

# Water Resources Data Florida Water Year 2002

## Volume 2A. South Florida Surface Water

Water-Data Report FL-02-2A



Prepared in cooperation with the  
State of Florida  
and with other agencies

# CALENDAR FOR WATER YEAR 2002

## 2001

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OCTOBER							NOVEMBER							DECEMBER						
S	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S
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## 2002

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JANUARY							FEBRUARY							MARCH						
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JULY							AUGUST							SEPTEMBER						
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14	15	16	17	18	19	20	11	12	13	14	15	16	17	15	16	17	18	19	20	21
21	22	23	24	25	26	27	18	19	20	21	22	23	24	22	23	24	25	26	27	28
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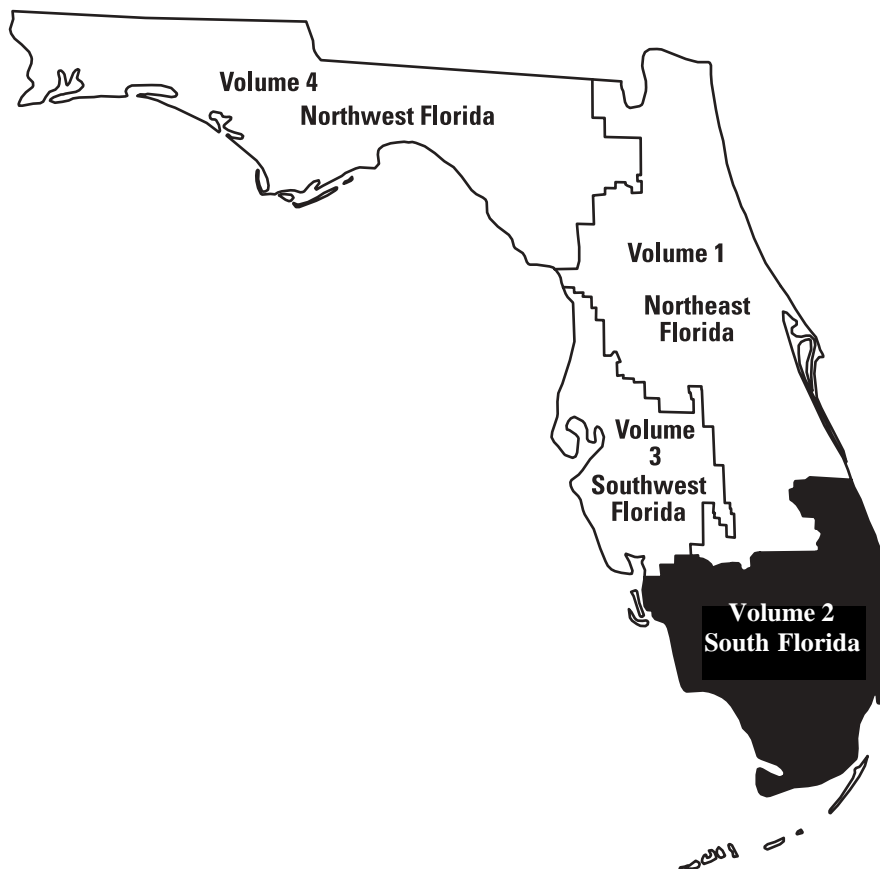
U.S. Department of the Interior  
U.S. Geological Survey

# Water Resources Data Florida Water Year 2002

## Volume 2A. South Florida Surface Water

By C. Price, J. Woolverton, K. Overton

Water-Data Report FL-02-2A



Prepared in cooperation with the  
State of Florida and with other agencies



U.S. DEPARTMENT OF THE INTERIOR  
GALE NORTON, Secretary  
U.S. GEOLOGICAL SURVEY  
CHARLES G. GROAT, Director

Prepared in cooperation with the  
State of Florida  
and other agencies as listed  
under cooperation

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## VOLUME 2A: SOUTH FLORIDA

PREFACE

This volume of the annual hydrologic data report of Florida is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by state, local, and federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for Florida are contained in four volumes. Figure 1 shows the area covered by volume 2A.

Volume 1.	Northeast Florida
Volume 2.	South Florida
Volume 3.	Southwest Florida
Volume 4.	Northwest Florida

ACKNOWLEDGEMENT

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Hydrologic data for south Florida are contained in two volumes

Volume 2A:	Surface Water
Volume 2B:	Ground Water

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13. ABSTRACT ( <i>Maximum 200 words</i> ) <b>Water resources data for 2002 water year in Florida consists of continuous or daily discharge for 392 streams, periodic discharge for 15 streams, continuous or daily stage for 191 streams, periodic stage for 13 stream, peak discharge for 33 streams, and peak stage for 33 streams, continuous or daily elevations for 14 lakes, periodic elevations for 49 lakes, continuous ground-water levels for 418 wells, periodic ground-water levels for 1287 wells, quality of water data for 116 surface-water sites, and 291 wells.</b>  <b>The data for South Florida included continuous or daily discharge for 71 streams, continuous or daily stage for 49 streams, no peak stage discharge for streams, 1 continuous elevation for lake, continuous ground-water levels for 238 wells, periodic ground-water levels for 260 wells, water quality for 24 surface-water sites, and 159 wells.</b>  <b>The data represent the National Water Data System records collected by the U.S. Geological Survey and cooperation with local, state, and federal agencies in Florida.</b>				
14. SUBJECT TERMS <b>*Florida, *Hydrologic data, *Surface Water, *Ground Water, *Water Quality, Flow rate, Gaging stations, Lakes, Reservoirs, Chemical analyses, Sediments, Water temperatures, Sampling sites, Water levels, Water analyses, Elevations, Water wells.</b>			15. NUMBER OF PAGES <b>360</b>	
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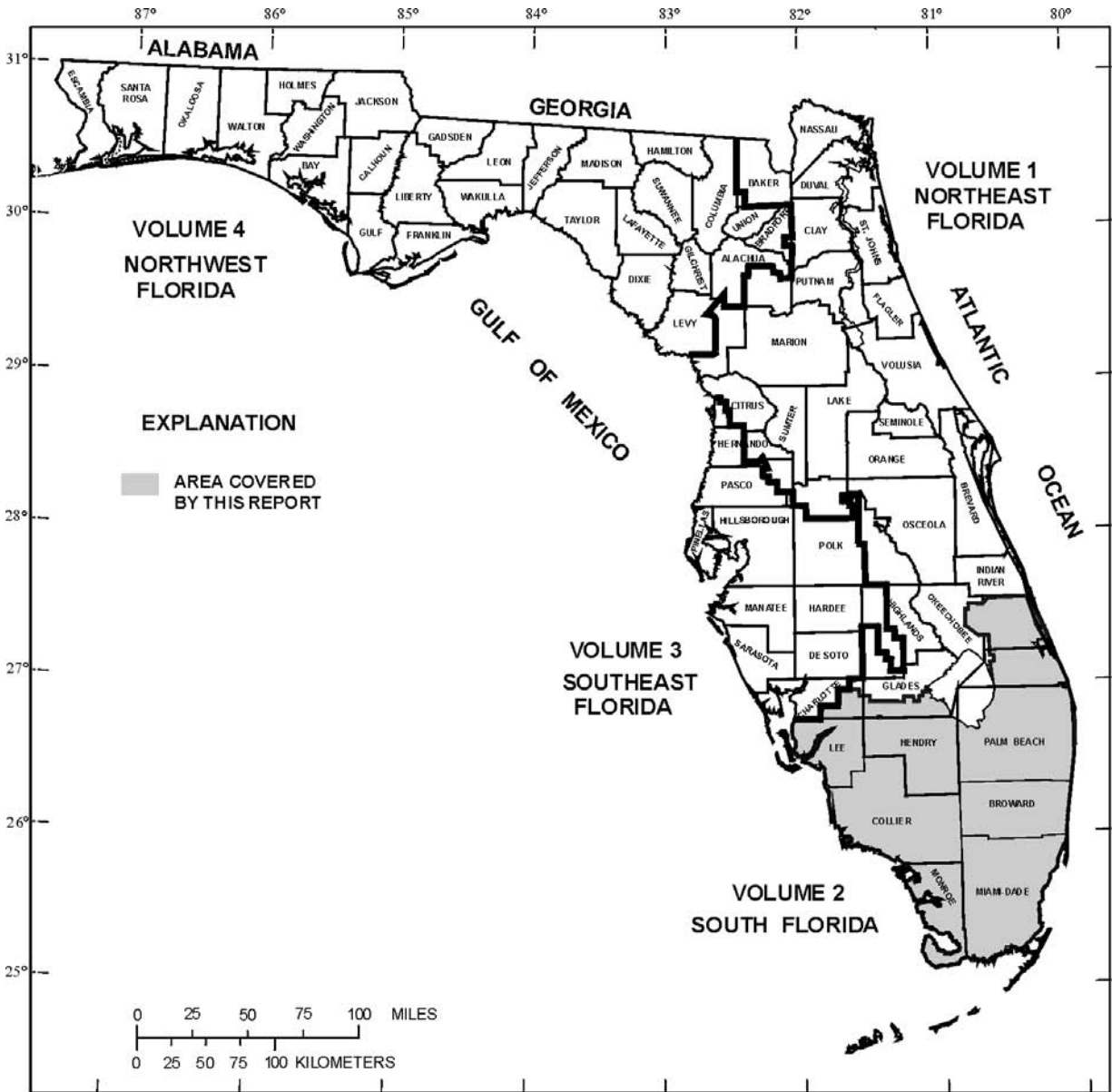


Figure 1. Geographic area covered by this report.

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STREAM AND LAKE GAGING STATIONS, IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED IN THIS VOLUME

The following list shows the surface water sites where streamflow, stage, lake elevation, or daily water quality data are collected. [Letters after station names designate type of data collected: (d) discharge, (e) elevation, gage heights, (q) water quality]

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Hermosa Canal at Cape Coral, FL (d,g)	02293347 . .267
Gator Slough at U.S. 41 near Ft. Myers, FL (d,g)	.264437081550100 . .269
Gator Slough at SR 765 at Cape Coral, FL (d,g)	.264139082022100 . .271

## VOLUME 2A: SOUTH FLORIDA

## DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS

The following continuous-record surface-water stage and discharge stations in South Florida have been discontinued. Daily streamflow or stage records were collected and published for the period of record, expressed in water years, shown for each station. Discontinued project stations with less than 3 years have not been included. Information regarding these stations may be obtained from the subdistrict office at the address given on the back side of the title page of this report. Drainage area is indeterminate for all of the stations listed below.

Station name	Station number	Period of record water years published
Airplane Prairie near Monroe, Fl (e)	.260345081053500	.1979 - 1980
Angelfish Creek near Florida City, Fl (e)	02290757	.1971
Barnes Sound at Key Largo, Fl (e)	02290784	.1971
Barnes Sound near Florida City, Fl (e)	02290760	.1967 - 1968
Big Cypress Swamp at Everglades Parkway, near Sunniland, Fl (d)	02288830	.1970 - 1971
Big Cypress Swamp at Training Airport, near Miami, Fl (d)	02288970	.1970 - 1974
Big Cypress Swamp below Training Airport, near Miami, Fl (e)	02288971	.1970 - 1974
Big Cypress Swamp Pinelands near monroe, Fl (e)	.255737081043200	.1979 - 1980
Big Cypress Watershed at Everglades Pky, nr Big Cypress Indian Reservation, Fl (d)	02289033	.1970 - 1971
Billy Creek at Ft Myers, Fl (e)	02293200	.1944 - 1955
Biscayne Bay at Coconut Grove, Miami, Fl (e) (formerly published under station number 02290755)	02290540	.1963 - 1981
Biscayne Bay at Elliott Key, near Homestead, Fl (e)	02290737	.1967 - 1968
Biscayne Bay at Key Biscayne, near Miami Beach, Fl (e) (formerly published under station number 02290753)	02290543	.1964, 1967- 1968
Biscayne Bay at North Miami, Fl (e)	02290750	.1963 - 1981
Biscayne Bay near Homestead, Fl (e) (formerly published under station number 02290760)	02290732	.1963 - 1981
Biscayne Bay at Ragged Key No. 5 near Florida City, Fl (e)	02290705	.1971
Biscayne Canal at Red Road, near Opa-Locka, Fl (e)	02286320	.1963 - 1979
Biscayne Canal at North Miami, Fl (e)	02286330	.1963
Biscayne Canal at S-28, near Miami, Fl (d)	02286340	.1962 - 1985
Black Creek near Richmond Heights, FL (e)	02290707	.1971 - 1979
Black Creek Canal below S-21 near Goulds, Fl (e)	02290711	.1971
Broad River near Everglades, Fl (d) (period of record published in 1967 volume 2A)	02290880	.1962 - 1965
C-1 Canal near Jupiter, FL (q)	265631080132500	.1989 - 1998
C-2 Canal above S-4 near Deerfield Beach, Fl (e)	02281490	.1989 - 1993
C-2 Canal below S-4 near Deerfield Beach, Fl (e)	02281491	.1989 - 1993
Camelot Canal at Control at Cape Coral, Fl (e)	02293245	.1987 - 1990
Camelot Canal below Control at Cape Coral, Fl (e)	02293246	.1987 - 1992
Canal 1 at Indiantown Road and 133 Way near Jupiter, FL (q)	.265632080144200	.1994 - 1998
Canal 60 at S-140 near Ft. Lauderdale, Fl (d)	02286962	.1970 - 1981
Canal 111 above S-197 near Florida City, Fl (d)	.251713080263300	.1984
Canal 111 at Clv.5 between S-18C and S-197 nr Homest., Fl (e)	251823080294200	.1984 - 1985
Canal 111 at U.S. Highway 1, near Florida City, Fl (e)	02290780	.1967 - 1969
Canal 111 below S-18-C near Florida City. Fl (e)	02290770	.1967 - 1969
C-7 Canal near Jupiter, FL (q)	265352080120400	.1989 - 1998
C-18 Canal at G-92 near Jupiter, FL (q)	265437080103200	.1989 - 1998
Canal C-18 near Jupiter, Fl (d)	.265218080144300	.1980 - 1982
Canal M near Mangonia Park, Fl (d)	02277900	.1970 - 1977
Card Sound at Angelfish Creek near Florida City, Fl (e)	02290756	.1971
Card Sound at Model Land Canal, near Florida City, Fl (e)	02290750	.1967 - 1981
Card Sound Canal near Florida City, Fl (d)	02290739	.1972 - 1974
Cape Florida Channel near Key Biscayne, Fl (e)	02290590	.1970
Cearas Creek at Adam Key, near Florida City, Fl (e)	02290738	.1971
Charlotte Harbor at Bokeelia, Fl (e)	02293340	.1990 - 1993
Cocohatchee River Canal near Naples, Fl (d)	02291400	.1966
Cocohatchee River Canal near Naples Park, Fl (d)	02291393	.1969 - 1984

## VOLUME 2A: SOUTH FLORIDA

## DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--continued

Station name	Station number	Period of record water years published
Comfort Canal at N.W. 29th Avenue, Miami, Fl (e) . . . . . (formerly published as South Fork Miami River at N.W. 29th Avenue)	02290520. . . . .	.1962 - 1970
Coral Gables Canal at Red Road, Coral Gables, Fl (e) . . . . .	02290560. . . . .	.1963 - 1970
Coral Gables Canal at Tamiami Canal, near Coral gables, Fl (d). . . . .	02290550. . . . .	.1960 - 1963
Coral Gables Canal near South Miami, Fl (d) . . . . .	02290580. . . . .	.1961 - 1966
Cypress Creek Canal at S-37A, near Pompano Beach, FL (D). . . . .	02282100. . . . .	.1964 - 1985
Cypress Creek near Jupiter, Fl (d). . . . .	.265816080110000. . . . .	.1980 - 1982
E. Tributary N. Fork Loxahatchee River nr Hobe Sound, Fl (d).270036080070500. . . . .		.1980 - 1981
El Rio Canal near Boca Raton, Fl (d). . . . .	02281625. . . . .	.1970 - 1972
gage heights only. . . . .		.1973 - 1977
El Rio Canal, SW 18th Street, Boca Raton, Fl (e). . . . .	.261953080054900. . . . .	.1982 - 1985
Equalizing Canal 1 near Greenacres City, Fl (e) . . . . .	02281419. . . . .	.1970 - 1972
Equalizing Canal 1 near Delray Beach, Fl (e). . . . .	02281425. . . . .	.1970 - 1977
Equalizing Canal 3 near Greenacres City, Fl (e) . . . . .	02281513. . . . .	.1970 - 1977
Equalizing Canal 3 near Delray Beach, Fl (e). . . . .	02281532. . . . .	.1970 - 1972
Equalizing Canal 3 near Boca Raton, Fl (e) . . . . .	02281544. . . . .	.1970 - 1977
Everglades 1-128S near Boynton Beach, Fl (e). . . . .	02281282. . . . .	.1974 - 1975
Everglades 1-141S near Loxahatchee, Fl (e). . . . .	02281278. . . . .	.1974 - 1976
Everglades 1-142S near Delray Beach, Fl (e) . . . . .	02281291. . . . .	.1974 - 1976
Everglades 159 south of pump station 6 near Andytown, Fl (e).262300080263501. . . . .		.1977 - 1980
Everglades 160 south of pump station near Lake Harbor, Fl (e)261557080464301. . . . .		.1977 - 1980
Everglades 2B in C-111 Basin near Homestead, FL (g) . . . . .	.251855080283400. . . . .	.1986 - 2001
Everglades 201-NP, near Homestead, Fl (e) . . . . .	.02290861). . . . .	.1975 - 1980
Everglades 202-NP, near Miami, Fl (e) . . . . .	.02290862). . . . .	.1975 - 1980
Everglades 203-NP, near Homestead, Fl (e) . . . . .	02290832. . . . .	.1974 - 1980
(formerly published as Everglades P-5S)		
Everglades 204-NP near Homestead, Fl (e). . . . .	02290829. . . . .	.1974 - 1980
(formerly published as Everglades P-145		
Everglades 205-NP, near Miami, Fl (e) . . . . .	02290868. . . . .	.1975 - 1980
Everglades 206-NP, near Miami, Fl (e) . . . . .	02290811. . . . .	.1975 - 1980
Everglades 207 near Homestead, Fl (e) . . . . .	02290810. . . . .	.1963 - 1980
(formerly published as "Everglades P-37 near Homestead")		
Everglades 2-111S near Andytown, Fl (e) . . . . .	02284642. . . . .	.1974 - 1981
Everglades 2-112S near Margate, Fl (e). . . . .	02284644. . . . .	.1974 - 1976
Everglades 3-62S near Andytown, Fl (e). . . . .	02286960. . . . .	.1974 - 1979
Everglades 3-63S near Andytown, Fl (e). . . . .	02286998. . . . .	.1974 - 1979
Everglades 3-64S near Miramar, Fl (e) . . . . .	02286970. . . . .	.1974 - 1979
Everglades 3-65S near Miami, Fl (e) . . . . .	02289043. . . . .	.1974 - 1980
Everglades P-33 near Homestead, Fl (e). . . . .	02290815. . . . .	.1963 - 1980
Everglades P-34 near Homestead, Fl (e). . . . .	02290870. . . . .	.1963 - 1980
Everglades P-35 near Homestead, Fl (e). . . . .	02290830. . . . .	.1963 - 1980
Everglades P-36 near Homestead, Fl (e). . . . .	02290828. . . . .	.1969 - 1980
Everglades P-38 near Homestead, Fl (e). . . . .	02290820. . . . .	.1963 - 1980
Everglades P-103 near Florida City, Fl (e). . . . .	02290790. . . . .	.1967 - 1969
Everglades P-104 near Florida City, Fl (e). . . . .	02290794. . . . .	.1967 - 1969
Fakahatchee Slough at Janes Road near Copeland, Fl (d). . . . .	02291047. . . . .	.1970 - 1972
Faka Union Canal near Copeland, Fl (d). . . . .	02291143. . . . .	.1970 - 1984
Faka Union Canal near Deep Lake, Fl (d) . . . . .	.260342081312500. . . . .	.1978 - 1984
Faka Union Canal near Sunniland, Fl (e) . . . . .	.261616081314400. . . . .	.1978 - 1984
Florida Bay at Flamingo, Fl (e) . . . . .	02290825. . . . .	.1963 - 1980
Florida City Canal near Florida City, Fl (e). . . . .	02290735. . . . .	.1963 - 1967
Garden Cove near Key Largo, Fl (e). . . . .	02290786. . . . .	.1967 - 1968
Gator Hook Strand near Ochopee (e). . . . .	.254724081111300. . . . .	.1979 - 1980
Golden Gate Canal at Naples, Fl (d) . . . . .	02291300. . . . .	.1965 - 1984
Golden Gate Canal near Naples, Fl (d) . . . . .	.261148081401700. . . . .	.1978 - 1984
Golden Gate Canal near Sunniland, Fl (d). . . . .	.261642081334200. . . . .	.1978 - 1984
Gordon River at Naples, Fl (e). . . . .	02291280. . . . .	.1972 - 1984

## VOLUME 2A: SOUTH FLORIDA

## DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--continued

Station name	Station number	Period of record water years published
Goulds Canal near Goulds, Fl (e). . . . .	02290711. . . . .	.1963 - 1967
(formerly published under station number 02290715)		
Grand Canal near Florida City, fl (d) . . . . .	02290734. . . . .	.1972 - 1974
Gum Slough near Monroe, Fl (e). . . . .	.254230081022000. . . . .	.1979 - 1980
Harney River near Homestead, Fl (d) . . . . .	02290860. . . . .	.1960 - 1967
(gage heights only 1968 - 1969)		
Henderson Creek Canal near Naples, Fl (d) . . . . .	02291270. . . . .	.1968 - 1984
Henry Creek at Henry Creek Lock near Sherman, Fl. . . . .	02275705. . . . .	.1993 - 1995
(This station was transferred to the Altamonte Springs Office)		
Hillsboro Canal at S-39, near Deerfield Beach, Fl (e) . . . . .	02281300. . . . .	.1957 - 1967
Hillsboro Canal in Cons. Area No. 1 at S-6 nr Shawano, Fl (e) . . . . .	02281201. . . . .	.1963 - 1968
Hillsboro Canal near Deerfield Beach, Fl (d). . . . .	02281500. . . . .	.1940 - 1991
Hillsboro Canal below Deerfield Locks, Deerfield Beach, Fl (e). . . . .	02281501. . . . .	.1963 - 1991
Hillsboro River at Deerfield Beach, Fl (e) . . . . .	02281650. . . . .	.1968 - 1978
Hobe Groves Ditch, near Jupiter, Fl (d) . . . . .	.265907080103000. . . . .	.1980 - 1982
Hollywood Canal at Dania, Fl (d). . . . .	02286150. . . . .	.1962 - 1967
Intracoastal Waterway at Barnes Point, near Florida City, Fl (e). . . . .	02290762. . . . .	.1971
Intracoastal Waterway at Blue Heron Blvd. at Riveria, Beach, Fl (e)	02277960. . . . .	.1971 - 1977
Intracoastal Waterway at Delray Beach, Fl (e) . . . . .	02279520. . . . .	.1971 - 1973
Intracoastal Waterway at Donald Ross Road, nr Juno Beach, Fl (e). . . . .	02277730. . . . .	.1971 - 1973
Intracoastal Waterway at Golden Beach, Fl (e) . . . . .	02281670. . . . .	.1970 - 1979
Intracoastal Waterway at Hollywood, Fl (e). . . . .	02286160. . . . .	.1968 - 1978
Intracoastal Waterway at Lauderdale-by-the Sea, Fl (e). . . . .	02282300. . . . .	.1968 - 1978
Intracoastal Waterway at Port Everglades, at Hollywood, Fl (e). . . . .	02286143. . . . .	.1968 - 1978
Intracoastal Waterway at Southern Blvd. at Palm Beach, Fl (e) . . . . .	02277994. . . . .	.1971 - 1973
Intracoastal Waterway at SR 706 at Jupiter, Fl (e). . . . .	02277738	1980 - 1981, 1989 - 1992
Intracoastal Waterway at SR 707 at Jupiter, Fl (e). . . . .	02277747	1980 - 1981, 1989 - 1992
L-28 Interceptor Canal South at Collier border, Fl (d,g). . . . .	.260823080524100. . . . .	.1997 - 1999
L-67A at Conservation Area 3A near Coopertown, Fl (g) . . . . .	.255447080350200. . . . .	.1994 - 1996
L-67C at Conservation Area 3B near Coopertown, Fl (g) . . . . .	.255420080340500. . . . .	.1994 - 1996
Lateral 47 Canal at Boca Raton, Fl (e). . . . .	02281468. . . . .	.1989 - 1991
Lateral Canal at Seminole Road near Loxahatchee, Fl (e) . . . . .	02278698. . . . .	.1973 - 1977
Lateral Canal in Acme Drainage District, near Loxahatchee, Fl (e) . . . . .	02281297. . . . .	.1973 - 1977
Lateral Canal in Loxahatchee Groves near Loxahatchee, Fl (e). . . . .	02278732. . . . .	.1973 - 1977
Lateral Canal on 130th Ave. North, near Jupiter, Fl (e) . . . . .	02277470. . . . .	.1973 - 1977
(formerly published as Lateral Canal on Hynie Lane Road)		
Lateral Canal on Jupiter Farms Road, near Jupiter, Fl (e) . . . . .	02277480. . . . .	.1973 - 1977
Levee 3 Canal near Clewiston, Fl (d). . . . .	02289030. . . . .	.1970 - 1990
. . . . . Revised 1978-90 in WRD-2A-96		
Levee 28 Tieback Canal, near Andytown, Fl (e) . . . . .	02289027. . . . .	.1970 - 1974
Levee 30 near Miami Springs, Fl . . . . .	02289100. . . . .	.1960 - 1964
Levee 31W Canal at S-332, near Florida City, FL (d,g) . . . . .	.252523080352500. . . . .	.1983 - 1998
Levee 67 Extended Canal near Richmond Heights, fl (e) . . . . .	02290827. . . . .	.1971 - 1980
Levee 67 Extended Canal at South End near Coopertown, Fl (e).253735080402100. . . . .		.1977 - 1980
Little River Canal at Palm Avenue, Hialeah, Fl (e). . . . .	02286350. . . . .	.1963 - 1979
Little River Canal at S-27, at Miami, Fl (d). . . . .	02286380. . . . .	.1960 - 1969
. . . . .		.1973 - 1985
Lostmans River near Everglades, Fl (d). . . . .	02290920. . . . .	.1962 - 1965
(period of record published in 1967 volume 2A)		
Loxahatchee River at Indiantown Road near Jupiter FL (q). . . . .	.265613080100700. . . . .	.1989 - 1998
Loxahatchee River at Sunshine State Pkwy., nr Jupiter, Fl (d)265713080095600. . . . .		.1980 - 1982
Loxahatchee River near Hobe Sound, Fl (e) . . . . .	.265916080083500. . . . .	.1977 - 1981
M-1 Canal at Canal M near Royal Palm Beach, Fl (e). . . . .	02278760. . . . .	.1975 - 1977
M-2 Canal in Royal Palm Beach Colony near Loxahatchee, Fl (e) . . . . .	02277750. . . . .	.1973 - 1977
Mackinac Canal at Cape Coral, FL (d,g). . . . .	02293216. . . . .	.1987 - 1996

## VOLUME 2A: SOUTH FLORIDA

## DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--continued

Station name	Station number	Period of record water years published
Manatee Bay at Canal 111, near Florida City, Fl (e)	02290782	.1967 - 1969
Main Lake Outlet near Ft Myers, Fl (e)	02291736	.1988 - 1989
Matlacha Pass at Indian Field Island near Matlacha, Fl (e)	02293342	.1991 - 1993
Matlacha Pass at Matlacha, FL (g,q)	02293343	.1989 - 1997
Matlacha Pass at Parrots Perch near St James City, FL (g)	02293280	.1989 - 1997
Miami Canal above S-8, near Lake Harbor, Fl (e)	02286699	.1962 - 1968
(formerly Miami Canal at S-8 (auxiliary) 02286700)		
Miami Canal above S354 and S-3, at Lake Harbor, FL (g)	02286399	.1958 - 1998
(Prior to October 1988, published as Miami Canal at HGS-3 and S-3 at Lake Harbor)		
Miami Canal at broken dam, near Miami, Fl (d)	02287400	.1960 - 1968
		.1985 - 1989
Miami Canal at N.W. 27th Avenue, Miami, Fl (e)	02290510	.1963 - 1979
Miami Canal at Palmetto Bypass near Hialeah, Fl (d)	02288200	.1960 - 1981
Miami Canal at Pennsuco near Miami, Fl (d)	02287500	.1963 - 1979
Miami River at Brickell Ave., Miami, Fl (d)	02290530	.1961 - 1966
Middle River Canal at U.S. Highway 1, near Ft. Lauderdale, Fl (d)	02282800	.1964 - 1967
Mid. Tributary N. Fork Loxahatchee R. nr Hobe Sound, Fl (d)	270028080074200	.1980 - 1981
Military Canal near Homestead, Fl (e)	02290720	.1963 - 1969
Model Land Canal near Florida City, Fl (e)	02290740	.1963 - 1969
Model Land Canal below ML-2, near Florida City, Fl (e)	02290746	.1963 - 1968
(formerly Model Land Canal at control "auxillary" 02290745)		
Monreve Ranch drainage canal near Stuart Fl (d)	02276984	.1959 - 1973
(formerly published under station number 02276800)		
Mowry Canal near Homestead, Fl (d)	02290725	.1970 - 1989
		.gage heights only published. .1963 - 1970
New River at Ft. Lauderdale, Fl (d)	02286140	.1963 - 1967
North Canal near Homestead, Fl (e)	02290730	.1963 - 1968
North Line Canal near Miami Springs, Fl (d)	02289900	.1960 - 1963
North New River Canal below S-34, near Ft. Lauderdale, Fl (d)	02284700	.956 - 1967
North New River Canal near Ft. Lauderdale, Fl (d)	02285000	.1939 - 1992
North New River Canal below control near Ft. Lauderdale, Fl (e)	02285001	.1962 - 1992
(formerly published as 02285000 North New River Canal (auxiliary))		
N.W. Wellfield Canal at Conserv. Area No. 3 nr Pennsuco, FL (d,g)	02289096	.1991 - 1996
N.W. Wellfield Canal near Pennsuco, FL (d,g)	02288010	.1991 - 1996
Okaloacoochee Slough near Sunniland, Fl (e)	261205081200000	.1979 - 1980
Pine Channel near Big Pine, Fl.	244123081225301	.1976
Pinecrest Hammocks near Monroe, Fl (e)	254635080541500	.1979 - 1980
Pompano Canal at Pompano Beach, Fl (d)	02282000	.1964 - 1969
(Prior to October 1948, published as Cypress Creek Canal at Pompano)		
Pompano Canal at S-38, near Pompano Beach, Fl (d)	02281700	.1962 - 1967
Roberts Lake Slough near Monroe, Fl (d)	02290950	.1973 - 1980
Rogers River near Everglades, Fl (d)	02290900	.1962 - 1965
(period of record published in 1967 volume 2A)		
Sanibel River at Snibel, Fl (e)	02293250	.1972 - 1977
Savannahs Drainage Canal at Port St Lucie, Fl (d)	02276568	.1976 - 1977
Shark River near Homestead, Fl (d)	02290850	.1960 - 1966
(gage heights only 1967 - 1969)		
Site 15 nr L-39 in Conserv. Area No. 2A near Shawano, FL (g)	262400080250001	.1991 - 1997
Site 34 near L-30 in Conservation Area 3B, near Miami, FL (g)	255215080291000	.1993 - 1997
Six Mile Cypress Creek South near Ft. Myers, Fl (d)	02291670	.1988 - 1990
San Carlos Bay at St. James, City, Fl (e)	02293288	.1990 - 1992
Snake Creek Canal at S-29, at S-29, at North Miami Beach, FL (d)	02286300	.1959 - 1985
Snake Creek Canal at S-30, near Hialeah, Fl (d)	02286180	.1963 - 1967
Snapper Creek Canal at Miller Drive, near South Miami, Fl (e)	02290610	.1963 - 1981
(formerly published under station number 02290600)		

## VOLUME 2A: SOUTH FLORIDA

## DISCONTINUED SURFACE-WATER DISCHARGE OR STAGE-ONLY STATIONS--continued

Station name	Station number	Period of record water years published
Snapper Creek Canal near Coral Gables, Fl (d)	02290600	.1960 - 1967
gage heights only published		.1968 - 1980
Snapper Creek Canal at S-22, near South Miami, Fl (d)	02290700	.1959 - 1985
South Fork Miami River at N.W. 29th Avenue, Miami, Fl (e) See Comfort Canal at N.W. 29th Avenue		
South New River Canal in Conservation Area No. 3 at S-9 (e)	02285399	.1963 - 1970
South New River Canal at S-9 near Davie, Fl (d)	02285400	.1958 - 1970
South New River Canal at U.S. Highway 27 near Davie, Fl (e)	02285410	.1975
Southwest Fork Loxahatchee River at Jupiter, Fl (e)	265635080071900	.1980 - 1981
Southwest Fork Loxahatchee River at S-46 (d)	02277700	.1959 - 1965
Stilt City Tidal Station at Indian Field, nr Matlacha, Fl (e)	263935082052501	.1990 - 1991
Tamiami Canal at 40-mile bend, near Miami, Fl (e)	02288990	.1961 - 1980
(formerly published as 02288900 Tamiami Canal at 40-mile bend (auxiliary) :		
(1960 to 1963 water years published under 02289000, Tamiami Canal Outlets, Miami to Monroe)		
Tamiami Canal at bridge 77, near Carnestown, Fl (e)	02288780	.1962 - 1980
(formerly published as 02288800 Tamiami Canal at bridge 77 (auxiliary))		
Tamiami Canal at bridge 83, near Ochopee, Fl (e)	255327081161300	.1979 - 1980
Tamiami Canal at bridge 96, at Monroe Fl (e) (twice monthly)	02288860	.1962 - 1980
(formerly published as 02288900 Tamiami Canal at bridge 96 (auxiliary))		
Tamiami Canal at bridge 115, near Miami, Fl (e) (twice monthly)	02288945	.1962 - 1980
(formerly published as 02288900 Tamiami Canal at bridge 115 (auxiliary))		
Tamiami Canal at Red Road, Miami, Fl (e)	02290500	.1963 - 1980
Tamiami Canal east of levee 30, near Miami, Fl (e)	02289250	.1963 - 1980
(formerly published as 02289060 Tamiami east of levee 30 (auxiliary))		
Tamiami Canal Outlets, Miami to Monroe, Fl (d)	02289000	.1940 - 1963
Tamiami Canal west of levee 30, near Miami, Fl (e) (twice monthly)	02289090	.1963 - 1980
(formerly published as 02289060 Tamiami Canal west of levee 30 (auxiliary))		
Taylor Creek at HGS-6 near Okeechobee, Fl (d)	02277503	.1992 - 1995
(This station was transferred to the Altamonte Springs Office)		
Taylor Slough at Context Road near Homestead, Fl (d)	252948080352700	.1976 - 1980
Taylor Slough at Craighead Lake near Homestead, Fl (e)	251148080410300	.1979 - 1980
Taylor Slough at Royal Palm near Homestead, Fl (e)	02290803	.1970 - 1980
Taylor Slough near Homestead, Fl (d)	02290800	.1960 - 1985
Townsend Canal near Alva, FL (d,g)	02292780	.1975 - 1996
Turnpike Borrow Canal above S-46 near Jupiter, FL (q)	26555208008500	.1989 - 1998
U.S. Highway 441 Canal near Deerfiled Beach, Fl (e)	02281435	.1968 - 1969
Warner Creek near Jensen Beach, Fl (d)	02277107	.1976 - 1977
West Rolling Oaks Feeder Canal Near Davie, Fl (e)	02285420	.1975



## VOLUME 2A: SOUTH FLORIDA

INTRODUCTION

The U.S. Geological Survey (USGS), in cooperation with State, County, and other Federal agencies, obtains a large amount of data pertaining to the water resources of Florida each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the state. To make these data readily available to interested parties outside the USGS, the data are published annually in this report series entitled "Water Resources Data - Florida, Volume 2A: South Florida Surface Water and Volume 2B: South Florida Ground Water."

This report series includes records of stage, discharge, and water quality of streams; and stage, contents, and water quality of lakes; and ground-water levels, contents, and water quality of ground-water wells. The data for south Florida include continuous or daily discharge for 71 streams, continuous or daily stage for 49 streams, continuous elevations for 1 lake, continuous ground-water levels for 238 wells, periodic ground-water levels for 260 wells, and quality-of-water data for 24 surface-water sites and 159 wells.

This series of annual reports for Florida began with the 1961 water year, with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. For the 1975 water year, the report format was changed to one volume presenting data on quantities of surface water, quality of surface and ground water, and ground-water levels. For the 1977 water year, the report format was changed to one volume presenting data on quantity and quality of surface water, and one volume presenting data on water levels and quality of ground water.

Prior to introduction of this series and for several concurrent water years concurrent with it, water-resources data for Florida were published in USGS Survey Water-Supply Papers. Data on stream discharge and stage, and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States". For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above-mentioned Water-Supply Papers may be consulted in the libraries of the principal cities of the United States and may be purchased from the U.S. Geological Survey, Branch of Information Services, Box 25286, Federal Center, Denver, CO 80115 (telephone: 888-ASK-USGS).

Publications similar to this report are published annually by the USGS for all States. These official USGS reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report FL-xx-2B," where xx represents the current water year. For archiving and general distribution, reports for the 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161. Additional information, including current prices, for ordering specific reports may be obtained from the Office Chief at the address given on the back of the title page or by telephone (305) 717-5800.

## WATER RESOURCES DATA - FLORIDA, 2002

## VOLUME 2A: SOUTH FLORIDA

COOPERATION

The USGS and various federal, state, and local organizations have had cooperative agreements for the collection of water-resource records since 1930. Organizations that assisted in collecting the data presented in this report through cooperative agreement with the Survey are:

Broward County	Lee County
City of Boca Raton	Miami-Dade County Department of Environmental
City of Cape Coral	Resource Management
City of Ft. Lauderdale	Seminole Tribe of Florida
City of Hallandale	South Florida Water Management District
City of Hollywood	U.S. Army Corps of Engineers
Everglades National Park	U.S. Fish and Wildlife Service
Florida Keys Aqueduct Authority	

Organizations that provided data are acknowledged in station manuscripts.

VOLUME 2A: SOUTH FLORIDA

SUMMARY OF HYDROLOGIC CONDITIONS

This section summarizes important hydrologic events that occurred during the 2002 water year (October 1, 2001 to September 30, 2002) as well as significant natural and antropogenic water-management responses to these events. Figure 2 provides a frame of reference for some of the major land areas of hydrologic significance.

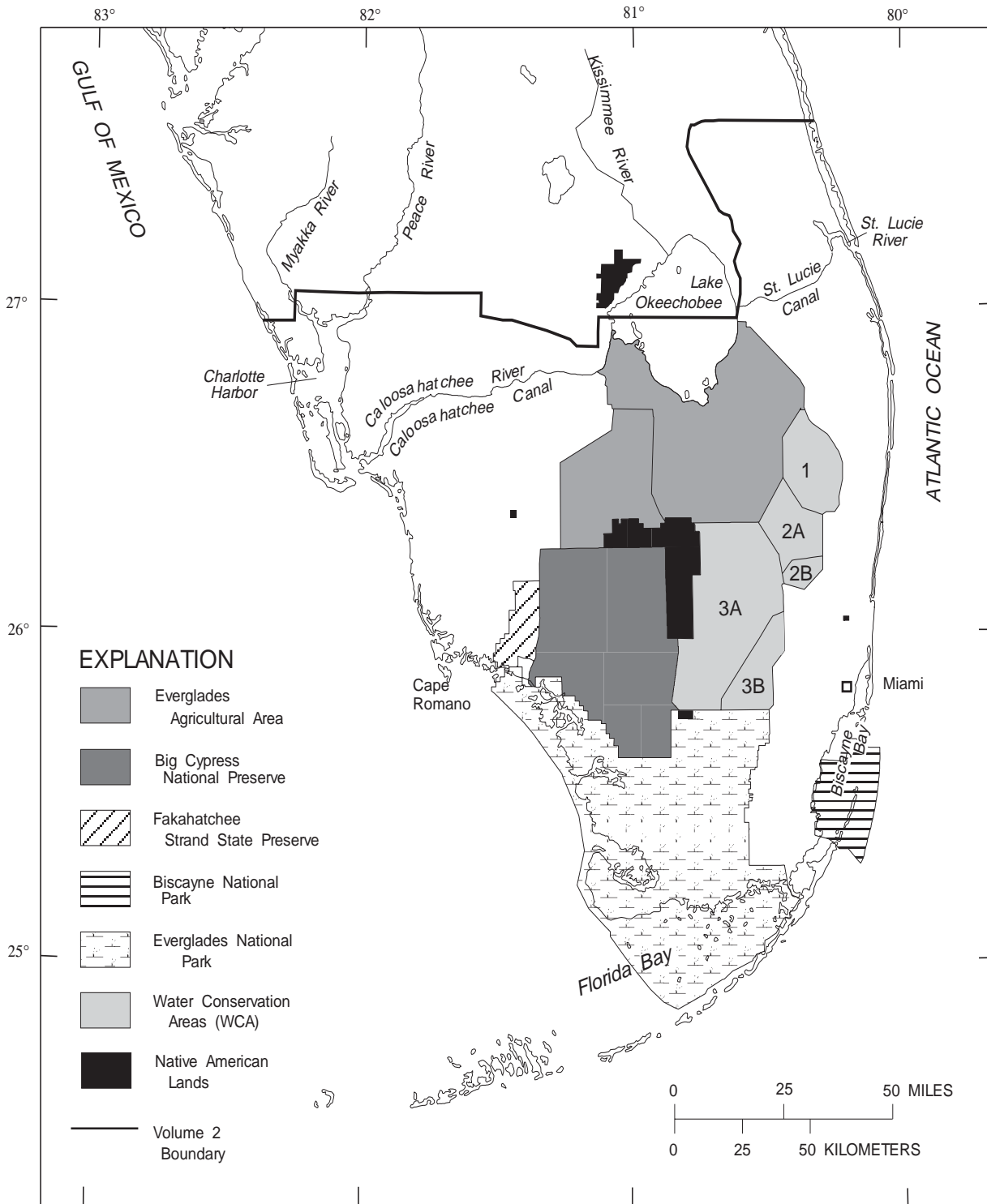


Figure 2. South Florida areas of hydrologic significance.

## VOLUME 2A: SOUTH FLORIDA

SUMMARY OF HYDROLOGIC CONDITIONS (continued)

During the 2002 water year, the Miami Subdistrict monitored 71 continuous discharge stations, 49 continuous stage stations and 1 lake and collected water-quality data at 24 miscellaneous sites in cooperation with local, State, and Federal Agencies. October started the 2002 water year with close to typical conditions and slightly above average rainfall, except for Miami-Dade County which received well above average rainfall. As a result, heavy releases were made from the coastal canals to tide for flood control. Due to the wet conditions, no water-supply releases were made from Lake Okeechobee to the Everglades Agricultural Area (EAA). Water was pumped into the water conservation areas (WCA's) from the EAA all month. Lake Okeechobee received water from pumping for 2 days as well as receiving water from other structures. No releases were made from S-333 because the ground-water trigger well G-3273 was too high; therefore, maximum releases were made through the S-12 structures. On October 31, water was reduced into Shark River Slough by closing S-12A in compliance with the Cape Sable Seaside Sparrow Biological Opinion for the Year 2001. WCA's 1 and 3A were both within regulatory zones, whereas WCA 2A was above. S-77 was closed for most of the month, and excess water was released to tide from S-78 and S-79.

November rains averaged 47 percent below normal, except for the Upper East Coast which received normal rainfall. Hurricane Michelle was expected to hit south Florida at the beginning of the month commencing flood-control operations; however, only the Upper East Coast received significant rain and for the majority of south Florida, water-supply operations afterwards continued in anticipation of the dry season. Minor water-supply releases were made from Lake Okeechobee, and water into the lake diminished due to smaller rainfall amounts. S-77 was closed all month, and all excess water was released to tide from S-78 and S-79. Flood-control pumping continued from the EAA into the WCA's but ceased toward the middle of the month. During the rest of the month, water-supply releases were made into the EAA from the WCA's. Regulatory releases were made to coastal canals. Maximum releases were made through the S-12 structures, except for S-12A which remained closed.

Rainfall was near average throughout the month of December. Water-supply releases were made from Lake Okeechobee all month. Water was released into the Caloosahatchee River in the first half of the month, and pulse releases commenced in the second half of the month. Water from Lake Okeechobee was released by gravity flows and pumping for water-supply to the EAA in the first week of the month. After that time, regulatory and water-supply releases were made from the WCA's as needed, reducing water demand from Lake Okeechobee. Releases were made from the S-12 structures, except for S-12A. Releases were made to tide at the coastal canals as needed.

Rainfall was well below normal for January. Water-supply releases were made from Lake Okeechobee all month. The Caloosahatchee River estuary was regulated by pulse releases from S-79 for environmental concerns and water-supply demands of the basin. Limited water was released through S-77 due to maintenance of the structure so other releases occurred from Lake Okeechobee for water to go through S-78. Flood-control pumping and gravity releases were made from the EAA to the WCA's all month. Water was released through S-12C and S-12D, while the other two structures remained closed. Releases were made through the coastal canals as needed.

February rainfall was well above average with the EAA, WCA's 1 and 2, and Palm Beach County receiving twice the normal rainfall this month. Flood-control and regulatory releases increased while water-supply releases were curtailed due to above normal rainfall throughout the month. Environmental pulse releases continued into the Caloosahatchee River, although limited through S-77. Flood-control releases were also made into the estuaries during the heavy rainfall events. All canals along the coast were kept at their optimum levels.

The month of March was the second driest in 25 years. Most of the regulatory release operations occurred in the first half of the month, and most of the water-supply operations occurred in the second half of the month. Environmental pulse releases continued into the Caloosahatchee River estuary from Lake Okeechobee although discharge capacity at S-77 was limited. Water was released into the St. Lucie Canal, but no water was released into the estuary. Flood-control pumping and gravity releases were made from the EAA to the WCA's in the first half of the month, and water releases were made into the EAA from Lake Okeechobee in the second half of the month. The WCA's maintained regulation schedules the entire month except for WCA 1 which ended the month slightly below schedule. S-333 was discharging near maximum capacity, and S-12 structure releases were only made through S-12D this month. Canals in the coastal areas were at normal levels.

## VOLUME 2A: SOUTH FLORIDA

SUMMARY OF HYDROLOGIC CONDITIONS (continued)

The month of April experienced continuing dry conditions. Water-supply releases continued from Lake Okeechobee to meet water demands. Water was released into the Caloosahatchee River estuary to lower salinities in the estuary. Water releases continued into the St. Lucie canal with no releases into the estuary. The WCA's continued to decline because of lack of rainfall and increasing water-supply demands. No releases were made from the EAA into the WCA's this month, although releases were made from Lake Okeechobee into the EAA. Minor releases were made through S-12D in compliance with the Cape Sable Seaside Sparrow Biological Opinion for the Year 2001. Coastal canal levels were at normal levels.

South Florida experienced below average rainfall during the month of May. No regulatory discharges were made to the WCA's or estuaries, but small water-supply releases were made to the Caloosahatchee River estuary at the beginning of the month. The WCA's were occasionally below their optimum environmental levels due to dry-season conditions although they began to rebound by the end of the month. By the end of the month, all S-12 structures were closed in compliance with the Cape Sable Seaside Sparrow Biological Opinion for the Year 2001.

Rainfall was well above normal for the month of June. Lake Okeechobee rose dramatically with the increased rainfall. No releases were made into the Caloosahatchee River from Lake Okeechobee, but excess water was released through S-78 and S-79 causing very low salinities in the estuary. A small quantity of water was backpumped and provided by gravity flow into Lake Okeechobee for a brief time, following the excessive rainfall at the end of June. All WCA's ended the month above their regular schedules and releases were made as needed. All coastal sites were making flood releases throughout the entire month to keep canal stages at pre-storm levels in anticipation of any tropical storms that might occur during the official hurricane season.

July rainfall was again above average, but not nearly as wet as June, with the majority of the rainfall occurring during the first 12 days of the month. Backpumping occurred into Lake Okeechobee for 2 days near the end of the month with regulatory discharges to the WCA's. Pulse releases into the Caloosahatchee and St. Lucie Rivers began this month to try and mimic a more natural water-release pattern to keep Lake Okeechobee stages low. All WCA's were within the normal schedule for this month and regulatory releases were provided. Each individual S-12 structure was opened throughout the month; therefore maximum releases were occurring through each structure at the end of the month.

The rainfall patterns in August were varied, with the east coast receiving below average rainfall and the south coast and Lake Okeechobee receiving average to above average rainfall. WCA's 2 and 3 were above schedule. Required regulatory pulse release continued to the estuaries. Water was brought down the Miami Canal into southern Miami-Dade County because of the higher elevations in WCA 3A, but was cut back in the middle of the month. All S-12 structures were discharging maximum amounts of water.

September rainfall was below normal; however, Lake Okeechobee stage was still above regulation and the salinity in the estuaries continued to be below the desired level. All water levels slowly fell in the WCA's. Water deliveries to southern Miami-Dade were continued, causing a particularly slow decrease in WCA 3A. By the end of the month, all water levels were close to their regular schedules. Maximum discharges were made through the S-12 structures. The coastal canals continued moderate discharges.

## WATER RESOURCES DATA - FLORIDA, 2002

## VOLUME 2A: SOUTH FLORIDA

SUMMARY OF HYDROLOGIC CONDITIONS (continued)

The relation of period of record mean annual discharge to mean discharge for the current year for selected representative stations is given below (ft<sup>3</sup>/s, cubic feet per second; %, percent). Mean annual discharge for base period computed using only water years where discharge is complete. See station manuscript for further information about which water years were complete.

STATION NUMBER	STATION NAME	MEAN ANNUAL DISCHARGE		MEAN DISCHARGE FOR WATER YEAR 2002	
		BASE PERIOD	(ft <sup>3</sup> /s)	(ft <sup>3</sup> /s)	DEPARTURE FROM MEAN (%)
	Stations that monitor discharge from Lake Okeechobee into St. Lucie Canal and then into the St. Lucie River Estuary				
02276870	St. Lucie Canal at Lake Okeechobee (S-308), FL	1931-2002	898	84.3	-91
02277000	St. Lucie Canal at Lock (S-80), near Stuart, FL	1953-2002	728	202	-72

STATION NUMBER	STATION NAME	MEAN ANNUAL DISCHARGE		MEAN DISCHARGE FOR WATER YEAR 2002	
		BASE PERIOD	(ft <sup>3</sup> /s)	(ft <sup>3</sup> /s)	DEPARTURE FROM MEAN (%)
	Stations at the S-5A complex that monitor the discharge to and from Lake Okeechobee, the water conservation areas and the coast				
02278450	West Palm Beach Canal above S-5A, near Loxahatchee, FL	1958-2002	402	591	47
02278500	Diversions to Water Conservation Area No 1 at S-5A and S-5A-S, near Loxahatchee, FL	1958-2002	376	528	40
02278550	Levee 8 Canal at West Palm Beach Canal, near Loxahatchee, FL	1958-2002	139	122	-12
02278600	West Palm Beach Canal below S-5A-E near Loxahatchee, FL	1956-2002	165	185	12

STATION NUMBER	STATION NAME	MEAN ANNUAL DISCHARGE		MEAN DISCHARGE FOR WATER YEAR 2002	
		BASE PERIOD	(ft <sup>3</sup> /s)	(ft <sup>3</sup> /s)	DEPARTURE FROM MEAN (%)
	Stations that monitor discharge from the Everglades Agricultural Area into the water conservation areas				
02286700	Miami Canal at S-8 near Lake Harbor, FL	1962-2002	348	452	30

## VOLUME 2A: SOUTH FLORIDA

SUMMARY OF HYDROLOGIC CONDITIONS (continued)

The relation of period of record mean annual discharge to mean discharge for the current year for selected representative stations is given below (ft<sup>3</sup>/s, cubic feet per second; %, percent). Mean annual discharge for base period computed using only water years where discharge is complete. See station manuscript for further information about which water years were complete.

STATION NUMBER	STATION NAME	BASE PERIOD	MEAN ANNUAL DISCHARGE	MEAN DISCHARGE FOR WATER YEAR 2002	DEPARTURE FROM MEAN (%)
			(ft <sup>3</sup> /s)	(ft <sup>3</sup> /s)	
	<b>Stations that monitor discharge from Lake Okeechobee into the Everglades Agricultural Area</b>				
265501080364900	Levee 8 Canal near Canal Point, FL	1976-2002	-2.02	-41.9	1974
02278000	West Palm Beach Canal at S-352 at Canal Point, FL	1940-2002	167	315	89
02283498	North New River Canal at S-2 and S-351, near South Bay, FL	1968-2002	155	187	21

STATION NUMBER	STATION NAME	BASE PERIOD	MEAN ANNUAL DISCHARGE	MEAN DISCHARGE FOR WATER YEAR 2002	DEPARTURE FROM MEAN (%)
			(ft <sup>3</sup> /s)	(ft <sup>3</sup> /s)	
	<b>Stations that monitor discharge into Big Cypress National Preserve and Everglades National Park</b>				
02288800	Tamiami Canal Outlets, Monroe to Carnestown, FL	1960-2002	410	744	81
02288900	Tamiami Canal Outlets, Forty-Mile Bend to Monroe, FL	1964-2002	393	628	60
02289060	Tamiami Canal Outlets, Levee 30 to L-67A, near Miami, FL	1941-2002*	231*	284	23
02290769	Canal 111 above S-18C, near Florida City, FL	1969-2002	170	268	58
02291000	Barron River Canal near Everglades, FL	1952-2002	89.8	58	-35

STATION NUMBER	STATION NAME	BASE PERIOD	MEAN ANNUAL DISCHARGE	MEAN DISCHARGE FOR WATER YEAR 2002	DEPARTURE FROM MEAN (%)
			(ft <sup>3</sup> /s)	(ft <sup>3</sup> /s)	
	<b>Stations that monitor discharge from Lake Okeechobee into Caloosahatchee River and then into San Carlos Bay</b>				
02292000	Caloosahatchee Canal at S-77 Moore Haven, FL	1939-2002	874	498	-43
02292480	Caloosahatchee Canal at Ortona Lock S-78 near La Belle, FL	1971-2002	921	1153	25

\* Discharge records are incomplete in the National Water Information System data base. Mean for period of record determined from discharge records in the files of the U.S. Geological Survey.

## WATER RESOURCES DATA - FLORIDA, 2002

## VOLUME 2A: SOUTH FLORIDA

SUMMARY OF HYDROLOGIC CONDITIONS (continued)

The relation of period of record mean annual discharge to mean discharge for the current year for selected representative stations is given below (ft<sup>3</sup>/s, cubic feet per second; %, percent). Mean annual discharge for base period computed using only water years where discharge is complete. See station manuscript for further information about which water years were complete.

STATION NUMBER	STATION NAME	MEAN ANNUAL DISCHARGE		MEAN DISCHARGE FOR WATER YEAR 2001	
		BASE PERIOD	(ft <sup>3</sup> /s)	(ft <sup>3</sup> /s)	DEPARTURE FROM MEAN (%)
	<b>Stations that monitor discharge on the southwestern coast of Florida</b>				
02291500	Imperial River near Bonita Springs, FL	1940-54 1987-2002	100	117	17
02291524	Spring Creek Headwater near Bonita Springs, FL	1987-2002	9.03	7.19	-20
02291580	North Branch Estero River at Estero, FL	1987-2002	7.8	4.5	-42
02291597	South Branch Estero River at Estero, FL	1987-2002	12.6	7.3	-42
02293240	Aries Canal at Cape Coral, FL	1990-2002	14.9	15.7	5
02293241	San Carlos Canal at Cape Coral, FL	1987-2002	5.13	4.55	-11
02293243	Courtney Canal at Cape Coral, FL	1987-2002	10.3	10.7	4
02293345	Shadroe Canal at Cape Coral, FL	1987-2002	9.42	8.87	-6
02293346	Horseshoe Canal at Cape Coral, FL	1987-2002	24.2	18.7	-23
02293347	Hermosa Canal at Cape Coral, FL	1987-2002	21.9	15.7	-28
264437081550100	Gator Slough at U.S. 41 near Ft. Myers, FL	1987-2002	7.2	7.46	4



## VOLUME 2A: SOUTH FLORIDA

SUMMARY OF HYDROLOGIC CONDITIONS (continued)Surface-Water Station Functions

The south Florida surface-water data-collection network has various types of stations to meet the needs of water managers and others. These stations are grouped below according to major functions. These groups contain representative stations from the south Florida surface-water data-collection network.

The following USGS stations monitor the release of water from Lake Okeechobee into St. Lucie Canal and then into the St. Lucie River Estuary:

02276870 St. Lucie Canal at Lake Okeechobee (S-308)  
02277000 St. Lucie Canal at Lock, near Stuart (S-80)

The following USGS stations at the S-5A complex monitor water releases to and from Lake Okeechobee, the water conservation areas, and the coast:

02278450 West Palm Beach Canal above S-5A, near Loxahatchee (pump - west gate)  
02278500 Diversions to Water Conservation Area No. 1 at S-5A and S-5A-S (pump + south gate)  
02278550 Levee 8 Canal at West Palm Beach Canal, nr Loxahatchee (east + west + south gate)  
02278600 West Palm Beach Canal below S-5A-E near Loxahatchee (east gate only)

The following USGS stations monitor the release of water from Lake Okeechobee into the Caloosahatchee River and then into San Carlos Bay:

02292000 Caloosahatchee Canal at Moore Haven (S-77)  
02292480 Caloosahatchee Canal at Ortona Lock near La Belle (S-78)  
02292900 Caloosahatchee River at S-79 near Olga

The following USGS stations monitor the release of water from Lake Okeechobee into the Everglades Agricultural Area:

265501080364900 Levee 8 Canal near Canal Point  
02278000 West Palm Beach Canal at S-352, at Canal Point  
02280500 Hillsboro Canal below S-351, near South Bay  
02283498 North New River Canal at S-2 and S-351, near South Bay  
02283500 North New River Canal below S-2 and S-351, near South Bay  
02286400 Miami Canal at S-354 and S-3, at Lake Harbor

The following USGS stations monitor the release of water from the Everglades Agricultural Area into the water-conservation areas:

02278450 West Palm Beach Canal above S-5A, near Loxahatchee  
02281200 Hillsboro Canal at S-6 near Shawano  
02284300 North New River Canal at S-7 at Terrytown  
02286700 Miami Canal at S-8 near Lake Harbor  
261533080571600 L-28 Interceptor Canal below S-190 near Clewiston  
261543080495000 L-28 Canal above S-140 near Clewiston

The following USGS stations monitor the water levels in the water-conservation areas:

02278501 Water Conservation Area No. 1 below S-5 Complex, near Loxahatchee  
263180080205001111 Site 7 in Water Conservation Area No. 1 near Shawano  
263050080145001112 Site 8T in Water Conservation Area No. 1 near Boynton Beach  
263000080120001113 Site 8C near L-40 in Water Conservation Area No. 1 nr Boynton Beach  
262750080175001114 Site 9 in Water Conservation Area No. 1 near Boynton Beach  
262400080250001115 Site 15 near L-39 in Water Conservation Area No. 2A near Shawano  
261710080190001129 Site 19 in Water Conservation Area No. 2A near Coral Springs  
262240080258001132 Site 17 near L-38, Water Conservation Area No. 2A nr Coral Springs  
261117080315201135 Site 63 in Water Conservation Area No. 3A near Andytown  
261023080443001138 Site 62 in Water Conservation Area No. 3A near Andytown  
260810080222001139 Site 99 near L-35A in Water Conservation Area No. 2B near Sunrise  
260037080303401146 Site 76 in Water Conservation Area No. 3B near Andytown  
255828080401301147 Site 64 in Water Conservation Area No. 3A near Coopertown  
255300080370001152 Site 69 in Water Conservation Area No. 3B near Coopertown  
254848080432001154 Site 65 in Water Conservation Area No. 3A near Coopertown  
255250080335001156 Site 71 in Water Conservation Area No. 3B near Coopertown

## WATER RESOURCES DATA - FLORIDA, 2002

## VOLUME 2A: SOUTH FLORIDA

SUMMARY OF HYDROLOGIC CONDITIONS (continued)Surface-Water Station Functions (continued)

The USGS monitors the following stations to determine the discharge into Big Cypress National Preserve and Everglades National Park:

02288800 Tamiami Canal Outlets, Monroe to Carnestown  
 02288900 Tamiami Canal Outlets, 40 Mile Bend to Monroe  
 02289040 Tamiami Canal Outlets, Levee 67A to 40 Mile Bend (total discharge through S-12A, B, C, D)  
 254543080491101182 Tamiami Canal below S-12A (total discharge through S-12A)  
 02289019 Tamiami Canal below S-12B (total discharge through S-12B)  
 02289041 Tamiami Canal below S-12C (total discharge through S-12C)  
 254543080405401 Tamiami Canal below S-12D (total discharge through S-12D)  
 02289050 Tamiami Canal above S-333, near Miami  
 02289060 Tamiami Canal Outlets, Levee 30 to L-67A  
 022907647 Levee 31 North Extension at 1 mile near West Miami  
 02290765 Levee 31 North Extension at 3 mile near West Miami  
 02290766 Levee 31 North Extension at 4 mile near West Miami  
 02290767 Levee 31 North Extension at 5 mile near West Miami  
 02290768 Levee 31 North Extension at 7 mile near West Miami  
 02290769 Canal 111 above S-18C, near Florida City  
 02291000 Barron River Canal near Everglades

The following USGS stations are representative of surface-water elevations in southern Miami-Dade County:

254315080331500 Northeast Shark River Slough No. 2 near Coopertown  
 254130080380500 Northeast Shark River Slough No. 1 near Coopertown  
 254100080402400 L-67 Extended Canal West, near Florida City  
 254100080402200 Northeast Shark River Slough East of L-67 Extension nr Richmond Heights  
 253828080391100 Northeast Shark River Slough No. 4, North of Grossman  
 253753080393600 Northeast Shark River Slough No. 5, South of Grossman  
 251716080342100 Everglades 5A in C-111 Basin near Homestead  
 251724080341400 Everglades 5B in C-111 Basin near Homestead  
 251855080283400 Everglades 2B in C-111 Basin near Homestead  
 251906080283400 Everglades 2A in C-111 Basin near Homestead  
 251946080254800 Everglades 1 in C-111 Basin near Homestead  
 252036080324300 Everglades 4 in C-111 Basin near Homestead  
 252043080302400 Everglades 3 in C-111 Basin near Homestead

The following USGS discharge monitoring sites are located along the coast in Miami-Dade, Broward, Palm Beach, and Martin Counties:

02277000 St. Lucie Canal at Lock, near Stuart (S-80)  
 02279000 West Palm Beach Canal at West Palm Beach (S-155)  
 02282700 Middle River Canal at S-36, near Fort Lauderdale  
 02283200 Plantation Road Canal at S-33, near Fort Lauderdale  
 02286100 South New River Canal at S-13, near Davie  
 02288600 Miami Canal at NW 36th Street, Miami (S-26)  
 02290710 Black Creek Canal at S-21, near Goulds  
 02292900 Caloosahatchee River at S-79 near Olga

The following USGS discharge monitoring sites are located on the southwestern coast of Florida:

02291500 Imperial River near Bonita Springs  
 02291524 Spring Creek Headwater near Bonita Springs  
 02291580 North Branch Estero River at Estero,  
 02291597 South Branch Estero River at Estero  
 02291673 Tenmile Canal at Control Near Estero  
 02293240 Aries Canal at Cape Coral  
 02293241 San Carlos Canal at Cape Coral  
 02293243 Courtney Canal at Cape Coral  
 02293345 Shadroe Canal at Cape Coral  
 02293346 Horseshoe Canal at Cape Coral  
 02293347 Hermosa Canal at Cape Coral  
 264437081550100 Gator Slough at U.S. 41 near Ft. Myers  
 264139082022100 Gator Slough at SR 765 near Ft. Myers

## VOLUME 2A: SOUTH FLORIDA

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Benchmark Network is a network of 50 sites in small drainage basins around the country whose purpose is to provide consistent data on the streamflow representative of undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by human activities. At 10 of these sites, water-quality information is being gathered on major ions and nutrients, primarily to assess the effects of acid deposition on stream chemistry. Additional information on the Hydrologic Benchmark Program can be found at <http://water.usgs.gov/hbn/>.

National Stream-Quality Accounting Network (NASQAN) monitors the water quality of large rivers within the Nation's largest river basins. From 1995 through 1999, a network of approximately 40 stations was operated in the Mississippi, Columbia, Colorado, and Rio Grande basins. For the period 2000 through 2004, sampling was reduced to a few index stations on the Colorado and Columbia so that a network of 5 stations could be implemented on the Yukon River. Samples are collected with sufficient frequency that the flux of a wide range of constituents can be estimated. The objective of NASQAN is to characterize the water quality of these large rivers by measuring concentration and mass transport of a wide range of dissolved and suspended constituents, including nutrients, major ions, dissolved and sediment-bound heavy metals, common pesticides, and inorganic and organic forms of carbon. This information will be used (1) to describe the long-term trends and changes in concentration and transport of these constituents; (2) to test findings of the National Water-Quality Assessment Program (NAWQA); (3) to characterize processes unique to large-river systems such as storage and re-mobilization of sediments and associated contaminants; and (4) to refine existing estimates of off-continent transport of water, sediment, and chemicals for assessing human effects on the world's oceans and for determining global cycles of carbon, nutrients, and other chemicals. Additional information about the NASQAN Program can be found at <http://water.usgs.gov/nasqan/>.

The National Atmospheric Deposition Program/National Trends Network (NADP/NTN) provides continuous measurement and assessment of the chemical constituents in precipitation throughout the United States. As the lead federal agency, the USGS works together with over 100 organizations to provide a long-term, spatial and temporal record of atmospheric deposition generated from a network of 225 precipitation chemistry monitoring sites. This long-term, nationally consistent monitoring program, coupled with ecosystem research, provides critical information toward a national scorecard to evaluate the effectiveness of ongoing and future regulations intended to reduce atmospheric emissions and subsequent impacts to the Nation's land and water resources. Reports and other information on the NADP/NTN Program, as well as all data from the individual sites, can be found at <http://bqs.usgs.gov/acidrain/>.

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

Assessment activities are being conducted in 59 study units (major watersheds and aquifer systems) that represent a wide range of environmental settings nationwide and that account for a large percentage of the Nation's water use. A wide array of chemical constituents will be measured in ground water, surface water, streambed sediments, and fish tissues. The coordinated application of comparative hydrologic studies at a wide range of spatial and temporal scales will provide information for decision making by water-resources managers and a foundation for aggregation and comparison of findings to address water-quality issues of regional and national interest.

Communication and coordination between USGS personnel and other local, State, and federal interests are critical components of the NAWQA Program. Each study unit has a local liaison committee consisting of representatives from key federal, State, and local water resources agencies, Indian nations, and universities in the study unit. Liaison committees typically meet semiannually to discuss their information needs, monitoring plans and progress, desired information products, and opportunities to collaborate efforts among the agencies. Additional information about the NAWQA Program can be found at <http://water.usgs.gov/nawqa/>

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EXPLANATION OF THE RECORDS

A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, water-quality data for surface and ground water, and ground-water-level data. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether streamsite or well, in this report is assigned a unique identification number. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for wells and for surface-water stations where only miscellaneous observations are made.

Downstream Order System

Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a mainstream station are listed before that station. A station on a tributary that enters between two mainstream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary with respect to the stream to which it is immediately tributary is indicated by an indentation in the "List of Stations" in the front of this report. Each indentation represents one rank. This downstream order and system of indentation shows which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station, such as 02228500, which appears just to the left of the station name, includes the 2-digit part number "02" plus the 6- to 12-digit downstream-order number "228500." The part number designates the major river basin; for example, part "02" is the South Atlantic Slope and eastern Gulf of Mexico basins.

Numbering System For Wells and Miscellaneous Surface-Water Sites

The eight-digit downstream order station numbers are not assigned to wells and miscellaneous surface water sites. Where only random water-quality samples or discharge measurements are taken. In South Florida occasionally discharge sites are not assigned to downstream order number if located in areas where it is difficult to determine the downstream order.

The identification numbers for wells and miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site identification number, once assigned, is a pure number and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See Figure 11.)

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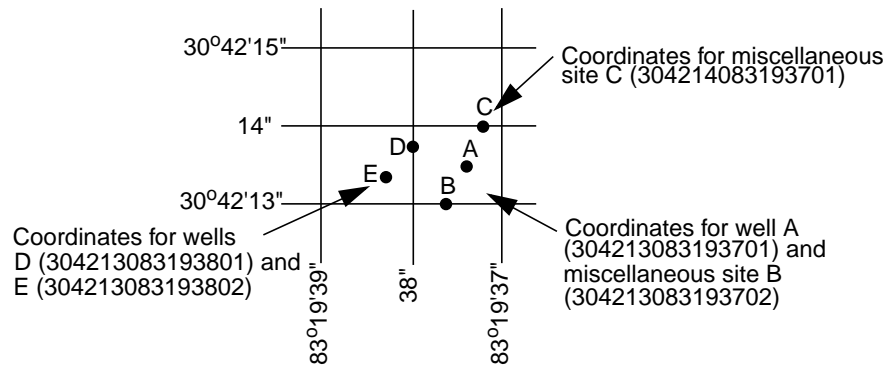


Figure 3. System for numbering wells and miscellaneous sites. (latitude and longitude)

### RECORDS OF STAGE AND WATER DISCHARGE

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake elevation, similarly, are those for which stage may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a stage-recording device or daily or weekly observations, but need not be. Because daily mean discharges and lake elevations commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report.

Location of all complete-record and partial-record stations for which data are given in this report are shown in figures preceding each sub-basin.

### Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily mean discharges.

Records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adopted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations, Book 3, Chapter A1 through A19 and Book 8, Chapters A2 and B2. The methods are consistent with the American Society for Testing and Materials (ASTM) standards and generally follow the standards of the International Organization for Standards (ISO).

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of the current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow over dams or weirs; or (4) step-backwater techniques.

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Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on the individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes of observations, and records for other stations in the same or nearby basins for comparable periods.

At some stream-gaging stations, the stage-discharge relation is affected by the backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in computing discharge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

At some gaging stations, acoustic velocity meter (AVM) systems are used to compute discharge. The AVM system measures the stream's velocity at one or more paths in the cross section. Coefficients are developed to relate this path velocity to the mean velocity in the cross section. Because the AVM sensors are fixed in position, the adjustment coefficients generally vary with stage. Cross-sectional area curves are developed to relate stage, recorded as noted above, to cross section area. Discharge is computed by multiplying path velocity by the appropriate stage related coefficient and area.

In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves or tables defining the relationship of stage and content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined.

If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly in error as the lapsed time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships much as other stream discharges are computed.

For some gaging stations, there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons.

For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

### Data Presentation

Streamflow data in this report are presented in a new format that is considerably different from the format in data reports prior to the 1991 water year. The major changes are that statistical characteristics of discharge now appear in tabular summaries following the water-year data table and less information is provided in the text or state manuscript above the table. These changes represent the results of a pilot program to reformat the annual water-data report to meet current user needs and data preference.

The records published for each continuous-record surface-water discharge station (gaging station) now consist of four parts, the manuscript or station description; the data table of daily mean values of discharge for the current water year with summary data; a tabular statistical summary of monthly mean flow data for a designated period, by water year; and a summary statistics table that includes statistical data of annual, daily and instantaneous flows as well as data pertaining to annual runoff, 7-day low-flow minimums, and flow duration.

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Station manuscript

The manuscript provides, under various headings, descriptive information, such as station location; period of record; historical extremes outside the period of record; record accuracy; and other remarks pertinent to station operation and regulation. The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate base maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurements," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Because of new information, published records occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was first published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see GLOSSARY), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a REMARKS statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station and, possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum stages. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage gage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the U.S. Geological Survey.

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possibly, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the offices whose addresses are given on the back of the title page of this report to determine if the published records were ever revised after the station was discontinued. Of course, if the data were

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obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton stage-capacity table when daily contents are given.

Heading for AVERAGE DISCHARGE has been deleted and the information contained in this paragraph is now presented in the tabular summaries following the discharge table or in the REMARKS paragraph, as appropriate. No changes have been made to the data presentations of lake contents.

**Daily table of daily mean values**

The daily table of discharge records for stream-gaging stations gives mean discharge for each day of the water year. In the monthly summary for the table, the line headed "TOTAL" gives the sum of the daily figures for each month; the line headed "MEAN" gives the average flow in cubic feet per second for the month; and the lines headed "MAX" and "MIN" give the maximum and minimum daily mean discharges, respectively, for each month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"); or in inches. (line headed "IN."); or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches or in acre-feet may be omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversion data or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

**Statistics of monthly mean data**

A tabular summary of the mean (line headed "MEAN"), maximum (line headed "MAX"), and minimum (line headed "MIN") of monthly mean flows for each month for a designated period is provided below the mean values table. The water years of the first occurrence of the maximum and minimum monthly flows are provided immediately below those figures. The designated period will be expressed as "FOR WATER YEAR \_\_\_\_-\_\_\_\_, BY WATER YEAR (WY)," and will list the first and last water years of the range of years selected from the PERIOD OF RECORD paragraph in the station manuscript. It will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station. The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript.

**Summary statistics**

A table titled "SUMMARY STATISTIC" follows the statistics of monthly mean data tabulation. This table consists of four columns, with the first column containing the line headings of the statistics being reported. The table provides a statistical summary of yearly, daily, and instantaneous flows, not only for the current water year but also for the previous calendar year and for a designated period, as appropriate. The designated period selected, "WATER YEARS \_\_\_\_-\_\_\_\_," will consist of all of the station record within the specified water years, inclusive, including complete months of record for partial water years, if any, and may coincide with the period of record for the station.

The water years for which the statistics are computed will be consecutive, unless a break in the station record is indicated in the manuscript.

All of the calculations for the statistical characteristics designated ANNUAL (See line headings below), except for the "ANNUAL 7-DAY MINIMUM" statistics, are calculated for the designated period using complete water years. The other statistical characteristics may be calculated using partial water years.

The date or water year, as appropriate, of the first occurrence of each statistics reporting extreme values of discharge is provided adjacent to the statistic. Repeated occurrences may be noted in the REMARKS paragraph of the manuscript or in footnotes. Because the designated period may not be the same as the station period of record published in the manuscript, occasionally the dates of occurrence listed for the daily and instantaneous extremes in the designated-period column may not be within the selected water years listed in the heading. When this occurs, it will be noted in the REMARKS paragraph or in footnotes. Selected streamflow duration curve statistics and runoff data are also given. Runoff data may be omitted if there is extensive regulation or diversion of flow in the drainage basin.



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The following summary statistics data, as appropriate, are provided with each continuous record of discharge. Comments to follow clarify information presented under the various line headings of the summary statistics table.

**ANNUAL TOTAL.**--The sum of the daily mean values of discharge for the year. At some stations the annual total discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

**ANNUAL MEAN.**--The arithmetic mean of the individual daily mean discharges for the year noted or for the designated period. At some stations the yearly mean discharge is adjusted for reservoir storage or diversion. The adjusted figures are identified by a symbol and corresponding footnotes.

**HIGHEST ANNUAL MEAN.**--The maximum annual mean discharge occurring for the designated period.

**LOWEST ANNUAL MEAN.**--The minimum annual mean discharge occurring for the designated period.

**HIGHEST DAILY MEAN.**--The maximum daily mean discharge for the year or for the designated period.

**LOWEST DAILY MEAN.**--The minimum daily mean discharge for the year or for the designated period.

**ANNUAL 7-DAY MINIMUM.**--The lowest mean discharge for 7 consecutive days for a calendar year or a water year. Note that most low-flow frequency analyses of annual 7-day minimum flows use a climatic year (April 1-March 31). The data shown in the summary statistics table is the initial date of the 7-day period. (This value should not be confused with the 7-day 10-year low-flow statistic).

**MAXIMUM PEAK FLOW.**-- The maximum instantaneous peak discharge occurring for the water year or designated period. Occasionally the maximum flow for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak flow is given in the table and the maximum flow may be reported in a footnote or in the REMARKS paragraph in the manuscript.

**MAXIMUM PEAK STAGE.**-- The maximum instantaneous peak stage occurring for the water year or designated period. Occasionally the maximum stage for a year may occur at midnight at the beginning or end of the year, on a recession from or rise toward a higher peak in the adjoining year. In this case, the maximum peak stage is given in the table and the maximum stage may be reported in the REMARKS paragraph in the manuscript or in a footnote. If the dates of occurrence of the maximum peak stage and maximum peak flow are different, the REMARKS paragraph in the manuscript or a footnote may be used to provide further information.

**INSTANTANEOUS LOW FLOW.**--The minimum instantaneous discharge occurring for the water year or for the designated period.

**ANNUAL RUNOFF.**--Indicates the total quantity of water in runoff for a drainage area for the year. Data reports may use any of the following units of measurement in presenting annual runoff data:

Acre-foot (AC-FT) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equal to 43,560 cubic feet or about 326,000 gallons or 1,233 cubic meters.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile area drained, assuming the runoff is distributed uniformly in time and area.

Inches (INCHES) indicates the depth to which the drainage area would be covered if all of the runoff for a given time period were uniformly distributed on it.

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10 PERCENT EXCEEDS.--The discharge that has been exceeded 10 percent of the time for the designated period.

50 PERCENT EXCEEDS.--The discharge that has been exceeded 50 percent of the time for the designated period.

90 PERCENT EXCEEDS.--The discharge that has been exceeded 90 percent of the time for the designated period.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

#### Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing a table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

#### Accuracy of Surface-water Records

The accuracy of streamflow records depends primarily on: (1) The stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements; and (2) the accuracy of measurements of stage, measurements of discharge, and interpretation of records.

The accuracy of the stage measurements is based on friction and other factors within the recorder system. The accuracy of the recorder is periodically verified using independent steel tape and chalk measurements. When the difference between these tape measurements and the recorded value is 0.02 ft or greater, the recorder is reset and a gage-height correction is applied to the data. Uncertainty in the surface water stilling wells verified by steel tape measurements is generally no greater than  $\pm$  0.02 ft.

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of their true values; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft<sup>3</sup>/s; to the nearest tenth between 1.0 and 10 ft<sup>3</sup>/s; to whole numbers between 10 and 1,000 ft<sup>3</sup>/s; and to 3 significant figures for more than 1,000 ft<sup>3</sup>/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

In March 1989, the National Water-Quality Laboratory discovered a bias in the turbidimetric method for sulfate analysis, indicating that values below 75 mg/L have a median positive bias of 2 mg/L above the true value for the period between 1982 and 1989. Sulfate values in this report have not been corrected for this bias.

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Other Records Available

Information used in the preparation of the records in this publication, such as discharge-measurement notes, gage-height records, temperature measurements, and rating tables is on file in the Miami Subdistrict Office of the Florida District. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the offices whose addresses are given on the back of the title page of this report.

RECORDS OF SURFACE-WATER QUALITY

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where water-quality data are collected systematically over a period of years, usually less frequently than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records," as used in this report, and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently.

Arrangement of Records

Water-quality records collected at a surface-water daily record station or a periodic observation station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream-order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-site Measurements and Sample Collection

In obtaining water-quality data, a major concern is assuring that the data obtained represent the quality of the water in its natural state. To assure this, certain measurements, such as water temperature, pH, alkalinity, specific conductance, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the natural water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory.

Procedures for onsite measurements and for collecting, treating, and shipping samples are detailed in the TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapter A1, A3, and A4. These references are listed in the PUBLICATIONS ON THE TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS section of this report. These methods are consistent with ASTM standards and generally follow ISO standards.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National

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Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals depends on flow conditions and other factors which must be evaluated by the collector.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory. For stations equipped with water-quality monitors, the records consist of daily mean values for each constituent measured and are based upon unit values (hourly or 15-minute recordings).

### Water Temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have a small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

### Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided-day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided-day method. For periods when no samples were collected, daily discharges of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge. Methods used in the computation of sediment records are described in the TWRI Book 3, Chapters C1 and C3.

These methods are consistent with ASTM standards and generally follow ISO standards.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow and in predicting long-term sediment-discharge characteristics of the stream. In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

### Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratory in Arvada, Colorado. Methods used in analyze sediment samples and to compute sediment records are described in the TWRI Book 5, Chapter C1. Methods used by the U.S. Geological Survey laboratories are given in the TWRI Book 1, Chapter D2; Book 3, Chapter C2; and Book 5, Chapters A1, A3, A4, and A5. These methods are consistent with ASTM standards and generally follow ISO standards.

### Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general

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remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge"; same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge"; same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a recording or sampling device, which may be time- or event-activated, is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data- report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to ensure the most recent updates.

