10	.36	.00	.00	.00
28	.00	.00	.23	.00	.36	.44	.00	.00	.00	.00	.00	4.30
29	.00	.67	2.17	.00	.00	.04	.00	.05	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	1.38	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
Site 20--Volusia County Landfill [Water year October 1984 to September 1985]												
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.10	2.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.00	.00
3	.00	.00	.00	.40	.00	.00	.00	.00	.00	.00	2.20	.20
4	.00	.00	.00	.40	.20	.00	.00	.00	.00	.50	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.70	.00	.15	.00	.00
6	.00	.00	.00	.00	.00	1.00	.00	.00	.00	.00	2.20	.20
7	.00	.00	.00	.00	.00	.10	.00	.00	.00	.50	2.30	.00
8	.17	.00	.00	.00	.24	.00	.00	.00	.85	.00	.60	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.20	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.10	.00
11	.00	.00	.00	.00	.20	.00	.00	.00	.00	.00	.00	.00
12	.48	.00	.00	.00	.00	.00	.00	.00	.00	.00	.90	.05
13	.00	.00	.00	.00	.00	.00	1.50	.00	2.00	.00	1.50	.12
14	.00	.00	.00	.00	.00	.00	1.00	.00	2.00	.00	1.50	.10
15	.00	.00	.05	.00	.00	.00	.00	.00	2.20	.60	.10	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.52
17	.00	.00	.00	.00	.00	.27	.00	.00	.00	.00	.00	.20
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.30	.70	.60
19	.00	.00	.00	.19	.00	.00	.00	.00	.00	.00	1.25	1.78
20	.00	.00	.00	.00	.00	.00	.00	1.00	.00	.00	.55	2.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.50
22	.78	.55	.00	.00	.00	.00	.00	.00	.25	.20	1.00	.00
23	.18	1.55	.00	.00	.00	.00	.00	1.00	.00	.00	.00	.00
24	.00	1.60	.00	.00	.00	.00	.00	1.00	.00	.00	.00	.00
25	.00	.40	.00	.00	.00	.00	.00	.00	.00	.00	.40	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.15	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.75	1.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.40	.20	.55
29	.00	.08	.00	.00	---	.00	.00	.00	1.00	.00	.00	.00
30	.51	.00	.00	.00	---	.00	.00	.00	.65	.00	.45	.35
31	.00	---	.00	.00	---	.00	---	.00	---	.00	1.30	---

Appendix II

APPENDIX II--Daily stage
[Mean values in feet above sea level]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 9--Tomoka River near Daytona Beach [Water year October 1982 to September 1983]												
1	---	---	19.16	18.73	19.17	20.41	20.79	20.71	19.09	20.16	18.47	18.87
2	---	---	19.13	18.74	19.86	20.34	20.74	20.61	18.86	20.07	18.42	19.05
3	---	---	19.10	18.78	20.72	20.23	20.66	20.51	18.86	19.96	18.30	19.35
4	---	---	19.07	18.77	20.58	20.13	20.55	20.43	18.79	19.80	18.27	19.66
5	---	---	19.03	18.76	20.35	20.04	20.46	20.37	18.88	19.64	18.27	19.48
6	---	---	19.00	18.74	20.33	19.96	20.38	20.27	19.06	19.53	18.52	18.67
7	---	---	18.98	18.71	20.63	20.08	20.33	20.15	19.38	19.41	18.57	19.02
8	---	---	18.99	18.70	20.62	20.54	20.91	20.03	20.33	19.31	18.58	19.27
9	---	---	18.99	18.69	20.54	20.55	21.01	19.91	20.30	19.22	18.70	19.75
10	---	---	19.09	18.69	20.50	20.42	21.40	19.81	20.10	19.12	18.58	20.56
11	---	---	19.17	18.68	20.59	20.29	21.37	19.71	19.90	19.01	18.56	20.40
12	---	---	19.20	18.66	20.60	20.21	21.18	19.63	19.68	18.90	18.72	20.14
13	---	---	19.20	18.63	21.36	20.16	21.05	19.54	19.54	18.81	19.18	20.19
14	---	---	19.16	18.61	21.82	20.11	20.96	19.45	19.50	18.74	20.18	20.93
15	---	---	19.13	18.60	21.63	20.13	21.23	19.37	19.41	18.68	20.00	21.61
16	---	---	19.11	18.58	21.47	21.19	22.08	19.30	19.32	18.62	19.83	21.55
17	---	---	19.11	18.57	21.50	21.72	21.89	19.23	19.23	18.57	19.70	21.32
18	---	---	19.06	18.55	21.45	21.74	21.67	19.17	19.15	18.51	19.48	21.07
19	---	19.62	19.02	18.53	21.34	21.49	21.63	19.11	19.08	18.46	19.36	20.86
20	---	19.60	18.99	18.75	21.23	21.22	21.52	19.05	19.02	18.41	19.39	21.28
21	---	19.55	18.95	19.20	21.13	21.18	21.36	18.97	19.06	18.37	19.39	21.24
22	---	19.49	18.91	19.23	21.05	21.16	21.20	18.90	19.72	18.36	19.35	21.04
23	---	19.44	18.88	19.26	20.97	21.01	21.19	18.83	19.94	18.30	19.28	20.86
24	---	19.38	18.87	19.27	20.87	20.93	21.60	18.77	20.41	18.25	19.22	20.70
25	---	19.33	18.85	19.22	20.77	20.91	21.49	18.71	20.51	18.18	19.20	20.62
26	---	19.31	18.83	19.16	20.66	20.80	21.28	18.70	20.31	18.13	19.13	---
27	---	19.31	18.82	19.14	20.56	20.72	21.10	18.66	20.09	18.18	19.04	---
28	---	19.28	18.81	19.28	20.48	20.75	20.98	18.60	19.93	18.12	18.97	---
29	---	19.24	18.78	19.31	---	20.69	20.91	18.64	19.83	18.19	18.88	---
30	---	19.20	18.76	19.29	---	20.59	20.82	18.90	20.07	18.23	18.80	---
31	---	---	18.75	19.23	---	20.68	---	19.23	---	18.37	18.78	---
MAX	---	---	19.20	19.31	21.82	21.74	22.08	20.71	20.51	20.16	20.18	---
MIN	---	---	18.75	18.53	19.17	19.96	20.33	18.60	18.79	18.12	18.27	---
Site 9--Tomoka River near Daytona Beach [Water year October 1983 to September 1984]												
1	---	20.23	19.65	21.62	20.22	20.80	19.15	19.31	19.87	19.94	19.58	20.05
2	---	20.19	19.69	21.49	20.18	20.70	19.10	19.24	19.74	20.51	19.65	19.91
3	---	20.14	19.64	21.39	20.14	20.63	19.12	19.16	19.61	20.72	19.61	19.74
4	---	20.08	19.55	21.31	20.09	20.57	20.86	19.11	19.48	20.94	19.50	19.59
5	---	20.02	19.48	21.23	20.03	20.51	21.16	19.24	19.35	20.81	19.39	19.72
6	---	19.97	19.45	21.14	19.95	20.45	21.00	19.18	19.23	20.50	19.31	20.54
7	---	19.91	19.42	21.07	19.86	20.39	20.84	19.11	19.13	20.17	19.26	21.25
8	---	19.86	19.35	21.01	19.79	20.31	20.70	19.04	19.04	19.89	19.24	21.35
9	---	19.83	19.29	20.94	19.75	20.22	20.60	18.98	18.96	19.67	19.21	21.47
10	---	19.86	19.24	20.90	19.69	20.16	20.57	18.92	18.89	19.61	19.17	22.06
11	---	19.84	19.25	20.89	19.63	20.10	20.52	18.86	18.83	19.73	19.13	22.01
12	---	19.77	21.56	20.83	19.59	20.00	20.45	18.81	18.78	19.79	19.10	21.79
13	---	19.70	21.86	20.75	19.85	19.93	20.37	18.77	18.76	19.81	19.15	21.57
14	---	19.65	21.56	20.67	20.49	19.85	20.31	18.73	18.74	19.91	19.17	21.39
15	---	19.63	21.35	20.61	20.50	19.74	20.46	18.69	18.70	19.94	19.14	21.22
16	---	19.75	21.25	20.56	20.38	19.65	20.47	18.65	18.67	19.90	19.07	21.08
17	---	19.80	21.21	20.50	20.29	19.56	20.38	18.59	18.65	19.81	19.00	21.03
18	---	19.77	21.48	20.46	20.24	19.49	20.27	18.52	18.62	19.70	18.94	21.01
19	---	19.71	21.62	20.47	20.20	19.41	20.17	18.45	18.58	19.65	18.96	21.30
20	---	19.68	21.79	20.47	20.17	19.36	20.11	18.39	18.53	19.88	19.14	21.32
21	---	19.82	22.43	20.70	20.16	19.44	20.07	18.35	18.45	19.99	19.26	21.22
22	---	19.85	22.27	20.85	20.74	19.41	20.03	18.30	18.38	20.06	19.56	21.09
23	---	19.80	21.98	20.77	21.49	19.34	19.99	19.54	18.42	20.17	19.73	20.97
24	---	19.74	21.77	20.66	21.34	19.29	19.96	20.38	18.67	20.17	19.72	20.87
25	---	19.78	21.57	20.59	21.12	19.26	19.87	20.41	19.15	20.07	19.76	20.79
26	---	19.68	21.42	20.54	20.96	19.22	19.77	20.31	19.48	19.93	20.58	20.70
27	20.59	19.59	21.30	20.50	20.88	19.23	19.68	20.38	19.43	19.78	20.66	20.79
28	20.52	19.52	21.22	20.45	20.95	19.31	19.58	20.34	19.37	19.63	20.51	22.14
29	20.43	19.53	21.40	20.39	20.91	19.29	19.49	20.13	19.33	19.48	20.37	22.16
30	20.35	19.63	21.91	20.34	---	19.24	19.40	19.99	19.41	19.37	20.26	21.96
31	20.29	---	21.79	20.28	---	19.19	---	19.96	---	19.43	20.17	---
MAX	---	20.23	22.43	21.62	21.49	20.80	21.16	20.41	19.87	20.94	20.66	22.16
MIN	---	19.52	19.24	20.28	19.59	19.19	19.10	18.30	18.38	19.37	18.94	19.59

APPENDIX II--Daily stage--Continued
[Mean values in feet above sea level]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 9--Tomoka River near Daytona Beach [Water year October 1984 to September 1985]												
1	21.77	19.64	20.00	18.81	18.56	18.39	17.81	17.84	18.10	19.17	18.75	21.87
2	21.60	19.55	19.95	18.79	18.55	18.38	17.81	17.81	17.97	19.05	19.00	22.30
3	21.47	19.51	19.92	18.90	18.55	18.35	17.81	17.81	17.87	19.04	19.46	22.08
4	21.36	19.52	19.88	19.25	18.54	18.33	17.81	18.19	17.81	18.91	19.76	21.86
5	21.27	19.50	19.85	19.24	18.52	18.31	17.81	18.74	17.81	18.77	19.92	21.69
6	21.18	19.46	19.83	19.11	18.54	18.27	17.83	18.75	17.81	18.78	19.82	21.55
7	21.09	19.39	19.78	19.04	18.54	18.23	17.81	18.63	17.81	18.73	19.89	21.49
8	21.02	19.30	19.72	18.99	18.55	18.18	17.81	18.56	17.94	18.81	20.88	21.44
9	20.95	19.22	19.67	18.93	18.53	18.13	17.81	18.49	18.47	18.74	21.25	21.35
10	20.89	19.14	19.61	18.89	18.51	18.08	17.81	18.42	18.33	18.91	21.31	21.25
11	20.86	19.08	19.56	18.86	18.58	18.03	17.80	18.38	18.24	18.99	21.05	21.16
12	20.83	19.02	19.51	18.82	18.72	17.98	17.80	18.33	18.25	18.91	20.68	21.08
13	20.77	18.96	19.46	18.78	18.69	17.93	18.19	18.26	18.70	19.09	20.61	21.00
14	20.70	18.90	19.42	18.75	18.63	17.88	18.61	18.19	19.40	19.07	21.05	20.95
15	20.62	18.86	19.39	18.72	18.60	17.84	18.64	18.10	19.76	18.95	21.59	20.89
16	20.55	18.82	19.36	18.69	18.56	17.82	18.58	17.99	20.07	18.89	21.52	20.81
17	20.48	18.78	19.32	18.68	18.53	17.90	18.53	17.89	19.98	18.99	21.33	20.96
18	20.41	18.76	19.29	18.68	18.51	17.86	18.48	17.83	19.76	18.90	21.20	21.11
19	20.34	18.73	19.28	18.68	18.49	17.82	18.44	17.82	19.52	18.81	21.53	21.11
20	20.27	18.71	19.26	18.67	18.48	17.81	18.40	17.86	19.31	18.75	21.81	21.78
21	20.23	18.71	19.22	18.65	18.47	17.90	18.35	18.08	19.15	18.68	21.75	22.36
22	20.25	18.97	19.16	18.63	18.46	18.29	18.30	18.04	19.02	18.63	21.69	22.23
23	20.20	19.94	19.07	18.62	18.45	18.26	18.23	18.44	19.07	18.63	21.82	21.97
24	20.14	20.86	18.99	18.61	18.44	18.31	18.17	18.65	19.20	18.64	21.68	21.77
25	20.06	20.83	18.95	18.61	18.43	18.25	18.09	18.69	19.18	18.69	21.56	21.62
26	19.99	20.61	18.92	18.60	18.42	18.19	18.01	18.58	18.83	18.85	21.42	21.50
27	20.03	20.42	18.90	18.58	18.41	18.12	17.91	18.48	18.62	18.87	21.36	21.39
28	20.00	20.28	18.89	18.58	18.40	18.05	17.84	18.41	18.66	18.84	21.42	21.35
29	19.92	20.17	18.87	18.58	---	17.98	17.81	18.35	19.16	18.71	21.36	21.36
30	19.83	20.07	18.85	18.56	---	17.90	17.88	18.27	19.25	18.61	21.30	21.34
31	19.73	---	18.82	18.56	---	17.84	---	18.20	---	18.66	21.35	---
MAX	21.77	20.86	20.00	19.25	18.72	18.39	18.64	18.75	20.07	19.17	21.82	22.36
MIN	19.73	18.71	18.82	18.56	18.40	17.81	17.80	17.81	17.81	18.61	18.75	20.81
Site 10--B-19 Canal near Daytona Beach [Water year October 1982 to September 1983]												
1	---	---	---	21.39	21.41	21.48	21.95	22.07	21.23	21.11	21.32	21.16
2	---	---	---	21.39	22.11	21.43	21.88	22.03	21.03	21.10	21.23	21.66
3	---	---	---	21.41	22.38	21.41	21.81	22.00	20.93	21.10	21.20	21.63
4	---	---	---	21.38	22.01	21.40	21.74	22.02	20.90	21.09	21.29	21.39
5	---	---	---	21.37	21.78	21.40	21.69	22.00	21.01	21.09	21.31	21.22
6	---	---	21.38	21.36	21.86	21.39	21.66	21.96	21.16	21.09	21.28	21.13
7	---	---	21.57	21.36	22.04	21.69	21.69	21.93	21.41	21.08	21.31	21.09
8	---	---	21.55	21.36	21.86	21.95	22.13	21.91	22.52	21.09	21.32	21.04
9	---	---	21.49	21.36	21.72	21.78	22.23	21.90	22.31	21.08	21.50	21.02
10	---	---	21.61	21.37	21.70	21.63	22.96	21.89	21.92	21.07	21.80	21.01
11	---	---	21.63	21.35	21.77	21.55	22.86	21.90	21.61	21.07	21.54	21.00
12	---	---	21.58	21.34	21.78	21.51	22.58	21.93	21.37	21.07	21.65	20.99
13	---	---	21.53	21.33	23.14	21.48	22.32	21.92	21.28	21.06	21.63	20.99
14	---	---	21.49	21.33	23.48	21.47	22.15	21.91	21.22	21.07	22.23	21.00
15	---	---	21.48	21.32	22.87	21.67	22.75	21.89	21.14	21.07	22.28	21.00
16	---	---	21.50	21.31	22.50	23.82	24.16	21.63	21.05	21.06	21.62	21.00
17	---	---	21.49	21.31	22.39	24.30	23.74	21.24	21.00	21.06	21.38	21.10
18	---	---	21.46	21.30	22.17	24.03	23.21	21.10	20.98	21.06	21.24	21.14
19	---	---	21.45	21.29	21.99	23.26	23.12	20.98	21.02	21.08	21.12	21.13
20	---	---	21.44	21.44	21.83	22.69	22.78	20.94	21.03	21.08	21.06	21.28
21	---	---	21.43	21.52	21.72	22.74	22.45	20.91	21.14	21.08	21.00	21.22
22	---	---	21.41	21.43	21.66	22.50	22.21	20.90	21.56	21.06	20.96	21.17
23	---	---	21.42	21.43	21.61	22.20	22.46	20.89	21.52	21.09	20.94	21.12
24	---	---	21.42	21.42	21.56	22.18	23.49	20.87	21.63	21.10	20.92	21.10
25	---	---	21.41	21.40	21.53	22.03	23.17	20.86	21.55	21.09	20.94	21.51
26	---	---	21.40	21.39	21.50	21.85	22.75	20.86	21.41	21.13	20.94	21.28
27	---	---	21.40	21.45	21.48	21.85	22.42	20.83	21.29	21.15	20.92	21.20
28	---	---	21.39	21.50	21.48	21.93	22.21	20.80	21.21	21.13	20.91	21.14
29	---	---	21.38	21.44	---	21.79	22.12	21.02	21.15	21.17	20.93	21.11
30	---	---	21.37	21.43	---	21.70	22.09	21.34	21.13	21.17	20.91	21.09
31	---	---	21.38	21.42	---	21.94	---	21.42	---	21.34	20.89	---
MAX	---	---	---	21.52	23.48	24.30	24.16	22.07	22.52	21.34	22.28	21.66
MIN	---	---	---	21.29	21.41	21.39	21.66	20.80	20.90	21.06	20.89	20.99

APPENDIX II--Daily stage--Continued
[Mean values in feet above sea level]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 10--B-19 Canal near Daytona Beach [Water year October 1983 to September 1984]												
1	21.06	21.09	---	21.42	20.85	20.98	20.95	21.42	21.48	21.47	21.52	20.96
2	21.06	21.07	---	21.27	20.83	20.96	20.96	21.39	21.45	21.56	21.51	20.87
3	21.05	21.05	---	21.18	20.82	20.94	21.05	21.43	21.43	21.69	21.48	20.84
4	21.06	21.05	---	21.12	20.80	20.93	22.18	21.52	21.41	21.75	21.46	20.83
5	21.06	21.06	---	21.07	20.77	20.92	21.68	21.67	21.38	21.60	21.44	20.94
6	21.06	21.06	---	21.04	20.77	20.91	21.42	21.59	21.36	21.49	21.44	21.28
7	21.07	21.06	---	21.01	20.80	20.91	21.30	21.56	21.35	21.44	21.39	21.82
8	21.07	21.05	---	20.98	20.79	20.90	21.26	21.54	21.31	21.39	21.33	21.52
9	21.16	21.05	---	20.96	20.79	20.89	21.26	21.52	21.29	21.35	21.27	22.03
10	21.19	21.05	---	20.97	20.78	20.89	21.26	21.51	21.28	21.33	21.13	23.92
11	21.57	21.05	---	20.96	20.77	20.88	21.23	21.50	21.28	21.31	21.14	23.37
12	21.78	21.03	---	20.93	20.78	20.88	21.21	21.49	21.28	21.37	21.25	22.46
13	21.53	21.01	---	20.92	20.88	20.89	21.22	21.48	21.31	21.30	21.27	21.89
14	21.40	21.00	---	20.91	20.90	20.89	21.24	21.48	21.27	21.29	21.20	21.48
15	21.42	20.99	---	20.90	20.85	20.88	21.39	---	21.23	21.28	21.15	21.19
16	23.02	21.15	---	20.89	20.84	20.87	21.31	---	21.21	21.21	20.94	21.09
17	23.97	21.22	---	20.87	20.84	20.87	21.28	---	21.21	21.31	20.66	21.05
18	23.68	20.98	---	20.88	20.83	20.88	21.27	---	21.22	21.28	20.59	21.18
19	22.56	20.96	---	20.92	20.81	20.88	21.29	---	21.20	21.38	20.79	21.54
20	21.95	21.03	---	20.94	20.81	20.90	21.29	---	21.18	21.46	20.87	21.36
21	21.63	21.06	24.58	21.15	20.85	20.96	21.30	---	21.17	21.74	20.96	21.18
22	22.12	21.02	23.47	21.06	21.53	20.90	21.31	---	21.17	21.76	21.12	21.04
23	22.00	21.06	22.21	21.00	21.75	20.89	21.33	---	21.21	21.79	20.91	20.98
24	21.68	21.00	21.63	20.96	21.27	20.91	21.30	---	21.22	21.70	20.81	20.97
25	21.45	21.02	21.36	20.95	21.12	20.92	21.36	---	21.25	21.62	21.32	20.90
26	21.36	---	21.23	20.94	21.03	20.92	21.37	---	21.34	21.57	22.32	20.87
27	21.23	---	21.17	20.91	21.04	20.99	21.38	---	21.22	21.54	21.71	21.31
28	21.16	---	21.13	20.89	21.09	20.98	21.39	---	21.26	21.52	21.35	24.29
29	21.11	---	21.83	20.87	20.98	20.93	21.41	---	21.32	21.50	21.30	23.66
30	21.10	---	22.35	20.86	---	20.94	21.42	---	21.44	21.49	21.24	22.67
31	21.09	---	21.72	20.85	---	20.94	---	21.53	---	21.52	21.19	---
MAX	23.97	---	---	21.42	21.75	20.99	22.18	---	21.48	21.79	22.32	24.29
MIN	21.05	---	---	20.85	20.77	20.87	20.95	---	21.17	21.21	20.59	20.83
Site 10--B-19 Canal near Daytona Beach [Water year October 1984 to September 1985]												
1	22.02	20.80	21.02	20.82	---	20.67	20.92	20.82	20.88	21.30	20.95	23.39
2	21.59	20.80	21.00	20.80	---	20.67	20.94	20.78	20.85	21.22	21.10	24.66
3	21.38	20.83	21.00	20.88	---	20.67	20.93	20.76	20.84	21.16	21.09	24.28
4	21.25	20.85	20.97	20.91	---	20.66	20.92	20.86	20.83	21.12	21.31	23.44
5	21.16	20.82	20.96	20.82	---	20.66	20.92	20.86	20.83	21.08	21.14	22.63
6	21.06	20.78	20.97	20.80	---	20.66	20.92	20.79	20.82	21.19	21.05	22.24
7	20.97	20.75	20.93	20.80	20.71	20.66	20.72	20.78	20.82	21.09	21.08	22.15
8	20.95	20.73	20.91	20.79	20.72	20.65	20.67	20.78	20.84	21.05	21.52	21.96
9	20.93	20.72	20.90	20.78	20.69	20.65	20.65	20.77	21.02	21.02	21.99	21.80
10	20.91	20.71	20.88	20.77	20.68	20.66	20.64	20.76	20.95	21.00	22.36	21.66
11	20.97	20.71	20.87	20.76	20.70	20.66	20.63	20.75	20.93	20.98	22.17	21.52
12	20.95	20.71	20.86	20.75	20.71	20.66	20.64	20.75	20.95	21.00	22.04	21.45
13	20.90	20.69	20.85	20.75	20.68	20.66	20.94	20.74	21.11	21.02	22.26	21.42
14	20.89	20.69	20.85	20.74	20.67	20.65	21.10	20.75	21.66	20.97	22.74	21.40
15	20.87	20.69	20.84	20.74	20.67	20.66	21.09	20.74	22.63	20.95	23.21	21.31
16	20.85	20.69	20.84	20.73	20.67	20.65	21.07	20.74	23.05	20.96	23.04	21.26
17	20.85	20.68	20.84	20.73	20.67	20.69	21.01	20.75	22.53	21.02	22.73	22.37
18	20.86	20.68	20.84	20.73	20.66	20.68	21.00	20.75	21.99	20.97	22.30	22.50
19	20.86	20.67	20.86	20.75	20.67	20.65	20.98	20.75	21.72	20.94	22.05	22.04
20	20.85	20.67	20.87	20.73	20.66	20.64	20.97	20.79	21.52	20.92	22.40	23.91
21	20.88	20.67	20.86	20.72	20.67	20.70	20.95	20.99	21.43	20.91	23.02	25.36
22	20.89	20.92	20.86	20.73	20.66	20.94	20.95	20.96	21.41	20.91	22.54	25.19
23	20.85	21.61	20.85	---	20.66	20.97	20.93	21.05	21.32	20.91	22.55	24.66
24	20.84	22.19	20.85	---	20.66	20.95	20.93	21.09	21.28	20.94	22.27	23.77
25	20.85	21.71	20.85	---	20.66	20.92	20.93	21.02	21.25	21.00	21.99	22.62
26	20.86	21.42	20.83	---	20.67	20.91	20.92	21.00	21.21	21.04	21.90	21.95
27	20.90	21.23	20.84	---	20.66	20.90	20.89	20.98	21.17	20.98	22.19	21.71
28	20.87	21.16	20.85	---	20.67	20.90	20.83	20.96	21.23	20.95	22.29	22.75
29	20.86	21.12	20.85	---	---	20.91	20.80	20.94	21.32	20.93	22.13	22.24
30	20.85	21.07	20.83	---	---	20.91	20.89	20.92	21.28	20.92	21.99	21.81
31	20.82	---	20.83	---	---	20.91	---	20.90	---	20.90	22.07	---
MAX	22.02	22.19	21.02	---	---	20.97	21.10	21.09	23.05	21.30	23.21	25.36
MIN	20.82	20.67	20.83	---	---	20.64	20.63	20.74	20.82	20.90	20.95	21.26