## WATER RESOURCES DATA - FLORIDA, 2002

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WATER-QUALITY RECORDSRemark Codes

The following remark codes may appear with the water-quality data in this section:

PRINTED OUTPUT	REMARK
E	Value is estimated.
>	Actual value is known to be greater than the value shown.
<	Actual value is known to be less than the value shown.
M	Presence of material verified, but not quantified.
N	Presumptive evidence of presence of material.
U	Material specifically analyzed for, but not detected.
A	Value is an average.
V	Analyte was detected in both the environmental sample and the associated blanks.
S	Most probable value.

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QUALITY-CONTROL DATA

Data generated from quality-control (QC) samples are a requisite for evaluating the quality of the sampling and processing techniques as well as data from the actual samples themselves. Without QC data, environmental sample data cannot be adequately interpreted because the errors associated with the sample data are unknown. The various types of QC samples collected by this district are described in the following section. Procedures have been established for the storage of water-quality-control data within the USGS. These procedures allow for storage of all derived QC data and are identified so that they can be related to corresponding environmental samples.

Blank Samples

Blank samples are collected and analyzed to ensure that environmental samples have not been contaminated by the overall data-collection process. The blank solution used to develop specific types of blank samples is a solution that is free of the analytes of interest. Any measured value signal in a blank sample for an analyte (a specific component measured in a chemical analysis) that was absent in the blank solution is believed to be due to contamination. There are many types of blank samples possible, each designed to segregate a different part of the overall data-collection process. The types of blank samples collected in this district are:

Source solution blank - a blank solution that is transferred to a sample bottle in an area of the office laboratory with an atmosphere that is relatively clean and protected with respect to target analytes.

Ambient blank - a blank solution that is put in the same type of bottle used for an environmental sample, kept with the set of sample bottles before sample collection, and opened at the site and exposed to the ambient conditions.

Field blank - a blank solution that is subjected to all aspects of sample collection, field processing preservation, transportation, and laboratory handling as an environmental sample.

Trip blank - a blank solution that is put in the same type of bottle used for an environmental sample and kept with the set of sample bottles before and after sample collection.

Equipment blank - a blank solution that is processed through all equipment used for collecting and processing an environmental sample (similar to a field blank but normally done in the more controlled conditions of the office).

Sampler blank - a blank solution that is poured or pumped through the same field sampler used for collecting an environmental sample.

Pump blank - a blank solution that is processed through the same pump-and-tubing system used for an environmental sample.

Standpipe blank - a blank solution that is poured from the containment vessel (stand-pipe) before the pump is inserted to obtain the pump blank.

Filter blank - a blank solution that is filtered in the same manner and through the same filter apparatus used for an environmental sample.

Splitter blank - a blank solution that is mixed and separated using a field splitter in the same manner and through the same apparatus used for an environmental sample.

Preservation blank - a blank solution that is treated with the sampler preservatives used for an environmental sample.

Canister blank - a blank solution that is taken directly from a stainless steel canister just before the VOC sampler is submerged to obtain a field blank sample.

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Reference Samples

Reference material is a solution or material prepared by a laboratory whose composition is certified for one or more properties so that it can be used to assess a measurement method. Samples of reference material are submitted for analysis to ensure that an analytical method is accurate for the known properties of the reference material. Generally, the selected reference material properties are similar to the environmental sample properties.

Replicate Samples

Replicate samples are a set of environmental samples collected in a manner such that the samples are thought to be essentially identical in composition. Replicate is the general case for which a duplicate is the special case consisting of two samples. Replicate samples are collected and analyzed to establish the amount of variability in the data contributed by some part of the collection and analytical process. There are many types of replicate samples possible, each of which may yield slightly different results in a dynamic hydrologic setting, such as a flowing stream. The types of replicate samples collected in this district are:

Concurrent sample - a type of replicate sample in which the samples are collected simultaneously with two or more samplers or by using one sampler and alternating collection of samples into two or more compositing containers.

Sequential sample - a type of replicate sample in which the samples are collected one after the other, typically over a short time.

Split sample - a type of replicate sample in which a sample is split into subsamples contemporaneous in time and space.

Spike Samples

Spike samples are samples to which known quantities of a solution with one or more well-established analyte concentrations have been added. These samples are analyzed to determine the extent of matrix interference or degradation on the analyte concentration during sample processing and analysis.

Concurrent sample - a type of spike sample that is collected at the same time with the same sampling and compositing devices then spiked with the same spike solution containing laboratory-certified concentrations of selected analytes

Split sample - a type of spike sample in which a sample is split into subsamples contemporaneous in time and space then spiked with the same spike solution containing laboratory-certified concentrations of selected analytes.

RECORDS OF GROUND-WATER LEVELS

Ground-water level data from a statewide network of observation wells are published herein. The records include data from wells equipped with water-level recorders and data from wells where water levels are measured periodically.

Data Collection and Computation

Measurements of water levels are made in many types of wells under varying conditions, but the methods of measurement are standardized to the extent possible. The equipment and measuring techniques used at each observation well ensure that measurements at each well are of consistent accuracy and reliability.

Tables of water-level data are presented by counties arranged in alphabetical order. The prime identification number for a given well is the 15-digit number that appears in the upper left corner of the table.

Water-level records are obtained from direct measurements with a steel tape, pressure gage, manometer, or from the graph or punched tape of a water-level recorder. The measurements in this report are given in feet above National Geodetic Vertical Datum of 1929 or in some tables as feet below land-surface datum. Land-surface datum is a datum plane that is approximately at land surface at each well. The elevation of the land-surface datum is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description.



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Accuracy of Ground-Water Level Data

A number of factors affect the accuracy of the ground-water-level data published in this report. These factors can be logically separated into those that are related to ground-water-level measurement methods (Method-Related Factors) and those that are independent of the methods.

Method-Independent Factors

Water levels are determined using a specific measuring point (MP) at each well. The elevation of this point for most wells published in this report was determined relative to the National Geodetic Vertical Datum of 1929 (NGVD of 1929). Scientific advances in determining vertical elevations have caused the development of the North American Vertical Datum of 1988 (NAVD of 88). The National Geodetic Survey (NGS) has completed an extensive releveling effort that provides elevations referenced to NAVD of 1988. Comparisons at specific benchmarks in Florida have indicated differences between NAVD of 88 and NGVD of 1929 of 0.50 ft or greater (Zilkoske, 1990). The U.S. Geological Survey is currently considering how best to utilize the newer NAVD of 1988 and yet maintain the continuity of data in south Florida.

Water levels in wells open to highly transmissive aquifers may be affected by barometric pressure. The extent of this effect in a given well is called the barometric efficiency (BE). The BE is calculated by comparing the changes in water level at a well to the change in the ambient barometric pressure expressed as a column of water (Kruseman and Ridder, 1991). The water-level data in this publication have not been adjusted for barometric pressure effects.

Method-Related Factors

Water-level data are collected using a number of different methods. Each method has inherent factors that affect the accuracy of measured water levels.

STEEL TAPE AND CHALK -- This generally is the most accurate method of measuring the elevation difference between a reference point and the water level in a ground-water well. When the water level is measured using this method, at least two separate measurements are performed. These measurements must agree to within 0.02 ft before the average value is recorded. The precision of this method, is  $\pm 0.02$  ft.

PRESSURE GAGE -- Wells under artesian pressure are monitored using a mechanical pressure gage. These pressure gages are graduated to 0.2 ft. Gages are periodically checked using a pressure manifold to compare gage readings over a range of known pressures. Corrections are applied to the gage readings based on these checks. The reported value is estimated to the nearest tenth of a foot. The precision of this method should be considered to be about  $\pm 0.1$  ft.

FLOAT AND RECORDER -- The accuracy of data recorded using this method is affected by friction within the recorder system as well as friction between the float and the well casing. In large-diameter wells (6 in. or greater), where large floats are used, these effects are minimal; however in small-diameter wells (2 to 6 in.) these effects can be substantial. Friction might significantly affect the data where water-surface fluctuations are very small. Every effort has been made to reduce frictional effects to a minimum.

The accuracy of this method may also be affected by slippage of the float tape or wire, leaks in the float, or biological factors (for example, amphibians crawling on the float). The accuracy of the recorder reading is periodically verified using steel tape and chalk measurements. When the difference between these tape measurements and the recorded value is 0.05 ft or greater, the recorder is reset and a gage-height correction is applied to the data. Uncertainty in water levels for wells verified by steel tape measurements is generally no greater than  $\pm 0.05$  ft.

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PRESSURE TRANSDUCER AND RECORDER -- In wells where artesian pressure, frictional effects, or an extensive range in water levels have made float and recorder systems infeasible, pressure transducers have been installed. Transducers are selected that meet or exceed the float and recorder system accuracy. Water levels may be verified using either steel tape or pressure gage measurements. Uncertainty in those verified by steel-tape measurements is generally considered to be no greater than  $\pm 0.05$  ft and uncertainty for those verified using pressure gage readings is generally considered to be about  $\pm 0.1$  ft.

The type of method used to collect water-level data is identified in the INSTRUMENTATION section of each station manuscript.

### Data Presentation

Each well record consists of two parts, the station description, the data table of water levels observed during the water year and possibly a graph of the water year or other selected period. The description of the well is presented first through use of descriptive headings preceding the tabular data. The comments to follow clarify information presented under the various headings of well description.

LOCATION.--This paragraph follows the well-identification number and reports the latitude and longitude (given in degrees, minutes, and seconds); a landline location designation; the hydrologic-unit number; the distance and direction from a geographic point of reference; and the owner's name.

AQUIFER.--This entry designates by name (if a name exists) and geologic age the aquifer(s) open to the well.

WELL CHARACTERISTICS.--This entry describes the well in terms of depth, diameter, casing depth and/or screened interval, method of construction, use, and additional information such as casing breaks, collapsed screen, and other changes since construction.

INSTRUMENTATION.--This paragraph provides information on both the frequency of measurement and the collection method used, allowing the user to better evaluate the reported water-level extremes by knowing whether they are based on hourly, daily, weekly, monthly, or some other frequency of measurement.

DATUM.--This entry describes both the measuring point and the land-surface elevation at the well. The measuring point is described physically (such as top of collar, notch in top of casing, plug in pump base and so on), and in relation to land surface (such as 1.3 ft. above land-surface datum). The elevation of the land-surface datum is described in feet above (or below) National Geodetic Vertical Datum of 1929 (NGVD of 1929); it is reported with a precision depending on the method of determination.

REMARKS.--This entry describes factors that may influence the water level in a well or the measurement of the water level. It should identify wells that also are water quality observation wells and may be used to acknowledge the assistance of local (non-survey) observers.

PERIOD OF RECORD.--This entry indicates the period for which there are published records for the well. It reports the month and year of the start of publication of water-level records by the U.S. Geological Survey and the words "to current year" if the records are to be continued into the following year. Periods for which water-level records are available, but are not published by the Geological Survey, may be noted.

EXTREMES FOR PERIOD OF RECORD.--This entry contains the highest and lowest water levels of the period of record, with respect to land-surface datum, and the dates of their occurrence.

A table of water levels follows the station description for each well. For wells equipped with recorders, only abbreviated tables are published; generally, daily maximums are listed for every fifth day and at the end of the month (eom). The highest and lowest water levels of the water year and their dates of occurrence are shown on a line below the abbreviated table. Because all values are not published for wells with recorders, the extremes may be values that are not listed in the table. Missing records are indicated by dashes in place of the water level. A hydrograph for a selected period of record may follow each water-level table.

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RECORDS OF BULK ELECTRICAL CONDUCTIVITY

Bulk conductivity is the combined electrical conductivity of all material (including pore water) within an approximately 8- to 40-inch doughnut-shaped area surrounding an induction probe (McNeill and others, 1990). Bulk conductivity is affected by different physical and chemical properties of the material including the dissolved-solids concentration of the pore water, and the lithology and porosity of the rock. Polyvinyl chloride (PVC) casings do not interfere with these measurements; however, for those wells where a steel or galvanized iron casing extends part way down the well, the probe cannot sense the materials outside of the casing. As the probe is lowered down the well and out of the influence of a metallic casing, a spike is usually created in the data. As the probe passes through different layers of rock, the different physical properties will cause variation in the recorded conductivity values. A clean sand or sandstone will generally produce lower conductivity values than clay or mudstone. While the properties of the rocks or well construction will remain constant from year to year, those of the pore water may change due to saltwater intrusion. Conductivity values from freshwater-saturated rocks typically are less than 25 mS/m, whereas conductivity values from saltwater-saturated rocks are typically greater than 67 mS/m (Hittle, 1999). Therefore, induction logging can be used to assess increases or decreases in the conductivity of pore waters caused by movement of the saltwater interface.

Data Collection and Computation

Measurements generally are made during the period of lowest aquifer water levels, in April of each year. However, some wells may have additional logs. During periods of decreased water levels, saltwater intrusion into a freshwater aquifer is likely to be at a maximum. In wells where saltwater is detectable, the graphic representation of data from successive years will show any vertical movement of the saltwater-freshwater interface. Measuring this vertical movement of the interface is the primary use of the bulk conductivity logs published in this report. Upward movement of the interface between freshwater and saltwater in a monitoring well indicates that saltwater intrusion is increasing in that area. Downward movement of the interface indicates recession of the saltwater front near the monitoring well.

In the conductivity plots of some of the wells logged for this report, the interface position can be seen as the point where low values of conductivity increase suddenly to values generally above 67 mS/m (usually near the bottom of the well). However, the interface position is not as apparent in other wells, and in some, there is no interface.

In wells selected for induction logging, a water sample may be collected and analyzed as a check on the level of salinity. Because bulk conductivity is a function of fluid conductivity, lithology, and porosity, the relationship between the induction logs and the chloride samples may not be as obvious as is the general relationship between fluid conductivity and chloride concentrations. If the rock is not very porous, then the change in bulk conductivity caused by changes in the salinity of the pore water may be smaller than might be expected. Nonetheless, the long-term changes in the bulk conductivity logs are sufficient to assess upward or downward movement of the interface. To aid in interpretation of the bulk conductivity logs, the chloride concentration is shown on the plot of bulk conductivity if water samples have been collected.

The instrument used to collect data for this report is calibrated prior to each field session. The calibration procedure establishes a mathematical constant (calibration factor) that is used to convert raw instrument readings in counts per second (cps) into values of bulk conductivity in millisiemens per meter (mS/m). When data were graphed for the 2000 annual water resources data report, offsets and amplitude differentials occurred in the calibrated values of bulk conductivity for each well between successive years. Investigation revealed that some of the observed offsets and amplitude differentials were caused by differing calibration factors between years. Most calibration factors differed because of temperature and humidity differences during calibration. The calibration procedures adapted during the 2000 water year were designed to minimize the influence of variable temperature and humidity. Before calibrating, the induction probe was lowered into a well and allowed to equilibrate in the water column. The probe was then removed from the well and the instrument immediately calibrated.

Factors other than variable temperature and humidity also have caused offsets and amplitude differentials. One such example occurred with data collected for the 2000 water year. Prior to logging for the 2000 water year, the instrument firmware and software was updated. After logging, it was found that the data had been truncated at the decimal point. Errors in calibration have also been identified and corrected (see Accuracy of Bulk Conductivity).

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Accuracy of Bulk Electrical Conductivity

There are two components that affect the quality of the induction logs published in this report: (1) vertical or depth accuracy, and (2) accuracy and precision of measured bulk conductivity. Vertical accuracy, which affects the determined interface position, is the most critical factor in this monitoring effort. A quality control program sets the velocity of the probe at 12 ft/min (feet per minute) while logging. Before logging begins, a spot on the probe, 3.32 feet above the sensing head, is aligned with the measuring point of the well. Where possible, the data recorded as the probe was moved up the well were used to produce the plots for this report. Depth values from successive water years were adjusted, if needed, to coincide at one or more specific conductivity peak recorded from an upper part of the well. Depth values were interpolated to the nearest tenth of a foot. The precision of depth determinations using this reporting method should be considered to be about  $\pm 0.1$  foot.

The accuracy and precision of measured bulk conductivity are a function of both the inherent accuracy of the induction probe and its calibration. The inherent precision of the probe is considered by the manufacturer to be  $\pm 5$  percent of the full scale. For the logs collected, the induction probe was set to a full scale of 1,000 mS/m. This translates into a precision of  $\pm 50$  mS/m at full scale. Analysis indicated that the offsets caused by the effects of temperature and humidity on calibration were generally within this range.

In the 1998 and 2002 water years, the induction probe was calibrated using standards of 0 and 345 mS/m. There are a number of monitoring wells where the measured bulk conductivity exceeds 345 mS/m. For these wells, a calibration standard of 345 mS/m was still used. This is because the probe would have to be set to a full scale of 10,000 mS/m in order to be calibrated using the next available standard (1,301 mS/m). This value would greatly exceed the normal range in bulk conductivity expected. The 345 mS/m calibration constant was also considered to be acceptable because within the range 0 to 1,000 mS/m, the response of the probe is considered to be linear; therefore calibrating the probe to this standard should not significantly reduce accuracy.

In the water years prior to 2002 (excluding 1998), the induction probe generally was calibrated using a 1,301 mS/m standard even though the full scale of the probe was 1,000 mS/m. This caused a calibration error in the data collected. To correct this error, a multiplier of 0.7686 was applied to all of the affected data.

Accuracy of data collected during the 2000 water year may have been affected by the firmware or software update in December 1999. The data collected using this new software and firmware was considerably offset relative to previous induction logs. In addition, the final values were truncated at the decimal point, whereas those collected prior to the update were recorded to the thousandths decimal place. These final values are the result of a multiplication of the raw data from the instrument and a calibration factor. It is unknown whether or not the raw values were truncated at the decimal point. If so, the resulting error could be on the order of 5 mS/m too low. Because the offset data from the 2000 water year are often 5 mS/m lower than the data from other years, truncation of the raw data probably is the explanation.

Data Presentation

Records of conductivity are published individually on the page immediately following the well manuscript. Data for conductivity are identified by well number. Each record consists of a single graph representing conductivity, a lithologic log, and a brief explanation.

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RECORDS OF GROUND-WATER QUALITY

Records of ground-water quality in this report differ from other types of records in that, for most sampling sites, they consist of only one set of measurements for the water year. The quality of ground water ordinarily changes slowly; therefore, for most general purposes, one annual sampling, or only a few samples taken at infrequent intervals during the year, is sufficient. Frequent measurement of the same constituents is not necessary unless one is concerned with a particular problem, such as monitoring for trends in nitrate concentration. In the special cases where the quality of ground water may change more rapidly, more frequent measurements are made to identify the nature of the changes.

Data Collection and Computation

The records of ground-water quality in this report were obtained mostly as a part of special studies in specific areas. Consequently, a number of chemical analyses are presented for some counties but none are presented for others. As a result, the records for this year, by themselves, do not provide a balanced view of ground-water quality in the report area. Such a view can be attained only by considering records for this year in context with similar records obtained for these and other counties in earlier years.

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey TWRI publications referred to in the "On-site Measurements and Sample Collection" and the "Laboratory Measurements" sections in this data report. In addition, the TWRI Book 1, Chapter D2, describes guidelines for the collection and field analysis of ground-water samples for selected unstable constituents.

The values reported in this report represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. These methods are consistent with ASTM standards and generally follow ISO standards. All samples were obtained by trained personnel. The wells sampled were pumped long enough to assure that the water collected came directly from the aquifer and had not stood for a long time in the well casing where it would have been exposed to the atmosphere and to the material, possibly metal, comprising the casings.

Data Presentation

The records of ground-water quality are published immediately following the ground-water-level records of each county. Data for quality of ground water are identified by well number. The prime identification number for wells sampled is the 15-digit number derived from the latitude-longitude locations. The Remark Codes listed for surface-water-quality records are also applicable to ground-water-quality records.

ACCESS TO USGS WATER DATA

The USGS provides near real-time stage and discharge data for many of the gaging stations equipped with the necessary telemetry and historic daily-mean and peak-flow discharge data for most current or discontinued gaging stations through the world wide web (WWW). These data may be accessed at:

<http://water.usgs.gov>

Some water-quality and ground-water data also are available through the WWW. In addition, data can be provided in various machine-readable formats on magnetic tape or 3-1/2 inch floppy disk. Information about the availability of specific types of data products, and user charges, can be obtained locally from each of the Water Resources Division District Offices (See address on the back of the title page).

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## DEFINITION OF TERMS

Specialized technical terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. Definitions of common terms such as algae, water level, and precipitation are given in standard dictionaries. Not all terms defined in this alphabetical list apply to every State. See also table for converting inch/pound units to International System (SI) units on the inside of the back cover.

**Acid neutralizing capacity (ANC)** is the equivalent sum of all bases or base-producing materials, solutes plus particulates, in an aqueous system that can be titrated with acid to an equivalence point. This term designates titration of an “unfiltered” sample (formerly reported as alkalinity).

**Acre-foot (AC-FT, acre-ft)** is a unit of volume, commonly used to measure quantities of water used or stored, equivalent to the volume of water required to cover 1 acre to a depth of 1 foot and equivalent to 43,560 cubic feet, 325,851 gallons, or 1,233 cubic meters. (See also “Annual runoff”)

**Adenosine triphosphate (ATP)** is an organic, phosphate-rich compound important in the transfer of energy in organisms. Its central role in living cells makes ATP an excellent indicator of the presence of living material in water. A measurement of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter.

**Algal growth potential (AGP)** is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample. (See also “Biomass” and “Dry weight”)

**Alkalinity** is the capacity of solutes in an aqueous system to neutralize acid. This term designates titration of a “filtered” sample.

**Annual runoff** is the total quantity of water that is discharged (“runs off”) from a drainage basin in a year. Data reports may present annual runoff data as volumes in acre-feet, as discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches.

**Annual 7-day minimum** is the lowest mean value for any 7-consecutive-day period in a year. Annual 7-day minimum values are reported herein for the calendar year and the water year (October 1 through September 30). Most low-flow frequency analyses use a climatic year (April 1-March 31), which tends to prevent the low-flow period from being artificially split between adjacent years. The date shown in the summary statistics table is the initial date

of the 7-day period. (This value should not be confused with the 7-day, 10-year low-flow statistic.)

**Aroclor** is the registered trademark for a group of poly-chlorinated biphenyls that were manufactured by the Monsanto Company prior to 1976. Aroclors are assigned specific 4-digit reference numbers dependent upon molecular type and degree of substitution of the biphenyl ring hydrogen atoms by chlorine atoms. The first two digits of a numbered aroclor represent the molecular type, and the last two digits represent the percentage weight of the hydrogen-substituted chlorine.

**Artificial substrate** is a device that is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is collected. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection. (See also “Substrate”)

**Ash mass** is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500 °C for 1 hour. Ash mass of zooplankton and phytoplankton is expressed in grams per cubic meter ( $\text{g}/\text{m}^3$ ), and periphyton and benthic organisms in grams per square meter ( $\text{g}/\text{m}^2$ ). (See also “Biomass” and “Dry mass”)

**Aspect** is the direction toward which a slope faces with respect to the compass.

**Bacteria** are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, whereas others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

**Bankfull stage**, as used in this report, is the stage at which a stream first overflows its natural banks formed by floods with 1- to 3-year recurrence intervals.

**Base discharge** (for peak discharge) is a discharge value, determined for selected stations, above which peak discharge data are published. The base discharge at each

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station is selected so that an average of about three peak flows per year will be published. (See also "Peak flow")

**Base flow** is sustained flow of a stream in the absence of direct runoff. It includes natural and human-induced streamflows. Natural base flow is sustained largely by ground-water discharge.

**Bedload** is material in transport that is supported primarily by the streambed. In this report, bedload is considered to consist of particles in transit from the bed to an elevation equal to the top of the bedload sampler nozzle (ranging from 0.25 to 0.5 foot) that are retained in the bedload sampler. A sample collected with a pressure-differential bedload sampler also may contain a component of the suspended load.

**Bedload discharge** (tons per day) is the rate of sediment moving as bedload, reported as dry weight, that passes through a cross section in a given time. NOTE: Bedload discharge values in this report may include a component of the suspended-sediment discharge. A correction may be necessary when computing the total sediment discharge by summing the bedload discharge and the suspended-sediment discharge. (See also "Bedload," "Dry weight," "Sediment," and "Suspended-sediment discharge")

**Bed material** is the sediment mixture of which a stream-bed, lake, pond, reservoir, or estuary bottom is composed. (See also "Bedload" and "Sediment")

**Benthic organisms** are the group of organisms inhabiting the bottom of an aquatic environment. They include a number of types of organisms, such as bacteria, fungi, insect larvae and nymphs, snails, clams, and crayfish. They are useful as indicators of water quality.

**Biochemical oxygen demand** (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

**Biomass** is the amount of living matter present at any given time, expressed as mass per unit area or volume of habitat.

**Biomass pigment ratio** is an indicator of the total proportion of periphyton that are autotrophic (plants). This is also called the Autotrophic Index.

**Blue-green algae** (*Cyanophyta*) are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample. (See also "Phytoplankton")

**Bottom material** (See "Bed material")

**Bulk electrical conductivity** is the combined electrical conductivity of all material within a doughnut-shaped volume surrounding an induction probe. Bulk conductivity is affected by different physical and chemical properties of the material including the dissolved solids content of the pore water and lithology and porosity of the rock.

**Cells/volume** refers to the number of cells of any organism that is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample volume, and are generally reported as cells or units per milliliter (mL) or liter (L).

**Cells volume** (biovolume) determination is one of several common methods used to estimate biomass of algae in aquatic systems. Cell members of algae are frequently used in aquatic surveys as an indicator of algal production. However, cell numbers alone cannot represent true biomass because of considerable cell-size variation among the algal species. Cell volume ( $\mu\text{m}^3$ ) is determined by obtaining critical cell measurements or cell dimensions (for example, length, width, height, or radius) for 20 to 50 cells of each important species to obtain an average biovolume per cell. Cells are categorized according to the correspondence of their cellular shape to the nearest geometric solid or combinations of simple solids (for example, spheres, cones, or cylinders). Representative formulae used to compute biovolume are as follows:

$$\text{sphere } \frac{4}{3} \pi r^3 \quad \text{cone } \frac{1}{3} \pi r^2 h \quad \text{cylinder } \pi r^2 h.$$

pi ( $\pi$ ) is the ratio of the circumference to the diameter of a circle; pi = 3.14159....

From cell volume, total algal biomass expressed as biovolume ( $\mu\text{m}^3/\text{mL}$ ) is thus determined by multiplying the number of cells of a given species by its average cell volume and then summing these volumes for all species.

**Cfs-day** (See "Cubic foot per second-day")

**Channel bars**, as used in this report, are the lowest prominent geomorphic features higher than the channel bed.

**Chemical oxygen demand** (COD) is a measure of the chemically oxidizable material in the water and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with BOD or with carbonaceous organic pollution from sewage or industrial wastes. [See also "Biochemical oxygen demand (BOD)"]

***Clostridium perfringens*** (*C. perfringens*) is a spore-forming bacterium that is common in the feces of human and other warmblooded animals. Clostridial spores are being used experimentally as an indicator of past fecal contamination

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and presence of microorganisms that are resistant to disinfection and environmental stresses. (See also "Bacteria")

**Coliphages** are viruses that infect and replicate in coliform bacteria. They are indicative of sewage contamination of water and of the survival and transport of viruses in the environment.

**Color unit** is produced by 1 milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

**Confined aquifer** is a term used to describe an aquifer containing water between two relatively impermeable boundaries. The water level in a well tapping a confined aquifer stands above the top of the confined aquifer and can be higher or lower than the water table that may be present in the material above it. In some cases, the water level can rise above the ground surface, yielding a flowing well.

**Contents** is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

**Continuous-record station** is a site where data are collected with sufficient frequency to define daily mean values and variations within a day.

**Control** designates a feature in the channel that physically affects the water-surface elevation and thereby determines the stage-discharge relation at the gage. This feature may be a constriction of the channel, a bedrock outcrop, a gravel bar, an artificial structure, or a uniform cross section over a long reach of the channel.

**Control structure**, as used in this report, is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of saltwater.

**Cubic foot per second** (CFS, ft<sup>3</sup>/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point in 1 second. It is equivalent to approximately 7.48 gallons per second or approximately 449 gallons per minute, or 0.02832 cubic meters per second. The term "second-foot" sometimes is used synonymously with "cubic foot per second" but is now obsolete.

**Cubic foot per second-day** (CFS-DAY, Cfs-day, [(ft<sup>3</sup>/s)/d]) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.98347 acre-feet, 646,317 gallons, or 2,446.6 cubic meters. The daily mean discharges reported in the daily value data tables are numerically equal to the daily volumes in cfs-days, and the totals also represent volumes in cfs-days.

**Cubic foot per second per square mile** [CFSM, (ft<sup>3</sup>/s)/mi<sup>2</sup>] is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming the runoff is distributed uniformly in time and area. (See also "Annual runoff")

**Daily mean suspended-sediment concentration** is the time-weighted concentration of suspended sediment passing a stream cross section during a 24-hour day. (See also "Sediment" and "Suspended-sediment concentration")

**Daily-record station** is a site where data are collected with sufficient frequency to develop a record of one or more data values per day. The frequency of data collection can range from continuous recording to periodic sample or data collection on a daily or near-daily basis.

**Data collection platform** (DCP) is an electronic instrument that collects, processes, and stores data from various sensors, and transmits the data by satellite data relay, line-of-sight radio, and/or landline telemetry.

**Data logger** is a microprocessor-based data acquisition system designed specifically to acquire, process, and store data. Data are usually downloaded from onsite data loggers for entry into office data systems.

**Datum** is a surface or point relative to which measurements of height and/or horizontal position are reported. A vertical datum is a horizontal surface used as the zero point for measurements of gage height, stage, or elevation; a horizontal datum is a reference for positions given in terms of latitude-longitude, State Plane coordinates, or UTM coordinates. (See also "Gage datum," "Land-surface datum," "National Geodetic Vertical Datum of 1929," and "North American Vertical Datum of 1988")

**Diatoms** are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample. (See also "Phytoplankton")

**Diel** is of or pertaining to a 24-hour period of time; a regular daily cycle.

**Discharge, or flow**, is the rate that matter passes through a cross section of a stream channel or other water body per unit of time. The term commonly refers to the volume of water (including, unless otherwise stated, any sediment or other constituents suspended or dissolved in the water) that passes a cross section in a stream channel, canal, pipeline, etc., within a given period of time (cubic feet per second). Discharge also can apply to the rate at which constituents, such as suspended sediment, bedload, and dissolved or suspended chemicals, pass through a cross section, in which cases the quantity is expressed as the mass of constituent



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that passes the cross section in a given period of time (tons per day).

**Dissolved** refers to that material in a representative water sample that passes through a 0.45-micrometer membrane filter. This is a convenient operational definition used by Federal and State agencies that collect water-quality data. Determinations of “dissolved” constituent concentrations are made on sample water that has been filtered.

**Dissolved oxygen (DO)** is the molecular oxygen (oxygen gas) dissolved in water. The concentration in water is a function of atmospheric pressure, temperature, and dissolved-solids concentration of the water. The ability of water to retain oxygen decreases with increasing temperature or dissolved-solids concentration. Photosynthesis and respiration by plants commonly cause diurnal variations in dissolved-oxygen concentration in water from some streams.

**Dissolved-solids concentration** in water is the quantity of dissolved material in a sample of water. It is determined either analytically by the “residue-on-evaporation” method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. In the mathematical calculation, the bicarbonate value, in milligrams per liter, is multiplied by 0.4926 to convert it to carbonate. Alternatively, alkalinity concentration (as mg/L CaCO<sub>3</sub>) can be converted to carbonate concentration by multiplying by 0.60.

**Diversity index (H)** (Shannon index) is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$\bar{d} = -\sum_{i=1}^s \frac{n_i}{n} \log_2 \frac{n_i}{n},$$

where  $n_i$  is the number of individuals per taxon,  $n$  is the total number of individuals, and  $s$  is the total number of taxa in the sample of the community. Index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

**Drainage area** of a stream at a specific location is that area upstream from the location, measured in a horizontal plane, that has a common outlet at the site for its surface runoff from precipitation that normally drains by gravity into a stream. Drainage areas given herein include all closed basins, or noncontributing areas, within the area unless otherwise specified.

**Drainage basin** is a part of the Earth’s surface that contains a drainage system with a common outlet for its surface runoff. (See “Drainage area”)

**Dry mass** refers to the mass of residue present after drying in an oven at 105 °C, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry-mass values are expressed in the same units as ash mass. (See also “Ash mass,” “Biomass,” and “Wet mass”)

**Dry weight** refers to the weight of animal tissue after it has been dried in an oven at 65 °C until a constant weight is achieved. Dry weight represents total organic and inorganic matter in the tissue. (See also “Wet weight”)

**Embeddedness** is the degree to which gravel-sized and larger particles are surrounded or enclosed by finer-sized particles. (See also “Substrate embeddedness class”)

**Enterococcus bacteria** are commonly found in the feces of humans and other warmblooded animals. Although some strains are ubiquitous and not related to fecal pollution, the presence of enterococci in water is an indication of fecal pollution and the possible presence of enteric pathogens. Enterococcus bacteria are those bacteria that produce pink to red colonies with black or reddish-brown precipitate after incubation at 41 °C on mE agar (nutrient medium for bacterial growth) and subsequent transfer to EIA medium. Enterococci include *Streptococcus feacalis*, *Streptococcus feacium*, *Streptococcus avium*, and their variants. (See also “Bacteria”)

**EPT Index** is the total number of distinct taxa within the insect orders Ephemeroptera, Plecoptera, and Trichoptera. This index summarizes the taxa richness within the aquatic insects that are generally considered pollution sensitive; the index usually decreases with pollution.

**Escherichia coli (E. coli)** are bacteria present in the intestine and feces of warmblooded animals. *E. coli* are a member species of the fecal coliform group of indicator bacteria. In the laboratory, they are defined as those bacteria that produce yellow or yellow-brown colonies on a filter pad saturated with urea substrate broth after primary culturing for 22 to 24 hours at 44.5 °C on mTEC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also “Bacteria”)

**Estimated (E) concentration value** is reported when an analyte is detected and all criteria for a positive result are met. If the concentration is less than the method detection limit (MDL), an ‘E’ code will be reported with the value. If the analyte is qualitatively identified as present, but the quantitative determination is substantially more uncertain, the National Water Quality Laboratory will identify the

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result with an 'E' code even though the measured value is greater than the MDL. A value reported with an 'E' code should be used with caution. When no analyte is detected in a sample, the default reporting value is the MDL preceded by a less than sign (<).

**Euglenoids** (*Euglenophyta*) are a group of algae that are usually free-swimming and rarely creeping. They have the ability to grow either photosynthetically in the light or heterotrophically in the dark. (See also "Phytoplankton")

**Extractable organic halides** (EOX) are organic compounds that contain halogen atoms such as chlorine. These organic compounds are semivolatile and extractable by ethyl acetate from air-dried streambed sediment. The ethyl acetate extract is combusted, and the concentration is determined by microcoulometric determination of the halides formed. The concentration is reported as micrograms of chlorine per gram of the dry weight of the streambed sediment.

**Fecal coliform bacteria** are present in the intestines or feces of warmblooded animals. They often are used as indicators of the sanitary quality of the water. In the laboratory, they are defined as all organisms that produce blue colonies within 24 hours when incubated at 44.5 °C plus or minus 0.2 °C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "Bacteria")

**Fecal streptococcal bacteria** are present in the intestines of warmblooded animals and are ubiquitous in the environment. They are characterized as gram-positive, cocci bacteria that are capable of growth in brain-heart infusion broth. In the laboratory, they are defined as all the organisms that produce red or pink colonies within 48 hours at 35 °C plus or minus 1.0 °C on KF-streptococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample. (See also "Bacteria")

**Fire algae** (*Pyrrhophyta*) are free-swimming unicells characterized by a red pigment spot. (See also "Phytoplankton")

**Flow-duration percentiles** are values on a scale of 100 that indicate the percentage of time for which a flow is not exceeded. For example, the 90th percentile of river flow is greater than or equal to 90 percent of all recorded flow rates.

**Gage datum** is a horizontal surface used as a zero point for measurement of stage or gage height. This surface usually is located slightly below the lowest point of the stream bottom such that the gage height is usually slightly greater than the maximum depth of water. Because the gage datum itself is not an actual physical object, the datum usually is

defined by specifying the elevations of permanent reference marks such as bridge abutments and survey monuments, and the gage is set to agree with the reference marks. Gage datum is a local datum that is maintained independently of any national geodetic datum. However, if the elevation of the gage datum relative to the national datum (North American Vertical Datum of 1988 or National Geodetic Vertical Datum of 1929) has been determined, then the gage readings can be converted to elevations above the national datum by adding the elevation of the gage datum to the gage reading.

**Gage height** (G.H.) is the water-surface elevation, in feet above the gage datum. If the water surface is below the gage datum, the gage height is negative. Gage height often is used interchangeably with the more general term "stage," although gage height is more appropriate when used in reference to a reading on a gage.

**Gage values** are values that are recorded, transmitted, and/or computed from a gaging station. Gage values typically are collected at 5-, 15-, or 30-minute intervals.

**Gaging station** is a site on a stream, canal, lake, or reservoir where systematic observations of stage, discharge, or other hydrologic data are obtained.

**Gas chromatography/flame ionization detector** (GC/FID) is a laboratory analytical method used as a screening technique for semivolatile organic compounds that are extractable from water in methylene chloride.

**Geomorphic channel units**, as used in this report, are fluvial geomorphic descriptors of channel shape and stream velocity. Pools, riffles, and runs are types of geomorphic channel units considered for National Water-Quality Assessment (NAWQA) Program habitat sampling.

**Green algae** have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algae mats or floating "moss" in lakes. Their concentrations are expressed as number of cells per milliliter (cells/mL) of sample. (See also "Phytoplankton")

**Habitat**, as used in this report, includes all nonliving (physical) aspects of the aquatic ecosystem, although living components like aquatic macrophytes and riparian vegetation also are usually included. Measurements of habitat are typically made over a wider geographic scale than are measurements of species distribution.

**Habitat quality index** is the qualitative description (level 1) of instream habitat and riparian conditions surrounding the reach sampled. Scores range from 0 to 100 percent with higher scores indicative of desirable habitat conditions for aquatic life. Index only applicable to wadable streams.

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**Hardness** of water is a physical-chemical characteristic that commonly is recognized by the increased quantity of soap required to produce lather. It is computed as the sum of equivalents of polyvalent cations (primarily calcium and magnesium) and is expressed as the equivalent concentration of calcium carbonate (CaCO<sub>3</sub>).

**High tide** is the maximum height reached by each rising tide. The high-high and low-high tides are the higher and lower of the two high tides, respectively, of each tidal day. See *NOAA web site*:  
<http://www.co-ops.nos.noaa.gov/tideglos.html>

**Hilsenhoff's Biotic Index (HBI)** is an indicator of organic pollution that uses tolerance values to weight taxa abundances; usually increases with pollution. It is calculated as follows:

$$HBI = \text{sum} \frac{(n)(a)}{N},$$

where  $n$  is the number of individuals of each taxon,  $a$  is the tolerance value of each taxon, and  $N$  is the total number of organisms in the sample.

**Horizontal datum** (See "Datum")

**Hydrologic index stations** referred to in this report are continuous-record gaging stations that have been selected as representative of streamflow patterns for their respective regions. Station locations are shown on index maps.

**Hydrologic unit** is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as defined by the former Office of Water Data Coordination and delineated on the State Hydrologic Unit Maps by the USGS. Each hydrologic unit is identified by an 8-digit number.

**Inch** (IN., in.), as used in this report, refers to the depth to which the drainage area would be covered with water if all of the runoff for a given time period were uniformly distributed on it. (See also "Annual runoff")

**Instantaneous discharge** is the discharge at a particular instant of time. (See also "Discharge")

**Island**, as used in this report, is a mid-channel bar that has permanent woody vegetation, is flooded once a year on average, and remains stable except during large flood events.

**Laboratory reporting level (LRL)** is generally equal to twice the yearly determined long-term method detection level (LT-MDL). The LRL controls false negative error. The probability of falsely reporting a nondetection for a sample that contained an analyte at a concentration equal to

or greater than the LRL is predicted to be less than or equal to 1 percent. The value of the LRL will be reported with a "less than" (<) remark code for samples in which the analyte was not detected. The National Water Quality Laboratory (NWQL) collects quality-control data from selected analytical methods on a continuing basis to determine LT-MDLs and to establish LRLs. These values are reevaluated annually on the basis of the most current quality-control data and, therefore, may change. [Note: In several previous NWQL documents (NWQL Technical Memorandum 98.07, 1998), the LRL was called the nondetection value or NDV—a term that is no longer used.]

**Land-surface datum (lsd)** is a datum plane that is approximately at land surface at each ground-water observation well.

**Latent heat flux** (often used interchangeably with latent heat-flux density) is the amount of heat energy that converts water from liquid to vapor (evaporation) or from vapor to liquid (condensation) across a specified cross-sectional area per unit time. Usually expressed in watts per square meter.

**Light-attenuation coefficient**, also known as the extinction coefficient, is a measure of water clarity. Light is attenuated according to the Lambert-Beer equation:

$$I = I_o e^{-\lambda L},$$

where  $I_o$  is the source light intensity,  $I$  is the light intensity at length  $L$  (in meters) from the source,  $\lambda$  is the light-attenuation coefficient, and  $e$  is the base of the natural logarithm. The light-attenuation coefficient is defined as

$$\lambda = -\frac{1}{L} \log_e \frac{I}{I_o}.$$

**Lipid** is any one of a family of compounds that are insoluble in water and that make up one of the principal components of living cells. Lipids include fats, oils, waxes, and steroids. Many environmental contaminants such as organochlorine pesticides are lipophilic.

**Long-term method detection level (LT-MDL)** is a detection level derived by determining the standard deviation of a minimum of 24 method detection limit (MDL) spike sample measurements over an extended period of time. LT-MDL data are collected on a continuous basis to assess year-to-year variations in the LT-MDL. The LT-MDL controls false positive error. The chance of falsely reporting a concentration at or greater than the LT-MDL for a sample that did not contain the analyte is predicted to be less than or equal to 1 percent.

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**Low tide** is the minimum height reached by each falling tide. The high-low and low-low tides are the higher and lower of the two low tides, respectively, of each tidal day. See NOAA web site:  
<http://www.co-ops.nos.noaa.gov/tideglos.html>

**Macrophytes** are the macroscopic plants in the aquatic environment. The most common macrophytes are the rooted vascular plants that usually are arranged in zones in aquatic ecosystems and restricted in the area by the extent of illumination through the water and sediment deposition along the shoreline.

**Mean concentration of suspended sediment** (Daily mean suspended-sediment concentration) is the time-weighted concentration of suspended sediment passing a stream cross section during a given time period. (See also "Daily mean suspended-sediment concentration" and "Suspended-sediment concentration")

**Mean discharge** (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period. (See also "Discharge")

**Mean high or low tide** is the average of all high or low tides, respectively, over a specific period.

**Mean sea level** is a local tidal datum. It is the arithmetic mean of hourly heights observed over the National Tidal Datum Epoch. Shorter series are specified in the name; for example, monthly mean sea level and yearly mean sea level. In order that they may be recovered when needed, such datums are referenced to fixed points known as benchmarks. (See also "Datum")

**Measuring point** (MP) is an arbitrary permanent reference point from which the distance to water surface in a well is measured to obtain water level.

**Membrane filter** is a thin microporous material of specific pore size used to filter bacteria, algae, and other very small particles from water.

**Metamorphic stage** refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

**Method detection limit** (MDL) is the minimum concentration of a substance that can be measured and reported with 99-percent confidence that the analyte concentration is greater than zero. It is determined from the analysis of a sample in a given matrix containing the analyte. At the

MDL concentration, the risk of a false positive is predicted to be less than or equal to 1 percent.

**Methylene blue active substances** (MBAS) are apparent detergents. The determination depends on the formation of a blue color when methylene blue dye reacts with synthetic anionic detergent compounds.

**Micrograms per gram** (UG/G,  $\mu\text{g/g}$ ) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the element per unit mass (gram) of material analyzed.

**Micrograms per kilogram** (UG/KG,  $\mu\text{g/kg}$ ) is a unit expressing the concentration of a chemical constituent as the mass (micrograms) of the constituent per unit mass (kilogram) of the material analyzed. One microgram per kilogram is equivalent to 1 part per billion.

**Micrograms per liter** (UG/L,  $\mu\text{g/L}$ ) is a unit expressing the concentration of chemical constituents in water as mass (micrograms) of constituent per unit volume (liter) of water. One thousand micrograms per liter is equivalent to 1 milligram per liter. One microgram per liter is equivalent to 1 part per billion.

**Microsiemens per centimeter** (US/CM,  $\mu\text{S/cm}$ ) is a unit expressing the amount of electrical conductivity of a solution as measured between opposite faces of a centimeter cube of solution at a specified temperature. Siemens is the International System of Units nomenclature. It is synonymous with mhos and is the reciprocal of resistance in ohms.

**Milligrams per liter** (MG/L,  $\text{mg/L}$ ) is a unit for expressing the concentration of chemical constituents in water as the mass (milligrams) of constituent per unit volume (liter) of water. Concentration of suspended sediment also is expressed in milligrams per liter and is based on the mass of dry sediment per liter of water-sediment mixture.

**Minimum reporting level** (MRL) is the smallest measured concentration of a constituent that may be reliably reported by using a given analytical method.

**Miscellaneous site**, miscellaneous station, or miscellaneous sampling site is a site where streamflow, sediment, and/or water-quality data or water-quality or sediment samples are collected once, or more often on a random or discontinuous basis to provide better areal coverage for defining hydrologic and water-quality conditions over a broad area in a river basin.

**Most probable number** (MPN) is an index of the number of coliform bacteria that, more probably than any other number, would give the results shown by the laboratory examination; it is not an actual enumeration. MPN is determined

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from the distribution of gas-positive cultures among multiple inoculated tubes.

**Multiple-plate samplers** are artificial substrates of known surface area used for obtaining benthic invertebrate samples. They consist of a series of spaced, hardboard plates on an eyebolt.

**Nanograms per liter (NG/L, ng/L)** is a unit expressing the concentration of chemical constituents in solution as mass (nanograms) of solute per unit volume (liter) of water. One million nanograms per liter is equivalent to 1 milligram per liter.

**National Geodetic Vertical Datum of 1929 (NGVD of 1929)** is a fixed reference adopted as a standard geodetic datum for elevations determined by leveling. It was formerly called "Sea Level Datum of 1929" or "mean sea level." Although the datum was derived from the mean sea level at 26 tide stations, it does not necessarily represent local mean sea level at any particular place. *See NOAA web site: <http://www.ngs.noaa.gov/faq.shtml#WhatVD29VD88>* (See "North American Vertical Datum of 1988")

**Natural substrate** refers to any naturally occurring immersed or submersed solid surface, such as a rock or tree, upon which an organism lives. (See also "Substrate")

**Nekton** are the consumers in the aquatic environment and consist of large free-swimming organisms that are capable of sustained, directed mobility.

**Nephelometric turbidity unit (NTU)** is the measurement for reporting turbidity that is based on use of a standard suspension of formazin. Turbidity measured in NTU uses nephelometric methods that depend on passing specific light of a specific wavelength through the sample.

**North American Vertical Datum of 1988 (NAVD 1988)** is a fixed reference adopted as the official civilian vertical datum for elevations determined by Federal surveying and mapping activities in the United States. This datum was established in 1991 by minimum-constraint adjustment of the Canadian, Mexican, and United States first-order terrestrial leveling networks.

**Open or screened interval** is the length of unscreened opening or of well screen through which water enters a well, in feet below land surface.

**Organic carbon (OC)** is a measure of organic matter present in aqueous solution, suspension, or bottom sediment. May be reported as dissolved organic carbon (DOC), particulate organic carbon (POC), or total organic carbon (TOC).

**Organic mass or volatile mass** of a living substance is the difference between the dry mass and ash mass and

represents the actual mass of the living matter. Organic mass is expressed in the same units as for ash mass and dry mass. (See also "Ash mass," "Biomass," and "Dry mass")

**Organism count/area** refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meter (m<sup>2</sup>), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

**Organism count/volume** refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliter (mL) or liter (L). Numbers of planktonic organisms can be expressed in these terms.

**Organochlorine compounds** are any chemicals that contain carbon and chlorine. Organochlorine compounds that are important in investigations of water, sediment, and biological quality include certain pesticides and industrial compounds.

**Parameter code** is a 5-digit number used in the USGS computerized data system, National Water Information System (NWIS), to uniquely identify a specific constituent or property.

**Partial-record station** is a site where discrete measurements of one or more hydrologic parameters are obtained over a period of time without continuous data being recorded or computed. A common example is a crest-stage gage partial-record station at which only peak stages and flows are recorded.

**Particle size** is the diameter, in millimeters (mm), of a particle determined by sieve or sedimentation methods. The sedimentation method utilizes the principle of Stokes law to calculate sediment particle sizes. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube, sedigraph) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

**Particle-size classification**, as used in this report, agrees with the recommendation made by the American Geophysical Union Subcommittee on Sediment Terminology. The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay	>0.00024 - 0.004	Sedimentation
Silt	>0.004 - 0.062	Sedimentation
Sand	>0.062 - 2.0	Sedimentation/sieve
Gravel	>2.0 - 64.0	Sieve
Cobble	>64 - 256	Manual measurement
Boulder	>256	Manual measurement

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The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. For the sedimentation method, most of the organic matter is removed, and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

**Peak flow (peak stage)** is an instantaneous local maximum value in the continuous time series of streamflows or stages, preceded by a period of increasing values and followed by a period of decreasing values. Several peak values ordinarily occur in a year. The maximum peak value in a year is called the annual peak; peaks lower than the annual peak are called secondary peaks. Occasionally, the annual peak may not be the maximum value for the year; in such cases, the maximum value occurs at midnight at the beginning or end of the year, on the recession from or rise toward a higher peak in the adjoining year. If values are recorded at a discrete series of times, the peak recorded value may be taken as an approximation of the true peak, which may occur between the recording instants. If the values are recorded with finite precision, a sequence of equal recorded values may occur at the peak; in this case, the first value is taken as the peak.

**Percent composition or percent of total** is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, weight, mass, or volume.

**Percent shading** is a measure of the amount of sunlight potentially reaching the stream. A clinometer is used to measure left and right bank canopy angles. These values are added together, divided by 180, and multiplied by 100 to compute percentage of shade.

**Periodic-record station** is a site where stage, discharge, sediment, chemical, physical, or other hydrologic measurements are made one or more times during a year but at a frequency insufficient to develop a daily record.

**Periphyton** is the assemblage of microorganisms attached to and living upon submerged solid surfaces. Although primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

**Pesticides** are chemical compounds used to control undesirable organisms. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides.

**pH** of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7.0 standard units are termed "acidic," and solutions with a pH greater than 7.0 are termed "basic." Solutions with a pH of 7.0 are neutral.

The presence and concentration of many dissolved chemical constituents found in water are affected, in part, by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms also are affected, in part, by the hydrogen-ion activity of water.

**Phytoplankton** is the plant part of the plankton. They are usually microscopic, and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment and commonly are known as algae. (See also "Plankton")

**Picocurie (PC, pCi)** is one trillionth ( $1 \times 10^{-12}$ ) of the amount of radioactive nuclide represented by a curie (Ci). A curie is the quantity of radioactive nuclide that yields  $3.7 \times 10^{10}$  radioactive disintegrations per second (dps). A picocurie yields 0.037 dps, or 2.22 dpm (disintegrations per minute).

**Plankton** is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers. Concentrations are expressed as a number of cells per milliliter (cells/mL) of sample.

**Polychlorinated biphenyls (PCBs)** are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

**Polychlorinated naphthalenes (PCNs)** are industrial chemicals that are mixtures of chlorinated naphthalene compounds. They have properties and applications similar to polychlorinated biphenyls (PCBs) and have been identified in commercial PCB preparations.

**Pool**, as used in this report, is a small part of a stream reach with little velocity, commonly with water deeper than surrounding areas.

**Primary productivity** is a measure of the rate at which new organic matter is formed and accumulated through photo-synthetic and chemosynthetic activity of producer organisms (chiefly, green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated (carbon method) by the plants.

**Primary productivity (carbon method)** is expressed as milligrams of carbon per area per unit time [ $\text{mg C}/(\text{m}^2/\text{time})$ ] for periphyton and macrophytes or per volume [ $\text{mg C}/(\text{m}^3/\text{time})$ ] for phytoplankton. The carbon method defines the amount of carbon dioxide consumed as measured by radioactive

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carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light and dark bottle method and is preferred for use with unenriched water samples. Unit time may be either the hour or day, depending on the incubation period. (See also "Primary productivity")

**Primary productivity (oxygen method)** is expressed as milligrams of oxygen per area per unit time [ $\text{mg O}/(\text{m}^2/\text{time})$ ] for periphyton and macrophytes or per volume [ $\text{mg O}/(\text{m}^3/\text{time})$ ] for phytoplankton. The oxygen method defines production and respiration rates as estimated from changes in the measured dissolved-oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period. (See also "Primary productivity")

**Radioisotopes** are isotopic forms of elements that exhibit radioactivity. Isotopes are varieties of a chemical element that differ in atomic weight but are very nearly alike in chemical properties. The difference arises because the atoms of the isotopic forms of an element differ in the number of neutrons in the nucleus; for example, ordinary chlorine is a mixture of isotopes having atomic weights of 35 and 37, and the natural mixture has an atomic weight of about 35.453. Many of the elements similarly exist as mixtures of isotopes, and a great many new isotopes have been produced in the operation of nuclear devices such as the cyclotron. There are 275 isotopes of the 81 stable elements, in addition to more than 800 radioactive isotopes.

**Reach**, as used in this report, is a length of stream that is chosen to represent a uniform set of physical, chemical, and biological conditions within a segment. It is the principal sampling unit for collecting physical, chemical, and biological data.

**Recoverable from bed (bottom) material** is the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results. (See also "Bed material")

**Recurrence interval**, also referred to as return period, is the average time, usually expressed in years, between occurrences of hydrologic events of a specified type (such as exceedances of a specified high flow or nonexceedance of a specified low flow). The terms "return period" and "recur-

rence interval" do not imply regular cyclic occurrence. The actual times between occurrences vary randomly, with most of the times being less than the average and a few being substantially greater than the average. For example, the 100-year flood is the flow rate that is exceeded by the annual maximum peak flow at intervals whose average length is 100 years (that is, once in 100 years, on average); almost two-thirds of all exceedances of the 100-year flood occur less than 100 years after the previous exceedance, half occur less than 70 years after the previous exceedance, and about one-eighth occur more than 200 years after the previous exceedance. Similarly, the 7-day, 10-year low flow ( $7Q_{10}$ ) is the flow rate below which the annual minimum 7-day-mean flow dips at intervals whose average length is 10 years (that is, once in 10 years, on average); almost two-thirds of the nonexceedances of the  $7Q_{10}$  occur less than 10 years after the previous nonexceedance, half occur less than 7 years after, and about one-eighth occur more than 20 years after the previous nonexceedance. The recurrence interval for annual events is the reciprocal of the annual probability of occurrence. Thus, the 100-year flood has a 1-percent chance of being exceeded by the maximum peak flow in any year, and there is a 10-percent chance in any year that the annual minimum 7-day-mean flow will be less than the  $7Q_{10}$ .

**Replicate samples** are a group of samples collected in a manner such that the samples are thought to be essentially identical in composition.

**Return period** (See "Recurrence interval")

**Riffle**, as used in this report, is a shallow part of the stream where water flows swiftly over completely or partially submerged obstructions to produce surface agitation.

**River mileage** is the curvilinear distance, in miles, measured upstream from the mouth along the meandering path of a stream channel in accordance with Bulletin No. 14 (October 1968) of the Water Resources Council and typically is used to denote location along a river.

**Run**, as used in this report, is a relatively shallow part of a stream with moderate velocity and little or no surface turbulence.

**Runoff** is the quantity of water that is discharged ("runs off") from a drainage basin during a given time period. Runoff data may be presented as volumes in acre-feet, as mean discharges per unit of drainage area in cubic feet per second per square mile, or as depths of water on the drainage basin in inches. (See also "Annual runoff")

**Sea level**, as used in this report, refers to one of the two commonly used national vertical datums (NGVD 1929 or

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NAVD 1988). See separate entries for definitions of these datums.

**Sediment** is solid material that originates mostly from disintegrated rocks; when transported by, suspended in, or deposited from water, it is referred to as “fluvial sediment.” Sediment includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are affected by environmental and land-use factors. Some major factors are topography, soil characteristics, land cover, and depth and intensity of precipitation.

**Sensible heat flux** (often used interchangeably with latent sensible heat-flux density) is the amount of heat energy that moves by turbulent transport through the air across a specified cross-sectional area per unit time and goes to heating (cooling) the air. Usually expressed in watts per square meter.

**Seven-day, 10-year low flow** ( $7Q_{10}$ ) is the discharge below which the annual 7-day minimum flow falls in 1 year out of 10 on the long-term average. The recurrence interval of the  $7Q_{10}$  is 10 years; the chance that the annual 7-day minimum flow will be less than the  $7Q_{10}$  is 10 percent in any given year. (See also “Annual 7-day minimum” and “Recurrence interval”)

**Shelves**, as used in this report, are streambank features extending nearly horizontally from the flood plain to the lower limit of persistent woody vegetation.

**Sodium adsorption ratio** (SAR) is the expression of relative activity of sodium ions in exchange reactions within soil and is an index of sodium or alkali hazard to the soil. Sodium hazard in water is an index that can be used to evaluate the suitability of water for irrigating crops.

**Soil heat flux** (often used interchangeably with soil heat-flux density) is the amount of heat energy that moves by conduction across a specified cross-sectional area of soil per unit time and goes to heating (or cooling) the soil. Usually expressed in watts per square meter.

**Soil-water content** is the water lost from the soil upon drying to constant mass at 105 °C; expressed either as mass of water per unit mass of dry soil or as the volume of water per unit bulk volume of soil.

**Specific electrical conductance (conductivity)** is a measure of the capacity of water (or other media) to conduct an electrical current. It is expressed in microsiemens per centimeter at 25 °C. Specific electrical conductance is a function of the types and quantity of dissolved substances in water and can be used for approximating the dissolved-solids content of the water. Commonly, the con-

centration of dissolved solids (in milligrams per liter) is from 55 to 75 percent of the specific conductance (in microsiemens). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

**Stable isotope ratio** (per MIL) is a unit expressing the ratio of the abundance of two radioactive isotopes. Isotope ratios are used in hydrologic studies to determine the age or source of specific water, to evaluate mixing of different water, as an aid in determining reaction rates, and other chemical or hydrologic processes.

**Stage** (See “Gage height”)

**Stage-discharge relation** is the relation between the water-surface elevation, termed stage (gage height), and the volume of water flowing in a channel per unit time.

**Streamflow** is the discharge that occurs in a natural channel. Although the term “discharge” can be applied to the flow of a canal, the word “streamflow” uniquely describes the discharge in a surface stream course. The term “streamflow” is more general than “runoff” as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

**Substrate** is the physical surface upon which an organism lives.

**Substrate embeddedness class** is a visual estimate of riffle streambed substrate larger than gravel that is surrounded or covered by fine sediment (<2mm, sand or finer). Below are the class categories expressed as the percentage covered by fine sediment:

0	no gravel or larger substrate	3	26-50 percent
1	> 75 percent	4	5-25 percent
2	51-75 percent	5	< 5 percent

**Surface area of a lake** is that area (acres) encompassed by the boundary of the lake as shown on USGS topographic maps, or other available maps or photographs. Because surface area changes with lake stage, surface areas listed in this report represent those determined for the stage at the time the maps or photographs were obtained.

**Surficial bed material** is the upper surface (0.1 to 0.2 foot) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

**Suspended** (as used in tables of chemical analyses) refers to the amount (concentration) of undissolved material in a water-sediment mixture. It is defined operationally as the material retained on a 0.45-micrometer filter.



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**Suspended, recoverable** is the amount of a given constituent that is in solution after the part of a representative suspended water-sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the “total” amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results. Determinations of “suspended, recoverable” constituents are made either by directly analyzing the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total recoverable concentrations of the constituent. (See also “Suspended”)

**Suspended sediment** is the sediment maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid. (See also “Sediment”)

**Suspended-sediment concentration** is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 foot above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L). The analytical technique uses the mass of all of the sediment and the net weight of the water-sediment mixture in a sample to compute the suspended-sediment concentration. (See also “Sediment” and “Suspended sediment”)

**Suspended-sediment discharge** (tons/d) is the rate of sediment transport, as measured by dry mass or volume, that passes a cross section in a given time. It is calculated in units of tons per day as follows: concentration (mg/L) x discharge (ft<sup>3</sup>/s) x 0.0027. (See also “Sediment,” “Suspended sediment,” and “Suspended-sediment concentration”)

**Suspended-sediment load** is a general term that refers to a given characteristic of the material in suspension that passes a point during a specified period of time. The term needs to be qualified, such as “annual suspended-sediment load” or “sand-size suspended-sediment load,” and so on. It is not synonymous with either suspended-sediment discharge or concentration. (See also “Sediment”)

**Suspended, total** is the total amount of a given constituent in the part of a water-sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. Knowledge

of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as “suspended, total.” Determinations of “suspended, total” constituents are made either by directly analyzing portions of the suspended material collected on the filter or, more commonly, by difference, on the basis of determinations of (1) dissolved and (2) total concentrations of the constituent. (See also “Suspended”)

**Suspended solids, total residue at 105 °C concentration** is the concentration of inorganic and organic material retained on a filter, expressed as milligrams of dry material per liter of water (mg/L). An aliquot of the sample is used for this analysis.

**Synoptic studies** are short-term investigations of specific water-quality conditions during selected seasonal or hydrologic periods to provide improved spatial resolution for critical water-quality conditions. For the period and conditions sampled, they assess the spatial distribution of selected water-quality conditions in relation to causative factors, such as land use and contaminant sources.

**Taxa (Species) richness** is the number of species (taxa) present in a defined area or sampling unit.

**Taxonomy** is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, *Hexagenia limbata*, is the following:

Kingdom:	Animal
Phylum:	Arthropoda
Class:	Insecta
Order:	Ephemeroptera
Family:	Ephemeridae
Genus:	<i>Hexagenia</i>
Species:	<i>Hexagenia limbata</i>

**Thalweg** is the line formed by connecting points of minimum streambed elevation (deepest part of the channel).

**Thermograph** is an instrument that continuously records variations of temperature on a chart. The more general term “temperature recorder” is used in the table descriptions and refers to any instrument that records temperature whether on a chart, a tape, or any other medium.

**Time-weighted average** is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total

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number of days. A time-weighted average represents the composition of water resulting from the mixing of flow proportionally to the duration of the concentration.

**Tons per acre-foot (T/acre-ft)** is the dry mass (tons) of a constituent per unit volume (acre-foot) of water. It is computed by multiplying the concentration of the constituent, in milligrams per liter, by 0.00136.

**Tons per day (T/DAY, tons/d)** is a common chemical or sediment discharge unit. It is the quantity of a substance in solution, in suspension, or as bedload that passes a stream section during a 24-hour period. It is equivalent to 2,000 pounds per day, or 0.9072 metric tons per day.

**Total** is the amount of a given constituent in a representative whole-water (unfiltered) sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent present in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determined at least 95 percent of the constituent in the sample.)

**Total coliform bacteria** are a particular group of bacteria that are used as indicators of possible sewage pollution. This group includes coliforms that inhabit the intestine of warmblooded animals and those that inhabit soils. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria that ferment lactose with gas formation within 48 hours at 35 °C. In the laboratory, these bacteria are defined as all the organisms that produce colonies with a golden-green metallic sheen within 24 hours when incubated at 35 °C plus or minus 1.0 °C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 milliliters of sample. (See also "Bacteria")

**Total discharge** is the quantity of a given constituent, measured as dry mass or volume, that passes a stream cross section per unit of time. When referring to constituents other than water, this term needs to be qualified, such as "total sediment discharge," "total chloride discharge," and so on.

**Total in bottom material** is the amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology

used, is required to judge when the results should be reported as "total in bottom material."

**Total length (fish)** is the straight-line distance from the anterior point of a fish specimen's snout, with the mouth closed, to the posterior end of the caudal (tail) fin, with the lobes of the caudal fin squeezed together.

**Total load** refers to all of a constituent in transport. When referring to sediment, it includes suspended load plus bed load.

**Total organism count** is the number of organisms collected and enumerated in any particular sample. (See also "Organism count/volume")

**Total recoverable** is the amount of a given constituent in a whole-water sample after a sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data for whole-water samples, equivalent digestion procedures are required of all laboratories performing such analyses because different digestion procedures may produce different analytical results.

**Total sediment discharge** is the mass of suspended-sediment plus bed-load transport, measured as dry weight, that passes a cross section in a given time. It is a rate and is reported as tons per day. (See also "Bedload," "Bedload discharge," "Sediment," "Suspended sediment," and "Suspended-sediment concentration")

**Total sediment load** or **total load** is the sediment in transport as bedload and suspended-sediment load. The term may be qualified, such as "annual suspended-sediment load" or "sand-size suspended-sediment load," and so on. It differs from total sediment discharge in that load refers to the material, whereas discharge refers to the quantity of material, expressed in units of mass per unit time. (See also "Sediment," "Suspended-sediment load," and "Total load")

**Transect**, as used in this report, is a line across a stream perpendicular to the flow and along which measurements are taken, so that morphological and flow characteristics along the line are described from bank to bank. Unlike a cross section, no attempt is made to determine known elevation points along the line.

**Turbidity** is the reduction in the transparency of a solution due to the presence of suspended and some dissolved substances. The measurement technique records the collective optical properties of the solution that cause light to be

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scattered and attenuated rather than transmitted in straight lines; the higher the intensity of scattered or attenuated light, the higher the value of the turbidity. Turbidity is expressed in nephelometric turbidity units (NTU). Depending on the method used, the turbidity units as NTU can be defined as the intensity of light of a specified wavelength scattered or attenuated by suspended particles or absorbed at a method specified angle, usually 90 degrees, from the path of the incident light. Currently approved methods for the measurement of turbidity in the USGS include those that conform to U.S. EPA Method 180.1, ASTM D1889-00, and ISO 7027. Measurements of turbidity by these different methods and different instruments are unlikely to yield equivalent values.

**Ultraviolet (UV) absorbance (absorption)** at 254 or 280 nanometers is a measure of the aggregate concentration of the mixture of UV absorbing organic materials dissolved in the analyzed water, such as lignin, tannin, humic substances, and various aromatic compounds. UV absorbance (absorption) at 254 or 280 nanometers is measured in UV absorption units per centimeter of pathlength of UV light through a sample.

**Unconfined aquifer** is an aquifer whose upper surface is a water table free to fluctuate under atmospheric pressure. (See "Water-table aquifer")

**Vertical datum** (See "Datum")

**Volatile organic compounds (VOCs)** are organic compounds that can be isolated from the water phase of a sample by purging the water sample with inert gas, such as helium, and subsequently analyzed by gas chromatography. Many VOCs are human-made chemicals that are used and produced in the manufacture of paints, adhesives, petroleum products, pharmaceuticals, and refrigerants. They are often components of fuels, solvents, hydraulic fluids, paint thinners, and dry cleaning agents commonly used in urban settings. VOC contamination of drinking-water supplies is a human health concern because many are toxic and are known or suspected human carcinogens.

**Water table** is that surface in a ground-water body at which the water pressure is equal to the atmospheric pressure.

**Water-table aquifer** is an unconfined aquifer within which the water table is found.

**Water year** in USGS reports dealing with surface-water supply is the 12-month period October 1 through September 30. The water year is designated by the calendar year in which it ends and which includes 9 of the 12 months. Thus, the year ending September 30, 2002, is called the "2002 water year."

**WDR** is used as an abbreviation for "Water-Data Report" in the REVISED RECORDS paragraph to refer to State annual hydrologic-data reports. (WRD was used as an abbreviation for "Water-Resources Data" in reports published prior to 1976.)

**Weighted average** is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

**Wet mass** is the mass of living matter plus contained water. (See also "Biomass" and "Dry mass")

**Wet weight** refers to the weight of animal tissue or other substance including its contained water. (See also "Dry weight")

**WSP** is used as an acronym for "Water-Supply Paper" in reference to previously published reports.

**Zooplankton** is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column and often are large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers. (See also "Plankton")

## TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS OF THE U.S. GEOLOGICAL SURVEY

The USGS publishes a series of manuals titled the "Techniques of Water-Resources Investigations" that describe procedures for planning and conducting specialized work in water-resources investigations. The material in these manuals is grouped under major subject headings called books and is further divided into sections and chapters. For example, section A of book 3 (Applications of Hydraulics) pertains to surface water. Each chapter then is limited to a narrow field of the section subject matter. This publication format permits flexibility when revision or printing is required.

Manuals in the Techniques of Water-Resources Investigations series, which are listed below, are available online at <http://water.usgs.gov/pubs/twri/>. Printed copies are available for sale from the USGS, Information Services, Box 25286, Federal Center, Denver, Colorado 80225 (an authorized agent of the Superintendent of Documents, Government Printing Office). Please telephone "1-888-ASK-USGS" for current prices, and refer to the title, book number, section number, chapter number, and mention the "U.S. Geological Survey Techniques of Water-Resources Investigations." Other products can be viewed online at <http://www.usgs.gov/sales.html>, or ordered by telephone or by FAX to (303)236-4693. Order forms for FAX requests are available online at <http://mac.usgs.gov/isb/pubs/forms/>. Prepayment by major credit card or by a check or money order payable to the "U.S. Geological Survey" is required.

**Book 1. Collection of Water Data by Direct Measurement****Section D. Water Quality**

- 1-D1. *Water temperature—Influential factors, field measurement, and data presentation*, by H.H. Stevens, Jr., J.F. Ficke, and G.F. Smoot: USGS-TWRI book 1, chap. D1. 1975. 65 p.
- 1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W.W. Wood: USGS-TWRI book 1, chap. D2. 1976. 24 p.

**Book 2. Collection of Environmental Data****Section D. Surface Geophysical Methods**

- 2-D1. *Application of surface geophysics to ground-water investigations*, by A.A.R. Zohdy, G.P. Eaton, and D.R. Mabey: USGS-TWRI book 2, chap. D1. 1974. 116 p.
- 2-D2. *Application of seismic-refraction techniques to hydrologic studies*, by F.P. Haeni: USGS-TWRI book 2, chap. D2. 1988. 86 p.

**Section E. Subsurface Geophysical Methods**

- 2-E1. *Application of borehole geophysics to water-resources investigations*, by W.S. Keys and L.M. MacCary: USGS-TWRI book 2, chap. E1. 1971. 126 p.
- 2-E2. *Borehole geophysics applied to ground-water investigations*, by W.S. Keys: USGS-TWRI book 2, chap. E2. 1990. 150 p.

**Section F. Drilling and Sampling Methods**

- 2-F1. *Application of drilling, coring, and sampling techniques to test holes and wells*, by Eugene Shuter and W.E. Teasdale: USGS-TWRI book 2, chap. F1. 1989. 97 p.

**Book 3. Applications of Hydraulics****Section A. Surface-Water Techniques**

- 3-A1. *General field and office procedures for indirect discharge measurements*, by M.A. Benson and Tate Dalrymple: USGS-TWRI book 3, chap. A1. 1967. 30 p.
- 3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M.A. Benson: USGS-TWRI book 3, chap. A2. 1967. 12 p.
- 3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G.L. Bodhaine: USGS-TWRI book 3, chap. A3. 1968. 60 p.
- 3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H.F. Matthai: USGS-TWRI book 3, chap. A4. 1967. 44 p.

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- 3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS-TWRI book 3, chap. A5. 1967. 29 p.
- 3-A6. *General procedure for gaging streams*, by R.W. Carter and Jacob Davidian: USGS-TWRI book 3, chap. A6. 1968. 13 p.
- 3-A7. *Stage measurement at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS-TWRI book 3, chap. A7. 1968. 28 p.
- 3-A8. *Discharge measurements at gaging stations*, by T.J. Buchanan and W.P. Somers: USGS-TWRI book 3, chap. A8. 1969. 65 p.
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STAGE, DISCHARGE, AND WATER QUALITY OF STREAM

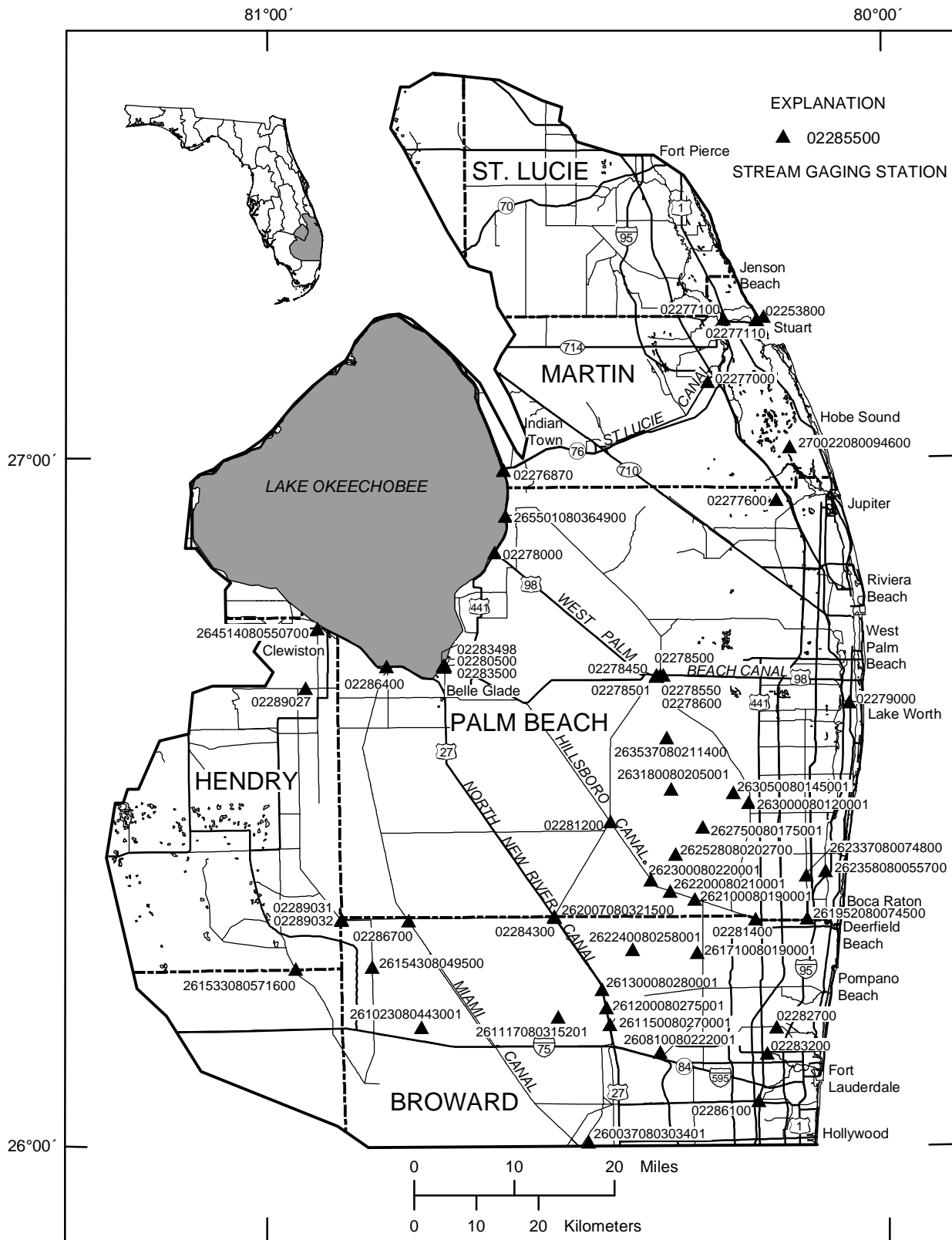


Figure 4. Location of gaging stations in the portion of the Everglades and the southeastern coastal area north of latitude 26 degrees.

02253800 INDIAN RIVER LAGOON AT SEWALLS PT, STUART FL

LOCATION.--Lat 27°12'19", long 80°11'38", in SE 1/4 SW 1/4 SE 1/4, sec.36, T.37 S., R.41 E., Martin County, Hydrologic Unit 03090202 middle of Indian River Bridge cat walk, 1.6 mi west of Atlantic Ocean, 4 mi southeast of Stuart.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--

DISCHARGE: August 1997 to September 2000.

GAGE HEIGHT: August 1997 to October 2000, September 2001 to current year.

SALINITY (TOP, BOTTOM): August 1997 to October 2000, September 2001 to current year.

WATER TEMPERATURE (TOP, BOTTOM): August 1997 to October 2000, September 2001 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and water-quality monitor with top and bottom sensors. Prior to October 1, 2000, an acoustic doppler velocity meter. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Salinity record (top) rated excellent except for the following periods: Oct. 24-29, Nov. 5-15, Dec. 1-8, Mar. 1-5, Apr. 1-10, May 20-31, June 1-8, Aug. 25-28, which is rated good; Nov. 16-23, Dec. 9-14, Mar. 6-9, Apr. 11-16, June 9-11, which is rated fair; Dec. 16-27, Mar. 10-19, Apr. 18-30, which is rated poor. Data for period of Mar. 21-26 exceeded maximum allowable limits (30%) and was not published. Salinity record (bottom) rated excellent except for the following periods: Oct. 1-4, 25-30, Nov. 5-15, Dec. 1-8, Jan. 19-30, Mar. 1-5, Apr. 8-10, May 18-31, June 1-8, Aug. 25-28, which is rated good; Oct. 5-8, Nov. 16-23, Dec. 9-14, Mar. 6-9, Apr. 11-16, June 9-24, which is rated fair; Oct. 9-11, Nov. 24-26, Dec. 15-27, Mar. 10-20, Apr. 18-30, June 25-26, which is rated poor. Data for period of Mar. 21-26 exceeded maximum allowable limits (30%) and was not published. Temperature record (top and bottom) rated excellent. Elevation of the top salinity-temperature probe -1.0 ft NGVD, bottom salinity-temperature probe -9.5 ft NGVD.

EXTREMES FOR PERIOD OF RECORD.--

DISCHARGE: Maximum discharge, 46,121 ft<sup>3</sup>/s Nov. 5, 1998; minimum, -42,188 ft<sup>3</sup>/s Dec. 24, 1999.

GAGE HEIGHT: Maximum gage height, 3.84 ft Sept. 15, 1999; minimum, -1.83 ft Jan. 27, 1998.

SALINITY (TOP): Maximum recorded, 38.8 ppt Mar. 28, 2002, but may have been higher during period of missing record; minimum recorded, 8.0 ppt Oct. 19, 1999, but may have been lower during period of missing record.

SALINITY (BOTTOM): Maximum recorded, 43.1 ppt May 7, 2002, but may have been higher during period of missing record; minimum recorded, 13.2 ppt Mar. 26, 1998, but may have been lower during period of missing record.

WATER TEMPERATURE (TOP): Maximum recorded, 33.3°C Aug. 2, 1998, but may have been higher during period of missing record; minimum recorded, 9.7°C Jan. 10, 2002, but may have been lower during periods of missing record.

WATER TEMPERATURE (BOTTOM): Maximum recorded, 32.9°C Aug. 2, 1998, but may have been higher during period of missing record; minimum recorded, 12.3°C Jan. 27, 2000, but may have been lower during periods of missing record.

EXTREMES FOR CURRENT YEAR.--

GAGE HEIGHT: Maximum gage height, 2.83 ft Nov. 16; minimum, -1.13 ft Jan. 26.

SALINITY (TOP): Maximum recorded, 38.8 ppt Mar. 28, but may have been higher during period of missing record; minimum recorded, 19.7 ppt July 11, but may have been lower during period of missing record.

SALINITY (BOTTOM): Maximum recorded, 43.1 ppt May 7, but may have been higher during period of missing record; minimum recorded, 20.9 ppt Nov. 8, but may have been lower during period of missing record.

WATER TEMPERATURE (TOP): Maximum recorded, 32.7°C Aug. 20, but may have been higher during period of missing record; minimum recorded, 9.7°C Jan. 10, but may have been lower during periods of missing record.

WATER TEMPERATURE (BOTTOM): Maximum recorded, 32.2°C Aug. 19, but may have been higher during period of missing record; minimum recorded, 12.9°C Jan. 9, but may have been lower during periods of missing record.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.77	1.21	0.40	---	-0.22	0.56	0.22	0.03	0.77	0.05	0.25	0.63
2	1.47	1.05	0.40	---	-0.01	0.25	0.25	-0.06	0.68	0.27	0.58	0.84
3	1.21	0.97	0.52	0.52	0.29	-0.07	0.27	-0.34	0.59	0.35	0.67	1.23
4	1.16	0.99	0.62	0.65	0.40	0.03	0.25	-0.48	0.62	0.25	0.61	1.30
5	1.06	1.69	0.75	0.70	0.44	0.30	0.54	-0.30	0.76	0.21	0.67	1.06
6	0.87	1.86	0.73	0.34	0.25	0.21	0.90	0.06	0.74	0.35	0.90	0.88
7	0.77	1.28	0.52	0.07	0.05	0.12	0.78	0.14	0.64	0.38	1.20	0.92
8	1.20	0.97	0.53	0.08	0.14	0.27	0.45	---	0.63	0.43	1.40	1.04
9	1.52	0.86	0.52	-0.01	0.26	0.17	0.20	-0.14	0.80	0.50	1.36	1.17
10	1.27	0.85	0.53	-0.21	0.16	0.12	-0.02	-0.36	1.03	0.30	1.28	1.18
11	1.17	1.03	0.60	-0.35	0.18	0.30	0.00	-0.39	0.98	0.21	1.29	0.91
12	1.00	1.06	0.59	-0.31	0.26	0.25	0.15	-0.30	0.81	0.26	1.03	0.75
13	1.00	1.29	0.62	-0.25	0.36	0.18	0.20	-0.28	0.62	0.30	0.81	0.46
14	0.84	1.52	0.53	-0.16	0.47	0.13	0.25	-0.17	0.60	0.31	0.70	0.53
15	0.89	1.70	0.43	-0.29	0.54	-0.03	0.12	0.15	0.45	0.21	0.58	0.37
16	1.18	1.89	0.46	-0.06	0.59	-0.13	0.01	---	0.41	0.19	0.40	0.29
17	1.63	1.77	0.45	-0.20	0.63	-0.22	-0.01	---	0.51	0.26	0.29	0.32
18	1.71	1.32	0.42	-0.19	0.67	-0.33	0.01	-0.12	0.55	0.36	0.29	0.41
19	1.46	1.01	0.57	-0.23	0.41	-0.39	0.09	-0.02	0.62	0.30	0.26	0.62
20	1.29	0.86	0.55	-0.41	0.28	-0.30	0.10	0.62	0.62	0.21	0.29	0.72
21	1.17	0.84	0.71	-0.40	0.04	-0.23	0.11	1.12	0.63	0.21	0.32	0.87
22	0.99	0.86	0.67	-0.28	0.19	0.29	0.14	1.28	0.45	0.23	0.30	1.01
23	1.07	0.73	0.52	-0.28	0.69	0.51	0.40	1.41	0.31	0.22	0.46	1.13
24	1.07	0.62	0.41	-0.32	1.08	0.41	0.59	1.10	0.25	0.22	0.55	1.10
25	0.94	0.46	0.70	-0.43	1.06	0.28	0.45	0.80	0.19	0.09	0.39	0.81
26	1.09	0.48	0.84	-0.36	0.84	0.19	0.17	0.64	0.11	-0.10	0.24	0.66
27	1.46	---	0.69	0.01	0.78	0.30	0.18	0.55	0.14	-0.06	0.25	0.50
28	1.52	0.48	0.53	0.09	0.79	0.54	0.12	0.58	0.09	-0.04	0.24	0.53
29	1.45	0.43	0.28	0.01	---	0.49	0.09	0.80	0.01	0.04	0.26	0.59
30	1.44	0.36	0.26	-0.14	---	0.32	0.09	0.83	0.01	0.06	0.32	0.88
31	1.34	---	0.41	-0.23	---	0.23	---	0.84	---	0.08	0.41	---
TOTAL	38.01	---	16.76	---	11.62	4.75	7.10	---	15.62	6.65	18.60	23.71
MEAN	1.23	---	0.54	---	0.41	0.15	0.24	---	0.52	0.21	0.60	0.79
MAX	1.77	---	0.84	---	1.08	0.56	0.90	---	1.03	0.50	1.40	1.30
MIN	0.77	---	0.26	---	-0.22	-0.39	-0.02	---	0.01	-0.10	0.24	0.29

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02253800 INDIAN RIVER LAGOON AT SEWALLS PT, STUART FL--Continued

TOP  
SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	25.4	30.2	---	---	33.1	37.7	34.3	29.1	25.5	26.6	28.6
2	---	25.7	30.2	---	34.9	34.6	36.9	34.1	29.6	25.2	27.0	29.3
3	---	24.9	30.3	34.2	35.0	33.8	36.6	33.9	30.0	25.5	27.2	29.9
4	---	---	30.5	33.4	34.9	33.7	36.2	33.8	30.5	24.9	26.7	29.8
5	---	---	31.2	33.5	34.8	34.5	35.9	34.2	30.8	24.2	26.8	28.9
6	---	---	32.1	34.4	34.8	34.5	36.0	34.1	31.9	24.9	27.5	28.7
7	---	---	32.6	---	34.7	34.0	35.9	34.4	32.8	25.9	28.1	29.5
8	---	---	32.2	---	34.5	33.8	35.8	---	33.2	26.3	28.1	30.0
9	---	---	32.4	---	34.3	33.5	35.6	---	33.3	26.2	28.8	30.9
10	---	---	32.2	---	33.5	33.3	35.3	---	33.3	24.3	29.7	31.8
11	---	---	31.3	---	32.8	33.5	34.9	---	32.5	23.1	30.1	31.5
12	---	---	31.1	---	32.6	32.9	33.6	---	---	23.4	29.2	30.4
13	29.4	---	31.7	---	32.2	33.0	33.6	---	---	23.5	28.4	29.4
14	29.6	---	31.6	---	32.0	32.8	32.9	---	---	24.3	28.6	29.1
15	29.3	---	---	---	31.3	33.2	31.9	30.1	---	24.9	28.5	30.0
16	29.6	---	31.3	---	30.7	33.2	31.2	---	---	25.3	28.1	29.5
17	29.6	---	32.6	---	30.0	33.1	31.1	---	---	25.7	28.0	29.1
18	29.2	---	32.4	---	29.4	33.1	31.6	---	---	26.1	28.2	29.3
19	29.2	---	32.3	---	28.7	32.7	31.5	---	---	26.5	28.5	29.5
20	29.1	---	31.0	---	28.8	---	31.4	26.4	---	---	29.0	29.5
21	28.7	---	31.1	---	28.0	---	30.8	26.6	---	---	29.2	29.3
22	27.7	---	32.8	---	26.5	---	31.9	26.8	---	---	28.4	28.3
23	26.8	---	34.1	---	25.7	---	31.0	26.4	---	25.8	28.2	27.7
24	26.0	---	34.5	---	25.5	---	32.5	26.5	---	26.4	28.1	29.4
25	25.5	---	34.3	---	24.8	---	33.3	26.7	---	26.5	28.0	29.1
26	25.1	---	33.6	---	27.1	---	33.5	27.4	---	26.1	27.5	27.9
27	25.3	---	32.9	---	31.8	---	33.6	27.7	28.4	26.2	27.6	25.6
28	23.8	29.0	32.8	---	32.4	37.7	33.7	27.6	27.7	26.2	27.4	24.3
29	23.5	30.3	32.9	---	---	37.9	34.0	28.1	26.9	26.9	---	24.2
30	---	30.4	33.0	---	---	37.9	34.3	28.9	26.1	26.8	28.0	24.8
31	25.0	---	33.1	---	---	38.0	---	28.9	---	26.5	28.2	---
TOTAL	---	---	---	---	---	---	1014.2	---	---	---	---	865.3
MEAN	---	---	---	---	---	---	33.8	---	---	---	---	28.8
MAX	---	---	---	---	---	---	37.7	---	---	---	---	31.8
MIN	---	---	---	---	---	---	30.8	---	---	---	---	24.2

TOP  
TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	22.2	23.7	---	24.6	18.3	25.8	27.3	28.2	27.9	30.8	30.1
2	---	23.3	23.8	---	24.8	20.3	25.7	27.4	29.2	27.7	30.8	29.9
3	---	23.9	23.8	19.2	24.6	21.9	25.4	27.7	29.9	28.0	30.4	29.6
4	---	23.7	23.6	15.4	23.6	21.5	25.3	28.1	30.3	28.3	30.2	29.4
5	---	22.7	23.3	14.2	21.0	18.4	25.5	28.5	29.7	28.7	30.1	28.9
6	---	22.0	23.5	17.1	20.5	17.9	24.5	28.7	29.6	28.7	30.0	29.0
7	---	22.0	24.1	17.4	21.4	18.7	23.4	28.9	29.5	28.9	29.4	29.0
8	---	22.3	24.5	15.0	20.7	20.5	23.0	---	28.9	28.2	29.4	29.2
9	---	22.8	24.8	14.2	20.6	22.2	23.5	28.0	28.7	27.3	29.5	29.9
10	---	23.2	25.0	14.7	21.4	23.1	24.2	27.5	28.9	27.1	29.0	30.1
11	---	23.6	25.0	16.3	21.2	23.3	24.7	27.3	29.0	27.7	28.4	29.1
12	---	23.4	25.2	17.8	21.4	23.5	24.4	27.1	28.6	27.6	28.5	28.3
13	25.8	23.4	24.8	19.0	21.7	23.7	24.5	27.2	28.2	27.4	29.1	28.3
14	26.2	23.9	24.7	19.8	20.5	23.6	24.7	27.2	28.5	28.2	29.3	28.8
15	26.9	23.2	24.8	20.2	20.5	24.3	25.1	26.7	27.6	28.5	29.8	29.1
16	27.4	22.3	24.7	19.8	21.3	25.2	25.8	---	27.2	29.0	30.0	29.5
17	26.5	22.2	24.2	20.4	20.3	25.4	26.3	---	27.2	29.6	30.3	29.9
18	25.0	22.5	23.6	21.5	19.2	25.4	26.5	27.4	27.4	30.0	30.8	30.2
19	25.3	22.6	23.0	21.5	18.9	25.1	26.6	27.2	28.0	29.6	30.8	30.1
20	25.9	22.8	22.0	22.0	19.7	24.4	27.0	26.5	27.7	28.9	30.7	29.6
21	26.2	22.9	20.4	22.8	20.6	24.6	27.4	26.5	27.2	28.5	30.3	29.6
22	26.0	23.1	20.1	23.5	21.4	24.8	27.5	26.1	26.8	28.6	30.1	29.4
23	26.2	23.4	20.3	23.9	21.1	23.8	27.4	25.6	26.9	28.7	30.2	28.8
24	26.8	23.2	20.9	23.6	19.5	23.5	27.4	25.3	26.8	29.4	30.2	28.6
25	27.2	23.1	21.0	23.2	19.7	24.2	26.3	25.1	26.2	29.4	30.1	28.8
26	26.4	23.6	19.4	23.6	20.9	25.1	26.2	25.4	---	29.3	29.6	29.0
27	23.6	---	17.4	24.3	20.8	25.5	26.6	26.3	28.0	29.2	28.7	29.1
28	20.9	23.5	18.2	24.6	18.2	25.6	26.3	26.8	28.2	29.5	28.1	29.1
29	20.3	23.6	19.5	24.6	---	25.1	26.5	27.5	28.6	30.2	28.4	29.6
30	20.5	23.7	19.9	24.6	---	25.3	27.0	28.3	28.7	30.6	28.7	29.3
31	21.1	---	20.3	24.5	---	25.6	---	28.3	---	30.9	29.2	---
TOTAL	---	---	699.5	---	590.1	719.8	770.5	---	---	891.6	920.9	879.3
MEAN	---	---	22.6	---	21.1	23.2	25.7	---	---	28.8	29.7	29.3
MAX	---	---	25.2	---	24.8	25.6	27.5	---	---	30.9	30.8	30.2
MIN	---	---	17.4	---	18.2	17.9	23.0	---	---	27.1	28.1	28.3

## 02253800 INDIAN RIVER LAGOON AT SEWALLS PT, STUART FL--Continued

BOTTOM  
SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24.8	28.0	29.6	---	35.5	32.9	---	35.6	35.4	27.5	29.1	29.1
2	25.2	29.2	29.4	---	35.4	34.1	---	35.3	35.7	28.1	30.1	29.6
3	26.2	29.6	29.5	33.7	35.4	33.0	---	35.8	35.5	28.0	29.5	29.9
4	26.9	28.6	29.6	33.1	35.3	32.3	---	37.4	35.4	27.4	28.8	27.4
5	27.8	27.7	30.1	33.2	35.3	33.0	---	38.4	35.9	27.2	29.5	26.9
6	28.7	26.8	31.0	33.8	35.3	32.9	---	38.7	37.1	28.3	30.3	26.2
7	29.3	26.1	31.3	33.4	35.3	32.8	---	38.8	36.3	28.4	30.2	27.0
8	28.8	25.3	31.1	33.3	35.0	32.7	34.3	---	36.8	28.6	30.0	26.8
9	28.1	25.1	30.9	33.2	34.9	32.5	34.1	35.0	36.0	28.6	30.2	28.4
10	29.5	26.3	30.8	33.3	34.1	32.3	34.5	35.1	35.6	28.0	31.1	29.2
11	30.0	27.8	31.1	33.4	33.4	32.7	34.8	35.1	34.5	27.4	31.5	28.5
12	---	28.0	30.9	33.6	33.2	32.8	33.7	35.5	33.0	27.4	30.5	26.9
13	---	28.4	31.4	33.7	32.9	32.8	32.0	35.7	31.7	27.3	29.7	26.0
14	---	29.0	31.7	33.8	33.0	32.0	33.0	35.5	30.9	28.3	29.6	27.7
15	---	27.7	31.4	33.5	32.8	31.7	32.5	35.5	30.5	27.6	29.6	27.9
16	---	27.2	31.7	33.3	32.5	31.6	32.6	---	31.0	28.1	29.4	27.6
17	---	26.4	32.7	33.4	32.6	31.7	32.6	---	32.0	28.1	29.2	28.1
18	---	26.9	32.9	33.6	32.5	31.8	32.9	35.1	31.6	28.7	29.4	26.9
19	---	27.3	32.9	33.6	32.3	32.4	33.2	34.7	31.7	28.4	29.4	28.4
20	---	27.5	32.8	33.5	33.2	35.5	33.7	34.5	31.3	27.7	30.0	29.7
21	---	27.7	32.6	33.4	32.7	---	34.1	35.1	31.2	27.4	30.1	30.4
22	---	27.4	32.6	33.6	31.6	---	34.9	35.6	31.7	26.9	29.8	30.7
23	---	26.6	33.6	34.4	31.0	---	35.5	35.7	31.5	26.5	29.7	30.7
24	---	25.9	33.8	35.0	31.0	---	36.0	35.7	30.6	27.5	29.3	29.9
25	25.7	25.6	33.6	35.3	30.2	---	37.1	35.5	29.5	29.1	29.1	30.5
26	25.3	26.6	33.0	35.3	30.7	---	36.3	35.4	29.3	28.6	28.3	30.9
27	25.2	---	32.7	35.4	32.3	---	36.0	35.2	30.0	28.4	28.5	29.3
28	24.6	29.4	32.9	35.8	32.6	---	34.8	35.8	29.6	28.8	29.1	28.0
29	24.6	30.4	32.8	36.1	---	---	36.1	36.3	29.1	29.2	---	27.9
30	---	30.3	32.9	36.0	---	---	35.7	36.3	28.2	29.2	29.0	27.6
31	26.8	---	33.2	35.8	---	---	---	35.5	---	29.5	27.6	---
TOTAL	---	---	986.5	---	932.0	---	---	---	978.6	870.2	---	854.1
MEAN	---	---	31.8	---	33.3	---	---	---	32.6	28.1	---	28.5
MAX	---	---	33.8	---	35.5	---	---	---	37.1	29.5	---	30.9
MIN	---	---	29.4	---	30.2	---	---	---	28.2	26.5	---	26.0

BOTTOM  
TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.4	22.2	23.7	---	24.6	18.4	25.8	27.2	28.3	27.7	30.4	29.8
2	25.0	23.3	23.8	---	24.8	20.4	25.7	27.3	29.2	27.3	30.4	29.7
3	25.5	24.0	23.8	19.3	24.5	21.9	25.4	27.6	29.9	27.9	30.3	29.2
4	26.0	23.8	23.7	15.4	23.6	21.6	25.3	28.1	30.2	28.1	30.0	29.2
5	26.8	22.8	23.3	14.5	21.1	18.4	25.5	28.4	29.7	28.5	29.9	28.9
6	27.4	21.9	23.5	17.1	20.6	17.9	24.6	28.6	29.6	28.4	29.7	29.1
7	27.9	22.0	24.1	17.4	21.4	18.8	23.4	28.8	29.5	28.7	29.4	29.0
8	27.6	22.5	24.5	15.1	20.8	20.6	23.0	---	28.9	28.1	29.3	29.2
9	26.0	23.2	24.8	14.4	20.7	22.2	23.5	28.0	28.6	27.2	29.5	29.8
10	25.2	23.6	25.0	15.3	21.5	23.1	24.3	27.8	28.9	26.9	29.0	30.0
11	25.3	24.0	25.1	16.7	21.3	23.3	24.7	27.5	29.0	27.4	28.4	29.1
12	25.5	23.8	25.2	18.4	21.4	23.5	24.5	27.2	28.6	27.2	28.5	28.4
13	25.8	23.6	24.8	19.3	21.8	23.7	24.5	27.3	28.2	26.8	29.1	28.3
14	26.2	24.0	24.7	19.8	20.6	23.6	24.7	27.2	28.5	26.8	29.4	28.7
15	26.9	23.3	24.7	20.3	20.5	24.3	25.1	26.7	27.6	27.6	29.8	29.0
16	27.4	22.4	24.7	19.8	21.3	25.2	25.8	---	27.1	28.1	30.0	29.4
17	26.5	22.2	24.2	20.5	20.3	25.4	26.3	---	27.1	28.6	30.1	29.6
18	25.1	22.5	23.7	21.5	19.2	25.4	26.6	27.5	27.3	28.9	30.5	29.9
19	25.3	22.6	23.1	21.6	18.8	25.1	26.6	27.3	27.9	29.1	30.4	29.9
20	25.9	22.8	22.1	22.2	19.8	24.3	27.0	26.5	27.7	28.5	30.3	29.5
21	26.2	23.0	20.4	23.0	20.6	24.5	27.4	26.6	27.2	28.0	30.1	29.5
22	26.0	23.2	20.0	23.5	21.4	24.6	27.3	26.1	26.8	28.1	29.9	29.3
23	26.1	23.5	20.4	23.9	21.1	23.8	27.2	25.6	26.9	28.4	30.0	28.8
24	26.7	23.3	20.9	23.8	19.6	23.6	27.3	25.3	26.8	28.8	30.1	28.6
25	27.1	23.2	21.1	23.8	19.7	24.2	26.3	25.1	26.2	29.1	29.9	28.8
26	26.4	23.7	19.5	24.1	20.9	25.1	26.2	25.4	---	28.8	29.5	29.0
27	23.6	---	17.6	24.4	20.9	25.5	26.6	26.3	28.0	28.6	28.5	28.9
28	20.9	23.6	18.2	24.6	18.4	25.6	26.3	26.8	28.3	29.2	27.7	28.8
29	20.3	23.7	19.6	24.7	---	25.1	26.5	27.5	28.5	29.6	28.1	29.2
30	20.5	23.7	19.9	24.6	---	25.3	27.0	28.3	28.5	30.2	28.6	29.2
31	21.1	---	20.4	24.5	---	25.6	---	28.3	---	30.3	29.0	---
TOTAL	787.6	---	700.5	---	591.2	720.0	770.4	---	---	876.9	915.8	875.8
MEAN	25.4	---	22.6	---	21.1	23.2	25.7	---	---	28.3	29.5	29.2
MAX	27.9	---	25.2	---	24.8	25.6	27.4	---	---	30.3	30.5	30.0
MIN	20.3	---	17.6	---	18.4	17.9	23.0	---	---	26.8	27.7	28.3

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02276870 ST. LUCIE CANAL AT LAKE OKEECHOBEE, FL

LOCATION.-- Lat 26°59'00", long 80°03'70", in sec.22, T.40 S., R.37 E., Martin County, Hydrologic Unit 03090202, 0.5 mi downstream of control structure 308, directly beneath the U.S. Highway 441 overpass, just north of U.S. Highway 76 and 24 mi upstream of control structure 80.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--April 1931 to September 1952, October 1981 to current year. Prior to October 1946, published as St. Lucie Canal at lock 1, at Lake Okeechobee. Previously published as station number 02276500. All published data stored under current station number. Canal stage previously published under 02276871 has been moved to the current station number 02276870 for publication. Lake and canal stage at Lock Structure S-308 discontinued September 30, 1998.

REVISED RECORDS.--WDR FL-00-2A: 1999

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic velocity meter until October 19, 2001, when it was removed. Satellite data collection platform with water-stage shaft encoder and acoustic doppler velocity meter installed May 17, 2001. The acoustic velocity meter and acoustic doppler velocity meter were run in tandem for the period of May 17, 2001 to October 19, 2001. This acoustic velocity meter station is located 0.5 mi downstream of S-308 and is stored under 02276877 in the files of the U.S. Geological Survey. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to January 17, 1934, staff gage at site 0.4 mi downstream at different datum. January 17, 1934 to March 15, 1951, water-stage recorder at site 0.8 mi downstream at datum 1.56 ft lower. March 16, 1951, to September 1952, water-stage recorder at bridge on U.S. Highway 441 at present datum. January 17, 1934, to September 1952, auxiliary water-stage recorder 10.9 mi downstream. Prior to April 24, 1992, canal stage data obtained with digital water level recorder. August 1, 1986 to June 20, 1989, electromagnetic velocity meter and canal stage recorder 1200 ft downstream of S-308. April 4, 1992 satellite data collection platform installed at S-308 for lake and canal stages. May 1994, satellite data collection platform with water-stage shaft encoder for canal stage and acoustic velocity meter with cross path installed 0.5 mi downstream of S-308. This data was not used until October 1, 1996, to determine the discharge from S-308. The discharge is computed under station number 02276877, then stored under 02276870 for publication. Prior to October 1, 1998, satellite data collection platform with water-stage shaft encoders for lake and canal stages in control house of S-308.

REMARKS.--Records poor. Flow regulated by control structure 308 gates and lock at Lake Okeechobee. Flow frequently reversed during and after periods of heavy rainfall by pumpage into the canal from agricultural lands in the Everglades (negative figures indicate reverse flow towards Lake Okeechobee). Discharge computed from relations between discharge, head, gate openings, and slope prior to October 1, 1996. Flow is determined by relationship between the mean cross-sectional velocity and an average index line velocity (from the cross path index line velocities) measured with the acoustic velocity meter, from October 1, 1996 to August 13, 2001, acoustic doppler velocity meter, August 14, 2001 to present. Extreme lake stages for the current year no longer published due to the discontinuation of the U.S. Geological Survey equipment at S-308.

COOPERATION.--Canal stage record provided by U.S. Army Corps of Engineers.

ANNUAL MEAN AND ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 36 complete water years of discharge (1932-52, 1982-88, 1990, 1993-1996, 1999-2000, 2002).

EXTREME LAKE STAGES FOR PERIOD OF RECORD (1931-1998).--Maximum gage height, 19.63 ft Mar. 9, 1998; minimum, 9.63 ft June 22, 1990.

EXTREME CANAL STAGES FOR PERIOD OF RECORD.--Maximum gage height, 18.23 ft Mar. 29, 1998 minimum, 8.66 ft May. 22, 2001.

EXTREME CANAL STAGES FOR CURRENT YEAR.--Maximum gage height, 15.58 ft Nov. 6; minimum, 11.36 ft June 10.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.36	e14.42	e14.25	14.49	14.43	e14.41	13.97	13.12	11.94	12.98	14.40	e14.64
2	14.24	14.08	14.40	e14.41	14.60	14.45	13.92	13.08	11.95	13.13	14.57	14.62
3	14.28	13.53	14.13	14.07	14.66	14.53	13.88	13.00	11.94	13.18	14.58	14.63
4	14.30	13.44	14.08	14.05	14.59	14.54	13.91	12.93	11.83	13.24	14.57	14.39
5	14.28	14.13	14.15	14.15	14.29	14.30	13.83	12.87	11.77	13.31	14.65	14.33
6	14.36	15.01	14.29	14.34	14.43	14.31	13.72	12.74	11.74	13.38	14.62	14.68
7	14.39	14.36	14.48	e14.09	14.28	14.38	13.53	12.68	11.77	13.43	14.48	14.58
8	14.25	14.22	14.58	14.20	14.28	14.37	13.51	e12.64	11.69	13.51	14.35	14.49
9	14.04	14.32	14.44	14.25	14.44	14.39	13.58	12.60	11.62	13.68	14.42	14.38
10	14.19	14.22	14.40	14.29	14.52	14.36	13.64	12.50	11.59	13.83	14.49	14.47
11	14.26	14.07	14.44	14.19	14.64	14.30	13.60	12.40	11.64	13.90	14.52	14.70
12	14.31	14.42	e14.47	14.03	14.51	14.35	13.56	12.37	11.69	13.98	14.54	14.71
13	14.35	14.17	14.25	14.14	e14.50	14.44	13.57	12.43	e11.69	14.11	14.49	14.62
14	14.39	14.33	14.41	14.07	14.56	14.35	13.57	12.42	11.84	14.15	14.54	14.55
15	14.40	14.14	14.43	14.35	14.46	14.31	13.58	12.18	11.98	14.12	14.34	14.41
16	14.38	14.22	e14.55	14.45	14.49	14.28	13.57	e12.23	11.93	14.10	14.44	e14.43
17	e14.29	14.39	e14.44	14.41	14.57	14.25	13.58	e12.29	12.05	e14.13	14.34	14.35
18	14.24	14.37	14.21	14.40	14.43	14.23	13.54	12.34	11.99	14.16	14.35	14.27
19	14.33	e14.28	e14.02	14.14	14.32	14.21	13.51	12.45	12.01	14.23	14.38	14.20
20	14.35	14.28	14.20	14.24	14.45	14.18	13.53	12.33	11.98	14.25	14.39	14.39
21	14.41	14.39	14.35	14.41	14.53	14.26	13.52	12.28	12.11	14.22	14.59	14.56
22	14.49	14.24	14.25	14.38	14.57	14.12	13.49	12.19	12.21	14.33	14.52	14.54
23	14.62	e14.21	14.38	14.25	14.62	14.02	13.40	12.13	12.28	14.37	14.47	14.43
24	e14.64	14.25	14.45	14.21	14.61	14.03	13.30	12.10	12.35	14.42	14.50	14.48
25	e14.76	14.25	14.43	14.18	14.49	14.02	13.29	12.13	12.47	14.45	14.49	14.48
26	e14.76	14.22	14.43	14.16	e14.50	14.04	13.28	e12.10	12.62	14.50	14.48	14.65
27	14.77	14.29	14.37	e14.31	14.21	14.07	13.22	12.03	12.67	14.50	14.45	14.70
28	14.75	14.32	14.44	14.34	14.27	14.02	13.19	12.04	12.72	14.53	14.32	14.64
29	e14.77	14.26	14.46	14.33	---	13.97	13.20	12.08	12.75	14.57	14.37	14.52
30	14.79	e14.18	14.51	14.36	---	13.95	13.14	12.01	12.83	14.83	14.48	14.29
31	14.62	---	14.43	14.38	---	13.96	---	e11.93	---	e14.64	14.53	---
TOTAL	447.37	427.01	445.12	442.07	405.25	441.40	406.13	384.62	361.65	434.16	448.66	435.13
MEAN	14.43	14.23	14.36	14.26	14.47	14.24	13.54	12.41	12.05	14.01	14.47	14.50
MAX	14.79	15.01	14.58	14.49	14.66	14.54	13.97	13.12	12.83	14.83	14.65	14.71
MIN	14.04	13.44	14.02	14.03	14.21	13.95	13.14	11.93	11.59	12.98	14.32	14.20

e Estimated



EVERGLADES AND SOUTHEASTERN COASTAL AREA

02276870 ST. LUCIE CANAL AT LAKE OKEECHOBEE, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-637	e178	e31	e52	e218	e-7.5	e374	e347	e200	-818	e583	e739
2	-409	e220	e30	e18	-22	e92	e291	e373	e240	-818	e1010	e1100
3	-205	e164	e208	e352	e19	-86	e372	e356	e195	-688	e1200	e630
4	-262	e76	e116	e428	e73	-6.2	e298	e243	e335	-580	e887	e6.5
5	-37	e44	e308	e464	e229	e165	e236	e47	e378	-455	e594	e59
6	-162	e63	e244	-49	e206	e326	e266	e384	e297	-433	e232	e94
7	-320	e91	e52	e168	-34	e261	e185	e449	e204	-547	e121	e48
8	-85	e73	-5.9	e402	e369	e328	e482	e356	e184	-703	e144	e79
9	-232	-11	-20	e338	e49	e237	e464	e443	e62	-1010	e139	e41
10	e147	e174	e79	e111	e35	e230	e425	e387	e122	-1350	e1.8	e1070
11	e1.7	e60	e15	-23	-152	e633	e234	e312	e189	-1140	-21	e1370
12	e117	e53	e73	e251	-113	e457	e177	e104	e173	-1010	e90	e1230
13	e16	e41	e186	e50	e-1.6	e444	e44	e388	e123	-1050	e35	e970
14	e26	e4.6	e297	e411	-23	e275	-13	e229	e326	-861	e52	e597
15	e76	-21	e58	e46	e18	e300	-222	e141	e100	e106	e109	e745
16	-51	e62	e60	e38	e50	e203	-259	e-236	-10	e886	e22	e619
17	e-14	e46	e33	-34	e46	e148	-115	e-248	-718	e1060	e51	e510
18	e8.6	e19	-51	-20	e34	e335	-41	e4.0	-639	e769	e5.9	e512
19	e76	e21	e74	e45	e138	e395	e84	-194	-481	e250	e90	e150
20	e78	-26	e323	e492	e134	e379	-16	-300	-291	e17	e55	e116
21	e11	e9.0	e127	e335	e19	e388	e14	-156	-723	-185	e75	e66
22	-220	-2.2	e33	e162	-67	e154	e339	-1.4	-520	-485	e85	e29
23	-463	e71	e69	-0.55	-33	e351	e397	-60	-528	-614	-36	e15
24	e-437	e37	-0.54	-37	e2.5	e94	e439	e115	-690	-578	-21	e91
25	e-583	e19	e18	-26	e74	e413	e363	e46	-615	-414	-27	e1070
26	e-464	e52	e26	-10	e-18	e308	e307	e-8.4	-583	-564	-12	e1370
27	-472	e44	e99	e231	e20	e182	e212	e18	-473	-383	e120	e1560
28	-385	e62	e107	e200	e252	e193	e93	e291	-381	-383	e59	e640
29	e-149	e51	-2.9	e422	---	e240	e342	e194	-516	-365	e120	e455
30	e-111	e98	e61	e402	---	e205	e328	e328	-484	-145	e98	e393
31	245	---	e7.3	e381	---	e94	---	e234	---	e-127	e595	---
TOTAL	-4895.7	1772.4	2653.96	5599.45	1521.9	7730.3	6100	4585.2	-4524	-12618	6456.7	16374.5
MEAN	-158	59.1	85.6	181	54.4	249	203	148	-151	-407	208	546
MAX	245	220	323	492	369	633	482	449	378	1060	1200	1560
MIN	-637	-26	-51	-49	-152	-86	-259	-300	-723	-1350	-36	6.5
AC-FT	-9710	3520	5260	11110	3020	15330	12100	9090	-8970	-25030	12810	32480

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2002, BY WATER YEAR (WY)

MEAN	1605	1069	711	599	653	921	1091	627	487	657	793	1100
MAX	6480	6831	6350	5649	5453	7246	4620	4474	3949	4697	5152	6403
(WY)	1948	1948	1948	1948	1948	1983	1983	1931	1931	1947	1947	1949
MIN	-1101	-120	-138	-130	-24.1	-647	-531	-242	-1107	-618	-614	-1036
(WY)	1988	1988	1986	1986	1991	1989	1991	1994	1989	1985	1985	1989

SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 1931 - 2002

ANNUAL TOTAL	30756.71		
ANNUAL MEAN	84.3	898	
HIGHEST ANNUAL MEAN		3511	1948
LOWEST ANNUAL MEAN		-49.6	1986
HIGHEST DAILY MEAN	1560	Sep 27	8150 Feb 26 1983
LOWEST DAILY MEAN	-1350	Jul 10	-4280 Sep 14 1985
ANNUAL SEVEN-DAY MINIMUM	-1020	Jul 8	-2980 Aug 7 1985
ANNUAL RUNOFF (AC-FT)	61010		650700
10 PERCENT EXCEEDS	432		3700
50 PERCENT EXCEEDS	71		185
90 PERCENT EXCEEDS	-422		0.00

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02277000 ST. LUCIE CANAL AT LOCK, NEAR STUART, FL

LOCATION.--Lat 27°06'39", long 80°17'06", in Hanson Grant, T.39 S., R.41 E., Martin County, Hydrologic Unit 03090202, S-80 control structure, at upstream end of the north lock wall, 6.3 mi southwest of Stuart. No section could be determined from existing maps.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1952 to current year. Gage height records collected at same site since December 1924 are contained in files of the South Florida Water Management District and U.S. Army Corps of Engineers. Discharge published prior to October 1, 1987, provided by the U.S. Army Corps of Engineers. U.S. Geological Survey started collection of upstream and downstream stages October 1, 1987, and publication of discharge computed by the U.S. Geological Survey.

REVISED RECORDS.--WDR FL-80-2A: 1978-1979. WDR FL-96-2A: 1988-1989, 1991-1996.

GAGE.--U.S. Army Corps of Engineers owned and operated satellite data collection platform with water-stage shaft encoders for upstream and downstream stages. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to November 3, 1948, nonrecording gage at same site and at various datums. September 5, 1952, to January 1, 1955, auxiliary water-stage recorder at Arundel Bridge, 1.9 mi upstream, NGVD. U.S. Geological Survey satellite data collection platform installed January 13, 1995, was discontinued October 30, 1998. Digital water-stage recorders removed February 13, 1995.

REMARKS.--Records poor. Flow regulated by lock near Stuart. Leakage and lockage estimated as 35 cfs daily. No period of record extremes shown for stage since stage was not collected by U.S. Geological Survey prior to October 1, 1987. Starting in the 2002 water year, publication of daily means was replaced by publication of maximum, minimum daily values.

COOPERATION.--Stage, gate-opening record and lock operation provided by U.S. Army Corps of Engineers.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 45 complete water years of discharge (1953-94, 1998-2002).

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD SINCE OCTOBER 1, 1987.--Maximum gage height 17.88 ft Oct. Nov. 5, 1998; minimum, 8.63 ft May 11, 2001. Historical stage records are not available in the files of the U.S. Geological Survey prior to October 1, 1987.

EXTREME UPSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height 15.51 ft Nov. 6; minimum, 11.05 ft June 10.

EXTREME DOWNSTREAM STAGES SINCE OCTOBER 1, 1987.--Maximum gage height 7.29 ft Oct. 17, 1995; minimum, -1.71 ft Mar. 13, 1993.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height 2.94 ft Nov. 17; minimum, -1.18 ft Jan. 26.

UPSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.46	14.35	14.26	14.51	14.47	14.33	13.98	13.12	11.87	13.02	14.29	14.37
2	14.29	e14.12	14.42	14.45	14.62	14.42	13.90	13.05	11.94	13.18	14.31	14.36
3	14.30	13.53	14.13	e14.09	14.71	14.57	13.88	12.94	11.91	13.21	14.31	14.48
4	14.32	13.52	14.06	e14.08	14.64	14.58	13.90	12.88	11.76	13.28	14.40	14.38
5	e14.29	14.19	14.11	14.18	14.27	14.26	13.81	12.83	11.70	13.34	14.58	14.29
6	e14.36	14.90	14.24	14.42	14.43	14.24	13.66	12.63	11.70	13.40	e14.61	14.58
7	e14.39	e14.35	14.50	14.15	14.39	14.36	13.38	12.57	11.76	13.44	14.47	14.47
8	e14.25	e14.22	14.60	14.23	14.28	14.32	13.39	12.53	11.65	13.53	14.29	14.39
9	e13.95	e14.31	14.47	14.29	14.44	14.37	13.49	12.52	11.50	13.75	14.35	14.33
10	14.11	14.21	14.42	14.34	14.53	14.34	13.56	12.41	11.48	14.01	14.42	14.13
11	14.23	14.09	14.46	e14.25	14.68	14.22	13.52	12.27	11.58	14.10	14.49	14.23
12	14.31	14.42	14.47	e14.08	14.55	14.36	13.49	12.27	11.68	14.16	14.49	e14.33
13	14.36	14.20	14.27	e14.17	14.54	14.53	13.52	12.39	11.68	14.24	14.46	e14.35
14	14.43	14.40	14.43	e14.10	14.58	14.35	13.55	12.43	11.88	14.23	14.45	e14.25
15	14.42	14.26	14.44	14.40	14.49	14.28	13.58	12.03	12.03	14.04	14.25	e14.27
16	14.41	14.29	14.52	14.46	14.52	14.25	13.54	12.20	11.99	13.93	14.35	e14.27
17	14.28	14.38	14.46	14.44	14.61	14.20	13.51	12.29	12.19	13.86	14.27	e14.21
18	14.18	14.36	14.27	14.45	14.42	14.16	13.46	12.39	12.03	14.00	14.32	14.17
19	14.31	14.30	14.07	14.19	14.30	14.16	13.43	12.49	12.01	14.18	14.34	14.14
20	14.36	14.33	14.23	14.28	14.46	14.15	13.49	12.30	11.99	14.21	14.35	14.32
21	14.44	14.42	14.35	14.46	14.58	14.30	13.50	12.27	12.17	14.18	14.53	14.50
22	e14.49	14.26	14.25	14.38	14.61	14.07	13.46	12.11	12.27	14.35	14.40	14.46
23	e14.69	14.23	14.40	14.27	14.67	13.94	13.32	12.03	12.33	14.38	14.34	14.39
24	14.73	14.26	14.50	14.24	14.66	13.96	13.18	11.97	12.40	e14.45	14.43	14.42
25	14.87	14.25	14.47	14.23	14.49	13.95	13.22	12.04	12.53	14.45	14.45	14.16
26	14.83	14.22	14.50	14.19	14.52	14.00	13.23	12.01	12.65	14.50	14.47	14.16
27	14.85	14.29	14.42	14.32	14.19	14.06	13.15	11.90	12.68	14.47	e14.42	14.27
28	14.83	14.32	14.49	14.35	14.34	13.98	13.15	11.93	12.72	14.51	14.29	14.41
29	14.76	14.26	14.55	14.33	---	13.90	13.16	12.05	12.78	14.57	14.31	14.35
30	14.81	14.18	14.54	14.35	---	13.90	13.11	11.96	12.85	14.74	14.40	14.13
31	14.58	---	14.47	14.36	---	13.95	---	11.88	---	14.56	14.33	---
TOTAL	447.89	427.42	445.77	443.04	405.99	440.46	404.52	382.69	361.71	434.27	446.17	429.57
MEAN	14.45	14.25	14.38	14.29	14.50	14.21	13.48	12.34	12.06	14.01	14.39	14.32
MAX	14.87	14.90	14.60	14.51	14.71	14.58	13.98	13.12	12.85	14.74	14.61	14.58
MIN	13.95	13.52	14.06	14.08	14.19	13.90	13.11	11.88	11.48	13.02	14.25	14.13

e Estimated

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02277000 ST. LUCIE CANAL AT LOCK, NEAR STUART, FL

DOWNSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	2.40	1.13	2.38	0.72	1.39	-0.39	1.48	-0.40	0.69	-0.83	1.66	0.13
2	2.29	0.78	2.07	0.55	1.37	-0.40	1.47	-0.31	0.83	-0.70	1.63	-0.26
3	1.96	0.60	1.99	0.45	1.53	-0.29	e1.42	e-0.42	1.05	-0.37	1.04	-0.78
4	1.93	0.50	1.94	0.25	1.69	-0.18	e1.44	e-0.17	1.10	-0.36	0.67	-0.73
5	e1.82	e0.36	2.82	1.13	1.84	0.23	1.53	0.10	1.17	-0.31	0.97	-0.28
6	e1.76	e0.44	2.92	1.63	1.81	0.26	1.40	-0.54	1.18	-0.23	1.21	-0.41
7	e1.57	e0.20	e2.21	e0.87	1.40	0.00	0.71	-0.60	1.01	-0.44	0.97	-0.42
8	e2.20	e0.55	e1.88	e0.58	1.41	0.03	0.68	-0.73	0.81	-0.80	1.02	-0.41
9	e2.54	e1.32	e1.87	e0.31	1.33	-0.07	0.85	-0.69	1.25	-0.40	1.07	-0.29
10	2.10	0.62	1.77	0.18	1.43	-0.10	0.66	-0.89	1.16	-0.33	0.84	-0.57
11	1.96	0.54	1.88	0.40	1.49	-0.15	e0.53	e-1.03	0.96	-0.58	1.20	-0.43
12	1.77	0.20	1.92	0.39	e0.62	-0.77	e-1.07	-0.38	1.22	-0.38	1.15	-0.22
13	1.81	0.31	2.28	0.43	1.63	-0.11	e0.63	e-1.01	1.17	-0.35	0.92	-0.54
14	1.62	0.00	2.63	0.83	1.54	-0.13	e0.79	e-0.84	1.18	-0.25	0.87	-0.52
15	1.67	0.00	2.63	0.78	1.46	-0.33	0.42	-0.99	1.38	-0.02	0.85	-0.51
16	1.99	0.23	2.85	1.02	1.49	-0.31	0.77	-0.72	1.31	0.02	0.69	-0.65
17	2.54	0.65	2.94	1.09	1.48	-0.07	0.69	-0.72	1.34	0.09	0.64	-0.76
18	2.81	0.99	2.40	0.78	1.27	-0.33	0.48	-0.71	1.44	0.15	0.57	-0.86
19	2.37	0.77	1.93	0.36	1.43	-0.08	0.44	-0.75	1.33	-0.11	0.43	-0.81
20	2.12	0.43	1.77	0.11	1.36	-0.16	0.30	-0.86	1.24	-0.25	0.58	-0.79
21	1.94	0.36	1.68	0.22	1.50	0.10	0.21	-0.95	0.88	-0.63	0.48	-0.80
22	e1.91	e0.24	1.65	0.30	1.43	0.23	0.29	-0.91	1.01	-0.63	0.92	-0.47
23	e1.82	e0.35	1.53	0.26	1.26	0.02	0.59	-0.79	1.39	-0.29	1.30	-0.14
24	1.83	0.32	1.39	0.25	1.10	-0.06	0.50	-0.87	1.78	0.00	1.37	-0.17
25	1.62	0.22	1.22	0.06	1.35	-0.12	0.40	-0.95	2.08	0.45	1.26	-0.28
26	1.86	0.42	1.26	0.00	1.55	0.16	0.46	-1.18	1.85	0.15	1.12	-0.44
27	2.09	0.73	1.35	-0.05	1.56	-0.08	0.87	-0.96	1.73	0.04	1.23	-0.50
28	2.18	0.98	1.43	0.02	1.51	-0.16	1.05	-0.73	1.68	-0.07	1.57	-0.26
29	2.16	1.05	1.43	-0.11	1.22	-0.40	1.06	-0.69	---	---	1.48	-0.19
30	2.25	0.91	1.41	-0.31	1.21	-0.63	0.91	-0.75	---	---	1.48	-0.32
31	2.37	0.87	---	---	1.43	-0.48	0.83	-0.80	---	---	1.42	-0.38
MONTH	2.81	0.00	2.94	-0.31	1.84	-0.63	1.53	-1.18	2.08	-0.83	1.66	-0.86
DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.26	-0.49	1.00	-0.74	1.65	0.19	0.80	-0.43	1.09	-0.27	1.59	0.13
2	1.12	-0.41	0.86	-0.72	1.52	0.14	1.08	-0.27	1.52	0.13	1.86	0.20
3	1.17	-0.43	0.62	-0.89	1.32	0.09	1.06	-0.19	1.61	0.14	2.30	0.51
4	1.05	-0.39	0.39	-0.91	1.33	0.06	1.05	-0.37	1.52	0.00	2.28	0.64
5	1.19	-0.33	0.36	-0.90	1.50	0.20	1.04	-0.44	1.64	0.04	2.02	0.21
6	1.64	0.21	0.75	-0.54	1.53	0.18	1.28	-0.34	e1.72	e0.15	1.99	0.20
7	1.78	0.36	0.88	-0.27	1.70	-0.09	1.35	-0.24	2.13	0.39	1.97	0.38
8	1.45	0.26	0.81	-0.39	1.55	-0.04	1.56	-0.24	2.40	0.67	2.03	0.42
9	1.17	-0.15	0.62	-0.60	1.92	0.19	1.62	-0.10	2.42	0.52	2.20	0.45
10	0.85	-0.38	0.51	-0.82	2.04	0.41	1.62	-0.35	2.34	0.63	2.28	0.62
11	0.92	-0.43	0.62	-0.88	2.05	0.31	1.35	-0.36	2.27	0.65	1.96	0.39
12	1.14	-0.22	0.64	-0.79	1.96	0.00	1.35	-0.29	2.13	0.42	e1.74	e0.29
13	1.12	-0.30	0.71	-0.87	1.69	-0.12	1.39	-0.34	1.80	0.12	e1.53	e-0.04
14	1.16	-0.33	0.70	-0.79	1.55	-0.23	1.28	-0.33	1.71	0.04	e1.54	e0.06
15	1.14	-0.49	0.97	-0.32	1.46	-0.38	1.16	-0.16	1.48	-0.10	e1.22	e-0.20
16	0.99	-0.57	1.19	-0.57	1.17	-0.25	1.14	-0.19	1.36	-0.34	e1.19	e-0.23
17	0.96	-0.55	0.88	-0.65	1.28	-0.21	1.16	-0.17	1.20	-0.41	e1.22	e-0.22
18	0.95	-0.55	0.82	-0.75	1.45	0.00	1.37	-0.14	1.24	-0.45	1.45	-0.22
19	0.95	-0.47	0.70	-0.61	1.50	-0.02	1.30	-0.33	1.21	-0.53	1.58	0.00
20	1.01	-0.49	1.41	-0.55	1.60	-0.06	1.17	-0.48	1.25	-0.41	1.65	0.18
21	1.00	-0.49	1.83	0.24	1.54	-0.13	1.23	-0.52	1.29	-0.30	1.77	0.29
22	0.92	-0.53	2.13	0.59	1.47	-0.19	1.27	-0.39	1.31	-0.24	1.88	0.42
23	1.19	-0.37	2.45	0.98	1.30	-0.46	1.30	-0.38	1.38	-0.03	2.05	0.58
24	1.55	-0.10	2.08	0.46	1.32	-0.41	e1.30	e-0.29	1.47	0.00	2.10	0.59
25	1.43	-0.12	1.84	0.07	1.35	-0.49	1.23	-0.54	1.39	-0.16	1.95	0.60
26	1.18	-0.53	1.84	-0.09	1.24	-0.41	0.93	-0.61	1.11	-0.31	1.82	0.46
27	1.18	-0.55	1.78	-0.12	1.24	-0.48	0.81	-0.58	e1.27	e-0.10	1.57	0.11
28	1.29	-0.60	1.65	-0.13	1.11	-0.46	0.78	-0.55	e0.96	e-0.37	1.51	0.00
29	1.15	-0.66	1.70	0.11	0.93	-0.46	0.79	-0.44	1.05	-0.32	1.50	-0.02
30	1.14	-0.68	1.81	0.21	0.85	-0.46	0.83	-0.20	1.19	-0.22	1.86	0.34
31	---	---	1.77	0.27	---	---	0.86	-0.34	1.32	-0.13	---	---
MONTH	1.78	-0.68	2.45	-0.91	2.05	-0.49	1.62	-0.61	2.42	-0.53	2.30	-0.23
YEAR	2.94	-1.18										

e Estimated

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02277000 ST. LUCIE CANAL AT LOCK, NEAR STUART, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	35	363	35	35	35	35	35	35	35	35	1240	1430
2	35	e280	104	35	35	35	35	35	35	35	1490	1350
3	35	249	158	35	35	35	35	35	35	35	1470	960
4	35	126	35	35	35	35	35	35	35	35	1130	641
5	35	558	35	35	35	35	35	35	35	35	792	514
6	35	1770	35	35	35	35	35	35	35	35	e611	599
7	35	e759	35	35	35	35	35	35	35	35	399	377
8	35	e617	263	35	35	35	35	35	35	35	342	365
9	35	e648	141	35	35	35	35	35	35	35	135	384
10	35	627	67	35	35	35	35	35	35	35	84	1100
11	35	374	35	35	35	35	35	35	35	35	140	1720
12	35	518	35	35	186	35	35	35	35	35	144	e1760
13	35	316	35	35	35	35	35	35	35	35	393	e1360
14	35	462	35	35	120	35	35	35	35	35	570	e982
15	35	348	35	35	35	35	35	35	35	926	440	e775
16	35	156	68	35	35	35	35	35	35	1470	385	e548
17	35	225	35	35	90	35	35	35	35	1550	414	e484
18	35	273	35	35	94	35	35	35	35	1110	333	440
19	35	276	35	35	35	35	35	35	35	758	436	149
20	35	91	35	35	35	35	35	35	35	628	325	52
21	35	191	35	35	35	35	35	35	35	458	542	233
22	35	179	35	35	35	35	35	35	35	393	1030	320
23	35	134	35	35	35	35	35	35	35	121	1020	227
24	35	137	107	35	202	35	35	35	35	35	513	564
25	35	141	35	35	35	35	35	35	35	35	604	1120
26	35	104	35	35	35	35	35	35	35	35	356	1740
27	35	35	35	35	35	35	35	35	35	35	e520	1810
28	35	35	35	35	35	35	35	35	35	35	e407	1350
29	35	35	35	35	---	35	35	35	35	88	565	934
30	35	35	35	35	---	35	35	35	35	930	549	659
31	382	---	100	35	---	35	---	35	---	1090	1010	---
TOTAL	1432	10062	1813	1085	1497	1085	1050	1085	1050	10187	18389	24947
MEAN	46.2	335	58.5	35.0	53.5	35.0	35.0	35.0	35.0	329	593	832
MAX	382	1770	263	35	202	35	35	35	35	1550	1490	1810
MIN	35	35	35	35	35	35	35	35	35	35	84	52
AC-FT	2840	19960	3600	2150	2970	2150	2080	2150	2080	20210	36470	49480

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1953 - 2002, BY WATER YEAR (WY)

MEAN	1057	938	530	471	513	705	765	383	534	765	1122	881
MAX	9325	8315	8293	3445	5986	7453	6887	5322	5162	6598	6331	7711
(WY)	1954	1954	1954	1954	1958	1983	1970	1958	1954	1968	1959	1953
MIN	10.0	10.0	10.0	10.0	10.0	10.0	10.0	4.90	4.27	10.0	10.0	10.0
(WY)	1956	1955	1953	1953	1953	1953	1976	1976	1953	1955	1955	1955

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1953 - 2002
ANNUAL TOTAL	22862	73682	
ANNUAL MEAN	62.6	202	728
HIGHEST ANNUAL MEAN			4152
LOWEST ANNUAL MEAN			10.0
HIGHEST DAILY MEAN	1770	Nov 6	1810
LOWEST DAILY MEAN	35	Jan 1	35
ANNUAL SEVEN-DAY MINIMUM	35	Jan 1	35
ANNUAL RUNOFF (AC-FT)	45350		146100
10 PERCENT EXCEEDS	35		621
50 PERCENT EXCEEDS	35		35
90 PERCENT EXCEEDS	35		35
			2470
			527700
			25
			10

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

02277100 ST. LUCIE RIVER AT SPEEDY POINT, STUART, FL

LOCATION.--Lat 27°12'07", long 80°15'32", in SW 1/4 NW 1/4 NE 1/4, sec.5, T.38 S., R.41 E., Martin County, Hydrologic Unit 03090202, middle of Roosevelt Bridge, 2.7 mi west of Atlantic Ocean, 0.4 mi northwest of Stuart.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--

GAGE HEIGHT: August 1997 to current year.

SALINITY (TOP, BOTTOM): August 1997 to current year.

WATER TEMPERATURE (TOP, BOTTOM): August 1997 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and water-quality monitor with top and bottom sensors.

Prior to October 1, 2000, an acoustic doppler velocity meter. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Salinity (top) record rated excellent except for Oct. 29-30, Dec. 3-12, Jan. 7-29, Mar. 1-6, Apr. 9-23, May 1-6, May 12-15, Aug. 22-29, Sept. 2-8 which is rated good; Dec. 13-20, Jan. 30, Mar. 7-9, May 22-25, Sept. 9-13 which is rated fair; Dec. 21-27, Mar. 13-21, May 25-31, June 1-11, Sept. 14-25 which is rated poor. Record from Mar. 22-27, June 12-26 exceeded maximum allowable limits (30%) and was not published. Salinity (bottom) record rated excellent except for Oct. 1-4, 24-30, Nov. 5-15, Dec. 1-8, Mar. 1-5, Apr. 1-10, May 18-31, June 1-8, Aug. 25-29, which is rated good; Oct. 5-8, Nov. 16-23, Dec. 9-14, Mar. 6-9, Apr. 11-16, June 9-24, which is rated fair; Oct. 9-12, Nov. 24-27, Dec. 15-27, Mar. 13-20, June 26, which is rated poor. Data for period of Mar. 21-26 exceeded maximum allowable limits (30%) and was not published. Temperature (top and bottom) record rated excellent. No discharge was published due to the poor index rating caused by turbulent currents. Elevation of top salinity-temperature sensor -1.7 ft NGVD; bottom salinity-temperature sensor -9.2 ft NGVD.

EXTREMES FOR PERIOD OF RECORD.--

GAGE HEIGHT: Maximum gage height, 4.40 ft Oct. 16, 1999; minimum, -3.74 ft Nov. 20, 2001.

SALINITY (TOP): Maximum recorded, 32.3 ppt Feb. 24, 2002, but may have been higher during period of missing record; minimum recorded, 0.0 ppt Mar. 12, 1998, Nov. 3, 1999.

SALINITY (BOTTOM): Maximum recorded, 31.8 ppt Apr. 30, 2001, but may have been higher during period of missing record; minimum recorded, 0.1 ppt Apr. 14, 1998, Oct. 17-23, 1999, Aug. 6, 2001, but may have been lower during period of missing record.

WATER TEMPERATURE (TOP): Maximum recorded, 33.9°C July 16, 2002, but may have been higher during period of missing record; minimum recorded, 11.9°C Jan. 5, 2001, but may have been lower during periods of missing record.

WATER TEMPERATURE (BOTTOM): Maximum recorded, 33.7°C Aug. 2, 1998, but may have been higher during period of missing record; minimum recorded, 12.2°C Jan. 5, 2001, but may have been lower during periods of missing record.

EXTREMES FOR CURRENT YEAR.--

GAGE HEIGHT: Maximum gage height, 3.00 ft Nov. 6; minimum, -3.74 ft Nov. 20.

SALINITY (TOP): Maximum recorded, 32.3 ppt Feb. 24, but may have been higher during period of missing record; minimum recorded, 0.25 ppt Nov. 7, but may have been lower during period of missing record.

SALINITY (BOTTOM): Maximum recorded, 27.3 ppt Feb. 1, but may have been higher during period of missing record; minimum recorded, 0.29 ppt Nov. 8, but may have been lower during period of missing record.

WATER TEMPERATURE (TOP): Maximum recorded, 33.9°C July 16, but may have been higher during period of missing record; minimum recorded, 13.5°C Jan. 10, but may have been lower during periods of missing record.

WATER TEMPERATURE (BOTTOM): Maximum recorded, 32.7°C July 31, Aug. 1, but may have been higher during period of missing record; minimum recorded, 14.0°C Jan. 9, but may have been lower during periods of missing record.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.94	1.63	0.49	0.55	-0.09	0.88	0.38	0.18	0.91	0.26	0.41	---
2	1.69	1.52	0.41	0.60	---	0.67	0.41	0.11	0.83	0.49	0.75	0.95
3	1.44	1.37	0.57	0.51	---	0.12	0.42	-0.10	0.73	0.56	0.87	1.34
4	1.39	1.35	0.79	0.58	0.36	-0.04	0.38	-0.26	0.75	0.50	0.80	1.48
5	1.28	2.02	1.01	0.80	0.53	0.26	0.57	-0.18	0.92	0.38	0.83	1.28
6	1.09	2.23	1.02	0.54	0.47	0.44	1.01	0.18	0.90	0.51	1.00	1.13
7	0.90	1.62	0.79	0.08	0.17	0.26	1.08	0.32	0.76	0.60	1.26	1.21
8	1.39	1.26	0.76	0.05	0.11	0.37	0.88	---	0.76	0.68	1.49	1.24
9	1.97	1.08	0.68	0.06	0.42	0.30	0.60	0.09	0.90	0.77	1.56	1.35
10	1.66	0.91	0.75	-0.11	0.37	---	0.28	-0.14	1.21	0.63	1.51	1.40
11	1.54	0.86	0.77	-0.25	0.23	---	0.23	-0.15	1.18	0.47	1.49	1.12
12	1.29	0.80	0.82	-0.19	---	---	0.50	-0.06	0.99	0.51	1.28	0.99
13	1.30	0.76	0.83	-0.17	---	0.25	0.46	-0.08	0.82	0.53	1.04	0.72
14	1.12	0.76	0.71	-0.03	0.46	0.20	0.46	-0.12	0.72	0.50	0.90	0.79
15	1.04	1.52	0.58	-0.23	0.68	0.14	0.32	0.27	0.61	0.43	0.84	0.55
16	1.35	2.00	0.68	-0.02	0.66	0.02	0.23	---	0.52	0.44	0.64	0.42
17	1.72	1.98	0.69	-0.05	0.68	-0.08	0.23	---	0.64	0.46	0.48	0.43
18	1.96	1.76	0.51	-0.12	0.76	-0.17	0.21	0.04	0.79	0.57	0.43	0.54
19	1.75	1.76	0.67	-0.12	---	-0.24	0.28	0.03	0.80	0.54	0.40	0.75
20	1.51	1.39	0.60	-0.26	0.57	-0.08	0.28	0.51	0.85	0.40	0.47	0.91
21	1.40	0.97	0.79	-0.29	---	-0.15	0.30	1.03	0.84	0.34	0.49	1.00
22	1.27	0.97	0.87	-0.20	0.24	0.22	0.31	1.22	0.73	0.44	0.51	1.17
23	1.31	0.94	0.80	-0.04	0.68	0.62	0.49	1.61	0.55	0.47	0.64	1.29
24	1.28	0.85	0.54	-0.11	1.07	0.59	0.75	1.41	0.47	0.47	0.74	1.31
25	1.16	0.67	0.73	-0.30	---	0.46	0.73	0.97	0.44	0.35	0.60	1.19
26	1.22	0.67	0.83	-0.28	---	0.36	0.37	0.82	0.40	0.17	0.41	1.01
27	1.53	0.76	0.77	0.04	0.82	0.41	0.34	0.80	0.39	0.14	0.40	0.73
28	1.73	0.74	0.66	0.19	0.76	0.66	0.36	0.73	0.34	0.15	---	0.67
29	1.75	0.67	0.41	---	---	0.73	0.25	0.93	0.25	0.21	---	0.72
30	1.75	0.54	0.32	0.04	---	0.62	0.24	1.01	0.22	0.24	0.52	1.05
31	1.71	---	0.48	-0.02	---	0.53	---	1.00	---	0.28	0.54	---
TOTAL	45.44	36.36	21.33	---	---	---	13.35	---	21.22	13.49	---	---
MEAN	1.47	1.21	0.69	---	---	---	0.45	---	0.71	0.44	---	---
MAX	1.97	2.23	1.02	---	---	---	1.08	---	1.21	0.77	---	---
MIN	0.90	0.54	0.32	---	---	---	0.21	---	0.22	0.14	---	---

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02277100 ST. LUCIE RIVER AT SPEEDY POINT, STUART, FL

 TOP  
 SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	3.5	8.7	18.4	20.2	16.6	18.1	---	19.1	4.1	2.7	---
2	4.6	2.9	8.7	18.6	---	16.5	18.5	---	18.8	3.4	3.0	4.7
3	4.5	2.2	9.3	19.0	---	15.6	18.4	---	18.7	2.9	3.1	5.6
4	4.6	1.9	10.5	19.6	21.2	16.5	18.3	---	18.9	2.7	3.1	5.1
5	4.7	1.6	11.7	19.4	23.0	17.3	18.5	---	19.2	2.8	3.5	4.9
6	5.0	0.7	11.6	18.6	22.7	18.2	19.3	---	18.9	3.6	4.3	4.4
7	5.7	0.5	10.5	18.8	22.2	16.8	19.8	---	18.8	4.4	6.2	4.0
8	7.1	0.6	10.7	18.9	23.6	16.7	19.4	---	18.6	4.0	7.9	3.5
9	8.6	0.8	11.0	18.5	25.2	16.3	18.7	22.5	19.1	3.1	7.9	3.8
10	7.5	1.5	10.8	17.8	24.9	---	18.3	22.7	19.2	2.1	9.0	4.7
11	6.8	2.9	10.0	18.0	---	---	18.5	22.7	19.4	1.3	8.7	4.3
12	5.9	3.9	10.2	18.3	---	---	18.3	23.3	---	1.3	8.0	3.9
13	6.2	4.9	10.2	18.8	---	16.2	17.7	23.2	---	1.5	7.4	3.4
14	6.2	5.0	10.4	19.2	---	16.6	17.4	22.9	---	2.3	6.7	2.8
15	6.9	6.5	10.8	19.0	---	16.5	17.1	24.3	---	3.1	5.6	2.6
16	8.1	7.7	11.1	19.2	---	16.7	17.0	---	---	2.8	5.0	3.1
17	9.5	7.9	11.1	18.5	---	16.8	16.9	---	---	2.7	4.5	3.7
18	9.9	6.7	10.8	18.1	---	16.9	16.9	---	---	3.0	4.7	4.5
19	8.9	6.3	10.7	18.3	---	17.0	16.8	---	---	2.9	5.1	5.8
20	8.6	6.9	11.5	18.2	---	17.1	16.8	---	---	3.2	5.5	6.9
21	8.7	7.6	12.8	18.1	---	17.1	16.8	---	---	3.5	5.3	7.3
22	7.7	7.7	12.9	18.2	---	---	17.4	21.6	---	3.7	4.7	7.9
23	5.6	8.5	12.7	18.2	---	---	18.0	22.4	---	---	3.5	8.1
24	5.2	8.3	12.8	17.9	---	---	---	22.7	---	2.2	3.6	7.4
25	5.0	7.8	14.0	17.8	---	---	---	21.5	---	2.0	4.1	6.4
26	4.4	7.6	15.4	17.6	---	---	---	20.7	---	1.8	4.3	4.1
27	4.8	7.8	16.8	18.2	17.1	---	---	20.4	5.8	1.7	5.1	2.3
28	5.5	8.0	16.1	18.3	17.0	18.5	---	20.1	5.3	2.3	5.0	1.8
29	4.8	8.1	16.8	19.0	---	18.8	---	19.5	4.5	2.9	5.4	1.8
30	4.6	8.2	17.0	19.7	---	18.7	---	19.6	4.4	3.0	5.4	2.5
31	4.2	---	17.5	20.0	---	18.4	---	19.3	---	2.8	4.5	---
TOTAL	194.1	154.5	375.1	576.2	---	---	---	---	---	---	162.8	---
MEAN	6.3	5.2	12.1	18.6	---	---	---	---	---	---	5.3	---
MAX	9.9	8.5	17.5	20.0	---	---	---	---	---	---	9.0	---
MIN	4.2	0.5	8.7	17.6	---	---	---	---	---	---	2.7	---

 TOP  
 TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.8	22.0	23.6	19.3	25.0	18.5	26.4	---	28.9	28.3	31.6	---
2	25.5	22.8	23.8	19.1	---	19.3	26.3	---	29.6	28.3	31.5	30.5
3	25.7	23.5	23.9	18.6	---	21.1	26.2	---	30.2	28.3	30.9	30.6
4	26.1	23.4	23.8	16.4	24.0	21.0	26.0	---	30.6	28.7	30.6	30.4
5	26.7	22.7	23.5	15.4	21.8	18.8	25.9	---	30.4	29.3	30.5	30.1
6	27.6	22.3	23.6	16.1	21.0	18.2	25.0	---	30.3	29.1	30.6	29.9
7	28.2	22.3	23.9	16.4	21.4	18.6	23.9	---	29.9	29.2	30.1	29.7
8	27.9	22.3	24.3	15.3	21.0	19.9	23.0	---	29.3	28.9	29.8	29.5
9	26.5	22.5	24.6	14.5	20.6	21.4	23.0	28.8	29.1	28.1	29.9	30.0
10	25.7	22.5	24.7	14.7	21.0	---	23.5	28.8	29.1	27.7	29.5	30.3
11	25.5	22.8	24.7	15.6	21.0	---	23.9	28.5	29.3	27.9	29.0	29.4
12	25.7	22.7	24.9	16.7	---	---	23.9	28.1	29.3	27.9	29.0	28.7
13	25.8	22.6	24.7	17.4	---	23.5	24.1	28.1	28.9	28.1	29.4	28.6
14	26.1	22.9	24.7	18.1	20.9	23.7	24.4	28.2	29.0	29.0	29.5	28.9
15	26.7	22.6	24.7	18.7	20.8	24.5	24.9	27.4	28.3	29.7	29.9	29.4
16	27.1	22.2	24.7	18.7	21.2	25.2	25.6	---	27.9	30.7	30.1	29.9
17	26.6	22.4	24.3	19.4	20.8	25.6	26.2	---	27.9	30.7	30.6	30.3
18	25.4	22.7	23.9	20.4	20.0	25.9	26.8	28.0	28.3	30.7	31.1	30.6
19	25.5	22.8	23.2	20.8	---	25.9	27.0	27.7	28.7	30.5	31.4	30.7
20	26.1	23.1	22.3	21.5	19.8	25.6	27.3	27.1	28.6	30.3	31.2	30.4
21	26.3	23.1	21.2	22.4	20.5	25.8	27.7	27.1	28.1	30.0	30.6	30.4
22	26.1	23.2	20.7	23.1	21.1	25.7	28.0	26.6	27.9	29.5	30.6	30.3
23	26.3	23.3	20.5	23.5	21.0	24.5	28.3	26.1	27.8	---	30.6	29.8
24	26.8	23.3	20.8	23.5	20.0	24.2	---	25.8	27.7	29.8	30.6	29.5
25	27.2	23.4	20.9	23.6	---	24.7	---	25.7	27.5	30.1	30.6	29.3
26	26.6	23.7	19.9	24.0	---	25.5	---	25.9	27.9	30.2	30.5	29.3
27	24.4	23.5	18.2	24.4	20.4	26.1	---	26.4	28.4	30.2	29.9	29.4
28	22.3	23.2	18.2	24.7	18.8	26.2	---	26.8	28.6	30.5	29.3	29.6
29	21.3	23.1	19.1	24.8	---	25.9	---	27.8	28.6	31.0	29.5	30.1
30	21.1	23.4	19.2	24.8	---	26.0	---	28.5	28.9	31.3	29.8	29.9
31	21.3	---	19.4	24.7	---	26.2	---	28.8	---	31.5	30.2	---
TOTAL	795.9	686.3	699.9	616.6	---	---	---	---	865.0	---	938.4	---
MEAN	25.7	22.9	22.6	19.9	---	---	---	---	28.8	---	30.3	---
MAX	28.2	23.7	24.9	24.8	---	---	---	---	30.6	---	31.6	---
MIN	21.1	22.0	18.2	14.5	---	---	---	---	27.5	---	29.0	---

02277100 ST. LUCIE RIVER AT SPEEDY POINT, STUART, FL

BOTTOM  
SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.2	3.6	9.7	18.3	24.7	20.6	20.0	---	18.4	4.8	4.0	---
2	12.0	2.9	10.6	18.6	---	19.9	20.8	---	18.3	4.6	4.6	7.1
3	10.7	2.3	11.3	18.8	---	18.4	21.0	---	18.9	4.0	5.6	9.0
4	8.8	2.0	11.4	18.9	23.6	18.3	20.9	---	19.3	3.6	5.4	8.3
5	10.1	1.8	12.1	19.8	23.6	19.8	21.8	---	19.5	3.2	5.7	6.6
6	12.5	1.5	12.0	19.1	23.8	20.2	22.8	---	19.2	5.0	7.1	5.3
7	12.7	0.8	11.2	18.6	---	19.0	23.3	---	21.0	6.1	10.1	4.2
8	13.4	0.8	11.7	18.5	---	19.3	22.5	---	21.3	4.9	11.3	3.7
9	14.2	1.2	12.3	18.7	---	18.4	21.9	23.1	20.9	3.8	11.2	5.1
10	11.7	2.4	12.3	18.6	---	---	21.4	22.5	20.9	2.4	10.1	6.9
11	10	5.5	11.7	18.6	---	---	21.9	22.2	20.1	1.3	10.2	6.4
12	8.4	7.4	11.1	19.0	---	---	21.5	21.9	19.9	1.3	9.0	5.4
13	9.0	8.0	11.0	19.3	---	17.1	21.1	21.8	19.5	1.4	8.0	4.1
14	10.7	9.8	12.0	19.9	---	17.0	20.9	21.5	18.8	2.2	7.0	3.1
15	11.9	11.0	12.2	19.7	---	17.1	20.6	22.0	18.4	3.2	5.9	3.0
16	14.9	12.1	12.2	19.9	---	16.9	20.4	---	17.8	2.7	5.1	3.7
17	15.7	11.8	12.6	20.0	---	16.7	20.0	---	17.4	3.1	4.7	4.7
18	14.8	9.5	13.7	19.4	---	16.7	---	20.9	16.4	4.7	5.7	6.4
19	13.4	10.7	15.6	18.6	---	16.7	---	20.6	15.5	4.4	6.5	7.6
20	13.6	13.1	15.8	18.5	---	16.9	---	21.1	14.8	4.3	7.4	8.3
21	13.6	16.3	15.7	18.8	---	---	---	21.1	14.2	4.8	7.1	9.1
22	12.0	14.7	15.2	18.5	---	---	---	20.6	13.0	5.4	5.8	9.7
23	11.0	13.1	14.4	19.3	---	---	---	21.3	10.8	---	4.7	9.9
24	10.2	11.8	16.1	19.6	---	---	---	20.8	9.1	2.9	5.1	---
25	9.7	10.2	16.8	18.9	---	---	---	19.6	---	2.5	5.6	7.2
26	7.8	9.2	17.6	18.5	---	---	---	19.5	9.6	2.0	5.8	4.5
27	9.9	8.5	18.1	20.0	19.8	---	---	18.6	7.5	2.0	6.0	2.6
28	9.7	8.7	18.2	21.0	19.9	19.7	---	19.3	6.5	2.9	6.4	2.1
29	5.8	8.8	17.4	---	---	19.8	---	20.2	5.5	3.8	6.7	2.2
30	4.8	9.1	17.3	---	---	19.6	---	19.9	5.1	4.3	5.9	2.9
31	4.3	---	18.4	23.9	---	19.7	---	18.5	---	3.9	5.1	---
TOTAL	339.5	228.6	427.7	---	---	---	---	---	---	---	208.8	---
MEAN	11.0	7.6	13.8	---	---	---	---	---	---	---	6.7	---
MAX	15.7	16.3	18.4	---	---	---	---	---	---	---	11.3	---
MIN	4.3	0.8	9.7	---	---	---	---	---	---	---	4.0	---

BOTTOM  
TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.1	22.0	23.6	19.4	25.0	18.4	26.2	28.7	28.9	28.3	31.5	---
2	25.7	22.8	23.9	19.3	---	19.2	26.3	28.9	29.5	28.3	31.4	30.6
3	25.8	23.5	24.0	18.8	---	20.9	26.2	29.1	30.2	28.3	31.0	30.5
4	26.1	23.4	23.9	16.6	24.3	21.0	26.0	29.3	30.6	28.6	30.7	30.4
5	26.6	22.7	23.6	15.6	22.0	18.9	25.9	29.5	30.4	29.2	30.5	30.2
6	27.4	22.4	23.6	16.3	21.1	18.2	25.0	29.5	30.2	29.1	30.5	29.9
7	28.1	22.3	24.0	16.5	21.4	18.5	23.9	29.4	30.0	29.2	30.1	29.6
8	27.9	22.4	24.4	15.4	21.1	19.7	22.9	---	29.4	28.9	29.8	29.4
9	26.6	22.5	24.7	14.7	20.7	21.1	22.9	28.8	29.1	28.2	29.8	29.8
10	25.8	22.6	24.9	14.8	21.0	---	23.4	28.7	29.0	27.7	29.4	30.1
11	25.6	23.0	24.9	15.6	21.1	---	23.8	28.4	29.3	27.8	29.0	29.5
12	25.7	23.0	24.9	16.6	---	---	23.9	28.1	29.2	27.8	29.0	28.8
13	25.8	22.9	24.7	17.4	---	23.5	24.0	28.1	28.9	28.0	29.4	28.6
14	26.2	23.1	24.8	18.1	21.0	23.6	24.3	28.2	29.0	28.8	29.6	28.8
15	26.7	22.9	24.7	18.7	20.9	24.3	24.8	27.4	28.3	29.5	29.9	29.4
16	27.1	22.4	24.7	18.8	21.3	25.1	25.5	---	27.9	30.3	30.1	29.8
17	26.7	22.5	24.4	19.5	21.0	25.5	26.2	---	27.9	30.5	30.5	30.2
18	25.5	22.8	24.0	20.4	20.2	25.8	26.7	27.9	28.3	30.7	31.2	30.6
19	25.5	22.8	23.6	20.8	---	25.9	27.0	27.8	28.7	30.5	31.4	30.6
20	26.2	23.1	22.9	21.6	---	25.6	27.3	27.2	28.7	30.3	31.2	30.4
21	26.4	23.2	21.8	22.4	---	25.7	27.7	27.1	28.1	30.0	30.7	30.3
22	26.2	23.4	21.1	23.2	---	25.7	28.0	26.6	27.9	29.5	30.5	30.2
23	26.2	23.5	20.6	23.6	---	24.5	28.2	26.1	27.8	---	30.5	29.8
24	26.7	23.5	20.9	23.7	---	24.2	28.2	25.7	27.7	29.7	30.5	29.6
25	27.1	23.4	21.1	23.7	---	24.6	27.5	25.6	27.5	30.0	30.5	29.3
26	26.7	23.8	20.4	24.0	---	25.4	27.5	25.8	27.7	30.2	30.4	29.2
27	25.0	23.5	18.8	24.4	20.5	25.9	27.7	26.4	28.3	30.2	29.9	29.3
28	22.8	23.2	18.6	24.7	18.8	26.1	27.8	26.8	28.5	30.4	29.5	29.6
29	21.4	23.1	19.1	24.9	---	25.9	27.8	27.4	28.6	30.9	29.5	30.1
30	21.2	23.4	19.3	---	---	25.9	28.3	28.4	28.9	31.2	29.8	29.9
31	21.3	---	19.6	24.8	---	26.1	---	28.8	---	31.4	30.2	---
TOTAL	798.1	689.1	705.5	---	---	---	780.9	---	864.5	---	938.0	---
MEAN	25.7	23.0	22.8	---	---	---	26.0	---	28.8	---	30.3	---
MAX	28.1	23.8	24.9	---	---	---	28.3	---	30.6	---	31.5	---
MIN	21.2	22.0	18.6	---	---	---	22.9	---	27.5	---	29.0	---

02277110 ST. LUCIE ESTUARY AT A1A (STEELE PT), STUART, FL

LOCATION.--Lat 27°11'58", long 80°12'25", in NW 1/4 SE 1/4 NE 1/4, sec.2, T.38 S., R.41 E., Martin County, Hydrologic Unit 03090202, middle of Evans Crary Sr. Bridge footing, 2.7 mi west of Atlantic Ocean, 3.4 mi southeast of Stuart.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--

DISCHARGE: August 1997 to September 2000.

GAGE HEIGHT: August 1997 to current year.

SALINITY (TOP, BOTTOM): August 1997 to current year.

WATER TEMPERATURE (TOP, BOTTOM): August 1997 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and water-quality monitor with top and bottom sensors. Prior to October 1, 2000, an acoustic doppler velocity meter. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Salinity (top) record rated excellent except the following periods: Oct. 6-28, Nov. 11, 15-25, Dec. 7-10, 16-26, Jan. 6-28, Feb. 10-12, 15-26, Mar. 3-5, 8-10, 12, Apr. 6-11, Sept. 7-24 which is rated good; Oct. 29, Nov. 26, Jan. 29, Mar. 16-17, which is rated fair; Mar. 21 rated poor. Salinity (bottom) record rated excellent except the following periods: Oct. 6-28, Feb. 7, 10-12, 15-25, 27, 28, Mar. 28, May 18, 20-25, 28, 29, Aug. 7-17 which is rated good; Oct. 29, Feb. 26, Mar. 2, 3, 29-31, Apr. 1, 2, June 2-5, 7-10, 12, Aug. 18-24 which is rated fair; Mar. 4, 5, 8-10, 12, Apr. 3-16, June 13, Aug. 25-28 which is rated poor. Data for periods of Mar. 16-19, Apr. 18 - May 5 exceeded maximum allowable limits (30%) and was not published. Temperatures (top and bottom) records rated excellent. Elevation of the top salinity-temperature probe -1.8 ft NGVD, bottom salinity-temperature probe -7.0 ft NGVD.

EXTREMES FOR PERIOD OF RECORD.--

DISCHARGE: Maximum discharge, 48,885 ft<sup>3</sup>/s Aug. 31, 1997; minimum, -44,589 ft<sup>3</sup>/s July 24, 2000.

GAGE HEIGHT: Maximum gage height, 3.71 ft Sept. 15, 1999; minimum, -1.21 ft Apr. 28, 1998.

SALINITY (TOP): Maximum recorded, 36 ppt Oct. 15, 1998, Mar. 28, 1999, Mar. 28, 29, Apr. 17, 18, 2001, Mar. 28, 2002, but may have been higher during period of missing record; minimum recorded, 0.01 ppt Apr. 7, 1998.

SALINITY (BOTTOM): Maximum recorded, 38 ppt Mar. 22, 1999, Mar. 11, 31, 2002, but may have been higher during period of missing record; minimum, 0.0 ppt Mar. 20, 21, 26, Apr. 1, 1998.

WATER TEMPERATURE (TOP): Maximum recorded, 33.8°C Aug. 18, 1998, but may have been higher during period of missing record; minimum recorded, 12.2°C Jan. 5, 2001, but may have been lower during periods of missing record.

WATER TEMPERATURE (BOTTOM): Maximum recorded, 33.4°C Sept. 1, 1998, but may have been higher during period of missing record; minimum recorded, 12.7°C Jan. 5, 2001, but may have been lower during periods of missing record.

EXTREMES FOR CURRENT YEAR.--

GAGE HEIGHT: Maximum gage height, 2.76 ft Nov. 6; minimum, -0.91 ft Jan. 12.

SALINITY (TOP): Maximum recorded, 36 ppt Mar. 28, but may have been higher during period of missing record; minimum recorded, 0.8 ppt Nov. 7, but may have been lower during period of missing record.

SALINITY (BOTTOM): Maximum recorded, 38 ppt Mar. 11, 31, but may have been higher during period of missing record; minimum recorded, 1.3 ppt Nov. 7, but may have been lower during period of missing record.

WATER TEMPERATURE (TOP): Maximum recorded, 33.0°C Aug. 19, but may have been higher during period of missing record; minimum recorded, 14.2°C Jan. 10, but may have been lower during periods of missing record.