Appendix III

APPENDIX III--Daily discharge
[Mean values in cubic feet per second]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 1--Tomoka River near Holly Hill [Water year October 1982 to September 1983]												
1	194	78	14	8.9	17	80	158	106	26	50	14	14
2	405	75	13	8.6	59	74	139	96	16	51	7.2	34
3	339	78	13	9.3	115	69	128	88	12	46	6.0	40
4	272	78	12	9.3	112	62	113	83	11	39	4.6	46
5	215	73	11	8.9	88	56	101	79	17	34	5.3	39
6	182	67	11	8.4	73	53	93	70	25	30	4.4	33
7	153	61	11	8.0	100	78	88	62	35	26	5.5	27
8	138	58	11	7.8	99	127	149	56	132	25	8.2	23
9	120	56	12	7.2	82	115	161	50	110	21	9.8	20
10	106	52	16	6.8	79	95	246	45	72	17	54	17
11	101	49	20	6.5	85	83	237	43	60	14	27	14
12	104	46	16	6.1	85	75	195	39	58	11	19	11
13	97	43	15	5.8	227	69	165	35	65	8.9	31	9.8
14	92	40	14	5.5	323	65	147	31	57	7.6	59	9.1
15	97	37	13	5.2	242	70	151	28	45	6.5	83	8.2
16	88	35	13	4.9	201	213	369	25	39	5.6	79	7.2
17	81	33	14	4.6	218	332	320	22	36	4.9	61	10
18	76	31	13	4.4	205	325	260	20	31	4.4	52	30
19	72	31	12	4.1	176	250	262	17	27	4.0	46	31
20	70	29	12	7.2	158	196	237	16	23	3.6	39	38
21	67	27	11	20	145	187	205	13	24	3.4	35	40
22	64	24	11	16	134	173	176	12	56	3.3	34	37
23	71	22	11	13	124	154	167	10	57	3.2	32	31
24	150	21	10	13	115	149	233	8.9	78	3.1	30	25
25	169	19	10	13	105	141	226	8.0	86	2.9	27	46
26	146	20	9.8	13	95	128	190	7.6	77	2.9	28	54
27	122	20	9.6	14	88	121	160	6.3	62	4.1	27	45
28	106	19	9.3	18	82	129	139	5.6	50	3.7	22	35
29	96	17	9.1	19	---	119	126	7.2	43	4.5	19	28
30	89	16	8.9	18	---	109	117	28	43	6.3	16	25
31	83	---	8.9	17	---	145	---	45	---	7.8	12	---
Site 1--Tomoka River near Holly Hill [Water year October 1983 to September 1984]												
1	28	78	45	300	66	130	19	24	48	42	34	56
2	22	74	41	260	62	116	18	22	42	138	36	46
3	18	69	40	220	59	106	22	20	36	167	35	37
4	16	65	38	200	57	97	303	20	31	208	35	32
5	14	62	37	180	53	90	332	42	27	165	32	48
6	12	61	35	160	49	83	228	28	23	123	30	138
7	11	57	32	150	45	77	171	22	20	93	29	322
8	12	56	30	140	41	69	142	19	18	73	28	301
9	27	53	28	135	39	63	123	16	15	58	26	343
10	22	54	27	145	36	58	120	14	13	50	24	735
11	23	53	27	152	34	55	108	12	13	47	22	556
12	43	52	377	146	33	51	96	10	12	47	21	410
13	59	51	375	139	49	49	86	9.1	12	48	25	324
14	52	49	270	124	118	45	80	8.4	12	52	22	270
15	43	49	235	110	106	40	120	7.9	9.3	51	19	224
16	175	52	216	103	90	36	107	7.4	8.2	50	18	183
17	282	51	201	96	78	33	88	6.9	7.8	46	18	161
18	317	49	239	90	69	31	75	6.3	8.9	41	19	160
19	230	46	278	100	64	28	65	5.9	10	39	18	207
20	182	46	368	99	61	27	59	5.6	8.5	49	23	216
21	148	55	816	122	61	30	55	5.4	7.8	70	28	195
22	181	52	648	142	109	29	51	5.5	7.3	99	36	169
23	235	49	520	134	266	27	49	96	8.4	101	33	149
24	212	47	400	122	237	25	48	155	13	91	35	134
25	173	50	340	112	197	23	44	94	11	70	51	120
26	151	58	270	105	165	22	39	82	22	56	87	107
27	132	48	220	98	143	23	35	108	25	50	97	114
28	109	42	190	91	157	25	32	106	24	44	87	649
29	97	44	300	83	146	23	28	80	25	37	73	579
30	88	49	400	77	---	22	26	63	29	32	62	446
31	82	---	350	72	---	20	---	55	---	33	59	---

APPENDIX III--Daily discharge--Continued
[Mean values in cubic feet per second]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 1--Tomoka River near Holly Hill [Water year October 1984 to September 1985]												
1	356	26	42	8.5	4.6	2.7	1.6	2.9	1.5	11	14	450
2	290	24	39	8.2	4.5	2.6	1.8	2.0	1.4	9.1	33	712
3	243	24	37	11	4.5	2.5	1.7	1.7	1.3	6.9	24	449
4	213	24	36	25	4.3	2.5	1.6	5.1	1.2	5.8	35	335
5	189	23	37	19	4.3	2.4	1.5	21	1.1	5.0	30	283
6	169	21	35	16	5.0	2.3	1.7	10	1.0	8.9	27	255
7	153	19	32	13	5.6	2.2	3.1	5.9	1.0	8.6	26	242
8	141	17	30	11	5.6	2.1	2.5	3.9	1.2	17	119	218
9	135	16	27	9.6	5.1	2.0	1.9	3.0	2.0	10	188	189
10	136	15	25	9.1	4.5	2.0	1.7	2.6	3.6	6.2	175	170
11	133	14	24	8.4	4.5	2.0	1.6	2.4	2.4	5.1	173	155
12	127	13	23	7.8	5.0	1.9	1.6	2.3	1.8	6.1	165	141
13	111	12	21	7.2	4.6	1.8	6.0	2.0	6.7	9.2	117	130
14	92	11	20	6.9	4.2	1.8	14	2.2	20	8.0	113	127
15	80	9.9	19	6.6	4.1	1.8	7.9	2.0	44	6.5	179	117
16	72	9.3	18	6.2	3.9	1.7	5.4	1.9	83	7.3	201	106
17	66	8.8	17	6.1	3.8	2.5	3.7	1.9	48	19	179	125
18	60	8.2	16	6.1	3.6	2.9	2.9	2.0	30	16	154	168
19	55	7.8	16	6.4	3.7	2.2	2.6	1.9	20	13	184	158
20	51	7.4	15	6.1	3.5	1.8	2.3	3.0	15	11	269	280
21	50	7.2	14	5.6	3.4	2.5	2.1	9.2	12	9.3	270	700
22	53	14	14	5.4	3.4	11	2.2	5.4	9.4	8.1	243	611
23	47	57	13	5.4	3.3	7.1	2.1	8.0	8.5	7.2	293	416
24	44	114	12	5.5	3.2	3.8	2.0	23	14	16	248	316
25	39	103	12	5.8	3.0	2.8	1.9	12	19	47	214	269
26	36	85	11	5.2	2.9	2.3	1.8	5.8	19	30	188	234
27	37	70	11	4.9	2.8	2.0	1.8	3.7	11	22	176	201
28	36	59	11	4.9	2.8	1.9	1.7	2.7	7.9	18	199	206
29	33	52	10	4.8	---	1.8	1.6	2.1	11	14	185	194
30	30	47	9.5	4.6	---	1.7	2.1	1.9	11	12	169	187
31	28	---	8.9	4.7	---	1.6	---	1.7	---	9.7	181	---
Site 2--Eleventh Street Canal near Holly Hill [Water year October 1982 to September 1983]												
1	---	---	---	2.5	2.7	4.5	10	3.9	4.5	3.3	0.76	2.9
2	---	---	---	2.5	12	4.3	8.8	3.7	3.9	3.2	.34	4.3
3	---	---	2.8	2.4	7.6	4.1	8.0	3.6	3.7	3.1	.32	3.7
4	---	---	2.7	2.4	5.9	3.9	6.9	3.8	3.6	3.0	.24	3.6
5	---	---	2.7	2.4	5.2	3.9	6.2	---	5.2	2.9	.25	3.2
6	---	---	2.7	2.4	6.4	3.7	5.6	---	5.5	2.9	.18	3.0
7	---	---	2.9	2.4	6.4	8.5	6.3	---	6.7	2.8	.29	3.1
8	---	---	2.8	2.4	5.5	8.8	12	---	10	2.9	2.3	3.0
9	---	---	3.0	2.3	5.0	7.2	11	3.4	7.7	2.8	3.2	2.7
10	---	---	3.2	2.3	5.3	6.3	22	3.3	6.2	2.7	4.2	2.5
11	---	---	3.1	2.3	5.4	5.6	15	3.2	5.4	2.6	3.8	2.3
12	---	---	3.0	2.3	5.3	5.1	11	3.2	5.0	2.5	3.2	2.2
13	---	---	3.1	2.3	26	4.7	9.2	3.2	4.6	2.6	3.9	2.3
14	---	---	3.0	2.3	21	4.5	7.9	3.1	4.3	1.2	4.2	2.3
15	---	---	2.9	2.3	13	5.8	8.1	3.0	3.9	.37	4.1	2.3
16	---	---	2.8	2.2	12	20	9.1	3.0	3.7	.32	3.7	2.2
17	---	---	2.8	4.1	13	35	7.4	3.0	3.7	.25	3.6	2.7
18	---	---	2.7	3.2	11	25	6.8	2.9	3.5	.21	3.4	3.8
19	---	---	2.7	2.8	9.1	16	9.2	2.9	3.4	.20	3.2	3.2
20	---	---	2.7	2.9	8.1	13	7.4	2.9	3.3	.19	3.1	4.9
21	---	---	2.6	2.8	7.3	13	6.4	2.8	4.1	.15	2.8	4.0
22	---	---	2.6	2.7	6.7	10	5.7	2.7	7.5	.11	2.6	3.5
23	---	---	2.5	2.7	6.1	8.7	6.8	2.7	5.9	.10	2.7	3.1
24	---	---	2.6	3.4	5.6	9.8	8.4	2.6	6.3	.09	2.8	2.9
25	---	---	2.5	3.1	5.1	8.5	6.6	2.6	5.2	.07	2.8	3.8
26	---	---	2.5	---	4.7	7.4	5.5	2.7	4.5	.11	3.1	3.2
27	---	---	2.5	---	4.5	7.3	4.8	2.6	4.0	.15	2.6	3.0
28	---	---	2.5	2.9	4.5	7.4	4.5	2.5	3.7	.14	2.4	3.6
29	---	---	2.5	2.9	---	6.4	4.2	3.3	3.5	.34	2.7	3.2
30	---	---	2.6	2.8	---	5.8	4.1	6.0	3.3	.38	2.9	2.9
31	---	---	2.6	2.8	---	11	---	6.5	---	.43	2.6	---

APPENDIX III--Daily discharge--Continued
[Mean values in cubic feet per second]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 2--Eleventh Street Canal near Holly Hill [Water year October 1983 to September 1984]												
1	2.7	3.5	3.0	---	4.1	4.6	2.6	3.2	---	6.1	3.4	2.6
2	2.5	3.3	2.8	---	3.9	4.2	2.6	3.3	---	20	3.2	2.5
3	2.4	3.1	2.7	---	3.7	4.2	4.0	3.2	---	27	3.0	2.4
4	2.5	3.0	2.5	---	3.6	3.8	64	3.6	---	29	2.9	2.5
5	2.4	3.0	2.7	---	3.5	3.7	38	7.3	---	19	2.8	4.2
6	2.3	2.9	2.8	---	3.4	3.7	19	4.4	---	14	2.7	7.4
7	2.3	2.9	2.5	---	3.3	3.5	13	3.7	3.0	11	2.7	19
8	2.4	3.1	2.4	---	3.3	3.2	9.7	3.5	2.9	8.7	2.6	18
9	3.3	2.9	2.6	---	3.3	3.2	8.7	3.4	2.9	7.3	2.5	41
10	2.6	2.9	2.5	6.9	3.1	3.1	8.6	3.2	2.8	6.4	2.5	136
11	2.9	2.9	2.8	6.2	3.1	3.0	7.5	3.0	2.9	5.7	2.4	52
12	3.2	2.9	35	5.6	3.0	3.1	6.8	2.9	2.9	5.2	2.4	24
13	2.8	2.7	12	5.6	4.7	3.4	6.3	2.9	2.8	4.9	2.4	15
14	2.7	2.7	8.0	5.4	6.9	3.4	6.3	2.8	2.8	4.6	2.3	12
15	2.6	3.0	7.2	5.0	5.2	3.2	9.6	2.7	2.7	4.3	2.3	10
16	5.6	3.1	6.3	4.9	4.7	3.0	8.1	2.7	2.6	3.8	2.2	9.2
17	6.7	3.0	5.7	4.8	4.2	3.0	7.1	2.6	2.6	3.5	2.3	8.6
18	6.5	2.8	8.1	4.6	3.8	2.9	6.2	2.5	3.2	3.3	2.5	9.8
19	5.1	2.7	8.0	5.6	3.6	2.8	5.7	2.4	4.0	3.4	2.3	11
20	4.3	2.7	37	5.4	3.5	2.8	5.4	2.4	3.3	4.1	2.6	9.4
21	3.9	3.0	77	6.9	3.6	3.3	5.0	2.3	3.0	5.6	2.9	8.1
22	11	2.9	35	6.6	6.0	2.9	4.5	2.3	2.9	7.2	2.9	7.3
23	9.2	2.7	19	5.9	7.2	2.8	4.4	2.3	3.2	7.7	2.4	6.8
24	6.9	2.5	14	5.9	5.7	2.8	4.5	---	4.0	6.9	2.4	6.4
25	5.5	2.6	10	5.8	5.0	2.7	4.3	---	3.2	5.9	4.4	5.9
26	4.8	2.4	9.0	5.7	4.4	2.7	3.9	---	3.2	5.0	5.6	5.6
27	4.3	2.4	8.2	5.3	4.5	2.9	3.6	---	3.0	4.4	3.9	7.6
28	3.9	2.4	7.8	4.7	6.0	3.1	3.5	---	2.9	4.0	3.3	56
29	3.5	3.1	27	4.4	5.2	2.8	3.4	---	3.0	3.7	3.0	27
30	3.3	3.3	41	4.4	---	2.7	3.3	---	3.8	3.5	2.8	16
31	3.3	---	26	4.4	---	2.7	---	---	---	3.5	2.8	---
Site 2--Eleventh Street Canal near Holly Hill [Water year October 1984 to September 1985]												
1	13	2.7	3.7	2.3	1.9	1.6	1.5	1.5	1.4	1.8	3.3	42
2	10	2.8	3.6	2.3	1.9	1.6	1.5	1.4	1.4	1.7	4.6	57
3	9.1	3.0	3.5	3.3	1.9	1.6	1.5	1.4	1.4	1.6	3.7	21
4	8.3	3.1	3.3	3.4	1.8	1.6	1.5	2.7	1.4	1.6	4.1	12
5	7.5	2.9	3.8	2.6	1.8	1.6	1.5	2.0	1.4	1.6	3.4	9.0
6	6.9	2.8	3.7	2.4	2.0	1.6	1.5	1.6	1.3	1.9	3.0	7.8
7	6.4	2.7	3.3	2.4	2.0	1.6	1.6	1.5	1.3	1.9	3.1	7.5
8	6.3	2.6	3.2	2.4	2.0	1.5	1.5	1.4	1.3	2.2	8.7	6.7
9	5.8	2.6	3.1	2.3	1.8	1.5	1.5	1.4	1.4	1.9	11	6.0
10	5.5	2.5	3.0	2.3	1.8	1.5	1.4	1.4	1.4	1.7	9.1	5.6
11	5.3	2.5	3.0	2.2	1.8	1.5	1.4	1.4	1.4	1.7	12	5.2
12	4.9	2.4	2.9	2.2	1.9	1.5	1.4	1.4	1.4	1.7	17	4.9
13	4.6	2.4	2.9	2.2	1.8	1.5	2.7	1.4	1.8	1.8	10	4.8
14	4.4	2.4	2.8	2.2	1.8	1.5	1.9	1.4	3.3	1.7	9.0	5.3
15	4.1	2.3	2.7	2.1	1.8	1.5	1.6	1.4	4.1	1.7	9.4	5.0
16	3.9	2.3	2.7	2.1	1.8	1.5	1.6	1.4	3.5	1.8	8.3	4.6
17	3.8	2.2	2.7	2.1	1.8	1.7	1.5	1.4	3.0	2.6	6.9	5.7
18	3.6	2.2	2.7	2.1	1.8	1.6	1.5	1.4	2.5	2.0	6.1	7.5
19	3.5	2.2	2.9	2.1	1.8	1.5	1.5	1.4	2.1	1.8	5.6	8.1
20	3.4	2.2	2.9	2.1	1.8	1.5	1.5	1.5	2.0	1.8	5.2	21
21	3.9	2.2	2.8	2.1	1.7	1.6	1.5	2.3	1.9	1.7	4.9	58
22	4.0	3.3	2.7	2.1	1.7	2.4	1.5	1.5	1.8	1.7	4.7	40
23	3.5	8.4	2.6	2.1	1.7	1.7	1.4	1.6	1.8	1.7	4.7	19
24	3.4	8.2	2.6	2.1	1.7	1.6	1.4	2.3	1.7	6.7	4.3	13
25	3.2	5.8	2.6	2.0	1.7	1.6	1.4	1.6	1.7	15	4.0	11
26	3.1	5.1	2.5	2.0	1.7	1.5	1.4	1.5	1.7	7.2	3.7	9.1
27	3.1	4.7	2.5	2.0	1.6	1.5	1.4	1.5	1.6	5.2	3.9	8.3
28	3.0	4.4	2.5	2.0	1.6	1.5	1.4	1.4	1.9	4.3	4.5	8.0
29	2.9	4.2	2.4	2.0	---	1.5	1.4	1.4	2.1	3.7	4.2	7.5
30	2.9	3.9	2.4	1.9	---	1.5	1.5	1.4	1.9	3.3	4.1	7.1
31	2.9	---	2.3	1.9	---	1.5	---	1.4	---	3.0	5.9	---