WATER TEMPERATURE (BOTTOM): Maximum recorded, 32.1°C Aug. 20, but may have been higher during period of missing record; minimum recorded, 14.9°C Jan. 9, but may have been lower during periods of missing record.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.75	1.36	0.35	0.45	-0.20	---	0.26	0.07	0.78	0.06	---	0.55
2	1.49	1.22	0.35	0.46	-0.08	0.47	0.29	0.00	0.70	0.28	---	---
3	1.24	1.10	0.47	0.45	0.22	0.00	0.30	-0.24	0.62	0.36	0.64	---
4	1.17	1.08	0.57	0.51	---	-0.09	0.26	-0.36	0.63	0.30	0.58	---
5	1.08	1.77	0.75	0.69	0.41	0.17	0.47	-0.27	0.77	0.17	0.61	---
6	0.89	2.00	0.75	0.42	0.34	---	0.86	0.05	---	0.31	0.79	---
7	0.72	1.41	0.55	0.01	0.09	---	0.87	0.17	0.67	0.37	1.05	0.94
8	1.14	1.06	0.56	-0.02	---	0.25	0.66	0.11	0.66	0.44	1.26	1.00
9	1.62	0.91	0.50	-0.04	---	0.18	0.42	-0.05	0.78	0.54	1.29	1.13
10	1.37	0.87	0.55	-0.22	0.24	0.04	0.14	-0.28	---	0.39	1.23	1.18
11	1.26	1.06	---	-0.35	0.14	---	0.09	-0.30	---	0.25	1.23	0.92
12	1.06	---	---	-0.28	0.28	0.31	0.32	-0.20	0.92	0.29	1.02	0.78
13	1.08	---	---	-0.26	---	---	0.31	-0.18	0.69	0.32	0.78	0.51
14	0.91	---	---	-0.14	---	---	0.32	-0.17	0.61	0.29	0.68	0.57
15	0.85	1.68	---	-0.32	0.55	---	0.18	---	0.51	0.20	0.58	0.36
16	1.16	1.81	0.33	-0.13	0.56	-0.11	0.08	---	0.41	0.21	0.38	0.23
17	1.52	1.77	0.36	-0.19	0.58	-0.20	0.07	---	0.53	0.25	0.24	0.25
18	1.70	1.37	0.23	-0.22	0.62	-0.31	0.06	-0.05	0.64	0.35	0.20	0.35
19	1.50	1.00	0.38	-0.24	0.49	-0.35	0.13	---	0.66	0.32	0.18	0.57
20	1.29	0.86	0.30	-0.37	0.42	-0.19	0.14	0.50	0.70	0.19	0.25	0.69
21	1.17	0.82	0.45	-0.40	0.09	-0.23	0.17	0.99	0.70	0.13	0.25	0.81
22	1.05	0.84	0.48	-0.32	0.15	---	0.18	1.19	0.57	0.21	0.26	0.96
23	1.11	0.76	0.41	-0.18	0.59	---	0.38	---	0.41	0.24	0.40	1.09
24	1.09	0.68	0.22	-0.23	1.00	---	0.60	1.22	0.32	0.24	0.50	1.10
25	0.97	0.51	0.41	-0.41	1.09	---	0.58	0.87	0.29	0.11	0.37	0.95
26	1.03	0.50	---	-0.36	0.90	---	0.25	---	0.21	-0.07	0.19	0.79
27	1.35	0.58	---	-0.05	0.74	0.31	0.22	---	0.19	-0.07	0.18	0.57
28	1.51	0.56	0.55	0.08	0.67	0.55	0.21	0.59	0.13	-0.07	0.18	0.53
29	1.50	0.49	0.31	0.04	---	0.58	0.13	0.79	0.04	0.0	0.19	0.58
30	1.51	0.38	0.22	-0.08	---	0.47	0.11	---	0.03	0.02	0.30	0.88
31	1.46	---	0.38	---	---	0.39	---	---	---	---	0.34	---
TOTAL	38.55	---	---	---	---	---	9.06	---	---	---	---	---
MEAN	1.24	---	---	---	---	---	0.30	---	---	---	---	---
MAX	1.75	---	---	---	---	---	0.87	---	---	---	---	---
MIN	0.72	---	---	---	---	---	0.06	---	---	---	---	---





## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02277110 ST. LUCIE ESTUARY AT A1A (STEELE PT), STUART, FL

BOTTOM  
SALINITY (PARTS PER THOUSAND), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.2	19.3	24.2	28.9	29.5	---	30.9	---	---	14.8	---	19.8
2	18.7	17.9	24.2	28.0	30.3	29.7	30.8	---	29.3	15.3	---	---
3	19.0	18.2	25.1	28.1	31.1	27.1	31.7	---	28.2	14.7	18.6	---
4	19.2	20.8	25.7	28.5	---	27.7	31.8	---	27.9	12.6	17.9	---
5	19.8	21.2	26.8	29.2	31.2	31.2	32.7	---	26.5	13.3	18.5	---
6	19.8	15.2	26.7	27.7	30.9	---	34.0	---	---	17.3	21.5	---
7	20.3	10.1	25.1	26.4	29.6	---	34.4	31.9	23.3	17.7	22.8	14.4
8	23.2	13.4	24.6	27.4	---	33.1	33.6	31.6	21.8	15.5	24.0	15.5
9	24.2	15.4	24.0	27.9	---	32.5	32.0	31.1	22.2	14.0	24.4	18.7
10	22.2	17.6	23.6	27.5	30.2	31.4	30.9	30.2	23.3	11.6	24.5	19.5
11	21.6	20.3	---	27.3	29.2	---	30.4	28.4	---	9.6	23.7	15.1
12	21.1	---	---	27.6	29.3	33.0	30.8	28.3	23.9	12.5	21.0	14.1
13	21.7	---	---	27.6	---	---	30.1	28.6	27.7	11.6	19.2	11.8
14	21.4	---	---	27.9	---	---	29.2	---	29.2	15.0	18.2	13.4
15	22.4	19.5	---	26.5	30.1	---	27.9	---	28.4	13.8	16.9	14.4
16	23.8	21.2	26.4	27.8	30.5	---	27.2	---	28.0	13.1	16.4	16.1
17	25.3	22.4	26.2	27.5	29.7	---	---	---	27.5	12.9	17.6	18.2
18	25.6	21.4	25.9	27.1	30.6	---	---	31.3	26.9	14.7	18.3	19.0
19	24.3	20.9	26.0	27.0	30.4	---	---	---	26.8	12.4	18.9	20.9
20	23.1	21.1	25.9	27.1	29.8	---	---	31.7	26.1	13.1	19.6	22.4
21	22.5	21.4	26.6	27.5	28.6	---	---	32.7	25.5	14.6	18.6	22.9
22	20.1	21.5	27.7	28.2	29.8	---	---	32.9	23.2	14.6	16.7	23.8
23	18.7	20.6	27.1	28.4	29.7	---	---	33.7	21.4	---	17.0	23.7
24	19.8	19.1	26.8	28.5	30.7	---	---	32.2	20.8	---	18.0	22.0
25	19.7	18.7	27.6	27.7	30.8	---	---	31.8	18.6	---	16.6	16.1
26	19.2	20.2	---	28.6	29.2	---	---	---	17.5	13.0	16.7	10.6
27	18.9	22.2	28.1	30.2	27.4	31.6	---	---	16.5	15.7	18.1	11.1
28	19.5	23.4	27.6	30.6	28.8	32.9	---	31.2	16.2	---	18.2	15.0
29	20.3	23.4	26.7	30.5	---	32.8	---	31.7	14.7	---	19.0	17.5
30	21.5	23.1	27.4	30.3	---	32.0	---	---	14.9	---	18.6	19.7
31	20.9	---	28.5	---	---	31.4	---	---	---	---	18.1	---
TOTAL	657.0	---	---	---	---	---	---	---	---	---	---	---
MEAN	21.2	---	---	---	---	---	---	---	---	---	---	---
MAX	25.6	---	---	---	---	---	---	---	---	---	---	---
MIN	18.7	---	---	---	---	---	---	---	---	---	---	---

BOTTOM  
TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26.1	22.0	23.9	20.8	24.9	---	26.0	27.7	28.4	28.2	---	29.6
2	25.7	22.8	24.1	20.3	24.9	19.7	25.9	28.0	29.1	27.6	---	---
3	25.7	23.5	24.2	19.8	24.6	21.1	25.6	28.4	29.6	27.8	30.4	---
4	26.0	23.9	24.2	17.1	---	21.4	25.4	28.6	30.0	28.1	30.2	---
5	26.5	23.5	23.9	15.9	21.8	19.4	25.6	28.8	29.7	28.4	29.9	---
6	27.1	22.8	23.8	16.7	21.0	---	24.9	28.6	---	28.2	29.7	---
7	27.6	22.5	24.0	17.2	21.4	---	23.9	28.7	29.6	28.4	29.5	29.5
8	27.6	22.7	24.4	16.4	---	20.1	23.0	28.7	29.1	28.5	29.3	29.4
9	26.5	23.2	24.6	15.9	---	21.4	23.1	28.6	28.8	28.0	29.4	29.7
10	25.8	23.6	24.8	16.0	21.3	22.8	23.8	28.6	---	27.7	29.2	30.0
11	25.5	24.0	---	16.7	21.4	---	24.4	28.4	---	27.8	29.0	29.6
12	25.6	---	---	17.9	21.4	23.6	24.5	28.1	---	27.6	28.8	29.0
13	25.8	---	---	18.7	---	---	24.5	28.0	28.7	27.6	29.3	28.6
14	26.1	---	---	19.4	---	---	24.7	---	28.7	27.3	29.5	28.8
15	26.7	23.3	---	19.7	21.1	---	25.0	---	28.1	27.8	29.9	29.2
16	27.2	22.6	24.9	19.9	21.5	25.1	25.8	---	27.5	28.5	30.2	29.4
17	26.8	22.6	24.5	20.4	20.9	25.5	26.3	---	27.4	29.2	30.4	29.5
18	25.7	22.7	24.1	21.1	20.0	25.7	26.6	27.7	27.7	29.3	30.5	29.8
19	25.5	22.7	23.7	21.4	19.6	25.7	26.8	---	28.2	29.5	30.6	29.9
20	26.0	22.8	23.1	21.9	19.7	25.4	27.1	26.5	28.1	29.0	30.7	29.9
21	26.3	23.0	21.6	22.6	20.2	25.2	27.4	26.6	27.7	28.5	30.5	29.9
22	26.2	23.3	21.3	23.2	21.2	---	27.5	26.2	27.5	28.2	30.3	29.8
23	26.2	23.5	20.8	23.6	21.4	---	27.2	---	27.4	---	30.2	29.5
24	26.5	23.5	20.9	23.8	20.5	---	27.1	25.6	27.3	28.4	30.0	29.3
25	26.8	23.4	21.7	23.8	20.3	---	26.8	25.4	27.0	29.1	30.2	29.4
26	26.6	23.7	---	24.1	20.9	---	26.9	---	27.3	29.5	30.0	29.2
27	24.7	23.7	19.1	24.3	20.9	25.5	27.1	---	28.1	29.2	29.4	29.2
28	22.5	23.7	18.9	24.5	19.3	25.5	27.0	26.9	28.2	---	28.6	28.8
29	21.7	23.7	19.6	24.7	---	25.5	27.0	27.3	28.5	---	28.2	28.8
30	21.5	23.7	20.2	24.8	---	25.7	27.4	---	28.6	---	28.7	29.0
31	21.5	---	20.7	---	---	26.0	---	---	---	---	29.2	---
TOTAL	796.0	---	---	---	---	---	774.3	---	---	---	---	---
MEAN	25.7	---	---	---	---	---	25.8	---	---	---	---	---
MAX	27.6	---	---	---	---	---	27.5	---	---	---	---	---
MIN	21.5	---	---	---	---	---	23.0	---	---	---	---	---

EVERGLADES AND SOUTHEASTERN COASTAL AREA

270022080094600 KITCHINGS CREEK NEAR HOBE SOUND, FL

LOCATION.--Lat 27°00'57", long 80°09'10", in SE 1/4 SE 1/4 SE 1/4 sec.5, T.40 S., R.42 E., Martin County, Hydrologic Unit 03090202, in Jonathan Dickinson State Park, near left bank on foot bridge, 1.75 mi upstream from mouth, 2.1 mi south of State Road 707, and 3.25 mi southwest of Hobe Sound.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--December 1979 to March 1982, October 1984 to current year.

GAGE.--Water-stage and collector tube rain gage recorders. Rainfall data is available in the files of the U.S. Geological Survey. Elevation of gage is 6 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records fair.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 17 complete water years of discharge (1981, 1985-88, 1990, 1992-2002).

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height 6.19 ft Oct. 1; minimum 1.69 ft June 5.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.99	4.69	3.33	2.52	2.20	2.99	1.93	2.15	1.76	3.53	e2.93	3.51
2	5.75	4.67	3.32	2.49	2.21	2.96	1.92	2.11	1.74	3.65	2.91	3.28
3	5.61	4.84	3.26	2.48	2.19	2.88	1.98	2.07	1.73	3.70	3.00	3.13
4	5.50	4.72	3.18	2.45	2.17	2.86	2.07	2.03	1.73	3.72	3.17	3.13
5	5.39	5.41	3.08	2.42	2.15	2.82	2.07	2.00	1.72	3.56	3.27	3.10
6	5.27	5.71	3.01	2.41	2.13	2.73	2.05	1.97	1.72	3.37	3.32	3.02
7	5.11	5.49	2.95	2.40	2.11	2.70	2.03	1.94	1.74	3.30	3.23	2.92
8	5.31	5.38	2.90	2.37	2.09	2.65	2.01	1.91	1.82	3.36	3.14	2.85
9	5.66	5.29	2.86	2.34	2.13	2.59	1.98	1.89	1.77	3.89	3.01	2.75
10	5.37	5.18	2.82	2.32	2.57	2.58	1.99	1.86	1.75	4.64	2.90	2.68
11	5.17	5.05	2.80	2.30	3.02	2.52	1.97	1.84	1.76	4.57	2.83	2.64
12	4.99	4.93	2.74	2.29	3.02	2.51	2.09	1.82	2.15	4.82	2.80	2.66
13	4.83	4.87	2.70	2.28	2.94	2.64	2.09	1.80	2.32	5.77	2.74	2.63
14	4.68	4.96	2.71	2.28	2.87	2.58	3.52	1.79	2.38	e5.86	2.65	2.59
15	4.54	4.93	2.72	2.50	2.94	2.57	4.37	1.78	2.59	e5.15	2.61	2.55
16	4.54	4.82	2.69	2.57	3.41	2.50	4.24	1.82	2.52	e5.16	2.59	2.52
17	4.64	4.70	2.68	2.56	3.44	2.43	4.03	1.80	2.86	e5.20	2.54	2.49
18	4.49	4.60	2.67	2.56	3.26	2.38	3.76	1.79	3.49	e5.46	2.50	2.45
19	4.35	4.49	2.63	2.54	3.11	2.33	3.46	1.92	3.17	e5.21	2.45	2.41
20	4.22	4.39	2.60	2.51	3.01	2.32	3.19	1.92	2.95	e4.91	2.66	2.39
21	4.14	4.29	2.57	2.47	2.99	2.26	2.98	1.90	3.55	e4.66	2.82	2.36
22	4.95	4.18	2.54	2.44	3.11	2.23	2.82	1.89	3.58	e4.36	2.67	2.35
23	5.38	4.06	2.50	2.41	3.68	2.19	2.68	1.85	3.27	e4.30	2.56	2.33
24	5.23	3.98	2.47	2.37	3.87	2.15	2.57	1.83	3.73	e4.30	2.47	2.31
25	5.17	3.89	2.43	2.33	3.56	2.12	2.47	1.81	4.75	e4.76	2.41	2.37
26	5.12	3.81	2.63	2.30	3.44	2.09	2.38	1.80	4.60	e4.85	2.37	2.43
27	5.17	3.72	2.63	2.27	3.31	2.06	2.32	1.79	4.27	e4.45	2.38	2.55
28	5.04	e3.62	2.61	2.25	3.11	2.03	2.27	1.78	3.98	e4.15	2.62	2.93
29	4.91	3.51	2.59	2.22	---	2.00	2.23	1.77	3.75	e3.56	3.20	2.91
30	4.82	3.43	2.55	2.20	---	1.97	2.18	1.77	3.55	e3.25	3.34	2.85
31	4.78	---	2.52	2.18	---	1.95	---	1.77	---	e3.00	3.41	---
TOTAL	156.12	137.61	85.69	74.03	80.04	75.59	77.65	58.17	82.70	134.47	87.50	81.09
MEAN	5.04	4.59	2.76	2.39	2.86	2.44	2.59	1.88	2.76	4.34	2.82	2.70
MAX	5.99	5.71	3.33	2.57	3.87	2.99	4.37	2.15	4.75	5.86	3.41	3.51
MIN	4.14	3.43	2.43	2.18	2.09	1.95	1.92	1.77	1.72	3.00	2.37	2.31

e Estimated

EVERGLADES AND SOUTHEASTERN COASTAL AREA

270022080094600 KITCHINGS CREEK NEAR HOBE SOUND, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	171	48	12	5.9	3.6	13	1.6	2.9	0.77	21	e11	21
2	141	47	12	5.6	3.7	12	1.5	2.6	0.73	24	11	17
3	125	56	12	5.5	3.6	11	1.9	2.4	0.68	25	12	14
4	113	49	11	5.2	3.4	11	2.4	2.1	0.67	25	15	14
5	102	107	10	5.0	3.2	10	2.4	2.0	0.65	22	16	14
6	90	136	9.5	5.0	3.1	9.0	2.2	1.8	0.64	18	17	12
7	75	112	9.0	4.9	2.9	8.5	2.1	1.6	0.72	17	16	11
8	96	101	8.7	4.6	2.8	7.9	2.0	1.5	1.0	18	14	9.8
9	130	92	8.3	4.3	3.1	7.3	1.8	1.4	0.82	30	12	8.6
10	100	81	8.1	4.2	7.5	7.1	1.9	1.2	0.76	53	11	7.7
11	80	70	7.9	4.0	13	6.4	1.8	1.1	0.79	49	9.7	7.2
12	66	62	7.4	4.0	13	6.2	2.5	1.1	4.0	71	9.2	7.5
13	55	58	7.1	3.9	12	7.7	2.5	0.97	4.1	143	8.4	7.1
14	47	64	7.2	3.9	11	7.1	27	0.92	4.6	e154	7.4	6.7
15	42	62	7.3	6.1	12	6.9	42	0.90	6.8	e81	6.9	6.3
16	42	55	7.1	6.8	20	6.1	38	1.1	6.0	e82	6.7	5.9
17	46	48	7.0	6.7	21	5.4	33	0.96	10	e85	6.2	5.6
18	40	44	7.0	6.7	17	4.9	27	0.89	21	e109	5.7	5.2
19	35	40	6.7	6.6	15	4.4	20	1.5	15	e86	5.2	4.9
20	31	36	6.5	6.3	13	4.4	15	1.5	11	e66	7.7	4.7
21	29	33	6.3	5.8	13	3.9	12	1.4	22	e53	9.4	4.4
22	69	30	6.0	5.5	15	3.5	9.7	1.3	22	e42	7.6	4.3
23	101	26	5.7	5.2	26	3.3	8.0	1.2	17	e40	6.4	4.2
24	86	24	5.4	4.9	29	3.0	6.7	1.1	28	e40	5.4	4.0
25	80	22	5.1	4.6	23	2.7	5.6	0.99	57	e58	4.8	4.5
26	76	20	6.7	4.3	21	2.5	4.8	0.93	51	e63	4.5	5.1
27	80	18	6.7	4.1	18	2.3	4.2	0.90	39	e45	4.6	6.5
28	70	e16	6.6	3.9	15	2.1	3.8	0.86	32	e36	7.4	11
29	61	14	6.4	3.7	---	1.9	3.5	0.83	26	e22	15	11
30	55	13	6.1	3.6	---	1.8	3.1	0.82	22	e16	18	9.8
31	52	---	5.9	3.4	---	1.7	---	0.81	---	e12	19	---
TOTAL	2386	1584	238.7	154.2	343.9	185.0	290.0	41.58	406.73	1606	310.2	255.0
MEAN	77.0	52.8	7.70	4.97	12.3	5.97	9.67	1.34	13.6	51.8	10.0	8.50
MAX	171	136	12	6.8	29	13	42	2.9	57	154	19	21
MIN	29	13	5.1	3.4	2.8	1.7	1.5	0.81	0.64	12	4.5	4.0
AC-FT	4730	3140	473	306	682	367	575	82	807	3190	615	506

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1980 - 2002, BY WATER YEAR (WY)

	MEAN	MAX	MIN	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)	(WY)
MEAN	46.5	26.1	13.7	9.65	8.84	10.7	6.24	4.02	7.48	15.3	25.4	29.0
MAX	233	124	69.5	43.7	52.8	50.1	29.0	16.8	41.9	51.8	104	85.1
(WY)	1996	1995	1995	1993	1993	1996	1997	1998	1997	2002	2001	2001
MIN	0.78	0.88	0.29	0.55	0.54	0.31	0.13	0.076	0.15	0.27	0.25	1.08
(WY)	1989	1989	1982	1982	2001	1985	1981	1981	1981	1990	1990	2000

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1980 - 2002

ANNUAL TOTAL	11351.98	7801.31	
ANNUAL MEAN	31.1	21.4	18.5
HIGHEST ANNUAL MEAN			39.9 1995
LOWEST ANNUAL MEAN			0.99 1990
HIGHEST DAILY MEAN	297 Aug 3	171 Oct 1	1230 Oct 18 1995
LOWEST DAILY MEAN	0.17 May 12	0.64 Jun 6	0.01 Jun 5 1989
ANNUAL SEVEN-DAY MINIMUM	0.17 May 15	0.69 Jun 1	0.05 May 30 1989
MAXIMUM PEAK FLOW		201 Oct 1	1800 Oct 17 1995
MAXIMUM PEAK STAGE		6.19 Oct 1	11.00 Oct 17 1995
INSTANTANEOUS LOW FLOW		0.56 Jun 5	0.00 Jun 1 1989
ANNUAL RUNOFF (AC-FT)	22520	15470	13400
10 PERCENT EXCEEDS	102	63	53
50 PERCENT EXCEEDS	5.7	7.7	5.1
90 PERCENT EXCEEDS	0.23	1.6	0.39

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

02277600 LOXAHATCHEE RIVER NEAR JUPITER, FL

LOCATION.--Lat 26°56'20", long 80°10'31", in NE 1/4 SE 1/4 NE 1/4 sec.6, T.41 S., R.42 E., Palm Beach County, Hydrologic Unit 03090202, near left bank, 0.2 mi downstream from State Road 706, 1.3 mi upstream from Florida's Turnpike and 5.2 mi west of Jupiter.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--April 1971 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. Flow is augmented by diversion from C-18 canal 2.0 mi upstream from the gage. High-water flow can be diverted into C-18 canal by backflow through the structure. Discharge for the 1991 water year could not be published due to the loss of the original records. Days of no flow for the period of record only occurred during the period May 4-7, 1974.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 30 complete water years of discharge (1972-90,1992-2002).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 16.39 ft Oct. 18, 1995; minimum, 7.55 ft May 16, 17, 18, 2001.  
EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 13.23 ft Oct. 1; minimum, 10.21 ft June 7.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.83	12.62	11.69	11.29	11.19	11.64	10.74	10.90	10.68	12.52	11.62	11.60
2	12.38	12.56	11.66	11.42	11.10	11.58	10.73	10.88	10.66	12.43	11.60	11.52
3	12.58	12.31	11.69	11.24	11.17	11.55	10.73	10.81	10.63	12.43	11.81	11.58
4	12.62	12.27	11.47	11.25	11.10	11.49	10.83	10.79	10.58	12.39	11.77	12.45
5	12.60	12.21	11.44	11.58	11.09	11.51	10.70	10.79	10.48	12.41	11.81	12.23
6	12.60	12.60	11.48	11.54	11.07	11.45	10.52	10.77	10.42	12.47	11.98	12.12
7	12.58	12.70	11.53	11.42	11.09	11.43	10.48	10.80	10.27	12.49	11.64	11.57
8	12.59	12.64	11.71	11.32	11.01	11.44	10.49	10.88	10.70	12.65	11.46	11.59
9	12.62	12.66	11.52	11.28	11.00	11.42	10.49	10.89	10.70	12.81	11.62	11.60
10	12.59	12.65	11.45	11.22	11.46	11.38	10.55	10.87	10.66	12.91	11.77	11.58
11	12.59	12.62	11.52	11.15	11.82	11.30	10.82	10.85	10.64	12.71	11.44	11.46
12	12.60	12.63	11.53	11.20	11.43	10.85	10.89	10.83	10.69	12.78	11.39	11.42
13	12.59	12.62	11.44	11.22	11.94	10.78	10.79	10.79	10.88	12.97	11.39	11.42
14	12.58	12.66	11.42	11.19	11.86	10.75	11.43	10.72	10.92	12.54	11.37	11.40
15	12.58	12.66	11.39	11.29	11.84	10.75	12.02	10.70	10.92	12.55	11.46	11.39
16	12.59	12.65	11.38	11.34	11.81	10.96	11.72	10.72	10.92	12.56	11.46	11.38
17	12.60	12.63	11.38	11.29	11.85	11.05	11.39	10.72	11.12	12.57	11.55	11.38
18	12.46	12.63	11.22	11.30	11.80	11.03	11.42	10.70	11.16	12.69	11.59	11.37
19	12.28	12.65	11.20	11.28	11.69	10.98	11.33	10.72	11.10	12.58	11.44	11.35
20	12.28	12.63	11.32	11.23	11.61	10.93	11.35	10.77	11.06	12.52	11.51	11.32
21	12.27	12.57	11.32	11.26	11.52	10.98	11.14	10.74	11.62	12.47	12.03	11.23
22	12.41	12.44	11.11	11.23	11.56	10.96	11.06	10.73	12.20	12.43	11.75	11.22
23	12.43	12.34	11.07	11.19	11.74	10.87	11.12	10.71	12.17	12.42	11.56	11.20
24	12.36	12.33	11.18	11.15	11.88	10.82	11.09	10.70	12.25	12.42	11.44	11.19
25	12.37	12.33	11.19	11.12	11.74	10.77	11.05	10.68	12.44	12.55	11.42	11.19
26	12.36	12.26	11.26	11.10	11.87	10.77	11.04	10.67	12.33	12.58	11.40	11.18
27	12.43	12.07	11.26	11.15	11.80	10.77	11.02	10.65	12.37	12.49	11.41	11.21
28	12.66	11.94	11.26	11.11	11.67	10.77	10.95	10.64	12.38	12.39	11.44	11.27
29	12.65	11.76	11.31	11.04	---	10.76	10.92	10.64	12.37	12.25	11.45	11.21
30	12.63	11.64	11.35	11.09	---	10.75	10.91	10.68	12.40	11.57	11.47	11.21
31	12.64	---	11.25	11.07	---	10.74	---	10.69	---	11.46	11.48	---
TOTAL	388.35	373.28	353.00	348.56	322.71	343.23	329.72	333.43	337.72	387.01	358.53	343.84
MEAN	12.53	12.44	11.39	11.24	11.53	11.07	10.99	10.76	11.26	12.48	11.57	11.46
MAX	12.83	12.70	11.71	11.58	11.94	11.64	12.02	10.90	12.44	12.97	12.03	12.45
MIN	12.27	11.64	11.07	11.04	11.00	10.74	10.48	10.64	10.27	11.46	11.37	11.18



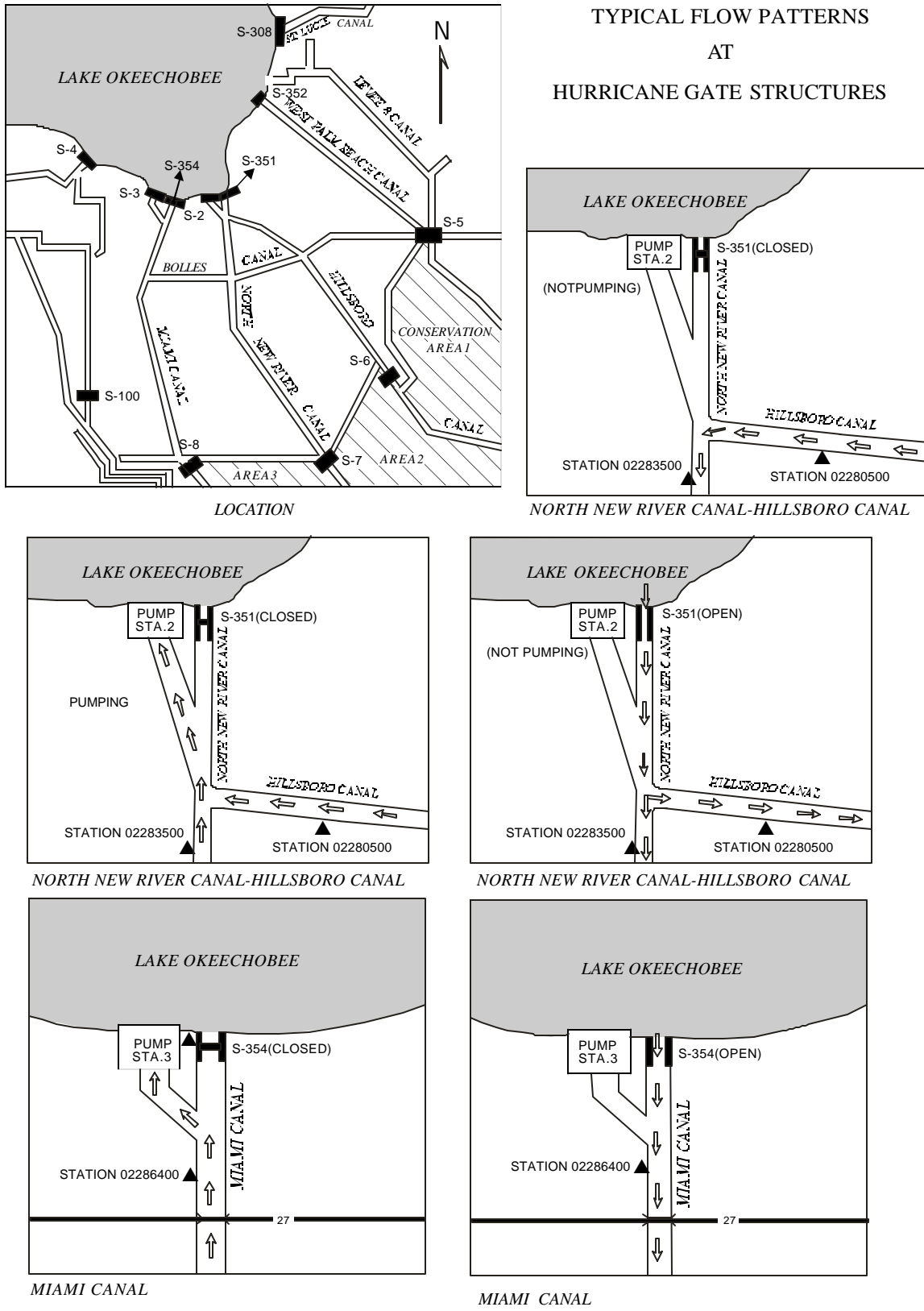


Figure 5. Typical flow patterns at Lake Okeechobee Control Structure.

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02278000 WEST PALM BEACH CANAL AT S-352, AT CANAL POINT, FL

LOCATION.--Lat 26°51'05", long 80°37'55", in NE 1/4 sec.33, T.41 S., R.37 E., Palm Beach County, Hydrologic Unit 03090202, in the instrumentation house of gate structure 352 at Lake Okeechobee, 200 ft upstream from bridge on U.S. Highway 441 at Canal Point.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1940 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoders. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to January 14, 1954, non-recording lake gage at site 550 ft downstream at same datum. January 14, 1954 to February 24, 1956, lake water-stage recorder, and February 25, 1956, to September 30, 1967, canal water-stage and deflection vane recorders all at present site and datum. May 1940, auxiliary water-stage recorder at old lock, 700 ft downstream from gate structures replaced on May 1, 1995, by data collection platform at structure. August 1986 to December 1989, electromagnetic velocity meter. Digital water-stage recorder removed and satellite data collection platform installed January 14, 1992.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow regulated at station by operation of gates. Flow was occasionally reversed after periods of considerable rainfall because of downstream natural drainage and pumpage from agricultural lands in the Everglades (negative figures indicate flow reversed), since vertical lift gates replaced HGS-5, reverse flow is not expected. Discharge computed from relations between discharge, head, and gate openings at gate structure S-352. Discharge and lake gage height formerly published as West Palm Beach Canal at HGS-5, at Canal Point. Canal gage height prior to 1997 water year, formerly published as West Palm Beach Canal below S-352, at Canal Point under 02278002.

COOPERATION.--Gate record provided by South Florida Water Management District.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 58 complete water years of discharge (1941-89, 1992-97, 1999-2000, 2002).

EXTREME LAKE STAGES FOR PERIOD OF RECORD.--Maximum gage height, 19.48 ft Mar. 9, 1998; minimum observed, 8.33 ft May 22, 2001.

EXTREME LAKE STAGES FOR CURRENT YEAR.--Maximum gage height, 15.94 ft Sept. 27; minimum, 11.12 ft June 12.

EXTREME CANAL STAGES FOR PERIOD OF RECORD.--Maximum gage height, 18.70 ft Oct. 12, 1947; minimum, 6.90 ft observed, Oct. 28, 1981.

EXTREME CANAL STAGES FOR CURRENT YEAR.--Maximum gage height, 12.38 ft Jan. 1; minimum 8.35 ft July 23.

LAKE  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.24	14.70	14.89	14.69	14.57	14.26	13.81	12.92	11.82	12.80	14.46	---
2	14.21	14.71	14.89	14.64	14.57	14.24	13.77	12.85	11.72	12.92	14.46	---
3	14.20	14.73	14.90	14.83	14.60	14.35	13.81	12.72	11.68	12.98	14.43	---
4	14.21	14.77	14.84	14.81	14.68	14.51	13.79	12.70	11.57	13.07	14.48	---
5	14.24	14.94	14.80	14.65	14.48	14.41	13.78	12.68	11.46	13.14	14.47	---
6	14.29	e15.07	14.79	14.62	14.36	14.27	13.68	12.50	11.46	13.21	---	15.33
7	14.32	e15.03	14.82	14.75	14.49	14.27	13.46	12.36	11.47	13.26	---	15.36
8	14.25	e14.94	14.82	14.72	14.45	14.28	13.39	e12.32	11.50	13.33	---	15.40
9	14.12	14.95	14.84	14.61	14.38	14.29	13.41	12.26	11.53	13.47	14.37	15.45
10	14.21	14.97	14.82	14.57	14.43	14.29	13.46	12.19	11.47	13.54	14.33	15.50
11	14.23	14.95	14.84	14.56	14.54	14.25	13.40	12.12	11.48	13.67	14.38	15.55
12	14.28	14.96	14.80	14.56	14.54	14.25	13.39	12.07	11.50	13.76	14.42	---
13	14.27	14.98	14.80	14.56	14.55	14.30	13.39	12.09	11.48	13.87	14.49	15.46
14	14.29	15.03	14.79	14.55	14.57	14.24	13.40	12.11	11.61	13.96	14.57	15.48
15	14.34	15.18	14.81	14.63	14.51	14.19	13.41	11.99	11.59	13.99	14.52	15.51
16	14.35	15.11	14.76	14.66	14.53	14.17	13.40	e11.93	11.74	14.00	14.47	15.50
17	14.40	15.00	14.79	14.64	14.61	14.14	13.43	12.03	11.82	14.05	14.56	15.53
18	14.30	14.96	14.85	14.66	14.48	14.13	13.41	12.17	11.79	14.06	14.59	15.52
19	14.32	14.95	14.85	14.65	14.37	14.06	13.39	12.24	11.87	14.09	14.64	15.51
20	14.33	14.96	14.83	14.66	14.41	14.00	13.36	12.28	11.81	14.11	14.64	15.51
21	14.36	14.96	14.79	14.66	14.42	14.10	13.35	12.29	11.90	14.10	14.67	15.54
22	14.42	14.94	14.70	14.66	14.47	14.07	13.31	12.24	12.00	14.21	14.73	15.54
23	14.51	14.91	14.65	14.62	14.64	13.96	13.28	12.09	12.09	14.23	14.78	15.58
24	e14.55	14.91	14.71	14.62	14.63	13.88	13.18	12.01	12.17	14.28	14.80	15.61
25	e14.65	14.91	14.77	14.64	14.47	13.88	13.10	12.01	12.27	14.32	14.81	---
26	14.77	14.90	14.90	14.64	14.47	13.88	13.07	12.00	12.42	14.35	14.85	15.63
27	14.86	14.86	14.69	14.62	14.61	13.94	12.99	11.93	12.49	14.37	---	15.70
28	14.74	14.84	14.66	14.61	14.47	13.92	12.98	11.91	12.56	14.41	---	15.71
29	14.68	14.86	14.66	14.59	---	13.83	13.00	11.78	12.60	14.41	---	15.67
30	14.71	14.88	14.67	14.55	---	13.78	12.94	11.70	12.66	14.42	---	15.62
31	14.72	---	14.68	14.53	---	13.78	---	11.70	---	14.44	---	---
TOTAL	446.37	447.86	458.41	453.76	406.30	437.92	401.54	378.19	355.53	428.82	---	---
MEAN	14.40	14.93	14.79	14.64	14.51	14.13	13.38	12.20	11.85	13.83	---	---
MAX	14.86	15.18	14.90	14.83	14.68	14.51	13.81	12.92	12.66	14.44	---	---
MIN	14.12	14.70	14.65	14.53	14.36	13.78	12.94	11.70	11.46	12.80	---	---

e Estimated



EVERGLADES AND SOUTHEASTERN COASTAL AREA

02278000 WEST PALM BEACH CANAL AT S-352, AT CANAL POINT, FL

CANAL  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.78	9.74	10.89	12.16	10.78	11.03	11.08	11.20	10.30	9.86	11.44	---
2	9.63	9.55	10.99	11.27	10.81	11.13	11.08	11.18	11.60	10.18	11.65	---
3	10.02	9.40	10.94	10.71	10.79	10.90	10.86	11.16	11.54	9.07	11.83	---
4	10.43	9.18	10.73	10.58	10.78	10.77	10.86	11.21	11.42	9.10	11.82	---
5	10.33	9.77	10.42	10.59	10.68	10.55	11.07	11.28	11.27	9.05	11.75	---
6	10.57	e11.54	10.57	10.81	10.86	10.48	11.13	11.62	11.27	9.56	---	11.31
7	10.76	e10.87	10.93	10.83	10.91	9.91	11.10	12.03	11.30	10.05	---	11.54
8	10.52	e10.25	11.16	10.80	11.05	8.81	11.03	e11.97	10.76	9.47	---	11.51
9	10.50	9.75	11.11	10.72	11.33	9.33	10.99	12.12	10.34	10.13	11.74	11.57
10	10.72	9.52	11.24	10.78	11.41	9.65	10.92	12.06	10.32	10.41	11.82	11.45
11	10.74	10.32	11.11	10.75	10.53	9.84	10.99	11.99	10.15	9.85	11.82	11.52
12	10.36	10.66	11.00	10.78	9.95	9.91	11.08	11.95	9.87	9.72	11.87	---
13	10.27	10.93	10.69	10.72	9.36	10.03	11.08	11.96	10.39	10.20	11.49	11.43
14	10.54	11.05	10.57	10.65	8.88	10.22	11.03	11.96	10.16	9.08	11.02	11.52
15	10.75	11.05	10.85	10.99	9.22	10.42	10.83	11.86	9.68	9.48	10.03	11.48
16	10.32	11.05	10.91	10.67	10.01	10.43	10.96	e11.84	9.44	10.54	11.76	---
17	9.92	10.86	10.89	10.46	9.50	10.45	11.22	11.24	10.49	9.80	11.78	11.51
18	9.65	10.90	10.77	10.21	11.10	10.45	10.99	10.23	10.35	9.92	11.75	11.51
19	10.05	10.80	10.87	10.33	10.77	10.61	10.66	9.97	10.04	9.51	11.79	11.54
20	9.94	10.70	10.78	10.46	10.79	11.06	10.83	10.58	10.63	9.46	11.77	11.49
21	10.01	10.68	10.66	10.54	10.54	11.09	11.00	10.75	10.59	9.93	11.83	11.58
22	9.95	10.63	10.60	10.68	9.99	11.05	10.80	10.43	11.00	9.89	11.74	11.53
23	9.16	10.81	10.53	10.70	8.93	10.98	10.74	10.03	10.70	9.01	11.78	11.59
24	e9.71	11.02	10.67	10.57	10.21	11.02	10.73	10.05	11.50	9.42	11.76	---
25	e10.86	10.98	10.75	10.45	9.08	11.04	10.76	10.47	11.75	10.01	10.92	---
26	10.98	10.85	11.21	10.42	10.62	10.98	10.96	10.53	11.38	10.09	10.46	11.49
27	10.85	10.87	11.47	10.45	10.52	10.99	11.26	10.45	10.17	9.90	---	11.46
28	11.28	10.81	11.37	10.59	10.68	10.99	11.26	10.60	9.38	9.84	---	11.57
29	11.09	10.75	e11.29	10.87	---	11.12	11.17	11.36	9.42	10.88	---	11.62
30	10.15	10.78	11.40	10.76	---	11.01	11.23	11.61	9.92	11.48	---	11.60
31	10.04	---	11.74	10.72	---	11.07	---	11.44	---	11.41	---	---
TOTAL	319.88	316.07	339.11	332.02	290.08	327.32	329.70	347.13	317.13	306.30	---	---
MEAN	10.32	10.54	10.94	10.71	10.36	10.56	10.99	11.20	10.57	9.88	---	---
MAX	11.28	11.54	11.74	12.16	11.41	11.13	11.26	12.12	11.75	11.48	---	---
MIN	9.16	9.18	10.42	10.21	8.88	8.81	10.66	9.97	9.38	9.01	---	---

e Estimated

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02278000 WEST PALM BEACH CANAL AT S-352, AT CANAL POINT, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	90	0.00	96	0.00	523	883	190	0.00	1180	e1070
2	2.0	0.00	0.40	0.00	27	0.00	505	859	771	0.00	1300	e1060
3	0.00	0.00	0.00	0.00	0.00	0.00	261	996	854	0.00	1210	e1070
4	0.00	0.00	0.00	0.00	0.00	42	334	860	860	0.00	1110	e970
5	0.00	0.00	0.00	0.00	69	151	521	781	993	0.00	1060	e918
6	0.00	0.00	0.00	0.00	248	e230	509	1120	988	0.00	e1100	549
7	0.00	0.00	0.00	0.00	0.00	0.00	492	1210	938	0.00	e1170	854
8	0.00	0.00	0.00	0.00	354	0.00	496	e949	373	0.00	e1170	1030
9	0.00	0.00	0.00	0.00	290	0.00	496	1020	299	0.00	1200	1050
10	0.00	0.00	0.00	0.00	0.00	0.00	642	963	488	0.00	1200	1110
11	0.00	0.00	0.00	0.00	0.00	0.00	874	939	224	0.00	1110	1050
12	0.00	0.00	0.00	0.00	0.00	0.00	615	915	116	0.00	1010	e1030
13	0.00	0.00	0.00	0.00	0.00	0.00	586	966	0.00	0.00	539	1200
14	0.00	0.00	86	0.00	0.00	0.00	198	1010	0.00	0.00	0.00	1170
15	0.00	0.00	80	0.00	0.00	0.00	0.00	945	0.00	0.00	311	1240
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e244	0.00	0.00	1070	e1230
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	573	0.00	0.00	1040	1230
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	149	0.00	0.00	1170	1230
19	0.00	0.00	0.00	0.00	0.00	381	208	0.00	0.00	0.00	938	1230
20	0.00	0.00	0.00	0.00	0.00	621	427	0.00	0.00	0.00	957	1250
21	0.00	0.00	0.00	0.00	0.00	575	381	0.00	0.00	0.00	872	1210
22	0.00	0.00	0.00	0.00	0.00	602	434	0.00	0.00	0.00	731	1180
23	0.00	0.00	0.00	0.00	0.00	587	594	7.6	0.00	0.00	784	1130
24	0.00	0.00	0.00	0.00	0.00	607	652	252	0.00	0.00	827	e982
25	0.00	0.00	0.00	0.00	0.00	613	730	429	0.00	0.00	603	e1100
26	0.00	0.00	0.00	0.00	0.00	686	835	366	0.00	0.00	482	1100
27	0.00	0.00	0.00	0.00	0.00	539	783	319	0.00	0.00	e589	1110
28	0.00	0.00	0.00	198	0.00	524	625	758	0.00	0.00	e840	1100
29	0.00	78	0.00	284	---	499	826	975	0.00	678	e877	1090
30	0.00	193	0.00	102	---	533	872	803	0.00	1020	e780	1050
31	0.00	---	0.00	118	---	522	---	549	---	1050	e953	---
TOTAL	2.00	271.00	256.40	702.00	1084.00	7712.00	14419.00	19840.60	7094.00	2748.00	28183.00	32593
MEAN	0.065	9.03	8.27	22.6	38.7	249	481	640	236	88.6	909	1086
MAX	2.0	193	90	284	354	686	874	1210	993	1050	1300	1250
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	549
AC-FT	4.0	538	509	1390	2150	15300	28600	39350	14070	5450	55900	64650

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

	MEAN	80.5	165	215	203	217	231	318	300	101	32.9	89.1	21.7
MAX	513	470	700	685	637	610	840	743	703	706	1156	1183	
(WY)	1998	1996	1996	1960	1949	1949	1999	1965	1998	1992	1959	1959	
MIN	-350	-247	-77.0	-13.6	-80.6	-21.2	-99.6	-170	-1130	-939	-528	-813	
(WY)	1951	1964	1964	1941	1941	1982	1962	1976	1942	1947	1953	1945	

SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 1940 - 2002

ANNUAL TOTAL	114905.00		
ANNUAL MEAN	315	167	
HIGHEST ANNUAL MEAN		374	1961
LOWEST ANNUAL MEAN		-20.8	1962
HIGHEST DAILY MEAN	1300	Aug 2	1610 Oct 2 1959
LOWEST DAILY MEAN	0.00	Oct 1	-1760 Jun 15 1942
ANNUAL SEVEN-DAY MINIMUM	0.00	Oct 3	-1640 Jun 11 1942
ANNUAL RUNOFF (AC-FT)	227900		120700
10 PERCENT EXCEEDS	1050		545
50 PERCENT EXCEEDS	0.00		66
90 PERCENT EXCEEDS	0.00		0.00

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

265501080364900 LEVEE 8 CANAL NEAR CANAL POINT, FL

LOCATION.--Lat 26°55'01", long 80°36'49", in SE 1/4 sec.10, T.41S., R.37 E., Palm Beach County, Hydrologic Unit 03090202, on west side of U.S. Highway 441 bridge, 3.6 mi northeast of Canal Point, and 4.8 mi south of Port Mayaca, at Sand Cut.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--August 1976 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic velocity meter. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Flow regulated by gated structure at Lake Okeechobee. Flow reverses during and after periods of heavy rainfall because of pumpage into the canal from agricultural lands in the Everglades (negative figures indicate flow towards Lake Okeechobee).

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 18 complete water years of discharge (1977-89, 1995, 1997-99, 2002).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 19.39 ft Oct. 19, 1995; minimum, 8.57 ft May 21, 2001 (estimated).

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 15.59 ft Sept. 6; minimum, 11.36 ft June 12.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.87	15.04	15.02	14.17	14.59	14.30	13.90	13.03	11.89	13.02	14.19	15.12
2	14.73	15.01	15.02	e14.02	14.57	14.34	13.85	12.99	11.89	13.25	14.14	15.04
3	14.57	15.07	15.00	e13.87	14.58	14.43	13.84	12.88	11.86	13.34	14.12	14.98
4	14.49	15.01	14.97	e14.03	14.64	14.51	13.84	12.84	11.74	13.34	14.13	15.11
5	14.53	15.25	14.88	e13.97	14.47	14.38	13.82	12.79	11.68	13.31	14.27	15.17
6	14.48	15.37	14.66	e13.65	14.43	14.30	13.70	12.66	11.67	13.36	14.27	15.49
7	14.46	15.21	14.58	e13.65	14.51	14.35	13.50	12.62	11.68	13.41	14.20	15.43
8	14.43	15.18	14.94	e14.16	e14.48	14.34	13.46	12.57	11.61	13.59	14.09	15.36
9	14.36	15.16	15.01	14.21	e14.40	14.34	13.50	12.53	11.59	14.04	14.10	15.25
10	14.45	15.18	15.00	14.17	e14.46	14.33	13.56	12.45	11.56	14.23	14.00	15.13
11	14.48	15.11	14.93	14.05	e14.68	14.30	13.48	12.35	11.58	14.34	14.00	15.10
12	14.53	15.12	14.61	13.92	e14.67	14.33	13.47	12.30	11.62	14.42	14.20	15.30
13	14.52	15.11	14.49	13.66	e14.66	14.40	13.47	12.35	11.60	14.48	14.30	15.02
14	14.52	15.16	14.48	e13.59	e14.63	14.31	13.46	12.35	11.75	14.52	14.61	14.90
15	14.55	15.12	14.78	e14.31	e14.60	14.26	13.49	12.16	11.78	14.54	14.71	14.85
16	14.56	15.11	14.91	e14.68	14.59	14.27	13.48	e12.16	11.84	14.50	14.44	14.97
17	14.50	15.03	14.87	e14.77	14.66	14.23	13.50	12.20	12.01	14.37	14.44	14.91
18	14.44	14.96	14.66	e14.86	14.51	14.22	13.48	12.25	12.04	14.42	14.31	14.82
19	14.53	e14.83	e14.58	e14.72	14.45	14.19	13.46	12.32	12.10	14.50	14.59	14.90
20	14.52	14.74	e14.31	e13.81	14.49	14.13	13.45	12.31	12.05	14.51	14.68	14.80
21	e14.52	e14.75	e14.28	e13.76	14.51	14.21	13.44	12.30	12.23	14.25	14.61	14.64
22	e14.58	14.86	e14.21	e13.55	14.53	14.13	13.39	12.23	12.43	14.38	14.62	14.60
23	e14.77	14.97	14.10	e14.02	14.67	e14.02	13.37	12.12	12.54	14.11	14.71	14.78
24	e14.82	15.15	14.39	e14.49	14.68	e13.96	13.26	12.06	12.64	13.59	14.70	14.76
25	e15.15	15.13	14.30	e14.63	14.53	13.94	13.20	12.08	12.75	14.13	14.68	14.88
26	e15.33	15.06	14.14	e14.64	14.53	13.95	13.20	12.06	12.87	13.89	14.65	14.77
27	15.29	15.00	14.12	14.61	14.63	e14.02	13.12	11.99	12.86	13.64	14.75	14.80
28	15.11	14.98	e14.45	14.60	14.47	13.99	13.08	12.00	12.86	13.60	14.87	14.76
29	15.01	15.00	14.37	14.58	---	13.91	13.10	12.01	12.81	13.61	14.93	15.04
30	15.01	15.03	14.10	14.56	---	13.88	13.07	11.94	12.81	13.75	15.02	15.08
31	15.07	---	e14.25	14.53	---	13.88	---	11.88	---	13.94	15.10	---
TOTAL	455.18	451.70	452.41	440.24	407.62	440.15	403.94	382.78	362.34	432.38	448.43	449.76
MEAN	14.68	15.06	14.59	14.20	14.56	14.20	13.46	12.35	12.08	13.95	14.47	14.99
MAX	15.33	15.37	15.02	14.86	14.68	14.51	13.90	13.03	12.87	14.54	15.10	15.49
MIN	14.36	14.74	14.10	13.55	14.40	13.88	13.07	11.88	11.56	13.02	14.00	14.60

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

265501080364900 LEVEE 8 CANAL NEAR CANAL POINT, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-648	-743	-25	39	182	97	130	197	86	-342	153	92
2	e-519	-835	-29	e36	201	39	167	149	71	-510	167	124
3	-345	-942	-5.7	e43	206	111	162	166	95	-546	172	143
4	-248	-608	-18	e37	63	45	200	150	116	-433	174	130
5	e-248	-628	-13	e35	88	126	174	145	117	-275	146	96
6	e-131	-945	9.2	e39	77	135	199	186	92	-280	158	-155
7	-59	e-782	10	e37	166	17	111	180	79	-284	177	-2.4
8	-141	e-872	-33	e32	e160	115	111	157	63	-266	179	89
9	-237	e-358	-64	27	e199	138	116	126	12	-496	164	144
10	-195	-120	-58	27	e203	128	134	117	-21	-616	175	170
11	e-203	-55	-19	31	e-265	99	210	100	-58	-619	181	186
12	e-191	-65	37	30	e-385	75	169	93	e-67	-611	e143	137
13	e-176	-34	37	35	e-312	42	141	108	-52	-563	e132	191
14	e-140	-40	39	e36	e-138	51	92	146	-41	-522	-91	208
15	e-138	-4.1	15	e-19	e-166	98	-16	132	-70	-539	-226	218
16	-206	-7.6	-62	e-69	-63	-148	-24	e109	-28	-477	91	200
17	-169	-3.5	-11	e-100	-94	-240	19	82	-240	-278	120	214
18	-217	e-5.4	33	e-201	-71	-208	-1.5	105	-368	-325	163	e229
19	-262	e6.0	e36	e-117	-96	-223	-20	81	-390	-389	49	e218
20	-217	-6.1	e38	e8.3	-85	-46	71	44	-348	-376	46	231
21	e-166	e-8.5	e39	e-33	-120	69	95	19	-448	-163	76	252
22	e-157	-6.6	e38	e-2.8	65	66	152	7.1	-512	-128	104	e253
23	e-333	-28	e40	e6.1	-17	e65	97	8.9	-596	9.5	89	235
24	e-349	-143	36	e63	-201	e90	124	31	-592	14	109	236
25	e-611	-136	e40	e249	-35	157	136	45	-614	19	123	e218
26	e-730	-69	45	e254	-1.1	129	118	39	-567	13	138	e242
27	-855	-16	25	244	169	e111	125	26	-518	11	115	241
28	-912	-25	e4.8	e190	88	80	148	102	-451	9.2	7.8	249
29	-799	-9.0	29	e244	---	82	187	129	-341	e11	-37	206
30	-599	-21	35	e136	---	72	149	91	-233	-2.4	55	195
31	e-844	---	e28	e119	---	94	---	67	---	99	67	---
TOTAL	-11045	-7509.8	276.3	1455.6	-182.1	1466	3475.5	3138.0	-5824	-8854.7	3119.8	5189.6
MEAN	-356	-250	8.91	47.0	-6.50	47.3	116	101	-194	-286	101	173
MAX	-59	6.0	45	254	206	157	210	197	117	99	181	253
MIN	-912	-945	-64	-201	-385	-240	-24	7.1	-614	-619	-226	-155
AC-FT	-21910	-14900	548	2890	-361	2910	6890	6220	-11550	-17560	6190	10290

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2002, BY WATER YEAR (WY)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	-109	-32.3	52.6	57.3	39.0	41.1	97.7	125	-31.4	-112	-115	-129															
MAX	365	192	359	365	318	200	393	349	227	111	160	173															
(WY)	1989	1989	1989	2000	1989	1985	1987	1987	1987	1979	1977	2002															
MIN	-564	-313	-182	-107	-177	-107	-226	-93.6	-377	-693	-599	-605															
(WY)	2001	1988	1978	1987	1994	1982	1991	1982	1991	1991	1997	1981															

## SUMMARY STATISTICS

## FOR 2002 WATER YEAR

## WATER YEARS 1976 - 2002

ANNUAL TOTAL	-15294.8	
ANNUAL MEAN	-41.9	-2.02
HIGHEST ANNUAL MEAN		125 1989
LOWEST ANNUAL MEAN		-126 1997
HIGHEST DAILY MEAN	254 Jan 26	766 Apr 25 1983
LOWEST DAILY MEAN	-945 Nov 6	-1400 Sep 30 1992
ANNUAL SEVEN-DAY MINIMUM	-811 Oct 28	-1160 Sep 29 1992
ANNUAL RUNOFF (AC-FT)	-30340	-1460
10 PERCENT EXCEEDS	180	205
50 PERCENT EXCEEDS	33	0.00
90 PERCENT EXCEEDS	-407	-197

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

02278450 WEST PALM BEACH CANAL ABOVE S-5A, NEAR LOXAHATCHEE, FL

LOCATION.--Lat 26°41'05", long 80°22'15", in SW 1/4 sec.32, T.43 S., R.43 E., Palm Beach County, Hydrologic Unit 03090202, near south bank, 500 ft upstream from pump station S-5A, 0.3 mi upstream from Levee 8 Canal, 1.1 mi downstream from bridge on U.S. Highway 441 and Cross Canal, and 6 mi west of Loxahatchee.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WDR FL-93-2A:1983.

GAGE.--Electronic data logger for the conservation area, satellite data collection platform with water-stage shaft encoder for West Palm Beach Canal, Moscad RF Data/Telemetry system operated by South Florida Water Management District for Levee 8 Canal. Satellite data collection platform for Levee 8 Canal discontinued on November 19, 2001. Datum of gage is National Geodetic Vertical Datum of 1929 (South Florida Water Management District bench mark). Prior to September 30, 1967, deflection vane recorder at same site and auxiliary water-stage recorder at control structure 5A-W, 0.3 mi downstream. Prior to October 1, 1981, datum of gage is 0.24 ft higher, from October 1, 1981 to June 22, 1994, datum of gage is -0.19 ft lower, and from June 22, 1994 to October 1, 2001, datum of gage is 0.11 ft higher than present datum. The change in datum is based upon an adjustment to FCE 790 benchmark elevation surveyed by South Florida Water Management District.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow regulated primarily by pumpage at S-5A and to a lesser extent by operation of control structure 5A-W. Major regulation above the station occurs in Cross Canal, 1.5 mi upstream, and at Lake Okeechobee, 20 mi upstream. Discharge is the difference between pumpage at S-5A and gate discharge at S-5A-W. Negative figures indicate flow to the west. See records on Diversions to Conservation Area No. 1 at S-5A, near Loxahatchee (station 02278500; pump station S-5A, upper), for table of daily gage height and extremes for period of record. Starting in water year 2001, negative discharge from control structure S-5A-W is considered estimated due to updated information provided to the U.S. Geological Survey. Prior negative discharges are not marked estimated in the files or databases of U.S. Geological Survey. Estimated discharge does not necessarily indicate negative discharge through control structure S-5A-W.

COOPERATION.--Gate-opening, pump records and supplemental stage data provided by South Florida Water Management District.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 45 complete water years of discharge (1958-2002).

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2440	523	-92	0.00	0.00	0.00	23	0.00	0.00	1970	858	2180
2	1350	542	-90	289	0.00	0.00	0.00	0.00	0.00	2700	846	2010
3	706	398	-91	-2.1	0.00	0.00	0.00	139	220	1550	855	1670
4	718	682	-93	0.00	0.00	208	5.5	-18	558	1040	854	1660
5	761	564	-83	0.00	0.00	0.00	0.00	-8.7	592	858	852	1720
6	0.00	1640	-64	0.00	0.00	22	0.00	513	541	388	856	2400
7	0.00	1490	-42	407	0.00	991	0.00	592	585	1360	856	2230
8	571	620	0.00	0.00	0.00	364	0.00	589	0.00	1760	855	1690
9	0.00	656	0.00	0.00	0.00	0.00	0.00	579	0.00	2740	852	1690
10	0.00	477	0.00	0.00	413	0.00	0.00	579	0.00	3010	851	1690
11	0.00	0.00	0.00	54	2960	0.00	0.00	586	0.00	2580	862	1560
12	573	0.00	0.00	0.00	3030	0.00	0.00	591	0.00	2040	855	1650
13	0.00	0.00	0.00	0.00	1760	-56	0.00	574	43	2650	538	1230
14	0.00	0.00	0.00	261	1110	-134	0.00	842	620	1360	1170	1470
15	0.00	0.00	0.00	638	355	-148	0.00	887	642	477	841	1440
16	644	0.00	0.00	392	880	-274	0.00	856	472	734	1430	1400
17	418	0.00	0.00	278	394	-272	0.00	e202	1960	636	1490	1450
18	531	0.00	0.00	586	0.00	-270	51	0.00	2330	0.00	1350	1410
19	0.00	0.00	0.00	0.00	764	-167	0.00	0.00	1030	494	1590	1460
20	215	64	20	0.00	0.00	0.00	0.00	0.00	2200	0.00	1650	1400
21	0.20	0.00	0.00	0.00	596	0.00	0.00	138	2660	0.00	1980	1150
22	1360	0.00	0.00	6.9	1360	0.00	0.00	0.00	3410	424	2250	1250
23	1750	0.00	0.00	0.00	527	0.00	0.00	0.00	2720	211	2710	1220
24	670	0.00	0.00	0.00	1290	0.00	0.00	0.00	3540	0.00	2660	1250
25	3060	0.00	0.00	0.00	801	0.00	0.00	0.00	3930	0.00	1780	1400
26	2650	-32	0.00	0.00	0.00	0.00	111	0.00	3560	0.00	1580	1420
27	1370	-91	0.00	0.00	0.00	0.00	0.00	0.00	2530	0.00	1260	1350
28	1430	-92	47	0.00	0.00	5.5	0.00	0.00	1400	0.00	1830	1380
29	1070	-93	0.00	0.00	---	0.00	221	0.00	499	544	1570	1400
30	740	-93	0.00	0.00	---	0.00	0.00	38	1280	851	2010	1540
31	513	---	0.00	-0.40	---	0.00	---	224	---	851	2480	---
TOTAL	23540.20	7255.00	-488.00	2909.40	16240.00	269.50	411.50	7902.30	37322.00	31228.00	42421	46770
MEAN	759	242	-15.7	93.9	580	8.69	13.7	255	1244	1007	1368	1559
MAX	3060	1640	47	638	3030	991	221	887	3930	3010	2710	2400
MIN	0.00	-93	-93	-2.1	0.00	-274	0.00	-18	0.00	0.00	538	1150
AC-FT	46690	14390	-968	5770	32210	535	816	15670	74030	61940	84140	92770

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2002, BY WATER YEAR (WY)

MEAN	490	258	211	318	271	291	230	285	511	540	648	768
MAX	1713	1381	907	2149	1321	1588	840	1174	1865	1309	1894	2040
(WY)	2000	1988	1995	1958	1983	1970	1960	1976	1968	1988	1959	1959
MIN	-408	-230	-242	-148	-180	-69.3	-165	-381	-101	-98.8	-162	-107
(WY)	1989	1990	1985	1985	1985	1975	1986	1983	1987	1979	1984	1970

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1958 - 2002
ANNUAL TOTAL	117909.20	215780.90	
ANNUAL MEAN	323	591	402
HIGHEST ANNUAL MEAN			716
LOWEST ANNUAL MEAN			150
HIGHEST DAILY MEAN	4150	Aug 3	3930
LOWEST DAILY MEAN	-160	Jul 4	-274
ANNUAL SEVEN-DAY MINIMUM	-148	Jun 10	-189
ANNUAL RUNOFF (AC-FT)	233900	428000	291500
10 PERCENT EXCEEDS	1350	1750	1370
50 PERCENT EXCEEDS	0.00	43	114
90 PERCENT EXCEEDS	0.00	0.00	-58

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

## 02278500 DIVERSIONS TO CONSERVATION AREA NO. 1 AT S-5A AND S-5A-S, NEAR LOXAHATCHEE, FL

LOCATION.--Lat 26°41'00", long 80°22'10", in SW 1/4 sec.32, T.43 S., R.40 E., Palm Beach County, Hydrologic Unit 03090202, at pump station S-5A, 1.5 mi downstream from Cross Canal, and 6 mi west of Loxahatchee.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1957 to current year. Records of gage heights prior to October 1961 are available in files of the U.S. Geological Survey.

GAGE.--Electronic data logger for the conservation area, satellite data collection platform with water-stage shaft encoder for West Palm Beach Canal. Moscad RF Data/Telemetry system operated by South Florida Water Management District for Levee 8 Canal. Satellite data collection platform for Levee 8 Canal discontinued on November 19, 2001. Datum of gage is National Geodetic Vertical Datum of 1929 (South Florida Water Management District benchmark). Prior to September 30, 1967, auxiliary deflection vane recorder 500 ft upstream and in Levee 8 Canal, and auxiliary water-stage recorder upstream from S-5A-W and downstream from S-5A-E. Prior to October 1, 1981, datum of gage is 0.24 ft higher, from October 1, 1981 to June 22, 1994, datum of gage is -0.19 ft lower, and from June 22, 1994 to October 1, 2001, datum of gage is 0.11 ft higher than present datum. The change in datum is based upon an adjustment to FCE 790 benchmark elevation surveyed by South Florida Water Management District.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Normal flow is considered as that to the south into Conservation Area No.1. Flow is controlled by S-5A pumpage, siphoning, gate operation of S-5A-S, and regulation of Cross Canal, 1.5 mi upstream, and gate structure S-352, 20 mi upstream. Negative figures indicate releases from gate S-5A-S when stage in the conservation area is higher than stage in Levee 8 Canal. The discharge is summation of S-5A pumpage, siphoning and S-5A-S gate flow. Stage determined from either of 2 sources, digital recorder at 02278500 or DCP stage from 02278520 station. Digital recorder discontinued on January 14, 1999. Starting October 1, 2001 the datum of all the gages is 0.11 ft higher. No collections to previous years were deemed necessary. See GAGE.

COOPERATION.--Gate-opening, pump records and supplemental stage record provided by South Florida Water Management District.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 45 complete water years of discharge (1958-2002).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 14.18 ft present datum, Oct. 3, 1957; minimum, 6.78 ft present datum, Oct. 28, 1981. See GAGE.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 12.61 ft Jan. 1; minimum, 8.56 ft Feb 23. See GAGE.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.14	9.58	11.12	12.38	10.96	11.16	11.06	10.67	10.34	9.01	9.45	9.04
2	9.47	9.50	11.24	11.58	11.02	11.17	11.02	10.66	10.98	8.98	9.33	9.14
3	9.93	9.45	11.18	10.99	11.03	11.06	10.99	10.34	10.89	8.82	9.81	9.21
4	10.35	9.21	10.97	10.88	11.06	10.99	10.97	10.61	10.49	9.11	10.09	9.42
5	10.23	9.77	10.64	10.82	10.88	10.78	11.10	10.84	10.08	9.12	10.06	9.32
6	10.80	10.68	10.79	11.02	10.95	10.68	11.16	10.44	10.06	9.60	9.98	9.22
7	11.01	10.01	11.13	11.04	11.15	9.78	11.01	10.07	10.06	9.73	9.73	9.14
8	10.55	10.13	11.34	11.07	11.03	8.97	10.90	10.22	10.53	9.07	9.85	9.36
9	10.70	9.69	11.31	10.98	11.38	9.54	10.80	10.16	10.42	9.07	9.75	9.20
10	10.92	9.62	11.42	11.01	11.50	9.88	10.64	10.10	10.24	9.12	9.95	9.06
11	10.94	10.54	11.31	10.99	9.93	10.03	10.53	10.15	10.18	8.94	10.12	9.21
12	10.40	10.88	11.19	11.00	9.19	10.10	10.83	10.30	10.05	9.00	10.14	9.07
13	10.47	11.15	10.92	10.95	9.09	10.28	10.96	10.26	10.56	8.94	10.34	9.10
14	10.75	11.30	10.76	10.78	8.91	10.47	11.12	9.86	10.18	8.96	9.99	9.14
15	10.97	11.34	11.05	10.93	9.34	10.62	11.00	9.78	9.68	9.59	8.89	9.02
16	10.31	11.38	11.11	10.74	9.99	10.64	11.12	10.02	9.54	10.44	9.08	9.09
17	10.09	11.11	11.12	10.62	9.81	10.66	11.38	10.41	9.48	9.73	9.16	9.12
18	9.76	11.11	11.06	10.29	11.33	10.66	11.17	10.40	9.10	10.12	9.34	9.02
19	10.23	11.03	11.13	10.53	10.63	10.56	10.78	10.18	9.80	9.54	9.26	9.17
20	10.09	10.94	11.05	10.66	10.94	10.84	10.88	10.83	9.64	9.65	9.22	9.08
21	10.23	10.92	10.91	10.76	10.51	10.94	11.09	11.00	9.04	10.11	9.27	9.18
22	9.80	10.85	10.82	10.88	9.61	10.90	10.89	10.67	8.91	9.89	9.54	9.10
23	9.05	10.99	10.74	10.83	9.23	10.85	10.66	10.23	8.92	9.16	9.49	9.26
24	9.61	11.18	10.90	10.75	10.21	10.78	10.53	10.06	8.99	9.60	9.52	9.12
25	9.93	11.18	11.03	10.68	9.26	10.81	10.45	10.40	9.04	10.16	9.36	9.23
26	9.09	11.07	11.57	10.64	10.83	10.71	10.52	10.57	9.00	10.26	9.27	9.08
27	9.82	11.09	11.70	10.66	10.86	10.99	10.82	10.50	8.99	10.09	9.12	8.98
28	10.60	11.01	11.57	10.67	10.94	11.01	11.01	10.17	9.01	10.04	9.29	9.16
29	10.58	10.93	11.53	10.97	---	11.06	10.70	10.09	9.51	10.15	9.28	9.17
30	9.89	10.96	11.63	10.89	---	10.89	10.75	10.37	9.65	10.13	9.35	9.20
31	9.97	---	11.95	10.85	---	10.96	---	10.57	---	9.89	9.22	---
TOTAL	315.68	318.60	346.19	337.84	291.57	328.77	326.84	320.93	293.36	296.02	296.25	274.61
MEAN	10.18	10.62	11.17	10.90	10.41	10.61	10.89	10.35	9.78	9.55	9.56	9.15
MAX	11.01	11.38	11.95	12.38	11.50	11.17	11.38	11.00	10.98	10.44	10.34	9.42
MIN	9.05	9.21	10.64	10.29	8.91	8.97	10.45	9.78	8.91	8.82	8.89	8.98

02278500 DIVERSIONS TO CONSERVATION AREA NO. 1 AT S-5A AND S-5A-S, NEAR LOXAHATCHEE, FL--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2440	523	0.00	0.00	233	-164	23	0.00	0.00	1970	503	2110
2	1350	542	0.00	289	208	-258	0.00	0.00	0.00	2700	496	1860
3	706	398	0.00	0.00	241	-214	0.00	139	220	1550	490	1610
4	718	682	0.00	0.00	260	-10	5.0	-20	558	1040	499	1570
5	761	564	0.00	0.00	235	-148	0.00	-54	592	858	556	1720
6	0.00	1640	0.00	0.00	220	-171	0.00	539	541	388	639	2400
7	0.00	1490	0.00	279	226	855	0.00	514	585	1360	623	2110
8	571	610	0.00	0.00	215	290	0.00	505	0.00	1760	622	1510
9	0.00	562	0.00	0.00	245	-189	0.00	477	0.00	2740	530	1390
10	0.00	387	0.00	0.00	590	-189	0.00	486	0.00	3010	430	1360
11	0.00	-102	0.00	54	2960	-184	0.00	491	0.00	2580	313	1310
12	573	-136	0.00	0.00	3030	-174	0.00	497	0.00	2040	466	1610
13	0.00	-140	-18	0.00	1600	-111	0.00	531	43	2650	339	976
14	0.00	-140	0.00	261	805	22	0.00	759	620	1360	1170	1010
15	0.00	-141	0.00	409	155	-134	0.00	792	642	477	841	918
16	644	-141	0.00	206	884	-374	0.00	809	472	734	1080	965
17	418	-153	0.00	130	197	-282	0.00	e202	1960	636	1170	1140
18	531	-188	0.00	338	-189	-277	51	0.00	2330	0.00	1040	1090
19	0.00	-192	0.00	116	494	-177	0.00	0.00	1030	494	1320	1130
20	215	-163	20	157	-189	0.00	0.00	0.00	2200	0.00	1510	961
21	0.20	-273	0.00	207	561	0.00	0.00	138	2660	0.00	1860	555
22	1360	-288	0.00	170	1240	0.00	0.00	0.00	3410	424	2070	663
23	1750	-147	-109	198	502	0.00	0.00	0.00	2720	204	2570	660
24	670	0.00	-28	151	1260	0.00	0.00	0.00	3540	-302	2440	738
25	3060	0.00	0.00	234	631	0.00	0.00	0.00	3930	-328	1570	881
26	2700	0.00	0.00	231	-46	0.00	111	0.00	3560	-274	1320	933
27	1370	0.00	-48	254	-98	0.00	0.00	0.00	2530	-413	1120	864
28	1430	0.00	47	242	-128	5.5	-70	0.00	1400	-423	1710	849
29	1070	0.00	0.00	271	---	0.00	166	0.00	499	121	1480	822
30	740	0.00	-60	204	---	0.00	0.00	38	1280	454	2010	1100
31	513	---	-31	222	---	0.00	---	224	---	455	2410	---
TOTAL	23590.20	5194.00	-227.00	4623.00	16342	-1883.50	286.00	7067.00	37322.00	28265.00	35197	36815
MEAN	761	173	-7.32	149	584	-60.8	9.53	228	1244	912	1135	1227
MAX	3060	1640	47	409	3030	855	166	809	3930	3010	2570	2400
MIN	0.00	-288	-109	0.00	-189	-374	-70	-54	0.00	-423	313	555
AC-FT	46790	10300	-450	9170	32410	-3740	567	14020	74030	56060	69810	73020

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2002, BY WATER YEAR (WY)

MEAN	597	240	132	244	178	211	134	240	525	522	639	844
MAX	2528	1719	1063	2605	1478	1992	820	1440	2750	1592	1728	2637
(WY)	1996	1988	1995	1958	1983	1970	1991	1984	1968	1968	1974	1960
MIN	-204	-870	-537	-460	-456	-144	-326	-184	-300	-136	-141	18.2
(WY)	1981	1992	1992	1984	1987	1999	1995	1994	1989	1989	1984	1961

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1958 - 2002

ANNUAL TOTAL	105864.80	192590.70	
ANNUAL MEAN	290	528	376
HIGHEST ANNUAL MEAN			660
LOWEST ANNUAL MEAN			111
HIGHEST DAILY MEAN	4150	Aug 3	3930
LOWEST DAILY MEAN	-358	Sep 5	-423
ANNUAL SEVEN-DAY MINIMUM	-349	Aug 30	-202
ANNUAL RUNOFF (AC-FT)	210000		382000
10 PERCENT EXCEEDS	1350		1670
50 PERCENT EXCEEDS	0.00		206
90 PERCENT EXCEEDS	-125		-105
			7040
			-2200
			-1570
			272500
			1480
			0.00
			-75

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

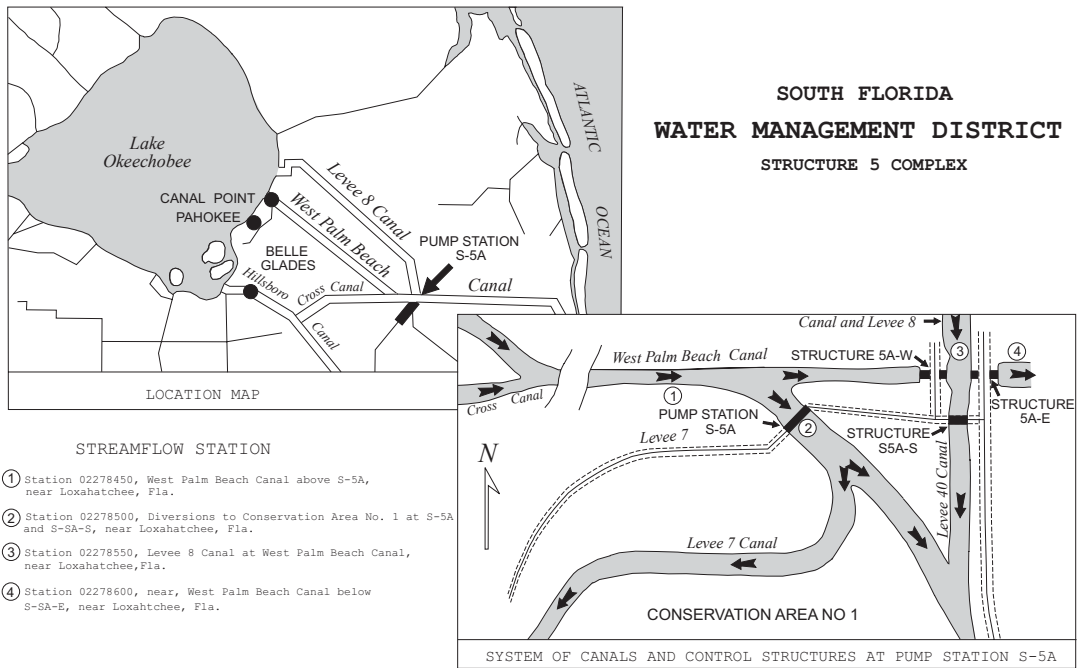


Figure 6. South Florida Water Management District, Structure 5 Complex.



02278501 CONSERVATION AREA NO. 1 BELOW S-5 COMPLEX, NEAR LOXAHATCHEE, FL

LOCATION.--Lat 26°41'00", long 80°22'10", in SW 1/4 sec.32, T.43 S., R.40 E., Palm Beach County, Hydrologic Unit 03090202, at pump station S-5A, 1.5 mi downstream from Cross Canal, and 6 mi west of Loxahatchee.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--January 1955 to current year (gage heights only).

GAGE.--Electronic data logger. Datum of gage is National Geodetic Vertical Datum of 1929 (South Florida Water Management District bench marks). Prior to October 1, 1981, datum of gage is 0.24 ft higher, from October 1, 1981 to June 22, 1994, datum of gage is -0.19 ft lower, and from June 22, 1994 to October 1, 2001, datum of gage is 0.11 ft higher than present datum. The change in datum is based upon an adjustment to FCE 790 benchmark elevation surveyed by South Florida Water Management District.

REMARKS.--Gage records water level in Conservation Area No. 1 at structure 5 complex. Stage is affected by pumping at S-5A and S-6 and the operation of gated-control structures in levees 39 and 40. Discharge for S-5A-S is stored under this station number in the U.S. Geological Survey's database starting 1991 water year. Records of gage height prior to October 1967 are available from the files of the U.S. Geological Survey.

COOPERATION.--Supplemental stage record provided by South Florida Water Management District.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 19.04 ft present datum, Oct. 18 1999; minimum, 8.18 ft present datum, Apr. 20, 24, 1956. See GAGE.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 18.56 ft June 21, 22; minimum, 12.03 ft Jan 8.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.84	16.46	16.84	15.76	13.35	14.01	14.22	15.46	13.36	15.16	14.64	15.71
2	16.69	16.41	16.84	14.61	13.21	14.12	14.41	15.16	13.09	16.67	14.51	15.22
3	16.36	16.40	16.72	14.46	13.00	14.27	14.26	15.64	13.52	15.02	14.56	14.83
4	16.13	16.54	16.30	14.80	13.20	14.83	14.12	15.94	13.99	14.57	14.47	14.72
5	16.28	16.48	16.80	14.05	13.33	14.21	14.02	14.93	14.03	14.76	14.67	14.99
6	16.01	16.76	16.80	14.16	13.22	14.10	13.92	14.13	13.97	14.59	14.52	15.96
7	15.86	16.41	16.88	14.93	13.22	15.13	13.80	13.42	14.04	15.23	14.56	15.75
8	16.19	16.41	16.92	13.87	13.27	14.28	13.73	13.32	13.52	15.52	14.53	14.68
9	16.14	16.46	16.90	14.21	13.10	14.17	13.67	13.90	13.30	16.42	14.63	14.66
10	15.97	16.34	16.88	14.21	13.59	14.19	13.64	14.28	13.15	17.01	14.59	14.73
11	15.80	15.66	16.86	14.14	16.69	14.22	13.62	14.27	13.09	16.70	14.83	14.86
12	16.09	15.71	16.79	14.39	16.99	14.26	13.56	14.26	13.08	15.56	14.74	14.93
13	16.00	15.80	16.80	14.18	15.25	14.37	13.51	14.00	13.44	16.48	14.41	14.71
14	15.84	15.85	16.81	14.53	15.19	14.21	13.59	14.19	14.12	15.03	15.00	14.71
15	15.70	15.87	16.81	14.71	14.71	14.21	13.70	14.03	14.20	14.44	14.72	14.65
16	16.18	15.87	16.80	14.55	15.05	14.70	13.74	14.19	14.03	14.41	14.59	14.73
17	16.34	15.85	16.79	15.18	14.98	14.60	13.76	13.91	15.78	14.29	14.68	14.58
18	16.43	15.58	16.76	15.73	14.60	14.54	14.26	13.26	16.46	13.86	14.64	14.64
19	16.22	15.52	16.74	14.78	14.91	14.47	14.71	13.16	14.57	14.10	14.76	14.68
20	16.28	15.54	16.74	13.66	14.64	14.38	14.51	13.18	16.58	13.74	14.71	14.71
21	16.26	15.55	16.70	13.56	14.94	14.31	14.31	13.38	16.67	13.76	15.25	14.68
22	16.53	15.64	16.70	13.53	15.26	14.23	14.04	13.22	18.24	13.89	15.66	14.66
23	16.66	15.68	16.65	13.60	15.18	14.11	13.72	13.06	18.01	13.79	16.32	14.66
24	16.54	15.63	16.64	13.53	15.78	13.98	13.28	12.88	18.12	14.35	16.32	14.69
25	17.21	15.57	16.64	13.39	15.96	13.87	13.34	12.75	18.00	14.61	15.19	14.64
26	16.87	15.79	16.63	13.02	14.18	13.75	14.37	12.67	17.84	14.60	14.81	14.63
27	16.57	16.68	16.62	13.03	14.18	13.77	15.14	12.62	17.55	14.77	14.67	14.59
28	16.65	16.85	16.65	13.06	14.15	13.92	13.72	12.56	15.03	14.70	15.19	14.64
29	16.30	16.87	16.65	13.05	---	13.95	14.64	12.49	13.72	14.62	14.69	14.79
30	16.24	16.86	16.63	13.16	---	13.96	15.74	13.20	15.11	14.59	15.38	14.68
31	16.46	---	16.63	13.23	---	13.95	---	13.84	---	14.65	15.92	---
TOTAL	505.64	483.04	518.92	437.07	405.13	441.07	421.05	427.30	449.61	461.89	462.16	445.11
MEAN	16.31	16.10	16.74	14.10	14.47	14.23	14.04	13.78	14.99	14.90	14.91	14.84
MAX	17.21	16.87	16.92	15.76	16.99	15.13	15.74	15.94	18.24	17.01	16.32	15.96
MIN	15.70	15.52	16.30	13.02	13.00	13.75	13.28	12.49	13.08	13.74	14.41	14.58

## 02278550 LEVEE 8 CANAL AT WEST PALM BEACH CANAL NEAR LOXAHATCHEE, FL

LOCATION.--Lat 26°41'05", long 80°21'35", in SE 1/4 sec.32, T.43 S., R.40 E., Palm Beach County, Hydrologic Unit 03090202, 37 mi east of Belle Glade on U.S. Highway 441, 21 mi southeast of Canal Point on U.S. Highway 98 and 6 mi west of Loxahatchee.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1957 to current year.

REVISED RECORDS.--WDR FL-84-2A: 1982, (revised maximum negative discharge).

GAGE.--Satellite data collection platform with water-stage shaft encoder for Levee 8 Canal and West Palm Beach Canal west of Levee 8 Canal, Moscad RF Data/Telemetry system operated by South Florida Water Management District for West Palm Beach Canal east of Levee 8 Canal, electronic data logger for Conservation area. Satellite data collection platform for Levee 8 discontinued on November 19, 2001. Datum of gage is National Geodetic Vertical Datum of 1929 (South Florida Water Management District benchmark). Prior to October 1, 1981, datum of gage is 0.24 ft higher, from October 1, 1981 to June 22, 1994, datum of gage is -0.19 ft lower, and from June 22, 1994 to October 1, 2001, datum of gage is 0.11 ft higher than present datum. The change in datum is based upon an adjustment to FCE 790 benchmark elevation surveyed by South Florida Water Management District.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by operation of S-5A-E, S-5A-S, and S-5A-W, just downstream and pumpage at S-5A. Gate operation and pumpage occasionally reverses the flow (negative figures indicate flow reversed). Discharge is summation of flows at S-5A-E, S-5A-S, and S-5A-W. Discharge computed from relation between discharge, head, and gate openings. Records of gage heights prior to October 1961, are available in files of the U.S. Geological Survey, (USGS). Prior to September 30, 1967, deflection vane recorder at upstream side in center of span of bridge on U.S. Highway 441, 50 ft upstream from mouth and West Palm Beach Canal. Satellite data collection platform with acoustic velocity meter installed April 11, 1991, at same location of satellite data collection platform, removed October, 1993. Starting in the water year 2001, negative discharge from control structure S-5A-W and S-5A-E is considered estimated due to updated information, provided to USGS about the site. Prior negative discharges are not marked estimated in the files or data bases of USGS. Estimated discharge does not necessarily indicate negative discharges through these control structures.

COOPERATION.--Gate-opening record and supplemental stage record provided by South Florida Water Management District.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 42 complete water years of discharge (1958-89, 1991-92, 1994-98, 2000-02).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 19.69 ft present datum, Oct. 18, 1995; minimum, 8.21 ft present datum, Mar. 17, 1969. See GAGE.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 16.95 ft Oct. 26; minimum, 10.06 ft June 7.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.19	15.27	15.16	14.23	13.38	13.90	13.63	11.84	11.11	14.20	13.45	13.26
2	15.58	14.99	15.16	14.03	13.24	13.83	13.54	12.02	11.40	15.39	13.34	13.12
3	14.86	15.07	15.15	13.98	13.03	14.07	13.53	11.79	11.40	15.58	13.31	13.34
4	14.58	14.79	15.11	14.23	13.24	14.33	13.48	11.68	10.69	15.04	13.29	13.25
5	14.66	15.42	14.98	13.98	13.36	14.08	13.53	11.90	10.61	14.34	13.43	13.54
6	14.41	15.32	14.71	13.59	13.25	13.94	13.17	11.73	10.55	14.42	13.24	14.64
7	14.28	14.88	14.68	13.99	13.25	14.34	13.02	11.73	10.20	14.37	13.26	13.26
8	14.41	14.59	15.05	14.32	13.29	14.04	12.93	11.62	11.02	14.50	13.23	13.21
9	14.78	14.73	15.17	14.35	13.14	14.03	12.82	11.57	11.67	15.55	13.17	13.19
10	14.70	14.76	15.13	14.26	13.56	14.05	12.88	11.62	11.74	16.11	13.17	13.13
11	14.82	14.61	14.98	14.16	15.03	14.09	12.35	11.62	12.09	16.21	13.28	13.25
12	14.84	14.70	14.64	13.97	15.11	14.14	12.54	11.71	11.98	16.13	13.46	13.24
13	14.77	14.72	14.46	13.69	14.97	14.30	12.65	11.63	11.92	16.06	13.32	13.11
14	14.74	14.77	14.54	13.62	14.80	14.23	13.04	11.40	12.08	15.98	14.18	13.12
15	14.78	14.77	14.94	14.68	14.61	14.09	13.56	11.44	11.98	15.78	14.41	13.33
16	14.92	14.78	15.09	14.89	14.70	14.58	13.61	11.48	11.88	15.57	13.15	13.27
17	14.95	14.70	14.93	15.10	14.76	14.55	13.49	11.62	12.22	14.81	13.35	13.12
18	15.00	14.64	14.74	15.65	14.46	14.48	13.50	11.66	12.94	15.19	13.20	13.14
19	15.13	14.55	14.64	14.80	14.53	14.40	13.59	11.84	13.57	15.44	13.39	13.15
20	14.96	14.57	14.39	13.68	14.46	14.13	13.31	12.21	13.70	15.28	13.23	13.12
21	14.86	14.63	14.42	13.59	14.48	14.16	13.19	12.41	14.12	14.41	13.35	13.07
22	14.84	14.78	14.24	13.55	14.27	14.13	13.10	12.34	14.98	14.44	13.19	13.14
23	15.37	14.96	14.18	13.63	14.89	13.82	13.18	11.93	15.15	13.65	13.22	13.25
24	15.54	15.36	14.50	13.55	14.87	13.69	12.81	11.65	15.20	13.32	13.24	13.30
25	16.18	15.38	14.40	13.42	14.42	13.34	12.89	11.75	15.42	13.97	13.03	13.17
26	16.82	15.14	14.29	13.05	14.06	13.41	12.84	11.75	15.48	13.68	13.31	13.27
27	16.47	15.07	14.21	13.06	14.13	13.67	12.39	11.75	15.18	13.63	13.22	13.25
28	15.94	15.06	14.53	13.10	14.08	13.83	12.21	11.73	14.78	13.59	13.26	13.05
29	15.43	15.09	14.37	13.09	---	13.69	12.43	11.66	14.21	13.64	13.26	13.36
30	15.22	15.15	14.18	13.18	---	13.66	12.08	11.67	13.66	13.73	13.27	13.36
31	15.50	---	14.34	13.26	---	13.57	---	11.37	---	13.61	13.18	---
TOTAL	469.53	447.25	455.31	431.68	395.37	434.57	391.29	364.12	382.93	457.62	413.39	398.01
MEAN	15.15	14.91	14.69	13.93	14.12	14.02	13.04	11.75	12.76	14.76	13.34	13.27
MAX	16.82	15.42	15.17	15.65	15.11	14.58	13.63	12.41	15.48	16.21	14.41	14.64
MIN	14.28	14.55	14.18	13.05	13.03	13.34	12.08	11.37	10.20	13.32	13.03	13.05

02278550 LEVEE 8 CANAL AT WEST PALM BEACH CANAL NEAR LOXAHATCHEE, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	318	469	92	0.00	233	232	33	83	0.00	0.00	209	421
2	355	395	90	0.00	208	144	27	51	0.00	0.00	199	366
3	346	337	91	2.2	241	202	19	84	55	0.00	181	417
4	320	394	93	0.00	260	198	0.80	87	87	0.00	146	421
5	311	313	83	0.00	235	276	12	-24	85	0.00	202	414
6	310	454	64	0.00	220	228	23	26	84	0.00	258	458
7	312	490	42	-128	226	77	15	-3.7	68	0.00	237	456
8	218	488	0.00	0.00	215	258	18	14	0.00	0.00	229	446
9	118	416	0.00	0.00	245	220	43	15	0.00	0.00	172	347
10	37	419	0.00	0.00	177	222	53	2.3	0.00	0.00	118	294
11	0.00	408	0.00	0.00	0.00	177	68	2.8	0.00	0.00	-7.8	383
12	0.00	367	0.00	0.00	0.00	174	44	-15	0.00	0.00	111	595
13	0.00	368	-18	0.00	77	169	31	20	0.00	0.00	115	409
14	0.00	370	0.00	0.00	59	166	8.4	11	0.00	0.00	0.00	231
15	24	371	0.00	-150	213	88	0.00	0.90	0.00	48	161	226
16	0.00	370	0.00	-94	203	-76	0.00	-1.7	0.00	93	176	310
17	0.00	350	0.00	-147	198	-10	0.00	0.00	0.00	245	140	412
18	0.00	315	0.00	-248	200	-7.1	0.00	0.00	0.00	0.00	155	384
19	0.00	307	0.00	116	104	-9.7	0.00	0.00	0.00	0.00	237	377
20	0.00	275	0.00	157	79	0.00	0.00	0.00	0.00	142	339	268
21	1.3	235	0.00	207	32	0.00	0.00	0.00	0.00	250	355	111
22	92	228	0.00	163	190	0.00	0.00	0.00	0.00	202	323	144
23	0.00	93	-109	198	25	0.00	0.00	0.00	0.00	390	371	176
24	0.00	0.00	-28	151	219	0.00	0.00	0.00	0.00	152	323	221
25	0.00	0.00	0.00	264	235	107	0.00	0.00	0.00	114	310	198
26	161	127	0.00	286	354	0.00	34	0.00	0.00	202	275	251
27	258	91	-48	262	320	0.00	52	0.00	0.00	88	360	249
28	251	92	0.00	263	288	0.40	-19	0.00	0.00	81	384	161
29	373	93	0.00	346	---	28	31	0.00	0.00	84	410	164
30	413	93	-60	308	---	0.00	100	0.00	0.00	124	462	304
31	480	---	-31	222	---	0.00	---	0.00	---	154	423	---
TOTAL	4698.30	8728.00	261.00	2178.20	5056.00	2863.60	593.20	352.60	379.00	2369.00	7373.20	9614
MEAN	152	291	8.42	70.3	181	92.4	19.8	11.4	12.6	76.4	238	320
MAX	480	490	93	346	354	276	100	87	87	390	462	595
MIN	0.00	0.00	-109	-248	0.00	-76	-19	-24	0.00	0.00	-7.8	111
AC-FT	9320	17310	518	4320	10030	5680	1180	699	752	4700	14620	19070

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1958 - 2002, BY WATER YEAR (WY)

	248	132	69.7	121	67.5	104	88.8	85.5	114	162	173	245
MEAN	248	132	69.7	121	67.5	104	88.8	85.5	114	162	173	245
MAX	1169	691	616	820	503	714	648	728	896	1048	856	937
(WY)	1996	1960	1995	1958	1983	1970	1970	1984	1968	1992	1986	1960
MIN	-218	-838	-565	-139	-486	-193	-175	-208	-330	-286	-151	-509
(WY)	1977	1992	1992	1976	1999	1977	1974	1992	1989	1982	1977	1981

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1958 - 2002

ANNUAL TOTAL	5993.90	44466.10		
ANNUAL MEAN	16.4	122	139	
HIGHEST ANNUAL MEAN			453	1970
LOWEST ANNUAL MEAN			-76.7	1977
HIGHEST DAILY MEAN	490	Nov 7	595	Sep 12
LOWEST DAILY MEAN	-358	Sep 5	-248	Jan 18
ANNUAL SEVEN-DAY MINIMUM	-351	Aug 31	-91	Jan 12
ANNUAL RUNOFF (AC-FT)	11890		88200	100800
10 PERCENT EXCEEDS	241		366	435
50 PERCENT EXCEEDS	0.00		68	78
90 PERCENT EXCEEDS	-76		0.00	-107

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## 02278600 WEST PALM BEACH CANAL BELOW S-5A-E, NEAR LOXAHATCHEE, FL

LOCATION.--Lat 26°41'05", long 80°21'50", in SE 1/4 sec.32, T.43 S., R.40 E., Palm Beach County, Hydrologic Unit 03090202, near left bank, 350 ft downstream from control structure 5A-E, and 6 mi west of Loxahatchee.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--September 1955 to current year. Monthly discharge only for September 1955, published in WSP 1724. Records of gage heights prior to October 1961, are available in files of the U.S. Geological Survey.

GAGE.--South Florida Water Management District Moscad CR 10 Rfdata/telemetry system for West Palm Beach Canal east of Levee 8 Canal (east of S-5A-E structure and Levee 8 Canal). Satellite data collection platform with water-stage shaft encoder for Levee 8 Canal discontinued on November 19, 2001. Datum of gage is National Geodetic Vertical Datum of 1929 (South Florida Water Management District bench mark). Auxiliary water-stage recorder on West Palm Beach Canal 100 ft east from S-5A-E discontinued on January 14, 1999. Prior to October 1, 1981, datum of gage is 0.24 ft higher, from October 1, 1981 to June 22, 1994, datum of gage is -0.19 ft lower, and from June 22, 1994 to October 1, 2001, datum of gage is 0.11 ft higher than present datum. The change in datum is based upon an adjustment to FCE 790 benchmark elevation surveyed by South Florida Water Management District.

REMARKS.--No estimated daily discharges. Records fair. Normal flow to east regulated at S-5A-E for irrigation and drainage. Flow diverted upstream from station through S-5A-S and by pumpage at S-5A. Flow materially affected by regulation of Cross Canal 1.5 mi upstream and gate structure S-352, 20 mi upstream. Negative figures indicate flow to the west. Discharge computed from relations between discharge, head, and gate openings at S-5A-E. Acoustic velocity meter installed May 1, 1991, along with satellite data collection platform. Acoustic velocity meter removed September 30, 1993. No discharge was computed using the acoustic velocity meter record. Starting in water year 2001, negative discharge is considered estimated, due to updated information provided to the U.S. Geological Survey, (USGS). Prior negative discharges are not marked estimated in the files or databases of USGS.

COOPERATION.--Gate-opening record provided by South Florida Water Management District.

ANNUAL MEAN AND ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 44 complete water years of discharge (1956-89, 1991-92, 1994-98, 2000-02).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 17.45 ft present datum, Oct. 16, 1999; minimum, 6.16 ft present datum, Sept. 9, 1965. See GAGE.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 13.14 ft July 13; minimum, 7.37 ft May 30.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.62	10.79	8.62	8.57	8.76	9.91	8.45	8.33	7.65	9.75	10.84	10.79
2	11.58	10.81	8.70	8.65	8.51	9.80	8.48	8.16	7.59	10.01	10.88	10.83
3	11.03	10.61	8.72	8.61	8.56	9.79	8.47	8.13	7.64	9.24	10.87	10.64
4	10.67	10.56	8.72	8.50	8.58	9.84	8.54	8.21	7.84	9.25	10.77	10.83
5	10.50	9.81	8.74	8.46	8.65	9.83	8.47	8.12	7.86	8.73	10.66	10.91
6	10.25	10.72	8.74	8.53	8.67	9.90	8.44	7.94	7.88	8.96	10.73	11.13
7	10.07	10.73	9.00	8.58	8.58	9.31	8.48	7.95	7.90	8.92	10.80	11.64
8	9.72	10.66	8.37	8.53	8.53	9.63	8.45	8.09	8.31	9.40	10.86	11.64
9	9.21	10.59	8.34	8.55	8.58	9.90	8.45	8.07	8.21	11.15	10.64	11.64
10	8.94	10.64	8.68	8.59	8.27	9.88	8.46	8.10	8.45	12.03	10.76	11.64
11	8.64	10.64	8.68	8.56	9.24	9.89	8.47	8.13	8.47	11.69	10.86	11.73
12	8.48	10.64	8.69	8.51	8.83	9.94	8.46	8.14	8.52	11.47	10.79	11.57
13	8.35	10.58	8.70	8.48	8.98	9.37	8.47	8.01	7.86	12.88	10.06	11.61
14	8.32	10.59	8.68	8.55	9.80	8.08	8.43	8.03	7.82	11.53	8.18	11.60
15	8.62	10.58	8.73	8.79	9.90	8.40	7.86	8.03	7.88	10.46	8.90	11.73
16	8.88	10.51	8.78	8.94	9.29	8.61	8.19	7.95	7.90	10.52	10.73	11.69
17	8.94	10.50	8.64	8.64	9.63	8.60	8.34	8.11	8.64	10.89	10.72	11.61
18	8.88	10.44	8.72	8.58	9.74	8.59	8.40	8.15	8.93	11.78	10.60	11.72
19	8.51	10.42	8.70	8.58	9.92	8.57	8.50	8.21	9.01	11.89	10.78	11.73
20	8.24	10.39	8.60	8.60	9.51	8.53	8.49	8.57	8.74	10.76	10.73	11.69
21	8.41	10.35	8.67	8.60	8.48	8.48	8.54	8.32	11.06	10.54	10.74	11.64
22	9.44	10.35	8.69	8.57	9.77	8.44	8.55	8.20	10.48	9.66	10.73	11.64
23	9.55	9.40	8.71	8.59	8.86	8.45	8.54	8.35	9.88	10.40	10.70	11.70
24	8.94	8.23	8.70	8.56	9.16	8.47	8.53	8.30	9.73	10.91	10.73	11.77
25	9.27	8.31	8.67	8.56	9.95	8.72	8.42	8.18	10.16	10.85	10.70	11.69
26	9.76	8.71	8.74	8.68	9.82	8.54	8.35	8.09	9.80	10.75	10.78	11.70
27	10.11	8.69	8.63	8.65	9.82	8.46	8.28	8.06	9.18	10.83	10.83	11.69
28	9.87	8.69	8.73	8.59	9.92	8.46	8.28	7.83	8.90	10.76	10.87	11.67
29	10.17	8.65	8.72	8.60	---	8.51	8.31	7.55	8.64	10.77	10.87	11.77
30	10.63	8.61	8.72	8.74	---	8.49	8.39	7.47	8.79	10.71	10.81	11.77
31	10.60	---	8.83	8.64	---	8.44	---	7.61	---	10.62	10.75	---
TOTAL	297.20	301.20	269.36	266.58	256.31	279.83	252.49	250.39	259.72	328.11	328.67	345.41
MEAN	9.59	10.04	8.69	8.60	9.15	9.03	8.42	8.08	8.66	10.58	10.60	11.51
MAX	12.62	10.81	9.00	8.94	9.95	9.94	8.55	8.57	11.06	12.88	10.88	11.77
MIN	8.24	8.23	8.34	8.46	8.27	8.08	7.86	7.47	7.59	8.73	8.18	10.64

02278600 WEST PALM BEACH CANAL BELOW S-5A-E, NEAR LOXAHATCHEE, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	318	469	0.00	0.00	0.00	396	33	83	0.00	0.00	564	496
2	355	395	0.00	0.00	0.00	402	27	51	0.00	0.00	548	513
3	346	337	0.00	0.10	0.00	416	19	84	55	0.00	546	472
4	320	394	0.00	0.00	0.00	416	1.3	90	87	0.00	501	516
5	311	313	0.00	0.00	0.00	424	12	21	85	0.00	498	414
6	310	454	0.00	0.00	0.00	421	23	0.00	84	0.00	475	458
7	312	490	0.00	0.00	0.00	213	15	74	68	0.00	470	577
8	218	498	0.00	0.00	0.00	332	18	98	0.00	0.00	461	627
9	118	510	0.00	0.00	0.00	409	43	117	0.00	0.00	495	647
10	37	509	0.00	0.00	0.00	411	53	95	0.00	0.00	539	620
11	0.00	510	0.00	0.00	0.00	361	68	97	0.00	0.00	541	633
12	0.00	503	0.00	0.00	0.00	348	44	80	0.00	0.00	500	636
13	0.00	508	0.00	0.00	238	223	31	63	0.00	0.00	314	666
14	0.00	510	0.00	0.00	364	11	8.4	95	0.00	0.00	0.00	688
15	24	512	0.00	79	413	74	0.00	96	0.00	48	161	747
16	0.00	511	0.00	92	198	23	0.00	46	0.00	93	527	745
17	0.00	503	0.00	0.00	394	0.00	0.00	0.00	0.00	245	461	727
18	0.00	503	0.00	0.00	389	0.00	0.00	0.00	0.00	0.00	468	708
19	0.00	499	0.00	0.00	374	0.00	0.00	0.00	0.00	0.00	506	705
20	0.00	501	0.00	0.00	268	0.00	0.00	0.00	0.00	142	476	708
21	1.3	508	0.00	0.00	67	0.00	0.00	0.00	0.00	250	481	708
22	92	516	0.00	0.00	316	0.00	0.00	0.00	0.00	202	497	726
23	0.00	240	0.00	0.00	50	0.00	0.00	0.00	0.00	396	514	738
24	0.00	0.00	0.00	0.00	249	0.00	0.00	0.00	0.00	454	535	733
25	0.00	0.00	0.00	29	405	107	0.00	0.00	0.00	442	516	721
26	108	95	0.00	55	400	0.00	34	0.00	0.00	476	531	740
27	258	0.00	0.00	7.6	418	0.00	52	0.00	0.00	501	492	739
28	251	0.00	0.00	21	416	0.40	51	0.00	0.00	504	501	695
29	373	0.00	0.00	75	---	28	86	0.00	0.00	507	496	747
30	413	0.00	0.00	104	---	0.00	100	0.00	0.00	521	462	746
31	480	---	0.00	0.00	---	0.00	---	0.00	---	550	498	---
TOTAL	4645.30	10788.00	0.00	462.70	4959.00	5015.40	718.70	1190.00	379.00	5331.00	14574.00	19596
MEAN	150	360	0.000	14.9	177	162	24.0	38.4	12.6	172	470	653
MAX	480	516	0.00	104	418	424	100	117	87	550	564	747
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	414
AC-FT	9210	21400	0.00	918	9840	9950	1430	2360	752	10570	28910	38870

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1956 - 2002, BY WATER YEAR (WY)

MEAN	148	151	145	184	158	179	188	136	108	183	182	174
MAX	623	650	697	679	700	795	661	626	662	1106	790	653
(WY)	1958	1961	1961	1960	1961	1983	1983	1960	1961	1992	1959	2002
MIN	-21.3	-39.6	0.000	-26.6	0.000	-57.1	-113	-74.8	-254	-106	-1.77	-76.4
(WY)	1984	1972	1972	1991	1957	1982	1999	1982	1982	1985	1956	1977

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1956 - 2002

ANNUAL TOTAL	18039.10	67659.10	
ANNUAL MEAN	49.4	185	165
HIGHEST ANNUAL MEAN			573
LOWEST ANNUAL MEAN			1.43
HIGHEST DAILY MEAN	516	Nov 22	747
LOWEST DAILY MEAN	-61	Jun 28	0.00
ANNUAL SEVEN-DAY MINIMUM	-8.7	Jun 22	0.00
ANNUAL RUNOFF (AC-FT)	35780		134200
10 PERCENT EXCEEDS	254		516
50 PERCENT EXCEEDS	0.00		29
90 PERCENT EXCEEDS	0.00		0.00

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02279000 WEST PALM BEACH CANAL AT WEST PALM BEACH, FL

LOCATION.--Lat 26°38'40", long 80°03'22", in NW 1/4 sec.15, T.44 S., R.34 E., Palm Beach County, Hydrologic Unit 03090202, at control structure S-155, on left bank in concrete control house north of control structure, 200 ft downstream from bridge on U.S. Highway 1, and 4.9 mi south of courthouse in West Palm Beach.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1939 to current year. Records of gage heights prior to October 1961 are available in files of the U.S. Geological Survey.

REVISED RECORDS.--WDR FL-91-2A: 1986-89.

GAGE.--Electronic data logger with shaft encoders for upstream and downstream stages, electronic data logger for 3 gate recorders. Prior to September 23, 1999, digital gate recorders. Prior to November 17, 1999, digital water-stage recorders upstream and downstream. Datum of gage is National Geodetic Vertical Datum of 1929 (State Department of Transportation bench mark). Prior to May 1, 1984, digital upstream stage recorder, and gate-opening indicator at site 200 ft upstream at same datum. Prior to April 26, 1940, nonrecording gage, April 26, 1940 to December 20, 1949, water-stage recorder, at same site at datum 0.25 ft higher, and December 20, 1949 to June 3, 1959, at same site and present datum. June 3, 1959 to September 30, 1985, water-stage and deflection vane recorder at site 800 ft upstream at present datum.

REMARKS.--Records poor. Flow regulated by operation of control structure. Since January 1954, flow affected by control structures 20 mi upstream. Discharge computed from relations between discharge, head and gate openings. Starting in the 2002 water year, the downstream stage record published is the maximum and minimum stage for each calendar day. Prior to the 2002 water year, daily mean was published.

COOPERATION.--Gate-operation record provided by South Florida Water Management District.

ANNUAL MEAN AND ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 55 complete water years of discharge (1941-84, 1986-90, 1993-94, 1998-99, 2002).

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 10.89 ft Oct. 13, 1947, present datum; minimum, 2.85 ft Dec. 3, 1953, Oct. 9, 1963, and Sept. 9, 1964.

EXTREME UPSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 8.74 ft Feb. 10; minimum, 6.83 ft Apr. 14.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 3.86 ft Oct. 18; minimum, -1.70 ft Apr. 27.

UPSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.33	7.43	8.56	8.48	8.54	8.17	8.40	8.19	7.59	7.87	7.72	8.09
2	7.34	7.24	8.64	8.57	8.42	8.12	8.43	8.07	7.53	7.23	8.00	7.99
3	7.22	7.43	8.67	8.61	8.50	8.07	8.44	7.99	7.51	7.60	7.96	7.98
4	7.77	7.34	8.66	8.50	8.57	8.10	8.51	8.03	7.60	8.13	8.06	7.97
5	8.01	7.70	8.64	8.43	8.57	8.15	8.45	8.03	7.64	8.02	7.95	7.97
6	8.05	7.96	8.63	8.50	8.58	8.20	8.41	7.89	7.66	8.04	8.11	8.03
7	7.92	7.98	8.42	8.58	8.55	7.98	8.36	7.79	7.72	7.95	8.06	8.04
8	7.93	8.04	8.04	8.51	8.49	8.08	8.32	7.87	8.12	7.57	8.07	7.91
9	7.95	8.08	8.22	8.53	8.50	8.10	8.33	7.83	8.00	7.25	8.01	8.05
10	8.14	8.09	8.56	8.55	7.32	8.17	8.35	7.87	7.82	8.18	8.06	8.10
11	8.13	8.04	8.55	8.52	7.20	8.23	8.30	7.87	8.03	7.17	8.11	7.49
12	8.05	8.02	8.57	8.47	7.12	8.16	8.33	7.89	7.84	7.25	8.11	7.24
13	7.96	8.05	8.59	8.44	7.70	8.20	8.39	7.87	7.37	7.25	8.22	7.25
14	7.93	8.05	8.59	8.49	8.02	7.98	7.82	7.87	7.40	7.13	7.93	7.25
15	8.35	8.07	8.65	8.58	8.16	8.18	7.75	7.86	7.35	7.21	8.14	7.28
16	8.52	8.08	8.66	8.58	8.00	8.50	8.07	7.81	7.33	7.24	7.99	7.27
17	8.48	8.07	8.54	8.59	7.95	8.52	8.23	7.98	7.20	7.24	8.05	7.26
18	8.24	8.15	8.67	8.56	8.01	8.50	8.31	8.06	7.45	7.27	8.05	7.22
19	8.00	8.08	8.64	8.54	8.11	8.51	8.44	8.15	8.03	7.17	8.06	7.27
20	7.99	8.03	8.55	8.56	7.88	8.47	8.44	8.26	7.94	7.24	8.08	7.38
21	8.03	8.10	8.61	8.56	8.07	8.46	8.49	8.14	7.36	7.33	7.94	7.45
22	7.18	8.04	8.59	8.52	7.79	8.42	8.51	8.11	7.66	7.30	8.10	7.48
23	7.23	8.04	8.62	8.50	7.31	8.39	8.50	8.23	7.98	7.30	8.00	7.82
24	7.69	8.09	8.66	8.49	7.91	8.40	8.46	8.19	8.04	7.30	8.08	7.97
25	8.15	8.19	8.63	8.49	8.04	8.40	8.34	8.07	7.98	7.18	8.02	8.07
26	8.09	8.38	8.60	8.57	8.04	8.49	8.26	8.00	7.98	7.20	8.04	7.95
27	7.93	8.58	8.59	8.57	8.14	8.43	8.18	7.94	8.07	7.15	8.04	7.88
28	8.04	8.57	8.68	8.51	8.25	8.41	8.16	7.79	8.14	7.29	8.00	7.90
29	7.97	8.56	8.69	8.44	---	8.39	8.15	7.55	8.01	7.30	8.09	7.92
30	7.54	8.54	8.67	8.52	---	8.43	8.20	7.43	8.09	7.22	8.08	7.94
31	7.29	---	8.56	8.55	---	8.39	---	7.51	---	7.36	8.10	---
TOTAL	244.45	241.02	265.95	264.31	225.74	257.00	249.33	246.14	232.80	229.04	249.20	231.42
MEAN	7.89	8.03	8.58	8.53	8.06	8.29	8.31	7.94	7.76	7.39	8.04	7.71
MAX	8.52	8.58	8.69	8.61	8.58	8.52	8.51	8.26	8.18	8.13	8.22	8.10
MIN	7.18	7.24	8.04	8.43	7.12	7.98	7.75	7.43	7.20	7.13	7.72	7.22



EVERGLADES AND SOUTHEASTERN COASTAL AREA

02279000 WEST PALM BEACH CANAL AT WEST PALM BEACH, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2100	1110	0.00	82	368	773	0.00	0.00	0.00	e1200	693	950
2	e1850	1040	0.00	5.8	0.00	585	0.00	0.00	0.00	1400	880	961
3	1690	892	0.00	0.00	0.00	708	0.00	0.00	0.00	832	781	956
4	1040	1030	0.00	0.00	0.00	702	0.00	0.00	0.00	824	909	949
5	1030	625	0.00	0.00	0.00	694	0.00	0.00	0.00	802	977	1030
6	974	844	0.00	0.00	0.00	690	0.00	0.00	0.00	869	939	990
7	957	945	718	0.00	48	e903	0.00	0.00	98	952	939	1060
8	1030	842	423	45	10	578	0.00	0.00	288	e1330	868	1020
9	783	761	0.00	0.00	0.00	727	0.00	0.00	300	e2030	798	960
10	576	734	0.00	0.00	e1860	720	0.00	0.00	112	e2480	796	955
11	666	824	192	0.00	1170	712	0.00	0.00	377	2140	837	e1480
12	649	818	0.00	0.00	851	803	0.00	0.00	914	e2030	931	1200
13	616	804	0.00	0.00	435	696	0.00	0.00	635	e2540	793	1180
14	444	769	0.00	0.00	772	235	e1390	0.00	625	e2010	520	1150
15	204	731	0.00	1.3	796	0.00	170	0.00	673	1500	308	1110
16	436	704	78	115	899	0.00	346	0.00	795	1460	980	1130
17	497	707	90	0.00	683	0.00	159	0.00	1340	1360	956	1110
18	654	686	0.00	0.00	561	0.00	34	0.00	1060	1690	945	1110
19	609	728	125	0.00	835	0.00	0.00	0.00	1010	e1840	952	1140
20	383	800	1.3	0.00	889	0.00	0.00	150	930	1340	926	1020
21	476	748	0.00	0.00	310	0.00	0.00	254	2720	1220	1050	1010
22	e1400	685	0.00	0.00	e1040	0.00	0.00	12	1500	999	876	986
23	1110	480	0.00	0.00	837	0.00	0.00	0.00	1210	1110	899	803
24	666	284	0.00	0.00	303	0.00	0.00	0.00	1070	1200	815	993
25	853	126	64	0.00	671	0.00	0.00	0.00	1310	1240	846	870
26	976	0.00	250	0.00	707	0.00	0.00	0.00	1110	1160	942	962
27	958	0.00	1.3	0.00	625	0.00	0.00	0.00	876	1130	960	950
28	851	0.00	0.00	0.00	636	0.00	0.00	0.00	862	1030	1000	950
29	829	0.00	0.00	0.00	---	0.00	0.00	0.00	831	1050	935	949
30	e1240	0.00	0.00	0.00	---	0.00	0.00	0.00	799	1090	948	956
31	979	---	441	0.00	---	0.00	---	0.00	---	906	929	---
TOTAL	27526	18717.00	2383.60	249.10	15306.00	9526.00	2099.00	416.00	21445.00	42764	26928	30890
MEAN	888	624	76.9	8.04	547	307	70.0	13.4	715	1379	869	1030
MAX	2100	1110	718	115	1860	903	1390	254	2720	2540	1050	1480
MIN	204	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	802	308	803
AC-FT	54600	37130	4730	494	30360	18890	4160	825	42540	84820	53410	61270

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

MEAN	1059	728	489	557	430	422	387	385	744	846	865	1100
MAX	3889	2589	2082	2067	1696	1682	1967	1266	2856	2960	2335	2844
(WY)	1948	1948	1995	1993	1941	1947	1942	1958	1942	1947	1947	1947
MIN	11.5	4.93	0.000	0.058	0.000	0.000	0.000	0.000	36.9	155	89.8	164
(WY)	1982	1990	1991	1989	1989	1990	1990	2001	2000	1981	1987	2000

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1940 - 2002

ANNUAL TOTAL	175940.60	198249.70	
ANNUAL MEAN	482	543	668
HIGHEST ANNUAL MEAN			1542
LOWEST ANNUAL MEAN			129
HIGHEST DAILY MEAN	4860	Sep 14	2720
LOWEST DAILY MEAN	0.00	Jan 1	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 6	0.00
ANNUAL RUNOFF (AC-FT)	349000	393200	483600
10 PERCENT EXCEEDS	1250	1140	1460
50 PERCENT EXCEEDS	125	609	513
90 PERCENT EXCEEDS	0.00	0.00	10

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.



264514080550700 INDUSTRIAL CANAL AT CLEWISTON, FL

LOCATION.--Lat 26°45'14", long 80°55'07", in NW 1/4 sec.14, T.43 S., R.34 E., Hendry County, Hydrologic Unit 03090202, on concrete wall inside lock chamber of structure S-310 (HGS-2) in Okeechobee Waterway, and 0.8 mi north of U.S. Highway 27 near Clewiston.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--August 1976 to September 1979, October 1979 to September 1981 (gage heights only), October 1982 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic doppler velocity meter. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to October 1979, at datum 0.24 ft lower. Prior to April 19, 2001, acoustic velocity meter at same site and datum. Prior to October 19, 1992, water-stage recorder and electromagnetic velocity meter at site. Prior to October 1982, water-stage recorder 0.4 mi downstream of S-310 (HGS-2) on south side of U.S. Highway 27 bridge. August 1976 to September 1979, deflection velocity meter recorder on south side of U.S. Highway 27 bridge.

REMARKS.--Records poor. Flow regulated by hurricane gate at Lake Okeechobee. Prior to October 19, 1992, electromagnetic velocity meter at site.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 11 complete water years of discharge (1977-79, 1983-87, 1990, 1994, 2002).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 19.17 ft Mar. 7, 1983; minimum, 8.73 ft May 23, 2001.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 16.23 ft Sept. 30; minimum, 10.80 ft June 15.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.45	14.88	15.02	14.83	14.63	e14.52	13.81	12.93	11.97	12.96	14.57	e15.24
2	14.36	14.89	15.00	e14.72	14.68	14.30	13.82	12.88	11.83	12.99	14.59	15.24
3	14.30	14.93	15.02	14.78	14.63	14.30	13.81	12.85	11.79	13.03	14.56	15.28
4	14.33	14.99	15.02	14.84	14.68	14.56	13.79	12.83	11.79	13.10	14.57	15.32
5	14.33	15.24	15.01	14.73	14.79	14.78	13.92	12.80	11.78	13.20	14.56	15.35
6	14.29	15.15	14.99	14.57	14.50	14.46	e13.96	12.83	11.74	13.29	14.58	15.48
7	14.38	15.11	14.91	14.69	e14.35	14.35	13.98	12.76	11.64	13.40	14.58	15.57
8	14.62	15.02	14.88	14.79	14.60	14.37	13.74	e12.68	11.74	13.52	14.69	15.61
9	14.82	15.02	14.88	e14.65	14.51	14.35	13.60	12.57	11.92	13.61	14.63	15.60
10	14.52	15.03	14.89	14.61	14.49	14.39	13.58	12.56	11.81	13.63	14.66	15.55
11	14.46	15.02	14.91	14.60	14.61	14.42	13.58	12.56	11.67	13.73	14.60	15.58
12	14.40	15.08	14.93	14.58	14.59	14.25	13.56	12.49	11.54	13.81	14.57	15.62
13	14.36	15.09	14.90	14.59	14.66	14.14	13.53	12.27	11.53	13.83	14.62	15.63
14	14.30	15.03	14.86	14.58	14.73	14.29	13.52	12.32	11.46	13.95	14.68	15.64
15	14.40	14.94	14.91	14.67	14.57	14.26	13.53	12.62	11.27	14.03	14.70	15.67
16	14.43	15.10	14.93	14.74	14.57	14.24	13.53	e12.31	11.69	14.04	14.74	15.68
17	14.79	15.13	14.86	14.69	14.61	14.27	13.54	e12.22	11.84	14.05	14.71	15.70
18	14.74	15.08	14.83	14.71	14.74	14.23	13.56	12.12	11.92	14.07	14.75	15.70
19	14.45	e15.05	14.86	14.68	14.56	14.19	13.55	e12.16	12.03	14.05	14.75	15.71
20	14.44	15.01	14.91	14.68	14.45	14.09	13.46	12.56	12.10	14.13	14.74	15.73
21	14.49	15.02	15.00	14.69	14.44	14.05	13.38	12.64	12.12	14.18	14.80	15.75
22	14.50	15.00	14.87	14.72	14.50	14.31	13.32	e12.71	12.10	14.29	14.87	15.76
23	14.51	14.97	14.76	14.70	14.62	14.28	13.39	12.56	12.22	14.32	14.90	15.76
24	14.55	14.98	e14.73	14.65	14.61	14.10	13.43	12.43	12.31	14.36	14.90	15.76
25	14.65	15.00	14.86	14.67	14.57	14.02	13.25	12.28	12.39	14.40	14.88	15.77
26	15.04	15.00	14.90	14.67	14.48	13.97	13.15	12.29	12.52	14.45	14.86	15.74
27	15.17	15.00	14.77	14.69	14.50	13.99	13.12	12.27	12.59	14.46	14.90	15.76
28	15.09	14.98	14.68	14.68	14.69	14.04	13.07	12.24	12.66	14.47	14.94	15.84
29	14.91	14.96	14.61	14.67	---	13.99	13.03	12.05	12.77	14.55	15.04	15.86
30	14.87	14.96	14.71	14.66	---	13.90	13.01	11.93	12.80	14.58	15.12	15.91
31	14.86	---	14.73	14.65	---	13.83	---	e11.98	---	14.54	15.23	---
TOTAL	451.81	450.66	461.14	455.18	408.36	441.24	405.52	386.70	359.54	431.02	457.29	468.81
MEAN	14.57	15.02	14.88	14.68	14.58	14.23	13.52	12.47	11.98	13.90	14.75	15.63
MAX	15.17	15.24	15.02	14.84	14.79	14.78	13.98	12.93	12.80	14.58	15.23	15.91
MIN	14.29	14.88	14.61	14.57	14.35	13.83	13.01	11.93	11.27	12.96	14.56	15.24

e Estimated

EVERGLADES AND SOUTHEASTERN COASTAL AREA

264514080550700 INDUSTRIAL CANAL AT CLEWISTON, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-185	-7.4	19	12	315	e318	296	567	232	-243	106	e-152
2	-62	-45	27	e11	290	312	372	582	242	-386	36	-95
3	-0.69	-2.4	84	117	258	327	435	496	369	-359	58	-118
4	-8.6	15	86	109	297	376	302	392	358	-303	73	-189
5	-25	5.4	27	87	277	408	387	506	306	-199	-119	-152
6	0.86	1.1	16	30	236	336	e337	567	309	-155	-156	-142
7	-3.4	-20	12	43	e230	253	380	564	258	-263	-98	-67
8	14	53	24	262	430	236	357	e565	24	-177	-87	6.2
9	2.7	45	20	e419	353	308	444	485	-2.1	-217	-14	12
10	12	29	16	319	197	326	505	504	57	-273	6.8	16
11	10	92	5.5	217	-169	324	342	381	-36	-218	9.8	-26
12	21	96	15	259	-200	368	311	395	-284	-95	-2.0	-34
13	12	7.6	10	250	-71	375	319	397	-567	-17	10	1.8
14	18	26	15	153	-47	370	243	514	-558	9.2	-4.3	-1.8
15	41	15	10	-137	2.0	405	206	506	-570	-84	1.2	3.0
16	-0.25	73	15	-183	13	426	71	e409	-508	-11	7.4	2.4
17	23	121	19	0.52	13	389	113	e347	-455	50	24	6.0
18	30	91	14	-20	4.0	480	208	292	-310	55	9.0	54
19	0.41	e12	59	-40	5.6	564	291	e232	-236	82	25	99
20	12	7.1	121	16	167	555	220	224	-216	162	41	81
21	4.4	12	39	-62	371	386	413	166	-404	38	64	81
22	-108	1.9	211	-1.2	196	489	554	e181	-418	-352	70	54
23	-153	103	62	155	-17	468	608	261	-465	-402	58	16
24	-91	58	e23	236	117	320	630	215	-496	-269	62	15
25	-77	11	15	218	216	401	509	115	-540	-40	68	15
26	-14	6.9	50	249	409	298	523	169	-444	0.63	61	6.6
27	-49	8.2	18	238	647	-240	458	193	-268	1.5	86	2.5
28	-21	9.8	301	240	499	-307	495	279	-235	4.0	64	-5.5
29	-31	16	406	313	---	-118	583	276	-134	57	28	-0.76
30	12	87	173	301	---	162	580	278	-38	-4.7	-238	27
31	-57	---	15	293	---	317	---	e282	---	78	-239	---
TOTAL	-672.57	928.2	1927.5	4104.32	5038.6	9632	11492	11340	-5029.1	-3530.37	10.9	-484.56
MEAN	-21.7	30.9	62.2	132	180	311	383	366	-168	-114	0.35	-16.2
MAX	41	121	406	419	647	564	630	582	369	162	106	99
MIN	-185	-45	5.5	-183	-200	-307	71	115	-570	-402	-239	-189
AC-FT	-1330	1840	3820	8140	9990	19110	22790	22490	-9980	-7000	22	-961

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2002, BY WATER YEAR (WY)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	41.8	57.2	62.4	53.9	70.8	89.2	123	120	45.3	11.3	2.02	17.0															
MAX	194	315	438	467	474	472	448	366	399	245	219	232															
(WY)	1988	1986	1988	1988	1988	1988	1986	2002	1998	1984	1987	1987															
MIN	-93.6	-27.6	-122	-120	-63.7	-42.3	-50.3	-92.3	-168	-114	-153	-119															
(WY)	1994	1979	1998	1992	1992	1992	1991	1978	2002	2002	1978	2001															

SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 1976 - 2002

ANNUAL TOTAL	34756.92		
ANNUAL MEAN	95.2	62.9	
HIGHEST ANNUAL MEAN		232	1987
LOWEST ANNUAL MEAN		-30.2	1978
HIGHEST DAILY MEAN	647	740	Feb 24 1989
LOWEST DAILY MEAN	-570	-1400	Jul 4 1984
ANNUAL SEVEN-DAY MINIMUM	-465	-465	Jun 12 2002
ANNUAL RUNOFF (AC-FT)	68940	45570	
10 PERCENT EXCEEDS	408	294	
50 PERCENT EXCEEDS	30	21	
90 PERCENT EXCEEDS	-184	-62	

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

02280500 HILLSBORO CANAL BELOW S-351, NEAR SOUTH BAY, FL

LOCATION.--Lat 26°42'00", long 80°42'45", in SW 1/4 sec.35, T.43 S., R.36 E., Palm Beach County, Hydrologic Unit 03090202, acoustic velocity meter located approximately 1,800 ft downstream from S-351 and pump station 2 at Lake Okeechobee, and 2.5 mi north of South Bay, along the south bank of Hillsboro Canal.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--March 1957 to current year.

REVISED RECORDS.--WDR FL-92-2A: 1991.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic doppler velocity meter. Prior to January 1, 2002, acoustic velocity meter. Prior to October 1, 1986, water-stage recorder at pump station 2 used for gage heights at this station. Prior to August 1982, deflection meter. Prior to April 1993 water year electromagnetic velocity meter and digital water-stage recorder. Satellite data collection platform with water-stage shaft encoder and acoustic velocity meter installed December 1990. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Records poor. Flow regulated by vertical lift gates and pump station at Lake Okeechobee. Flow frequently reversed during and after periods of heavy rainfall by pumpage into the canal from agricultural lands in the Everglades, by the operation of pump station 2, or by gravity flow through gates during periods of negative head (negative figures indicate flow reversed). Discharge computed from continuous velocity record obtained from acoustic velocity meter until December 31, 2001 and acoustic doppler velocity meter starting January 1, 2002.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 40 complete water years of discharge (1958-88, 1991-95, 1997-98, 2000-01).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 14.09 ft Sept. 28, 1962; minimum, 6.98 ft Oct. 28, 1981.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 13.11 ft Feb. 11; minimum, 9.05 ft Nov. 5.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e10.69	9.99	11.43	11.42	11.06	11.09	10.84	11.38	11.23	11.15	9.64	e11.22
2	e10.60	10.31	11.41	e10.83	11.02	10.96	10.82	11.40	11.53	11.81	10.16	11.05
3	10.50	10.03	11.22	10.65	11.02	10.71	10.77	11.43	11.41	11.03	10.40	10.64
4	11.16	9.64	11.06	10.65	10.98	10.64	10.97	11.42	11.31	10.78	10.09	11.05
5	10.82	10.18	10.97	10.73	10.96	10.61	10.77	e11.41	11.34	10.69	e10.39	10.92
6	10.58	11.33	10.99	10.89	10.99	10.70	10.74	11.47	e11.37	10.28	e10.43	10.69
7	10.74	10.34	11.12	10.98	10.98	10.33	10.61	12.04	11.33	11.60	10.38	e10.69
8	10.67	10.30	11.20	e10.88	10.93	9.72	10.62	e12.15	11.20	11.50	10.50	10.51
9	10.58	10.24	11.22	10.93	11.14	9.75	10.63	e12.06	10.59	11.57	10.51	e10.58
10	10.85	10.42	11.78	10.94	11.83	9.86	10.67	12.02	10.49	11.64	10.25	e10.42
11	10.91	10.59	11.42	10.97	12.41	10.01	10.87	12.00	10.34	11.22	10.28	10.41
12	10.98	10.84	11.30	10.91	11.93	10.07	11.25	11.98	10.30	11.06	10.46	10.16
13	10.81	11.01	e11.16	10.86	11.03	10.17	11.29	11.88	11.37	11.51	10.53	10.14
14	10.78	11.06	e11.14	10.86	10.27	10.66	11.15	11.89	11.33	10.60	11.55	10.36
15	10.83	11.06	11.27	11.05	10.45	10.62	10.72	11.74	11.37	10.40	11.15	10.39
16	10.71	10.95	11.36	10.80	10.89	10.49	10.90	e11.55	11.39	10.86	10.89	e10.38
17	10.80	10.96	11.37	10.76	10.84	10.63	11.26	e10.91	11.25	e10.41	10.48	10.36
18	10.82	10.96	e11.27	10.72	11.40	10.62	11.05	10.43	10.96	10.47	e10.24	10.20
19	10.68	10.94	11.18	10.48	11.27	10.60	10.85	10.08	10.21	10.28	e10.38	10.20
20	10.38	10.80	11.10	10.53	10.98	10.82	11.13	10.96	11.49	10.17	10.94	10.09
21	10.49	10.85	11.00	10.63	10.97	10.70	10.96	10.72	11.37	10.37	10.93	10.08
22	11.19	10.91	10.96	10.76	10.70	10.81	10.98	10.44	11.49	11.18	11.28	10.29
23	11.17	11.32	10.96	10.74	9.99	10.72	11.18	10.07	10.92	10.63	11.14	10.10
24	10.62	11.37	10.94	10.64	11.20	10.65	11.14	10.21	11.87	10.69	10.82	10.31
25	11.37	11.36	10.96	10.60	11.10	10.71	11.07	10.60	12.02	10.77	e10.20	10.63
26	10.37	11.27	11.39	10.61	10.67	10.81	11.23	10.60	11.60	10.60	10.26	10.69
27	10.18	11.19	11.44	10.61	10.66	10.85	11.52	10.50	10.76	10.39	10.43	10.39
28	11.22	11.12	11.43	10.62	11.10	10.72	11.43	10.86	10.29	10.22	e10.56	10.22
29	11.17	11.05	11.40	10.97	---	10.73	11.40	11.44	10.54	10.46	10.29	10.56
30	10.68	11.12	11.44	e10.97	---	10.64	11.47	11.45	10.96	e10.32	10.97	10.62
31	10.28	---	11.61	10.93	---	10.85	---	11.60	---	9.98	11.60	---
TOTAL	333.63	323.51	348.50	334.92	308.77	327.25	330.29	348.69	333.63	334.64	328.13	314.35
MEAN	10.76	10.78	11.24	10.80	11.03	10.56	11.01	11.25	11.12	10.79	10.58	10.48
MAX	11.37	11.37	11.78	11.42	12.41	11.09	11.52	12.15	12.02	11.81	11.60	11.22
MIN	10.18	9.64	10.94	10.48	9.99	9.72	10.61	10.07	10.21	9.98	9.64	10.08

e Estimated

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02280500 HILLSBORO CANAL BELOW S-351, NEAR SOUTH BAY, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e-281	267	420	-191	201	-13	185	552	486	109	211	e262
2	e164	290	321	e284	185	-130	186	568	534	172	370	221
3	282	148	227	211	200	-151	111	611	561	379	353	224
4	270	80	244	8.6	155	-84	228	585	590	435	177	288
5	217	21	318	108	168	-11	29	e530	601	402	e290	342
6	-12	-76	257	83	196	85	15	580	e589	280	e349	273
7	-44	-142	102	83	101	91	-2.9	793	569	227	398	---
8	-91	110	-65	e-1.2	120	218	100	e792	439	128	408	306
9	-0.20	118	52	159	45	157	185	e776	264	32	401	e304
10	13	234	348	126	-171	126	262	770	284	12	279	e238
11	93	159	267	141	-429	65	377	762	244	202	263	243
12	200	145	278	133	-393	136	441	725	127	161	311	310
13	233	77	181	139	-178	154	387	706	242	67	225	306
14	192	11	259	140	7.2	273	224	708	321	225	372	301
15	166	-34	266	100	249	194	70	635	482	357	541	299
16	13	-80	259	21	14	116	104	---	468	149	410	e297
17	264	-16	246	-11	211	179	148	---	425	---	240	275
18	351	21	e233	132	87	185	66	233	293	226	e233	230
19	331	94	232	135	15	262	268	47	137	275	---	248
20	254	74	197	88	58	277	366	-89	92	272	195	234
21	288	127	225	66	108	239	178	-116	235	219	144	328
22	100	208	233	52	-26	244	351	-85	82	327	78	318
23	39	327	231	62	109	172	464	-57	73	453	-119	305
24	193	283	210	54	-106	157	488	220	81	376	-64	338
25	-48	276	175	130	70	232	464	340	-78	348	---	319
26	235	278	-7.3	164	-104	338	479	263	-48	293	217	338
27	237	230	-177	138	49	177	532	182	6.5	264	144	320
28	126	243	55	139	229	101	479	494	112	210	e139	280
29	170	254	71	245	---	122	519	715	254	172	346	286
30	384	356	11	e234	---	212	561	706	3.5	e222	67	259
31	293	---	151	160	---	275	---	609	---	176	98	---
TOTAL	4631.80	4083	5819.7	3332.4	1170.2	4398	8264.1	---	8469.0	---	---	---
MEAN	149	136	188	107	41.8	142	275	---	282	---	---	---
MAX	384	356	420	284	249	338	561	---	601	---	---	---
MIN	-281	-142	-177	-191	-429	-151	-2.9	---	-78	---	---	---
AC-FT	9190	8100	11540	6610	2320	8720	16390	---	16800	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2002, BY WATER YEAR (WY)

	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	-6.05	25.9	52.0	30.5	51.1	83.0	220	158	-13.8	-106	-101	-123
MAX	296	366	520	483	574	359	676	720	610	482	268	351
(WY)	1995	1974	1996	2000	1993	1999	1993	1966	2000	1992	1974	1992
MIN	-370	-276	-314	-265	-232	-534	-241	-328	-633	-553	-609	-537
(WY)	1965	1960	1960	1964	1963	1970	1957	1968	1968	1975	1981	1960

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

WATER YEARS 1957 - 2002

ANNUAL TOTAL	25597.50	
ANNUAL MEAN	70.1	15.0
HIGHEST ANNUAL MEAN		288
LOWEST ANNUAL MEAN		-207
HIGHEST DAILY MEAN	420	Dec 1
LOWEST DAILY MEAN	-940	Aug 3
ANNUAL SEVEN-DAY MINIMUM	-722	Aug 2
ANNUAL RUNOFF (AC-FT)	50770	10860
10 PERCENT EXCEEDS	303	365
50 PERCENT EXCEEDS	118	24
90 PERCENT EXCEEDS	-290	-337

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

02281200 HILLSBORO CANAL AT S-6, NEAR SHAWANO, FL

LOCATION.--Lat 26°28'18", long 80°26'46", in NE 1/4 sec.4, T.46 S., R.39 E., Palm Beach County, Hydrologic Unit 03090202, at pump station 6, and 7 mi southeast of Shawano.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1957 to September 1968 (gauge heights and discharge). October 1968 to September 1981 (discharge), October 1990 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic velocity meter until January 30, 2002, when it was removed. Satellite data collection platform with water-stage shaft encoder and acoustic doppler velocity meter installed August 10, 2001. The acoustic velocity meter and acoustic doppler velocity meter were run in tandem for the period of August 10, 2001 to January 30, 2002. Dual water-stage recorder from 1968 to 1981 at S-6. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to October 1, 1959, at datum 0.44 ft lower.

REMARKS.--Records poor. Flow regulated by pumpage at S-6, by Structure 351 and pump station 2 at Lake Okeechobee and by drainage and irrigation pumps upstream. Records include flow from Levee 6 Canal since March 15, 1966. Discharge is the summation of pumpage and siphoning at S-6. Negative flow indicates flow to the north due to siphoning at S-6. Acoustic velocity meter system began operation October 1990, on both S-6 and L-6 canals. After October 1, 1999, total discharge represents S-6 canal flow. Everglades Construction Project for Storm Treatment Area 2 (STA2) had a permanent effect on L-6 canal. Flow from L-6 canal into Hillsboro canal main channel was plugged in August 1999, approximately 0.25 mi upstream of L-6 cross-section for the diversion of flow into STA2. L-6 acoustic velocity meter was discontinued on September 30, 1999. From October 1990 to September 1999, total discharge is computed by the sum of S-6 and L-6 discharges from relations between stage vs area and line velocity vs mean velocity index ratings.

COOPERATION.--Records furnished by South Florida Water Management District October 1968 to September 1981. Prior to October 1968, pump records furnished by South Florida Water Management District, and records computed by U.S. Geological Survey. After reestablishment in the 1991 water year, records computed by U.S. Geological Survey.

ANNUAL MEAN AND ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 26 complete water years of discharge (1958-81, 1998, 2001).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gauge height, 14.74 ft Dec. 25, 1958; minimum, 7.35 ft May 14, 1959.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gauge height, 12.64 ft Jan. 1; minimum, 8.57 ft Sept. 12.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.31	9.36	11.26	10.45	11.07	11.32	10.94	10.51	e10.22	9.28	9.63	e10.48
2	9.27	9.84	11.44	e9.20	11.15	e11.08	10.90	10.38	10.40	9.28	9.59	10.03
3	9.83	e9.84	11.35	10.34	11.15	10.97	10.93	10.08	10.41	9.13	9.94	10.16
4	10.83	9.70	11.13	11.05	11.20	11.11	10.94	10.30	10.08	8.99	10.17	9.86
5	10.63	10.31	10.88	10.95	11.07	10.95	11.11	10.72	10.18	9.24	9.93	9.08
6	10.88	10.76	11.01	11.10	11.03	10.88	11.04	10.54	10.11	9.57	9.85	9.76
7	11.07	e10.12	11.30	e11.29	11.18	9.90	e10.80	10.10	10.12	9.91	9.56	10.03
8	11.08	10.18	11.44	11.22	11.08	9.38	10.73	e10.32	10.53	9.16	9.70	9.85
9	10.84	10.03	11.40	11.15	11.35	9.83	e10.63	e10.02	10.47	9.18	9.74	10.40
10	11.06	10.46	10.98	11.15	11.13	10.05	e10.59	10.04	10.29	9.15	10.06	10.40
11	11.09	10.73	10.93	11.16	10.80	10.19	e10.23	10.13	10.19	9.06	10.22	9.58
12	11.08	11.03	10.75	11.10	10.20	10.21	e10.49	10.34	10.15	e9.10	10.02	9.33
13	10.80	11.29	11.27	11.06	9.20	10.29	e10.98	9.98	9.90	e9.01	10.03	9.66
14	10.85	11.38	11.11	11.02	9.34	10.55	11.20	10.10	9.19	8.97	9.83	10.08
15	10.73	11.38	11.31	10.27	e9.62	10.63	10.96	10.17	9.33	9.74	9.18	10.12
16	11.04	11.38	11.38	e10.46	e10.72	10.60	11.08	e10.43	9.24	e10.57	10.13	e10.18
17	10.55	11.26	11.41	10.97	9.98	10.69	11.42	e10.50	e9.47	10.00	10.22	10.23
18	10.23	11.20	e11.38	10.80	e11.11	10.67	11.25	10.41	9.19	10.37	e10.10	10.17
19	10.08	e11.16	11.29	10.63	10.88	10.49	10.62	10.23	---	9.82	10.14	10.14
20	10.03	11.04	11.28	e10.74	e11.10	10.70	10.95	11.21	---	10.02	10.59	10.03
21	10.17	11.07	11.13	10.84	10.67	10.68	11.09	11.06	---	10.32	e10.03	9.78
22	e9.90	10.97	11.02	10.96	9.96	10.87	10.52	10.76	9.12	9.74	10.54	e9.99
23	9.30	11.19	10.98	10.89	9.87	10.83	10.55	10.32	9.14	9.19	10.81	9.92
24	9.97	11.31	11.04	10.83	11.77	10.75	10.17	10.04	9.24	10.13	10.16	10.03
25	10.31	11.38	11.17	10.79	10.77	10.70	10.31	10.24	9.09	10.40	9.93	10.33
26	9.19	11.28	11.82	10.76	11.03	10.61	10.51	10.54	9.21	10.17	9.93	10.43
27	9.83	11.26	11.82	10.77	10.96	11.00	10.70	10.54	9.10	10.26	10.08	10.20
28	11.47	11.15	10.99	10.74	11.16	10.95	10.85	9.84	9.15	10.22	9.71	10.08
29	10.20	11.08	11.62	10.97	---	e10.85	10.61	9.57	9.56	10.37	9.44	10.35
30	9.42	11.05	11.70	11.00	---	10.60	10.50	9.66	9.77	10.29	10.23	10.50
31	9.37	---	10.87	10.98	---	10.74	---	10.41	---	10.08	10.68	---
TOTAL	320.41	324.19	348.46	335.64	300.55	329.07	323.60	319.49	---	300.72	310.17	301.18
MEAN	10.34	10.81	11.24	10.83	10.73	10.62	10.79	10.31	---	9.70	10.01	10.04
MAX	11.47	11.38	11.82	11.29	11.77	11.32	11.42	11.21	---	10.57	10.81	10.50
MIN	9.19	9.36	10.75	9.20	9.20	9.38	10.17	9.57	---	8.97	9.18	9.08

e Estimated



02281400 HILLSBORO CANAL NEAR MARGATE, FL

LOCATION.--Lat 26°19'48", long 80°12'45", in NW 1/4 sec.36, T.47 S., R.41 E., Broward County, Hydrologic Unit 03090202, on north side of Hillsboro Road, 0.7 mi west of U.S. Highway 441, and 5.1 mi north of Margate.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--December 1975 to current year.

REVISED RECORDS.--WDR FL-99-2A: 1998

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic doppler velocity meter. Prior to November 20, 2001, electronic data logger with water-stage shaft encoder and acoustic doppler velocity meter with cellular phone/radio telemetry provided by South Florida Water Management District. Use of telemetry data started in September, 1999. Digital water-stage recorder removed September 27, 1999. Electromagnetic velocity meter prior to October 1, 1999. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except estimated daily discharges, which are poor. Flow affected by regulation downstream at structure G-56 and upstream storage releases at control structures S-39 and S39A.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 18 complete water years of discharge (1977-89, 1996, 1998-2001).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 12.88 ft Apr. 25, 1979; minimum, 4.15 ft May 20, 1978.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 9.23 ft Feb. 10; minimum, 6.36 ft Oct. 24.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.93	7.75	7.81	8.50	8.34	7.60	7.91	8.16	7.22	7.66	7.31	e7.20
2	7.54	7.80	8.01	e8.10	8.27	7.53	7.85	8.12	7.41	7.67	7.03	7.24
3	7.84	7.71	8.01	8.11	8.34	7.63	7.86	8.16	7.41	7.76	7.34	7.24
4	7.96	7.52	7.89	8.13	8.28	7.61	7.87	8.20	7.34	e8.03	7.35	7.55
5	7.66	7.70	7.77	8.16	8.25	7.53	7.91	8.20	7.34	7.88	7.33	7.40
6	7.92	7.80	7.78	8.01	8.25	7.58	7.85	8.12	7.40	7.67	7.39	7.28
7	7.99	7.99	8.37	8.00	8.27	7.62	7.88	8.11	7.43	7.72	7.42	7.30
8	7.99	8.01	8.45	8.07	8.32	7.35	7.84	e8.03	7.94	7.73	7.23	7.33
9	8.10	7.98	7.82	8.08	8.31	7.66	7.79	8.08	7.91	7.61	7.25	7.26
10	8.10	7.85	7.78	8.07	8.12	7.56	7.85	7.95	7.88	8.02	7.36	7.20
11	7.84	7.82	7.67	8.11	7.67	7.55	7.79	7.99	8.07	7.97	7.31	7.37
12	8.04	7.79	7.90	8.12	8.11	7.58	7.85	8.05	8.02	7.57	7.48	7.51
13	8.17	8.12	8.04	8.14	7.76	7.67	7.87	8.14	7.91	8.03	7.27	7.39
14	7.92	8.27	8.15	8.08	7.56	7.75	8.09	e7.68	7.94	7.78	7.79	7.22
15	7.51	8.43	8.02	8.08	7.59	7.73	7.78	7.27	8.11	7.74	7.75	7.42
16	7.86	8.31	8.09	8.07	7.65	7.63	7.41	7.57	7.82	7.54	7.16	e7.39
17	8.03	8.43	8.20	8.07	7.68	7.58	7.42	7.98	7.80	e7.73	7.26	7.13
18	---	8.23	8.13	8.06	7.63	7.69	7.69	7.82	7.63	7.39	e7.32	7.26
19	---	8.40	8.10	8.13	7.64	e7.85	8.01	7.80	7.78	7.59	7.25	7.25
20	---	---	8.14	8.08	e7.51	7.83	8.12	8.03	7.80	7.33	7.19	7.33
21	7.81	8.27	8.13	8.10	7.75	7.93	8.22	8.07	8.16	7.51	7.31	7.18
22	7.81	8.21	8.13	8.07	7.71	7.93	8.17	7.97	8.22	7.29	7.31	7.36
23	7.58	8.05	8.07	8.13	7.42	7.86	8.22	7.85	8.06	7.49	7.33	7.26
24	7.27	7.76	8.10	8.31	7.19	7.90	8.15	7.64	7.85	7.42	7.37	7.42
25	7.78	8.10	8.10	8.27	7.62	7.85	8.10	7.47	7.80	7.46	7.19	7.36
26	7.84	8.06	8.14	8.27	7.39	7.93	8.13	7.33	7.10	7.41	7.15	7.25
27	7.68	8.01	8.05	8.30	7.87	7.90	e8.06	7.28	7.35	7.40	7.37	7.28
28	7.56	7.89	8.03	8.29	7.79	7.84	8.20	7.37	7.76	7.39	7.30	7.33
29	7.55	7.77	8.09	8.30	---	7.86	8.16	7.33	7.74	7.42	7.27	7.21
30	7.66	7.75	8.17	8.28	---	7.84	8.16	7.34	7.58	7.37	7.12	7.32
31	7.68	---	8.36	8.26	---	7.87	---	7.39	---	e7.43	7.37	---
TOTAL	---	---	249.50	252.75	220.29	239.24	238.21	242.50	231.78	236.01	226.88	219.24
MEAN	---	---	8.05	8.15	7.87	7.72	7.94	7.82	7.73	7.61	7.32	7.31
MAX	---	---	8.45	8.50	8.34	7.93	8.22	8.20	8.22	8.03	7.79	7.55
MIN	---	---	7.67	8.00	7.19	7.35	7.41	7.27	7.10	7.29	7.03	7.13

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02281400 HILLSBORO CANAL NEAR MARGATE, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	749	535	37	80	66	588	71	160	e72	204	398	e476
2	457	582	51	e88	78	626	e65	142	e66	188	225	480
3	228	625	52	84	68	627	e57	157	e75	185	374	432
4	211	632	38	75	120	605	e71	131	e97	e84	375	453
5	192	636	49	63	137	623	e75	131	111	170	386	461
6	e106	619	57	72	111	633	e67	119	77	157	359	453
7	e110	752	108	102	82	578	61	153	e52	126	414	462
8	146	761	74	133	102	494	67	e154	e2.9	322	393	482
9	96	712	45	97	81	683	103	154	e58	458	397	457
10	103	695	70	82	499	521	132	174	e21	509	356	392
11	104	689	65	86	198	687	117	191	103	501	376	432
12	e41	694	80	79	91	655	89	199	189	480	467	526
13	45	448	68	79	348	464	e76	157	204	645	290	511
14	119	411	52	100	572	e41	e48	e85	301	431	e60	490
15	127	499	62	80	585	40	e57	115	410	468	e149	452
16	e43	498	59	84	514	e48	e57	e78	220	445	422	e441
17	80	495	75	98	544	e44	105	e-1.4	205	e444	423	435
18	---	481	61	88	570	e64	110	e-2.0	176	392	e436	418
19	---	470	62	90	628	e61	109	e12	e125	460	455	413
20	---	---	57	99	e543	56	99	e14	225	461	510	464
21	176	447	65	90	541	52	104	e-0.83	320	491	510	452
22	429	452	51	95	532	62	86	e7.3	420	382	460	453
23	500	408	54	102	436	52	109	e7.5	359	527	404	420
24	390	126	53	115	408	52	108	e22	438	521	478	456
25	531	39	62	95	657	62	153	e14	491	514	478	429
26	548	46	47	128	503	68	143	e11	260	473	436	472
27	503	39	73	145	385	69	e143	e14	175	465	456	500
28	527	38	93	128	510	e66	152	61	238	446	476	520
29	581	42	76	100	---	65	122	85	175	431	488	508
30	694	43	67	92	---	75	124	125	186	433	489	512
31	649	---	e48	92	---	66	---	e47	---	e384	501	---
TOTAL	---	---	1911	2941	9909	8827	2880	2715.57	5851.9	12197	12441	13852
MEAN	---	---	61.6	94.9	354	285	96.0	87.6	195	393	401	462
MAX	---	---	108	145	657	687	153	199	491	645	510	526
MIN	---	---	37	63	66	40	48	-2.0	2.9	84	60	392
AC-FT	---	---	3790	5830	19650	17510	5710	5390	11610	24190	24680	27480

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1976 - 2002, BY WATER YEAR (WY)

	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	195	212	210	243	222	197	182	136	184	213	233	231															
MAX	719	671	738	541	634	708	458	452	460	624	630	518															
(WY)	2000	2000	2000	1998	1998	1998	1983	2000	1982	1986	1995	1995															
MIN	71.8	38.6	2.47	47.4	40.8	27.1	38.0	14.7	45.4	63.1	35.2	40.3															
(WY)	1999	1997	1997	1992	1997	1997	1997	1997	1985	1994	1996	1992															

## SUMMARY STATISTICS

## WATER YEARS 1976 - 2002

ANNUAL MEAN	221
HIGHEST ANNUAL MEAN	351
LOWEST ANNUAL MEAN	103
HIGHEST DAILY MEAN	1300
LOWEST DAILY MEAN	-247
ANNUAL SEVEN-DAY MINIMUM	-45
ANNUAL RUNOFF (AC-FT)	160300
10 PERCENT EXCEEDS	543
50 PERCENT EXCEEDS	155
90 PERCENT EXCEEDS	51

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.



02282700 MIDDLE RIVER CANAL AT S-36, NEAR FORT LAUDERDALE, FL

LOCATION.--Lat 26°10'22", long 80°10'47", in NW 1/4 sec.20, T.49 S., R.42 E., Broward County, Hydrologic Unit 03090202, 20 ft from south bank, 120 ft upstream from salinity-control structure S-36, 1.5 mi east of bridge on U.S. Highway 441, and 5 mi west of Fort Lauderdale.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1955 to September 1961 (gage heights only), October 1961 to current year.

GAGE.--Electronic data logger with water-stage shaft encoder for upstream and downstream. Electronic data logger for gate opening. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to October 1, 1993, both upstream and downstream gage heights at datum, 0.21 ft lower. Discharge not affected by the change in datum. Electromagnetic velocity meter and deflection vane recorder at same site prior to October 1, 1985.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow is at times affected by tide and occasionally reversed. Flow is regulated by operation of salinity-control structure 36. Discharge computed from the relationship of gate opening versus head difference. Records of gage heights prior to October 1961 are available in files of the U.S. Geological Survey. Starting in the 2002 water year, the downstream record published is maximum and minimum stage for each calendar day. Prior to the 2002 water year, daily mean was published.

COOPERATION.--Gage height and S-36 gate-operation records provided by South Florida Water Management District upon request.

ANNUAL MEAN AND ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 34 complete water years of discharge (1962-90, 1998-2002).

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 7.59 ft (present datum) Dec. 27, 1958; minimum, -0.32 ft (present datum) June 28, 1958.

EXTREME UPSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 4.93 ft Mar. 3, June 28, July 1, July 8, Aug. 20; minimum, 1.96 ft Oct. 2.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 4.16 ft June 23; minimum, -0.78 ft Jan. 27.

UPSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.74	3.48	4.87	e4.88	4.72	4.78	4.63	4.10	4.15	4.47	4.79	4.19
2	3.56	3.45	4.89	e4.79	4.76	4.84	4.65	4.08	4.14	4.24	4.80	4.17
3	4.76	3.40	e4.89	e4.39	4.82	4.90	4.66	4.05	4.11	4.43	4.80	4.25
4	4.67	3.45	e4.88	e4.17	4.81	4.41	4.68	4.02	4.07	4.41	4.85	4.59
5	4.52	4.03	e4.85	4.49	4.77	4.17	4.68	4.00	4.03	4.58	4.71	4.62
6	4.42	4.65	e4.84	4.65	4.76	4.48	4.64	3.96	4.01	4.72	4.29	4.66
7	4.31	4.64	e4.45	4.74	4.77	4.15	4.58	3.93	4.04	4.62	4.13	4.60
8	4.21	4.47	e4.52	4.76	4.75	3.91	4.54	3.90	4.24	4.55	4.34	4.51
9	4.61	4.40	e4.71	4.79	4.74	4.64	4.53	3.88	4.34	4.42	4.51	4.44
10	4.84	4.29	e4.77	4.81	4.26	4.79	4.52	3.84	4.33	3.91	4.57	4.27
11	4.61	4.19	e4.81	4.84	3.93	4.85	4.49	3.80	4.36	3.32	4.68	4.21
12	4.83	4.54	e4.82	4.86	4.73	4.67	4.47	3.78	4.41	3.72	4.77	4.53
13	4.55	4.73	e4.84	4.87	4.73	4.24	4.45	3.79	4.49	3.28	4.78	4.43
14	4.25	4.81	e4.87	4.87	4.33	4.40	4.48	3.78	4.32	3.92	4.80	4.30
15	4.13	4.86	e4.90	4.90	4.15	4.57	4.49	3.77	3.34	4.71	4.81	4.16
16	4.54	4.74	e4.59	4.89	4.41	4.62	4.47	3.84	3.26	4.57	4.80	4.14
17	4.15	4.38	e4.18	4.89	4.75	4.65	4.44	3.87	3.41	4.46	4.87	4.19
18	3.41	4.22	e4.38	4.70	4.81	4.66	4.41	3.88	3.52	4.40	4.88	4.57
19	3.37	4.17	e4.60	4.19	4.84	4.66	4.39	4.02	4.37	4.55	4.84	4.71
20	3.39	4.47	e4.69	4.35	4.88	4.67	4.37	4.35	4.65	4.47	4.42	4.77
21	3.46	4.72	e4.71	4.55	4.80	4.69	4.35	4.35	4.83	4.26	3.18	4.81
22	3.41	4.83	e4.73	4.60	4.36	4.69	4.33	4.33	4.34	4.65	3.23	4.83
23	2.74	4.82	e4.76	4.63	4.38	4.66	4.30	4.29	4.34	4.83	3.31	4.78
24	3.26	4.37	e4.80	4.66	4.27	4.65	4.26	4.26	3.31	4.45	3.27	4.36
25	3.79	4.25	e4.83	4.69	4.22	4.65	4.22	4.24	3.36	4.25	3.60	4.15
26	3.43	4.60	e4.88	4.69	4.58	4.64	4.21	4.20	3.27	4.13	3.90	4.33
27	3.27	4.71	e4.89	4.70	4.71	4.65	4.18	4.17	3.70	4.31	4.48	4.58
28	3.40	4.77	e4.90	4.70	4.77	4.64	4.16	4.16	4.72	4.58	4.57	4.88
29	3.52	4.82	e4.69	4.70	---	4.62	4.16	4.15	4.55	4.67	4.36	4.46
30	3.74	4.85	e4.49	4.70	---	4.61	4.12	4.14	4.38	4.72	4.31	4.21
31	3.57	---	e4.74	4.69	---	4.60	---	4.14	---	4.76	4.21	---
TOTAL	121.46	132.11	146.77	145.14	128.81	142.16	132.86	125.07	122.39	134.96	135.86	133.70
MEAN	3.92	4.40	4.73	4.68	4.60	4.59	4.43	4.03	4.08	4.35	4.38	4.46
MAX	4.84	4.86	4.90	4.90	4.88	4.90	4.68	4.35	4.83	4.83	4.88	4.88
MIN	2.74	3.40	4.18	4.17	3.93	3.91	4.12	3.77	3.26	3.28	3.18	4.14

e Estimated

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02282700 MIDDLE RIVER CANAL AT S-36, NEAR FORT LAUDERDALE, FL

DOWNSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	3.36	2.04	3.39	1.14	2.76	-0.09	e2.50	e-0.40	1.98	-0.70	2.77	-0.21
2	3.19	0.96	3.34	1.11	2.74	-0.10	e2.53	e-0.35	1.97	-0.58	2.77	-0.25
3	3.15	0.88	3.30	1.04	e2.69	e-0.11	e2.54	e0.09	2.07	-0.40	2.51	-0.38
4	3.13	0.88	3.16	0.93	e2.54	e-0.15	e2.05	e-0.23	2.08	-0.32	2.36	-0.21
5	3.04	0.86	3.50	1.12	e2.56	e-0.03	2.27	-0.19	2.12	-0.29	1.92	-0.34
6	2.93	0.71	3.13	0.88	e2.55	e0.09	2.41	-0.27	2.08	-0.14	1.94	-0.24
7	2.75	0.69	2.98	0.82	e2.39	e0.38	2.08	-0.48	2.30	-0.15	2.25	0.11
8	2.78	0.66	3.04	0.87	e2.37	e0.07	1.83	-0.48	2.26	-0.19	2.10	-0.12
9	2.68	0.62	2.94	0.83	e2.25	e-0.11	1.94	-0.56	2.40	-0.13	1.83	-0.24
10	2.78	0.61	2.87	0.67	e2.45	e-0.11	1.95	-0.61	2.62	0.20	1.76	-0.36
11	2.85	0.80	3.02	0.75	e2.47	e-0.19	1.90	-0.61	2.28	-0.14	1.90	-0.41
12	2.83	0.42	3.01	0.40	e2.44	e-0.25	1.99	-0.65	2.21	-0.26	2.10	-0.25
13	2.98	0.62	3.10	0.24	e2.59	e-0.27	1.91	-0.61	2.20	-0.25	2.07	0.00
14	2.78	0.41	3.16	0.19	e2.66	e-0.16	2.00	-0.60	2.03	0.06	1.81	-0.39
15	2.90	0.36	3.33	0.21	e2.64	e-0.21	1.60	-0.75	2.38	0.19	1.73	-0.51
16	2.94	0.04	3.34	0.37	e2.56	e-0.25	1.58	-0.69	2.17	0.03	1.64	-0.56
17	3.30	0.14	3.41	0.68	e2.45	e0.24	1.55	-0.67	2.03	-0.02	1.68	-0.59
18	3.60	1.16	3.18	0.69	e2.26	e-0.01	1.47	-0.53	2.02	0.03	1.69	-0.62
19	3.44	1.21	2.83	0.66	e2.29	e0.12	1.61	-0.08	1.91	0.08	1.54	-0.45
20	3.43	1.04	2.65	0.36	e2.10	e0.05	1.38	-0.50	2.15	0.07	1.75	-0.37
21	3.17	1.02	2.58	0.54	e2.16	e0.30	1.33	-0.63	1.95	0.22	1.69	-0.26
22	3.06	1.20	2.43	0.59	e2.17	e0.43	1.28	-0.57	2.17	0.31	1.88	-0.12
23	3.08	2.14	2.21	0.48	e2.21	e0.40	1.38	-0.65	2.43	0.30	2.04	-0.21
24	2.78	1.18	2.24	0.56	e2.14	e0.31	1.48	-0.63	2.42	0.24	2.04	-0.14
25	2.66	1.13	2.14	0.32	e2.35	e0.34	1.53	-0.59	2.63	0.13	2.23	-0.20
26	2.56	1.34	2.21	0.28	e2.53	e0.20	1.75	-0.75	2.88	-0.09	2.27	-0.36
27	2.79	1.28	2.30	0.10	e2.40	e0.00	1.86	-0.78	2.83	-0.15	2.47	-0.43
28	3.01	1.33	2.35	0.04	e2.68	e-0.02	2.10	-0.74	2.77	-0.28	2.73	-0.40
29	3.06	1.28	2.57	0.03	e2.69	e-0.02	2.13	-0.76	---	---	2.58	-0.47
30	3.21	0.99	2.53	-0.19	e2.57	e0.02	2.19	-0.72	---	---	2.56	-0.56
31	3.30	1.27	---	---	e2.63	e-0.31	2.23	-0.65	---	---	2.52	-0.57
MONTH	3.60	0.04	3.50	-0.19	2.76	-0.31	2.54	-0.78	2.88	-0.70	2.77	-0.62
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	2.30	-0.47	2.27	-0.33	2.55	0.38	2.23	0.72	2.47	0.48	2.75	0.81
2	2.16	-0.43	2.15	-0.32	2.43	0.38	2.09	0.73	2.65	0.57	3.01	0.93
3	2.11	-0.26	1.83	-0.40	2.28	0.33	2.01	0.42	2.30	0.37	3.12	0.92
4	2.03	-0.08	1.70	-0.30	2.11	0.18	2.04	0.44	2.20	0.05	3.15	0.79
5	1.99	0.16	1.67	-0.22	2.13	0.13	2.10	0.36	2.35	0.16	3.38	0.76
6	2.20	0.24	1.68	-0.29	2.28	0.05	2.47	0.46	2.79	0.35	3.27	0.65
7	2.29	0.24	1.63	-0.28	2.41	0.06	2.28	0.27	2.89	0.38	3.47	0.68
8	2.39	0.28	1.67	-0.35	2.51	0.03	2.50	0.53	3.09	0.20	3.36	0.64
9	2.46	0.19	1.77	-0.42	2.66	0.01	2.73	0.72	3.22	0.30	3.32	0.54
10	2.25	-0.03	1.91	-0.50	2.72	0.11	2.92	1.15	3.26	0.36	3.18	0.53
11	2.29	-0.08	2.05	-0.53	2.74	-0.08	2.83	1.34	3.27	0.28	2.92	0.43
12	2.31	-0.08	2.09	-0.49	2.67	-0.10	2.83	1.36	3.08	0.25	2.89	0.54
13	2.47	-0.13	2.10	-0.56	2.67	0.19	2.84	0.99	2.93	0.15	2.53	0.38
14	2.37	-0.19	2.18	-0.40	2.70	0.25	2.68	0.03	2.65	0.00	2.37	0.41
15	2.34	-0.26	2.25	-0.51	2.80	0.97	2.40	-0.11	2.54	0.07	2.23	0.27
16	2.25	-0.29	2.04	-0.60	2.54	0.64	2.21	0.15	2.46	0.00	2.45	0.40
17	2.17	-0.32	1.92	-0.47	2.37	0.54	2.28	0.11	2.31	-0.12	2.52	0.32
18	2.04	-0.37	1.97	-0.37	2.39	0.11	2.25	0.13	2.41	-0.10	2.71	0.32
19	1.92	-0.24	1.97	-0.19	2.47	-0.06	2.14	0.00	2.42	-0.08	2.78	0.36
20	1.89	-0.19	2.10	-0.15	2.58	-0.08	2.22	-0.02	2.93	-0.06	2.77	0.41
21	2.03	-0.22	2.25	-0.10	2.89	0.35	2.48	-0.06	2.58	1.01	2.86	0.48
22	2.01	-0.23	2.76	-0.04	3.15	0.82	2.19	-0.37	2.47	0.52	2.86	0.50
23	2.24	-0.26	3.02	0.05	4.16	0.82	2.41	-0.34	2.51	0.50	2.86	0.52
24	2.32	-0.37	3.04	0.00	3.83	2.08	2.36	0.10	2.40	0.44	2.79	0.59
25	2.41	-0.51	3.13	-0.01	3.22	1.72	2.38	0.12	2.40	0.34	2.74	0.68
26	2.38	-0.65	3.21	0.00	2.95	1.05	2.33	0.15	2.39	0.27	2.74	0.54
27	2.28	-0.75	3.28	0.13	2.68	-0.09	2.37	0.01	2.32	0.16	2.53	0.38
28	2.25	-0.75	3.28	0.24	2.23	-0.12	2.27	0.07	2.55	0.25	2.56	0.49
29	2.35	-0.53	3.18	0.22	2.15	0.30	2.31	0.20	2.46	0.63	2.29	0.51
30	2.49	-0.42	3.05	0.30	2.03	0.33	2.34	0.35	2.57	0.73	2.57	0.75
31	---	---	2.83	0.35	---	---	2.45	0.42	2.56	0.77	---	---
MONTH	2.49	-0.75	3.28	-0.60	4.16	-0.12	2.92	-0.37	3.27	-0.12	3.47	0.27
YEAR	4.16	-0.78										

e Estimated

02282700 MIDDLE RIVER CANAL AT S-36, NEAR FORT LAUDERDALE, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e402	175	0.00	0.00	0.00	0.00	0.00	0.00	0.00	201	0.00	122
2	e154	177	0.00	e59	0.00	0.00	0.00	0.00	0.00	290	0.00	116
3	31	182	0.00	e140	0.00	3.7	0.00	0.00	0.00	143	0.00	116
4	112	120	0.00	e116	0.00	145	0.00	0.00	0.00	142	0.00	127
5	132	42	0.00	0.00	0.00	97	0.00	0.00	0.00	146	70	117
6	133	0.00	e10	0.00	0.00	0.00	0.00	0.00	0.00	145	140	109
7	133	111	e141	0.00	0.00	206	0.00	0.00	0.00	146	131	107
8	128	127	e25	0.00	0.00	138	0.00	0.00	0.00	237	19	107
9	0.00	128	0.00	0.00	0.00	0.00	0.00	0.00	0.00	306	0.00	107
10	0.00	128	0.00	0.00	339	0.00	0.00	0.00	0.00	547	0.00	125
11	94	122	0.00	0.00	177	0.00	0.00	0.00	0.00	571	0.00	128
12	0.00	0.00	0.00	0.00	0.00	86	0.00	0.00	0.00	517	0.00	137
13	124	0.00	0.00	0.00	62	145	0.00	0.00	0.00	452	0.00	140
14	133	0.00	0.00	0.00	143	22	0.00	0.00	188	161	0.00	138
15	125	0.00	0.00	0.00	134	0.00	0.00	0.00	497	62	0.00	138
16	0.00	68	e102	0.00	33	0.00	0.00	0.00	356	133	0.00	135
17	203	118	e137	0.00	0.00	0.00	0.00	0.00	228	147	0.00	81
18	276	117	e22	79	0.00	0.00	0.00	0.00	135	150	0.00	0.00
19	247	122	0.00	147	0.00	0.00	0.00	0.00	0.00	156	0.00	0.00
20	190	17	0.00	23	0.00	0.00	0.00	0.00	0.00	155	252	0.00
21	182	0.00	0.00	0.00	58	0.00	0.00	0.00	93	191	554	0.00
22	e431	0.00	0.00	0.00	136	0.00	0.00	0.00	248	0.00	314	0.00
23	e555	46	0.00	0.00	133	0.00	0.00	3.4	e286	8.8	224	40
24	e327	140	0.00	0.00	133	0.00	0.00	2.6	e647	148	190	132
25	276	94	0.00	0.00	83	0.00	0.00	3.9	e624	144	123	126
26	331	0.00	0.00	0.00	0.00	0.00	0.00	0.00	477	142	46	32
27	306	0.00	0.00	0.00	0.00	0.00	0.00	0.00	203	43	0.00	0.00
28	207	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.2	0.00	122	14
29	169	0.00	e77	0.00	---	0.00	0.00	0.00	151	0.00	134	138
30	163	0.00	e48	0.00	---	0.00	0.00	0.00	149	0.00	129	127
31	183	---	0.00	0.00	---	0.00	---	0.00	---	0.00	126	---
TOTAL	5747.00	2034.00	562.00	564.00	1431.00	842.70	0.00	9.90	4284.20	5483.80	2574.00	2659.00
MEAN	185	67.8	18.1	18.2	51.1	27.2	0.000	0.32	143	177	83.0	88.6
MAX	555	182	141	147	339	206	0.00	3.9	647	571	554	140
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	11400	4030	1110	1120	2840	1670	0.00	20	8500	10880	5110	5270

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2002, BY WATER YEAR (WY)

	MEAN	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
MEAN	95.2	71.6	35.5	31.9	29.6	33.1	31.0	40.1	105	91.9	97.3	101
MAX	277	332	161	123	242	246	220	249	306	226	308	336
(WY)	1984	1995	1999	1979	1983	1983	1979	1979	1999	1980	1982	1983
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1962	1962	1962	1962	1962	1962	1963	1962	1963	1963	1963	1967

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1962 - 2002

ANNUAL TOTAL	20006.80	26191.60		
ANNUAL MEAN	54.8	71.8	61.8	
HIGHEST ANNUAL MEAN			197	1983
LOWEST ANNUAL MEAN			1.44	1971
HIGHEST DAILY MEAN	653	Sep 13	647	Jun 24
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Oct 9
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Nov 26
ANNUAL RUNOFF (AC-FT)	39680		51950	
10 PERCENT EXCEEDS	165		190	
50 PERCENT EXCEEDS	0.00		0.00	0.00
90 PERCENT EXCEEDS	0.00		0.00	0.00

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02283200 PLANTATION ROAD CANAL AT S-33, NEAR FORT LAUDERDALE, FL

LOCATION.--Lat 26°08'05", long 80°11'42", in SW 1/4 sec.31, T.49 S., R.42 E., Broward County, Hydrologic Unit 03090202, 15 ft streamward from left bank, 130 ft upstream from salinity-control structure 33, 0.5 mi east of bridge on U.S. Highway 441, 3 mi above mouth, and 4 mi west of Fort Lauderdale.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1955 to February 1962 (gage heights only), March 1962 to current year.