APPENDIX III--Daily discharge--Continued
[Mean values in cubic feet per second]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 3--Williamson Boulevard ditch at Daytona Beach [Water year October 1982 to September 1983]												
1	---	---	---	---	---	---	---	---	---	0.46	0.12	0.51
2	---	---	---	---	---	---	---	---	---	.44	.0	.86
3	---	---	---	---	---	---	---	---	---	.41	.0	1.2
4	---	---	---	---	---	---	---	---	---	.39	.0	1.2
5	---	---	---	---	---	---	---	---	---	.47	.0	.69
6	---	---	---	---	---	---	---	---	---	.41	.0	.45
7	---	---	---	---	---	---	---	---	---	.35	.10	.33
8	---	---	---	---	---	---	---	---	2.3	.43	.06	.27
9	---	---	---	---	---	---	---	---	1.6	.39	.84	.25
10	---	---	---	---	---	---	---	---	1.1	.28	.84	.21
11	---	---	---	---	---	---	---	---	.84	.22	.43	.10
12	---	---	---	---	---	---	---	---	.69	.21	.37	.09
13	---	---	---	---	---	---	---	---	.75	.23	1.2	.03
14	---	---	---	---	---	---	---	---	.59	.23	1.6	.09
15	---	---	---	---	---	---	---	---	.46	.20	1.4	.11
16	---	---	---	---	---	---	---	---	.41	.16	.88	.04
17	---	---	---	---	---	---	---	---	.36	.13	.64	.41
18	---	---	---	---	---	---	---	---	.35	.10	.51	.42
19	---	---	---	---	---	---	---	---	.34	.11	.42	.43
20	---	---	---	---	---	---	---	---	.35	.10	.36	1.1
21	---	---	---	---	---	---	---	---	.85	.06	.31	.81
22	---	---	---	---	---	---	---	---	1.5	.06	.26	.63
23	---	---	---	---	---	---	---	---	1.6	.07	.19	.44
24	---	---	---	---	---	---	---	---	1.8	.05	.14	.36
25	---	---	---	---	---	---	---	---	1.2	.02	.31	1.2
26	---	---	---	---	---	---	---	---	.88	.05	.24	.89
27	---	---	---	---	---	---	---	---	.62	.04	.04	.69
28	---	---	---	---	---	---	---	---	.41	.0	.12	.50
29	---	---	---	---	---	---	---	---	.40	.21	.10	.40
30	---	---	---	---	---	---	---	---	.42	.04	.02	.34
31	---	---	---	---	---	---	---	---	---	.32	.01	---
Site 3--Williamson Boulevard ditch at Daytona Beach [Water year October 1983 to September 1984]												
1	0.30	0.70	---	---	1.0	1.5	0.67	1.2	1.9	3.6	2.1	1.6
2	.26	.68	---	---	.98	1.4	.65	1.2	1.7	6.6	2.1	1.6
3	.20	.63	---	---	.98	1.3	2.5	1.3	1.6	8.9	2.0	1.5
4	.17	.63	---	---	.98	1.2	13	1.8	1.5	7.3	1.9	1.6
5	.11	.67	---	---	.93	1.2	5.6	2.4	1.5	4.5	1.8	3.9
6	.01	.66	---	---	.91	1.1	3.4	1.7	1.4	3.5	1.8	5.4
7	.0	.60	---	---	.87	1.1	2.5	1.4	1.4	2.9	1.8	11
8	.56	.60	---	---	.85	.99	2.1	1.3	1.4	2.6	1.8	6.8
9	1.3	.61	---	---	.85	.96	2.1	1.2	1.3	2.4	1.7	22
10	1.1	.64	---	---	.84	.94	2.0	1.2	1.3	2.3	1.7	26
11	1.1	.59	---	1.3	.84	.93	1.8	1.1	1.5	2.2	1.7	8.4
12	1.5	.53	---	1.3	.94	.90	1.6	1.1	1.4	2.1	1.7	5.8
13	1.0	.47	---	1.3	2.0	.93	1.5	1.1	1.5	2.1	1.7	4.3
14	.75	.46	2.4	1.3	2.6	.86	1.9	1.1	1.4	2.1	1.6	3.4
15	.77	.42	---	1.2	1.9	.82	3.1	1.0	1.3	2.0	1.6	3.1
16	3.0	---	---	1.2	1.7	.84	2.4	1.0	1.3	2.0	1.5	2.8
17	2.9	---	---	1.2	1.5	.82	2.1	.96	1.3	1.9	1.5	2.6
18	2.1	---	---	1.2	1.4	.85	1.8	.95	1.5	1.8	1.5	2.8
19	1.4	---	---	1.6	1.3	.79	1.6	.93	1.4	2.0	1.6	3.2
20	1.2	---	---	1.6	1.2	.85	1.5	.92	1.3	2.1	1.8	3.0
21	1.0	---	7.5	2.2	1.3	1.0	1.4	.91	1.3	2.8	2.1	2.6
22	4.6	---	4.9	2.0	3.4	.77	1.4	.93	1.3	3.2	2.1	2.4
23	3.4	---	---	1.8	3.3	.78	1.4	6.0	1.5	3.9	1.7	2.3
24	2.3	---	---	1.6	2.4	.78	1.4	4.1	1.5	3.4	1.6	2.3
25	1.8	---	---	1.5	2.1	.77	1.3	3.0	1.4	2.9	3.2	2.2
26	1.4	---	---	1.5	1.8	.73	1.3	3.3	1.5	2.6	3.4	2.1
27	1.2	---	---	1.4	1.8	.95	1.2	4.0	1.3	2.4	2.4	4.7
28	.99	---	---	1.3	2.2	.93	1.2	3.3	1.4	2.2	2.0	20
29	.84	---	---	1.2	1.8	.75	1.2	2.7	1.7	2.1	1.8	6.8
30	.73	---	---	1.1	---	.69	1.2	2.4	2.2	2.1	1.7	4.7
31	.71	---	---	1.1	---	.67	---	2.2	---	2.1	1.6	---

APPENDIX III--Daily discharge--Continued
[Mean values in cubic feet per second]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 3--Williamson Boulevard ditch at Daytona Beach [Water year October 1984 to September 1985]												
1	3.9	2.0	2.3	1.8	1.8	1.5	1.4	1.1	1.4	1.9	3.8	65
2	3.3	2.0	2.2	1.8	1.8	1.6	1.4	.98	1.4	1.8	4.3	16
3	3.0	2.1	2.2	2.2	1.8	1.5	1.2	.97	1.4	1.8	3.9	7.6
4	2.8	2.1	2.2	2.3	1.8	1.5	1.2	2.1	1.3	1.7	5.2	5.3
5	2.6	2.0	2.3	2.1	1.8	1.5	1.2	2.0	1.3	1.8	3.7	4.5
6	2.5	2.0	2.3	2.0	1.9	1.5	1.4	1.4	1.2	2.1	3.1	4.3
7	2.4	2.0	2.2	1.9	1.8	1.5	1.4	1.3	1.2	2.3	4.1	4.3
8	2.4	2.0	2.2	1.9	1.8	1.5	1.3	1.2	1.2	2.9	11	4.0
9	2.3	2.0	2.0	1.8	1.7	1.5	1.2	1.2	1.3	2.3	9.4	3.7
10	2.3	2.0	2.0	1.8	1.7	1.5	1.2	1.1	1.2	2.0	6.1	3.5
11	2.3	2.0	2.0	1.8	1.8	1.5	1.2	1.1	1.2	1.9	11	3.4
12	2.3	1.9	2.0	1.8	1.7	1.4	1.2	1.1	1.4	2.3	9.5	3.2
13	2.2	1.9	2.0	1.8	1.7	1.4	1.8	1.1	1.8	2.6	5.8	3.2
14	2.2	1.9	2.0	1.8	1.7	1.4	1.5	1.1	2.3	2.4	5.4	3.4
15	2.2	1.9	1.9	1.8	1.7	1.4	1.5	1.1	4.2	2.2	5.3	3.1
16	2.1	1.9	1.9	1.8	1.7	1.4	1.4	1.1	3.3	2.6	4.6	3.1
17	2.1	1.9	1.9	1.7	1.7	1.6	1.4	1.0	2.7	2.8	4.2	4.9
18	2.1	1.9	1.9	1.7	1.7	1.5	1.4	.99	2.4	2.5	3.7	5.3
19	2.2	1.8	1.9	1.8	1.7	1.4	1.2	1.0	2.2	2.4	3.8	5.6
20	2.2	1.8	1.9	1.8	1.7	1.4	1.2	1.4	2.1	2.2	3.6	15
21	2.2	1.9	1.8	1.7	1.7	1.7	1.2	1.7	2.0	2.1	3.5	25
22	2.2	2.5	1.8	1.7	1.6	1.7	1.1	1.4	2.0	2.1	3.5	10
23	2.1	4.6	1.8	1.8	1.6	1.6	1.2	2.1	1.9	2.1	3.6	6.6
24	2.1	3.7	1.8	1.8	1.6	1.4	1.1	2.7	1.8	3.5	3.3	5.2
25	2.1	2.8	1.8	1.8	1.6	1.4	1.1	2.0	1.8	5.1	3.1	4.6
26	2.1	2.7	1.8	1.7	1.6	1.4	1.2	1.7	1.8	3.6	2.9	4.3
27	2.1	2.6	1.8	1.8	1.5	1.3	1.1	1.6	1.8	3.0	3.9	4.0
28	2.1	2.5	1.8	1.8	1.5	1.4	1.1	1.5	1.9	2.8	4.4	6.6
29	2.0	2.4	1.8	1.8	---	1.4	1.0	1.5	2.0	2.6	3.7	5.4
30	2.0	2.3	1.8	1.8	---	1.3	1.2	1.5	2.0	2.5	3.6	4.7
31	2.0	---	1.8	1.8	---	1.3	---	1.5	---	2.5	8.4	---
Site 4--Wally Hoffmeyer Canal at Daytona Beach [Water year October 1982 to September 1983]												
1	---	---	2.0	1.9	1.6	3.6	4.3	2.4	2.7	2.3	2.5	4.4
2	---	---	2.0	1.8	20	3.2	3.6	2.3	2.3	2.1	2.2	7.7
3	---	---	1.9	1.9	4.3	3.0	3.4	2.3	2.1	2.0	1.9	5.9
4	---	---	1.9	1.9	3.4	3.0	2.8	2.9	2.2	1.9	2.2	3.6
5	---	---	2.0	1.7	2.8	3.0	2.6	2.6	5.0	1.9	2.0	2.6
6	---	---	1.9	1.6	5.1	3.0	2.6	2.3	3.9	2.0	1.6	2.3
7	---	---	3.1	1.7	3.7	12	7.6	2.2	15	1.9	2.1	2.2
8	---	---	3.0	1.6	2.8	6.0	12	2.2	16	1.9	2.5	2.1
9	---	---	2.4	1.6	2.8	4.0	7.9	2.2	4.7	1.9	12	2.0
10	---	---	5.7	1.6	3.9	3.5	13	2.1	3.5	1.8	9.3	2.0
11	---	---	3.3	1.6	3.7	3.2	5.9	2.1	3.0	1.7	2.9	1.9
12	---	---	2.7	1.6	4.2	3.2	4.2	2.1	2.7	1.7	3.1	1.9
13	---	---	2.4	1.6	25	2.9	3.4	2.0	6.0	1.7	8.0	1.9
14	---	---	2.0	1.6	8.1	2.8	3.3	2.0	3.5	1.7	9.5	1.9
15	---	---	1.9	1.6	4.9	8.8	9.0	2.0	2.7	1.7	5.9	2.0
16	---	---	2.0	1.6	5.5	21	6.6	2.0	2.5	1.7	3.4	1.8
17	---	---	2.5	1.6	5.7	26	3.9	2.0	2.4	1.6	2.8	3.5
18	---	---	2.0	1.6	4.4	9.8	3.7	1.9	2.2	1.6	2.5	3.4
19	---	---	2.0	1.6	3.8	5.1	7.5	2.0	2.1	1.6	2.3	3.6
20	---	---	1.9	7.0	3.6	4.1	4.6	2.0	2.1	1.6	2.2	5.9
21	---	---	1.8	4.6	3.4	5.9	3.4	1.9	5.0	1.6	2.1	3.0
22	---	---	1.7	2.6	3.5	2.9	3.0	1.8	6.4	1.6	2.0	2.6
23	---	---	1.8	2.5	3.2	4.4	7.0	1.8	4.1	1.6	2.0	2.2
24	---	---	1.7	2.3	3.3	5.0	5.7	1.9	4.7	1.6	1.9	2.1
25	---	---	1.7	2.1	3.3	3.5	3.8	1.8	3.0	1.6	2.3	8.7
26	---	---	1.7	2.1	3.1	3.0	3.1	2.1	2.5	2.4	2.4	3.2
27	---	---	1.7	2.7	3.1	4.2	2.8	1.8	2.3	2.4	1.9	2.8
28	---	---	1.7	3.0	3.2	4.1	2.6	1.7	2.2	1.6	2.0	2.4
29	---	---	1.7	2.2	---	3.2	2.5	6.4	2.1	3.3	2.4	2.2
30	---	2.0	2.0	2.1	---	2.9	2.4	9.3	2.1	2.0	1.9	2.1
31	---	---	2.1	1.9	---	9.3	---	6.1	---	3.6	1.8	---

APPENDIX III--Daily discharge--Continued
[Mean values in cubic feet per second]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 4--Wally Hoffmeyer Canal at Daytona Beach [Water year October 1983 to September 1984]												
1	2.0	2.6	2.2	5.3	2.6	2.9	2.3	2.1	3.0	13	3.7	2.9
2	2.0	2.5	2.1	4.6	2.5	2.7	2.0	2.1	2.7	13	3.2	2.7
3	2.0	2.4	2.1	4.2	2.7	2.6	5.8	2.2	2.6	11	3.2	2.6
4	1.9	2.4	2.1	3.9	3.0	2.5	40	4.2	3.0	8.7	2.8	3.0
5	1.9	2.7	2.1	3.7	2.6	2.5	6.7	7.4	2.5	5.3	2.6	9.3
6	1.9	2.6	2.1	3.6	2.4	2.5	4.3	2.7	2.4	4.3	2.6	15
7	1.9	2.4	2.0	3.5	2.4	2.4	3.9	2.6	2.4	3.8	2.9	21
8	3.4	2.4	2.0	3.3	2.3	2.5	3.4	2.3	2.4	3.7	3.3	8.6
9	3.8	2.3	2.0	3.2	2.3	2.5	3.9	2.2	2.4	3.4	2.7	28
10	3.4	2.4	2.0	5.2	2.4	2.3	4.1	2.2	2.4	3.2	2.4	46
11	4.7	2.4	2.2	4.0	2.4	2.3	3.6	2.4	2.6	3.1	2.4	12
12	4.3	2.3	58	3.3	2.5	2.3	3.5	2.1	3.0	3.0	3.1	6.5
13	3.0	2.2	7.0	3.6	7.9	2.5	3.1	2.0	3.4	3.0	4.5	5.2
14	2.6	2.1	4.6	3.9	5.9	2.3	3.9	2.2	2.5	2.9	2.8	4.5
15	3.3	2.1	4.7	4.2	3.5	2.2	7.7	2.0	2.3	2.8	2.9	4.2
16	26	3.0	3.8	3.7	3.1	2.1	3.9	2.1	2.2	2.7	3.3	4.0
17	15	2.2	3.7	3.2	2.9	2.1	3.2	1.9	2.2	2.6	3.2	3.8
18	6.6	2.1	6.1	3.3	2.7	2.3	3.2	1.9	2.3	2.5	3.0	5.6
19	4.3	2.0	4.6	5.1	2.5	2.1	2.9	1.8	2.3	3.3	3.0	7.1
20	3.7	3.0	34	4.1	2.7	2.1	2.6	1.8	2.1	4.4	4.4	5.1
21	3.3	3.5	44	6.5	3.0	4.2	2.6	2.0	2.0	10	5.0	4.3
22	13	2.4	11	4.3	11	2.8	2.6	1.9	2.1	7.6	5.1	3.9
23	6.1	2.2	6.6	3.9	7.0	2.7	2.6	34	2.9	7.9	3.3	3.7
24	4.3	2.2	5.2	3.7	4.5	2.2	2.9	7.1	3.5	5.2	2.9	3.8
25	3.6	2.6	4.2	3.6	3.3	2.2	2.4	4.3	2.4	3.9	7.0	3.6
26	3.3	2.1	3.9	3.5	3.0	2.1	2.4	6.9	3.1	3.8	7.1	3.6
27	3.0	2.0	3.7	3.2	4.1	3.0	2.4	5.9	2.3	4.9	3.9	14
28	2.8	2.0	3.6	3.0	4.7	2.6	2.3	4.4	2.4	4.8	3.4	52
29	2.7	3.5	22	2.9	3.2	2.1	2.2	4.1	4.3	3.3	3.2	9.8
30	2.6	2.7	18	2.7	---	2.1	2.2	3.8	6.2	3.3	3.5	6.3
31	2.5	---	7.2	2.6	---	2.0	---	3.7	---	3.8	4.0	---
Site 4--Wally Hoffmeyer Canal at Daytona Beach [Water year October 1984 to September 1985]												
1	5.3	2.8	3.2	2.4	2.2	1.8	1.7	2.3	2.0	3.4	6.3	55
2	4.5	2.8	3.1	2.4	2.1	1.8	1.9	1.9	2.0	2.7	7.8	28
3	4.1	3.0	3.2	5.5	2.1	1.8	1.7	1.8	2.0	2.4	4.8	8.9
4	4.3	3.5	3.2	5.0	2.1	1.8	1.6	9.9	2.0	2.4	6.6	6.4
5	3.8	2.9	3.4	3.1	2.1	1.8	1.6	5.9	1.9	2.4	3.9	5.7
6	3.7	2.7	3.3	2.7	2.4	1.8	2.0	3.3	2.0	4.0	3.6	6.7
7	3.7	2.6	3.0	2.6	2.6	1.8	3.0	2.6	2.2	3.3	6.1	6.9
8	3.6	2.5	2.9	2.5	2.6	1.7	2.0	2.4	2.0	5.2	19	5.4
9	3.5	2.5	2.8	2.5	2.2	1.7	1.7	2.3	3.7	3.0	11	4.9
10	3.8	2.5	2.9	2.4	2.0	1.7	1.7	2.3	2.2	2.6	6.4	5.1
11	3.9	2.5	2.9	2.4	2.1	1.7	1.6	2.1	1.9	2.5	9.3	4.6
12	3.7	2.5	2.8	2.4	2.5	1.7	1.6	2.0	2.2	2.9	8.0	4.5
13	3.4	2.4	2.8	2.3	2.1	1.7	6.0	2.3	5.5	3.7	5.8	4.8
14	3.3	2.4	2.8	2.3	2.0	1.7	4.0	2.1	7.9	2.7	6.9	5.9
15	3.2	2.4	2.8	2.3	2.0	1.7	3.0	2.0	17	2.4	6.6	4.6
16	3.2	2.4	2.7	2.3	2.0	1.7	2.3	2.0	6.7	3.9	5.3	4.2
17	3.2	2.4	2.8	2.3	1.9	2.4	2.1	1.9	4.2	5.6	4.6	12
18	3.2	2.4	2.8	2.3	1.9	2.3	2.0	1.8	3.4	3.2	4.7	9.9
19	3.1	2.4	2.6	2.6	1.9	1.8	1.9	1.8	3.1	2.7	5.3	7.3
20	3.0	2.4	2.7	2.3	1.9	1.7	1.9	3.1	2.9	2.6	4.9	31
21	3.4	2.4	2.6	2.2	1.9	2.1	1.9	5.4	2.9	2.5	6.2	51
22	3.6	6.4	2.6	2.3	1.9	5.5	1.9	2.5	2.8	2.5	8.8	16
23	3.4	17	2.5	2.6	1.9	2.4	1.9	6.1	2.6	2.5	10	9.0
24	3.3	7.3	2.5	2.7	1.9	2.0	1.9	9.0	2.5	3.7	5.3	6.6
25	2.9	4.3	2.5	2.3	1.9	1.9	1.8	3.2	2.5	7.1	4.6	5.8
26	3.4	3.8	2.5	2.2	1.9	1.8	1.9	2.5	2.5	4.9	4.3	5.3
27	3.5	3.7	2.5	2.2	1.9	1.7	1.8	2.4	2.5	3.4	7.2	4.9
28	3.0	3.6	2.6	2.2	1.9	1.7	1.7	2.3	3.2	3.0	7.2	12
29	2.9	3.5	2.4	2.2	---	1.7	1.8	2.2	4.0	2.9	5.4	7.8
30	2.9	3.3	2.4	2.2	---	1.7	2.6	2.2	3.2	2.8	4.9	6.6
31	2.8	---	2.4	2.2	---	1.7	---	2.1	---	3.0	11	---

APPENDIX III--Daily discharge--Continued
[Mean values in cubic feet per second]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 5--Thayer Canal near Daytona Beach [Water year October 1982 to September 1983]												
1	---	---	---	15	20	32	37	32	9.3	21	2.3	11
2	---	---	---	15	25	31	35	32	8.2	20	2.0	16
3	---	---	19	16	28	30	35	32	7.2	20	1.6	19
4	---	---	19	16	28	28	33	32	6.4	19	1.5	15
5	---	---	18	15	30	28	32	32	8.9	19	1.6	12
6	---	---	18	15	32	27	31	32	11	18	1.5	---
7	---	---	17	15	34	30	30	32	12	17	1.8	---
8	---	---	17	14	33	34	32	31	17	16	1.8	---
9	---	---	17	14	33	33	32	26	18	15	2.3	---
10	---	---	18	14	33	33	39	23	17	14	5.5	---
11	---	---	18	13	34	33	39	22	19	12	11	---
12	---	---	18	13	33	32	39	22	20	9.9	14	---
13	---	---	18	12	44	31	38	21	21	8.6	19	---
14	---	---	18	12	46	30	37	20	21	7.6	---	---
15	---	---	18	11	45	30	42	19	20	6.6	---	---
16	---	---	18	11	46	36	49	19	20	5.7	---	---
17	---	---	19	11	49	42	45	17	20	4.8	---	---
18	---	---	18	10	47	42	45	16	19	4.0	25	---
19	---	---	18	10	46	40	47	15	18	3.2	25	---
20	---	---	18	12	44	39	44	14	18	2.7	24	---
21	---	---	18	17	43	41	41	13	17	2.3	24	---
22	---	---	18	17	41	39	40	12	19	2.0	23	---
23	---	---	18	16	40	37	42	11	20	1.8	22	---
24	---	---	18	16	38	38	41	9.8	22	1.6	21	---
25	---	---	17	17	37	36	39	8.8	22	1.3	19	---
26	---	---	17	17	35	35	38	8.1	22	1.4	18	---
27	---	---	17	18	33	35	37	7.4	21	1.5	17	---
28	---	---	16	20	33	35	35	6.2	21	1.2	15	---
29	---	---	16	20	---	34	35	6.0	21	1.4	13	---
30	---	---	16	20	---	33	33	7.3	21	1.4	12	---
31	---	---	16	20	---	37	---	9.7	---	2.2	11	---
Site 5--Thayer Canal near Daytona Beach [Water year October 1983 to September 1984]												
1	---	29	22	52	26	34	15	18	24	7.5	24	26
2	---	28	21	50	25	33	15	16	23	10	26	25
3	---	27	21	48	25	33	15	15	22	14	27	23
4	---	26	21	45	24	32	41	14	21	18	27	22
5	13	26	20	43	24	31	42	16	19	20	27	29
6	12	26	20	41	23	30	37	17	17	26	26	40
7	12	25	20	39	22	29	35	16	15	30	25	53
8	12	25	19	37	22	28	33	14	14	32	25	47
9	14	24	18	36	21	27	32	12	12	32	23	61
10	15	25	18	35	21	25	32	11	11	32	22	79
11	15	25	17	35	20	25	30	9.6	9.3	32	21	63
12	15	26	39	33	20	24	28	8.5	8.3	32	19	56
13	13	27	39	33	23	23	28	7.5	7.6	32	19	51
14	12	27	40	32	28	23	27	6.6	7.2	32	18	47
15	13	26	42	31	28	22	28	5.9	6.3	30	18	45
16	26	26	42	30	28	21	27	5.2	5.5	29	18	42
17	43	24	41	30	29	21	26	4.6	4.8	28	19	41
18	42	23	45	29	28	20	27	4.1	4.3	26	19	45
19	37	23	47	30	28	20	26	3.7	3.8	26	19	49
20	35	23	56	30	27	19	26	3.3	3.4	28	20	45
21	33	24	74	31	27	20	25	3.0	3.0	30	22	43
22	39	23	64	31	33	19	25	2.7	2.7	30	24	41
23	39	23	58	31	37	18	24	11	2.7	32	26	40
24	37	23	54	31	37	18	24	19	2.8	29	27	39
25	37	23	50	31	37	17	23	20	3.1	27	31	37
26	36	22	47	31	36	17	22	21	4.5	26	35	36
27	35	22	44	31	36	17	22	26	4.2	25	34	45
28	33	22	43	30	37	18	21	27	4.2	24	32	90
29	32	22	54	29	35	18	20	26	5.0	24	31	70
30	31	22	64	28	---	16	19	26	6.3	23	29	62
31	30	---	55	27	---	16	---	25	---	24	28	---