GAGE.--Water-stage recorders upstream and downstream. Gate-opening recorder discontinued on February 24, 2002. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow is at times affected by tide and is occasionally reversed. Flow is regulated by operation of salinity-control structure 33. Downstream stage is basically tidal, but at times is affected by gate operation. Starting in the 2002 water year, the downstream stage record published is the maximum and minimum stage. Prior to the 2002, water year daily mean for downstream stage was published. Records of gage heights prior to October 1961 are available in files of the U.S. Geological Survey.

COOPERATION.--Gate-opening records provided by South Florida Water Management District.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 32 complete water years of discharge (1963-86, 1988-89, 1993, 1998-2002).

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 6.27 ft Oct. 15, 1999; minimum, -0.82 ft Mar. 4, 1958.

EXTREME UPSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 4.76 ft June 23; minimum, 1.09 ft June 26.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 4.48 ft June 23; minimum, -.95 ft Jan. 29.

UPSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.16	2.93	3.06	3.32	3.01	3.53	3.29	2.41	3.29	3.74	3.84	3.85
2	3.61	2.92	3.05	3.25	2.98	3.51	3.28	2.38	3.27	3.62	3.79	3.76
3	3.64	2.94	3.04	3.23	3.00	3.48	3.20	2.35	3.24	3.83	3.76	3.69
4	3.66	2.94	3.05	3.27	2.90	3.45	3.13	2.32	3.19	3.86	3.74	3.78
5	3.59	3.10	3.03	3.33	2.86	3.42	3.07	2.29	3.13	3.79	3.70	3.85
6	3.59	3.43	2.99	3.40	2.85	3.40	3.00	2.26	3.08	3.78	3.68	3.94
7	3.72	3.54	2.99	3.44	2.88	3.19	2.96	2.25	3.05	3.82	3.66	3.96
8	3.71	3.57	2.98	3.44	2.97	3.00	2.93	2.23	3.24	3.65	3.61	3.94
9	3.64	3.58	3.00	3.43	3.02	3.19	2.91	2.21	3.63	3.64	3.56	3.91
10	3.71	3.56	3.07	3.42	3.65	3.22	2.88	2.18	3.63	3.67	3.52	3.89
11	3.66	3.52	3.15	3.40	3.51	3.20	2.84	2.16	3.59	3.61	3.55	3.85
12	3.75	3.49	3.20	3.30	3.73	3.26	2.81	2.14	3.55	3.66	3.61	3.87
13	3.79	3.46	3.22	3.17	3.72	3.35	2.78	2.14	3.60	3.69	3.56	3.92
14	3.79	3.44	3.18	3.05	3.68	3.38	2.79	2.13	3.48	3.77	3.50	3.91
15	3.70	3.41	3.15	3.07	3.67	3.37	2.81	2.12	2.81	3.82	3.45	3.93
16	3.74	3.39	3.17	3.02	3.73	3.35	2.78	2.21	2.84	3.84	3.39	3.90
17	3.75	3.36	3.24	2.94	3.75	3.33	2.75	2.29	2.85	3.88	3.40	3.86
18	3.70	3.34	3.29	2.93	3.69	3.30	2.71	2.39	2.95	3.80	3.38	3.81
19	3.76	3.34	3.32	3.00	3.61	3.28	2.67	2.90	3.48	3.85	3.35	3.76
20	3.80	3.33	3.32	3.06	3.56	3.27	2.65	3.70	3.67	3.87	3.45	3.70
21	3.86	3.31	3.29	3.10	3.56	3.29	2.63	3.66	3.80	3.92	3.78	3.66
22	2.80	3.28	3.21	3.11	3.57	3.29	2.60	3.64	3.80	3.91	3.75	3.60
23	2.79	3.26	3.19	3.08	2.97	3.26	2.58	3.53	3.87	3.90	3.69	3.56
24	3.21	3.23	3.20	3.07	3.05	3.22	2.54	3.46	2.63	3.91	3.63	3.51
25	3.81	3.21	3.23	3.07	3.42	3.20	2.51	3.38	2.04	3.93	3.58	3.46
26	3.93	3.16	3.26	3.06	3.50	3.19	2.50	3.30	2.16	3.97	3.52	3.42
27	3.92	3.13	3.25	3.06	3.53	3.20	2.47	3.24	2.99	3.83	3.62	3.38
28	3.97	3.10	3.25	3.06	3.54	3.34	2.45	3.24	3.79	3.95	3.67	3.35
29	3.97	3.07	3.25	3.06	---	3.33	2.44	3.23	3.89	3.94	3.76	3.42
30	3.45	3.07	3.25	3.05	---	3.31	2.42	3.25	3.89	3.91	3.85	3.36
31	2.96	---	3.29	3.04	---	3.28	---	3.26	---	3.88	3.84	---
MEAN	3.62	3.28	3.17	3.17	3.35	3.30	2.78	2.72	3.28	3.81	3.62	3.73
MAX	3.97	3.58	3.32	3.44	3.75	3.53	3.29	3.70	3.89	3.97	3.85	3.96
MIN	2.79	2.92	2.98	2.93	2.85	3.00	2.42	2.12	2.04	3.61	3.35	3.35

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02283200 PLANTATION ROAD CANAL AT S-33, NEAR FORT LAUDERDALE, FL

DOWNSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	e3.05	e1.28	3.07	0.93	2.46	-0.03	2.13	-0.49	1.66	-0.86	2.53	-0.22
2	e3.29	e1.11	3.02	0.85	2.44	-0.02	2.14	-0.51	1.65	-0.71	2.46	-0.23
3	e3.24	e1.05	2.95	0.78	2.40	-0.05	2.09	-0.36	1.75	-0.46	2.24	-0.34
4	e3.15	e0.82	2.85	0.62	2.21	-0.17	1.64	-0.72	1.76	-0.39	2.03	-0.62
5	e2.91	e0.72	3.25	1.06	2.28	0.03	1.89	-0.32	1.78	-0.34	1.59	-0.33
6	e2.89	e0.60	2.89	0.95	2.26	0.15	2.05	-0.34	1.73	-0.18	1.68	-0.26
7	e2.45	e0.56	2.65	0.71	2.07	0.13	1.77	-0.61	1.94	-0.17	2.01	-0.01
8	e2.46	e0.51	2.71	0.73	2.07	0.12	1.52	-0.68	1.91	-0.26	2.02	-0.17
9	e2.80	e0.72	2.63	0.72	1.95	-0.09	1.62	-0.69	2.04	-0.18	1.60	-0.18
10	e2.50	e0.71	2.54	0.55	2.11	-0.13	1.60	-0.75	2.27	-0.09	1.53	-0.32
11	e2.56	e0.66	2.69	0.54	2.16	-0.18	1.56	-0.75	1.83	-0.22	1.66	-0.37
12	e2.53	e0.53	2.74	0.43	2.11	-0.25	1.63	-0.78	1.85	-0.32	1.84	-0.20
13	e2.65	e0.50	2.84	0.33	2.25	-0.29	1.58	-0.74	1.85	-0.29	1.76	-0.31
14	e2.41	e0.18	2.90	0.27	2.37	-0.14	1.67	-0.71	1.74	-0.22	1.60	-0.41
15	e2.54	e0.11	3.07	0.29	2.30	-0.24	1.29	-0.90	2.07	-0.01	1.55	-0.50
16	e2.68	e0.00	3.13	0.56	2.12	-0.30	1.29	-0.82	1.91	0.11	1.44	-0.54
17	e2.95	e0.18	3.11	0.60	2.09	-0.10	1.31	-0.80	1.79	0.07	1.48	-0.58
18	e3.26	e0.53	2.90	0.63	1.93	-0.14	1.09	-0.62	1.79	0.09	1.42	-0.62
19	e3.13	e0.76	2.53	0.59	1.95	0.08	1.21	-0.48	1.69	0.14	1.35	-0.48
20	e3.09	e0.71	2.42	0.48	1.78	-0.03	1.01	-0.58	1.89	0.13	1.45	-0.40
21	e2.82	e0.74	2.34	0.67	1.85	0.23	0.99	-0.71	1.73	0.00	1.40	-0.30
22	e2.83	e0.96	2.22	0.72	1.90	0.39	0.96	-0.65	1.86	0.00	1.56	-0.12
23	e2.73	e1.31	2.02	0.58	1.95	0.35	1.06	-0.73	2.63	0.11	1.72	-0.23
24	e2.55	e0.95	2.00	0.43	1.85	0.28	1.14	-0.67	2.16	0.07	1.69	-0.21
25	e2.29	e0.80	1.94	0.39	2.03	0.32	1.23	-0.73	2.32	-0.17	1.86	-0.21
26	2.22	0.79	2.01	0.28	2.20	-0.05	1.42	-0.87	2.63	-0.05	1.90	-0.42
27	2.41	0.82	2.06	0.21	2.06	-0.10	1.53	-0.92	2.59	-0.12	2.10	-0.51
28	2.66	0.95	2.11	0.17	2.31	-0.10	1.76	-0.89	2.51	-0.27	2.34	-0.52
29	2.75	0.99	2.30	0.15	2.33	-0.12	1.80	-0.95	---	---	2.21	-0.61
30	2.97	0.92	2.26	-0.10	2.16	-0.36	1.87	-0.88	---	---	2.20	-0.67
31	2.99	1.03	---	---	2.25	-0.46	1.91	-0.84	---	---	2.01	-0.68
MONTH	3.29	0.00	3.25	-0.10	2.46	-0.46	2.14	-0.95	2.63	-0.86	2.53	-0.68

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.94	-0.59	1.91	-0.40	2.23	0.41	3.40	0.50	2.12	0.47	2.35	0.64
2	1.82	-0.47	1.79	-0.37	2.11	0.39	2.34	0.45	2.30	0.57	2.79	0.78
3	1.77	-0.28	1.49	-0.47	1.98	0.35	2.26	0.25	2.03	0.34	2.99	0.75
4	1.69	-0.08	1.38	-0.36	1.82	0.17	2.20	0.25	1.88	0.07	2.81	0.59
5	1.67	0.14	1.36	-0.29	1.83	0.14	2.39	0.05	1.93	-0.06	3.03	0.56
6	1.88	0.26	1.38	-0.30	1.98	0.03	2.64	0.19	2.32	0.00	2.89	0.36
7	1.97	0.29	1.34	-0.33	2.05	0.05	2.48	-0.06	2.45	0.09	3.16	0.44
8	2.07	0.29	1.35	-0.41	2.18	0.12	2.76	0.25	2.74	0.17	3.00	0.39
9	2.11	0.21	1.46	-0.48	2.32	0.07	2.85	0.30	2.87	0.28	2.94	0.31
10	1.93	-0.03	1.57	-0.56	2.40	0.22	2.80	0.85	2.93	0.33	2.81	0.23
11	1.95	-0.08	1.71	-0.60	2.44	0.00	3.03	0.47	2.89	0.29	2.57	0.16
12	1.98	-0.09	1.75	-0.57	2.35	-0.05	2.77	0.59	2.75	0.25	2.55	0.33
13	2.13	-0.18	1.73	-0.64	2.37	0.25	2.97	0.31	2.58	0.13	2.14	0.18
14	1.99	-0.24	1.89	-0.46	2.47	0.31	2.74	0.21	2.28	-0.04	1.98	0.16
15	1.97	-0.31	1.89	-0.58	2.48	0.16	2.69	-0.04	2.18	0.06	1.90	-0.01
16	1.91	-0.31	1.70	-0.66	2.27	0.10	2.38	-0.19	2.11	-0.04	2.04	0.15
17	1.83	-0.35	1.60	-0.55	2.22	0.08	2.04	-0.26	1.97	-0.17	2.17	0.19
18	1.75	-0.42	1.63	-0.39	2.13	0.05	2.88	-0.24	2.04	-0.14	2.37	0.37
19	1.60	-0.28	2.40	-0.24	2.17	0.08	2.07	-0.30	2.05	-0.18	2.45	0.41
20	1.58	-0.24	1.98	-0.10	2.27	-0.01	2.10	-0.36	2.18	-0.11	2.43	0.47
21	1.70	-0.28	1.95	-0.08	2.92	0.22	1.81	-0.43	2.03	-0.12	2.56	0.53
22	1.68	-0.24	2.39	-0.05	2.90	0.34	1.86	-0.38	2.05	-0.12	2.53	0.55
23	1.89	-0.34	2.63	0.10	4.48	0.61	1.98	-0.36	2.08	-0.08	2.53	0.54
24	1.95	-0.43	2.71	0.02	3.27	1.58	2.14	-0.31	2.01	0.02	2.37	0.58
25	2.04	-0.62	2.79	-0.01	2.78	1.31	1.92	-0.25	2.01	0.08	2.33	0.46
26	2.04	-0.80	2.87	0.00	2.54	0.39	1.96	-0.20	2.02	0.15	2.38	0.53
27	1.97	-0.91	2.93	0.17	2.36	-0.08	2.71	-0.02	2.31	0.15	2.25	0.43
28	2.01	-0.90	2.83	0.27	1.98	-0.14	1.98	0.05	2.93	0.29	2.25	0.52
29	2.08	-0.63	2.83	0.25	1.76	0.06	1.99	0.17	2.11	0.35	2.00	0.32
30	2.12	-0.50	2.70	0.30	1.96	0.06	2.01	0.34	2.17	0.51	2.37	0.58
31	---	---	2.47	0.36	---	---	2.12	0.41	2.17	0.57	---	---
MONTH	2.13	-0.91	2.93	-0.66	4.48	-0.14	3.40	-0.43	2.93	-0.18	3.16	-0.01

YEAR 4.48 -0.95

e Estimated

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02283200 PLANTATION ROAD CANAL AT S-33, NEAR FORT LAUDERDALE, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e22	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	80	0.00	0.00
2	e20	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	60	0.00	14
3	e15	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37	0.00	16
4	e10	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15	0.00	0.00
5	e22	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	49	0.00	9.6
6	e14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e40	0.00	0.00
7	e5.2	0.00	0.00	0.00	0.00	20	0.00	0.00	0.00	33	0.00	0.00
8	e8.7	0.00	0.00	0.00	0.00	10	0.00	0.00	0.00	108	0.00	0.00
9	e8.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	102	0.00	0.00
10	0.00	0.00	0.00	0.00	15	0.00	0.00	0.00	0.00	96	0.00	0.00
11	e5.4	0.00	0.00	0.00	6.0	0.00	0.00	0.00	0.00	108	0.00	12
12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	89	0.00	20
13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	68	0.00	9.9
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32	44	0.00	0.00
15	e7.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	51	24	0.00	0.00
16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	34	24	0.00	0.00
17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30	10	0.00	0.00
18	e8.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	14	40	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	16	0.00	0.00
21	e9.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	22	11	0.00	0.00
22	e106	0.00	0.00	0.00	0.00	0.00	0.00	0.00	38	3.6	0.00	0.00
23	e107	0.00	0.00	0.00	46	0.00	0.00	0.80	107	e10	0.00	0.00
24	e27	0.00	0.00	0.00	12	0.00	0.00	0.00	e132	4.2	0.00	0.00
25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e37	5.1	0.00	0.00
26	5.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e51	0.00	0.00	0.00
27	1.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	47	8.7	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.5	0.00	12	0.00
29	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	4.1	0.00	0.00	0.00
30	48	0.00	0.00	0.00	---	0.00	0.00	0.00	13	0.00	0.00	e6.3
31	35	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	486.30	85.00	0.00	0.00	79.00	30.00	0.00	0.80	616.60	1114.60	12.00	87.80
MEAN	15.7	2.83	0.000	0.000	2.82	0.97	0.000	0.026	20.6	36.0	0.39	2.93
MAX	107	25	0.00	0.00	46	20	0.00	0.80	132	108	12	20
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	965	169	0.00	0.00	157	60	0.00	1.6	1220	2210	24	174

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2002, BY WATER YEAR (WY)

	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	
MEAN	21.5	16.0	9.48	9.15	9.66	8.09	9.67	10.9	26.6	23.1	21.9	26.4																	
MAX	57.9	59.6	41.9	48.1	43.4	55.5	60.3	70.5	79.6	80.0	75.9	54.3																	
(WY)	1968	1970	1968	1968	1972	1970	1977	1979	1977	1988	1976	1973																	
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000																	
(WY)	1971	1963	1963	1963	1971	1963	1963	1962	1971	1971	1987	1989																	

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1962 - 2002

ANNUAL TOTAL	2216.40	2512.10	
ANNUAL MEAN	6.07	6.88	17.2
HIGHEST ANNUAL MEAN			40.1 1969
LOWEST ANNUAL MEAN			0.99 1971
HIGHEST DAILY MEAN	107 Oct 23	132 Jun 24	748 Jul 3 1988
LOWEST DAILY MEAN	-2.4 Sep 18	0.00 Oct 10	-77 Oct 19 1996
ANNUAL SEVEN-DAY MINIMUM	-0.34 Sep 18	0.00 Nov 6	-28 Oct 17 1996
ANNUAL RUNOFF (AC-FT)	4400	4980	12490
10 PERCENT EXCEEDS	17	22	47
50 PERCENT EXCEEDS	0.00	0.00	2.0
90 PERCENT EXCEEDS	0.00	0.00	0.00

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

02283498 NORTH NEW RIVER CANAL AT S-2 AND S-351, NEAR SOUTH BAY, FL

LOCATION.--Lat 26°42'00", long 80°42'55", in SW 1/4 sec.35, T.43 S., R.36 E., Palm Beach County, Hydrologic Unit 03090202, at pump station 2 and gate structure S-351, 500 ft upstream from Hillsboro Canal, and 2.7 mi north of South Bay.  
DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--February 1957 to September 1967 (gauge heights only), October 1967 to current year.

REVISED RECORDS.--WDR FL-77-2A: 1974; WDR FL-93-2A: 1989, 1992.

GAGE.--Satellite data collection platform with water-stage shaft encoders for lake and canal stages in pump station 2; gate openings for three vertical lift gates and pump rpm data provided by South Florida Water Management District. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to January 18, 1965, water-stage recorder at site 1,600 ft downstream at same datum. Electromagnetic velocity meter and digital recorder in lock chamber installed in 1981 water year were removed October 1986. Prior to September 8, 1988, digital lake water-stage recorder in control house of lock. Prior to February 21, 1992, digital lake and canal water-stage recorders, and A-35 graphic recorder. Prior to October 1, 2001, potentiometer-gage recorders on hydraulic ram of each gate.

REMARKS.--Records fair except for estimated daily discharges and discharges computed with submerged weir rating, which are poor. Flow regulated by gates and pump station at Lake Okeechobee. Discharge is summation of S-351 flow, S-2 pumpage and siphoning. Flow frequently reversed during and after periods of heavy rainfall by pumpage into the canal from agricultural lands in the Everglades, by the operation of pump station No. 2 (negative figures indicate flow reversed) and by gravity flow through gates during periods of negative head. Discharge computed from relations between head, gate openings, pump tachometer, submergence, and discharge coefficient. Lake stage published under 02283498. Formerly published as North New River Canal at S-2 and HGS-4, near South Bay. Records of gage heights prior to October 1967 are available in files of the U.S. Geological Survey. Extreme stages for period of record for lake gage height are not listed because of the unavailability of historical files. Gate discharge computed for periods of weir flow and submerged orifice flow where submergence was less than 2.00, are considered poor prior to October 1, 2001, when gate ratings were used.

COOPERATION.--Lake and canal stages, S-2 pump record and S-351 gate-operation record provided by South Florida Water Management District.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 35 water years of discharge (1968-2002).

EXTREME CANAL STAGES FOR PERIOD OF RECORD.--Maximum gage height, 14.09 ft Sept. 28, 1962; minimum, 6.98 ft Oct. 28, 1981.

EXTREME LAKE STAGES FOR CURRENT YEAR.-- Maximum gage height, 15.96 ft Sept. 30; minimum, 10.72 ft June 15.

EXTREME CANAL STAGES FOR CURRENT YEAR.--Maximum gage height, 13.08 ft Feb. 11; minimum 9.01 ft Nov. 5.

LAKE  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.48	14.82	15.01	14.86	14.63	14.43	13.83	12.96	11.94	12.89	14.57	e15.21
2	14.37	14.82	15.00	e14.70	14.68	14.15	13.83	12.86	11.82	12.97	14.59	15.24
3	14.28	14.85	15.04	14.94	14.67	14.31	13.87	12.78	11.79	13.00	14.54	15.29
4	14.30	14.91	15.00	15.05	14.81	14.74	13.82	12.78	11.72	13.09	14.56	15.32
5	14.31	15.28	14.95	14.78	14.77	14.86	13.97	12.79	11.67	13.18	14.54	15.30
6	14.31	15.23	14.93	14.60	14.41	14.45	13.96	12.72	11.66	13.25	14.62	15.41
7	14.38	15.11	14.87	14.85	14.42	14.36	13.76	12.66	11.63	13.32	14.64	15.48
8	14.51	15.03	14.86	14.93	14.65	14.38	13.53	12.58	11.66	13.41	14.66	15.54
9	14.52	15.03	14.87	e14.71	14.49	14.37	13.45	12.47	11.78	13.53	14.55	15.57
10	14.37	15.06	14.86	14.64	14.48	14.41	13.53	12.42	11.65	13.56	14.55	15.54
11	14.34	15.03	14.90	14.63	14.65	14.40	13.53	12.37	11.57	13.68	14.55	15.58
12	14.35	15.08	14.88	14.61	14.62	14.26	13.46	12.29	11.50	13.77	14.53	15.58
13	14.30	15.12	14.87	14.62	14.70	14.25	13.46	12.22	11.44	13.83	14.59	15.57
14	14.28	15.11	14.82	14.58	14.79	14.31	13.47	12.30	11.48	13.96	14.63	15.57
15	14.40	15.16	14.88	14.69	14.58	14.25	13.48	12.45	11.27	14.02	14.58	15.62
16	14.42	15.24	14.85	14.77	14.60	14.22	13.48	12.21	11.70	14.01	14.62	15.63
17	14.80	15.20	14.83	14.70	14.74	14.23	13.50	12.14	11.79	14.06	14.65	15.66
18	14.70	15.10	14.87	14.73	14.75	14.20	13.50	12.16	11.81	14.05	14.72	15.66
19	14.44	15.06	14.91	14.69	14.47	14.13	13.49	12.19	11.96	14.05	14.72	15.63
20	14.42	15.03	14.96	14.69	14.41	14.05	13.44	12.53	11.92	14.10	14.72	15.63
21	14.47	15.04	15.02	14.70	14.45	14.10	13.38	12.64	11.97	14.15	14.75	15.68
22	14.47	15.00	14.84	14.73	14.53	14.31	13.31	12.71	12.01	14.25	14.82	15.67
23	14.53	14.94	14.71	14.65	14.80	14.23	13.38	12.41	12.15	14.26	14.86	15.71
24	14.55	14.95	14.75	14.63	14.78	14.00	13.35	12.20	12.24	14.30	14.87	15.69
25	14.67	14.97	14.93	14.68	14.59	13.96	13.17	12.14	12.31	14.34	14.86	15.67
26	15.07	14.97	15.12	14.69	14.52	13.97	13.12	12.16	12.46	14.39	14.85	15.67
27	15.32	14.94	14.78	14.70	14.69	14.03	13.05	12.09	12.54	14.40	14.88	15.75
28	15.12	14.92	14.70	14.68	14.75	14.08	13.01	12.11	12.62	14.44	14.93	15.82
29	14.88	14.92	14.65	14.66	---	13.93	13.06	11.99	12.69	14.53	15.01	15.81
30	14.86	14.95	14.74	14.60	---	13.83	13.04	11.86	12.73	14.54	15.07	15.82
31	14.84	---	14.75	14.58	---	13.79	---	11.89	---	14.52	15.20	---
TOTAL	451.06	450.87	461.15	456.07	409.43	440.99	404.23	384.08	357.48	429.85	456.23	467.32
MEAN	14.55	15.03	14.88	14.71	14.62	14.23	13.47	12.39	11.92	13.87	14.72	15.58
MAX	15.32	15.28	15.12	15.05	14.81	14.86	13.97	12.96	12.73	14.54	15.20	15.82
MIN	14.28	14.82	14.65	14.58	14.41	13.79	13.01	11.86	11.27	12.89	14.53	15.21

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02283498 NORTH NEW RIVER CANAL AT S-2 AND S-351, NEAR SOUTH BAY, FL

CANAL  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.66	9.97	11.41	11.40	11.02	11.07	10.81	11.39	11.23	11.15	9.61	e11.22
2	10.57	10.29	11.37	e10.82	10.98	10.94	10.79	11.40	11.53	11.81	10.14	11.04
3	10.48	10.00	11.19	10.63	10.99	10.67	10.75	11.43	11.41	11.03	10.39	10.63
4	11.14	9.60	11.03	10.63	10.95	10.61	10.96	11.43	11.31	10.78	10.07	11.05
5	10.79	10.16	10.94	10.72	10.93	10.58	10.75	11.41	11.35	10.69	10.37	10.92
6	10.55	11.29	10.95	10.88	10.96	10.68	10.71	11.47	11.37	10.28	10.41	10.68
7	10.70	10.30	11.09	10.96	10.95	10.30	10.58	12.05	11.34	11.60	10.37	10.68
8	10.62	10.27	11.16	10.86	10.89	9.70	10.60	12.17	11.20	11.50	10.50	10.50
9	10.55	10.21	11.18	e10.92	11.10	9.73	10.61	12.07	10.58	11.57	10.50	10.57
10	10.82	10.39	11.75	10.93	11.79	9.83	10.66	12.03	10.48	11.64	10.23	10.41
11	10.88	10.56	11.39	10.95	12.34	9.98	10.87	12.01	10.34	11.22	10.26	10.39
12	10.96	10.81	11.27	10.89	11.90	10.04	11.25	11.99	10.29	11.06	10.44	10.16
13	10.78	11.00	11.12	10.85	10.99	10.14	11.29	11.89	11.37	11.50	10.52	10.13
14	10.74	11.05	11.12	10.84	10.24	10.64	11.14	11.90	11.34	10.59	11.55	10.34
15	10.79	11.02	11.26	11.03	10.41	10.59	10.70	11.75	11.39	10.40	11.17	10.38
16	10.67	10.91	11.34	10.78	10.86	10.46	10.90	11.55	11.41	10.84	10.89	10.37
17	10.77	10.92	11.35	10.74	10.82	10.60	11.26	10.91	11.26	10.39	10.47	10.35
18	10.80	10.93	11.25	10.70	11.38	10.59	11.04	10.41	10.95	10.45	10.23	10.19
19	10.65	10.91	11.16	10.44	11.25	10.57	10.84	10.06	10.21	10.26	10.36	10.19
20	10.35	10.76	11.07	10.49	10.96	10.79	11.13	10.95	11.49	10.15	10.93	10.07
21	10.46	10.81	10.98	10.59	10.94	10.67	10.95	10.71	11.37	10.35	10.93	10.07
22	11.16	10.89	10.94	10.73	10.67	10.78	10.98	10.42	11.48	11.17	11.26	10.28
23	11.13	11.30	10.94	10.71	9.96	10.68	11.17	10.05	10.92	10.63	11.13	10.09
24	10.60	11.35	10.91	10.61	11.18	10.62	11.14	10.21	11.88	10.70	10.80	10.30
25	11.33	11.33	10.94	10.57	11.08	10.69	11.07	10.60	12.02	10.76	10.18	10.62
26	10.35	11.24	11.37	10.58	10.64	10.80	11.23	10.59	11.59	10.58	10.24	10.68
27	10.16	11.16	11.43	10.59	10.64	10.82	11.52	10.49	10.75	10.38	10.41	10.37
28	11.21	11.09	11.42	10.59	11.08	10.70	11.43	10.86	10.28	10.20	10.55	10.20
29	11.15	11.01	11.38	10.94	---	10.70	11.40	11.45	10.53	10.45	10.28	10.55
30	10.67	11.10	11.42	10.95	---	10.62	11.47	11.46	10.96	10.30	10.96	10.61
31	10.26	---	11.60	10.89	---	10.83	---	11.61	---	9.95	11.59	---
TOTAL	332.75	322.63	347.73	334.21	307.90	326.42	330.00	348.72	333.63	334.38	327.74	314.04
MEAN	10.73	10.75	11.22	10.78	11.00	10.53	11.00	11.25	11.12	10.79	10.57	10.47
MAX	11.33	11.35	11.75	11.40	12.34	11.07	11.52	12.17	12.02	11.81	11.59	11.22
MIN	10.16	9.60	10.91	10.44	9.96	9.70	10.58	10.05	10.21	9.95	9.61	10.07

e Estimated





## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02283500 NORTH NEW RIVER CANAL BELOW S-351, NEAR SOUTH BAY, FL

LOCATION.--Lat 26°41'50", long 80°42'50", in SW  $\frac{1}{4}$  sec.35, T.43 S., R.36 E., Palm Beach County, Hydrologic Unit 03090202, 30 ft from west bank, 800 ft downstream from Hillsboro Canal, 1,600 ft downstream from gate structure S-351 and pump station 2 at Lake Okeechobee, and 2.5 mi north of South Bay.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--February 1957 to current year. Records of gage heights prior to October 1961 are available in files of the U.S. Geological Survey.

REVISED RECORDS.--WDR FL-77-2A: 1974, 1975; WDR FL-92-2A: 1991; WDR FL-93-2A: 1977, 1985.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic doppler velocity meter. Prior to January 1, 2002, acoustic velocity meter at same site and datum. Prior to October 1, 1986, water-stage recorder at pump station 2 used for gage heights at this station. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark). Prior to January 18, 1954, water-stage and deflection-meter recorder at site 1,600 ft downstream at same datum. January 19, 1965 to September 30, 1967, deflection-meter recorder at site 1,600 ft downstream. Satellite data collection platform collecting stage and velocity data was installed November 29, 1990.

REMARKS.--Records not available at time of publication. Flow regulated by S-351 gate and pump station at Lake Okeechobee. Flow occasionally reversed during and after periods of heavy rainfall by pumpage into the canal from agricultural lands in the Everglades by pumping at structure 2 or by gravity flow through gates during periods of negative heads (negative figures indicate flow reversed). Discharge was the difference in flow between North New River Canal at S-2 and S-351 and Hillsboro Canal below S-351 October 1967 to June 9, 1987.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 41 complete water years of discharge (1958-95, 1997-98, 2000).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 14.09 ft Sept. 28, 1962; minimum, 6.98 ft observed Oct. 28, 1981.

EXTREME STAGES FOR CURRENT YEAR.--Figures not available at the time of publication.

DATA IS UNAVAILABLE AT THE TIME OF PUBLICATION

263537080211400 NORTH LOXAHATCHEE CONSERVATION AREA No. 1, NEAR BOYNTON BEACH, FL

LOCATION.--Lat 26°35'37", long 80°21'14", in T.46 S., R.41 E., Palm Beach County, Hydrologic Unit 03090202 in Loxahatchee Wildlife Refuge (Arthur R. Marshall). Township and range approximated from topographic map for which most section lines are not delineated, unable to determine section.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--July 2001 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Station is one of several located in Conservation Area No. 1.

COOPERATION.--U.S. Army Corps of Engineers.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 17.60 ft Nov. 5, 6, 2001; minimum, 15.66 ft May 15, 16, 2002.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 17.60 ft Nov. 5, 6; minimum, 15.66 ft May 15, 16.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.39	17.56	17.11	e16.95	16.71	16.87	16.47	16.08	15.84	16.66	16.72	16.61
2	17.38	17.55	17.11	e16.94	16.70	16.85	16.46	16.05	15.80	16.71	16.71	16.65
3	17.36	17.55	17.10	e16.93	16.69	16.84	16.48	16.03	15.77	16.71	16.73	16.66
4	17.36	17.53	17.09	e16.92	16.68	16.83	16.53	16.00	15.74	16.69	16.71	16.67
5	17.35	17.58	17.07	e16.90	16.66	16.81	16.51	15.97	15.71	16.68	16.71	16.68
6	17.35	17.58	17.06	e16.90	16.65	16.80	16.50	15.94	15.80	16.69	16.71	16.70
7	17.34	17.55	17.16	e16.90	16.65	16.79	16.48	15.91	16.00	16.69	16.69	16.71
8	17.33	17.52	17.19	e16.88	16.63	16.81	16.46	15.88	16.03	16.73	16.68	16.72
9	17.32	17.49	17.17	e16.87	16.63	16.79	16.44	15.85	16.10	16.86	16.66	16.73
10	17.31	17.47	17.15	e16.85	16.77	16.77	16.42	15.82	16.08	16.89	16.64	16.73
11	17.30	17.45	17.14	e16.85	16.94	16.76	16.41	15.78	16.06	16.94	16.67	16.74
12	17.29	17.44	17.12	e16.84	16.91	16.76	16.39	15.76	16.07	17.02	16.73	16.77
13	17.28	17.42	17.10	e16.83	16.88	16.75	16.38	15.73	16.14	17.11	16.71	16.77
14	17.27	17.40	17.09	e16.82	16.88	16.73	16.39	15.70	16.21	17.11	16.69	16.78
15	17.27	17.38	17.08	e16.81	16.87	16.71	16.40	15.67	16.30	17.10	16.67	16.78
16	17.28	17.37	17.07	e16.80	16.94	16.70	16.39	---	16.34	17.09	16.65	16.78
17	17.28	17.35	17.06	e16.79	16.96	16.68	16.41	15.99	16.43	17.10	16.70	16.78
18	17.27	17.33	17.04	e16.78	16.93	16.66	16.40	15.96	16.47	17.09	16.68	16.77
19	17.26	17.31	17.03	e16.77	16.91	16.65	16.38	15.98	16.45	17.09	16.66	16.78
20	17.26	17.30	e17.00	e16.76	16.90	16.63	16.36	16.03	16.44	17.06	16.65	16.78
21	17.27	17.28	e16.98	e16.75	16.89	16.62	16.34	16.00	16.56	17.03	16.65	16.77
22	17.40	17.26	e16.97	e16.74	16.88	16.61	16.32	15.97	16.57	17.00	16.63	16.77
23	17.49	17.24	e16.96	e16.73	16.94	16.59	16.29	15.93	16.57	16.97	16.62	16.78
24	17.50	17.22	e16.94	e16.72	16.95	16.57	16.27	15.90	16.58	16.94	16.62	16.80
25	17.55	17.21	e16.93	16.73	16.93	16.56	16.25	15.86	e16.59	16.91	16.61	16.80
26	17.55	17.20	e16.95	16.72	16.91	16.54	16.22	15.84	16.59	16.88	16.60	16.80
27	17.56	17.18	e16.94	16.71	16.90	16.54	16.20	15.82	16.59	16.85	16.61	16.80
28	17.54	17.16	e16.93	16.70	16.88	16.54	16.17	15.78	16.61	16.82	16.62	16.80
29	17.52	17.14	e16.92	16.69	---	16.52	16.14	15.75	16.59	16.80	16.61	16.80
30	17.54	17.12	e16.91	16.69	---	16.50	16.11	15.78	16.61	16.77	16.59	16.79
31	17.56	---	e16.92	16.68	---	16.49	---	15.87	---	16.75	16.58	---
MEAN	17.38	17.37	17.04	16.80	16.83	16.69	16.37	---	16.25	16.89	16.66	16.75
MAX	17.56	17.58	17.19	16.95	16.96	16.87	16.53	---	16.61	17.11	16.73	16.80
MIN	17.26	17.12	16.91	16.68	16.63	16.49	16.11	---	15.71	16.66	16.58	16.61

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

263180080205001 SITE 7 IN CONSERVATION AREA NO. 1 NEAR SHAWANO, FL

LOCATION.--Lat 26°31'10", long 80°20'50", in T.45 S., R.40 E., Palm Beach County, Hydrologic Unit 03090202, in Loxahatchee Wildlife Refuge (Arthur R. Marshall Park). Township and range approximated from topographic map for which most section lines are not delineated, unable to determine section.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--July 1991 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and a tipping bucket rain gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Land-surface datum is 15 ft above National Geodetic Vertical datum of 1929. Station is one of several located in Conservation Area No. 1. Rainfall is not published, but is available in files of the U.S. Geological Survey. Gage is capable of recording water levels below land-surface datum.

COOPERATION.--U.S. Army Corps of Engineers.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 18.22 ft Nov. 17, 18, 1994; minimum, 14.85 ft May 22, 2001.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 17.48 ft Nov. 5, 6; minimum, 15.59 ft May 15, 16.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.20	17.45	17.00	16.85	16.56	16.74	16.25	15.90	15.80	16.38	16.50	16.35
2	17.19	17.45	16.99	16.84	16.56	16.73	16.24	15.88	15.78	16.41	16.47	16.36
3	17.19	17.44	16.99	16.84	16.55	16.72	16.24	15.86	15.76	16.41	16.45	16.39
4	17.21	17.41	16.97	16.82	16.54	16.70	16.28	15.83	15.75	16.40	16.44	16.44
5	17.22	17.45	16.97	16.80	16.51	16.67	16.26	15.81	15.73	16.39	16.48	e16.45
6	17.23	17.46	16.95	16.80	16.50	16.66	16.24	15.79	15.85	16.40	16.51	16.48
7	17.23	17.43	17.01	16.80	16.49	16.66	16.23	15.77	16.10	16.42	16.48	16.50
8	17.22	17.41	17.03	16.78	16.48	16.66	16.21	15.75	16.15	16.50	16.45	16.54
9	17.22	17.39	17.02	16.77	16.47	16.65	16.19	15.73	16.16	16.58	16.43	16.56
10	17.21	17.37	17.02	16.75	16.55	16.62	16.18	15.71	16.12	16.63	16.40	16.57
11	17.20	17.35	17.00	16.75	16.66	16.60	16.16	15.69	16.11	e16.69	16.42	16.60
12	17.19	17.33	16.99	16.74	16.64	16.59	16.15	15.67	16.14	16.81	16.46	16.65
13	17.18	17.31	16.98	16.73	16.63	16.57	16.13	15.64	16.20	16.94	16.46	16.67
14	17.17	17.29	16.97	16.72	16.66	16.55	16.14	15.62	16.26	16.91	16.44	16.68
15	17.17	17.28	16.96	16.71	16.65	16.54	16.15	15.60	16.35	16.88	16.44	16.69
16	17.15	e17.26	16.95	16.70	16.73	16.52	16.14	---	16.36	16.87	16.41	16.69
17	17.16	17.24	16.94	16.69	16.78	16.49	16.14	e16.01	16.39	16.89	16.44	16.69
18	17.17	17.22	16.93	16.68	16.78	16.48	16.13	15.99	16.35	16.92	16.41	16.68
19	17.17	17.21	16.91	16.67	16.78	16.46	16.11	15.99	16.32	16.89	16.39	16.70
20	17.17	17.19	16.90	16.66	16.78	16.44	16.10	16.01	16.29	16.85	16.36	16.69
21	17.19	17.17	16.88	16.65	16.77	16.42	16.08	15.99	16.44	16.82	16.36	16.69
22	17.31	17.15	16.87	16.64	16.77	16.40	16.06	15.97	16.43	16.80	16.35	16.67
23	e17.39	17.14	16.86	16.63	16.80	16.38	16.04	15.95	16.41	16.78	16.35	16.67
24	17.38	17.11	16.85	16.62	16.80	16.36	16.02	15.93	16.40	16.74	16.36	e16.71
25	17.40	17.10	16.83	16.61	16.79	16.34	16.00	15.91	16.39	16.71	16.34	e16.71
26	17.42	17.08	16.86	16.59	16.78	16.33	15.99	15.89	16.39	16.68	16.32	e16.71
27	17.42	17.06	16.84	16.58	16.77	16.31	15.97	15.88	16.38	16.65	16.34	16.71
28	17.42	17.05	16.83	16.57	16.75	16.32	15.95	15.86	16.38	16.61	16.35	16.73
29	17.42	17.03	16.82	16.56	---	16.30	15.93	15.84	16.36	16.58	16.34	16.71
30	17.43	17.02	16.81	16.55	---	16.28	15.92	15.82	16.35	16.55	16.34	16.69
31	17.45	---	16.82	16.54	---	16.27	---	15.82	---	16.53	16.35	---
TOTAL	535.08	517.85	524.75	517.64	466.53	511.76	483.63	---	485.90	516.62	508.64	498.38
MEAN	17.26	17.26	16.93	16.70	16.66	16.51	16.12	---	16.20	16.67	16.41	16.61
MAX	17.45	17.46	17.03	16.85	16.80	16.74	16.28	---	16.44	16.94	16.51	16.73
MIN	17.15	17.02	16.81	16.54	16.47	16.27	15.92	---	15.73	16.38	16.32	16.35

e Estimated

263050080145001 SITE 8T IN CONSERVATION AREA NO. 1 NEAR BOYNTON BEACH, FL

LOCATION.--Lat 26°30'50", long 80°14'50", in T.41 S., R.41 E., Palm Beach County, Hydrologic Unit 03090202, in Loxahatchee Wildlife Refuge (Arthur R. Marshall Park). Township and range approximated from topographic map for which most section lines are not delineated, unable to determine section.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--July 1991 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and tipping bucket rain gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Land-surface datum is 15 ft above National Geodetic Vertical datum of 1929. Station is one of several located in Conservation Area No. 1. Rainfall record is not published, but available in files of the U.S. Geological Survey. Gage is capable of recording water levels below land-surface datum.

COOPERATION.--U.S. Army Corps of Engineers.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 18.11 ft Nov. 17, 1994; minimum, 13.91 ft May 21, 22, 2001.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 17.43 ft Nov. 5, 6; minimum, 14.10 ft June 6.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.14	17.36	16.94	16.79	16.46	16.61	15.85	15.06	14.53	16.22	16.12	e16.43
2	17.13	17.35	16.94	16.79	16.47	16.55	15.84	15.02	14.49	16.26	16.11	16.45
3	17.15	17.34	16.94	16.79	16.46	16.52	15.83	14.98	14.43	16.29	16.09	16.50
4	17.17	17.31	16.92	16.77	16.46	16.50	15.84	14.94	14.39	16.28	16.09	16.59
5	17.18	17.36	16.90	16.75	16.43	16.48	15.84	14.89	14.35	16.27	16.09	16.63
6	17.19	17.42	16.90	16.76	16.40	16.43	15.81	14.84	14.32	16.29	16.09	16.67
7	17.19	17.39	16.98	16.75	16.38	16.42	15.79	14.79	14.61	16.32	16.08	16.66
8	17.19	17.36	16.98	16.74	16.37	16.45	15.75	14.74	15.07	16.37	16.07	16.66
9	17.17	17.34	16.97	16.71	16.34	16.41	15.72	14.69	15.10	16.47	16.05	16.67
10	17.15	17.32	16.95	16.69	16.47	16.37	15.68	14.64	15.05	16.52	16.02	16.68
11	17.14	17.30	16.94	16.67	16.55	16.33	15.65	14.59	15.05	16.54	16.01	16.69
12	17.13	17.28	16.92	16.66	16.57	16.31	15.62	14.55	15.11	16.61	16.02	16.73
13	17.12	17.26	16.91	16.63	16.58	16.30	15.59	14.51	15.21	16.77	16.03	16.72
14	17.11	17.25	16.91	16.61	16.60	16.28	15.59	14.47	15.46	16.77	16.04	16.71
15	e17.11	17.25	16.91	16.60	16.61	16.25	15.61	14.46	15.68	16.77	16.05	16.70
16	e17.11	17.23	16.88	16.61	16.66	16.21	15.61	---	15.72	16.77	16.05	16.70
17	e17.12	17.20	16.87	16.60	16.74	16.18	15.59	e14.85	15.75	16.73	16.12	16.69
18	17.14	17.17	16.87	16.60	16.73	16.15	15.56	14.80	15.71	e16.75	16.11	16.67
19	17.14	17.15	16.86	16.59	16.69	16.13	15.53	14.80	15.68	16.77	16.10	16.67
20	17.15	17.13	16.84	16.58	16.65	16.11	15.49	14.87	15.68	16.72	16.13	16.66
21	17.17	17.11	16.82	16.57	16.63	16.10	15.45	14.82	15.76	16.67	16.20	16.65
22	17.27	17.08	16.80	16.55	16.63	16.08	15.41	14.77	15.84	16.63	16.19	16.64
23	17.34	17.05	16.78	16.53	16.72	16.06	15.36	14.73	15.89	16.58	16.24	16.65
24	17.35	17.03	16.76	16.51	16.76	16.03	15.31	14.69	15.97	16.53	16.27	16.69
25	17.35	17.03	16.76	16.50	16.73	16.01	15.27	14.64	16.07	16.47	16.26	16.67
26	17.37	17.02	16.79	16.50	16.70	15.98	15.22	14.61	16.12	16.41	16.28	16.65
27	17.39	16.99	16.78	16.48	16.68	15.96	15.19	14.72	16.17	16.35	16.36	16.64
28	17.38	16.96	16.76	16.47	16.65	15.98	15.16	14.69	16.22	16.28	16.38	16.65
29	17.37	16.96	16.75	16.45	---	15.94	15.13	14.63	16.21	16.22	16.38	16.63
30	17.37	16.95	16.74	16.44	---	15.91	15.10	14.58	16.20	16.18	16.40	16.61
31	17.37	---	16.75	16.42	---	15.88	---	14.57	---	16.15	16.41	---
TOTAL	533.66	515.95	522.82	515.11	464.12	502.92	466.39	---	461.84	510.96	500.84	499.36
MEAN	17.21	17.20	16.87	16.62	16.58	16.22	15.55	---	15.39	16.48	16.16	16.65
MAX	17.39	17.42	16.98	16.79	16.76	16.61	15.85	---	16.22	16.77	16.41	16.73
MIN	17.11	16.95	16.74	16.42	16.34	15.88	15.10	---	14.32	16.15	16.01	16.43

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

263000080120001 SITE 8C NEAR L-40 IN CONSERVATION AREA 1 NEAR BOYNTON BEACH, FL

LOCATION.--Lat 26°29'57", long 80°13'20", T.46 S., R.41 E., Palm Beach County, Hydrologic Unit 03090202, 20 ft west of L-40 near Loxahatchee Wildlife Refuge (Arthur R. Marshall Park). Township and range approximated from topographic map for which most section lines are not delineated, unable to determine section.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--April 1991 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and tipping bucket rain gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Station is one of several located in Conservation Area No. 1. Rainfall data is not published, but available in files of the U.S. Geological Survey.

COOPERATION.--U.S. Army Corps of Engineers.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 18.21 ft Oct. 16, 1999; minimum, 12.02 ft May 22, 2001.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 17.60 ft Nov. 6; minimum, 13.67 ft May 12.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e17.32	17.51	17.10	16.95	16.60	16.75	15.96	14.67	14.22	16.38	16.27	16.61
2	e17.31	17.52	17.10	e16.95	16.62	16.68	15.97	14.52	14.08	16.42	16.25	16.63
3	e17.34	17.49	17.10	16.95	16.62	16.66	15.98	14.34	13.95	16.45	16.24	16.68
4	17.37	17.45	17.08	16.93	16.61	16.65	16.01	14.17	13.88	16.44	16.22	16.77
5	17.38	17.52	17.06	16.92	16.57	16.63	15.98	13.99	13.93	16.43	16.22	16.81
6	17.39	17.58	17.05	16.91	16.54	16.57	15.93	13.83	14.08	16.46	16.23	16.83
7	17.39	17.55	17.13	16.92	16.53	16.57	15.87	13.74	14.27	16.49	16.23	16.82
8	17.37	17.51	17.14	16.90	16.52	16.61	15.81	13.77	14.49	16.53	16.22	16.83
9	17.35	17.49	17.13	16.87	16.50	16.54	15.77	13.77	14.50	16.62	16.19	16.84
10	17.34	17.47	17.11	16.85	16.64	16.50	15.74	13.80	14.47	16.67	16.17	16.85
11	17.33	17.45	17.10	16.82	16.72	16.47	15.70	13.74	14.48	16.69	16.16	16.85
12	17.33	17.43	17.08	16.81	16.75	16.46	15.66	13.71	14.52	16.76	16.18	16.89
13	17.31	17.41	17.06	16.78	16.77	16.45	15.63	13.76	14.62	16.91	16.18	16.89
14	17.30	17.41	17.06	16.76	16.77	16.43	15.68	13.96	14.79	16.91	16.19	16.87
15	17.29	17.40	17.06	16.76	16.78	16.40	15.73	13.98	15.11	16.91	16.21	16.86
16	17.29	17.38	17.04	16.77	16.84	16.34	15.72	---	15.25	16.90	16.20	16.86
17	17.29	17.35	17.02	16.75	16.93	16.31	15.67	14.51	15.44	16.87	16.25	16.85
18	17.30	17.32	17.02	16.76	16.90	16.28	15.61	14.58	15.50	16.90	16.25	16.83
19	17.30	17.30	17.01	16.75	16.85	16.26	15.56	14.58	15.55	16.92	16.24	16.83
20	17.32	17.29	17.00	16.74	16.80	16.25	15.51	14.60	15.60	16.86	16.29	16.82
21	17.33	17.26	16.98	16.72	16.79	16.25	15.45	14.59	15.81	16.81	16.36	16.81
22	17.43	17.23	16.95	16.70	16.80	16.23	15.40	14.57	15.97	16.77	16.36	16.80
23	17.50	17.20	16.93	16.67	16.89	16.20	15.34	14.57	16.05	16.71	16.42	16.83
24	17.52	17.19	16.92	16.66	16.93	16.16	15.27	14.53	16.14	16.66	16.46	16.85
25	17.52	17.18	16.92	16.66	16.89	16.14	15.21	14.51	16.21	16.60	16.46	16.84
26	17.54	17.17	16.96	16.65	16.86	16.12	15.15	14.47	16.30	16.53	16.47	16.82
27	17.56	17.14	16.93	16.63	16.84	e16.11	15.09	14.43	16.35	16.47	16.53	16.81
28	17.55	17.12	16.92	16.62	16.81	16.10	15.02	14.39	16.39	16.41	16.55	16.81
29	17.53	17.11	16.90	16.60	---	16.05	14.92	14.36	16.37	16.37	16.56	16.80
30	17.53	17.10	16.89	16.58	---	16.00	14.83	14.26	16.36	16.34	16.57	16.77
31	17.53	---	16.91	16.56	---	15.97	---	14.23	---	16.29	16.59	---
TOTAL	539.16	520.53	527.66	519.90	468.67	507.14	467.17	---	454.68	515.48	505.72	504.36
MEAN	17.39	17.35	17.02	16.77	16.74	16.36	15.57	---	15.16	16.63	16.31	16.81
MAX	17.56	17.58	17.14	16.95	16.93	16.75	16.01	---	16.39	16.92	16.59	16.89
MIN	17.29	17.10	16.89	16.56	16.50	15.97	14.83	---	13.88	16.29	16.16	16.61

e Estimated

262750080175001 SITE 9 IN CONSERVATION AREA NO. 1, NEAR BOYNTON BEACH, FL

LOCATION.--Lat 26°27'50", long 80°17'50", in T.50 S., R.40 E., Palm Beach County, Hydrologic Unit 03090202, in Loxahatchee Wildlife Refuge (Arthur R. Marshall Park). Township and range approximated from topographic map for which most section lines are not delineated, unable to determine section.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--July 1991 to current year.

REVISED RECORDS.--WDR FL-97-2A: 1997.

GAGE.--Satellite data collection platform with water-stage shaft encoder and tipping rain gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Land-surface datum is 15 ft above national Geodetic Vertical Datum of 1929. Station is one of several located in Conservation Area No. 1. Rainfall data is not published, but available in files of the U.S. Geological Survey. Gage is capable of recording water levels below land-surface datum.

COOPERATION.--U.S. Army Corps of Engineers.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 18.02 ft Oct. 15, 1999; minimum, 14.97 ft May 22, 2001.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 17.37 ft Oct. 31; minimum, 15.30 ft May 15, 16.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.08	e17.34	16.89	16.76	16.43	16.62	16.04	15.61	15.46	16.14	16.22	16.29
2	17.07	17.33	16.90	16.75	16.44	16.60	16.02	15.59	15.44	16.17	16.19	16.31
3	17.10	17.32	16.89	16.74	16.44	16.58	16.02	15.57	15.42	16.22	16.16	16.33
4	17.13	17.27	16.88	16.72	16.42	16.56	16.03	15.54	15.40	16.22	16.15	16.38
5	17.14	17.31	16.87	16.71	16.40	16.52	16.00	15.52	15.38	16.21	16.13	16.43
6	17.15	17.35	16.85	16.70	16.38	16.50	15.98	15.50	15.41	16.24	16.11	16.49
7	17.16	17.34	16.88	16.70	16.37	16.49	15.97	15.49	15.47	16.30	16.10	16.52
8	17.15	17.31	16.91	16.69	16.35	16.50	15.95	15.46	15.50	16.35	16.08	16.55
9	17.16	17.28	16.91	16.68	16.35	16.48	15.93	15.44	15.54	16.40	16.06	16.56
10	17.15	e17.26	16.90	16.66	16.45	16.46	15.91	15.42	15.54	16.47	16.05	16.57
11	17.12	17.24	16.89	16.65	16.51	16.44	15.90	15.39	15.57	16.48	16.04	16.59
12	17.11	17.22	16.88	16.63	16.50	16.43	15.88	15.37	15.73	16.54	16.03	16.66
13	17.10	17.20	16.86	16.62	16.49	16.41	15.87	15.34	15.83	16.71	16.03	16.67
14	17.08	17.19	16.86	16.60	16.51	e16.39	15.89	15.32	15.90	16.69	16.03	16.66
15	17.07	17.17	16.86	16.60	16.53	e16.35	15.91	15.31	16.00	16.68	16.03	16.65
16	17.07	17.16	16.85	e16.58	16.61	e16.33	15.90	---	16.00	16.68	16.02	16.65
17	17.07	17.15	16.83	16.57	16.67	e16.31	15.89	e15.64	16.00	16.67	16.05	16.63
18	17.08	17.12	16.82	16.56	16.68	e16.28	15.87	e15.63	15.98	16.68	16.05	16.62
19	17.09	17.10	16.81	16.55	16.68	e16.26	15.85	15.63	15.95	16.69	16.04	16.61
20	17.11	17.08	16.79	16.54	16.66	16.24	15.83	15.66	15.93	16.66	16.04	16.61
21	17.12	17.06	16.78	16.53	16.64	16.22	15.81	15.65	16.11	16.62	16.07	16.61
22	17.21	17.04	16.76	16.52	16.62	16.20	15.79	15.64	16.09	16.59	16.07	16.59
23	e17.27	17.02	16.75	16.51	16.67	16.18	15.77	15.62	16.07	16.55	16.06	16.60
24	e17.28	17.00	16.73	e16.49	16.68	16.15	15.76	15.59	16.08	16.52	16.06	16.64
25	17.29	16.98	16.72	e16.48	16.68	16.13	15.73	15.57	16.07	16.48	16.06	16.63
26	e17.31	16.97	16.74	e16.47	16.67	16.12	15.71	15.55	16.06	16.44	16.09	16.61
27	e17.34	16.96	16.73	e16.45	16.65	16.10	15.69	15.53	16.06	16.40	16.21	16.62
28	e17.33	16.94	16.72	e16.43	16.63	16.11	15.67	15.51	16.08	16.36	16.21	16.63
29	e17.34	16.92	16.71	16.43	---	16.10	15.66	15.49	16.11	16.32	16.22	16.61
30	e17.35	16.90	16.70	16.43	---	16.08	15.64	15.47	16.13	16.29	16.25	16.59
31	e17.36	---	16.71	16.42	---	16.06	---	15.47	---	16.26	16.27	---
TOTAL	532.39	514.53	521.38	514.17	463.11	506.20	475.87	---	474.31	510.03	499.18	496.91
MEAN	17.17	17.15	16.82	16.59	16.54	16.33	15.86	---	15.81	16.45	16.10	16.56
MAX	17.36	17.35	16.91	16.76	16.68	16.62	16.04	---	16.13	16.71	16.27	16.67
MIN	17.07	16.90	16.70	16.42	16.35	16.06	15.64	---	15.38	16.14	16.02	16.29

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

262528080202700 SOUTH LOXAHATCHEE CONSERVATION AREA No. 1, NEAR BOYNTON BEACH, FL

LOCATION.--Lat 26°25'28", long 80°20'27", T.46 S., R.41 E., Palm Beach County, Hydrologic Unit 03090202 in Loxahatchee Wildlife Refuge (Arthur R. Marshall). Township and range approximated from topographic map for which most section lines are not delineated, unable to determine section.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--May 2001 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Station is one of several located in Conservation Area No. 1

COOPERATION.--U.S. Army Corps of Engineers.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 17.33 ft Oct. 30, 31 and Nov. 1, 2001; minimum, 14.53 ft June 5, 6, 2002.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 17.33 ft Oct. 30, 31 and Nov. 1; minimum, 14.53 ft June 5, 6.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.00	17.31	16.82	16.66	16.30	16.49	15.73	15.01	14.63	16.09	15.97	16.34
2	17.07	17.29	16.82	16.65	16.31	16.45	15.71	14.99	14.61	16.12	15.96	16.35
3	17.12	17.22	16.81	16.65	16.32	16.42	15.70	14.97	14.59	16.13	15.94	16.42
4	17.14	17.17	16.80	16.64	16.30	16.39	15.72	14.95	14.57	16.12	15.93	16.50
5	17.15	17.22	16.79	16.61	16.28	16.36	15.70	14.92	14.55	e16.10	15.91	16.51
6	17.15	17.29	16.78	16.61	16.26	16.32	15.68	14.90	14.59	e16.13	15.91	16.53
7	17.13	17.27	16.81	16.61	16.25	16.31	15.65	14.88	14.70	e16.19	15.90	16.53
8	17.13	17.24	16.81	16.60	16.23	16.33	15.62	14.85	14.72	e16.24	15.89	16.56
9	17.14	17.21	16.81	16.57	16.22	16.30	15.59	14.83	14.72	e16.29	15.89	16.57
10	17.13	17.19	16.81	16.56	16.32	16.27	15.56	14.81	14.69	e16.36	15.88	16.57
11	17.11	17.16	16.80	16.54	16.40	16.23	15.53	14.79	14.68	e16.37	15.88	16.58
12	17.09	17.14	16.78	16.53	16.43	16.23	15.49	14.76	14.83	e16.42	15.90	16.64
13	17.07	17.13	e16.77	16.51	16.46	16.19	15.46	14.74	15.04	e16.56	15.89	16.62
14	17.04	17.12	e16.77	16.50	16.49	16.16	15.47	14.72	15.06	16.54	15.89	16.61
15	17.03	17.10	16.76	16.49	16.52	16.14	15.49	14.70	15.13	16.54	15.93	16.60
16	17.03	17.08	e16.74	16.49	16.60	16.11	15.47	---	15.12	16.53	15.95	16.59
17	17.04	17.07	16.73	16.48	16.66	16.09	15.45	14.94	15.13	e16.51	15.96	16.57
18	17.06	17.05	16.72	16.46	16.64	16.06	15.43	14.91	15.14	16.49	15.97	16.56
19	17.07	17.02	16.71	16.45	16.61	16.04	15.40	14.93	15.19	16.48	15.96	16.55
20	17.07	17.00	16.70	16.45	16.57	16.01	15.37	14.95	15.26	16.43	15.96	16.55
21	17.09	16.98	16.69	16.43	16.53	15.99	15.33	14.92	15.45	16.39	15.99	16.55
22	17.17	16.95	16.67	16.42	16.52	15.96	15.29	14.90	15.60	16.34	16.02	16.54
23	17.23	16.93	16.65	16.41	16.59	15.94	15.26	14.87	15.73	16.28	16.05	16.55
24	17.25	16.91	16.64	16.40	16.61	15.92	15.22	14.84	15.85	16.23	16.10	16.57
25	17.26	16.91	16.63	16.38	16.59	15.89	15.19	14.81	15.93	16.17	16.13	16.57
26	17.29	16.90	16.66	16.37	16.57	15.87	15.16	14.78	15.99	16.11	16.16	16.56
27	17.31	16.88	16.64	16.36	16.55	15.85	15.12	14.75	16.03	16.07	16.22	16.55
28	17.30	16.86	16.62	16.34	16.53	15.83	15.09	14.72	16.08	16.05	16.25	16.54
29	17.31	16.84	16.61	16.33	---	15.81	15.06	14.69	16.08	16.02	16.28	16.53
30	17.32	16.82	16.60	16.32	---	15.78	15.04	14.67	16.07	15.99	16.30	16.51
31	17.33	---	16.63	16.30	---	15.75	---	14.65	---	15.98	16.33	---
MEAN	17.15	17.08	16.73	16.49	16.45	16.11	15.43	---	15.19	16.27	16.01	16.54
MAX	17.33	17.31	16.82	16.66	16.66	16.49	15.73	---	16.08	16.56	16.33	16.64
MIN	17.00	16.82	16.60	16.30	16.22	15.75	15.04	---	14.55	15.98	15.88	16.34

e Estimated



262358080055700 E-4 CANAL AT CLINT-MOORE ROAD, BOCA RATON, FL

LOCATION.--Lat 26°23'58", long 80°05'57", in NE 1/4 NE 1/4 NW 1/4 sec.6, T.47 S., R.43 E., Palm Beach County, Hydrologic Unit

03090202, 0.6 mi west on Clint-Moore Road from U.S. Interstate 95 overpass in Boca Raton.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--March 1982 to current year.

GAGE.--Electronic data logger. Digital water-level recorder prior to May 24, 1999. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Station is part of a canal system operated and controlled by Lake Worth Drainage District.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 7.52 ft Oct. 15, 1999; minimum, 2.33 ft May 14-16, 1989.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 5.56 ft June 23; minimum, 2.96 ft May 15.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.21	4.68	4.45	4.41	4.38	4.47	4.28	3.73	3.36	4.87	4.44	4.47
2	5.11	4.67	4.50	4.42	4.35	4.49	4.32	3.64	3.32	4.85	4.46	4.49
3	5.03	4.65	4.49	4.40	4.33	4.49	4.32	3.57	3.28	4.87	4.49	4.51
4	4.94	4.64	4.48	4.38	4.34	4.46	4.33	3.53	3.19	4.89	4.49	4.55
5	4.90	4.73	4.44	4.38	4.32	4.43	4.32	3.44	3.07	4.87	4.47	4.56
6	4.87	4.73	4.42	4.39	4.31	4.44	4.30	3.38	3.01	4.84	4.46	4.57
7	4.83	4.70	4.48	4.37	4.31	4.46	4.28	3.31	3.17	4.81	4.44	4.55
8	4.85	4.67	4.48	4.36	4.28	4.48	4.30	3.24	4.36	4.82	4.41	4.54
9	4.88	---	4.48	4.34	4.28	4.47	4.31	3.16	4.37	4.91	4.40	4.52
10	4.82	---	4.47	4.33	4.52	4.45	4.25	3.10	4.37	5.00	4.39	4.51
11	4.77	---	4.46	4.33	4.47	4.45	4.23	3.05	4.41	4.99	4.44	4.54
12	4.75	---	4.44	4.33	4.46	4.49	4.24	3.04	4.42	4.97	4.44	4.60
13	4.72	---	4.43	4.32	4.44	4.48	4.26	3.05	4.64	5.02	4.43	4.57
14	4.70	---	4.43	4.32	4.43	4.45	4.26	2.99	4.80	4.91	4.41	4.54
15	4.67	---	4.41	4.31	4.44	4.45	4.29	2.98	4.81	4.85	4.42	4.53
16	4.69	---	4.40	4.30	4.53	4.45	4.28	3.07	4.83	4.80	4.40	4.51
17	4.67	---	4.42	4.31	4.53	4.44	4.24	3.22	4.85	4.77	4.50	4.50
18	4.68	---	4.41	4.31	4.51	4.44	4.20	3.25	4.77	4.74	4.47	4.49
19	4.68	---	4.41	4.33	4.50	4.42	4.20	3.28	4.70	4.72	4.45	4.50
20	4.72	---	4.40	4.31	4.50	4.41	4.17	3.53	4.68	4.68	4.44	4.50
21	4.73	---	4.39	4.32	4.49	4.38	4.12	3.59	4.79	4.66	4.44	4.49
22	4.97	4.49	4.39	4.31	4.49	4.36	4.10	3.65	4.81	4.64	4.42	4.46
23	5.04	4.50	4.38	4.28	4.56	4.35	4.03	3.64	5.02	4.62	4.40	4.48
24	4.92	4.50	4.39	4.27	4.52	4.35	3.98	3.57	5.15	4.61	4.39	4.50
25	4.91	4.51	4.38	4.28	4.51	4.34	3.94	3.57	5.10	4.60	4.38	4.49
26	4.87	4.50	4.41	4.27	4.49	4.33	3.92	3.53	5.07	4.59	4.37	4.48
27	4.82	4.49	4.39	4.25	4.48	4.33	3.84	3.53	4.98	4.61	4.40	4.48
28	4.78	4.48	4.40	4.26	4.47	4.30	3.77	3.50	4.98	4.58	4.44	4.47
29	4.75	4.47	4.38	4.26	---	4.26	3.74	3.48	4.90	4.55	4.46	4.46
30	4.72	4.46	4.37	4.27	---	4.22	3.69	3.38	4.86	4.50	4.46	4.45
31	4.70	---	4.40	4.28	---	4.26	---	3.34	---	4.48	4.49	---
TOTAL	149.70	---	137.18	134.00	124.24	136.60	124.51	104.34	132.07	147.62	137.50	135.31
MEAN	4.83	---	4.43	4.32	4.44	4.41	4.15	3.37	4.40	4.76	4.44	4.51
MAX	5.21	---	4.50	4.42	4.56	4.49	4.33	3.73	5.15	5.02	4.50	4.60
MIN	4.67	---	4.37	4.25	4.28	4.22	3.69	2.98	3.01	4.48	4.37	4.45

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

262337080074800 E-3 CANAL AT 51ST STREET, BOCA RATON, FL

LOCATION.--Lat 26°23'37", long 80°07'48", in NE 1/4 NE 1/4 NW 1/4 sec.11, T.47 S., R.42 E., Palm Beach County, Hydrologic Unit 03090202, 2.2 mi west of U.S. Interstate 95, Yamato Road exit approximately 110 yards south of 51st Street (Yamato Road) on the E-3 Canal in Boca Raton.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--March 1982 to current year.

GAGE.--Electronic data logger. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to June 1, 1994, at site 100 yards upstream at same datum.

REMARKS.--Station is part of a canal system operated by Lake Worth Drainage District.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 13.53 ft June 18, 1999; minimum, 7.61 ft May 23, 2001.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 10.57 ft Sept. 5; minimum, 7.90 ft Nov 5.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.11	9.53	9.03	9.12	9.29	9.44	9.22	9.20	9.14	9.90	9.66	9.70
2	10.02	9.18	9.06	9.11	9.24	9.44	9.22	9.11	9.11	9.94	9.75	9.81
3	9.95	8.09	9.05	9.28	9.25	9.41	9.24	9.21	9.10	9.87	9.81	10.05
4	9.86	8.57	9.00	9.28	9.25	9.35	9.22	9.15	9.09	9.89	9.84	10.23
5	9.81	8.14	8.96	9.25	9.25	9.28	9.23	9.20	9.08	9.98	9.98	10.09
6	9.76	8.95	8.94	9.23	9.27	9.23	9.23	9.18	9.08	9.94	9.92	10.03
7	9.70	9.34	9.13	9.25	9.25	9.29	9.25	9.19	9.15	9.88	9.81	9.98
8	9.69	9.49	9.17	9.28	9.26	9.41	9.25	9.18	9.56	10.0	9.77	9.83
9	9.70	9.55	9.17	9.29	9.26	9.38	9.26	9.13	9.62	10.03	9.76	9.69
10	9.64	9.51	9.14	9.28	9.78	9.31	9.24	9.17	9.60	10.19	9.69	9.69
11	9.62	9.48	9.11	9.26	9.57	9.29	9.22	9.12	9.57	10.29	9.70	9.75
12	9.67	9.50	9.06	9.25	9.29	9.35	9.23	9.15	9.62	10.19	9.73	9.88
13	9.66	9.49	9.01	9.26	9.18	9.30	9.22	9.13	9.82	10.30	9.71	9.73
14	9.64	9.47	9.00	9.23	9.06	9.27	9.23	9.17	10.07	9.87	9.72	9.68
15	9.62	9.45	8.99	9.23	9.26	9.27	9.20	9.08	10.17	10.05	9.77	9.63
16	9.72	9.43	8.96	9.23	9.48	9.24	9.22	9.23	10.10	9.96	9.74	9.61
17	9.71	9.41	8.95	9.23	9.62	9.27	9.22	9.24	10.09	9.95	9.80	9.56
18	9.72	9.38	8.93	9.24	9.57	9.26	9.21	9.18	9.95	10.02	9.75	9.55
19	9.75	9.37	8.90	9.25	9.46	9.27	9.21	9.15	9.84	9.99	9.71	9.57
20	9.82	9.35	8.87	9.25	9.41	9.28	9.21	9.29	9.79	9.91	9.67	9.59
21	9.89	9.31	8.82	9.24	9.33	9.24	9.21	9.30	9.92	9.86	9.70	9.56
22	10.17	9.27	8.76	9.25	9.26	9.24	9.21	9.30	9.98	9.83	9.68	9.53
23	10.33	9.25	8.73	9.25	9.49	9.27	9.19	9.20	10.10	9.84	9.65	9.53
24	10.03	9.22	8.71	9.23	9.55	9.25	9.20	9.13	10.34	9.86	9.62	9.57
25	9.87	9.20	8.69	9.24	9.51	9.24	9.26	9.17	10.26	9.83	9.59	9.60
26	9.85	9.18	8.70	9.25	9.47	9.23	9.17	9.15	10.21	9.83	9.57	9.59
27	9.77	9.14	8.72	9.25	9.48	9.24	9.20	9.14	9.95	9.80	9.57	9.56
28	9.70	9.12	9.06	9.24	9.46	9.23	9.20	9.12	10.00	9.75	9.62	9.59
29	9.66	9.09	9.24	9.26	---	9.25	9.19	9.09	9.92	9.72	9.70	9.55
30	9.63	9.06	9.23	9.24	---	9.24	9.19	9.10	9.85	9.73	9.69	9.50
31	9.58	---	9.20	9.26	---	9.23	---	9.14	---	9.67	9.66	---
TOTAL	303.65	276.52	278.29	286.51	262.55	288.00	276.55	284.30	292.08	307.87	301.34	291.23
MEAN	9.80	9.22	8.98	9.24	9.38	9.29	9.22	9.17	9.74	9.93	9.72	9.71
MAX	10.33	9.55	9.24	9.29	9.78	9.44	9.26	9.30	10.34	10.30	9.98	10.23
MIN	9.58	8.09	8.69	9.11	9.06	9.23	9.17	9.08	9.08	9.67	9.57	9.50

262300080220001 HILLSBORO CANAL AT S-10-D, NEAR DEERFIELD BEACH, FL

LOCATION.--Lat 26°23'14", long 80°22'50", in NE 1/4 sec.6, T.47 S., R.40 E., Palm Beach County, Hydrologic Unit 03090202, on Hillsboro Canal on the north bank of the spillway 200 ft northeast of S-10-D, a four-gated control structure, 11.9 mi west of State Road 7 (U.S. Highway 441) on Hillsboro Boulevard. The auxiliary stage recorder is located approximately 20 yards downstream of S-10-D on the south bank of the spillway.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--June 1991 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoders upstream and downstream of structure S-10-D. Tipping bucket rain gage at S-10-D upstream. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers).

REMARKS.--Land-surface datum is 1.10 ft above national Geodetic Vertical of 1929. Station is one of several located on L-39 which regulates flow for Conservation Areas 1 and 2A. Gage records are primarily used to determine stages. Rainfall data is not published but is available in files of the U.S. Geological Survey. Gage is capable of recording water levels below land-surface datum.

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 17.82 ft Dec. 15, 1997; minimum, dry May 11-26, 2001.

EXTREME DOWNSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 17.07 ft Oct. 15, 1996, Oct. 15, 1999; minimum, 11.43 ft May 22, 2001.

EXTREME UPSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 17.45 ft Oct. 31; minimum, 13.80 ft May 6, June 4.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 15.18 ft Oct. 1; minimum, 11.59 ft May 14.

UPSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.06	17.43	16.94	16.77	16.41	16.60	15.78	14.55	14.09	16.26	16.07	16.52
2	17.17	17.37	16.94	16.76	16.42	16.52	15.77	14.41	13.94	16.28	16.06	16.53
3	17.21	17.27	16.93	16.76	16.42	16.49	15.79	14.27	13.87	16.28	16.04	16.60
4	17.22	17.23	16.92	16.75	16.41	16.49	15.81	14.12	13.96	16.25	16.02	16.70
5	17.22	17.30	16.91	16.73	16.39	16.46	15.79	13.96	14.17	16.25	16.02	16.69
6	17.20	17.36	16.91	16.70	16.37	16.41	15.76	13.93	14.25	16.36	16.03	16.72
7	17.19	17.34	16.94	16.71	16.33	16.40	15.74	14.08	14.34	16.39	16.01	16.73
8	17.20	17.32	16.95	16.70	16.34	16.42	15.71	14.21	14.37	16.37	16.02	16.75
9	17.23	17.30	16.94	16.68	16.33	16.38	15.66	14.19	14.34	16.41	16.03	16.75
10	17.21	17.28	16.93	16.67	16.43	16.35	15.61	14.20	14.31	16.44	16.00	16.74
11	17.18	17.26	16.92	16.65	16.54	16.31	15.58	14.16	14.27	16.47	15.99	16.73
12	17.15	17.24	16.91	16.63	16.60	16.28	15.54	14.14	14.30	16.52	16.01	16.77
13	17.12	17.22	16.90	16.61	16.64	16.24	15.50	14.10	14.40	16.67	16.04	16.76
14	17.10	17.20	16.89	16.60	16.68	16.23	15.50	14.18	14.51	16.66	16.06	16.75
15	17.10	17.18	16.89	16.60	16.69	16.21	15.54	14.35	14.80	16.65	16.10	16.74
16	17.10	17.18	16.88	16.60	16.76	16.19	15.54	e14.50	14.98	16.63	16.11	16.73
17	17.13	17.17	16.86	16.58	16.81	16.18	15.52	e14.56	15.12	16.59	16.14	16.71
18	17.15	17.14	16.85	16.57	16.78	16.15	15.47	14.38	15.29	16.56	16.12	16.71
19	17.14	17.11	16.83	16.55	16.74	16.12	15.42	14.37	15.39	16.53	16.11	16.70
20	17.14	17.10	16.82	16.55	16.67	16.09	15.36	14.40	15.41	16.48	16.13	16.70
21	17.15	17.07	16.81	16.53	16.64	16.06	15.30	14.39	15.61	16.41	16.20	16.70
22	17.24	17.05	16.79	16.53	16.64	16.05	15.24	14.45	15.78	16.36	16.24	16.69
23	17.30	17.03	16.77	16.51	16.73	16.03	15.18	14.42	15.92	16.30	16.29	16.70
24	17.33	17.02	16.75	16.49	16.74	16.01	15.12	14.38	16.03	16.24	16.32	16.71
25	17.34	17.02	16.75	16.48	16.72	15.98	15.07	14.34	16.09	16.14	16.34	16.71
26	17.39	17.01	16.78	16.47	16.70	15.96	15.01	14.32	16.15	16.11	16.39	16.70
27	17.43	16.99	16.75	16.46	16.67	15.93	14.95	14.29	16.19	16.11	16.43	16.69
28	17.41	16.97	16.73	16.44	16.63	15.91	14.88	14.26	16.24	16.10	16.46	16.67
29	17.42	16.96	16.71	16.43	---	15.89	14.78	14.19	16.25	16.06	16.48	16.65
30	17.43	16.95	16.71	16.43	---	15.86	14.68	14.11	16.24	16.07	16.49	16.65
31	17.43	---	16.73	16.42	---	15.82	---	14.15	---	16.07	16.50	---
TOTAL	534.09	515.07	522.34	514.36	464.23	502.02	462.60	442.36	450.61	507.02	501.25	500.90
MEAN	17.23	17.17	16.85	16.59	16.58	16.19	15.42	14.27	15.02	16.36	16.17	16.70
MAX	17.43	17.43	16.95	16.77	16.81	16.60	15.81	14.56	16.25	16.67	16.50	16.77
MIN	17.06	16.95	16.71	16.42	16.33	15.82	14.68	13.93	13.87	16.06	15.99	16.52

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

262300080220001 HILLSBORO CANAL AT S-10-D, NEAR DEERFIELD BEACH, FL

 DOWNSTREAM  
 GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.82	13.10	12.70	12.46	12.28	13.53	12.28	11.89	11.71	14.75	13.48	13.36
2	14.09	14.17	12.70	12.48	12.28	13.56	12.28	11.88	11.68	14.76	13.41	13.37
3	13.82	15.10	12.68	12.44	12.28	13.53	12.30	11.87	11.66	14.82	13.38	13.38
4	13.68	15.06	12.66	12.39	12.24	13.48	12.34	11.84	11.64	14.94	13.37	13.39
5	13.57	14.52	12.64	12.40	12.22	13.49	12.29	11.81	11.63	14.93	13.35	13.38
6	13.49	13.79	12.62	12.43	12.24	13.52	12.26	11.78	11.64	14.97	13.33	13.39
7	13.42	13.60	12.70	12.40	12.24	13.49	12.26	11.76	11.70	15.00	13.32	13.39
8	13.35	13.49	12.69	12.36	12.20	13.47	12.26	11.74	11.76	15.01	13.32	13.39
9	13.30	13.43	12.66	12.35	12.20	13.44	12.24	11.71	11.79	15.03	13.32	13.38
10	13.25	13.40	12.64	12.35	12.37	13.43	12.22	11.69	11.78	15.04	13.31	13.38
11	13.18	13.38	12.61	12.35	12.39	13.39	12.20	11.67	11.77	15.04	13.32	13.41
12	13.11	13.36	12.59	12.35	12.59	13.36	12.20	11.66	11.80	15.06	13.34	13.47
13	13.06	13.33	12.58	12.34	13.27	13.33	12.17	11.64	11.88	15.09	13.31	13.47
14	13.00	13.31	12.57	12.35	13.36	13.33	12.20	11.62	12.00	15.09	13.30	13.46
15	12.95	13.29	12.55	12.34	13.41	13.25	12.26	11.61	12.24	15.10	13.32	13.45
16	12.92	13.25	12.54	12.33	13.49	12.99	12.25	e11.72	12.27	15.11	13.33	13.46
17	12.87	13.21	12.52	12.33	13.48	12.87	12.23	e11.80	12.24	15.11	13.31	13.45
18	12.84	13.18	12.50	12.31	13.47	12.78	12.19	11.80	12.21	15.11	13.30	13.45
19	12.85	13.13	12.48	12.32	13.49	12.71	12.16	11.86	12.17	15.11	13.29	13.45
20	12.88	13.10	12.46	12.31	13.49	12.66	12.14	11.92	12.15	15.10	13.30	13.47
21	12.93	13.05	12.43	12.31	13.48	12.59	12.12	11.95	12.26	15.09	13.32	13.45
22	12.98	13.02	12.44	12.30	13.48	12.54	12.10	11.93	12.32	15.08	13.32	13.45
23	13.00	12.99	12.45	12.30	13.51	12.50	12.08	11.91	12.33	15.06	13.32	13.44
24	12.99	12.96	12.43	12.30	13.48	12.48	12.06	11.88	12.39	15.06	13.31	13.45
25	13.01	12.91	12.40	12.28	13.49	12.45	12.04	11.85	13.42	15.04	13.30	13.46
26	13.02	12.87	12.38	12.27	13.49	12.42	12.02	11.82	14.19	14.90	13.31	13.45
27	12.99	12.84	12.39	12.26	13.48	12.38	12.00	11.80	14.24	14.63	13.34	13.44
28	13.01	12.80	12.40	12.25	13.49	12.35	11.97	11.77	14.40	14.53	13.34	13.44
29	13.04	12.77	12.40	12.25	---	12.34	11.93	11.75	14.71	14.45	13.35	13.44
30	13.06	12.73	12.39	12.26	---	12.32	11.91	11.73	14.74	13.99	13.36	13.43
31	13.08	---	12.42	12.28	---	12.31	---	11.73	---	13.60	13.37	---
TOTAL	409.56	401.14	388.62	382.45	362.89	402.29	364.96	365.39	372.72	461.60	413.35	402.80
MEAN	13.21	13.37	12.54	12.34	12.96	12.98	12.17	11.79	12.42	14.89	13.33	13.43
MAX	14.82	15.10	12.70	12.48	13.51	13.56	12.34	11.95	14.74	15.11	13.48	13.47
MIN	12.84	12.73	12.38	12.25	12.20	12.31	11.91	11.61	11.63	13.60	13.29	13.36

e Estimated

262200080210001 HILLSBORO CANAL AT S-10-C, NEAR DEERFIELD BEACH, FL

LOCATION.--Lat 26°22'16", long 80°21'00", in NW 1/4 sec.14, T.47 S., R.40 E., Palm Beach County, Hydrologic Unit 03090202, on Hillsboro Canal on the north bank of the spillway 200 ft northeast of S-10-C, a four-gated control structure, 9.6 mi west of State Road 7 (U.S. Highway 441) on Hillsboro Boulevard. The auxiliary stage recorder is located approximately 20 yards downstream of S-10-C on the south bank of the spillway.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--June 1991 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoders upstream and downstream of structure S-10-C. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Land-surface datum is 1.0 ft above National Geodetic Vertical Datum of 1929. Station is one of several located on L-39 which regulates flow for Conservation Areas 1 and 2A. Gage records are primarily used to determine stages. Water levels below land-surface datum can be recorded.

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 17.82 ft Dec. 15, 1997; minimum, 11.79 ft May 22, 23, 2001.

EXTREME DOWNSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 16.92 ft Oct. 15, 1999; minimum, 11.45 ft May 22, 2001.

EXTREME UPSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 17.44 ft Oct. 27; minimum, 13.63 ft May 12, 13.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 15.08 ft Oct. 1; minimum, 11.59 ft May 14, 15, June 6.

UPSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.02	17.41	16.93	16.77	16.41	16.57	15.77	14.51	14.07	16.15	16.07	16.48
2	17.16	17.35	16.95	16.74	16.43	16.47	15.77	14.37	13.92	16.19	16.06	16.49
3	17.20	17.24	16.93	16.75	16.42	16.44	15.78	14.20	13.79	16.19	16.04	16.55
4	17.22	17.20	16.92	16.75	16.42	16.46	15.81	14.04	13.75	16.16	16.03	16.64
5	17.22	17.29	16.91	16.71	16.40	16.45	15.80	13.86	13.83	16.16	16.01	16.65
6	17.21	17.39	16.91	16.69	16.36	16.39	15.76	13.71	13.96	16.26	16.02	16.69
7	17.21	17.36	16.95	16.71	16.33	16.39	15.72	13.66	14.12	16.31	16.01	16.70
8	17.22	17.32	16.95	16.71	16.34	16.42	15.68	13.72	14.31	16.30	16.01	16.72
9	17.24	17.31	16.95	16.68	16.32	16.36	15.62	13.74	14.34	16.34	16.00	16.72
10	17.21	17.29	16.93	16.66	16.43	16.33	15.58	13.76	14.31	16.38	15.99	16.71
11	17.18	e17.27	16.92	16.64	16.53	16.29	15.54	13.72	14.28	16.40	15.98	16.71
12	17.16	e17.25	16.91	16.62	16.57	16.25	15.49	13.67	14.31	16.45	16.00	16.77
13	17.13	e17.23	16.90	16.61	16.59	16.22	15.46	13.65	14.42	16.60	16.01	16.75
14	17.11	17.21	16.88	16.59	16.62	16.23	15.49	13.83	14.54	16.60	16.04	16.74
15	17.11	17.18	16.89	16.59	16.62	16.21	15.54	13.94	14.78	16.60	16.07	16.73
16	17.11	17.18	16.88	16.60	16.71	16.19	15.53	e14.13	14.96	16.58	16.07	16.73
17	17.15	17.18	16.86	16.58	16.78	16.17	15.51	e14.36	15.10	16.54	16.09	16.72
18	17.16	17.15	16.85	16.57	16.75	16.13	15.45	14.36	15.23	16.53	16.09	16.70
19	17.15	17.12	16.84	16.55	16.69	16.11	15.40	14.37	15.35	16.52	16.08	16.70
20	17.16	17.11	16.83	16.54	16.63	16.08	15.34	14.41	15.39	16.46	16.09	16.70
21	17.16	17.08	16.82	16.53	16.60	16.06	15.28	14.42	15.59	16.39	16.15	16.70
22	17.25	17.06	16.79	16.52	16.60	16.06	15.22	14.42	15.74	16.34	16.18	16.68
23	17.31	17.03	16.77	16.49	16.70	16.03	15.16	14.42	15.88	16.28	16.23	16.69
24	17.34	17.02	16.75	16.48	16.74	15.99	15.11	14.38	16.00	16.22	16.28	16.71
25	17.35	17.02	16.75	16.47	16.70	15.97	15.05	14.34	16.08	16.13	16.28	16.70
26	17.39	17.01	16.80	16.46	16.67	e15.89	14.99	14.31	16.14	16.10	16.32	16.68
27	17.43	16.99	16.76	16.46	16.65	e15.99	14.93	14.27	16.19	16.13	16.37	16.67
28	17.42	16.96	e16.73	16.44	16.62	15.91	14.85	14.23	16.21	16.12	16.39	16.67
29	17.41	16.95	e16.70	16.42	---	15.88	14.76	14.17	16.16	16.08	16.42	16.66
30	17.42	16.95	16.70	16.42	---	15.84	14.65	14.08	16.13	16.08	16.43	16.64
31	17.42	---	16.72	16.41	---	15.80	---	14.07	---	16.08	16.46	---
TOTAL	534.23	515.11	522.38	514.16	463.63	501.58	462.04	437.12	448.88	505.67	500.27	500.40
MEAN	17.23	17.17	16.85	16.59	16.56	16.18	15.40	14.10	14.96	16.31	16.14	16.68
MAX	17.43	17.41	16.95	16.77	16.78	16.57	15.81	14.51	16.21	16.60	16.46	16.77
MIN	17.02	16.95	16.70	16.41	16.32	15.80	14.65	13.65	13.75	16.08	15.98	16.48

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

262200080210001 HILLSBORO CANAL AT S-10-C, NEAR DEERFIELD BEACH, FL

DOWNSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.78	13.07	12.68	12.45	12.26	13.50	12.25	11.89	11.70	14.60	13.46	e13.33
2	14.08	13.99	12.69	12.46	12.27	13.52	12.27	11.87	11.67	14.61	13.40	e13.34
3	13.80	14.85	12.66	12.44	12.27	13.50	12.30	11.85	11.65	14.67	13.36	e13.36
4	13.65	14.82	12.64	12.39	12.24	13.47	12.34	11.82	11.63	14.76	13.35	e13.37
5	13.55	e14.43	12.62	12.39	12.22	13.48	12.29	11.79	11.62	14.77	13.34	e13.37
6	13.46	13.78	12.60	12.42	12.23	13.49	12.26	11.76	11.64	14.80	13.32	13.40
7	13.40	13.57	12.68	12.39	12.23	13.47	12.25	11.74	11.69	14.81	13.32	13.39
8	13.33	13.47	12.66	12.36	12.19	13.46	12.24	11.72	11.76	14.82	13.31	13.39
9	13.28	13.40	12.90	12.34	12.19	13.44	12.23	11.70	11.79	14.85	13.31	13.39
10	13.22	13.38	12.61	12.34	12.35	13.43	12.21	11.68	11.77	14.84	13.29	13.40
11	13.15	e13.36	12.59	12.34	12.38	13.38	12.19	11.66	11.75	14.83	e13.29	13.43
12	13.08	13.34	12.57	12.33	12.58	13.34	12.18	11.64	11.78	14.86	e13.26	13.48
13	13.03	e13.31	12.55	12.33	13.26	13.32	12.16	11.62	11.86	14.92	e13.24	13.48
14	12.98	e13.29	12.54	12.34	13.35	13.32	12.20	11.61	11.99	14.91	e13.24	13.48
15	12.93	e13.27	12.52	12.33	13.40	13.23	12.26	11.61	12.22	14.91	e13.25	13.47
16	12.90	13.23	12.51	12.32	13.48	12.97	12.25	e11.71	12.25	14.91	e13.26	13.47
17	12.85	13.19	12.50	12.32	13.47	12.84	12.21	e11.79	12.22	14.91	e13.23	13.46
18	12.83	e13.16	e12.49	12.30	13.45	12.76	12.18	11.79	12.18	14.92	e13.22	13.46
19	12.83	13.11	e12.48	12.31	13.47	12.69	12.15	11.85	12.15	14.91	e13.22	13.47
20	12.86	13.07	e12.46	12.30	13.46	12.64	12.13	11.92	12.11	14.91	e13.22	13.49
21	12.91	13.03	e12.43	12.29	13.46	12.58	12.11	11.95	12.22	14.89	e13.25	13.47
22	e12.97	13.00	e12.44	12.28	13.47	12.52	12.09	11.92	12.28	14.91	e13.26	13.46
23	12.98	12.97	e12.45	12.29	13.50	12.48	12.07	11.90	12.28	14.89	e13.26	13.45
24	12.97	12.93	e12.43	12.28	13.47	12.46	12.04	11.86	12.35	14.87	e13.26	13.46
25	12.99	12.88	e12.40	12.27	13.48	12.43	12.03	11.84	13.18	14.86	e13.27	13.47
26	13.00	12.84	e12.38	12.25	13.48	12.40	12.01	11.81	13.90	14.69	e13.29	13.47
27	12.98	12.81	e12.39	12.25	13.47	12.36	11.99	11.79	13.95	14.44	e13.31	13.46
28	12.99	12.78	e12.40	12.24	13.48	12.32	11.96	11.76	14.19	14.35	e13.31	13.45
29	13.01	12.74	e12.40	12.24	---	12.31	11.92	11.74	14.56	14.29	e13.31	13.45
30	13.04	12.71	12.38	12.24	---	12.30	11.90	11.73	14.58	13.93	e13.32	13.44
31	13.06	---	12.41	12.26	---	12.28	---	11.72	---	13.58	e13.33	---
TOTAL	408.89	399.78	388.46	382.09	362.56	401.69	364.67	365.04	370.92	456.22	412.06	403.01
MEAN	13.19	13.33	12.53	12.33	12.95	12.96	12.16	11.78	12.36	14.72	13.29	13.43
MAX	14.78	14.85	12.90	12.46	13.50	13.52	12.34	11.95	14.58	14.92	13.46	13.49
MIN	12.83	12.71	12.38	12.24	12.19	12.28	11.90	11.61	11.62	13.58	13.22	13.33

e Estimated

262100080190001 HILLSBORO CANAL AT S-10-A, NEAR DEERFIELD BEACH, FL

LOCATION.--Lat 26°21'32", long 80°18'37", in NE 1/4 sec.24, T.47 S., R.40 E., Palm Beach County, Hydrologic Unit 03090202, on Hillsboro Canal on the north bank of the spillway 200 ft northeast of S-10-A, a four-gated control structure, 6.9 mi west of State Road 7 (U.S. Highway 441) on Hillsboro Boulevard. The auxiliary stage recorder is located approximately 20 yards downstream of S-10-A on the south bank of the spillway.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--June 1991 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoders upstream and downstream of structure S-10-A. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Land-surface datum is 1.10 ft above National Geodetic Vertical Datum of 1929. Station is one of several located on L-39 which regulates flow for Conservation Areas 1 and 2A. Gage records are primarily used to determine stages. Water levels below land-surface datum can be recorded. Revised figures of downstream stage for water year 2000 are available in the files of the U.S. Geological Survey. These supersede those published in the water year 2000 report. Revisions were necessary due to new levels, run February 7, 2002.

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 17.78 ft Dec. 14, 15, 1998; minimum gage height, 12.03 ft May 23, 2001.

EXTREME DOWNSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 16.77 ft (estimated) Oct. 16, 1999; minimum, 11.43 ft May 22, 2001.

EXTREME UPSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 17.34 ft Oct. 27, 28; minimum, 13.54 ft May 12.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 14.91 ft Oct. 1; minimum, 11.54 ft May 15, 16 (estimated), and June 6.

UPSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.00	17.32	16.93	16.78	16.40	16.57	e15.76	14.49	14.03	16.12	16.03	16.41
2	17.10	17.30	16.93	16.75	16.42	e16.46	e15.76	14.35	13.87	16.16	16.03	16.43
3	17.13	17.24	16.93	16.77	16.43	e16.44	e15.79	14.18	13.75	16.17	16.00	16.47
4	17.15	17.19	16.91	16.77	16.43	e16.46	e15.80	14.02	13.69	16.13	15.98	16.57
5	17.15	17.26	16.90	16.73	16.40	e16.45	e15.79	13.84	13.75	16.14	15.98	16.58
6	17.16	17.32	16.89	16.70	16.36	e16.39	e15.76	13.69	13.90	16.22	15.99	16.60
7	17.16	17.31	16.93	16.71	16.32	e16.39	15.73	13.63	14.07	16.27	15.98	16.61
8	17.16	17.28	16.93	16.71	16.35	e16.42	e15.67	13.67	14.27	16.26	15.97	16.62
9	17.18	17.27	16.93	16.69	16.32	e16.37	e15.59	13.68	14.30	16.32	15.95	16.62
10	17.16	17.26	16.91	16.66	16.44	16.35	15.55	13.70	14.26	16.36	15.94	16.62
11	17.15	17.24	16.90	16.65	16.53	16.30	15.52	13.64	14.24	16.38	15.93	16.64
12	17.14	17.22	16.89	16.63	16.56	16.27	15.47	13.57	14.28	16.43	15.95	16.70
13	17.12	17.22	16.88	16.61	16.57	16.24	15.44	13.58	14.38	16.58	15.96	16.68
14	17.10	17.20	16.87	16.58	16.58	16.23	15.48	13.78	e14.53	16.58	15.98	16.67
15	17.10	17.17	16.87	16.59	16.59	16.21	15.53	e13.89	14.76	16.57	16.00	16.67
16	17.10	17.17	16.86	16.59	16.65	16.20	15.52	e14.07	14.95	16.55	16.00	16.66
17	17.13	17.16	16.84	16.57	16.77	16.19	15.49	e14.32	15.09	16.51	16.03	16.65
18	17.14	17.13	e16.84	16.57	16.76	16.15	15.43	14.33	15.22	16.51	16.04	16.64
19	17.13	17.10	16.83	16.56	16.70	16.11	15.38	14.35	15.32	16.49	16.03	16.63
20	17.13	17.09	16.82	16.55	e16.62	e16.09	15.33	14.39	15.37	16.44	16.04	16.62
21	17.14	17.07	16.81	16.53	e16.60	e16.06	15.27	14.40	15.58	16.37	16.09	16.62
22	17.18	17.04	16.78	16.53	e16.60	e16.06	15.21	14.39	15.72	16.32	16.12	16.61
23	17.25	17.01	16.75	16.51	e16.70	e16.03	15.15	14.39	15.85	16.25	16.18	16.61
24	17.27	17.00	16.74	16.50	e16.74	e16.00	15.09	14.34	15.96	16.19	16.22	16.64
25	17.27	17.00	16.74	16.48	e16.70	15.98	15.03	14.30	16.05	16.10	16.23	16.63
26	17.30	17.00	16.79	16.48	e16.67	e15.95	14.98	14.28	16.10	16.07	16.26	16.61
27	17.33	e16.97	16.75	16.47	e16.65	e15.92	14.91	14.24	16.16	16.10	16.31	16.60
28	17.33	16.95	e16.72	16.44	16.63	e15.91	14.83	14.20	16.18	16.08	16.33	16.60
29	17.33	16.94	16.70	16.43	---	15.89	14.76	14.14	16.11	16.05	16.36	16.59
30	17.33	16.93	16.70	16.42	---	15.84	14.65	14.04	16.10	16.03	16.37	16.57
31	17.33	---	16.73	16.41	---	e15.80	---	14.03	---	16.04	16.39	---
TOTAL	532.65	514.36	522.00	514.37	463.49	501.73	461.67	435.92	447.84	504.79	498.67	498.17
MEAN	17.18	17.15	16.84	16.59	16.55	16.18	15.39	14.06	14.93	16.28	16.09	16.61
MAX	17.33	17.32	16.93	16.78	16.77	16.57	15.80	14.49	16.18	16.58	16.39	16.70
MIN	17.00	16.93	16.70	16.41	16.32	15.80	14.65	13.57	13.69	16.03	15.93	16.41

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

262100080190001 HILLSBORO CANAL AT S-10-A, NEAR DEERFIELD BEACH, FL

DOWNSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.69	13.02	e12.64	12.41	12.22	13.46	12.24	11.83	11.66	14.49	13.44	13.31
2	14.05	13.59	e12.65	12.42	12.24	13.48	12.24	11.82	11.63	14.49	13.38	13.32
3	13.77	14.32	e12.63	12.41	12.24	13.47	12.26	11.79	11.61	14.53	13.34	13.34
4	13.61	14.37	e12.60	12.36	12.23	13.46	12.29	11.77	11.59	14.59	13.33	13.35
5	13.51	14.22	12.57	12.35	12.19	13.45	12.25	11.74	11.57	14.61	13.32	13.35
6	13.43	e13.74	12.56	12.38	12.19	13.46	12.21	11.71	11.59	14.64	13.31	13.34
7	13.37	e13.54	12.65	12.37	12.21	13.44	12.18	11.68	11.65	14.66	13.30	13.34
8	13.30	e13.43	12.63	12.33	12.18	13.41	12.17	11.66	11.72	14.68	13.29	13.34
9	13.23	e13.38	12.60	12.31	12.17	13.40	12.16	11.64	11.74	14.72	13.27	13.34
10	13.17	13.35	12.57	12.30	12.14	13.39	12.15	11.62	11.72	14.73	13.26	13.35
11	13.11	13.33	12.55	12.30	12.37	13.34	12.13	11.59	11.72	14.73	13.27	13.38
12	13.04	13.31	12.53	12.30	12.56	13.31	12.12	11.58	e11.47	14.77	13.27	13.43
13	12.99	e13.29	12.51	12.29	13.24	13.30	12.10	11.57	e11.83	14.83	13.25	13.43
14	12.94	e13.27	12.50	12.29	13.33	13.30	12.14	11.56	e11.98	14.82	13.24	13.43
15	12.89	e13.25	12.49	12.29	13.37	13.21	12.20	e11.55	e12.19	14.82	13.24	13.42
16	12.87	e13.21	12.47	12.27	13.45	12.94	12.18	e11.64	e12.22	14.85	13.25	13.42
17	12.82	e13.16	12.47	12.27	13.45	12.81	12.15	11.75	e12.19	14.85	13.24	13.41
18	12.79	e13.12	12.45	12.26	13.42	12.72	12.12	11.76	e12.16	14.85	13.23	13.41
19	12.79	e13.08	12.44	12.27	13.42	12.66	12.09	11.82	12.11	14.85	13.23	13.41
20	12.82	e13.04	12.42	12.26	13.43	12.61	12.07	11.88	12.09	14.85	13.24	13.43
21	12.87	e13.00	12.39	12.25	13.43	12.56	12.05	11.91	12.22	14.83	13.25	13.42
22	12.93	12.96	12.38	12.24	13.44	12.50	12.03	11.88	12.27	14.82	13.26	13.41
23	12.95	e12.93	12.38	12.23	13.49	12.46	12.01	11.85	12.28	14.80	13.27	13.41
24	12.94	12.89	12.38	12.23	13.46	12.43	11.98	11.81	12.34	14.79	13.26	13.41
25	12.96	12.85	12.36	12.22	13.45	12.40	11.96	11.79	13.03	14.77	13.26	13.42
26	12.98	12.81	12.36	12.20	13.45	12.38	11.95	11.77	13.72	14.60	13.27	13.41
27	12.96	e12.77	12.35	12.20	13.46	12.35	11.92	11.74	13.78	14.35	13.29	13.41
28	12.96	12.74	e12.36	12.20	13.45	12.31	11.90	11.71	14.01	14.24	13.29	13.41
29	12.99	e12.71	12.36	12.20	---	12.29	11.87	11.70	14.42	14.18	13.29	13.40
30	13.00	12.68	12.34	12.20	---	12.27	11.85	11.68	14.47	13.89	13.30	13.39
31	13.02	---	12.37	12.21	---	12.26	---	11.67	---	13.56	13.31	---
TOTAL	407.75	397.36	386.96	380.82	361.88	400.83	362.97	363.47	368.98	453.19	411.75	401.64
MEAN	13.15	13.25	12.48	12.28	12.92	12.93	12.10	11.72	12.30	14.62	13.28	13.39
MAX	14.69	14.37	12.65	12.42	13.49	13.48	12.29	11.91	14.47	14.85	13.44	13.43
MIN	12.79	12.68	12.34	12.20	12.17	12.26	11.85	11.55	11.47	13.56	13.23	13.31

e Estimated



262007080321500 S-150 AT TERRYTOWN, FL

LOCATION.--Lat 26°20'07", long 80°32'15", in NW 1/4 sec.27, T.47 S., R.38 E., Palm Beach County, Hydrologic Unit 03090202, 175 ft downstream of S-150, on the west side of U.S. Highway 27, 18.6 mi north of U.S. Interstate 595.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1990 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic doppler velocity meter. Prior to January 29, 2002, satellite data collection platform with water-stage shaft encoder and acoustic velocity meter. Satellite data collection platform with water-stage shaft encoder and acoustic doppler velocity meter installed May 24, 2001. The acoustic velocity meter and acoustic doppler velocity meter were run in tandem for the period of May 24, 2001 to January 29, 2002. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Flow regulated by sluice gates upstream at S-150. Flow occasionally reversed during and after periods of heavy rainfall by pumpage at S-7 which may draw water through S-150 gates. Discharge computed from relations between velocity index and mean velocity.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 6 complete water years of discharge (1994-95, 1997-98, 2000, 2002).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 13.50 ft Nov. 2, 1999; minimum, 7.17 ft Apr. 18, 1991.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 11.95 ft July 25, 26; minimum, 7.46 ft May 14.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.48	11.55	11.27	10.97	10.21	10.40	e9.12	8.48	8.46	10.80	11.67	e11.42
2	11.52	11.57	11.25	e10.93	e10.19	10.69	9.16	8.44	8.41	10.79	11.64	11.39
3	11.56	11.62	11.21	10.79	10.20	10.63	9.12	8.37	e8.53	10.83	11.61	11.40
4	11.62	11.62	11.17	10.66	10.16	10.70	9.06	8.29	e8.68	10.98	11.58	11.44
5	11.66	11.68	11.12	10.62	10.15	10.37	9.03	8.23	e8.55	11.16	11.55	11.45
6	11.71	11.70	11.08	10.62	10.15	10.06	8.96	8.16	e8.54	11.15	11.53	11.38
7	11.74	11.66	11.11	10.59	10.16	10.07	8.92	8.16	e8.62	11.41	11.50	11.36
8	11.76	11.65	11.10	10.57	10.09	10.11	8.91	e8.05	e8.70	e11.32	11.49	11.34
9	11.78	11.63	11.06	10.54	10.08	10.05	8.90	7.90	e8.81	e11.28	11.48	11.31
10	11.79	11.61	11.26	10.53	10.49	9.99	8.86	7.78	e8.72	11.33	11.47	11.30
11	11.79	11.59	11.21	10.51	10.30	9.96	8.82	7.68	e8.73	11.37	11.46	11.33
12	11.78	11.58	11.03	10.50	10.20	e9.97	e8.84	e7.59	e8.75	11.46	11.45	11.43
13	11.73	11.56	10.97	10.48	10.16	9.93	8.79	7.55	e9.97	11.61	11.45	11.43
14	11.68	11.58	10.92	10.50	10.25	9.87	8.78	7.59	e10.61	11.64	11.54	e11.47
15	11.65	11.59	10.87	10.64	10.42	9.84	8.90	7.84	10.80	11.68	11.52	11.44
16	11.62	11.58	10.83	10.74	10.42	9.79	8.84	e7.99	10.91	11.73	11.44	e11.41
17	11.59	11.58	10.80	10.59	10.54	9.74	8.80	e7.99	10.87	e11.77	11.41	11.39
18	11.54	11.57	10.77	10.48	11.03	9.70	8.78	7.93	10.46	11.81	e11.38	11.37
19	11.54	e11.56	10.73	10.46	11.02	9.69	8.76	7.93	9.64	11.85	11.38	11.35
20	11.54	11.56	10.70	10.44	10.70	9.61	8.75	9.23	10.19	11.86	11.39	11.35
21	11.54	11.55	10.67	10.42	10.61	9.53	8.74	9.31	9.68	11.87	11.39	11.35
22	11.68	11.53	10.66	10.40	10.50	9.46	8.72	8.50	9.74	11.89	11.41	e11.34
23	11.68	11.53	10.64	10.40	10.35	9.42	8.67	8.25	9.79	e11.90	11.45	e11.31
24	11.67	11.52	10.62	10.39	10.90	9.38	8.62	8.30	9.89	11.93	11.42	11.31
25	11.68	11.49	10.59	10.36	e10.99	9.33	8.62	8.18	10.05	11.94	11.40	e11.31
26	11.70	e11.46	10.79	10.34	10.74	e9.28	8.60	8.10	10.21	11.94	11.37	11.30
27	11.65	11.44	10.89	10.31	10.49	9.32	e8.58	8.03	10.25	11.88	11.37	e11.26
28	11.62	11.41	10.64	10.30	10.23	9.22	8.55	7.98	10.41	11.83	11.36	11.23
29	11.59	11.37	10.60	e10.28	---	e9.23	8.51	8.13	10.64	11.79	11.36	e11.20
30	11.56	11.33	10.57	e10.27	---	e9.20	8.48	8.16	10.85	11.76	11.37	e11.17
31	11.56	---	10.78	10.22	---	9.17	---	8.33	---	e11.72	11.51	---
TOTAL	361.01	346.67	337.91	325.85	291.73	303.71	264.19	252.45	288.46	358.28	355.35	340.54
MEAN	11.65	11.56	10.90	10.51	10.42	9.80	8.81	8.14	9.62	11.56	11.46	11.35
MAX	11.79	11.70	11.27	10.97	11.03	10.70	9.16	9.31	10.91	11.94	11.67	11.47
MIN	11.48	11.33	10.57	10.22	10.08	9.17	8.48	7.55	8.41	10.79	11.36	11.17

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

262007080321500 S-150 AT TERRYTOWN, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	-20	-7.0	12	249	38	220	e23	16	17	217	-4.2	e126
2	-21	-4.7	12	e322	e36	342	21	16	18	0.13	-1.2	15
3	-14	-6.0	e12	89	30	298	21	14	e17	-5.0	1.3	3.6
4	-3.1	-8.5	e12	5.8	18	382	17	13	e20	207	-4.5	84
5	-14	-2.8	10	4.0	18	123	11	13	e20	172	-5.5	80
6	-24	76	9.5	16	23	18	11	13	e20	91	7.5	16
7	-20	-17	10	7.3	26	14	14	45	e18	545	8.4	41
8	-20	-12	8.5	6.4	20	16	15	e18	e16	e164	7.0	4.4
9	-9.0	-14	e6.5	22	24	16	17	18	e16	e2.1	9.2	-1.6
10	-8.5	-11	e410	e26	366	21	18	17	e17	8.2	0.48	-11
11	e-9.0	-10	176	e22	28	17	16	16	e18	-5.8	-8.2	-1.6
12	e-9.5	-5.5	e12	e28	11	e23	e19	e15	e19	-0.67	1.5	1.1
13	-9.0	-3.3	9.5	e30	5.2	22	20	14	e451	0.03	-1.9	6.0
14	-7.5	-3.5	11	e27	107	25	20	15	e591	-14	202	e8.1
15	-10	-5.5	10	e230	216	27	19	17	604	-3.6	100	-2.7
16	-14	-8.0	11	e242	137	31	19	e16	603	-0.86	23	e0.65
17	-12	-5.0	e9.5	e113	270	29	19	e15	575	e-4.8	10	-8.2
18	-6.0	-2.5	10	e30	635	30	17	12	285	-0.24	e-2.4	-12
19	-4.9	e-4.8	12	e28	534	30	15	12	123	-4.4	-3.4	-4.2
20	-12	-5.5	5.5	e25	194	29	15	330	281	-12	-0.14	9.0
21	-10	-5.5	e9.5	e34	296	26	17	219	16	-3.7	6.1	3.4
22	-6.5	0.85	11	e34	143	18	16	16	16	2.2	15	e9.6
23	-16	36	14	e39	31	19	12	15	19	e5.2	5.2	e12
24	-9.5	e61	e12	e43	568	23	14	15	11	-6.3	2.3	11
25	8.5	12	e7.0	e30	e469	25	17	15	7.3	-1.2	-6.2	e14
26	-16	e7.0	277	e27	269	e24	14	16	12	5.5	-9.4	17
27	-13	9.5	218	e29	100	20	e16	15	6.4	1.1	-3.9	e12
28	1.4	8.0	14	e23	18	18	15	15	177	-7.7	-7.5	-9.7
29	-6.5	e10	e13	e25	---	e20	13	18	343	0.71	-4.4	e2.4
30	-10	8.5	12	e25	---	e23	14	18	496	-6.6	90	e14
31	-8.0	---	300	36	---	23	---	19	---	e0.23	394	---
TOTAL	-333.1	86.75	1656.5	1867.5	4630.2	1952	495	1026	4832.7	1344.53	820.14	439.25
MEAN	-10.7	2.89	53.4	60.2	165	63.0	16.5	33.1	161	43.4	26.5	14.6
MAX	8.5	76	410	322	635	382	23	330	604	545	394	126
MIN	-24	-17	5.5	4.0	5.2	14	11	12	6.4	-14	-9.4	-12
AC-FT	-661	172	3290	3700	9180	3870	982	2040	9590	2670	1630	871

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2002, BY WATER YEAR (WY)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	-0.99	4.14	29.4	67.1	111	109	164	150	112	80.2	35.2	5.80
MAX	59.1	94.6	231	284	523	514	566	602	390	408	152	91.3
(WY)	1994	1998	1997	1997	1992	1992	1992	1992	1992	2000	1998	1993
MIN	-49.0	-50.0	-50.0	-50.0	-21.1	-13.7	-15.9	-0.92	-0.70	-22.1	-31.6	-52.0
(WY)	1995	1995	1995	1995	1995	1995	1993	2000	1993	1992	1992	1992

## SUMMARY STATISTICS

## FOR 2002 WATER YEAR

## WATER YEARS 1991 - 2002

ANNUAL TOTAL	18817.47		
ANNUAL MEAN	51.6	54.3	
HIGHEST ANNUAL MEAN		101	1997
LOWEST ANNUAL MEAN		-6.29	1995
HIGHEST DAILY MEAN	635	Feb 18	850 Jan 16 1991
LOWEST DAILY MEAN	-24	Oct 6	-108 Sep 20 1992
ANNUAL SEVEN-DAY MINIMUM	-17	Oct 1	-82 Sep 16 1992
ANNUAL RUNOFF (AC-FT)	37320		39350
10 PERCENT EXCEEDS	204		282
50 PERCENT EXCEEDS	14		1.0
90 PERCENT EXCEEDS	-8.1		-27

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

02284300 NORTH NEW RIVER CANAL AT S-7, AT TERRYTOWN, FL

LOCATION.--Lat 26°20'07", long 80°32'14", in SW 1/4 sec.22, T.47 S., R.38 E., Palm Beach County, Hydrologic Unit 03090202, 50 ft east of U.S. Highway 27 in Terrytown, and 25 mi south of Okeelanta.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1944 to December 1959 (weekly gage heights and periodic discharge measurements), January 1960 to 1982 (discharge), November 1990 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic doppler velocity meter. Satellite data collection platform with water-stage shaft encoder and acoustic velocity meter until September 30, 2001. The acoustic velocity meter and acoustic doppler velocity meter were run in tandem for the period of May 23, 2001 to January 30, 2002. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Flow regulated by pumpage and operation of gate at pump station 7 and by operation of Structure 351 at Lake Okeechobee. Acoustic Velocity Meter (AVM) system began operation November 8, 1990. Discharge computed from relations between stage vs area and line velocity vs mean velocity index ratings. Positive flow is considered flow into the conservation area. The computed discharge represents pumpage and gate discharge into the conservation area. Negative discharge through gate into North New River Canal is not computed because no rating has been developed for this condition. ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 28 complete water years of discharge (1961-82, 1993-1995, 1998-99, 2001).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 14.09 ft Oct. 31, 1961; minimum, 7.84 ft May 3, 4, 2001.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 12.20 ft May 7, 8; minimum, 8.72 ft Aug 15.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.95	10.20	11.75	10.72	11.22	11.21	11.05	11.44	e11.41	10.78	e9.85	e11.43
2	9.63	10.54	11.76	e11.03	11.23	e10.82	11.01	11.50	11.70	9.67	10.40	11.28
3	10.55	10.15	11.65	10.97	11.25	10.72	11.02	11.48	11.51	9.62	10.62	10.87
4	11.25	9.71	11.53	10.97	11.26	10.86	11.24	11.51	11.42	10.43	10.31	11.06
5	10.85	10.47	11.46	10.98	11.18	10.93	11.05	11.55	11.48	10.30	10.61	10.50
6	10.58	10.29	11.44	11.07	11.11	10.93	11.00	11.51	11.49	10.47	10.71	10.77
7	10.89	9.89	11.39	e11.26	11.14	10.27	10.82	11.99	11.46	11.79	10.64	10.65
8	10.47	10.42	11.36	11.17	11.07	10.01	10.79	e12.08	11.46	10.67	10.75	10.82
9	10.84	10.40	11.42	11.23	11.30	9.99	10.74	e11.99	10.84	9.78	10.64	10.85
10	11.08	10.72	11.87	11.21	11.43	10.15	10.82	11.94	10.67	9.87	10.43	10.64
11	11.15	10.84	11.60	11.24	9.68	10.23	10.97	11.93	10.53	9.65	10.49	10.52
12	11.23	11.08	11.52	11.14	9.87	10.25	11.32	11.93	10.45	9.90	10.68	10.26
13	11.02	11.30	11.37	11.12	9.55	10.43	11.39	11.78	11.21	10.33	10.74	10.43
14	10.96	11.31	11.44	11.02	10.15	11.08	11.34	11.74	11.06	9.76	11.40	10.65
15	11.07	11.27	11.66	11.22	e10.64	11.01	10.93	11.83	11.23	---	10.91	10.72
16	10.61	11.23	11.72	10.97	10.54	10.85	11.16	e11.78	11.35	---	10.81	e10.72
17	11.18	11.23	11.70	10.95	10.52	10.99	11.50	e11.05	11.28	---	10.57	10.71
18	11.23	11.19	e11.64	10.97	e11.52	10.97	11.28	10.64	10.56	---	e10.48	10.50
19	10.96	e11.17	11.54	10.66	11.36	10.86	11.04	10.28	10.14	---	10.62	10.50
20	10.63	11.07	11.49	e10.71	e11.10	11.02	11.33	10.96	10.34	10.46	10.70	10.38
21	10.75	11.16	11.41	10.81	11.10	10.91	11.14	10.83	10.10	10.62	e10.83	10.35
22	10.55	11.28	11.32	10.97	10.37	11.11	11.02	10.69	9.78	10.43	11.20	10.54
23	9.79	11.80	11.27	10.90	10.06	10.99	11.33	10.22	9.84	10.61	e10.57	10.37
24	10.51	11.78	11.22	10.85	11.33	10.90	11.30	10.31	9.63	10.76	10.50	10.59
25	10.30	11.80	11.33	10.87	11.26	10.93	11.14	10.76	9.36	11.05	10.36	10.86
26	10.05	11.72	11.65	10.88	10.81	11.07	11.23	10.78	9.51	10.85	10.48	10.91
27	10.33	11.61	11.60	10.86	10.87	11.12	11.51	10.69	9.59	10.63	10.64	10.66
28	11.53	11.54	11.64	10.85	11.43	11.02	11.45	10.83	10.31	10.46	10.39	10.49
29	11.22	11.49	11.59	11.15	---	10.98	11.39	11.39	10.77	10.73	10.41	10.84
30	11.01	11.50	11.66	e11.16	---	10.85	11.45	11.37	11.14	10.59	10.92	10.92
31	10.50	---	11.73	11.07	---	11.01	---	11.79	---	10.23	11.71	---
TOTAL	332.67	330.16	357.73	340.98	304.35	334.47	334.76	350.57	321.62	---	330.37	320.79
MEAN	10.73	11.01	11.54	11.00	10.87	10.79	11.16	11.31	10.72	---	10.66	10.69
MAX	11.53	11.80	11.87	11.26	11.52	11.21	11.51	12.08	11.70	---	11.71	11.43
MIN	9.63	9.71	11.22	10.66	9.55	9.99	10.74	10.22	9.36	---	9.85	10.26

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02284300 NORTH NEW RIVER CANAL AT S-7, AT TERRYTOWN, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1880	228	0.00	1020	0.00	0.00	0.00	0.00	0.00	884	0.00	0.00
2	1770	256	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2490	0.00	0.00
3	652	355	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2090	0.00	221
4	403	586	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1030	0.00	495
5	474	223	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1200	0.00	1080
6	370	1390	0.00	0.00	0.00	0.00	0.00	0.00	0.00	574	0.00	617
7	280	956	0.00	0.00	0.00	698	0.00	0.00	0.00	0.00	0.00	481
8	513	290	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1370	0.00	0.00
9	0.00	296	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2180	0.00	0.00
10	0.00	0.00	0.00	0.00	473	0.00	0.00	0.00	0.00	2290	0.00	0.00
11	0.00	0.00	0.00	0.00	2290	0.00	0.00	0.00	0.00	2110	0.00	286
12	0.00	0.00	0.00	0.00	1860	0.00	0.00	0.00	0.00	1830	0.00	347
13	0.00	0.00	0.00	0.00	1560	0.00	0.00	0.00	e347	2010	0.00	0.00
14	0.00	0.00	0.00	0.00	552	0.00	0.00	0.00	e609	1760	419	0.00
15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e587	---	538	0.00
16	409	0.00	0.00	0.00	835	0.00	0.00	0.00	e540	---	451	0.00
17	0.00	0.00	0.00	0.00	881	0.00	0.00	0.00	e450	---	317	0.00
18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e918	---	0.00	0.00
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	542	---	0.00	0.00
20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	180	1080	0.00	549	0.00
21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	e1530	0.00	e396	0.00
22	1150	0.00	0.00	0.00	870	0.00	0.00	0.00	1890	1250	414	0.00
23	1800	0.00	0.00	0.00	519	0.00	0.00	0.00	1480	686	e834	0.00
24	671	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2100	379	713	0.00
25	1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2220	0.00	252	0.00
26	1070	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2030	0.00	0.00	0.00
27	523	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1610	0.00	0.00	0.00
28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	611	0.00	519	0.00
29	346	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	286	0.00
30	107	0.00	0.00	0.00	---	0.00	0.00	0.00	0.00	0.00	309	0.00
31	290	---	0.00	0.00	---	0.00	---	0.00	---	0.00	0.00	---
TOTAL	14008.00	4580.00	0.00	1020.00	9840.00	698.00	0.00	180.00	18544.00	---	5997.00	3527.00
MEAN	452	153	0.000	32.9	351	22.5	0.000	5.81	618	---	193	118
MAX	1880	1390	0.00	1020	2290	698	0.00	180	2220	---	834	1080
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	---	0.00	0.00
AC-FT	27780	9080	0.00	2020	19520	1380	0.00	357	36780	---	11900	7000

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2002, BY WATER YEAR (WY)

	304	167	111	172	167	191	216	229	376	356	380	440
MEAN	304	167	111	172	167	191	216	229	376	356	380	440
MAX	1114	1331	1319	1527	1486	864	1442	1066	1553	1523	1359	1814
(WY)	1995	1995	1995	1993	1993	1966	1993	1966	1982	1992	1974	1992
MIN	0.000	0.000	-1.39	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-126	0.000
(WY)	1961	1961	1967	1960	1974	1967	1967	1967	1981	1981	1966	1976

## SUMMARY STATISTICS

## FOR 2001 CALENDAR YEAR

## WATER YEARS 1960 - 2002

ANNUAL TOTAL	44559.50		
ANNUAL MEAN	122	245	
HIGHEST ANNUAL MEAN		663	1993
LOWEST ANNUAL MEAN		47.1	1967
HIGHEST DAILY MEAN	2370	Jul 24	2860
LOWEST DAILY MEAN	0.00	Jan 1	-755
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	-620
ANNUAL RUNOFF (AC-FT)	88380		177500
10 PERCENT EXCEEDS	361		858
50 PERCENT EXCEEDS	0.00		0.00
90 PERCENT EXCEEDS	0.00		0.00

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

261952080074500 E-3 CANAL AT SW 18TH STREET, BOCA RATON, FL

LOCATION.--Lat 26°19'52", long 80°07'45", in SE 1/4 NE 1/4 NW 1/4 sec.35, T.47 S., R.42 E., Palm Beach County, Hydrologic Unit 03090202, 0.7 mi west of U.S. Interstate 95, 1.5 mi south of Palmetto Park Road exit in Boca Raton.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--March 1982 to current year.

GAGE.--Electronic data logger. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Salinity monitoring was discontinued for water year 2001. Station is part of a canal system operated and controlled by Lake Worth Drainage District.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 11.79 ft May 4, 1982; minimum, 5.33 ft Aug. 24, 2000.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 10.12 ft Oct. 22; minimum, 5.89 ft Nov. 3.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.85	9.45	9.00	9.07	9.23	9.39	e9.21	9.21	9.21	9.55	9.51	9.58
2	9.79	8.58	9.03	9.04	9.19	9.35	e9.21	9.12	9.21	9.61	9.55	9.63
3	9.75	6.88	9.02	9.23	9.20	9.32	e9.23	9.23	9.20	9.60	9.55	9.77
4	9.71	8.25	8.98	9.23	9.21	9.31	e9.21	9.15	9.20	9.61	9.57	9.90
5	9.67	7.30	8.94	9.19	9.21	9.26	e9.22	9.22	9.19	9.64	9.61	9.40
6	9.62	8.93	8.93	9.16	9.21	e9.21	e9.23	9.19	9.19	9.60	9.59	9.79
7	9.59	9.30	9.10	9.19	9.19	e9.26	e9.24	9.22	9.23	9.59	9.56	9.76
8	9.58	9.46	9.13	9.22	9.22	e9.39	e9.24	9.24	9.53	9.68	9.55	9.62
9	9.58	9.51	9.14	9.23	9.20	e9.36	e9.25	9.16	9.60	9.28	9.54	9.55
10	9.52	9.47	9.11	9.22	9.67	e9.30	e9.24	9.23	9.57	9.49	9.50	9.60
11	9.52	9.45	9.07	9.20	9.46	e9.27	e9.21	9.15	9.53	9.51	9.52	9.63
12	9.58	9.47	9.03	9.19	9.18	e9.33	e9.21	9.22	9.57	9.38	9.54	9.72
13	9.56	9.46	8.98	9.19	9.08	e9.29	9.20	9.16	9.68	9.22	9.52	9.61
14	9.54	9.44	8.97	9.16	8.98	e9.25	9.20	9.23	9.77	8.93	9.52	9.59
15	9.54	9.42	8.96	9.17	9.20	e9.26	9.19	9.13	9.83	9.67	9.55	9.55
16	9.61	9.40	8.93	9.17	9.41	e9.22	9.20	9.31	9.75	9.64	9.55	9.54
17	9.60	9.38	8.92	9.18	9.54	e9.25	9.21	9.27	9.76	9.63	9.59	9.50
18	9.59	9.35	8.90	9.18	9.51	e9.24	9.21	9.21	9.66	9.65	9.56	9.50
19	9.62	9.33	8.87	9.18	9.39	e9.25	9.21	9.21	9.61	9.61	9.53	9.53
20	9.66	9.31	8.84	9.19	9.31	e9.26	9.20	9.35	9.57	9.56	9.50	9.54
21	9.71	9.27	8.79	9.16	9.26	e9.23	9.20	9.33	9.65	9.52	9.52	9.52
22	9.90	9.24	8.73	9.19	9.19	e9.22	9.21	9.32	9.67	9.53	9.53	9.49
23	9.99	9.21	8.68	9.18	9.43	e9.25	9.20	9.24	9.75	9.58	9.53	9.49
24	9.71	9.18	8.67	9.17	9.51	e9.23	9.22	9.20	9.89	9.57	9.51	9.52
25	9.64	9.17	8.65	9.19	9.47	e9.23	9.26	9.23	9.63	9.57	9.50	9.54
26	9.68	9.15	8.67	9.20	9.42	e9.22	9.18	9.22	9.71	9.57	9.49	9.53
27	9.62	9.11	8.69	9.20	9.45	e9.23	9.21	9.21	9.47	9.55	9.50	9.52
28	9.57	9.08	9.02	9.19	9.42	e9.22	9.21	9.22	9.65	9.51	9.53	9.54
29	9.54	9.05	9.19	9.21	---	e9.24	9.21	9.21	9.59	9.47	9.56	9.52
30	9.53	9.03	9.19	9.19	---	e9.24	9.21	9.20	9.54	9.50	9.56	9.48
31	9.48	---	9.14	9.20	---	e9.23	---	9.21	---	9.51	9.55	---
TOTAL	298.85	272.63	277.27	284.67	260.74	287.31	276.43	285.80	286.41	295.33	295.69	287.46
MEAN	9.64	9.09	8.94	9.18	9.31	9.27	9.21	9.22	9.55	9.53	9.54	9.58
MAX	9.99	9.51	9.19	9.23	9.67	9.39	9.26	9.35	9.89	9.68	9.61	9.90
MIN	9.48	6.88	8.65	9.04	8.98	9.21	9.18	9.12	9.19	8.93	9.49	9.40

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

261710080190001 SITE 19 IN CONSERVATION AREA 2A NEAR CORAL SPRINGS, FL

LOCATION.--Lat 26°16'55", long 80°18'23", T.48 S., R.40 E., Broward County, Hydrologic Unit 03090202, in Conservation Area 2A near Coral Springs. Station is located approximately 0.5 mi west of the Sawgrass Expressway and 1 mi north of Sample Road in line with the water tower in Coral Springs. No section could be determined from existing maps.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1992 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and tipping bucket rain gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Land-surface datum is 10.60 ft above National Geodetic Vertical Datum of 1929. Station is one of several located in Conservation Area 2A. Rainfall data available in files of the U.S. Geological Survey.

COOPERATION.--U.S. Army Corps of Engineers.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 15.33 ft Dec. 9, 10, 1994; minimum, 10.88 ft Apr. 5-12, 1997.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 13.57 ft Oct. 1, 2 and July 18; minimum, 10.91 ft June 7, 8.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e13.57	13.03	12.26	11.65	11.12	11.96	11.33	10.99	10.93	e12.06	13.05	e12.81
2	13.55	13.04	12.23	e11.65	11.11	11.96	11.31	10.98	10.93	e12.13	13.01	12.82
3	13.48	13.07	12.21	11.66	11.10	11.96	11.31	10.97	10.93	e12.20	13.01	12.90
4	13.40	13.10	12.18	11.64	11.09	11.97	11.34	10.96	10.93	e12.39	13.01	12.99
5	13.32	13.25	12.14	11.62	11.07	11.95	11.33	10.96	10.92	e12.50	12.96	12.98
6	13.24	13.34	12.11	11.62	11.06	11.94	11.30	10.95	10.92	e12.59	12.92	12.99
7	13.17	13.34	12.14	11.62	11.06	11.96	11.28	10.95	10.91	e12.68	12.89	13.01
8	13.10	13.34	12.12	11.60	11.05	12.03	11.25	e10.95	10.92	e12.76	12.86	13.04
9	13.02	13.34	12.10	11.58	11.05	12.04	11.22	10.95	10.93	e12.83	12.81	13.04
10	12.95	13.33	12.08	11.56	11.21	12.04	e11.19	10.95	10.93	e12.91	12.78	13.06
11	12.88	13.31	12.07	11.54	11.30	12.03	e11.17	10.94	10.93	e12.98	12.76	e13.08
12	12.81	13.29	12.06	11.51	11.28	12.02	11.16	10.94	10.93	e13.08	12.76	13.19
13	12.76	13.27	12.04	11.50	11.28	12.01	11.14	10.93	10.94	e13.30	12.73	13.19
14	12.74	13.25	12.02	11.48	11.30	11.98	11.27	10.93	10.99	e13.38	12.71	13.19
15	12.73	13.21	12.01	11.46	11.31	11.95	11.35	10.94	11.14	e13.43	12.69	13.19
16	12.72	13.16	11.98	11.44	11.40	11.92	11.33	e10.95	11.18	e13.47	12.68	13.19
17	12.70	13.09	11.96	11.42	11.53	11.89	11.30	e10.95	11.19	13.51	12.68	13.18
18	12.71	13.03	11.94	11.40	11.61	11.84	11.27	10.95	11.19	13.54	12.69	13.17
19	12.76	12.98	11.92	11.38	11.66	11.80	11.24	10.95	11.19	13.53	12.68	13.17
20	12.76	12.92	11.89	11.35	11.70	11.76	11.21	10.97	11.25	13.51	12.67	13.17
21	12.78	12.87	11.86	11.34	11.74	11.72	11.19	10.96	11.42	13.47	12.67	13.16
22	12.91	12.81	11.83	11.31	11.77	11.68	11.16	10.96	11.56	13.44	12.66	13.15
23	12.93	12.75	11.80	11.30	11.88	11.64	11.15	10.95	11.65	13.41	12.72	13.14
24	12.94	12.69	11.77	11.27	11.92	11.60	11.12	10.95	11.69	13.39	12.73	13.13
25	12.97	12.63	11.74	11.25	11.93	11.56	11.10	10.95	11.71	13.36	12.74	13.13
26	13.01	12.57	11.72	11.23	11.94	11.52	11.08	10.95	11.71	13.32	12.74	13.12
27	13.03	12.50	11.69	11.21	11.96	11.49	11.06	10.95	11.72	13.29	12.77	13.09
28	13.04	12.43	11.67	11.19	11.96	11.46	11.03	10.94	11.77	13.22	12.76	13.07
29	13.05	12.36	11.65	11.17	---	11.43	11.01	10.94	11.83	13.17	12.76	13.04
30	13.06	12.30	11.63	11.14	---	11.40	11.00	10.94	11.93	13.13	12.76	13.01
31	13.06	---	11.63	11.13	---	11.36	---	10.94	---	13.09	12.77	---
TOTAL	403.15	389.60	370.45	354.22	320.39	365.87	336.20	339.49	337.17	405.07	396.43	392.40
MEAN	13.00	12.99	11.95	11.43	11.44	11.80	11.21	10.95	11.24	13.07	12.79	13.08
MAX	13.57	13.34	12.26	11.66	11.96	12.04	11.35	10.99	11.93	13.54	13.05	13.19
MIN	12.70	12.30	11.63	11.13	11.05	11.36	11.00	10.93	10.91	12.06	12.66	12.81

e Estimated

261300080280001 NORTH NEW RIVER CANAL AT S-11-C, NEAR ANDYTOWN, FL

LOCATION.--Lat 26°13'43", long 80°27'37", in NE 1/4 sec.32, T.48 S., R.37 E., Broward County, Hydrologic Unit 03090202, in North New River Canal on the east bank of the spillway, 100 ft southeast of S-11-C, a four-gated control structure, 5.9 mi north of State Road 84 on U.S. Highway 27. The auxiliary stage recorder is located approximately 30 yards downstream of structure S-11-C on the west bank of the spillway.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--May 1991 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoders upstream and downstream of structure S-11-C. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Station is one of several located on Levee 38W which regulates flow for Conservation Areas 2A and 3A. Gage records are primarily used to determine stages.

COOPERATION.--U.S. Army Corps of Engineers.

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 14.90 ft Dec. 22, 1994; minimum, 9.64 ft May 22, 2001.

EXTREME DOWNSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 13.93 ft Dec. 12, 1994; minimum, indeterminate, well was dry several days during the 2001 and 2002 water years.

EXTREME UPSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 13.41 ft Nov. 8; minimum, 10.23 ft June 12.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 12.15 ft July 24, 25; minimum, indeterminate, well was dry, May 13-15, 18-19.

UPSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.79	13.18	12.16	11.68	11.06	11.86	11.15	10.87	10.37	e11.59	12.97	12.85
2	12.82	13.15	12.18	11.69	11.08	11.84	11.15	10.84	10.34	e11.40	12.96	12.86
3	12.71	13.15	12.18	11.69	11.11	11.81	11.12	10.80	10.33	e11.30	12.94	12.89
4	12.44	13.14	12.16	11.68	11.11	11.79	11.13	10.77	10.33	e11.15	12.94	12.98
5	12.37	13.23	12.15	11.67	11.10	11.79	11.13	10.73	10.30	e11.26	12.91	13.03
6	12.35	13.32	12.13	11.65	11.09	11.80	11.12	10.69	10.29	11.36	12.89	13.07
7	12.31	13.37	12.15	11.63	11.08	11.87	11.11	10.65	10.31	11.38	12.85	13.10
8	12.28	13.40	12.15	11.60	11.07	11.96	11.06	10.61	10.31	11.44	12.82	13.12
9	12.34	13.40	12.15	11.56	11.07	11.91	11.00	10.56	10.32	11.53	12.79	13.12
10	12.45	13.39	12.15	11.54	11.16	11.88	10.97	10.50	10.29	11.64	12.76	13.11
11	12.39	13.37	12.14	11.50	11.37	11.86	10.95	10.47	10.27	11.70	12.72	13.13
12	12.47	13.35	12.13	11.47	11.46	11.83	10.94	10.47	10.25	11.80	12.71	13.24
13	12.72	13.27	12.12	11.43	11.49	11.77	10.94	10.46	10.35	11.99	12.71	13.25
14	12.74	13.10	12.09	11.42	11.48	11.67	11.00	10.46	e10.59	12.05	12.71	13.26
15	12.74	13.00	12.05	11.41	11.47	11.59	11.14	10.47	e10.80	12.12	12.71	13.25
16	12.74	12.90	12.03	11.40	11.49	11.50	11.15	e10.54	e10.89	12.18	12.71	13.24
17	12.76	12.84	12.00	11.38	11.58	11.42	11.17	e10.54	e10.95	12.18	12.71	13.23
18	12.79	12.78	11.97	11.36	11.61	11.35	11.17	10.49	e11.03	12.18	12.70	13.22
19	12.84	12.72	11.93	11.34	11.61	11.29	11.16	10.48	11.11	12.18	12.69	13.21
20	12.83	12.65	11.90	11.32	11.59	11.35	11.15	10.57	11.16	12.17	12.67	13.21
21	12.86	12.58	11.86	11.29	11.58	11.34	11.14	10.59	11.29	12.16	12.70	13.20
22	12.98	12.50	11.80	11.27	11.62	11.34	11.12	10.57	11.38	12.15	12.77	13.19
23	13.02	12.40	11.75	11.24	11.81	11.32	11.09	10.55	11.49	12.15	12.81	13.17
24	13.07	12.31	11.70	11.18	11.88	11.28	11.08	10.52	11.62	12.16	12.80	e13.17
25	13.11	12.23	11.66	11.14	11.89	11.25	11.05	10.49	11.66	12.16	12.79	e13.16
26	13.18	12.17	11.66	11.10	11.87	11.24	11.02	10.46	11.63	12.31	12.78	13.14
27	13.24	12.15	11.66	11.06	11.86	11.24	10.99	10.44	e11.65	12.74	12.79	13.10
28	13.25	12.14	11.65	11.02	11.86	11.23	10.96	10.40	e11.66	12.82	12.79	13.08
29	13.24	12.09	11.62	11.02	---	11.20	10.93	10.37	e11.64	12.83	12.81	13.06
30	13.22	12.09	11.61	11.05	---	11.16	10.90	10.36	e11.62	12.88	12.83	13.04
31	13.19	---	11.62	11.06	---	11.14	---	10.39	---	12.96	12.84	---
TOTAL	396.24	385.37	370.51	352.85	320.45	357.88	331.99	327.11	326.23	371.92	396.58	393.68
MEAN	12.78	12.85	11.95	11.38	11.44	11.54	11.07	10.55	10.87	12.00	12.79	13.12
MAX	13.25	13.40	12.18	11.69	11.89	11.96	11.17	10.87	11.66	12.96	12.97	13.26
MIN	12.28	12.09	11.61	11.02	11.06	11.14	10.90	10.36	10.25	11.15	12.67	12.85

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

261300080280001 NORTH NEW RIVER CANAL AT S-11-C, NEAR ANDYTOWN, FL

 DOWNSTREAM  
 GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.77	11.54	11.16	10.62	10.24	10.20	9.15	8.52	8.53	e10.65	11.67	11.33
2	11.81	11.58	11.13	10.64	10.23	10.24	9.19	8.48	8.48	e10.82	11.64	11.34
3	11.90	11.64	11.09	10.65	10.24	10.23	9.17	8.41	8.57	e10.92	11.61	11.34
4	12.00	11.64	11.05	10.62	10.21	10.21	9.10	8.34	8.67	e11.11	11.58	11.36
5	12.00	11.71	11.01	10.60	10.19	10.15	9.11	8.28	8.55	e11.22	11.56	11.37
6	12.03	11.68	10.98	10.59	10.18	10.07	9.03	8.23	8.54	11.32	11.54	11.36
7	12.03	11.65	11.00	10.59	10.19	10.10	8.98	8.20	8.62	11.34	11.52	11.34
8	12.02	11.64	10.99	10.56	10.14	10.14	8.95	8.17	8.70	11.40	11.53	11.33
9	11.98	11.62	10.95	10.54	10.12	10.09	8.92	8.13	8.80	11.48	11.52	11.31
10	11.92	11.60	10.92	10.52	10.18	10.04	8.90	8.09	8.71	11.55	11.51	11.30
11	11.89	11.59	10.90	10.52	10.26	10.00	8.87	8.06	8.73	11.61	11.49	11.33
12	11.81	11.57	10.86	10.50	10.24	10.00	8.89	e8.04	8.75	11.74	11.47	11.43
13	11.68	11.58	10.82	10.49	10.21	9.97	8.83	---	8.93	11.92	11.45	11.43
14	11.63	11.62	10.79	10.49	10.22	9.91	8.83	---	e8.91	11.97	11.43	11.46
15	11.60	11.62	10.76	10.49	10.25	9.87	8.94	---	e9.19	12.04	11.43	11.44
16	11.58	11.62	10.72	10.51	10.26	9.82	8.88	e8.03	e9.48	12.10	11.41	11.42
17	11.52	11.61	10.70	10.50	10.29	9.77	8.86	e8.04	e9.55	12.10	11.40	11.40
18	11.45	11.60	10.68	10.48	10.30	9.73	8.84	---	e9.57	12.11	11.39	11.38
19	11.48	11.59	10.66	10.46	10.29	9.72	8.82	---	e9.50	12.12	11.38	11.36
20	11.47	11.58	10.63	10.44	10.27	9.63	8.80	8.48	9.57	12.12	11.38	11.35
21	11.50	11.56	10.62	10.42	10.25	9.58	8.79	8.67	9.68	12.11	11.39	11.37
22	11.57	11.55	10.62	10.41	10.26	9.52	8.77	8.56	9.76	12.12	11.44	e11.35
23	11.58	11.53	10.60	10.41	10.34	9.46	8.74	8.31	9.81	12.11	11.43	e11.33
24	11.57	11.51	10.59	10.40	10.35	9.41	8.69	8.36	9.92	12.14	11.41	e11.32
25	11.60	11.49	10.58	10.39	10.35	9.36	8.67	8.24	10.09	12.13	11.39	e11.31
26	11.65	11.47	10.59	10.36	10.33	9.34	8.65	8.16	10.24	12.05	11.36	11.30
27	11.61	11.42	10.60	10.34	10.29	9.37	8.62	8.10	e10.31	11.89	11.36	11.26
28	11.56	11.37	10.58	10.33	10.23	9.31	8.59	8.06	e10.37	11.85	11.35	11.23
29	11.53	11.33	10.57	10.29	---	9.29	8.56	8.20	e10.46	11.82	11.33	11.20
30	11.52	11.25	10.54	10.28	---	9.23	8.53	8.22	e10.50	11.77	11.33	11.17
31	11.54	---	10.56	10.26	---	9.19	---	8.40	---	11.71	11.33	---
TOTAL	362.80	346.76	334.25	324.70	286.91	302.95	265.67	---	279.49	363.34	355.03	340.22
MEAN	11.70	11.56	10.78	10.47	10.25	9.77	8.86	---	9.32	11.72	11.45	11.34
MAX	12.03	11.71	11.16	10.65	10.35	10.24	9.19	---	10.50	12.14	11.67	11.46
MIN	11.45	11.25	10.54	10.26	10.12	9.19	8.53	---	8.48	10.65	11.33	11.17

e Estimated



262240080258001 SITE 17 NEAR L-38 IN CONSERVATION AREA 2A NEAR CORAL SPRINGS, FL

LOCATION.--Lat 26°17'11", long 80°24'40", in NE 1/4 sec.11, T.48 S., R.39 E., Broward County, Hydrologic Unit 03090202, in Conservation Area 2A near L-38 and approximately 7 mi west of Coral Springs.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--August 1991 to current year. Prior to August 1991 station was operated by the U.S. Army Corps of Engineers.

GAGE.--Satellite data collection platform with water-stage shaft encoder and tipping bucket rain gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Land-surface datum is 11.10 ft above National Geodetic Vertical datum of 1929. Gage is capable of recording water levels below land-surface datum. Rainfall data is not published but is available in files of the U.S. Geological Survey.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 15.38 ft Dec. 9, 1994; minimum, 10.30 ft May 19, 1999.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 13.57 ft July 15, 16; minimum, 10.88 ft May 14.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.47	13.16	12.26	11.71	11.44	11.95	11.44	11.30	11.22	12.22	13.02	12.81
2	13.51	13.16	12.25	11.71	11.45	11.97	11.44	11.27	11.20	12.30	13.01	12.83
3	13.52	13.18	12.23	11.72	11.52	11.97	11.45	11.24	11.17	12.40	12.98	12.87
4	13.48	13.17	12.20	11.71	11.52	11.94	11.46	11.21	11.16	12.57	12.97	12.94
5	13.41	13.24	12.18	11.70	11.49	11.91	11.45	11.19	11.14	12.66	12.95	12.99
6	13.35	13.31	12.15	11.70	11.47	11.89	11.42	11.16	11.13	12.74	12.92	13.03
7	13.28	13.36	12.15	11.69	11.47	11.90	11.41	11.12	11.15	12.80	12.89	13.05
8	13.20	13.39	12.15	11.67	11.45	11.95	11.38	11.09	11.22	12.88	12.86	13.08
9	13.12	13.39	12.14	11.66	11.44	11.96	11.37	11.05	11.31	12.98	12.83	13.09
10	13.05	13.38	12.13	11.65	11.50	11.96	11.35	11.01	11.32	13.07	12.80	13.10
11	12.97	13.37	12.11	11.65	11.57	11.95	11.33	10.97	11.32	13.13	12.77	13.12
12	12.90	13.35	12.11	11.64	11.56	11.94	11.32	10.95	11.32	13.26	12.75	13.22
13	12.84	13.32	12.09	11.63	11.56	11.92	11.30	10.92	11.33	13.42	12.73	13.23
14	12.83	13.28	12.09	11.62	11.56	11.89	11.49	10.91	11.40	13.47	12.71	13.24
15	12.81	13.22	12.08	11.61	11.56	11.87	11.75	10.98	11.58	13.52	12.72	13.24
16	12.79	13.16	12.06	11.61	11.63	11.84	11.69	e11.15	11.62	13.56	12.71	13.22
17	12.77	13.10	12.03	11.60	11.70	11.81	11.65	e11.21	11.61	13.53	12.71	13.22
18	12.76	13.04	12.01	11.59	11.71	11.77	11.63	11.21	11.58	13.49	12.70	13.20
19	12.80	12.99	11.97	11.57	11.74	11.74	11.59	11.22	11.56	13.46	12.69	13.21
20	12.81	12.93	11.95	11.56	11.76	11.71	11.56	11.31	11.55	13.41	12.67	13.20
21	12.83	12.87	11.92	11.55	11.76	11.67	11.54	11.33	11.60	13.35	12.67	13.20
22	12.93	12.81	11.89	11.54	11.77	11.64	11.51	11.33	11.61	13.31	12.70	13.18
23	12.97	12.75	11.86	11.53	11.88	11.61	11.48	11.33	11.64	13.27	12.75	13.16
24	13.01	12.68	11.83	11.52	11.91	11.59	11.46	11.33	11.66	13.25	12.75	13.15
25	13.06	12.62	11.80	11.50	11.93	11.57	11.44	11.32	11.71	13.21	12.75	13.15
26	13.10	12.55	11.79	11.49	11.95	11.55	11.42	11.31	11.77	13.16	12.75	13.15
27	13.13	12.48	11.76	11.48	11.96	11.52	11.39	11.29	11.84	13.12	12.76	13.12
28	13.15	12.42	11.74	11.47	11.95	11.50	11.37	11.27	11.98	13.10	12.76	13.10
29	13.16	12.37	e11.76	11.46	---	11.49	11.34	11.24	12.10	13.08	12.79	13.08
30	13.16	12.31	e11.74	11.45	---	11.47	11.32	11.23	12.17	13.05	12.81	13.04
31	13.16	---	11.69	11.44	---	11.45	---	11.22	---	13.04	12.81	---
TOTAL	405.33	390.36	372.12	359.43	326.21	364.90	343.75	346.67	344.97	405.81	396.69	393.22
MEAN	13.08	13.01	12.00	11.59	11.65	11.77	11.46	11.18	11.50	13.09	12.80	13.11
MAX	13.52	13.39	12.26	11.72	11.96	11.97	11.75	11.33	12.17	13.56	13.02	13.24
MIN	12.76	12.31	11.69	11.44	11.44	11.45	11.30	10.91	11.13	12.22	12.67	12.81

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

261200080275001 NORTH NEW RIVER CANAL AT S-11-B NEAR ANDYTOWN, FL

LOCATION.--Lat 26°12'08", long 80°27'13", in NE 1/4 sec.9, T.48 S., R.37 E., Broward County, Hydrologic Unit 03090202, on North New River Canal on the east bank of the spillway, 100 ft southeast of S-11-B, a four-gated control structure, 4.0 mi north of State Road 84 on U.S. Highway 27. The auxiliary stage recorder is located approximately 30 yards downstream of S-11-B, on the west bank of the spillway.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--May 1991 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoders upstream and downstream of structure S-11-B. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Station is one of several located on L-38W which regulates flow for Conservation Area 2A and 3A. Gage records are primarily used to determine stage.

COOPERATION.--U.S. Army Corps of Engineers.

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 14.85 ft Jan. 15, 1995; minimum, 9.67 ft May 22, 2001.

EXTREME DOWNSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 13.84 ft Dec. 5, 1994; minimum, indeterminate, gage was dry in May 2001 and May 2002.

EXTREME UPSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 13.40 ft Nov. 8; minimum, 10.24 ft June 12, 13.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 12.07 ft July 24; minimum, indeterminate, well was dry for many days in May.

UPSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.81	13.17	12.17	11.69	11.06	11.85	11.14	10.87	10.37	11.60	12.98	12.85
2	12.82	13.13	12.20	11.70	11.08	11.82	11.15	10.83	10.34	11.41	12.97	12.87
3	12.70	13.13	12.19	11.70	11.11	11.79	11.12	10.80	10.33	11.31	12.95	12.89
4	12.43	13.12	12.18	11.70	11.10	11.79	11.13	10.76	10.33	11.15	12.95	12.98
5	12.36	13.22	12.15	11.68	11.10	11.78	11.13	10.73	10.30	11.26	12.92	13.03
6	12.34	13.30	12.13	11.65	11.09	11.79	11.12	10.69	10.29	11.32	12.90	13.07
7	12.31	13.36	12.15	11.64	11.07	11.87	11.11	10.65	10.31	11.33	e12.86	13.10
8	12.28	13.39	12.15	11.62	11.07	11.95	11.06	10.60	10.31	11.40	12.83	13.12
9	12.34	13.39	12.15	11.58	11.07	11.91	11.00	10.55	10.32	11.49	12.81	13.12
10	12.45	13.38	12.14	11.55	11.14	11.88	10.96	10.50	10.29	11.59	12.77	13.11
11	12.41	13.36	12.14	11.52	11.34	11.86	10.94	10.46	10.27	11.66	12.74	13.13
12	12.50	13.34	12.13	11.48	11.43	11.82	10.94	10.46	10.25	11.76	12.73	13.25
13	12.75	13.26	12.12	11.45	11.46	11.77	10.94	10.46	10.33	11.94	12.72	13.26
14	12.78	13.07	12.09	11.43	11.44	11.68	11.00	10.45	10.59	12.00	12.72	13.26
15	12.79	12.97	12.05	11.42	11.43	11.59	11.13	10.46	10.80	12.08	12.72	13.25
16	12.78	12.88	12.03	11.41	11.46	11.51	11.15	e10.53	10.89	12.14	12.72	13.25
17	12.80	12.83	12.00	11.39	11.53	11.42	11.16	e10.53	10.95	12.14	12.72	13.24
18	12.83	12.77	11.97	11.37	11.57	11.36	11.16	10.48	11.03	12.15	12.71	13.22
19	12.88	12.70	11.94	11.35	11.58	11.30	11.16	10.48	11.15	12.15	12.70	13.22
20	12.87	12.64	11.91	11.33	11.56	11.35	11.15	10.57	11.20	12.15	12.68	13.22
21	12.89	12.57	11.87	11.31	11.55	11.34	11.14	10.59	11.33	12.13	12.71	13.21
22	13.01	12.49	11.81	11.27	11.60	11.34	11.12	10.57	11.43	12.13	12.78	13.20
23	13.04	12.39	11.76	11.24	11.78	11.32	11.09	10.55	11.54	12.13	12.82	13.18
24	13.08	12.30	11.71	11.18	11.86	11.29	11.07	10.52	11.66	12.15	12.81	13.17
25	13.13	12.22	11.67	11.14	11.87	11.25	11.05	10.49	11.70	12.14	12.80	13.17
26	13.19	12.17	11.68	11.11	11.85	11.24	11.02	10.46	11.67	12.29	12.79	13.15
27	13.22	12.16	11.67	11.06	11.84	11.24	10.99	10.43	11.68	12.73	12.80	13.11
28	13.23	12.16	11.66	11.02	11.84	11.23	10.96	10.40	11.70	12.82	12.80	13.09
29	13.22	12.11	11.63	11.02	---	11.21	10.93	10.37	11.67	12.83	12.81	13.07
30	13.21	12.10	11.62	11.04	---	11.17	10.90	10.36	11.66	12.88	12.84	13.04
31	13.18	---	11.63	11.06	---	11.14	---	10.38	---	12.97	12.85	---
TOTAL	396.63	385.08	370.70	353.11	319.88	357.86	331.92	326.98	326.69	371.23	396.91	393.83
MEAN	12.79	12.84	11.96	11.39	11.42	11.54	11.06	10.55	10.89	11.98	12.80	13.13
MAX	13.23	13.39	12.20	11.70	11.87	11.95	11.16	10.87	11.70	12.97	12.98	13.26
MIN	12.28	12.10	11.62	11.02	11.06	11.14	10.90	10.36	10.25	11.15	12.68	12.85

e Estimated

261200080275001 NORTH NEW RIVER CANAL AT S-11-B NEAR ANDYTOWN, FL

DOWNSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.69	11.45	11.11	10.55	10.21	10.13	9.11	8.48	8.49	10.55	11.57	11.27
2	11.71	11.51	11.07	10.56	10.20	10.14	9.15	8.44	8.44	10.72	11.55	11.28
3	11.80	11.58	11.03	10.58	10.21	10.14	9.13	8.36	8.53	10.82	11.51	11.27
4	11.89	11.58	10.99	10.56	10.18	10.12	9.06	8.30	8.63	11.01	11.49	11.29
5	11.90	11.63	10.95	10.54	10.16	10.06	9.07	8.24	8.51	11.12	11.47	11.30
6	11.93	11.58	10.93	10.54	10.14	10.01	8.99	8.18	8.49	11.20	11.44	11.30
7	11.94	11.56	10.94	10.54	10.15	10.04	8.94	8.15	8.58	11.22	e11.43	11.29
8	11.93	11.54	10.93	10.51	10.11	10.09	8.91	8.11	8.66	11.28	11.46	11.27
9	11.90	11.53	10.90	10.49	10.09	10.03	8.88	8.05	8.76	11.36	11.46	11.26
10	11.84	11.51	10.87	10.48	10.14	9.99	8.85	e8.03	8.67	11.46	11.43	11.26
11	11.82	11.49	10.84	10.47	10.22	9.94	8.83	---	8.69	11.53	11.41	11.28
12	11.72	11.47	10.80	10.45	10.21	9.94	8.85	---	8.71	11.63	11.40	11.38
13	11.57	11.49	10.76	10.44	10.17	9.91	8.79	---	8.85	11.81	11.39	11.38
14	11.53	11.56	10.74	10.44	10.18	9.85	8.80	---	9.13	11.86	11.38	11.40
15	11.49	11.57	10.70	10.44	10.19	9.81	8.90	---	9.42	11.93	11.37	11.38
16	11.47	11.57	10.67	10.44	10.20	9.77	8.84	---	9.49	11.99	11.36	11.36
17	11.43	11.56	10.65	10.44	10.23	9.72	8.82	---	9.51	12.00	11.35	11.34
18	11.38	11.54	10.63	10.42	10.22	9.68	8.80	---	9.51	12.01	11.34	11.32
19	11.41	11.53	10.61	10.41	10.20	9.67	8.78	---	9.46	12.02	11.34	11.31
20	11.41	11.53	10.59	10.39	10.18	9.59	8.76	8.40	9.51	12.02	11.34	11.30
21	11.44	11.53	10.57	10.37	10.17	9.54	8.75	8.59	9.63	12.01	11.34	11.32
22	11.55	11.50	10.56	10.37	10.18	9.48	8.73	8.53	9.70	12.02	11.37	11.29
23	11.58	11.47	10.54	10.36	10.27	9.43	8.70	8.27	9.75	12.02	11.37	11.27
24	11.58	11.45	10.54	10.35	10.28	9.38	8.65	8.32	9.86	12.05	11.35	11.26
25	11.58	11.43	10.53	10.34	10.26	9.33	8.63	8.20	10.02	12.05	11.33	11.25
26	11.60	11.40	10.54	10.32	10.24	9.30	8.61	8.13	10.16	11.97	11.30	11.23
27	11.55	11.34	10.54	10.29	10.21	9.34	8.58	8.07	10.21	11.83	11.30	11.19
28	11.51	11.27	10.53	10.28	10.16	9.27	8.55	8.04	10.27	11.79	11.30	11.16
29	11.47	11.24	10.52	e10.25	---	9.26	8.53	8.17	10.36	11.75	11.28	11.12
30	11.46	11.18	10.49	e10.24	---	9.19	8.49	8.18	10.40	11.68	11.27	11.10
31	11.46	---	10.51	10.22	---	9.15	---	8.36	---	11.61	11.27	---
TOTAL	360.54	344.59	332.58	323.08	285.36	301.30	264.48	---	278.40	360.32	352.97	338.43
MEAN	11.63	11.49	10.73	10.42	10.19	9.72	8.82	---	9.28	11.62	11.39	11.28
MAX	11.94	11.63	11.11	10.58	10.28	10.14	9.15	---	10.40	12.05	11.57	11.40
MIN	11.38	11.18	10.49	10.22	10.09	9.15	8.49	---	8.44	10.55	11.27	11.10

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

261117080315201 SITE 63 IN CONSERVATION AREA 3A, NEAR ANDYTOWN, FL

LOCATION.--Lat 26°11'19", long 80°31'52", in SE  $\frac{1}{4}$  sec.10, T.38 S., R.49 E., Broward County, Hydrologic Unit 03090202, in Conservation Area 3A, 6.2 mi west of intersection of U.S. Interstate 75 and U.S. Highway 27 and 4 mi north of U.S. Interstate 75.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--June 1991 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and tipping bucket rain gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Land-surface datum is 8.40 ft above National Geodetic Vertical Datum of 1929. Gage is capable of recording water levels below land-surface datum. Rainfall data available in files of the U.S. Geological Survey.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 13.45 ft Dec. 6, 9-11, 1994; minimum, 7.24 ft June 1, 1992.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 11.73 ft July 24-26; minimum, 8.34 ft May 31.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.33	11.39	11.11	10.49	10.17	10.11	9.53	9.03	8.70	10.13	11.49	11.17
2	e11.37	e11.42	11.08	10.50	10.15	10.08	9.52	9.00	8.65	10.22	11.46	11.17
3	e11.40	e11.45	11.04	10.52	10.15	10.07	9.50	8.97	8.61	10.29	11.42	11.17
4	e11.44	11.46	11.01	10.51	10.13	10.05	9.48	8.94	8.58	10.39	11.39	11.19
5	11.51	e11.52	10.97	10.50	10.11	10.03	9.45	8.91	8.53	10.52	11.37	11.20
6	11.58	e11.52	10.93	10.49	10.09	10.01	9.43	8.87	8.57	10.65	11.36	11.20
7	11.61	e11.50	10.94	10.49	10.08	10.01	9.41	8.84	8.72	10.71	11.34	11.20
8	11.61	11.48	10.93	10.47	10.07	10.05	9.38	8.81	8.87	10.80	11.36	11.19
9	11.62	11.46	10.90	10.45	10.05	10.04	9.35	8.77	8.97	10.88	11.36	11.17
10	11.61	e11.44	10.87	10.44	10.07	10.02	9.34	8.73	8.95	10.97	11.34	11.16
11	11.59	e11.42	10.84	10.42	10.16	9.99	9.32	8.69	8.93	e11.03	11.33	11.19
12	11.58	e11.41	10.81	10.42	10.13	9.97	9.30	8.65	8.92	e11.09	11.31	11.29
13	11.53	11.39	10.78	10.40	10.11	9.94	9.28	8.60	8.95	e11.28	11.30	11.29
14	e11.48	e11.39	10.74	10.39	10.12	9.92	9.29	8.56	9.08	e11.35	11.29	11.31
15	11.44	e11.40	10.71	10.38	10.11	9.89	9.36	8.52	9.27	e11.42	11.29	11.29
16	11.43	e11.41	10.68	10.38	10.13	9.86	9.35	e8.64	9.30	e11.49	11.29	11.28
17	e11.40	e11.41	10.66	10.38	10.17	9.84	9.34	e8.68	9.33	11.53	11.27	11.26
18	e11.36	e11.39	10.63	10.37	10.15	9.81	9.32	8.63	9.35	11.56	11.27	11.24
19	e11.40	e11.38	10.61	10.37	10.12	9.79	9.30	8.68	9.37	11.59	11.26	11.23
20	e11.38	e11.38	10.59	10.34	10.11	9.76	9.28	8.81	9.38	11.61	11.26	11.22
21	e11.41	11.37	10.56	10.32	10.09	9.74	9.26	8.79	9.49	11.62	11.26	11.24
22	e11.52	11.36	10.54	10.31	10.09	9.71	9.24	8.76	9.54	11.65	11.27	11.21
23	11.53	11.35	10.52	10.29	10.19	9.69	9.22	8.72	9.58	11.67	11.29	11.18
24	11.53	11.33	10.51	10.28	10.20	9.66	9.20	8.68	9.65	11.71	11.27	11.17
25	11.54	11.32	10.50	10.26	10.19	9.64	9.18	8.64	9.74	11.73	11.25	11.16
26	e11.56	11.30	10.50	10.25	10.17	9.62	9.15	8.60	9.81	11.73	11.23	11.15
27	e11.52	11.26	10.49	10.23	10.16	9.64	9.13	8.55	9.87	11.68	11.23	11.12
28	11.48	11.23	10.48	10.22	10.13	9.61	9.10	8.50	9.95	11.63	11.22	11.09
29	11.44	11.20	10.47	10.21	---	9.59	9.07	8.43	10.02	11.59	11.19	11.07
30	e11.42	11.16	10.46	10.20	---	9.56	9.05	8.40	10.06	11.56	11.18	11.04
31	11.40	---	10.46	10.18	---	9.54	---	8.44	---	11.52	11.18	---
TOTAL	356.02	341.50	332.32	321.46	283.60	305.24	279.13	269.84	276.74	347.60	350.33	335.85
MEAN	11.48	11.38	10.72	10.37	10.13	9.85	9.30	8.70	9.22	11.21	11.30	11.20
MAX	11.62	11.52	11.11	10.52	10.20	10.11	9.53	9.03	10.06	11.73	11.49	11.31
MIN	11.33	11.16	10.46	10.18	10.05	9.54	9.05	8.40	8.53	10.13	11.18	11.04

e Estimated

261150080270001 NORTH NEW RIVER CANAL AT S-11-A, NEAR ANDYTOWN, FL

LOCATION.--Lat 26°10'40", long 80°26'53", in SE 1/4 sec.16, T.49 S., R.39 E., Broward County, Hydrologic Unit 03090202, on North New River Canal on the east bank of the spillway, 100 ft northeast of S-11-A, a four-gated control structure, 2.2 mi north of State Road 84 on U.S. Highway 27. The auxiliary stage recorder is located approximately 30 yards upstream of S-11-A on the west bank of the spillway.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--May 1991 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoders upstream and downstream of structure S-11-A and tipping bucket rain gage. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Station is one of several located on Levee 38W which regulates flow for Conservation Areas 2A and 3A. Gage records are primarily used to determine stage. Rainfall data available in files of the U.S. Geological Survey.