APPENDIX III--Daily discharge--Continued
[Mean values in cubic feet per second]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 5--Thayer Canal near Daytona Beach [Water year October 1984 to September 1985]												
1	59	22	26	10	2.7	0.0	0.0	0.0	0.0	0.0	12	62
2	55	21	25	9.9	2.6	.0	.0	.0	.0	.0	11	70
3	52	21	24	9.9	2.1	.0	.0	.0	.93	.0	11	59
4	49	21	24	12	1.9	.0	.0	.0	.57	.0	13	54
5	47	21	24	12	1.7	.0	.0	.0	.02	.0	14	52
6	45	20	24	11	1.6	.0	.0	.0	.0	.0	13	50
7	43	19	23	10	1.6	.0	.0	.0	.0	.43	14	49
8	41	18	22	9.7	1.7	.0	.0	.0	.0	.29	28	47
9	39	17	21	9.2	1.5	.0	.0	.0	.0	.0	34	45
10	38	16	21	8.8	1.3	.0	.0	.0	.0	.0	35	43
11	37	16	20	8.6	1.4	.0	.0	.0	.0	.0	36	41
12	36	15	20	8.2	1.4	.0	.0	.0	.0	.40	38	40
13	35	14	19	7.8	1.1	.0	.36	.0	.19	.37	39	38
14	34	13	18	7.4	.96	.0	.0	.0	.34	2.3	43	37
15	33	13	18	7.1	.71	.0	.0	.0	2.4	6.9	43	35
16	32	12	17	6.7	.45	.0	.0	.0	2.1	8.7	43	33
17	31	12	17	6.5	.12	.0	.0	.0	1.0	15	43	35
18	30	11	17	6.3	.0	.0	.0	.24	.51	17	45	35
19	29	11	16	6.3	.03	.0	.0	.0	.15	16	51	36
20	28	10	16	6.1	.02	.0	.0	.26	.0	15	52	52
21	28	9.9	15	5.8	.0	.34	.0	.0	.0	14	54	65
22	28	12	15	5.5	.0	.03	.0	.03	.0	13	55	60
23	27	20	14	5.1	.0	.0	.0	.40	.0	13	54	57
24	25	25	13	5.9	.0	.0	.0	.05	.0	13	52	54
25	24	24	13	4.7	.0	.0	.0	.0	.0	15	50	52
26	24	25	12	4.2	.0	.0	.0	.08	.0	16	47	50
27	24	26	12	3.8	.0	.0	.0	.0	.0	15	47	48
28	24	27	12	3.7	.0	.0	.0	.0	.0	14	48	47
29	23	27	12	3.3	---	.0	.0	.0	.0	12	46	49
30	22	26	11	3.1	---	.0	.0	.0	.0	12	45	47
31	22	---	11	3.0	---	.0	---	.0	---	11	47	---
Site 6--Bayless Boulevard Canal at Daytona Beach [Water year October 1982 to September 1983]												
1	---	---	---	0.53	1.8	1.5	3.2	1.5	1.3	---	---	1.8
2	---	---	---	.62	12	1.4	2.7	1.5	.90	---	---	2.7
3	---	---	---	.75	3.6	1.3	2.5	1.5	.80	---	---	2.8
4	---	---	---	.59	2.5	1.2	2.1	1.6	.85	---	---	1.5
5	---	---	---	.59	1.7	1.2	1.9	1.7	2.5	---	---	.88
6	---	---	.66	.56	2.9	1.2	1.8	1.5	2.4	---	---	.69
7	---	---	.81	.51	2.5	5.5	3.3	1.3	14	---	---	.59
8	---	---	1.1	.57	1.9	3.4	4.9	1.2	16	---	---	.51
9	---	---	.80	.58	1.6	2.5	3.7	1.2	3.3	---	---	.47
10	---	---	1.9	.59	2.0	2.1	6.2	1.1	2.1	---	2.4	.42
11	---	---	1.3	.56	2.9	1.7	3.4	1.2	1.6	---	1.6	.37
12	---	---	1.1	.51	3.7	1.5	2.9	1.1	1.2	---	1.7	.29
13	---	---	.94	.44	21	1.5	2.5	1.1	7.6	---	6.6	.29
14	---	---	.80	.54	5.1	1.4	2.2	.98	1.9	---	7.4	.29
15	---	---	.75	.57	3.3	5.6	7.5	.97	1.4	---	4.5	.29
16	---	---	.81	.51	3.4	12	4.9	.92	1.1	---	2.6	.22
17	---	---	.80	.45	3.3	16	3.1	.84	1.1	---	1.7	3.1
18	---	---	.73	.44	2.6	5.0	2.9	.79	1.0	---	1.3	1.7
19	---	---	.70	.44	2.3	3.4	4.6	.79	.81	---	.98	1.2
20	---	---	.66	2.1	2.0	2.9	3.0	.79	.67	---	.80	2.3
21	---	---	.65	2.0	1.8	3.7	2.5	.78	3.2	---	.67	1.2
22	---	---	.64	1.0	1.8	2.7	2.2	.76	3.3	---	.54	.91
23	---	---	.59	1.0	1.7	2.3	3.8	.72	2.4	---	.47	.72
24	---	---	.59	1.8	1.6	2.9	4.1	.69	3.3	---	.46	.86
25	---	---	.58	1.7	1.5	2.3	2.9	.70	2.6	---	.51	6.6
26	---	---	.58	1.3	1.4	2.0	2.4	.84	1.6	---	.57	1.6
27	---	---	.59	1.5	1.3	2.5	2.1	.79	.96	---	.42	1.2
28	---	---	.53	1.6	1.4	2.8	1.9	---	.72	---	.38	.90
29	---	---	.51	1.1	---	2.1	1.7	---	.65	---	.41	.73
30	---	---	.51	1.0	---	1.9	1.6	---	---	---	.33	.62
31	---	---	.51	1.3	---	5.2	---	2.1	---	---	.29	---

APPENDIX III--Daily discharge--Continued
[Mean values in cubic feet per second]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 6--Bayless Boulevard Canal at Daytona Beach [Water year October 1983 to September 1984]												
1	0.53	0.75	0.44	2.1	0.59	0.95	0.51	---	0.61	7.4	0.75	0.26
2	.44	.73	.41	1.7	.59	.69	.51	---	.52	7.6	.68	.20
3	.42	.68	.37	1.5	.59	.66	4.3	---	.49	6.8	.42	.17
4	.37	.74	.37	1.3	.59	.66	21	---	.44	4.4	.35	.13
5	.37	.86	.37	1.2	.52	.67	2.9	---	.44	2.4	.35	8.4
6	.37	.73	.37	1.1	.51	.63	1.7	---	.44	1.6	.24	14
7	.36	.66	.37	.95	.51	.59	1.2	---	.44	1.3	.23	21
8	.35	.66	.37	.85	.48	.59	.99	---	.44	1.1	.20	3.9
9	1.1	.62	.37	.80	.44	.59	1.0	.44	.44	.79	.15	22
10	.78	.63	.37	1.1	.44	.59	.87	.40	.44	.68	.12	27
11	1.8	.59	.76	1.1	.44	.59	.66	.37	.44	.66	.09	4.9
12	1.5	.59	40	.89	.47	.59	.61	.37	.44	.60	1.4	2.5
13	.94	.54	5.4	.84	5.1	.59	.59	.37	.44	.67	1.2	1.7
14	.74	.51	2.7	.76	2.5	.59	1.7	.37	.44	.65	.30	1.3
15	1.7	.51	2.6	.73	1.2	.59	2.9	.37	.44	1.1	.15	1.2
16	39	.61	2.1	.72	.86	.59	1.0	.37	.44	.57	.08	---
17	31	.51	1.7	.66	.68	.59	.75	.37	.44	1.1	.06	---
18	8.4	.46	2.7	.69	.60	.59	.73	.37	.44	1.2	.06	---
19	3.0	.44	2.0	1.5	.59	.59	.66	.37	.44	1.5	.41	---
20	2.1	.92	25	1.4	.59	.64	.66	.37	.42	1.8	.78	---
21	1.7	.86	24	2.8	.62	1.1	.66	.32	.39	6.0	1.9	---
22	5.9	.48	5.0	1.7	9.6	.59	.61	.29	.37	3.1	1.2	---
23	2.8	.44	2.9	1.3	3.0	.59	.60	24	.49	3.8	.50	---
24	2.0	.44	2.3	1.0	1.6	.54	.65	4.6	.45	2.3	.34	---
25	1.6	.45	1.8	.93	1.1	.51	.59	2.3	.47	1.3	3.9	---
26	1.3	.41	1.5	.87	.82	.51	.59	2.6	.79	.89	3.0	---
27	1.1	.37	1.5	.85	1.2	.59	.59	2.8	.37	.69	1.1	---
28	.95	.37	1.5	.71	2.0	.54	.59	1.9	.45	.57	.74	---
29	.86	.95	19	.66	1.3	.51	.59	1.2	1.5	.48	.56	---
30	.80	.63	7.6	.62	---	.51	---	1.0	2.2	.43	.45	---
31	.75	---	2.8	.59	---	.51	---	.81	---	.67	.33	---
Site 6--Bayless Boulevard Canal at Daytona Beach [Water year October 1984 to September 1985]												
1	---	0.0	0.13	0.0	0.0	0.0	0.0	0.0	0.0	0.11	4.1	36
2	---	.0	.11	.0	.0	.0	.0	.0	.0	.0	2.4	19
3	---	.0	.08	2.3	.0	.0	.0	.0	.0	.0	1.5	4.8
4	---	.0	.07	.50	.0	.0	.0	3.5	.0	.0	2.7	2.5
5	---	.0	.09	.0	.0	.0	.0	.34	.0	.02	.75	1.6
6	---	.0	.02	.0	.03	.0	.03	.0	.0	.55	.35	2.8
7	---	.0	.0	.0	.0	.0	.0	.0	.0	.43	8.2	2.4
8	---	.0	.0	.0	.01	.0	.0	.0	.58	1.2	19	1.6
9	---	.0	.0	.0	.0	.0	.0	.0	.65	.01	8.5	1.0
10	---	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.8	.98
11	---	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.5	.63
12	---	.0	.0	.0	.0	.0	.0	.0	.46	.18	2.7	.38
13	---	.0	.0	.0	.0	.0	1.7	.0	.88	.30	2.2	.24
14	---	.0	.0	.0	.0	.0	.12	.0	2.5	.0	2.8	.44
15	---	.0	.0	.0	.0	.0	.0	.0	17	.0	3.6	.14
16	---	.0	.0	.0	.0	.0	.0	.0	4.4	1.0	3.0	.04
17	---	.0	.0	.0	.0	.11	.0	.0	1.5	.73	2.1	6.2
18	---	.0	.0	.0	.0	.01	.0	.0	.54	.01	1.6	2.4
19	---	.0	.0	.0	.0	.0	.0	.0	.24	.0	4.5	1.8
20	---	.0	.0	.0	.0	.0	.0	.48	.06	.0	3.2	21
21	---	.0	.0	.0	.0	.31	.0	.39	.0	.0	2.8	27
22	---	1.5	.0	.0	.0	.78	.0	.01	.0	.0	8.2	6.6
23	---	10	.0	.0	.0	.0	.0	1.9	.0	.0	4.9	3.2
24	---	2.1	.0	.0	.0	.0	.0	1.5	.0	.10	2.1	2.0
25	---	.84	.0	.0	.0	.0	.0	.0	.0	.83	1.4	1.5
26	---	.61	.0	.0	.0	.0	.0	.0	.0	.25	1.1	1.1
27	---	.50	.0	.0	.0	.0	.0	.0	.0	.0	2.5	.86
28	---	.44	.0	.0	.0	.0	.0	.0	.61	.0	3.3	3.6
29	---	.32	.0	.0	---	.0	.0	.0	.21	.0	2.5	1.5
30	.0	.20	.0	.0	---	.0	.0	.0	.13	.0	1.4	1.3
31	.0	---	.0	.0	---	.0	---	.0	---	.89	7.0	---

APPENDIX III--Daily discharge--Continued
[Mean values in cubic feet per second]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 7--Bellevue Canal at Daytona Beach [Water year October 1982 to September 1983]												
1	---	---	0.03	0.00	0.35	2.8	5.9	6.3	1.4	5.0	0.81	1.5
2	---	---	.01	.00	24	2.6	5.1	5.7	.93	4.6	.75	5.7
3	---	---	.00	.00	36	2.4	4.8	5.1	.85	3.8	.74	7.9
4	---	---	.00	.00	27	2.2	4.3	4.8	.83	2.7	.74	6.0
5	---	---	.00	.00	2.5	2.0	4.0	4.5	2.6	1.8	.74	3.7
6	---	---	.00	.00	15	1.8	3.7	4.0	2.9	1.3	.74	1.9
7	---	---	.00	.00	28	12	7.3	---	16	.99	.74	1.1
8	---	---	.00	.00	5.5	26	21	---	35	.95	.74	.87
9	---	---	.00	.00	2.7	4.3	17	---	12	.85	3.3	.83
10	---	---	.81	.00	3.1	3.0	34	1.8	9.6	.80	6.7	.81
11	---	---	.79	.00	3.4	2.6	26	1.5	17	.70	2.4	.81
12	---	---	.73	.00	13	2.4	16	1.2	8.7	.60	1.9	.81
13	---	---	.70	.00	57	2.2	10	.92	10	.50	5.0	.81
14	---	---	.50	.00	46	2.1	7.3	.81	8.0	.32	18	.81
15	---	---	.32	.00	33	7.5	28	.79	6.9	.21	17	.81
16	---	---	.21	.00	33	38	46	.74	6.6	.14	7.7	.81
17	---	---	.14	.00	37	48	36	.69	4.5	.09	4.8	3.0
18	---	---	.09	.00	30	37	31	.67	2.1	.06	3.6	3.0
19	---	---	.06	.00	24	30	32	.63	1.3	.04	1.9	2.4
20	---	.85	.04	.87	18	18	29	.57	1.0	.02	1.2	5.0
21	---	.79	.02	.77	13	20	22	.32	3.8	.02	1.2	4.8
22	---	.76	.02	.70	10	15	15	.21	7.0	.01	1.1	3.8
23	---	.72	.01	.65	7.2	8.7	21	.14	7.5	.01	.94	2.6
24	---	.70	.01	.60	4.5	7.7	33	.09	10	.00	.82	2.2
25	---	.60	.00	.50	3.5	6.2	28	.06	9.1	.00	1.7	15
26	---	.55	.00	.40	3.2	4.9	19	.04	7.0	.00	6.4	7.6
27	---	.50	.00	.72	3.0	4.9	12	.02	5.1	.00	3.2	5.0
28	---	.42	.00	.68	2.9	5.1	8.8	.02	3.8	.00	1.4	3.1
29	---	.11	.00	.60	---	4.7	7.3	2.0	3.0	.00	.86	3.9
30	---	.07	.00	.50	---	4.3	6.7	5.4	4.4	.00	.77	9.7
31	---	---	.00	.40	---	8.0	---	3.5	---	.99	.77	---
Site 7--Bellevue Canal at Daytona Beach [Water year October 1983 to September 1984]												
1	4.5	5.0	1.6	36	11	18	0.68	0.87	5.3	12	2.4	---
2	1.8	4.7	1.7	33	10	16	.62	.86	4.5	20	2.7	---
3	1.1	4.3	1.4	31	9.9	14	4.3	.85	3.8	30	2.3	---
4	.84	3.8	1.0	30	9.4	12	44	1.6	3.3	31	1.5	---
5	.81	3.4	.87	29	8.6	11	38	2.4	2.7	19	.99	---
6	.77	3.3	.80	27	7.8	11	28	.86	2.2	11	.88	---
7	.70	3.2	.77	26	6.8	9.7	22	.77	1.6	7.7	.80	---
8	.65	2.5	.75	25	6.1	8.9	17	.65	1.3	5.4	.78	---
9	.91	2.1	.69	23	5.7	8.2	14	.60	1.2	3.4	.70	---
10	.82	2.3	.62	---	5.2	7.6	13	.58	1.1	2.7	.58	---
11	4.3	2.1	3.2	---	4.9	6.9	12	.50	1.1	3.4	.57	---
12	8.5	1.6	80	32	4.9	6.0	11	.40	1.1	3.8	1.1	---
13	7.7	1.3	49	28	14	5.5	10	.25	1.0	4.1	1.8	---
14	5.6	1.0	40	18	23	4.8	10	.06	.85	4.8	.84	---
15	5.9	1.0	43	15	15	4.0	17	.04	.70	5.0	.79	---
16	49	1.8	42	12	11	3.2	13	.02	.63	4.7	.74	---
17	65	1.8	42	11	10	2.5	11	.01	.57	3.9	.64	---
18	49	1.6	49	11	9.6	2.0	9.3	.00	.53	2.9	.59	---
19	35	1.3	43	13	9.3	1.5	8.2	.00	.50	2.9	---	---
20	26	1.9	59	13	9.0	1.5	7.4	.00	.47	5.3	---	---
21	17	2.8	94	25	9.1	2.9	7.0	.00	.43	12	---	---
22	32	2.3	67	25	30	1.5	6.4	.00	.37	13	---	---
23	40	1.9	45	21	41	1.0	6.0	26	.35	12	---	---
24	34	3.5	37	17	37	.89	5.8	18	2.6	9.5	---	---
25	25	11	34	18	34	.86	4.7	11	12	7.4	---	---
26	26	3.9	31	17	28	.85	3.7	12	14	5.6	---	---
27	11	1.9	30	16	22	1.0	2.7	13	11	4.2	---	---
28	8.5	1.2	28	15	25	.96	1.9	10	8.8	2.8	---	---
29	7.1	2.1	43	13	21	.85	1.4	7.9	4.4	1.8	---	56
30	6.1	1.9	50	12	---	.79	.99	6.5	4.9	1.3	---	43
31	5.4	---	40	11	---	.75	---	6.0	---	1.9	---	---

APPENDIX III--Daily discharge--Continued
[Mean values in cubic feet per second]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 7--Bellevue Canal at Daytona Beach [Water year October 1984 to September 1985]												
1	37	1.4	---	---	0.00	0.00	0.00	0.00	1.2	3.9	2.8	---
2	33	1.1	---	---	.00	.74	.00	.00	1.2	3.2	4.1	84
3	30	1.0	---	---	.00	.00	.00	.00	1.2	2.8	3.2	57
4	29	1.1	---	---	.00	.00	.00	7.7	1.1	2.5	5.5	53
5	26	1.0	---	3.6	.00	.00	.00	4.2	1.1	2.4	3.8	54
6	22	.94	---	1.1	.00	.00	.00	1.4	1.0	3.3	2.7	53
7	20	.87	---	.81	.00	.00	.00	1.0	1.1	2.7	11	48
8	22	.82	---	.75	.00	.00	.00	3.7	4.8	3.3	36	37
9	34	.78	---	.72	.00	.00	.00	1.1	5.6	2.6	35	31
10	38	.73	---	.68	.00	.00	.00	1.0	2.3	2.3	31	29
11	37	.70	---	.63	.00	.00	.00	1.0	1.6	2.2	21	26
12	32	.67	---	.60	.00	.00	.00	1.0	2.9	2.8	12	21
13	17	.61	---	.58	.00	.00	3.8	.96	5.2	2.7	12	18
14	12	.55	---	.55	.00	.00	2.6	.96	14	2.1	24	17
15	10	.43	---	.51	.00	.00	1.3	.94	33	1.8	32	14
16	9.5	.27	---	.47	.00	.00	.90	1.2	25	3.0	32	12
17	8.7	.17	---	.42	.00	.00	.84	.97	11	3.1	28	31
18	7.9	.05	---	.38	.00	.00	.80	.86	7.6	2.1	24	35
19	7.2	.02	---	.32	.00	.00	.75	.82	5.6	1.9	45	31
20	6.3	.10	---	.07	.00	.01	.72	1.5	4.5	1.6	44	74
21	---	.50	---	.01	.00	1.0	.69	2.1	4.0	1.5	38	---
22	---	3.0	---	.00	.00	1.4	.65	1.5	5.3	1.4	40	87
23	---	24	---	.00	.00	.80	.58	4.7	28	1.4	44	56
24	---	30	---	.00	.00	.74	.52	5.0	35	1.4	37	49
25	---	---	---	.00	.00	.68	.46	2.4	29	1.7	33	47
26	---	---	---	.00	.00	.62	.40	1.7	8.4	1.8	30	36
27	---	---	---	.00	.00	.57	.33	1.4	4.8	1.6	33	30
28	---	---	---	.00	.00	.53	.07	1.3	5.0	1.4	34	31
29	---	---	---	.00	---	.48	.01	1.3	4.9	1.3	30	29
30	---	---	---	.00	---	.30	.00	1.3	4.2	1.2	29	29
31	1.8	---	---	.00	---	.01	---	1.2	---	1.2	35	---
Site 11--B-19 Canal at Willow Run Boulevard at Port Orange [Water year October 1982 to September 1983]												
1	---	---	15	15	18	19	---	25	31	31	33	18
2	---	---	14	15	32	21	---	24	30	32	32	31
3	---	---	14	15	41	19	---	23	28	31	23	30
4	---	---	14	15	34	18	---	24	28	30	21	26
5	---	---	14	14	29	18	---	23	31	29	20	21
6	---	---	13	14	30	18	---	23	34	29	18	19
7	---	---	20	14	34	24	---	22	37	28	20	17
8	---	---	21	14	30	31	---	21	54	28	19	16
9	---	---	20	14	27	30	---	21	54	27	22	15
10	---	---	22	14	26	26	---	20	49	26	34	14
11	---	18	24	14	28	23	---	20	44	26	28	13
12	---	17	22	14	28	21	---	20	40	25	25	13
13	---	16	21	14	52	20	---	20	37	25	29	12
14	---	16	20	14	56	20	---	20	37	24	71	11
15	---	16	19	15	44	26	---	20	35	23	55	11
16	---	16	19	16	38	61	---	20	33	23	32	11
17	---	16	19	14	37	66	---	21	31	23	25	15
18	---	15	18	15	33	61	---	21	30	23	21	17
19	---	15	18	14	30	49	---	21	29	23	19	16
20	---	15	17	17	28	41	38	20	29	23	17	17
21	---	15	16	20	25	43	35	20	33	24	16	17
22	---	15	16	19	24	39	31	19	42	23	15	16
23	---	15	16	18	23	34	37	19	43	23	14	14
24	---	16	16	19	22	35	54	19	44	22	13	13
25	---	15	15	18	22	33	47	19	43	22	13	23
26	---	15	15	18	21	28	40	21	40	26	13	19
27	---	15	15	20	20	30	34	20	38	25	12	17
28	---	15	15	21	19	31	30	20	35	24	12	15
29	---	16	15	20	---	31	28	24	34	27	11	14
30	---	15	15	19	---	---	26	32	32	28	11	13
31	---	---	15	19	---	---	---	33	---	28	11	---

APPENDIX III--Daily discharge--Continued
[Mean values in cubic feet per second]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 11--B-19 Canal at Willow Run Boulevard at Port Orange [Water year October 1983 to September 1984]												
1	9.0	9.4	7.7	16	7.0	9.0	6.8	6.0	8.3	12	9.5	10
2	8.7	9.0	7.4	14	7.0	8.7	6.7	6.0	8.0	14	9.2	9.1
3	8.5	8.4	6.9	13	7.0	8.3	14	6.0	7.7	16	8.9	8.5
4	8.8	8.4	6.5	11	6.8	8.0	31	6.8	7.5	17	8.5	8.3
5	8.6	8.4	6.7	11	6.7	7.7	20	8.2	7.3	15	8.2	8.6
6	8.4	8.2	6.7	10	6.7	7.7	14	7.3	7.3	13	8.0	15
7	8.2	8.1	6.1	9.5	6.7	7.8	12	6.7	6.7	12	7.7	18
8	10	8.0	6.0	8.8	6.7	7.5	10	---	6.3	11	7.3	15
9	11	7.9	6.0	8.5	6.7	7.3	9.9	---	5.9	10	7.4	24
10	11	7.8	5.8	8.8	6.4	6.7	9.6	---	5.8	9.4	6.8	50
11	18	7.6	6.4	8.5	6.3	6.7	8.9	5.7	6.1	8.9	6.5	37
12	22	7.5	62	8.0	6.3	6.4	8.6	5.7	6.0	11	7.6	24
13	17	7.4	38	8.0	8.0	6.3	8.4	5.7	6.8	9.1	7.1	18
14	15	7.2	21	8.0	8.8	6.3	9.3	5.6	6.0	8.6	5.8	15
15	22	7.0	17	7.8	8.2	6.3	10	5.5	5.6	8.3	4.9	12
16	55	7.9	15	7.7	7.6	6.1	9.2	5.4	5.3	8.3	4.5	11
17	68	7.8	13	7.7	7.4	7.0	8.5	5.4	5.1	8.1	4.6	9.9
18	56	7.5	18	7.7	7.0	9.1	8.0	5.4	5.7	8.1	6.8	13
19	32	7.0	18	8.2	6.8	8.4	7.8	5.4	4.9	9.2	11	17
20	21	8.2	30	8.7	6.5	9.2	7.6	5.4	4.9	9.4	11	15
21	17	8.3	74	15	6.5	11	7.5	5.4	4.8	12	13	13
22	29	7.8	49	13	20	8.5	7.4	5.4	4.8	12	14	11
23	23	7.7	26	11	24	8.4	7.3	22	7.3	12	12	9.9
24	18	7.6	19	10	16	8.8	6.9	21	6.7	11	10	9.7
25	15	7.7	15	9.7	14	8.7	6.7	15	7.5	10	16	9.2
26	14	7.2	13	9.1	---	8.4	6.5	15	9.7	9.7	27	8.7
27	12	6.8	12	8.5	---	8.8	6.3	14	7.8	9.9	20	15
28	11	6.7	11	8.0	11	9.2	6.3	12	8.3	9.5	15	59
29	10	7.5	23	7.7	9.6	9.1	6.3	10	8.9	9.3	14	43
30	9.7	7.7	31	7.6	---	8.4	6.1	9.9	12	9.3	12	28
31	9.6	---	20	7.3	---	7.6	---	9.2	---	9.3	12	---
Site 11--B-19 Canal at Willow Run Boulevard at Port Orange [Water year October 1984 to September 1985]												
1	20	4.3	8.2	3.1	2.8	2.7	3.1	3.1	3.2	12	14	56
2	15	3.7	7.9	3.1	2.8	2.7	2.8	3.1	3.2	11	13	80
3	13	4.7	7.7	3.1	2.8	2.6	2.5	3.1	3.3	10	15	70
4	12	4.9	7.6	3.7	2.8	2.6	2.5	3.2	3.2	10	19	52
5	11	4.1	7.5	3.3	2.8	2.6	2.5	3.5	3.0	11	17	34
6	9.7	3.5	7.2	3.2	2.8	2.6	2.8	3.3	3.0	12	15	26
7	8.7	3.3	6.0	3.0	2.8	2.6	3.7	3.3	3.0	11	16	25
8	8.3	3.3	5.3	3.0	2.8	2.6	3.3	3.3	2.9	11	21	22
9	8.2	3.3	5.1	3.0	2.8	2.5	3.3	3.2	3.1	11	30	19
10	7.8	3.3	5.0	3.0	2.8	2.5	3.3	3.1	3.3	10	37	17
11	8.4	3.3	4.9	3.0	2.8	2.5	3.3	3.1	3.2	10	35	17
12	8.5	3.3	4.6	3.0	2.8	2.8	3.3	3.1	6.7	10	34	17
13	7.9	3.3	4.4	3.0	2.8	3.1	6.5	3.1	9.7	11	35	16
14	7.6	3.2	3.9	3.0	2.8	3.1	7.9	3.1	15	11	48	16
15	7.0	3.1	3.6	3.0	2.8	3.1	7.5	3.1	36	10	50	15
16	6.2	3.1	3.3	3.0	2.8	3.1	6.5	3.0	39	11	44	14
17	5.8	3.0	3.4	3.0	2.8	3.1	5.9	3.0	29	11	38	36
18	5.3	2.6	3.5	3.0	2.8	3.1	5.0	2.9	22	11	32	40
19	5.0	2.6	3.7	3.0	2.8	3.1	4.8	2.6	17	11	28	31
20	4.8	2.6	3.7	3.0	2.8	3.1	4.3	7.6	14	10	50	78
21	5.7	2.6	3.7	3.0	2.8	3.7	3.4	6.8	12	10	47	117
22	6.8	6.1	3.6	3.0	2.8	3.4	3.3	3.9	12	10	37	100
23	5.3	17	3.5	3.0	2.8	3.3	3.3	7.4	12	10	37	82
24	4.8	23	3.5	3.0	2.8	3.2	3.3	7.6	11	11	33	59
25	4.8	17	3.4	3.0	2.8	3.1	3.3	6.4	11	11	28	34
26	6.2	13	3.3	3.0	2.8	3.1	3.1	4.8	11	12	24	22
27	7.7	11	3.2	3.0	2.7	3.1	3.1	3.9	10	11	27	18
28	6.8	9.9	3.1	3.0	2.8	3.1	3.1	3.8	11	11	29	52
29	5.7	9.3	3.1	3.0	---	3.1	3.1	3.5	12	11	26	34
30	5.2	8.6	3.1	2.9	---	3.1	3.1	3.3	12	11	24	25
31	4.5	---	3.1	2.8	---	3.1	---	3.4	---	12	26	---

APPENDIX III--Daily discharge--Continued
[Mean values in cubic feet per second]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 12--B-19 Canal at Dunlawton Avenue at Port Orange [Water year October 1982 to September 1983]												
1	---	---	23	22	25	29	39	31	27	25	22	38
2	---	---	22	22	49	30	37	30	26	26	21	62
3	---	---	21	21	64	28	36	---	25	24	18	65
4	---	---	21	21	51	27	35	---	24	23	20	54
5	---	---	21	21	43	27	33	---	26	23	22	45
6	---	---	21	21	44	27	30	---	28	23	21	38
7	---	---	30	21	51	35	32	---	29	22	22	33
8	---	---	30	21	45	43	42	---	41	22	22	31
9	---	---	30	21	40	42	50	---	42	22	24	29
10	---	28	32	21	39	37	67	---	38	21	36	27
11	---	27	35	21	42	33	59	25	34	21	34	26
12	---	27	33	20	43	30	49	25	31	20	30	26
13	---	26	31	20	93	29	42	25	29	19	34	25
14	---	25	30	18	96	28	39	25	29	17	72	24
15	---	25	29	21	68	39	52	24	28	16	85	23
16	---	26	28	22	56	103	80	24	26	14	54	22
17	---	25	28	20	54	118	67	25	25	12	46	31
18	---	24	27	21	49	103	56	25	24	11	42	34
19	---	24	26	19	43	75	53	24	24	11	37	34
20	---	24	25	23	39	56	48	24	23	11	34	34
21	---	23	25	28	37	61	42	23	26	12	31	33
22	---	23	24	27	35	55	38	23	31	7.3	29	31
23	---	23	23	26	34	47	47	23	32	5.9	28	29
24	---	24	23	26	32	48	71	22	33	5.4	27	27
25	---	24	23	25	30	44	59	22	32	5.1	26	41
26	---	24	22	25	29	39	49	22	30	12	26	37
27	---	23	22	28	28	40	42	22	29	11	25	33
28	---	23	22	28	28	42	37	22	27	9.3	25	30
29	---	25	22	27	---	39	34	23	26	16	24	28
30	---	24	22	27	---	35	32	28	25	18	24	27
31	---	---	22	26	---	39	---	28	---	19	23	---
Site 12--B-19 Canal at Dunlawton Avenue at Port Orange [Water year October 1983 to September 1984]												
1	25	32	27	56	30	36	25	25	29	42	30	29
2	24	31	26	50	30	35	24	24	27	47	30	27
3	24	30	26	46	30	34	41	23	26	47	27	27
4	24	30	25	43	29	33	96	25	26	49	26	25
5	24	29	26	41	29	32	68	28	25	45	25	26
6	23	29	26	40	28	32	51	26	24	39	25	39
7	22	29	25	38	28	32	43	26	24	36	24	43
8	29	28	24	36	27	30	38	24	23	36	23	39
9	32	28	25	35	27	30	37	24	22	31	24	51
10	32	28	24	36	27	29	36	23	22	30	23	96
11	50	27	25	---	27	29	34	22	22	28	24	76
12	63	26	154	---	27	28	33	22	24	31	24	57
13	51	26	102	---	34	29	32	22	24	29	25	48
14	43	25	66	---	37	28	34	23	22	27	22	42
15	63	25	55	---	35	27	38	22	22	26	21	36
16	144	28	48	---	33	27	34	21	21	26	21	34
17	183	28	45	---	32	26	32	22	21	25	21	34
18	139	27	56	---	31	26	31	21	23	25	24	39
19	86	25	55	---	30	26	30	20	21	28	30	49
20	62	29	81	---	29	27	30	20	21	28	33	45
21	52	29	187	---	29	29	28	22	21	33	34	39
22	78	28	129	---	66	27	28	21	22	34	40	36
23	68	27	80	---	81	26	29	51	26	35	34	33
24	55	27	61	---	56	26	27	54	26	33	31	33
25	48	27	51	---	48	26	27	42	29	32	40	30
26	43	26	47	37	42	26	26	41	31	30	58	30
27	41	26	44	36	41	27	25	40	27	29	51	40
28	37	25	42	35	43	27	26	37	28	29	41	108
29	35	27	73	33	38	27	24	33	30	28	37	86
30	34	27	96	32	---	25	24	32	38	28	34	63
31	33	---	68	31	---	25	---	30	---	28	32	---

APPENDIX III--Daily discharge--Continued
[Mean values in cubic feet per second]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 12--B-19 Canal at Dunlawton Avenue at Port Orange [Water year October 1984 to September 1985]												
1	52	24	28	21	17	4.6	3.6	3.8	4.2	23	23	79
2	45	24	28	21	9.4	4.9	3.7	3.7	3.9	22	22	106
3	40	25	29	21	8.6	5.2	3.6	3.6	3.8	22	23	91
4	37	24	28	22	7.6	4.9	3.5	4.9	3.6	20	29	75
5	35	24	27	21	14	4.7	3.5	4.6	3.6	19	27	57
6	32	23	26	21	13	4.6	4.6	4.4	3.4	23	25	49
7	30	22	26	23	12	4.5	5.5	3.9	3.4	21	25	46
8	30	21	25	21	10	4.3	4.4	3.8	3.5	21	30	43
9	29	22	25	21	8.6	4.1	4.0	3.6	3.5	19	37	40
10	28	22	26	20	8.0	4.0	3.7	3.5	3.7	15	43	37
11	30	22	26	17	9.4	4.0	3.6	3.4	3.6	12	43	34
12	30	22	25	17	10	4.0	4.0	3.3	10	13	44	32
13	28	21	25	17	8.8	4.0	14	3.4	21	16	45	30
14	27	22	24	15	7.7	4.0	15	3.3	28	13	61	30
15	27	21	23	15	7.2	3.9	10	3.2	52	9.8	64	29
16	27	21	23	18	13	3.8	7.8	3.2	58	11	56	28
17	26	20	25	17	6.8	4.2	6.4	3.1	48	13	50	51
18	25	20	23	14	15	4.1	5.1	3.1	39	11	44	58
19	25	21	23	15	8.2	4.0	4.7	3.1	33	9.2	41	51
20	25	20	23	13	10	3.9	4.9	14	29	7.2	61	113
21	25	21	23	11	5.8	7.3	4.4	19	27	6.0	69	189
22	27	27	22	13	5.6	9.1	4.3	6.2	26	5.7	57	146
23	25	44	21	19	5.4	4.9	4.1	19	25	5.2	57	123
24	25	55	21	16	4.8	4.3	3.9	18	23	7.4	51	96
25	25	45	21	14	4.8	4.1	3.8	13	24	7.0	45	67
26	27	40	24	10	4.7	3.9	3.9	7.8	22	9.9	40	51
27	27	36	22	9.9	4.8	3.8	3.8	5.6	21	8.8	44	44
28	26	33	21	15	4.6	3.8	3.7	5.2	22	7.4	46	96
29	26	31	21	10	---	3.7	3.6	4.7	24	7.2	43	73
30	25	29	21	10	---	3.6	3.6	4.5	23	6.7	41	59
31	24	---	23	9.6	---	3.6	---	4.5	---	9.4	43	---

Appendix IV

APPENDIX IV--Quality of water analyses

[L denotes low flow sample; C denotes a composite sample; S denotes calculated by summing components]

Site No.	Date of sample	Specific conductance Lab (μS/cm)	Temperature (°C)	pH Lab (standard units)	Color (platinum-cobalt units)	Hardness (mg/L as CaCO ₃)	Hardness noncarbonate (mg/L as CaCO ₃)	Calcium dissolved (mg/L as Ca)	Magnesium dissolved (mg/L as mg)	Sodium dissolved (mg/L as Na)	Potassium dissolved (mg/L as K)
1	03-09-84L	77	14.5	6.50	280	27	11	8.7	1.3	7.1	.40
	09-28-84	68	--	6.50	160	22	8	7.3	1.0	5.2	.90
2	08-18-83L	397	--	7.40	70	180	32	65	3.4	17	.30
	12-12-83C	223	--	7.00	65	93	18	34	2.0	9.0	--
	12-21-83	121	--	6.10	230	48	22	16	1.9	8.4	.70
	03-15-84L	431	19.0	7.20	95	190	32	70	3.3	18	.60
	09-28-84	116	--	6.80	140	43	14	15	1.4	6.7	.90
3	08-18-83L	305	32.5	7.40	50	120	35	38	6.2	16	.10
	12-21-83	73	--	5.90	190	26	10	8.1	1.3	6.4	.50
	02-22-84	213	--	6.80	50	83	23	26	4.3	12	.30
	03-06-84L	246	26.0	6.60	60	84	40	22	7.1	17	.30
	04-04-84	54	--	6.60	40	25	6	8.7	.76	2.2	.50
	05-23-84C	67	--	7.00	30	27	8	8.8	1.1	2.6	.40
4	08-10-83L	175	26.5	7.00	30	75	9	27	1.7	6.4	.40
	12-21-83	114	--	6.40	170	49	12	17	1.5	7.0	.50
	02-22-84C	290	--	7.40	75	120	13	42	2.8	11	.90
	03-06-84L	395	22.0	7.00	110	150	19	50	6.4	22	.70
	09-28-84	119	--	6.90	120	46	10	16	1.4	6.5	.70
5	08-18-83L	64	24.5	4.30	360	11	10	2.9	.90	6.0	.10
	12-21-83	52	--	4.00	300	8	--	1.8	.84	5.7	.20
	03-19-84L	49	20.0	4.00	300	8	--	2.1	.78	6.2	<.10
	09-28-84	59	--	4.40	250	7	--	1.7	.65	4.1	.20
6	08-10-83L	191	28.0	6.90	40	69	11	24	2.2	11	1.2
	12-20-83C	171	--	6.80	100	66	8	23	2.1	8.5	1.8
	12-21-83	140	--	6.60	150	57	12	20	1.8	8.5	1.4
	12-22-83	218	--	6.70	140	87	14	30	2.9	11	1.9
	02-22-84	385	--	6.90	70	150	6	53	3.7	19	1.4
	03-09-84L	492	13.0	7.50	85	190	17	68	6.0	27	.90
7	08-10-83L	176	27.0	7.10	35	--	--	--	1.6	5.7	.30
	12-21-83	92	--	6.40	150	40	5	14	1.3	5.6	.70
	02-22-84	196	--	6.80	70	82	0	30	1.6	6.8	1.2
	03-19-84L	430	--	7.10	60	180	8	62	4.9	22	.30
	04-04-84	139	--	6.90	35	60	4	22	1.3	5.7	.60
8	05-23-84C	114	--	7.20	40	40	0	14	1.1	5.5	.80
	12-21-83	52	--	4.00	300	9	--	2.2	.82	5.6	.20
	03-19-84L	50	20.5	7.20	300	12	10	3.5	.86	6.9	<.10
9	09-28-84	53	--	4.60	300	9	--	2.4	.71	4.2	.30
	08-18-83L	145	--	6.40	280	50	--	15	2.9	8.8	5.2
	12-21-83	72	--	5.80	300	23	7	6.6	1.5	6.5	2.5
	03-09-84L	93	13.5	6.30	320	33	10	10	2.0	7.8	2.3
10	09-28-84	59	--	6.10	280	18	9	5.5	1.0	4.7	1.1
	08-15-83L	327	29.0	7.20	75	130	--	45	3.7	19	1.4
	12-21-83	98	--	6.00	340	42	17	14	1.7	7.1	.90
11	03-13-84L	673	24.0	7.60	120	270	16	100	5.2	37	.90
	08-15-83L	337	29.0	7.40	120	130	--	45	4.4	21	1.7
	12-21-83	145	--	6.50	300	57	15	19	2.2	10	1.3
	03-13-84L	588	23.5	7.60	160	240	22	87	4.8	33	1.0
	04-04-84	172	--	6.90	140	67	14	24	1.7	11	1.8
12	06-30-84C	293	--	7.80	80	110	12	41	2.6	16	1.5
	08-15-83L	294	--	7.10	100	--	--	--	3.9	19	1.7
	12-21-83	140	--	6.60	280	51	12	17	2.1	10	1.3
	03-13-84L	536	20.0	7.60	140	220	23	80	4.6	28	.90
	04-04-84	155	--	6.90	85	58	10	21	1.3	7.5	2.1
	08-20-84C	245	--	7.80	55	92	9	33	2.2	12	1.8

APPENDIX IV--Quality of water analyses--Continued

[L denotes low flow sample; C denotes a composite sample; S denotes calculated by summing components]

Site No.	Date of sample	Alkalinity Lab (mg/L as CaCO ₃)	Sulfate dissolved (mg/L as SO ₄)	Chloride dissolved (mg/L as Cl)	Fluoride dissolved (mg/L as F)	Silica dissolved (mg/L as SiO ₂)	Solids, residue at 180 °C dissolved (mg/L)	Nitrogen, nitrate, total (mg/L as N)	Nitrogen, nitrite, total (mg/L as N)	Nitrogen, ammonia, total (mg/L as N)	Nitrogen, organic, total (mg/L as N)
1	03-09-84L	16	0.5	15	<0.10	1.4	63	--	0.020	0.290	0.61
	09-28-84	14	2.3	14	<.10	2.7	77	--	<.010	<.010	--
2	08-18-83L	145	24	25	.20	7.0	263	.00	.010	.020	.46
	12-12-83C	75	19	15	.10	4.1	148	--	--	--	--
	12-21-83	26	23	14	<.10	4.5	136	--	--	--	--
	03-15-84L	157	30	27	<.10	5.3	300	--	<.010	<.010	--
	09-28-84	29	8.8	14	<.10	3.5	87	--	.010	<.010	--
3	08-18-83L	86	35	20	.20	6.2	200	--	<.010	.020	.42
	12-21-83	16	6.1	11	<.10	4.1	93	--	--	--	--
	02-22-84	60	19	18	<.10	4.9	143	--	--	--	--
	03-06-84L	44	40	26	<.10	6.6	169	--	<.010	<.010	--
	04-04-84	19	4.6	3.4	<.10	1.1	47	--	<.010	.020	.98
	05-23-84C	19	7.7	4.0	<.10	1.0	56	--	.010	.030	--
4	08-10-83L	66	5.8	9.3	.10	2.2	107	.01	.010	.010	.07
	12-21-83	37	13	11	<.10	3.3	116	--	--	--	--
	02-22-84C	104	13	19	.20	5.3	194	--	--	--	--
	03-06-84L	133	24	34	.10	4.9	261	--	<.010	<.010	--
	09-28-84	36	4.7	10	<.10	3.6	83	--	<.010	<.010	--
5	08-18-83L	1.0	<.1	10	.20	3.0	114	.00	.020	.030	1.1
	12-21-83	<1.0	--	12	<.10	2.5	108	--	--	--	--
	03-19-84L	<1.0	--	13	<.10	--	46	--	.010	.010	.69
	09-28-84	<1.0	.5	10	<.10	2.1	80	--	.010	.010	.69
6	08-10-83L	58	7.4	17	.10	3.0	135	.01	.010	.020	.30
	12-20-83C	58	11	15	<.10	3.5	137	--	--	--	--
	12-21-83	46	12	13	<.10	3.4	127	--	--	--	--
	12-22-83	73	14	19	<.10	4.6	171	--	--	--	--
	02-22-84	142	10	31	.20	4.8	244	--	--	--	--
	03-09-84L	178	13	42	.10	4.9	322	--	<.010	.050	.65
7	08-10-83L	--	6.8	7.5	.10	3.6	109	.01	.010	.020	.05
	12-21-83	35	11	8.0	<.10	2.8	89	--	--	--	--
	02-22-84	84	--	10	<.10	2.4	122	--	--	--	--
	03-19-84L	168	9.0	31	.20	3.2	279	--	<.010	.050	.75
	04-04-84	57	5.8	8.0	<.10	1.7	90	--	<.010	.100	.90
	05-23-84C	39	5.2	8.2	.10	1.4	89	.17	.030	.190	1.1
8	12-21-83	--	--	12	<.10	2.3	106	--	--	--	--
	03-19-84L	--	--	14	<.10	.4	56	--	.020	1.40	0.00
	09-28-84	<1.0	2.0	12	<.10	2.1	81	--	.010	.020	.78
9	08-18-83L	--	18	14	.50	5.0	152	.18	.020	.050	1.8
	12-21-83	16	19	12	<.10	2.4	104	--	--	--	--
	03-09-84L	23	.6	15	<.10	1.4	127	.08	.020	.080	1.0
	09-28-84	9.0	1.0	11	<.10	3.0	90	--	.010	.050	1.2
10	08-15-83L	--	17	27	.20	5.7	215	.05	.010	.160	.79
	12-21-83	25	20	13	<.10	3.2	126	--	--	--	--
	03-13-84L	256	15	57	.20	13	458	.17	.030	.230	.97
11	08-15-83L	--	15	30	.20	7.2	230	.13	.020	.100	1.9
	12-21-83	42	15	15	<.10	2.9	136	--	--	--	--
	03-13-84L	216	17	50	.10	10	420	.07	.030	.250	1.1
	04-04-84	53	9.8	16	.10	1.8	127	.26	.040	.140	1.7
	06-30-84C	102	9.9	27	.20	5.6	204	.07	.030	.060	.74
12	08-15-83L	--	13	27	.20	6.4	207	.10	.020	.080	2.2
	12-21-83	39	14	15	<.10	2.8	132	--	--	--	--
	03-13-84L	197	15	45	.10	9.4	378	.07	.030	.170	1.0
	04-04-84	48	9.5	13	.10	1.6	107	.36	.040	.180	1.6
	08-20-84C	83	8.1	20	.10	3.3	154	.17	.030	<.010	--

APPENDIX IV--Quality of water analyses--Continued

[L denotes low flow sample; C denotes a composite sample; S denotes calculated by summing components]

Site No.	Date of sample	Ni-tro-gen, total (mg/L as N)	Phos-phor-us, total (mg/L as P)	Ortho-phos-phorus, total (mg/L as P)	Alum-inum, total, recov-erable (µg/L as Al)	Ar-sen-ic, total (µg/L as As)	Cad-mium, total, recov-erable (µg/L as Cd)	Cop-per, dis-solved (µg/L as Cu)	Iron, total, recov-erable (µg/L as Fe)	Iron, dis-solved (µg/L as Fe)	Lead, total, recov-erable (µg/L as Pb)
1	03-09-84L	0.92S	0.050	<0.010	310	1	1	<1	640	540	1
	09-28-84	--	.080	.050	520	1	6	3	810	400	2
2	08-18-83L	.49	.050	.010	230	2	2	<1	290	130	4
	12-12-83C	--	--	--	--	--	--	--	--	--	--
	12-21-83	--	--	--	--	--	--	--	--	--	--
	03-15-84L	--	.050	.020	90	1	<1	<1	310	160	1
	09-28-84	--	.110	.050	790	1	2	2	660	240	5
3	08-18-83L	.45	.010	<.010	--	--	--	--	--	--	--
	12-21-83	--	--	--	--	--	--	--	--	--	--
	02-22-84	--	--	--	--	--	--	--	--	--	--
	03-06-84L	--	<.010	<.010	190	1	1	<1	750	410	<1
	04-04-84	1.0 S	.030	.010	640	1	<1	<1	850	85	4
	05-23-84C	--	.060	.020	8200	<1	1	4	1100	110	2
4	08-10-83L	.10	.020	.010	--	--	--	--	--	--	--
	12-21-83	--	--	--	--	--	--	--	--	--	--
	02-22-84C	--	--	--	--	--	--	--	--	--	--
	03-06-84L	--	<.010	<.010	170	1	2	5	1400	550	2
	09-28-84	--	.040	.020	310	<1	1	<1	610	280	3
5	08-18-83L	1.1	.030	.010	--	--	--	--	--	--	--
	12-21-83	--	--	--	--	--	--	--	--	--	--
	03-19-84L	.71S	<.010	<.010	270	1	<1	<1	310	220	2
	09-28-84	.71S	<.010	<.010	300	<1	<1	6	500	390	3
6	08-10-83L	.34	.060	.030	--	--	--	--	--	--	--
	12-20-83C	--	--	--	--	--	--	--	--	--	--
	12-21-83	--	--	--	--	--	--	--	--	--	--
	12-22-83	--	--	--	--	--	--	--	--	--	--
	02-22-84	--	--	--	--	--	--	--	--	--	--
	03-09-84L	.71S	.030	<.010	30	1	2	<1	1800	750	1
7	08-10-83L	.09	.040	.020	--	--	--	--	--	--	--
	12-21-83	--	--	--	--	--	--	--	--	--	--
	02-22-84	--	--	--	--	--	--	--	--	--	--
	03-19-84L	.81S	.040	<.010	60	1	1	<1	1100	360	2
	04-04-84	1.1	.030	.030	840	1	<1	1	1300	120	8
8	05-23-84C	1.5	.200	.120	1400	1	1	5	2400	160	5
	12-21-83	--	--	--	--	--	--	--	--	--	--
	03-19-84L	--	.010	.010	310	1	1	<1	460	390	3
	09-28-84	.81S	.060	.050	280	<1	1	2	600	470	3
9	08-18-83L	2.0	.520	.440	--	--	--	--	--	--	--
	12-21-83	--	--	--	--	--	--	--	--	--	--
	03-09-84L	1.2	.260	.210	250	1	2	<1	770	650	2
	09-28-84	1.3 S	.060	.030	610	1	4	4	720	460	3
10	08-15-83L	1.0	.120	.060	--	--	--	--	--	--	--
	12-21-83	--	--	--	--	--	--	--	--	--	--
	03-13-84L	1.4	.180	.140	120	1	1	<1	1300	480	1
11	08-15-83L	2.2	.360	.070	--	--	--	--	--	--	--
	12-21-83	--	--	--	--	--	--	--	--	--	--
	03-13-84L	1.4	.160	.130	340	1	1	<1	1100	430	1
	04-04-84	2.1	.210	.190	30	1	<1	10	2100	430	6
	06-30-84C	.90	.040	.050	830	1	<1	7	750	160	2
12	08-15-83L	2.4	.420	.070	1600	3	2	5	1800	320	6
	12-21-83	--	--	--	--	--	--	--	--	--	--
	03-13-84L	1.3	.150	.100	260	1	1	<1	1000	450	<1
	04-04-84	2.2	.190	.160	4100	1	<1	1	1600	130	6
	08-20-84C	.80	.080	.060	480	2	2	2	580	90	2

APPENDIX IV--Quality of water analyses--Continued

[L denotes low flow sample; C denotes a composite sample; S denotes calculated by summing components]

Site No.	Date of sample	Lead, dissolved (µg/L as Pb)	Manganese, total recoverable (µg/L as Mn)	Manganese, dissolved (µg/L as Mn)	Mercury, total recoverable (µg/L as Hg)	Nickel, total recoverable (µg/L as Ni)	Strontium, dissolved (µg/L as Sr)	Zinc, dissolved (µg/L as Zn)	DDD, total in bottom material (µg/Kg)	Diazinon, total (µg/L)	Heptachlor, total in bottom material (µg/kg)	2,4-D, total (µg/L)
1	03-09-84L	1	<10	3	0.10	1	43	18	--	--	--	--
	09-28-84	6	50	4	.20	1	36	8	--	--	--	--
2	08-18-83L	4	10	20	<.10	<1	320	60	.3	.01	.2	<.01
	12-12-83C	--	--	--	--	--	170	--	--	--	--	--
	12-21-83	--	--	--	--	--	76	--	--	--	--	--
	03-15-84L	1	<10	4	.10	<1	380	11	--	--	--	--
	09-28-84	5	40	5	.30	1	69	11	--	--	--	--
3	08-18-83L	--	--	--	--	--	180	--	--	--	--	--
	12-21-83	--	--	--	--	--	34	--	--	--	--	--
	02-22-84	--	--	--	--	--	120	--	--	--	--	--
	03-06-84L	2	10	10	<.10	1	120	15	--	--	--	--
	04-04-84	2	10	2	<.10	2	34	4	--	--	--	--
	05-23-84C	3	20	<1	.50	3	38	37	--	--	--	--
4	08-10-83L	--	--	--	--	--	150	--	--	--	--	--
	12-21-83	--	--	--	--	--	67	--	--	--	--	--
	02-22-84C	--	--	--	--	--	190	--	--	--	--	--
	03-06-84L	2	10	7	<.10	2	260	17	--	--	--	--
	09-28-84	6	10	3	.20	<1	66	12	--	--	--	--
5	08-18-83L	--	--	--	--	--	10	--	--	--	--	--
	12-21-83	--	--	--	--	--	12	--	--	--	--	--
	03-19-84L	1	<10	4	<.10	1	13	7	--	--	--	--
	09-28-84	6	10	7	<.10	3	12	32	--	--	--	--
6	08-10-83L	--	--	--	--	--	150	--	--	--	--	--
	12-20-83C	--	--	--	--	--	94	--	--	--	--	--
	12-21-83	--	--	--	--	--	75	--	--	--	--	--
	12-22-83	--	--	--	--	--	130	--	--	--	--	--
	02-22-84	--	--	--	--	--	250	--	--	--	--	--
	03-09-84L	<1	10	4	<.10	1	330	12	--	--	--	--
7	08-10-83L	--	--	--	--	--	160	--	--	--	--	--
	12-21-83	--	--	--	--	--	67	--	--	--	--	--
	02-22-84	--	--	--	--	--	130	--	--	--	--	--
	03-19-84L	2	10	13	.20	1	340	5	--	--	--	--
	04-04-84	1	20	2	<.10	2	110	7	--	--	--	--
	05-23-84C	2	40	<1	.40	3	73	34	--	--	--	--
8	12-21-83	--	--	--	--	--	13	--	--	--	--	--
	03-19-84L	2	<10	4	<.10	1	20	--	--	--	--	--
	09-28-84	10	20	12	.20	<1	14	16	--	--	--	--
9	08-18-83L	--	--	--	--	--	110	--	--	--	--	--
	12-21-83	--	--	--	--	--	29	--	--	--	--	--
	03-09-84L	1	10	5	<.10	<1	45	18	--	--	--	--
	09-28-84	6	20	7	.10	2	25	27	--	--	--	--
10	08-15-83L	--	--	--	--	--	280	--	--	--	--	--
	12-21-83	--	--	--	--	--	67	--	--	--	--	--
	03-13-84L	<1	30	27	.10	3	620	11	--	--	--	--
11	08-15-83L	--	--	--	--	--	240	--	--	--	--	--
	12-21-83	--	--	--	--	--	94	--	--	--	--	--
	03-13-84L	<1	20	18	.20	<1	520	8	--	--	--	--
	04-04-84	3	20	<10	.10	2	130	7	--	--	--	--
	06-30-84C	1	10	<1	.30	1	230	13	--	--	--	--
12	08-15-83L	<1	20	10	<.10	4	240	20	<.1	.23	<.1	.09
	12-21-83	--	--	--	--	--	87	--	--	--	--	--
	03-13-84L	<1	20	16	<.10	1	470	11	--	--	--	--
	04-04-84	2	10	1	.10	3	100	7	--	--	--	--
	08-20-84C	2	<10	<10	.30	3	200	10	--	--	--	--

Appendix V

APPENDIX V--Daily water temperature
[Mean values in degrees Celsius]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 1--Tomoka River near Holly Hill [Water year October 1982 to September 1983]												
1	---	---	---	---	---	16.1	17.0	20.2	24.2	25.7	---	25.7
2	---	---	---	---	---	15.9	17.4	20.4	25.0	25.6	---	25.2
3	---	---	---	---	---	17.1	17.7	21.7	25.8	25.7	---	25.1
4	---	---	---	---	---	17.4	17.1	20.8	26.1	25.9	---	26.2
5	---	---	---	---	---	18.5	18.8	19.1	24.5	25.8	---	27.1
6	---	---	---	---	---	20.7	20.4	18.9	24.4	25.9	---	27.0
7	---	---	---	---	---	20.3	21.2	19.3	24.1	26.1	---	26.2
8	---	---	---	---	---	19.3	21.8	19.7	23.8	25.8	26.6	---
9	---	---	---	---	---	19.0	22.0	20.5	24.1	26.1	26.1	---
10	---	---	---	---	---	16.8	21.0	21.2	24.3	25.8	25.4	---
11	---	---	---	---	15.5	13.2	19.6	20.9	24.7	25.4	26.5	---
12	---	---	---	---	14.1	12.6	19.2	21.3	25.2	26.1	26.2	---
13	---	---	---	---	14.5	12.6	19.1	21.3	24.3	26.2	25.2	---
14	---	---	---	---	13.3	13.2	19.9	21.1	24.2	26.5	24.8	---
15	---	---	---	---	13.1	14.9	20.4	21.8	24.3	27.2	24.8	---
16	---	---	---	---	13.7	17.3	19.2	22.8	24.1	27.8	25.1	---
17	---	---	---	---	14.7	18.6	17.6	23.8	24.6	28.2	25.4	---
18	---	---	---	---	14.3	18.3	16.8	23.9	24.2	28.3	25.3	---
19	---	---	---	---	14.3	18.0	16.9	23.8	24.6	27.5	25.7	---
20	---	---	---	---	15.4	18.1	16.4	24.0	24.9	26.3	26.1	---
21	---	---	---	---	16.3	18.9	16.2	24.7	25.3	---	26.5	---
22	---	---	---	---	17.3	16.3	16.9	24.9	24.9	---	26.7	---
23	---	---	---	---	17.9	15.1	18.8	25.3	24.7	---	26.4	---
24	---	---	---	---	16.9	16.3	19.1	25.9	24.5	---	26.8	---
25	---	---	---	---	16.7	14.6	18.3	25.6	24.6	---	26.8	---
26	---	---	---	---	14.4	14.5	17.7	25.1	25.3	---	26.6	---
27	---	---	---	---	14.2	16.1	17.7	24.9	25.6	---	26.4	---
28	---	---	---	---	15.9	17.4	18.2	25.3	25.2	---	26.2	---
29	---	---	---	---	---	16.3	18.6	24.8	25.7	---	26.7	---
30	---	---	---	---	---	15.8	19.1	22.9	25.8	---	26.9	---
31	---	---	---	---	---	17.3	---	22.6	---	---	26.2	---
Site 1--Tomoka River near Holly Hill [Water year October 1983 to September 1984]												
1	---	20.2	14.8	9.0	10.7	10.6	15.5	22.5	---	25.0	26.0	26.0
2	---	20.7	15.6	9.7	11.3	11.0	15.5	23.0	---	24.5	26.5	26.0
3	---	20.6	18.2	10.4	13.9	12.6	17.5	23.5	---	24.0	26.0	25.0
4	---	19.4	20.2	10.1	15.7	13.5	19.0	23.5	---	24.0	26.5	25.5
5	---	19.5	21.3	9.7	14.8	16.1	18.5	22.5	---	25.0	26.5	24.5
6	---	18.3	21.5	9.9	11.9	18.7	17.0	23.5	---	25.5	27.0	24.0
7	---	17.0	17.3	10.7	9.0	18.5	17.0	25.0	24.5	25.5	26.5	24.0
8	---	18.6	13.1	9.9	9.4	15.5	17.5	25.0	24.5	25.5	27.0	24.0
9	---	19.5	12.4	10.0	11.5	14.0	18.5	23.5	24.5	26.0	27.5	24.0
10	---	19.6	14.2	11.8	12.8	14.0	19.0	20.5	25.0	26.5	27.5	23.5
11	---	18.7	16.4	13.3	14.1	13.5	18.0	20.5	25.0	26.0	27.5	24.5
12	---	15.7	17.4	11.5	16.2	14.5	18.0	21.0	25.0	26.0	26.0	25.0
13	---	14.2	16.9	11.9	17.3	17.5	19.5	22.0	24.5	26.0	25.5	26.0
14	---	13.8	15.8	11.4	17.6	18.0	20.5	23.0	25.5	25.5	26.5	26.0
15	---	14.8	16.1	11.8	15.8	17.0	19.5	23.5	26.0	25.5	26.0	26.0
16	---	16.3	14.8	12.4	15.8	17.0	18.0	23.5	25.5	25.5	26.5	25.5
17	---	13.0	15.9	13.6	16.1	17.5	16.5	22.0	25.0	26.0	26.5	26.0
18	---	11.7	17.4	15.4	16.8	19.0	16.0	21.5	25.5	26.0	26.5	25.5
19	---	13.3	17.5	16.0	18.3	19.0	16.5	21.0	26.0	25.5	26.0	24.5
20	---	15.7	17.4	12.7	19.1	19.0	18.0	22.0	26.5	25.0	25.5	24.5
21	---	16.9	18.1	10.8	17.8	17.5	19.5	23.5	27.0	24.5	25.0	24.5
22	---	15.2	17.7	11.1	17.7	16.5	21.5	23.0	26.0	25.0	25.0	25.0
23	---	15.9	17.8	13.2	17.4	16.5	22.0	---	26.0	24.5	24.0	25.0
24	---	18.7	16.6	15.6	16.4	17.0	20.0	---	26.5	25.5	24.5	25.0
25	---	17.6	10.8	17.2	16.2	19.0	19.0	---	26.5	26.0	25.0	24.5
26	---	14.1	6.7	17.6	16.0	19.5	19.5	---	26.0	26.0	25.0	24.5
27	19.0	16.4	6.9	18.6	17.8	18.5	20.0	---	26.0	26.0	24.5	25.0
28	18.2	18.5	10.6	17.5	14.7	20.0	21.0	---	26.0	26.5	24.5	24.5
29	18.3	17.3	14.1	14.9	11.4	18.5	22.0	---	25.0	26.5	24.5	24.0
30	18.2	15.4	13.4	13.7	---	16.0	22.5	---	25.0	26.0	24.5	---
31	19.1	---	10.5	13.0	---	15.5	---	---	---	25.5	25.0	---

APPENDIX V--Daily water temperature--Continued
[Mean values in degrees Celsius]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 1--Tomoka River near Holly Hill [Water year October 1984 to September 1985]												
1	---	---	---	---	---	19.4	20.9	24.0	---	25.1	25.7	25.0
2	---	---	---	---	---	19.8	18.5	23.7	---	25.9	24.8	25.0
3	---	---	---	---	---	18.8	17.7	23.9	---	26.2	25.1	25.5
4	---	---	---	---	---	19.1	18.3	23.1	---	26.0	26.4	25.6
5	---	---	---	---	---	21.2	19.7	21.5	---	26.6	26.7	25.3
6	---	---	---	---	---	20.4	20.3	21.7	---	26.3	26.5	25.5
7	---	---	---	---	---	20.3	20.0	21.9	---	26.6	25.6	25.5
8	---	---	---	---	---	20.3	20.3	23.0	---	26.0	24.8	25.6
9	---	---	---	---	---	20.2	19.2	---	---	26.8	25.5	25.4
10	---	---	---	---	---	20.3	17.5	---	---	27.6	25.5	25.5
11	---	---	---	---	---	19.8	18.8	---	---	27.9	25.5	25.6
12	---	---	---	---	---	21.0	19.5	---	---	24.2	25.4	25.7
13	---	---	---	---	---	21.4	19.4	---	25.5	24.6	26.2	25.4
14	---	---	---	---	---	21.8	19.9	---	24.3	25.2	25.5	24.8
15	---	---	---	---	---	21.3	20.3	---	22.5	26.1	25.5	24.0
16	---	---	---	---	---	21.6	20.5	---	24.1	24.5	25.4	23.8
17	---	---	---	---	---	20.4	21.0	---	25.0	24.8	25.5	22.6
18	---	---	---	---	---	16.7	21.4	---	26.2	25.9	25.9	23.1
19	---	---	---	---	---	15.4	22.4	---	26.3	25.7	25.3	23.4
20	---	---	---	---	---	16.3	22.4	---	26.5	26.1	25.5	22.7
21	---	---	---	---	---	17.4	22.2	---	25.8	26.2	25.5	23.1
22	---	---	---	---	---	18.8	23.3	---	26.1	25.8	25.4	24.8
23	---	---	---	---	---	19.0	23.4	---	26.2	25.6	25.3	25.2
24	---	---	---	---	---	18.6	24.2	---	25.7	25.1	25.4	25.3
25	---	---	---	---	---	19.1	24.0	---	25.8	24.8	25.4	25.5
26	---	---	---	---	---	18.6	24.0	---	25.9	25.5	26.0	25.5
27	---	---	---	---	19.9	18.5	23.9	---	26.4	26.3	25.4	25.5
28	---	---	---	---	19.9	19.4	24.0	---	25.3	26.4	25.7	25.2
29	---	---	---	---	---	20.5	24.6	---	25.0	26.5	26.1	25.1
30	---	---	---	---	---	21.3	24.8	---	25.4	26.3	26.0	25.4
31	---	---	---	---	---	21.8	---	---	---	26.3	25.3	---
Site 2--Eleventh Street Canal near Holly Hill [Water year October 1983 to September 1984]												
1	---	---	15.8	11.3	---	---	---	---	---	---	---	---
2	---	---	17.8	12.0	---	---	---	---	---	---	---	---
3	---	---	19.7	12.8	---	---	---	---	---	---	---	---
4	---	---	21.0	12.8	---	---	---	---	---	---	---	---
5	---	---	21.7	12.3	---	---	---	---	---	---	---	---
6	---	---	20.9	12.2	---	---	---	---	---	---	---	---
7	---	---	16.2	13.2	---	---	---	---	---	---	---	---
8	---	---	14.3	12.5	---	---	---	---	---	---	---	---
9	---	---	14.6	12.9	---	---	---	---	---	---	---	---
10	---	---	16.0	14.4	---	---	---	---	---	---	---	---
11	---	---	17.7	---	---	---	---	---	---	---	---	---
12	---	---	18.0	---	---	---	---	---	---	---	---	---
13	---	---	17.4	---	---	---	---	---	---	---	---	---
14	---	---	16.8	---	---	---	---	---	---	---	---	---
15	---	---	17.3	---	---	---	---	---	---	---	---	---
16	---	---	16.2	---	---	---	---	---	---	---	---	---
17	---	---	17.6	---	---	---	---	---	---	---	---	---
18	---	---	19.1	---	---	---	---	---	---	---	---	---
19	---	---	18.7	---	---	---	---	---	---	---	---	---
20	---	---	18.6	---	---	---	---	---	---	---	---	---
21	---	---	18.8	---	---	---	---	---	---	---	---	---
22	---	---	18.4	---	---	---	---	---	---	---	---	---
23	---	---	18.7	---	---	---	---	---	---	---	---	---
24	---	---	17.7	---	---	---	---	---	---	---	---	---
25	---	---	12.9	---	---	---	---	---	---	---	---	---
26	---	---	9.8	---	---	---	---	---	---	---	---	---
27	---	---	10.4	---	---	---	---	---	---	---	---	---
28	---	---	13.1	---	---	---	---	---	---	---	---	---
29	---	18.2	16.4	---	---	---	---	---	---	---	---	---
30	---	17.1	15.7	---	---	---	---	---	---	---	---	---
31	---	---	12.3	---	---	---	---	---	---	---	---	---

APPENDIX V--Daily water temperature--Continued
[Mean values in degrees Celsius]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 3--Williamson Boulevard Ditch at Daytona Beach [Water year October 1983 to September 1984]												
1	---	---	---	---	---	---	---	---	---	---	---	28.2
2	---	---	---	---	---	---	---	---	---	---	---	28.0
3	---	---	---	---	---	---	---	---	---	---	---	27.2
4	---	---	---	---	---	---	---	---	---	---	---	27.1
5	---	---	---	---	---	---	---	---	---	---	---	26.3
6	---	---	---	---	---	---	---	---	---	---	---	25.5
7	---	---	---	---	---	---	---	---	---	---	---	25.9
8	---	---	---	---	---	---	---	---	---	---	---	25.6
9	---	---	---	---	---	---	---	---	---	---	---	24.8
10	---	---	---	---	---	---	---	---	---	---	---	24.6
11	---	---	---	---	---	---	---	---	---	---	---	26.0
12	---	---	---	---	---	---	---	---	---	---	---	26.9
13	---	---	---	---	---	---	---	---	---	---	---	27.3
14	---	---	---	---	---	---	---	---	---	---	---	27.6
15	---	---	---	---	---	---	---	---	---	---	---	27.1
16	---	---	---	---	---	---	---	---	---	---	28.3	27.1
17	---	---	---	---	---	---	---	---	---	---	28.3	27.0
18	---	---	---	---	---	---	---	---	---	---	26.5	26.0
19	---	---	---	---	---	---	---	---	---	---	25.4	25.3
20	---	---	---	---	---	---	---	---	---	---	26.3	25.7
21	---	---	---	---	---	---	---	---	---	---	26.2	26.0
22	---	---	---	---	---	---	---	---	---	---	26.8	26.2
23	---	---	---	---	---	---	---	---	---	---	26.6	26.0
24	---	---	---	---	---	---	---	---	---	---	27.1	25.6
25	---	---	---	---	---	---	---	---	---	---	27.1	24.6
26	---	---	---	---	---	---	---	---	---	---	27.6	25.5
27	---	---	---	---	---	---	---	---	---	---	27.5	24.9
28	---	---	---	---	---	---	---	---	---	---	27.5	24.2
29	---	---	---	---	---	---	---	---	---	---	27.5	24.9
30	---	---	---	---	---	---	---	---	---	---	27.4	24.9
31	---	---	---	---	---	---	---	---	---	---	27.8	---
Site 6--Bayless Boulevard Canal at Daytona Beach [Water year October 1983 to September 1984]												
1	---	---	15.9	10.8	11.4	12.3	---	---	---	---	---	---
2	---	---	14.5	12.0	11.8	11.9	---	---	---	---	---	---
3	---	---	16.0	12.5	14.3	13.5	---	---	---	---	---	---
4	---	---	20.2	12.0	14.6	15.0	---	---	---	---	---	---
5	---	---	21.0	11.7	12.1	18.0	---	---	---	---	---	---
6	---	---	21.3	11.9	---	19.8	---	---	---	---	---	---
7	---	---	16.3	12.6	---	19.6	---	---	---	---	---	---
8	---	---	13.4	11.6	11.0	15.4	---	---	---	---	---	---
9	---	---	12.9	12.3	11.8	13.3	---	---	---	---	---	---
10	---	---	14.3	15.6	12.8	---	---	---	---	---	---	---
11	---	---	14.7	15.2	14.0	---	---	---	---	---	---	---
12	---	---	15.6	---	16.2	---	---	---	---	---	---	---
13	---	---	13.3	---	18.1	---	---	---	---	---	---	---
14	---	---	14.5	13.2	18.7	---	---	---	---	---	---	---
15	---	---	13.3	13.8	17.1	---	---	---	---	---	---	---
16	---	---	15.8	14.3	16.7	---	---	---	---	---	---	---
17	---	---	14.5	15.5	16.5	---	---	---	---	---	---	---
18	---	---	17.8	14.6	16.5	---	---	---	---	---	---	---
19	---	---	15.4	13.6	17.6	---	---	---	---	---	---	---
20	---	---	16.3	13.9	19.0	---	---	---	---	---	---	---
21	---	---	16.3	12.0	18.6	---	---	---	---	---	---	---
22	---	16.4	17.0	12.5	18.7	---	---	---	---	---	---	---
23	---	14.1	18.7	13.3	18.6	---	---	---	---	---	---	---
24	---	16.9	15.1	14.4	17.2	---	---	---	---	---	---	---
25	---	15.3	10.3	15.1	16.9	---	---	---	---	---	---	---
26	---	14.4	7.8	15.2	16.2	---	---	---	---	---	---	---
27	---	14.3	9.7	17.2	18.6	---	---	---	---	---	---	---
28	---	15.9	14.5	13.5	17.0	---	---	---	---	---	---	---
29	---	14.0	16.4	14.9	13.3	---	---	---	---	---	---	---
30	---	16.3	13.5	14.1	---	---	---	---	---	---	---	---
31	---	---	11.7	13.4	---	---	---	---	---	---	---	---

APPENDIX V--Daily water temperature--Continued
[Mean values in degrees Celsius]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 12--B-19 Canal at Dunlawton Avenue at Port Orange [Water year October 1982 to September 1983]												
1	---	---	---	---	---	17.2	19.4	22.1	24.5	26.9	27.5	26.0
2	---	---	---	---	---	---	19.2	22.3	25.4	26.6	28.5	27.1
3	---	---	---	---	---	17.9	19.5	23.1	25.9	26.2	29.0	27.4
4	---	---	---	---	---	18.4	19.6	21.9	26.1	26.8	28.0	28.9
5	---	---	---	---	---	19.4	20.8	20.7	24.9	26.8	26.9	29.6
6	---	---	---	---	---	21.0	21.8	21.0	24.8	27.0	27.8	29.5
7	---	---	---	---	---	20.3	22.3	21.4	25.1	27.1	27.4	---
8	---	---	---	---	---	19.7	23.0	21.6	25.1	26.8	27.1	28.4
9	---	---	---	---	---	19.9	22.8	22.0	26.4	27.0	27.2	28.1
10	---	---	---	---	---	18.2	22.0	22.5	26.1	26.6	27.5	28.4
11	---	---	---	---	16.7	15.2	21.6	22.6	26.3	26.2	28.5	28.0
12	---	---	---	---	15.8	14.8	21.4	22.8	26.6	26.4	28.4	28.0
13	---	---	---	---	15.3	15.0	21.4	22.7	25.6	26.6	27.1	27.3
14	---	---	---	---	14.0	15.6	21.7	22.5	25.4	26.6	26.4	26.1
15	---	---	---	---	14.2	17.0	21.2	22.9	25.6	27.1	26.3	26.0
16	---	---	---	---	15.1	18.0	20.8	23.5	25.5	27.6	26.4	26.3
17	---	---	---	---	15.5	19.1	20.1	24.3	25.7	27.9	26.0	25.0
18	---	---	---	---	15.3	19.0	19.4	24.7	25.6	27.9	25.7	25.5
19	---	---	---	---	15.7	19.0	19.0	24.1	25.5	27.7	26.0	26.8
20	---	---	---	---	16.9	19.5	19.3	24.0	25.6	---	26.1	26.7
21	---	---	---	---	17.6	20.1	19.4	24.6	25.6	27.5	26.2	27.3
22	---	---	---	---	18.4	18.4	20.1	24.8	25.5	27.6	26.1	26.1
23	---	---	---	---	18.8	17.8	20.7	25.0	26.1	27.3	26.1	24.4
24	---	---	---	---	18.1	18.4	20.8	25.3	26.0	27.9	---	24.2
25	---	---	---	---	17.9	17.3	20.5	24.9	26.3	28.3	27.2	24.3
26	---	---	---	---	15.7	17.3	20.4	24.7	27.0	27.8	26.4	24.3
27	---	---	---	---	15.4	17.9	20.5	24.4	27.3	27.1	27.0	24.8
28	---	---	---	---	17.2	19.2	20.9	24.6	27.0	27.6	27.0	23.9
29	---	---	---	---	---	18.8	21.1	24.0	27.3	27.7	26.7	23.8
30	---	---	---	---	---	18.6	21.3	23.0	27.3	27.2	26.9	24.0
31	---	---	---	---	---	19.5	---	23.3	---	26.8	26.3	---
Site 12--B-19 Canal at Dunlawton Avenue at Port Orange [Water year October 1983 to September 1984]												
1	24.4	22.2	17.5	---	---	12.2	---	25.6	---	27.7	---	28.2
2	25.1	22.5	18.5	---	---	13.2	---	26.1	---	27.4	---	28.0
3	25.0	22.2	20.9	---	---	15.1	---	26.2	---	26.5	---	27.2
4	24.9	21.3	22.3	---	---	16.3	---	25.9	---	26.5	---	27.1
5	24.0	21.0	22.6	---	---	18.3	---	25.9	---	27.7	---	26.3
6	25.1	20.1	22.6	---	---	20.1	---	27.0	---	28.3	---	25.5
7	25.3	19.3	18.1	---	---	19.3	---	28.0	---	27.9	---	25.9
8	24.8	21.0	15.1	---	13.1	16.0	---	27.5	---	28.2	---	25.6
9	25.6	21.5	15.5	---	15.2	15.2	---	24.9	26.8	29.1	---	24.8
10	26.0	21.6	17.4	---	16.4	15.8	---	23.1	27.0	29.2	---	24.6
11	25.1	20.5	19.2	---	17.5	15.6	---	23.7	26.4	28.5	---	26.0
12	25.7	17.8	18.5	---	19.1	16.4	---	24.9	26.5	28.4	---	26.9
13	26.0	17.0	18.0	---	19.5	---	23.1	25.4	25.9	27.8	---	27.3
14	25.4	17.0	17.5	---	19.3	---	23.6	25.9	26.1	27.7	---	27.4
15	25.1	18.3	17.8	---	18.2	---	22.0	26.3	27.1	27.7	---	27.1
16	24.9	19.1	16.7	---	18.0	---	21.2	25.7	26.8	28.2	28.3	27.1
17	24.8	15.8	18.2	---	18.2	---	20.3	24.2	26.2	28.5	28.3	27.0
18	24.6	15.5	19.3	---	18.7	---	20.4	23.8	26.6	28.1	26.5	26.0
19	24.9	17.4	18.7	---	19.9	---	21.3	23.8	27.7	26.9	25.4	25.3
20	25.3	18.9	18.5	---	20.8	---	22.8	24.6	28.2	26.1	26.3	25.7
21	25.0	19.4	18.7	---	19.9	---	23.8	26.0	28.6	25.8	26.2	26.0
22	24.6	18.0	18.5	---	18.7	---	25.3	26.3	27.3	26.7	26.8	26.2
23	24.7	19.0	19.1	---	18.6	---	24.3	24.0	26.4	26.8	26.6	26.0
24	24.8	21.4	17.8	---	17.4	---	23.3	24.4	27.4	28.0	27.1	25.6
25	23.0	19.3	12.5	---	17.5	---	22.9	26.2	27.4	28.3	27.1	24.6
26	---	16.7	10.4	---	17.0	---	23.5	25.4	27.7	28.1	27.6	25.0
27	21.2	19.5	12.2	---	18.6	---	24.1	26.5	28.3	27.7	27.5	24.8
28	21.0	21.0	16.2	---	16.3	---	25.1	27.1	27.4	27.9	27.5	24.2
29	21.1	19.0	16.7	---	12.7	---	25.8	26.8	26.3	27.8	27.5	24.9
30	21.3	17.8	---	---	---	---	25.6	25.5	26.3	27.4	27.4	24.9
31	21.9	---	---	---	---	---	---	---	---	---	27.8	---

APPENDIX V--Daily water temperature--Continued
[Mean values in degrees Celsius]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 12--B-19 Canal at Dunlawton Avenue at Port Orange [Water year October 1984 to September 1985]												
1	24.7	24.0	18.1	18.7	18.4	19.9	21.1	24.3	27.3	26.7	25.3	---
2	23.4	22.7	18.8	19.7	20.4	20.3	18.9	24.2	27.4	26.9	25.6	---
3	22.3	20.1	20.1	19.9	20.1	19.5	18.3	24.0	29.0	27.3	23.7	---
4	22.7	20.0	---	---	18.1	19.6	18.6	23.8	29.2	27.4	26.8	---
5	23.4	23.5	19.9	15.0	18.9	21.1	20.3	23.8	28.5	27.7	26.7	---
6	23.8	21.3	20.6	14.6	18.9	20.7	20.6	23.9	27.8	27.6	27.9	---
7	24.2	18.6	15.2	14.6	17.2	20.7	20.8	23.9	28.3	28.3	23.5	---
8	24.6	18.8	14.5	14.8	15.0	20.8	21.5	24.3	28.8	28.0	27.1	---
9	24.3	19.4	14.5	14.6	14.5	20.7	19.8	24.9	28.0	28.1	27.5	---
10	24.5	19.9	14.7	15.3	14.9	20.0	18.7	24.6	27.5	28.2	28.0	---
11	24.2	20.6	15.7	16.4	15.8	20.5	19.9	25.1	28.2	28.5	28.0	---
12	24.0	18.0	16.5	14.8	15.0	21.7	19.4	25.1	26.5	27.3	28.3	---
13	23.2	16.3	16.4	14.3	14.3	21.7	20.2	25.7	25.7	26.7	28.8	---
14	23.1	16.1	18.2	14.5	14.2	22.2	---	25.4	25.0	26.8	25.7	---
15	23.7	17.6	19.3	14.6	14.4	21.6	---	23.9	24.5	26.9	25.6	---
16	24.2	18.3	19.3	14.4	14.3	22.4	---	26.3	25.9	26.8	27.7	---
17	24.3	18.7	19.1	15.7	14.6	20.7	---	25.5	27.3	25.4	26.6	---
18	24.2	19.3	19.0	16.3	15.7	17.6	---	22.2	28.9	24.7	25.2	---
19	24.1	20.7	19.5	15.0	16.8	16.5	---	22.7	28.3	25.6	28.1	---
20	23.6	21.5	18.7	14.7	17.1	17.3	---	24.1	27.9	24.8	25.8	---
21	23.8	21.0	18.5	13.6	17.6	17.6	---	25.8	26.8	18.9	---	---
22	24.4	19.2	19.4	13.3	18.9	20.6	---	27.3	26.3	20.9	---	---
23	24.1	18.1	18.8	13.6	19.5	20.6	---	26.7	26.9	19.3	---	---
24	23.0	19.1	18.6	14.0	20.4	20.2	---	26.0	27.3	16.5	---	---
25	23.1	19.8	19.4	15.5	19.8	19.9	---	25.9	27.6	---	---	---
26	23.8	20.0	20.6	14.5	20.5	19.4	---	25.7	27.8	---	---	---
27	25.0	20.5	20.6	14.1	21.0	19.2	---	25.6	28.2	23.7	---	---
28	25.3	20.6	20.6	14.9	20.3	19.6	---	25.4	27.7	25.0	---	---
29	25.0	18.8	19.0	14.8	---	20.8	---	25.8	27.2	25.2	---	---
30	24.6	16.7	18.1	14.8	---	21.6	---	26.0	27.1	23.4	---	---
31	24.1	---	18.4	16.8	---	21.9	---	26.8	---	25.7	---	---

Appendix VI

APPENDIX VI--Daily specific conductance
[Mean values in microsiemens per centimeter at 25 degrees Celsius]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 1--Tomoka River near Holly Hill [Water year October 1982 to September 1983]												
1	---	---	---	---	---	84	91	---	176	83	---	183
2	---	---	---	---	---	86	84	---	210	79	---	171
3	---	---	---	---	---	86	84	---	231	78	---	162
4	---	---	---	---	---	86	82	---	253	83	---	151
5	---	---	---	---	---	87	81	74	225	86	---	133
6	---	---	---	---	---	89	80	71	214	96	---	136
7	---	---	---	---	---	93	79	71	176	102	---	136
8	---	---	---	---	---	117	101	71	123	102	293	---
9	---	---	---	---	---	128	84	73	96	124	192	---
10	---	---	---	---	---	107	93	78	107	144	136	---
11	---	---	---	---	107	97	85	75	116	156	177	---
12	---	---	---	---	99	93	79	79	136	196	164	---
13	---	---	---	---	110	89	75	82	136	200	148	---
14	---	---	---	---	105	87	72	91	135	152	122	---
15	---	---	---	---	93	85	72	89	131	---	121	---
16	---	---	---	---	84	97	---	87	135	---	106	---
17	---	---	---	---	93	85	---	103	137	---	106	---
18	---	---	---	---	93	78	---	114	142	---	113	---
19	---	---	---	---	83	80	---	128	147	---	122	---
20	---	---	---	---	79	81	---	142	146	---	119	---
21	---	---	---	---	77	85	---	154	137	---	117	---
22	---	---	---	---	77	84	---	170	141	---	116	---
23	---	---	---	---	78	81	---	195	114	---	112	---
24	---	---	---	---	78	83	79	202	117	---	112	---
25	---	---	---	---	79	86	---	193	105	---	113	---
26	---	---	---	---	80	81	---	186	98	---	130	---
27	---	---	---	---	79	81	---	117	96	---	142	---
28	---	---	---	---	80	91	---	198	95	---	140	---
29	---	---	---	---	---	85	---	93	94	---	148	---
30	---	---	---	---	---	82	---	188	91	---	163	---
31	---	---	---	---	---	87	---	160	---	---	176	---
Site 1--Tomoka River near Holly Hill [Water year October 1983 to September 1984]												
1	182	94	120	70	93	81	152	133	---	161	104	99
2	182	96	113	70	94	80	161	154	---	102	106	97
3	185	96	114	71	93	79	160	158	---	111	94	92
4	187	96	117	71	97	79	112	159	---	116	93	91
5	187	97	119	71	98	79	101	161	---	127	86	94
6	194	101	121	71	101	80	107	155	---	120	85	105
7	200	101	121	71	108	80	96	155	159	110	83	86
8	192	103	120	73	114	80	92	183	159	106	87	79
9	173	102	120	73	123	81	90	207	179	101	93	81
10	185	101	122	75	124	81	93	217	199	98	89	77
11	183	101	124	92	127	82	91	236	199	93	89	70
12	183	100	102	101	132	82	88	258	212	86	96	72
13	161	97	78	104	128	86	86	285	228	82	122	75
14	166	94	82	105	129	94	82	295	223	81	133	80
15	166	93	91	94	120	95	97	310	147	78	125	80
16	132	98	105	89	108	94	92	330	---	78	126	75
17	113	102	103	87	103	98	91	337	---	77	120	72
18	93	97	107	88	99	109	88	351	238	79	128	71
19	96	94	101	94	95	117	87	365	186	84	111	80
20	100	94	90	101	93	118	89	375	135	99	115	71
21	102	114	78	101	94	128	89	379	---	96	124	72
22	106	110	75	105	102	135	87	385	---	101	124	72
23	108	102	76	101	100	130	86	---	181	98	100	72
24	108	103	77	100	106	126	88	---	296	103	89	72
25	105	105	162	99	110	132	97	---	223	92	97	72
26	102	128	163	98	111	133	99	---	246	91	115	72
27	103	126	161	97	97	142	99	---	193	96	98	72
28	100	119	143	96	100	156	103	---	188	107	87	71
29	96	113	129	94	85	150	113	---	189	105	80	---
30	94	129	78	92	---	150	121	---	189	94	79	---
31	94	---	70	93	---	149	---	---	---	100	88	---

APPENDIX VI--Daily specific conductance--Continued
[Mean values in microsiemens per centimeter at 25 degrees Celsius]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 1--Tomoka River near Holly Hill [Water year October 1984 to September 1985]												
1	---	---	---	---	---	---	---	---	---	223	202	---
2	---	---	---	---	---	---	---	---	---	233	162	---
3	---	---	---	---	---	---	---	---	---	237	183	---
4	---	---	---	---	---	---	---	340	---	130	175	---
5	---	---	---	---	---	---	---	229	---	80	178	---
6	---	---	---	---	---	---	---	243	---	244	147	---
7	---	---	---	---	---	---	---	170	---	233	147	---
8	---	---	---	---	---	---	---	---	---	213	111	---
9	---	---	---	---	---	---	---	---	---	215	110	---
10	---	---	---	---	---	---	---	---	---	178	112	---
11	---	---	---	---	---	---	---	---	---	123	105	---
12	---	---	---	---	---	---	---	---	---	159	104	---
13	---	---	---	---	---	---	167	---	187	245	113	---
14	---	---	---	---	---	---	238	---	198	254	109	---
15	---	---	---	---	---	---	250	---	163	235	109	---
16	---	---	---	---	---	---	145	---	146	167	101	---
17	---	---	---	---	---	---	---	---	152	214	95	---
18	---	---	---	---	---	---	---	---	164	187	89	85
19	---	---	---	---	---	---	---	---	201	153	83	76
20	---	---	---	---	---	---	---	---	230	169	---	81
21	---	---	---	---	---	---	---	---	250	176	---	---
22	---	---	---	---	---	327	---	---	255	178	---	---
23	---	---	---	---	---	220	---	---	268	183	---	---
24	---	---	---	---	---	---	---	---	245	163	---	---
25	---	---	---	---	---	---	---	---	212	146	---	---
26	---	---	---	---	---	---	---	---	208	198	---	---
27	---	---	---	---	---	---	---	---	231	204	---	---
28	---	---	---	---	---	---	---	---	259	204	---	---
29	---	---	---	---	---	---	---	---	271	207	---	---
30	---	---	---	---	---	---	---	---	255	210	---	---
31	---	---	---	---	---	---	---	---	---	215	---	---
Site 2--Eleventh Street Canal near Holly Hill [Water year October 1983 to September 1984]												
1	---	---	413	92	---	---	---	---	---	---	---	---
2	---	---	425	99	---	---	---	---	---	---	---	---
3	---	---	418	103	---	---	---	---	---	---	---	---
4	---	---	415	107	---	---	---	---	---	---	---	---
5	---	---	411	113	---	---	---	---	---	---	---	---
6	---	---	435	116	---	---	---	---	---	---	---	---
7	---	---	444	116	---	---	---	---	---	---	---	---
8	---	---	426	119	---	---	---	---	---	---	---	---
9	---	---	401	121	---	---	---	---	---	---	---	---
10	---	---	422	125	---	---	---	---	---	---	---	---
11	---	---	304	---	---	---	---	---	---	---	---	---
12	---	---	133	---	---	---	---	---	---	---	---	---
13	---	---	151	---	---	---	---	---	---	---	---	---
14	---	---	149	---	---	---	---	---	---	---	---	---
15	---	---	157	---	---	---	---	---	---	---	---	---
16	---	---	153	---	---	---	---	---	---	---	---	---
17	---	---	146	---	---	---	---	---	---	---	---	---
18	---	---	150	---	---	---	---	---	---	---	---	---
19	---	---	138	---	---	---	---	---	---	---	---	---
20	---	---	125	---	---	---	---	---	---	---	---	---
21	---	---	80	---	---	---	---	---	---	---	---	---
22	---	---	96	---	---	---	---	---	---	---	---	---
23	---	---	105	---	---	---	---	---	---	---	---	---
24	---	---	107	---	---	---	---	---	---	---	---	---
25	---	---	111	---	---	---	---	---	---	---	---	---
26	---	---	116	---	---	---	---	---	---	---	---	---
27	---	---	120	---	---	---	---	---	---	---	---	---
28	---	---	123	---	---	---	---	---	---	---	---	---
29	---	382	124	---	---	---	---	---	---	---	---	---
30	---	404	80	---	---	---	---	---	---	---	---	---
31	---	---	83	---	---	---	---	---	---	---	---	---

APPENDIX VI--Daily specific conductance--Continued
[Mean values in microsiemens per centimeter at 25 degrees Celsius]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 3--Williamson Boulevard Ditch at Daytona Beach [Water year October 1983 to September 1984]												
1	---	---	---	---	---	---	---	---	---	---	---	464
2	---	---	---	---	---	---	---	---	---	---	---	481
3	---	---	---	---	---	---	---	---	---	---	---	508
4	---	---	---	---	---	---	---	---	---	---	---	510
5	---	---	---	---	---	---	---	---	---	---	---	480
6	---	---	---	---	---	---	---	---	---	---	---	486
7	---	---	---	---	---	---	---	---	---	---	---	490
8	---	---	---	---	---	---	---	---	---	---	---	469
9	---	---	---	---	---	---	---	---	---	---	---	465
10	---	---	---	---	---	---	---	---	---	---	---	316
11	---	---	---	---	---	---	---	---	---	---	---	259
12	---	---	---	---	---	---	---	---	---	---	---	270
13	---	---	---	---	---	---	---	---	---	---	---	311
14	---	---	---	---	---	---	---	---	---	---	---	366
15	---	---	---	---	---	---	---	---	---	---	---	380
16	---	---	---	---	---	---	---	---	---	---	532	397
17	---	---	---	---	---	---	---	---	---	---	547	412
18	---	---	---	---	---	---	---	---	---	---	808	424
19	---	---	---	---	---	---	---	---	---	---	865	408
20	---	---	---	---	---	---	---	---	---	---	713	397
21	---	---	---	---	---	---	---	---	---	---	487	377
22	---	---	---	---	---	---	---	---	---	---	422	374
23	---	---	---	---	---	---	---	---	---	---	422	382
24	---	---	---	---	---	---	---	---	---	---	433	415
25	---	---	---	---	---	---	---	---	---	---	433	502
26	---	---	---	---	---	---	---	---	---	---	448	458
27	---	---	---	---	---	---	---	---	---	---	404	486
28	---	---	---	---	---	---	---	---	---	---	406	246
29	---	---	---	---	---	---	---	---	---	---	426	182
30	---	---	---	---	---	---	---	---	---	---	458	185
31	---	---	---	---	---	---	---	---	---	---	449	---
Site 4--Wally Hoffmeyer Canal at Daytona Beach [Water year October 1984 to September 1985]												
1	---	---	---	---	---	---	---	---	---	256	239	138
2	---	---	---	---	---	---	---	---	---	299	224	146
3	---	---	---	---	---	---	---	---	---	305	219	188
4	---	---	---	---	---	---	---	---	---	299	230	227
5	---	---	---	---	---	---	---	---	---	283	234	256
6	---	---	---	---	---	---	---	---	---	329	259	273
7	---	---	---	---	---	---	---	---	---	279	238	252
8	---	---	---	---	---	---	---	---	---	234	150	235
9	---	---	---	---	---	---	---	---	---	244	191	257
10	---	---	---	---	---	---	---	---	---	253	237	274
11	---	---	---	---	---	---	---	---	---	269	199	287
12	---	---	---	---	---	---	---	---	---	263	220	306
13	---	---	---	---	---	---	---	---	---	311	256	278
14	---	---	---	---	---	---	---	---	---	344	271	262
15	---	---	---	---	---	---	---	---	---	329	224	308
16	---	---	---	---	---	---	---	---	---	277	241	322
17	---	---	---	---	---	---	---	---	263	180	264	205
18	---	---	---	---	---	---	---	---	307	211	290	184
19	---	---	---	---	---	---	---	---	323	247	293	215
20	---	---	---	---	---	---	---	---	347	268	285	171
21	---	---	---	---	---	---	---	---	367	282	266	121
22	---	---	---	---	---	---	---	---	384	292	216	142
23	---	---	---	---	---	---	---	---	398	302	188	175
24	---	---	---	---	---	---	---	---	404	277	232	227
25	---	---	---	---	---	---	---	---	408	214	262	263
26	---	---	---	---	---	---	---	---	410	211	280	277
27	---	---	---	---	---	---	---	---	393	240	278	283
28	---	---	---	---	---	---	---	---	383	263	223	209
29	---	---	---	---	---	---	---	---	256	279	248	195
30	---	---	---	---	---	---	---	---	225	290	265	230
31	---	---	---	---	---	---	---	---	---	282	238	---

APPENDIX VI--Daily specific conductance--Continued
[Mean values in microsiemens per centimeter at 25 degrees Celsius]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 6--Bayless Boulevard Canal at Daytona Beach [Water year October 1983 to September 1984]												
1	---	---	427	266	458	335	---	---	---	---	---	---
2	---	---	340	283	464	370	---	---	---	---	---	---
3	---	---	355	296	471	403	---	---	---	---	---	---
4	---	---	437	309	329	417	---	---	---	---	---	---
5	---	---	467	322	---	407	---	---	---	---	---	---
6	---	---	481	334	---	431	---	---	---	---	---	---
7	---	---	485	347	---	451	---	---	---	---	---	---
8	---	---	484	359	492	461	---	---	---	---	---	---
9	---	---	485	372	492	464	---	---	---	---	---	---
10	---	---	493	355	494	---	---	---	---	---	---	---
11	---	---	461	283	495	---	---	---	---	---	---	---
12	---	---	105	268	492	---	---	---	---	---	---	---
13	---	---	190	328	371	---	---	---	---	---	---	---
14	---	---	245	397	233	---	---	---	---	---	---	---
15	---	---	283	416	264	---	---	---	---	---	---	---
16	---	---	281	427	326	---	---	---	---	---	---	---
17	---	---	302	439	367	---	---	---	---	---	---	---
18	---	---	273	434	398	---	---	---	---	---	---	---
19	---	---	263	386	422	---	---	---	---	---	---	---
20	---	---	195	287	439	---	---	---	---	---	---	---
21	---	---	150	273	443	---	---	---	---	---	---	---
22	---	267	211	276	262	---	---	---	---	---	---	---
23	---	271	247	251	229	---	---	---	---	---	---	---
24	---	345	267	254	276	---	---	---	---	---	---	---
25	---	432	288	316	327	---	---	---	---	---	---	---
26	---	450	305	393	370	---	---	---	---	---	---	---
27	---	464	317	400	383	---	---	---	---	---	---	---
28	---	485	323	411	334	---	---	---	---	---	---	---
29	---	455	220	421	312	---	---	---	---	---	---	---
30	---	435	202	434	---	---	---	---	---	---	---	---
31	---	---	242	449	---	---	---	---	---	---	---	---
Site 12--B-19 Canal at Dunlawton Avenue at Port Orange [Water year October 1982 to September 1983]												
1	---	---	---	---	---	488	496	408	243	491	526	489
2	---	---	---	---	---	---	530	424	290	459	538	404
3	---	---	---	---	---	417	527	454	320	391	527	306
4	---	---	---	---	---	455	503	488	342	453	491	326
5	---	---	---	---	---	472	471	500	286	501	446	360
6	---	---	---	---	---	488	448	508	223	511	495	386
7	---	---	---	---	---	478	431	517	250	503	494	---
8	---	---	---	---	---	423	429	554	227	512	481	424
9	---	---	---	---	---	408	458	594	371	525	487	451
10	---	---	---	---	---	401	417	632	375	536	382	457
11	---	---	---	---	366	403	385	567	399	539	369	465
12	---	---	---	---	371	421	423	475	415	543	440	492
13	---	---	---	---	313	434	472	481	430	547	445	505
14	---	---	---	---	267	444	450	503	436	553	353	508
15	---	---	---	---	332	427	381	500	449	555	305	509
16	---	---	---	---	380	209	199	507	462	558	320	512
17	---	---	---	---	421	201	293	516	477	569	429	427
18	---	---	---	---	449	195	315	517	491	561	653	361
19	---	---	---	---	455	210	329	514	500	548	708	353
20	---	---	---	---	475	250	261	526	506	---	713	364
21	---	---	---	---	500	262	287	531	459	549	705	377
22	---	---	---	---	553	261	333	524	302	524	687	384
23	---	---	---	---	614	284	367	524	370	574	666	398
24	---	---	---	---	646	298	249	528	414	579	---	420
25	---	---	---	---	545	326	276	529	429	585	417	398
26	---	---	---	---	437	369	380	522	436	523	440	391
27	---	---	---	---	443	391	404	531	448	450	451	405
28	---	---	---	---	469	401	386	528	457	525	460	431
29	---	---	---	---	---	408	391	479	471	447	470	435
30	---	---	---	---	---	426	400	325	482	518	488	443
31	---	---	---	---	---	468	---	259	---	493	494	---

APPENDIX VI--Daily specific conductance--Continued
[Mean values in microsiemens per centimeter at 25 degrees Celsius]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 12--B-19 Canal at Dunlawton Avenue at Port Orange [Water year October 1983 to September 1984]												
1	452	431	464	---	---	---	---	577	---	539	---	464
2	462	437	452	---	---	---	---	583	---	496	---	481
3	474	448	474	---	---	---	---	581	---	445	---	508
4	479	455	483	---	---	---	---	573	---	402	---	510
5	598	448	472	---	---	---	---	495	---	381	---	480
6	479	453	463	---	---	---	---	508	---	373	---	486
7	491	451	481	---	---	---	---	565	---	391	---	490
8	487	471	493	---	491	---	---	560	---	401	---	469
9	430	453	471	---	504	---	---	581	556	425	---	465
10	414	455	479	---	513	---	---	571	556	443	---	316
11	340	474	471	---	517	---	---	557	558	479	---	259
12	261	482	176	---	511	---	---	587	558	524	---	270
13	310	491	179	---	500	---	437	593	558	513	---	311
14	311	497	222	---	473	---	412	603	553	530	---	366
15	326	501	252	---	498	---	364	606	561	531	---	380
16	189	447	275	---	523	---	391	604	570	545	532	397
17	217	441	299	---	518	---	414	599	578	540	547	412
18	207	427	276	---	512	---	436	605	572	566	808	424
19	249	466	260	---	582	---	475	639	568	518	865	408
20	296	415	234	---	626	---	492	634	571	506	713	397
21	338	403	144	---	626	---	503	659	578	501	487	377
22	330	425	150	---	---	---	505	627	610	473	422	374
23	343	453	197	---	---	---	513	522	458	445	422	382
24	319	452	222	---	---	---	537	352	473	437	433	415
25	316	455	245	---	---	---	574	347	483	441	433	502
26	---	462	314	---	---	---	592	358	437	458	448	458
27	368	472	336	---	---	---	587	351	485	472	404	486
28	382	480	349	---	---	---	587	352	501	484	406	246
29	396	458	196	---	---	---	585	369	526	493	426	182
30	411	451	---	---	---	---	591	380	563	503	458	185
31	415	---	---	---	---	---	---	---	---	---	449	---
Site 12--B-19 Canal at Dunlawton Avenue at Port Orange [Water year October 1984 to September 1985]												
1	209	373	323	586	583	587	615	629	581	476	703	---
2	237	370	322	544	569	595	626	648	688	477	624	---
3	252	367	323	512	587	593	617	629	582	473	567	---
4	261	367	---	---	620	644	610	657	605	477	420	---
5	270	355	408	523	594	670	630	661	589	489	433	---
6	281	344	402	520	607	666	635	635	619	466	410	---
7	284	349	411	542	608	656	637	633	634	472	399	---
8	301	348	436	550	588	677	614	629	610	471	372	---
9	315	351	434	541	571	666	574	598	587	471	371	---
10	315	362	426	557	569	667	596	630	609	484	347	---
11	314	358	444	576	548	646	576	584	620	493	329	---
12	335	355	438	574	552	652	577	583	647	496	317	---
13	334	354	440	558	574	655	574	597	585	491	300	---
14	333	354	442	586	564	642	---	612	539	503	239	---
15	328	353	455	563	550	649	---	641	447	501	224	---
16	330	351	450	577	544	655	---	626	439	496	254	---
17	340	347	446	558	566	650	---	630	439	498	284	---
18	350	353	471	594	548	624	---	624	401	504	319	---
19	340	354	472	573	550	617	---	593	---	509	350	---
20	355	378	462	585	572	633	---	607	---	505	326	---
21	360	364	472	558	563	622	---	603	---	524	---	---
22	372	367	486	555	563	612	---	604	---	514	---	---
23	390	368	490	552	579	639	---	580	---	514	---	---
24	454	374	495	540	574	637	---	574	---	525	---	---
25	477	374	490	556	587	605	---	560	493	518	---	---
26	530	353	482	565	579	619	---	551	484	514	---	---
27	348	358	481	567	570	623	---	546	493	517	---	---
28	338	345	497	573	571	627	---	538	494	510	---	---
29	353	339	566	567	---	628	---	545	494	515	---	---
30	360	323	571	567	---	626	---	575	478	521	---	---
31	369	---	656	572	---	643	---	576	---	524	---	---

Appendix VII

APPENDIX VII--Daily dissolved oxygen
[Mean values, milligrams per liter]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 1--Tomoka River near Holly Hill [Water year October 1982 to September 1983]												
1	---	---	---	---	---	7.0	7.1	5.9	5.2	4.3	---	4.2
2	---	---	---	---	---	7.3	7.1	5.7	4.7	4.3	---	4.5
3	---	---	---	---	---	7.0	7.2	5.4	4.8	4.2	---	4.9
4	---	---	---	---	---	6.8	7.4	5.2	4.6	4.0	---	4.7
5	---	---	---	---	---	6.4	6.9	5.9	4.4	3.9	---	4.4
6	---	---	---	---	---	5.7	6.3	6.0	4.6	3.9	---	4.2
7	---	---	---	---	---	5.4	6.0	5.9	5.0	3.8	---	---
8	---	---	---	---	---	5.7	5.5	5.8	---	3.8	---	3.9
9	---	---	---	---	---	6.1	5.6	5.5	4.9	3.9	6.8	3.9
10	---	---	---	---	---	6.7	5.9	5.4	4.7	4.1	4.8	3.8
11	---	---	---	---	---	7.9	6.3	5.3	4.7	4.1	4.5	3.6
12	---	---	---	---	---	7.8	8.5	6.5	5.2	4.6	4.2	3.6
13	---	---	---	---	---	7.9	8.6	6.6	5.2	4.7	4.6	4.8
14	---	---	---	---	---	7.7	8.6	6.4	5.3	4.8	7.1	7.8
15	---	---	---	---	---	8.0	7.8	6.3	5.0	4.8	5.0	8.4
16	---	---	---	---	---	7.8	7.3	6.7	4.5	4.9	7.6	8.5
17	---	---	---	---	---	7.4	6.7	7.1	4.4	4.7	7.1	7.0
18	---	---	---	---	---	7.6	6.4	7.4	4.4	4.8	7.0	4.4
19	---	---	---	---	---	7.6	6.6	7.5	4.5	4.7	7.0	4.5
20	---	---	---	---	---	7.4	6.5	7.6	4.5	4.4	---	4.5
21	---	---	---	---	---	7.1	6.4	7.8	4.3	4.1	---	4.4
22	---	---	---	---	---	6.8	7.1	7.2	4.3	4.4	---	4.4
23	---	---	---	---	---	6.5	7.8	6.2	4.4	4.6	---	4.7
24	---	---	---	---	---	6.9	7.5	6.0	6.0	4.7	---	4.6
25	---	---	---	---	---	7.0	8.0	6.2	8.0	4.7	---	4.8
26	---	---	---	---	---	7.4	9.0	6.4	8.3	4.6	---	5.0
27	---	---	---	---	---	7.8	8.9	6.5	9.0	4.5	---	4.8
28	---	---	---	---	---	7.4	8.6	6.4	7.1	4.4	---	4.8
29	---	---	---	---	---	---	9.1	6.2	6.5	4.2	---	4.8
30	---	---	---	---	---	---	6.0	6.2	4.8	4.2	---	4.7
31	---	---	---	---	---	---	8.2	---	5.3	---	4.0	---
Site 1--Tomoka River near Holly Hill [Water year October 1983 to September 1984]												
1	4.9	6.1	5.9	---	---	---	---	---	---	4.9	---	4.5
2	4.5	5.8	5.8	---	---	---	---	---	---	5.3	---	4.4
3	4.2	5.8	5.1	---	---	---	---	---	---	5.1	---	4.8
4	4.1	6.0	4.2	---	---	---	---	---	---	5.1	---	4.3
5	4.2	5.9	3.7	---	---	---	---	---	---	4.8	---	4.7
6	3.9	6.1	3.5	---	---	---	---	---	---	4.6	---	4.7
7	3.7	6.5	4.3	---	---	---	---	---	---	---	---	5.3
8	---	6.1	6.0	---	---	---	---	---	---	---	---	5.0
9	---	5.7	6.4	---	---	---	---	---	---	---	---	5.1
10	---	5.5	6.1	---	---	---	---	---	6.3	---	---	5.3
11	---	5.7	5.6	---	---	---	---	---	5.8	---	---	4.8
12	---	6.5	6.5	---	---	---	---	---	7.0	---	---	4.6
13	---	7.0	5.8	---	---	---	---	---	7.4	---	---	4.4
14	---	6.9	5.5	---	---	---	---	---	7.7	---	---	4.4
15	---	6.6	5.1	---	---	---	---	---	8.1	---	---	4.3
16	---	5.9	4.9	---	---	---	---	---	8.3	---	---	4.3
17	---	6.3	4.7	---	---	---	---	---	8.2	---	---	4.2
18	---	6.5	4.4	---	---	---	---	---	8.1	---	---	3.6
19	---	6.3	4.2	---	---	---	---	---	7.9	---	---	---
20	---	5.7	4.2	---	---	---	---	---	8.2	---	---	---
21	---	5.4	4.1	---	---	---	---	---	8.1	---	---	---
22	---	5.7	3.8	---	---	---	---	---	8.3	---	---	---
23	---	5.8	3.7	---	---	---	---	---	8.3	---	---	---
24	---	5.0	---	---	---	---	---	---	7.0	---	---	---
25	---	4.7	---	---	---	---	---	---	6.9	---	---	---
26	---	6.0	---	---	---	---	---	---	4.5	---	---	---
27	---	5.7	---	---	---	---	---	---	4.6	---	---	---
28	6.8	4.8	---	---	---	---	---	---	4.7	---	---	---
29	6.9	4.9	---	---	---	---	---	---	4.8	---	---	---
30	6.9	5.5	---	---	---	---	---	---	4.8	---	---	---
31	6.6	---	---	---	---	---	---	---	---	---	4.7	---

APPENDIX VII--Daily dissolved oxygen--Continued
[Mean values, milligrams per liter]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 12--B-19 Canal at Dunlawton Avenue near Port Orange [Water year October 1982 to September 1983]												
1	---	---	---	---	---	5.8	6.2	---	---	---	---	---
2	---	---	---	---	---	6.7	5.8	---	---	---	---	---
3	---	---	---	---	---	6.6	6.0	---	---	---	---	---
4	---	---	---	---	---	6.5	6.1	---	---	---	---	---
5	---	---	---	---	---	6.2	5.7	---	---	---	---	---
6	---	---	---	---	---	5.7	5.4	---	---	---	---	---
7	---	---	---	---	---	5.5	5.6	---	---	---	---	---
8	---	---	---	---	---	5.6	5.2	---	---	---	---	5.1
9	---	---	---	---	---	5.9	5.2	---	---	---	---	5.2
10	---	---	---	---	---	6.3	5.6	---	---	---	---	5.2
11	---	---	---	---	6.8	7.1	5.6	---	---	---	---	5.2
12	---	---	---	---	6.4	7.2	5.3	---	---	---	---	5.2
13	---	---	---	---	6.8	7.2	5.2	---	---	---	---	5.2
14	---	---	---	---	6.1	7.1	5.3	---	---	---	---	5.1
15	---	---	---	---	5.6	6.5	5.7	---	---	---	---	5.3
16	---	---	---	---	5.5	7.1	5.8	---	---	---	---	5.6
17	---	---	---	---	5.0	6.5	5.3	---	---	---	---	5.3
18	---	---	---	---	5.2	5.7	5.3	---	---	---	---	5.2
19	---	---	---	---	5.3	5.4	5.4	---	---	---	---	5.3
20	---	---	---	---	5.2	5.1	---	---	---	---	---	5.1
21	---	---	---	---	4.9	5.8	---	---	---	---	---	5.0
22	---	---	---	---	4.7	6.3	---	---	---	---	---	5.1
23	---	---	---	---	4.7	6.3	---	---	---	---	---	5.3
24	---	---	---	---	4.8	6.2	---	---	---	---	---	5.6
25	---	---	---	---	5.4	6.6	---	---	---	---	---	5.6
26	---	---	---	---	6.2	6.4	---	---	---	---	---	5.4
27	---	---	---	---	6.1	5.9	---	---	---	---	---	5.6
28	---	---	---	---	5.8	5.9	---	---	---	---	---	5.4
29	---	---	---	---	---	6.2	---	---	---	---	---	5.1
30	---	---	---	---	---	6.3	---	---	---	---	---	5.1
31	---	---	---	---	---	5.9	---	---	---	---	---	---
Site 12--B-19 Canal at Dunlawton Avenue near Port Orange [Water year October 1983 to September 1984]												
1	5.1	5.6	6.8	---	---	---	---	5.8	---	---	---	---
2	5.3	5.4	6.9	---	---	---	---	5.9	---	---	---	---
3	5.6	5.4	6.1	---	---	---	---	5.3	---	---	---	---
4	6.0	5.6	5.7	---	---	---	---	5.7	---	---	---	---
5	6.5	5.6	5.4	---	---	---	---	4.9	---	---	---	---
6	6.4	5.8	5.2	---	---	---	---	5.0	---	---	---	5.3
7	6.2	6.1	6.2	---	---	---	---	5.2	---	---	---	5.4
8	5.8	5.7	7.5	---	---	---	---	5.3	---	---	---	4.5
9	5.7	5.9	7.7	---	---	---	---	5.7	5.9	---	---	5.7
10	6.0	6.0	7.1	---	---	---	---	6.5	5.7	---	---	5.5
11	6.0	5.8	6.8	---	---	---	---	6.0	5.4	---	---	4.2
12	5.4	6.3	8.6	---	---	---	---	6.1	5.8	---	---	3.9
13	5.2	6.6	7.0	---	---	---	5.7	5.8	5.1	---	---	4.6
14	5.2	6.7	6.5	---	---	---	5.7	5.7	5.7	---	---	4.7
15	5.7	6.6	6.2	---	---	---	5.6	5.7	6.3	---	---	4.7
16	5.5	6.1	6.6	---	---	---	6.0	5.9	6.3	---	---	4.8
17	5.5	7.1	5.8	---	---	---	6.3	6.4	6.5	---	---	4.4
18	4.8	7.4	6.2	---	---	---	6.4	6.5	5.0	---	---	5.1
19	4.0	6.9	6.0	---	---	---	6.3	6.5	---	---	---	5.4
20	---	6.5	6.6	---	---	---	6.1	6.3	---	---	---	5.7
21	---	5.8	7.4	---	---	---	5.9	6.0	---	---	---	5.6
22	---	6.2	6.1	---	---	---	5.6	5.7	---	---	---	5.6
23	---	6.4	5.2	---	---	---	5.5	6.3	---	---	---	5.3
24	---	5.8	4.7	---	---	---	6.0	5.9	---	---	---	5.6
25	---	6.0	6.3	---	---	---	6.1	5.7	---	---	---	4.0
26	---	6.9	7.8	---	---	---	6.2	5.5	---	---	---	5.7
27	5.7	6.2	7.5	---	---	---	6.1	5.6	---	---	---	6.2
28	5.7	5.7	6.2	---	---	---	5.8	5.4	---	---	---	4.5
29	5.7	6.2	6.5	---	---	---	5.9	5.1	---	---	---	3.7
30	5.7	6.7	---	---	---	---	5.8	5.0	---	---	---	---
31	5.8	---	---	---	---	---	---	---	---	---	---	---

APPENDIX VII--Daily dissolved oxygen--Continued
[Mean values, milligrams per liter]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept
Site 12--B-19 Canal at Dunlawton Avenue near Port Orange [Water year October 1984 to September 1985]												
1	---	---	---	---	6.0	5.7	4.4	6.2	---	4.8	---	---
2	---	---	---	---	5.2	5.6	4.6	8.1	---	4.7	---	---
3	---	---	---	---	5.1	5.8	4.8	6.0	---	4.7	---	---
4	---	---	---	---	5.1	5.6	4.9	5.6	---	4.6	---	---
5	---	---	5.0	6.7	5.7	5.3	4.8	5.6	---	4.5	---	---
6	---	---	5.0	7.0	5.2	5.3	4.5	---	---	4.5	---	---
7	---	---	6.2	7.2	6.0	5.5	4.7	---	---	4.6	---	---
8	---	---	6.6	6.9	---	5.3	4.8	---	---	4.6	---	---
9	---	---	6.5	7.1	---	5.3	4.6	---	---	4.5	---	---
10	---	---	6.6	6.9	---	5.7	4.7	---	---	4.8	---	---
11	---	---	6.2	6.4	---	6.0	4.8	---	---	4.5	---	---
12	---	---	5.7	6.9	---	5.1	4.6	---	---	5.0	---	---
13	---	---	5.8	7.3	---	5.0	5.0	---	---	4.4	---	---
14	---	---	5.3	7.2	---	5.3	---	---	---	4.3	---	---
15	---	---	5.1	7.0	---	4.6	---	---	---	4.4	---	---
16	---	---	5.2	7.3	---	4.5	---	---	---	4.4	---	---
17	---	---	5.3	6.9	---	4.2	---	---	---	4.0	---	---
18	---	---	5.1	6.2	7.8	4.6	---	---	4.6	3.7	---	---
19	---	---	3.7	6.6	7.9	4.4	---	---	4.8	---	---	---
20	---	---	---	7.0	7.1	4.1	---	---	5.0	---	---	---
21	---	---	---	7.8	7.0	3.9	---	---	4.8	---	---	---
22	---	---	---	8.4	6.8	4.1	---	---	5.0	---	---	---
23	---	---	---	8.2	6.3	4.6	---	---	5.1	---	---	---
24	---	---	---	7.9	5.8	4.6	---	---	5.1	---	---	---
25	---	---	---	6.7	5.6	4.8	---	---	4.7	---	---	---
26	---	---	---	7.0	5.4	4.8	---	---	4.6	---	---	---
27	---	---	---	7.7	5.4	4.8	---	---	4.6	---	---	---
28	---	---	---	7.2	5.6	4.7	---	---	4.6	---	---	---
29	---	---	---	6.8	---	4.7	---	---	4.5	---	---	---
30	---	---	---	6.9	---	4.7	---	---	4.6	---	---	---
31	---	---	---	6.2	---	4.9	---	---	---	---	---	---