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 15.12 ft Dec. 21, 1994; minimum, 9.64 ft May 22, 23, 2001.

EXTREME DOWNSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 13.80 ft Dec. 5, 1994; minimum, 7.53 ft May 14, 2002.

EXTREME UPSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 13.37 ft Nov. 8, 9; minimum, 10.22 ft June 12, 13.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 12.00 ft July 24; minimum, 7.53 ft May 14.

UPSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e12.79	13.14	12.13	11.66	11.05	11.83	11.14	10.86	10.37	11.62	12.98	12.84
2	e12.80	13.10	12.16	11.67	11.08	11.79	11.14	10.83	10.34	11.43	12.97	12.85
3	e12.68	13.11	12.15	11.68	11.11	11.76	11.12	10.79	10.32	11.32	12.95	12.88
4	12.40	13.10	12.14	11.68	11.10	11.78	11.13	10.76	10.32	11.15	12.95	12.97
5	12.33	13.21	12.11	11.65	11.10	11.78	11.13	10.72	10.29	11.26	12.93	e13.03
6	12.30	13.28	12.09	11.62	11.09	11.78	11.12	10.69	10.29	11.31	12.90	e13.07
7	12.28	13.33	12.11	11.61	11.06	11.86	11.11	10.64	10.31	11.33	12.86	13.10
8	12.25	13.36	12.11	11.59	11.07	11.93	11.05	10.60	10.31	11.39	12.83	13.12
9	12.30	13.36	12.11	11.55	11.06	11.89	11.00	10.55	10.32	11.49	12.80	13.12
10	12.42	13.35	12.10	11.53	11.14	11.86	10.96	10.50	10.29	11.59	12.77	13.10
11	12.37	13.34	12.09	11.49	11.33	11.84	10.94	10.46	10.26	11.66	12.73	13.13
12	12.45	13.32	12.09	11.45	11.41	11.80	10.94	10.46	10.24	11.76	e12.72	13.24
13	12.71	13.23	12.08	11.42	11.44	11.75	10.93	10.45	10.33	11.94	e12.72	13.25
14	12.73	13.04	12.05	11.39	11.43	11.67	11.00	10.44	10.59	12.00	12.71	13.26
15	12.74	12.93	12.02	11.39	11.41	11.58	11.13	10.46	10.79	e12.07	12.71	13.25
16	12.74	12.85	11.99	11.38	11.44	11.50	11.15	e10.51	10.89	e12.13	12.70	13.25
17	12.76	12.79	11.96	11.36	11.52	11.42	11.16	e10.51	10.95	e12.14	12.70	13.23
18	12.79	12.73	11.93	11.34	11.55	11.35	11.16	10.47	11.03	e12.14	12.70	13.22
19	12.84	12.67	11.90	11.32	11.56	11.29	11.16	10.47	11.14	e12.15	12.68	13.22
20	12.82	12.61	11.87	11.30	11.54	11.34	11.15	10.57	11.20	12.14	12.67	13.21
21	12.85	12.53	11.84	11.27	11.54	11.33	11.14	10.59	11.33	12.13	12.70	13.20
22	12.97	12.45	11.78	11.26	11.58	11.34	11.11	10.58	11.43	12.13	e12.77	13.19
23	13.00	12.36	11.72	11.23	11.77	11.32	11.09	10.55	11.54	e12.13	e12.81	13.18
24	13.04	12.26	11.68	11.17	11.85	11.28	11.08	10.52	11.67	e12.14	12.79	13.17
25	13.09	12.18	11.64	11.13	11.85	11.24	11.05	10.49	e11.71	e12.14	12.79	13.16
26	13.16	12.13	11.65	11.10	11.83	11.24	11.02	10.46	11.67	12.29	12.77	13.14
27	13.20	12.12	11.64	11.05	11.83	11.24	10.99	10.43	11.69	12.73	12.78	13.10
28	13.20	12.11	11.62	11.01	11.83	11.23	10.96	10.40	11.70	12.82	12.78	13.09
29	13.19	12.07	11.59	11.01	---	11.20	10.93	10.36	11.68	12.83	12.80	13.07
30	13.18	12.06	11.58	11.04	---	11.16	10.90	10.36	11.66	12.88	12.82	13.04
31	13.15	---	11.59	11.05	---	11.13	---	10.38	---	12.98	12.83	---
TOTAL	395.53	384.12	369.52	352.40	319.57	357.51	331.89	326.86	326.66	371.22	396.62	393.68
MEAN	12.76	12.80	11.92	11.37	11.41	11.53	11.06	10.54	10.89	11.97	12.79	13.12
MAX	13.20	13.36	12.16	11.68	11.85	11.93	11.16	10.86	11.71	12.98	12.98	13.26
MIN	12.25	12.06	11.58	11.01	11.05	11.13	10.90	10.36	10.24	11.15	12.67	12.84

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

261150080270001 NORTH NEW RIVER CANAL AT S-11-A, NEAR ANDYTOWN, FL

 DOWNSTREAM  
 GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
 DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e11.66	11.47	11.11	10.56	10.23	10.14	9.15	8.52	8.54	10.46	11.51	11.22
2	e11.67	11.51	11.07	10.58	10.22	10.13	9.19	8.47	8.49	10.56	11.48	11.22
3	e11.75	11.55	11.04	10.61	10.23	10.13	9.17	8.40	8.57	10.68	11.45	11.22
4	11.82	11.56	11.00	10.59	10.21	10.11	9.10	8.34	8.68	10.91	11.43	11.23
5	11.83	11.62	10.96	10.56	10.19	10.06	9.11	8.28	8.55	11.03	11.41	e11.23
6	11.87	11.59	10.93	10.56	10.16	10.02	9.03	8.22	8.54	11.11	11.39	e11.24
7	11.88	11.57	10.95	10.57	10.17	10.06	8.98	8.19	8.62	11.13	11.38	11.24
8	11.87	11.55	10.94	10.54	10.13	10.10	8.94	8.10	8.70	11.20	11.42	11.22
9	11.84	11.53	10.90	10.52	10.11	10.04	8.92	7.94	8.81	11.29	11.41	11.20
10	11.79	11.51	10.87	10.50	10.15	10.00	8.89	7.82	8.72	11.39	11.38	11.20
11	11.77	11.49	10.83	10.50	10.24	9.96	8.87	7.72	8.73	11.46	11.36	11.23
12	11.68	11.47	10.79	10.48	10.23	9.96	8.89	7.63	8.75	11.57	11.35	11.34
13	11.55	11.50	10.76	10.47	10.19	9.92	8.83	7.58	8.87	11.75	11.33	11.34
14	11.50	11.55	10.74	10.47	10.20	9.87	8.83	7.66	9.14	11.80	11.33	11.36
15	11.47	11.56	10.71	10.47	10.20	9.83	8.93	e7.89	9.43	e11.86	11.32	11.34
16	11.45	11.56	10.67	10.47	10.21	9.78	8.87	e8.03	9.50	e11.89	11.31	11.32
17	11.42	11.55	10.67	10.46	10.23	9.75	8.85	8.02	9.53	e11.90	11.30	11.31
18	11.38	11.53	10.65	10.46	10.21	9.71	8.83	7.98	9.53	e11.91	11.29	11.29
19	11.42	11.52	10.64	10.44	10.19	9.70	8.81	7.99	9.50	e11.92	11.30	11.27
20	11.42	11.51	10.61	10.41	10.17	9.63	8.79	8.42	9.54	11.92	11.30	11.26
21	e11.45	11.51	10.60	10.40	10.17	9.57	8.78	8.62	9.65	11.92	11.30	11.29
22	e11.55	11.49	10.58	10.39	10.18	9.52	8.75	8.57	9.72	11.94	e11.33	11.24
23	e11.58	11.46	10.57	10.37	10.29	9.46	8.73	8.32	9.78	11.94	e11.33	11.22
24	e11.58	11.43	10.57	10.36	10.28	9.42	8.68	8.36	9.90	11.97	11.31	11.22
25	e11.59	11.40	10.55	10.36	10.26	9.36	8.67	8.25	e10.00	11.97	11.29	11.21
26	e11.63	11.36	10.57	10.33	10.24	9.34	8.65	8.17	10.09	11.88	11.26	11.18
27	11.58	11.30	10.55	10.31	10.21	9.37	8.61	8.09	10.13	11.75	11.25	11.14
28	11.53	11.25	10.55	10.30	10.17	9.33	8.59	8.05	10.22	11.71	11.25	11.11
29	11.50	11.21	10.54	10.27	---	9.30	8.56	8.21	10.31	11.68	11.23	11.07
30	11.48	11.16	10.51	10.27	---	9.24	8.53	8.22	10.35	11.61	11.23	11.05
31	11.47	---	10.53	10.25	---	9.19	---	8.40	---	11.55	11.22	---
TOTAL	359.98	344.27	332.96	323.83	285.67	302.00	265.53	252.46	278.89	357.66	351.45	337.01
MEAN	11.61	11.48	10.74	10.45	10.20	9.74	8.85	8.14	9.30	11.54	11.34	11.23
MAX	11.88	11.62	11.11	10.61	10.29	10.14	9.19	8.62	10.35	11.97	11.51	11.36
MIN	11.38	11.16	10.51	10.25	10.11	9.19	8.53	7.58	8.49	10.46	11.22	11.05

e Estimated

## 261023080443001 SITE 62 IN CONSERVATION AREA 3A, NEAR ANDYTOWN, FL

LOCATION.--Lat 26°10'28", long 80°45'05", T.36 S., R.49 E., Broward County, Hydrologic Unit 03090202, 20.5 mi west of intersection of U.S. Interstate 75 and U.S. Highway 27 and 1.5 mi north of U.S. Interstate 75. No section could be determined from existing map.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--August 1991 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and tipping bucket rain gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Land-surface datum is 9.90 ft above National Geodetic Vertical Datum of 1929. Gage is capable of recording water levels below land-surface datum. Rainfall data available in files of the U.S. Geological Survey.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 13.68 ft Oct. 21, 1999; minimum, 8.06 ft June 3, 1992.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 12.23 ft July 21, 22; minimum, 9.56 ft May 30.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.02	11.93	11.47	11.11	10.77	10.99	10.83	10.36	10.44	e11.52	11.99	11.79
2	12.02	11.97	11.45	11.10	10.76	10.99	10.81	10.34	10.44	11.61	11.95	11.79
3	12.02	11.99	11.44	11.11	10.74	10.99	10.79	10.32	10.42	11.64	11.92	11.80
4	12.02	11.98	11.43	11.09	10.73	11.00	10.77	10.30	10.41	11.64	11.89	11.84
5	12.04	12.04	11.40	11.08	10.70	10.98	10.75	10.28	10.39	11.64	11.86	11.88
6	12.05	12.06	11.37	11.06	10.68	10.97	10.72	10.25	10.38	11.65	11.84	11.89
7	12.05	12.05	11.37	11.04	10.67	11.02	10.70	10.23	10.36	11.69	11.87	11.87
8	12.04	12.03	11.38	11.02	10.65	11.11	10.68	10.20	10.36	11.77	11.94	11.85
9	12.05	12.01	11.38	11.00	10.63	11.10	10.66	10.16	10.37	11.89	11.93	11.85
10	12.05	11.99	11.41	10.97	10.64	11.07	10.64	10.12	10.37	11.92	11.90	11.84
11	12.03	11.95	11.40	10.96	10.68	11.05	10.62	10.08	10.36	11.95	11.88	11.88
12	12.02	11.93	11.36	10.97	10.69	11.05	10.60	10.01	10.38	12.01	11.87	11.98
13	12.00	11.90	11.33	10.95	10.69	11.03	10.58	9.94	10.44	12.09	11.91	11.98
14	11.98	11.87	11.31	10.93	10.72	11.01	10.58	9.88	10.53	12.10	11.98	11.97
15	11.97	11.84	11.30	10.93	10.71	11.01	10.59	9.83	10.71	12.11	11.94	11.95
16	11.98	11.82	11.28	10.94	10.79	10.98	10.58	e9.86	10.86	12.11	11.92	11.94
17	11.96	11.79	11.25	10.92	10.88	10.96	10.59	e9.90	10.96	12.12	11.91	11.91
18	11.93	11.75	11.23	10.91	10.91	10.94	10.62	9.83	10.99	12.12	11.90	11.88
19	11.94	11.73	11.22	10.93	10.91	10.92	10.60	9.94	10.99	12.10	11.91	11.85
20	11.95	11.71	11.19	10.92	10.93	10.90	10.58	10.14	11.01	12.07	11.88	11.83
21	11.98	11.69	11.17	10.90	10.93	10.88	10.56	10.12	11.13	12.07	11.87	11.81
22	e12.04	11.66	11.16	10.89	10.95	10.85	10.53	10.09	11.17	12.21	11.86	11.78
23	e12.04	11.62	11.12	10.89	11.01	10.83	10.51	10.04	11.23	12.18	11.84	11.75
24	e12.04	11.61	11.11	10.87	11.02	10.81	10.49	9.97	11.29	12.15	11.82	11.75
25	e12.05	11.60	11.10	10.85	11.00	10.79	10.47	9.90	11.36	12.13	11.80	11.76
26	e12.07	11.58	11.11	10.85	11.01	10.82	10.46	9.84	11.41	12.13	11.77	11.74
27	e12.07	11.55	11.09	10.83	11.02	10.91	10.44	9.78	11.42	12.11	11.74	11.73
28	e12.04	11.52	11.07	10.81	11.00	10.92	10.42	9.71	11.49	12.07	11.74	11.71
29	e12.02	11.51	11.07	10.79	---	10.90	10.40	9.63	11.49	12.03	11.74	11.69
30	e11.98	11.50	11.05	10.77	---	10.87	10.38	9.71	e11.47	12.00	11.78	11.68
31	11.95	---	11.06	10.76	---	10.84	---	10.10	---	12.02	11.80	---
TOTAL	372.40	354.18	349.08	339.15	302.82	339.49	317.95	310.86	324.63	370.85	367.95	354.97
MEAN	12.01	11.81	11.26	10.94	10.81	10.95	10.60	10.03	10.82	11.96	11.87	11.83
MAX	12.07	12.06	11.47	11.11	11.02	11.11	10.83	10.36	11.49	12.21	11.99	11.98
MIN	11.93	11.50	11.05	10.76	10.63	10.79	10.38	9.63	10.36	11.52	11.74	11.68

e Estimated

260810080222001 SITE 99 NEAR L-35A IN CONSERVATION AREA 2B, NEAR SUNRISE, FL

LOCATION.--Lat 26°08'21", long 80°22'02", in sec.32, T.49 S., R.40 E., Broward County, Hydrologic Unit 03090202, located in Conservation Area 2B, north of North New River Canal, West of Markham Park.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--July 1991 to present.

GAGE.--Satellite data collection platform with water-stage shaft encoder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Land-surface datum is 6.20 ft above National Geodetic Vertical Datum of 1929. Rainfall data collection discontinued April 4, 1996. Rainfall data available in files of the U.S. Geological Survey. Prior to July 1991, station operated by the U.S. Army Corps of Engineers.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 11.92 ft Dec. 23, 1994; minimum, 4.12 ft May 26, 1992.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 11.40 ft Oct. 23, 24; minimum, 8.34 ft June 12, 13.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.73	11.19	10.81	10.84	10.50	10.44	10.22	9.44	8.61	9.13	10.40	10.84
2	10.72	11.18	10.82	10.83	10.50	10.41	10.22	9.40	8.59	9.22	10.42	10.84
3	10.73	11.18	10.82	10.85	10.52	10.42	10.20	9.36	8.56	9.24	10.45	10.84
4	10.75	11.17	10.82	10.85	10.49	10.44	10.18	9.32	8.54	9.27	10.51	10.84
5	10.76	11.24	10.82	10.83	10.46	10.44	10.15	9.29	8.51	9.31	10.53	10.84
6	10.78	11.24	10.83	10.81	10.43	10.42	10.12	9.25	8.47	e9.41	10.55	10.83
7	10.81	11.22	10.86	10.82	10.40	10.47	10.08	9.21	8.46	9.48	10.57	10.82
8	10.83	11.19	10.86	10.82	10.38	10.58	10.04	9.17	8.44	9.57	10.57	10.79
9	10.85	11.18	10.86	10.81	10.36	10.58	10.00	9.13	8.42	9.67	10.58	10.78
10	10.86	11.15	10.86	10.80	10.39	10.58	9.98	9.09	8.39	9.80	10.59	10.76
11	10.86	11.13	10.87	10.79	10.45	10.58	9.95	9.05	8.36	9.84	10.60	10.75
12	10.87	11.12	10.87	10.78	10.42	10.58	9.92	9.00	8.35	9.89	10.64	10.81
13	10.87	11.10	10.87	10.77	10.40	10.58	9.90	8.97	8.35	10.01	10.71	10.80
14	10.88	11.07	10.87	10.76	10.39	10.58	9.89	8.94	8.50	10.03	10.72	10.78
15	10.90	11.05	10.87	10.75	10.38	10.56	9.93	8.90	8.79	10.05	10.74	10.77
16	10.92	11.03	10.87	10.75	10.39	10.55	9.93	e8.93	8.87	10.14	10.76	10.74
17	10.96	11.01	10.86	10.74	10.42	10.54	9.91	e8.94	8.89	10.16	10.78	10.72
18	10.99	10.98	10.86	10.73	10.41	10.53	9.88	8.91	8.89	10.18	10.79	10.69
19	11.04	10.96	10.87	10.72	10.39	10.51	9.85	8.90	8.90	10.22	10.80	10.66
20	11.07	10.94	10.86	10.71	10.37	10.49	9.82	8.98	8.91	10.24	10.82	10.64
21	11.13	10.92	10.85	10.70	10.37	10.48	9.79	8.96	8.94	10.25	10.85	10.63
22	11.32	10.90	10.84	10.69	10.38	10.47	9.75	8.93	8.97	10.26	10.88	10.60
23	11.39	10.87	10.83	10.66	10.46	10.45	9.72	8.90	9.00	10.27	10.93	10.58
24	11.39	10.84	10.82	10.65	10.48	10.43	9.69	8.86	9.03	10.30	10.91	10.56
25	11.38	10.83	10.82	10.64	10.46	10.40	9.65	8.83	9.06	10.33	10.90	10.56
26	11.37	10.81	10.84	10.62	10.45	10.38	9.62	8.79	9.09	10.34	10.89	10.54
27	11.34	10.79	10.82	10.60	10.46	10.36	9.61	8.75	9.09	10.35	10.91	10.53
28	11.29	10.79	10.81	10.59	10.45	10.34	9.56	8.71	9.09	10.36	10.89	10.56
29	11.25	10.80	10.79	10.57	---	10.31	9.51	8.67	9.08	10.37	10.88	10.58
30	11.23	10.80	10.79	10.54	---	10.28	9.48	8.64	9.07	10.38	10.86	10.60
31	11.21	---	10.80	10.51	---	10.24	---	8.62	---	10.39	10.85	---
TOTAL	341.48	330.68	336.04	332.53	291.96	324.42	296.55	278.84	262.22	308.46	332.28	321.28
MEAN	11.02	11.02	10.84	10.73	10.43	10.47	9.88	8.99	8.74	9.95	10.72	10.71
MAX	11.39	11.24	10.87	10.85	10.52	10.58	10.22	9.44	9.09	10.39	10.93	10.84
MIN	10.72	10.79	10.79	10.51	10.36	10.24	9.48	8.62	8.35	9.13	10.40	10.53

e Estimated



02286100 SOUTH NEW RIVER CANAL AT S-13, NEAR DAVIE, FL

LOCATION.--Lat 26°03'57", long 80°12'32", in SW 1/4 sec.25, T.50 S., R.41 E., Broward County, Hydrologic Unit 03090202, 18 ft from north bank, 150 ft upstream from pump station S-13, 300 ft west of U.S. Highway 441, and 1.5 mi east of Davie.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--March 1957 to current year.

REVISED RECORDS.--WDR FL-87-2A: 1962-86 (maximum daily reverse flow); WDR FL-95-2A: 1994; WDR FL-99-2A: 1996-98.

GAGE.--Electronic data logger for upstream with water-stage shaft encoder for downstream. Prior to July 20, 1999, water-stage recorders. Prior to October 25, 2001, electronic data logger for gate recorder. Datum of gage is National Geodetic vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow is affected by tide and is occasionally reversed. Negative figures indicate reverse flow. Flow is regulated by pumpage and operation of gate at S-13. Flow is affected by regulation of control-structure 13A, 5 mi upstream, and by upstream withdrawals from the canal during the growing season and pumpage into the canal during high water. Discharge is computed from relation between head and gate-opening at S-13. The discharge published represents gate discharge computed by U.S. Geological Survey combined with pump discharge computed by South Florida Water Management District unless otherwise noted. The South Florida Water Management District determined that the previous rating used to compute pump discharge needed revision. The pump rating was revised during 1999. They revised their pump discharge for the water years 1995 through 1999. Prior to 1995 the accuracy of the pump discharge combined with our gate discharge can not be determined. Downstream stage is basically tidal, but at times is affected by gate operation and pumping at S-13. The downstream stage record published is the maximum and minimum elevation for each calendar day. Prior to October 1, 2001, the downstream stage record published is the maximum and minimum tide event for each calendar day. Prior to 1998 tidal stages were published under station number 02286101. Prior to September 30, 1984, deflection vane and prior to September 30, 1985, electromagnetic velocity meter at same site.

COOPERATION.--Gate-opening and pump records provided by South Florida Water Management District.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 35 complete water years of discharge (1958-86, 1988, 1990, 1999-2002).

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 5.04 ft Oct. 15, 1999; minimum, -0.79 ft July 14, 1961.

EXTREME UPSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 2.51 ft Oct. 22; minimum, -0.09 ft Nov. 3, 2001.

EXTREME DOWNSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 4.33 ft Oct. 15, 1999; minimum, -1.97 ft Apr. 28, 1963.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 2.89 ft Nov. 5; minimum -1.04 ft Jan. 27.

UPSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.51	1.64	1.40	1.56	1.55	1.57	1.63	1.36	1.59	1.26	1.58	1.66
2	0.37	1.08	1.70	1.58	1.64	1.55	1.58	1.34	1.61	1.26	1.58	1.66
3	0.31	0.09	1.45	1.57	1.61	1.60	1.64	1.31	1.53	1.21	1.54	1.72
4	0.67	0.08	1.61	1.52	1.49	1.52	1.50	1.29	1.50	1.24	1.58	1.66
5	1.68	0.50	1.31	1.54	1.64	1.53	1.64	1.27	1.53	1.20	1.56	1.67
6	1.70	1.64	1.21	1.54	1.63	1.54	1.67	1.24	1.57	1.28	1.56	1.68
7	1.67	1.61	1.00	1.53	1.56	1.46	1.68	1.22	1.55	1.26	1.60	1.70
8	1.66	1.60	1.41	1.57	1.64	1.32	1.67	1.20	1.54	1.29	1.58	1.74
9	1.69	1.58	1.68	1.57	1.65	1.55	1.66	1.21	1.59	1.39	1.62	1.72
10	1.68	1.60	1.59	1.59	1.54	1.54	1.65	1.21	1.61	1.50	1.61	1.71
11	1.64	1.60	1.40	1.59	1.34	1.54	1.64	1.19	1.60	1.41	1.62	1.69
12	1.66	1.59	1.27	1.58	1.53	1.52	1.64	1.18	1.59	1.43	1.63	1.73
13	1.65	1.59	1.54	1.58	1.54	1.54	1.63	1.17	1.60	1.46	1.61	1.59
14	1.62	1.58	1.37	1.56	1.53	1.54	1.63	1.18	1.53	1.33	1.60	1.59
15	1.62	1.57	1.54	1.59	1.52	1.54	1.63	1.30	1.49	1.40	1.59	1.57
16	1.62	1.62	1.70	1.58	1.52	1.56	1.61	1.53	1.34	1.56	1.56	1.54
17	1.63	1.59	1.52	1.55	1.53	1.58	1.59	1.50	1.28	1.57	1.56	1.55
18	1.71	1.61	1.36	1.63	1.53	1.60	1.58	1.60	1.25	1.57	1.56	1.60
19	1.69	1.73	1.59	1.57	1.48	1.61	1.56	1.48	1.37	1.55	1.58	1.61
20	1.75	1.58	1.63	1.65	1.52	1.63	1.55	1.54	1.34	1.55	1.61	1.60
21	1.75	1.58	1.62	1.54	1.56	1.51	1.55	1.59	1.34	1.55	1.58	1.62
22	2.01	1.60	1.63	1.65	1.55	1.62	1.53	1.59	1.52	1.55	1.55	1.61
23	1.25	1.59	1.60	1.68	1.34	1.59	1.51	1.66	1.73	1.56	1.56	1.60
24	0.25	1.62	1.56	1.69	1.42	1.63	1.49	1.63	1.76	1.57	1.56	1.59
25	0.21	1.58	1.65	1.55	1.52	1.55	1.47	1.61	1.21	1.56	1.58	1.58
26	0.25	1.28	1.60	1.63	1.51	1.65	1.46	1.60	0.87	1.56	1.57	1.58
27	1.65	0.94	1.57	1.66	1.53	1.52	1.43	1.59	0.69	1.56	1.59	1.57
28	1.69	1.16	1.63	1.68	1.57	1.64	1.41	1.57	1.23	1.55	1.59	1.58
29	1.66	1.32	1.58	1.69	---	1.67	1.40	1.57	1.22	1.56	1.58	1.58
30	1.69	1.02	1.58	1.69	---	1.68	1.38	1.56	1.18	1.56	1.60	1.56
31	1.68	---	1.59	1.68	---	1.68	---	1.59	---	1.57	1.62	---
TOTAL	42.62	41.17	46.89	49.59	42.99	48.58	47.01	43.88	42.76	44.87	49.11	48.86
MEAN	1.37	1.37	1.51	1.60	1.54	1.57	1.57	1.42	1.43	1.45	1.58	1.63
MAX	2.01	1.73	1.70	1.69	1.65	1.68	1.68	1.66	1.76	1.57	1.63	1.74
MIN	0.21	0.08	1.00	1.52	1.34	1.32	1.38	1.17	0.69	1.20	1.54	1.54

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02286100 SOUTH NEW RIVER CANAL AT S-13, NEAR DAVIE, FL--Continued

DOWNSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	2.78	1.52	2.66	1.05	1.95	-0.15	1.66	-0.33	1.20	-0.88	2.03	-0.09
2	2.73	1.26	2.76	1.09	1.93	-0.14	1.66	-0.49	1.12	-0.81	2.01	-0.14
3	2.66	1.19	2.64	0.97	2.04	-0.17	1.63	-0.40	1.29	-0.58	1.81	-0.36
4	2.55	0.91	2.51	0.77	1.71	-0.32	1.29	-0.75	1.36	-0.53	1.62	-0.59
5	2.35	0.84	2.89	1.15	1.96	-0.08	1.49	-0.43	1.34	-0.45	1.24	-0.41
6	2.21	0.54	2.50	0.94	1.87	0.16	1.59	-0.40	1.36	-0.38	1.33	-0.39
7	2.07	0.47	2.33	0.75	1.76	-0.06	1.35	-0.65	1.53	-0.30	1.34	-0.19
8	2.08	0.42	2.33	0.70	1.64	-0.09	1.07	-0.65	1.49	-0.35	1.41	-0.17
9	2.10	0.61	2.26	0.69	1.55	-0.23	1.15	-0.73	1.65	-0.22	1.38	-0.26
10	2.14	0.57	2.14	0.52	1.66	-0.25	1.12	-0.80	1.79	0.01	1.11	-0.35
11	2.16	0.66	2.27	0.61	1.76	-0.32	1.11	-0.78	1.46	-0.20	1.27	-0.46
12	2.11	0.46	2.28	0.51	1.76	-0.36	1.16	-0.70	1.49	-0.38	1.41	-0.27
13	2.18	0.47	2.34	0.42	1.75	-0.39	1.12	-0.79	1.46	-0.31	1.34	-0.26
14	1.97	0.18	2.38	0.41	1.89	-0.26	1.20	-0.80	1.42	-0.20	1.24	-0.53
15	1.99	0.08	2.53	0.46	1.78	-0.32	0.78	-0.97	1.67	-0.04	1.16	-0.59
16	2.11	0.08	2.60	0.66	1.65	-0.36	0.88	-0.85	1.60	0.21	1.08	-0.64
17	2.42	0.27	2.63	0.61	1.74	-0.24	0.91	-0.99	1.43	-0.02	0.99	-0.70
18	2.74	0.79	2.48	0.85	1.59	-0.31	0.68	-0.84	1.45	0.05	1.01	-0.68
19	2.69	1.08	2.19	0.47	1.51	-0.12	0.84	-0.69	1.39	-0.05	0.90	-0.58
20	2.63	0.92	1.99	0.45	1.38	-0.27	0.63	-0.83	1.53	-0.08	1.03	-0.64
21	2.45	0.93	1.99	0.55	1.45	-0.03	0.74	-0.96	1.40	-0.18	1.09	-0.51
22	2.43	1.14	1.84	0.54	1.54	0.15	0.53	-0.88	1.52	-0.15	1.22	-0.22
23	2.53	1.59	1.66	0.31	1.59	0.12	0.69	-0.96	1.80	-0.14	1.42	-0.25
24	2.29	1.22	1.64	0.34	1.54	0.03	0.75	-0.96	1.69	0.07	1.44	-0.24
25	2.16	1.06	1.59	0.25	1.68	0.08	0.83	-0.86	1.90	-0.17	1.54	-0.16
26	2.09	0.97	1.61	0.22	1.78	-0.03	0.93	-0.94	2.12	0.13	1.52	-0.34
27	2.17	0.82	1.84	0.02	1.65	-0.25	1.00	-1.04	2.07	0.04	1.63	-0.35
28	---	---	1.82	0.05	1.85	-0.21	1.19	-1.01	2.00	-0.17	1.85	-0.35
29	2.39	1.07	1.99	0.06	1.87	-0.19	1.20	-1.02	---	---	1.68	-0.51
30	2.56	1.02	1.99	-0.11	1.70	-0.40	1.28	-0.95	---	---	1.56	-0.70
31	2.62	1.20	---	---	1.76	-0.48	1.31	-0.87	---	---	1.58	-0.65
MONTH	---	---	2.89	-0.11	2.04	-0.48	1.66	-1.04	2.12	-0.88	2.03	-0.70
DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
1	1.45	-0.52	1.35	-0.58	1.97	0.27	1.51	0.08	1.79	0.27	2.09	0.55
2	1.35	-0.51	1.28	-0.58	1.78	0.31	1.51	0.39	1.92	0.38	2.35	0.69
3	1.36	-0.40	1.10	-0.69	1.63	0.29	1.43	0.18	1.73	0.14	2.50	0.73
4	1.37	-0.29	0.95	-0.60	1.57	0.07	1.40	0.01	1.56	-0.04	2.48	0.61
5	1.32	-0.08	0.92	-0.56	1.55	0.05	1.45	0.00	1.60	-0.15	2.61	0.82
6	1.51	0.05	0.91	-0.54	1.57	-0.11	1.72	0.03	1.89	-0.07	2.48	0.55
7	1.57	0.03	0.87	-0.57	1.65	-0.09	1.54	-0.16	2.05	0.09	2.66	0.68
8	1.67	0.11	0.87	-0.66	1.79	0.07	1.70	0.15	2.28	0.17	2.57	0.63
9	1.70	0.01	0.96	-0.73	1.87	-0.03	1.89	0.36	2.41	0.35	2.54	0.60
10	1.46	-0.22	1.04	-0.78	1.93	0.14	1.98	0.72	2.43	0.43	2.38	0.49
11	1.49	-0.24	1.15	-0.78	1.96	-0.07	1.99	0.56	2.43	0.36	2.27	0.34
12	1.52	-0.23	1.18	-0.76	1.96	-0.11	1.99	0.62	2.26	0.30	2.22	0.66
13	1.60	-0.28	1.18	-0.83	1.87	0.20	2.08	0.49	2.13	0.19	1.88	0.35
14	1.63	-0.35	1.23	-0.68	1.95	0.27	1.89	0.27	1.89	0.03	1.74	0.13
15	1.50	-0.40	1.39	-0.74	2.07	0.55	1.79	0.08	1.84	0.02	1.63	0.11
16	1.45	-0.49	1.19	-0.80	1.81	0.27	1.61	-0.21	1.74	-0.06	1.74	0.20
17	1.34	-0.53	1.16	-0.73	1.67	0.14	1.64	-0.13	1.59	-0.15	1.84	0.21
18	1.29	-0.63	1.15	-0.47	1.67	0.06	1.74	-0.22	1.65	-0.22	2.02	0.34
19	1.13	-0.51	1.24	-0.24	1.91	0.14	1.56	-0.25	1.69	-0.23	2.07	0.40
20	1.16	-0.47	1.63	-0.05	1.93	0.13	1.56	-0.19	1.77	-0.19	2.08	0.48
21	1.27	-0.46	1.63	-0.05	2.19	0.59	1.49	-0.37	1.67	-0.09	2.17	0.52
22	1.24	-0.47	2.03	0.07	2.31	0.78	1.51	-0.40	1.65	-0.09	2.17	0.52
23	1.39	-0.48	2.15	0.35	2.75	0.90	1.59	-0.42	1.67	-0.08	2.15	0.52
24	1.41	-0.52	2.17	0.07	2.63	1.16	1.54	-0.33	1.67	-0.02	1.98	0.29
25	1.44	-0.68	2.20	0.03	2.49	0.93	1.54	-0.30	1.67	-0.04	1.93	0.36
26	1.38	-0.86	2.29	0.06	2.34	0.54	1.56	-0.27	1.69	0.13	2.02	0.42
27	1.26	-0.99	2.30	0.24	2.09	0.01	1.57	-0.12	1.76	0.11	1.91	0.39
28	1.27	-0.99	2.39	0.36	1.58	-0.12	1.57	-0.09	1.79	0.19	1.97	0.44
29	1.39	-0.73	2.30	0.17	1.44	-0.10	1.61	0.06	1.84	0.25	1.71	0.29
30	1.50	-0.63	2.19	0.31	1.36	-0.08	1.70	0.23	1.89	0.41	2.02	0.57
31	---	---	2.02	0.37	---	---	1.76	0.21	1.92	0.50	---	---
MONTH	1.70	-0.99	2.39	-0.83	2.75	-0.12	2.08	-0.42	2.43	-0.23	2.66	0.11

02286100 SOUTH NEW RIVER CANAL AT S-13, NEAR DAVIE, FL--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	404	140	0.00	84	39	55	38	0.00	172	292	e76	101
2	367	310	0.00	58	34	86	50	0.00	152	316	e66	81
3	304	237	84	84	2.8	49	2.9	0.00	111	279	e93	98
4	152	211	0.00	62	49	60	52	0.00	79	256	e84	102
5	162	130	101	50	0.00	52	0.00	0.00	93	273	e78	128
6	168	104	67	60	43	54	0.00	0.00	92	223	e71	134
7	159	136	115	58	0.00	102	0.00	0.00	95	247	e68	140
8	149	127	0.00	44	0.00	59	0.00	0.00	133	294	e72	145
9	146	111	0.00	41	41	85	0.00	0.00	120	349	e73	144
10	140	114	53	25	217	78	0.00	0.00	116	e316	e70	149
11	130	90	69	16	156	92	0.00	0.00	114	e282	e73	192
12	104	95	73	36	90	77	0.00	0.00	135	e262	e78	223
13	99	87	0.00	38	107	73	0.00	0.00	135	e264	e74	190
14	117	94	91	29	106	52	0.00	0.00	226	e245	e63	169
15	100	100	0.00	30	100	50	0.00	0.00	321	e179	e76	162
16	115	85	0.00	28	101	46	0.00	7.7	287	e212	61	152
17	108	72	59	44	95	37	0.00	43	236	e216	43	137
18	121	62	76	0.00	90	34	0.00	82	191	e282	75	105
19	134	248	0.00	36	73	30	0.00	208	195	e290	38	102
20	144	96	39	0.00	56	1.2	0.00	299	173	e228	65	104
21	175	55	0.00	40	75	47	0.00	214	190	e215	110	105
22	327	100	44	0.20	31	35	0.00	146	199	e171	96	98
23	465	80	0.00	2.2	197	0.00	0.00	107	392	e156	91	96
24	378	48	46	0.00	69	42	0.00	104	573	e145	80	96
25	343	71	45	34	74	0.00	0.00	95	449	e138	56	94
26	219	57	4.3	0.00	95	32	0.00	87	412	e126	119	92
27	101	132	39	0.00	83	10	0.00	85	261	e114	157	93
28	154	50	28	0.00	63	0.20	0.00	85	269	e108	149	73
29	150	50	39	0.00	---	0.00	0.00	64	253	e105	135	64
30	132	114	40	0.00	---	0.00	0.00	97	246	e88	120	80
31	145	---	73	0.00	---	0.00	---	81	---	e80	107	---
TOTAL	5912	3406	1185.30	899.40	2086.80	1338.40	142.90	1804.70	6420	6751	2617	3649
MEAN	191	114	38.2	29.0	74.5	43.2	4.76	58.2	214	218	84.4	122
MAX	465	310	115	84	217	102	52	299	573	349	157	223
MIN	99	48	0.00	0.00	0.00	0.00	0.00	0.00	79	80	38	64
AC-FT	11730	6760	2350	1780	4140	2650	283	3580	12730	13390	5190	7240

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2002, BY WATER YEAR (WY)

MEAN	191	159	141	149	134	126	98.6	118	201	189	178	196
MAX	394	459	472	465	328	419	371	339	404	371	443	510
(WY)	1965	1970	1961	1961	1983	1970	1957	1969	1984	1958	1966	1960
MIN	43.2	9.49	5.25	4.10	0.000	2.35	0.000	0.000	47.5	36.0	26.5	62.2
(WY)	1990	1990	1989	1990	1990	1971	1965	1965	1971	1971	1971	1989

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1957 - 2002

ANNUAL TOTAL	32456.40	36212.50		
ANNUAL MEAN	88.9	99.2	162	
HIGHEST ANNUAL MEAN			320	1960
LOWEST ANNUAL MEAN			51.9	1990
HIGHEST DAILY MEAN	517	Sep 29	573	Jun 24
LOWEST DAILY MEAN	0.00	Jan 21	0.00	Dec 1
ANNUAL SEVEN-DAY MINIMUM	0.00	Feb 15	0.00	Apr 5
ANNUAL RUNOFF (AC-FT)	64380		71830	117500
10 PERCENT EXCEEDS	178		236	345
50 PERCENT EXCEEDS	69		81	133
90 PERCENT EXCEEDS	0.00		0.00	0.00

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

260037080303401 SITE 76 IN CONSERVATION AREA 3B NEAR ANDYTOWN, FL

LOCATION.--Lat 26°00'27", long 80°28'58", in NW 1/4 sec.18, T.39 S., R.51 E., Broward County, Hydrologic Unit 03090202, in Conservation Area 3B approximately 0.7 mi southeast of Levee 67C, 3 mi southwest of intersection of Levee 67C and Levee 67A.  
 DRAINAGE AREA.--Indeterminate.  
 PERIOD OF RECORD.--July 1991 to current year.  
 GAGE.--Satellite data collection platform with water-stage shaft encoder and tipping bucket rain gage. Datum of gage is National Geodetic Vertical Datum of 1929.  
 REMARKS.--Land-surface datum is 6.80 ft above National Geodetic Vertical Datum of 1929. Rainfall data is available in files of the U.S. Geological Survey. Revised figures of stage required because an erroneous M.P. elevation was initially used for the 1995-98 water years. These will not be republished and supersede those published in the reports for 1995-98. The revised data are available in the files of the U.S. Geological Survey.  
 EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 9.60 ft Oct. 15, 1999; minimum, 5.39 ft May 22, 23 2001 (Corrected).  
 EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 8.75 ft Oct. 22; minimum, 6.62 ft May 14.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.38	8.48	8.11	7.85	7.43	7.79	7.69	7.02	7.11	7.57	8.09	8.48
2	8.37	8.48	8.12	7.83	7.44	7.80	7.69	7.01	7.09	7.62	8.08	8.47
3	8.35	8.51	8.13	7.82	7.47	7.81	7.68	7.00	7.07	7.62	8.13	8.47
4	8.34	8.48	8.13	7.80	7.45	7.82	7.66	6.99	7.07	7.63	8.24	8.49
5	8.35	8.52	8.12	7.78	7.43	7.83	7.62	6.98	7.04	7.64	8.22	8.52
6	8.37	8.51	8.13	7.76	7.42	7.83	7.59	6.95	7.01	7.65	8.22	8.57
7	8.35	8.48	8.16	7.75	7.42	7.85	7.56	6.93	7.00	7.67	8.23	8.57
8	8.33	8.45	8.18	7.73	7.42	7.89	7.53	e6.92	7.01	7.73	8.28	8.55
9	8.32	8.42	8.18	7.71	7.42	7.89	7.50	6.88	7.01	7.79	8.30	8.54
10	8.31	8.40	8.19	7.69	7.42	7.89	7.47	6.84	6.99	7.82	8.29	8.53
11	8.29	8.37	8.18	7.67	7.44	7.89	7.43	6.79	6.98	7.84	8.28	8.55
12	8.27	8.35	8.18	7.66	---	7.89	7.41	6.74	7.00	7.91	8.28	8.60
13	8.25	8.32	8.18	7.65	---	7.89	7.38	6.69	7.03	8.01	8.29	8.57
14	8.24	8.30	8.19	7.63	---	7.88	7.37	6.65	7.21	8.02	8.28	8.58
15	8.24	8.28	8.19	7.62	---	7.87	7.37	6.70	7.38	8.02	8.26	8.54
16	8.26	8.26	8.19	7.62	---	7.87	7.34	e6.85	7.32	8.02	8.23	8.51
17	8.26	8.24	8.20	7.60	---	7.87	7.31	e6.91	7.27	8.03	8.20	8.47
18	8.26	8.22	8.21	7.58	---	7.86	7.29	6.87	7.24	8.06	8.16	8.44
19	8.27	8.20	8.20	7.56	---	7.85	7.27	6.90	7.24	8.08	8.13	8.41
20	8.30	8.19	8.17	7.55	---	7.84	7.25	7.08	7.28	8.09	8.14	8.38
21	8.35	8.18	8.12	7.53	---	7.83	7.23	7.12	7.34	8.10	8.24	8.39
22	8.56	8.17	8.08	7.52	---	7.82	7.20	7.07	7.33	8.10	8.28	8.35
23	8.72	8.15	8.04	7.51	7.70	7.80	7.18	7.03	7.38	8.10	8.28	8.32
24	8.70	8.14	8.01	7.51	7.73	7.79	7.16	7.00	7.41	8.11	8.27	8.31
25	8.68	8.12	7.98	7.51	7.73	7.77	7.14	6.98	7.43	8.11	8.26	8.31
26	8.67	8.11	7.95	7.50	7.74	7.77	7.10	6.96	7.45	8.12	8.28	8.28
27	8.63	8.10	7.92	7.49	7.76	7.76	7.08	6.94	7.46	8.12	8.38	8.24
28	8.59	8.11	7.88	7.48	7.77	7.75	7.07	6.93	7.48	8.12	8.45	8.23
29	8.55	8.11	7.86	7.47	---	7.74	7.06	6.92	7.51	8.11	8.45	8.22
30	8.53	8.11	7.84	7.45	---	7.73	7.04	6.91	7.53	8.10	8.49	8.21
31	8.50	---	7.83	7.44	---	7.70	---	6.96	---	8.10	8.49	---
TOTAL	260.59	248.76	250.85	236.27	---	242.57	220.67	214.52	216.67	246.01	256.20	253.10
MEAN	8.41	8.29	8.09	7.62	---	7.82	7.36	6.92	7.22	7.94	8.26	8.44
MAX	8.72	8.52	8.21	7.85	---	7.89	7.69	7.12	7.53	8.12	8.49	8.60
MIN	8.24	8.10	7.83	7.44	---	7.70	7.04	6.65	6.98	7.57	8.08	8.21

e Estimated

## 255828080401301 SITE 64 IN CONSERVATION AREA 3A NEAR COOPERTOWN, FL

LOCATION.--Lat 25°58'31", long 80°40'10", in T.37 S., R.51 E., Broward County, Hydrologic Unit 03090202, approximately 17 mi northwest of Coopertown. No section could be determined from existing maps.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--June 1991 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and tipping bucket rain gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Land-surface datum is 8.40 ft above National Geodetic Vertical Datum of 1929. Gage is capable of recording water levels below land-surface datum. Rainfall data is available in files of the U.S. Geological Survey.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 12.81 ft Nov. 02, 1999; minimum, 8.23 ft May 31, 1992.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 11.37 ft Oct. 22, 23; minimum 8.78 ft May 18, 19.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.99	11.26	11.03	10.60	10.40	10.22	9.64	9.10	8.94	10.20	11.13	11.10
2	10.99	11.26	11.01	10.60	e10.40	10.21	e9.62	9.08	8.94	10.23	11.13	11.10
3	11.00	11.27	10.99	10.61	10.38	e10.20	e9.60	9.05	8.93	10.24	11.13	11.08
4	11.00	11.27	10.97	10.60	10.35	10.17	e9.58	9.03	8.92	10.24	11.13	11.08
5	11.01	11.32	10.94	10.60	10.35	10.12	e9.55	9.02	8.91	10.25	11.13	11.08
6	11.03	11.33	10.92	10.60	10.35	10.04	e9.52	9.00	8.90	10.26	11.12	11.08
7	11.04	11.33	10.91	10.60	10.34	10.02	e9.50	8.98	8.90	10.30	11.13	11.08
8	11.06	11.32	10.91	10.59	10.33	10.00	e9.48	8.97	8.91	10.40	11.17	11.08
9	11.08	11.32	10.88	10.59	10.31	9.98	e9.45	8.94	8.92	10.48	11.17	11.07
10	11.08	11.32	10.88	10.58	10.31	9.96	e9.43	8.92	8.93	10.53	11.16	11.06
11	11.08	11.31	10.86	10.58	10.34	9.94	9.42	8.90	8.93	10.57	11.16	11.08
12	11.08	11.30	10.83	10.57	10.33	9.91	9.40	8.88	8.94	10.59	11.19	11.16
13	11.09	11.29	10.80	10.57	10.32	9.89	9.38	8.85	8.97	10.63	11.21	11.16
14	11.09	11.27	10.78	10.56	10.32	9.86	9.37	8.84	9.26	10.66	11.22	11.16
15	11.09	11.27	10.75	10.56	10.31	9.84	9.38	8.84	9.61	10.70	11.22	11.15
16	11.09	11.25	10.72	10.55	10.30	9.90	9.37	e8.84	9.66	10.73	11.21	11.14
17	11.10	11.23	10.71	10.55	10.29	9.94	9.36	e8.83	9.67	10.77	11.21	11.12
18	11.10	11.22	10.70	10.55	10.27	9.91	9.33	8.80	9.67	10.82	11.20	11.12
19	11.12	11.21	10.68	10.54	10.25	9.89	9.32	8.84	9.67	10.84	11.20	11.11
20	11.14	11.20	10.65	10.54	10.24	9.86	9.30	8.96	9.77	10.86	11.22	11.10
21	11.18	11.19	10.63	e10.54	10.22	9.84	9.28	8.99	10.00	10.88	11.23	11.10
22	11.33	11.19	10.62	10.52	10.21	9.80	9.26	8.98	10.01	10.93	11.21	11.09
23	11.36	11.17	10.61	10.51	10.32	9.79	9.25	8.98	10.09	10.96	11.17	11.08
24	11.36	11.16	10.61	10.50	10.31	9.77	9.23	8.98	10.19	10.99	11.14	11.07
25	e11.35	11.15	10.60	e10.49	10.30	9.74	9.21	8.96	10.19	11.01	11.13	11.06
26	11.35	11.14	10.60	e10.47	10.29	9.72	9.19	8.95	10.19	11.04	11.10	11.05
27	11.33	11.12	10.59	10.45	10.27	9.72	9.17	8.93	10.18	11.06	11.10	11.05
28	11.31	11.10	10.59	10.45	10.23	9.71	9.15	8.91	10.19	11.07	11.11	11.05
29	11.29	11.06	10.59	10.43	---	9.70	9.13	8.90	10.19	11.08	11.08	11.04
30	11.28	11.04	10.57	10.42	---	9.68	9.12	8.89	10.18	11.10	11.09	11.02
31	11.27	---	10.57	10.41	---	9.65	---	8.91	---	11.13	11.11	---
TOTAL	345.67	336.87	333.50	326.73	288.64	306.98	280.99	277.05	284.76	331.55	345.91	332.72
MEAN	11.15	11.23	10.76	10.54	10.31	9.90	9.37	8.94	9.49	10.70	11.16	11.09
MAX	11.36	11.33	11.03	10.61	10.40	10.22	9.64	9.10	10.19	11.13	11.23	11.16
MIN	10.99	11.04	10.57	10.41	10.21	9.65	9.12	8.80	8.90	10.20	11.08	11.02

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

255300080370001 SITE 69 IN CONSERVATION AREA 3B NEAR COOPERTOWN, FL

LOCATION.--Lat 25°53'00", long 80°37'00", in T.52 S., R.35 E., Miami-Dade County, Hydrologic Unit 03090202. Two gages are located on the east and west sides of the Levee 67A, 11.3 mi northeast of access gate at the Tamiami Trail. No section could be determine from existing maps.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD FOR EAST GAGE.--July 1991 to current year.

PERIOD OF RECORD FOR WEST GAGE.--October 1994 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder with tipping bucket rain gage located in the east gage shelter. Shaft encoder located in the west gage shelter. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Rainfall data is available in files of the U.S. Geological Survey.

COOPERATION.--U.S. Army Corps of Engineers.

EXTREME STAGES FOR EAST GAGE FOR PERIOD OF RECORD.--Maximum gage height, 10.48 ft Oct. 15, 1999; minimum, 7.22 ft June 3, 1992.

EXTREME STAGES FOR EAST GAGE FOR CURRENT YEAR.--Maximum gage height, 9.50 ft Oct 25; minimum, 7.66 ft May 14.

EXTREME STAGES FOR WEST GAGE FOR PERIOD OF RECORD.--Maximum gage height, 12.74 ft Dec. 21, 1994; minimum, 7.42 ft Apr. 27, 1999.

EXTREME STAGES FOR WEST GAGE FOR CURRENT YEAR.--Maximum gage height, 11.17 ft Nov. 5, 6; minimum, 7.55 ft May 13.

EAST  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.29	9.32	9.06	8.85	8.65	8.61	8.37	8.15	8.08	e8.73	9.04	9.21
2	9.27	9.31	9.05	8.85	8.65	8.60	8.38	8.13	8.07	8.77	9.04	9.22
3	9.24	9.30	9.04	8.86	8.65	8.59	8.38	8.10	8.08	8.77	9.06	9.21
4	9.22	9.30	9.03	8.84	8.65	8.59	8.37	8.07	8.11	8.75	9.12	9.21
5	9.22	9.34	9.01	8.82	8.63	8.57	8.36	8.04	8.10	8.74	9.13	9.21
6	9.23	9.35	9.01	8.82	8.63	8.56	8.35	8.01	8.10	8.74	9.14	9.22
7	9.23	9.34	9.02	8.82	8.63	8.57	8.34	7.98	8.12	8.74	9.14	9.23
8	9.22	9.32	9.02	8.80	8.61	8.58	8.33	7.94	8.14	8.83	9.16	9.22
9	9.22	9.31	9.01	8.78	8.61	8.58	8.32	7.90	8.14	e8.88	9.15	9.21
10	9.21	9.29	9.00	8.78	8.62	8.57	8.32	7.84	8.14	e8.88	9.13	9.22
11	9.20	9.28	8.99	8.77	8.63	8.56	8.31	7.79	8.14	8.90	9.16	9.29
12	9.19	9.26	8.97	8.77	8.62	8.55	8.31	7.75	8.14	8.91	9.16	9.38
13	9.18	9.25	8.96	8.77	8.61	8.54	8.30	7.72	8.15	8.98	9.15	9.36
14	9.17	9.24	8.95	8.77	8.61	8.53	8.29	7.69	8.20	8.97	9.15	9.34
15	9.17	9.23	8.94	8.77	8.61	8.52	8.30	7.74	8.30	8.96	9.15	9.32
16	9.18	9.22	8.92	8.76	8.61	8.51	8.29	e7.82	8.37	8.95	9.14	9.29
17	9.18	9.20	8.91	8.75	8.60	8.50	8.29	e7.82	8.35	8.95	9.13	9.27
18	e9.17	9.19	8.91	8.75	8.59	8.49	8.29	7.77	8.34	8.97	9.13	9.25
19	e9.17	9.18	8.90	8.74	8.58	8.47	8.28	7.86	8.32	9.00	9.13	9.24
20	e9.19	9.18	8.89	8.74	8.58	8.46	8.28	8.02	8.34	9.01	9.14	9.23
21	e9.28	9.17	8.88	8.73	8.58	8.46	8.27	8.02	8.41	9.01	9.15	9.22
22	e9.47	9.16	8.87	8.72	8.57	8.45	8.27	8.05	8.43	9.01	9.13	9.21
23	9.49	9.15	8.86	8.71	8.66	8.43	8.26	8.05	8.52	9.02	9.12	9.20
24	e9.48	9.14	8.86	8.71	8.66	8.42	8.25	8.03	8.64	9.02	9.11	9.19
25	e9.49	9.13	8.85	8.70	8.64	8.42	8.25	8.01	8.64	9.03	9.10	9.19
26	e9.47	9.11	8.84	8.69	8.64	8.41	8.23	7.99	e8.66	9.04	9.08	9.18
27	9.42	9.10	8.82	8.68	8.63	8.42	8.22	7.95	e8.70	9.04	9.08	9.17
28	9.38	9.09	8.82	8.68	8.62	8.42	8.20	7.97	e8.73	9.04	9.08	9.17
29	9.37	9.08	8.81	8.67	---	8.40	8.19	7.96	e8.72	9.04	9.10	9.17
30	9.36	9.07	8.81	8.67	---	8.40	8.17	7.97	e8.71	9.04	9.18	9.17
31	9.34	---	8.82	8.66	---	8.38	---	8.02	---	9.04	9.22	---
TOTAL	287.70	276.61	276.83	271.43	241.37	263.56	248.77	246.16	249.89	276.76	282.90	277.00
MEAN	9.28	9.22	8.93	8.76	8.62	8.50	8.29	7.94	8.33	8.93	9.13	9.23
MAX	9.49	9.35	9.06	8.86	8.66	8.61	8.38	8.15	8.73	9.04	9.22	9.38
MIN	9.17	9.07	8.81	8.66	8.57	8.38	8.17	7.69	8.07	8.73	9.04	9.17

e Estimated

EVERGLADES AND SOUTHEASTERN COASTAL AREA

255300080370001 SITE 69 IN CONSERVATION AREA 3B NEAR COOPERTOWN, FL

WEST  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.77	11.04	10.81	10.46	10.22	9.94	9.07	8.54	8.54	e9.98	10.83	10.80
2	10.77	11.04	10.80	10.44	10.21	9.89	9.06	8.49	8.54	10.03	10.82	10.79
3	10.77	11.06	10.78	10.44	10.23	9.87	9.05	8.44	8.59	10.03	10.83	10.77
4	10.77	11.07	10.74	10.44	10.22	9.87	9.05	8.38	8.68	10.03	10.83	10.77
5	10.80	11.14	10.70	10.45	10.20	9.85	9.06	8.33	8.62	10.03	10.84	10.77
6	10.83	11.16	10.67	10.45	10.17	9.82	9.03	8.29	8.59	10.03	10.84	10.80
7	10.83	11.14	10.66	10.45	10.15	9.81	9.00	8.24	8.65	10.06	10.85	10.79
8	10.84	11.13	10.63	10.44	10.14	9.81	8.97	8.15	8.74	10.13	10.89	10.77
9	10.86	11.13	10.60	10.44	10.12	9.80	8.93	7.98	8.81	e10.21	10.86	10.77
10	10.85	11.12	10.58	10.43	10.12	9.77	8.91	7.86	8.77	e10.25	10.84	10.77
11	10.85	11.10	10.56	10.42	10.14	9.74	8.90	7.76	8.78	10.30	10.85	10.82
12	10.85	11.09	10.53	10.41	10.15	9.72	8.89	7.67	8.78	10.33	10.86	10.89
13	10.85	11.08	10.52	10.40	10.13	9.68	8.86	7.60	8.83	10.39	10.87	10.88
14	10.85	11.07	10.49	10.39	10.12	9.65	8.85	7.69	8.98	10.41	10.87	10.87
15	10.86	11.07	10.48	10.39	10.10	9.62	8.91	8.00	9.22	10.43	10.88	10.85
16	10.87	11.06	10.46	10.38	10.09	9.58	8.90	e8.10	9.34	10.45	10.87	10.84
17	10.87	11.05	10.44	10.38	10.08	9.56	8.91	e8.05	9.36	10.48	10.86	10.83
18	e10.86	11.03	10.44	10.37	10.06	9.54	8.89	7.99	9.38	10.52	10.88	10.81
19	e10.88	11.02	10.43	10.36	10.03	9.52	8.87	8.03	9.39	10.56	10.89	10.80
20	e10.92	11.01	10.43	10.35	10.01	9.48	8.85	8.38	9.46	10.59	10.89	10.79
21	e11.01	11.00	10.42	10.34	9.99	9.44	8.83	8.50	9.61	10.62	10.89	10.79
22	e11.10	10.98	10.41	10.33	9.98	9.41	8.81	8.55	9.65	10.66	10.85	10.77
23	11.09	10.97	10.40	10.31	10.08	9.37	8.78	8.44	9.76	10.68	10.83	10.76
24	e11.09	10.95	10.41	10.30	10.10	9.33	8.76	8.42	9.90	10.70	10.80	10.76
25	e11.11	10.94	10.41	10.30	10.07	9.28	8.73	8.34	e9.91	10.73	10.78	10.76
26	e11.14	10.92	10.43	10.29	10.05	9.26	8.70	8.27	e9.90	10.76	10.77	10.75
27	11.14	10.90	10.41	10.28	10.02	9.26	8.67	8.19	e9.91	10.78	10.75	10.75
28	11.11	10.87	10.41	10.26	9.99	9.23	8.64	8.14	e9.91	10.78	10.75	10.74
29	11.08	10.85	10.40	10.25	---	9.20	8.61	8.23	e9.93	10.79	10.76	10.74
30	11.07	10.83	10.40	10.24	---	9.15	8.58	8.27	e9.94	10.80	10.80	10.73
31	11.05	---	10.42	10.22	---	9.11	---	8.41	---	10.83	10.81	---
TOTAL	338.74	330.82	326.27	321.41	282.97	296.56	266.07	253.73	276.47	323.37	335.94	323.73
MEAN	10.93	11.03	10.52	10.37	10.11	9.57	8.87	8.18	9.22	10.43	10.84	10.79
MAX	11.14	11.16	10.81	10.46	10.23	9.94	9.07	8.55	9.94	10.83	10.89	10.89
MIN	10.77	10.83	10.40	10.22	9.98	9.11	8.58	7.60	8.54	9.98	10.75	10.73

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

254848080432001 SITE 65 IN CONSERVATION AREA 3A NEAR COOPERTOWN, FL

LOCATION.--Lat 25°48'52", long 80°43'12", SE 1/4 T.53 S., R.36 E., Miami-Dade County, Hydrologic Unit 03090202, in the Everglades Water Conservation Area 3A, 4 mi north of Tamiami Trail (U.S. Highway 41) and 5 mi west of Levee 67A. No section could be determined from existing maps.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--1991 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder with tipping bucket rain gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Rainfall data is available in files of the U.S. Geological Survey.

COOPERATION.--U.S. Army Corps of Engineers.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 12.06 ft Dec. 21, 22, 1994; minimum, 7.82 ft May 22, 23, 2001.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 10.72 ft Nov. 6-8; minimum, 8.36 ft May 18, 19.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.34	10.59	10.47	10.23	10.05	9.83	9.12	8.67	8.53	9.79	10.28	10.40
2	10.33	10.60	10.46	10.24	10.05	9.80	9.10	8.65	8.54	9.85	10.28	10.38
3	10.33	10.61	10.44	10.25	10.08	9.76	9.08	8.62	8.58	9.83	10.28	10.39
4	10.32	10.63	10.40	e10.25	10.07	9.73	9.06	8.60	8.58	9.81	10.29	10.40
5	10.34	10.70	10.36	10.24	10.05	9.71	9.03	8.58	8.57	9.78	10.30	10.40
6	10.36	10.72	10.33	10.24	10.03	9.69	9.00	8.56	8.56	9.76	10.31	10.40
7	10.35	10.72	10.31	10.24	10.01	9.69	8.98	8.55	8.60	9.76	10.31	10.40
8	10.36	10.72	10.27	10.24	9.99	9.67	8.96	8.53	8.78	9.81	10.33	10.38
9	10.39	10.71	10.26	10.24	9.97	9.65	8.93	8.50	8.81	9.89	10.33	10.37
10	10.39	10.70	10.25	10.22	9.97	9.64	8.91	8.48	8.80	9.91	e10.32	10.36
11	10.38	10.70	10.21	10.22	9.98	9.61	8.90	8.47	8.81	9.94	10.33	10.39
12	10.37	10.69	10.19	10.21	9.98	9.59	8.88	8.44	8.83	9.94	e10.34	10.45
13	10.37	10.69	10.19	10.20	9.98	9.56	8.87	8.43	8.87	9.96	e10.33	10.45
14	10.37	10.67	10.19	10.20	9.97	9.52	8.91	e8.41	8.96	9.96	e10.35	10.45
15	10.38	10.67	10.19	10.20	9.96	9.50	9.01	8.39	9.08	9.96	e10.36	10.45
16	10.39	10.66	10.19	10.20	9.95	9.48	8.98	e8.39	9.17	9.96	e10.32	10.43
17	10.39	10.65	10.18	10.20	9.93	9.45	8.96	e8.39	9.16	9.96	10.36	10.41
18	10.39	10.64	10.18	10.19	9.91	9.43	8.93	8.37	9.16	10.00	10.38	10.39
19	10.41	10.63	10.18	10.19	9.89	9.41	8.91	8.41	9.16	10.02	10.43	10.38
20	10.43	10.62	10.16	10.18	9.87	9.38	8.89	8.56	9.22	10.03	10.41	10.38
21	10.50	10.61	10.16	10.18	9.85	9.34	8.88	8.56	9.37	10.04	10.39	10.36
22	10.64	10.59	10.17	10.16	9.84	9.31	8.86	8.55	9.41	10.10	10.37	10.35
23	10.68	10.58	10.17	10.15	9.93	9.29	8.84	8.55	9.47	10.12	10.34	10.35
24	10.67	10.57	10.17	10.13	9.94	9.26	8.82	8.53	9.59	10.13	10.31	10.36
25	10.67	10.56	10.17	10.12	9.93	9.23	8.80	8.50	9.66	10.16	10.29	10.36
26	10.67	10.55	10.18	10.11	9.91	9.22	8.78	8.49	9.70	10.21	10.26	10.36
27	10.65	10.53	10.18	10.11	9.89	9.24	8.75	8.48	9.70	10.21	10.24	10.36
28	10.62	10.52	10.18	10.09	9.86	9.22	8.72	8.46	9.74	10.21	10.24	10.36
29	10.61	10.50	10.18	10.08	---	9.20	8.71	8.45	9.75	10.21	10.27	10.35
30	10.60	10.49	10.18	10.07	---	9.18	8.69	8.46	9.74	10.22	10.33	10.35
31	10.60	---	10.20	10.06	---	9.15	---	8.52	---	10.27	10.39	---
TOTAL	324.30	318.82	317.35	315.64	278.84	293.74	267.26	263.55	272.90	309.80	320.07	311.62
MEAN	10.46	10.63	10.24	10.18	9.96	9.48	8.91	8.50	9.10	9.99	10.32	10.39
MAX	10.68	10.72	10.47	10.25	10.08	9.83	9.12	8.67	9.75	10.27	10.43	10.45
MIN	10.32	10.49	10.16	10.06	9.84	9.15	8.69	8.37	8.53	9.76	10.24	10.35

e Estimated



255250080335001 SITE 71 IN CONSERVATION AREA 3B, NEAR COOPERTOWN, FL

LOCATION.--Lat 25°53'04", long 80°33'25", in T.52 S., R.35 E., Miami-Dade County, Hydrologic Unit 03090202, in Conservation Area 3B, 2.6 mi east of Levee 67°C and 8.3 mi southeast of intersection with Levee 30. No section could be determined from existing maps.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--July 1991 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and tipping bucket rain gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Land-surface datum is 7.00 ft above National Geodetic Vertical Datum of 1929. Gage is capable of recording water levels below land-surface datum. Rainfall data available in files of the U.S. Geological Survey.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 9.80 ft Oct. 15, 1999; minimum, 6.04 ft May 22, 23, 2001.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 8.85 ft Oct. 23; minimum, 6.97 ft May 14.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.55	8.66	8.26	8.01	7.69	7.69	7.59	7.15	7.21	7.85	8.20	8.44
2	8.53	8.65	8.25	8.00	7.68	7.69	7.58	7.13	7.21	7.93	8.19	8.45
3	8.51	8.63	8.24	8.00	7.69	7.69	7.59	7.12	7.23	7.94	8.19	8.45
4	8.50	8.63	8.23	7.99	7.69	7.69	7.59	7.11	7.30	7.95	8.25	8.45
5	8.49	8.66	8.22	7.97	7.68	7.69	7.57	7.09	7.27	7.99	8.28	8.46
6	8.49	8.65	8.21	7.96	7.66	7.68	7.55	7.08	7.25	8.01	8.29	8.46
7	8.48	8.63	8.23	7.96	7.66	7.70	7.53	7.07	7.27	8.00	8.28	8.46
8	8.48	8.62	8.23	7.95	7.65	7.76	7.51	7.06	7.31	8.08	8.31	8.47
9	8.48	8.60	8.23	7.93	7.64	7.74	7.49	7.05	7.31	8.17	8.31	8.47
10	8.47	8.58	8.22	7.92	7.66	7.74	7.47	7.04	7.30	8.17	8.30	8.48
11	8.45	8.57	8.22	7.90	7.66	7.73	7.46	7.03	7.28	8.18	8.30	8.57
12	8.44	8.55	8.21	7.89	7.66	7.73	7.44	7.01	7.27	8.20	8.30	8.64
13	8.42	8.53	8.20	7.88	7.65	7.72	7.42	7.00	7.29	8.27	8.30	8.63
14	8.41	8.51	8.19	7.87	7.64	7.71	7.41	6.99	7.38	8.26	8.30	8.64
15	8.42	8.49	8.18	7.86	7.64	7.70	7.40	7.01	7.52	8.25	8.29	8.61
16	8.45	8.47	8.18	7.86	7.64	7.70	7.38	7.03	7.59	8.24	8.29	8.58
17	8.45	8.46	8.18	7.85	7.63	7.69	7.37	7.05	7.56	8.23	8.28	8.56
18	8.45	8.44	8.17	7.84	7.62	7.68	7.35	e7.05	7.53	8.26	8.26	8.54
19	8.45	8.43	8.17	7.83	7.61	7.67	7.33	e7.14	7.52	8.29	8.24	8.53
20	8.48	8.42	8.16	7.81	7.61	7.66	7.32	e7.25	7.52	8.31	8.25	8.52
21	8.59	8.40	8.14	7.80	7.60	7.65	7.30	7.25	7.58	8.30	8.28	8.50
22	8.82	8.39	8.12	7.79	7.60	7.63	7.28	7.23	7.60	8.29	8.27	8.47
23	8.85	8.37	8.10	7.78	7.71	7.62	7.27	7.22	7.63	8.28	8.25	8.47
24	8.83	8.36	8.08	7.77	7.71	7.60	7.25	7.20	7.69	8.27	8.25	8.46
25	8.83	8.33	8.06	7.76	7.70	7.59	7.24	7.17	7.74	8.26	8.24	8.46
26	8.83	8.32	8.05	7.75	7.70	7.61	7.22	7.15	7.75	8.25	8.28	8.45
27	8.79	8.30	8.02	7.74	7.70	7.66	7.21	7.14	7.76	8.24	8.33	8.43
28	8.75	8.28	8.01	7.73	7.69	7.65	7.19	7.18	7.79	8.23	8.33	8.43
29	8.72	8.28	7.99	7.72	---	7.64	7.18	7.19	7.80	8.22	8.36	8.44
30	8.70	8.27	7.98	7.71	---	7.62	7.16	7.17	7.81	8.21	8.43	8.43
31	8.69	---	7.98	7.70	---	7.60	---	7.17	---	8.21	8.45	---
TOTAL	265.80	254.48	252.71	243.53	214.47	237.93	221.65	220.53	224.27	253.34	256.88	254.95
MEAN	8.57	8.48	8.15	7.86	7.66	7.68	7.39	7.11	7.48	8.17	8.29	8.50
MAX	8.85	8.66	8.26	8.01	7.71	7.76	7.59	7.25	7.81	8.31	8.45	8.64
MIN	8.41	8.27	7.98	7.70	7.60	7.59	7.16	6.99	7.21	7.85	8.19	8.43

e Estimated



EVERGLADES AND SOUTHEASTERN COASTAL AREA

02286200 SNAKE CREEK CANAL AT NW 67TH AVENUE, NEAR HIALEAH, FL

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.15	2.35	2.38	2.27	2.22	2.33	2.17	---	2.43	2.05	2.39	e1.91
2	3.04	2.37	2.26	2.35	2.23	2.34	2.19	1.80	2.29	2.19	2.39	1.94
3	2.82	2.25	2.36	2.26	2.24	2.36	2.27	1.77	2.29	2.06	2.32	1.97
4	2.73	2.15	2.39	2.28	2.23	2.24	2.34	1.75	2.30	2.07	2.30	1.95
5	2.78	2.21	2.34	2.08	2.21	1.93	2.33	1.73	2.21	2.01	2.24	2.04
6	2.63	2.20	e2.41	2.28	2.19	1.87	2.32	1.70	2.14	1.88	2.25	2.09
7	2.57	2.07	e2.47	2.23	2.18	1.94	2.31	1.67	2.11	1.90	2.41	2.03
8	2.48	2.02	e2.28	2.16	2.17	1.77	2.28	e1.64	e2.39	2.15	2.34	2.06
9	2.49	1.97	2.36	2.27	2.19	2.12	2.26	1.61	2.41	2.25	2.46	2.00
10	2.48	2.34	2.35	2.29	2.20	2.20	2.24	1.59	2.14	2.40	2.44	1.96
11	2.47	2.40	2.38	2.30	1.88	2.24	2.23	1.56	1.89	2.46	2.39	2.12
12	2.39	2.35	2.32	2.32	2.27	2.26	2.21	1.53	1.84	2.38	2.42	2.39
13	2.43	2.37	2.35	2.33	2.33	2.27	2.19	1.50	1.94	2.14	2.42	2.25
14	2.38	---	2.38	2.34	2.35	2.28	2.18	1.51	2.28	2.02	2.33	2.36
15	2.37	---	2.39	2.35	2.37	2.29	2.20	1.66	2.65	1.97	2.31	2.39
16	2.40	---	2.39	2.35	2.32	2.29	2.18	---	2.52	2.05	2.37	e2.38
17	2.34	---	2.38	2.35	2.06	2.28	2.15	---	2.39	e2.40	2.24	2.40
18	---	---	2.25	2.35	1.96	2.28	2.12	2.18	2.18	2.45	e2.23	2.00
19	---	---	2.23	2.35	1.90	2.27	2.09	2.26	2.39	2.47	2.15	1.92
20	e2.30	---	2.31	2.34	2.00	2.27	2.07	2.26	2.36	2.27	2.34	1.84
21	2.36	---	2.32	2.34	2.14	2.26	2.04	2.26	2.47	2.45	2.38	1.80
22	3.08	---	2.32	2.33	2.19	2.25	2.03	2.27	2.50	1.95	2.37	1.76
23	3.25	---	2.32	2.32	2.03	2.24	2.00	e2.44	2.48	e2.00	2.37	1.72
24	3.03	---	2.33	2.30	1.63	2.22	1.98	2.38	2.56	2.34	2.34	1.69
25	2.82	---	2.34	2.29	1.83	2.21	1.95	2.44	2.61	2.22	2.28	1.68
26	2.62	---	2.30	2.28	2.19	2.20	1.92	2.44	2.49	e2.18	2.24	1.65
27	2.40	---	2.14	2.27	2.26	2.20	1.90	2.43	---	2.15	2.24	1.60
28	2.37	---	2.27	2.26	2.29	2.20	---	2.44	---	---	2.01	1.61
29	2.32	---	2.30	2.25	---	2.19	---	2.41	1.88	---	2.02	1.63
30	2.36	---	2.32	2.25	---	2.18	---	2.44	1.83	2.29	2.05	1.62
31	2.39	---	2.34	e2.22	---	2.17	---	e2.43	---	e2.36	1.93	---
TOTAL	---	---	72.28	70.96	60.06	68.15	---	---	---	---	70.97	58.76
MEAN	---	---	2.33	2.29	2.15	2.20	---	---	---	---	2.29	1.96
MAX	---	---	2.47	2.35	2.37	2.36	---	---	---	---	2.46	2.40
MIN	---	---	2.14	2.08	1.63	1.77	---	---	---	---	1.93	1.60

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02286200 SNAKE CREEK CANAL AT NW 67TH AVENUE, NEAR HIALEAH, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	750	532	244	249	108	47	100	---	438	601	94	e467
2	728	544	312	163	103	87	e132	85	420	635	128	437
3	654	555	242	234	114	99	86	74	284	631	233	412
4	555	525	234	194	95	201	54	58	247	656	371	422
5	580	550	255	266	76	313	60	49	254	654	343	463
6	573	538	---	128	100	302	34	40	261	590	307	529
7	534	529	---	219	107	275	38	50	272	586	284	488
8	521	492	e375	152	85	332	55	e50	e321	601	391	470
9	480	456	302	94	103	119	66	44	364	633	393	479
10	449	219	292	91	249	89	69	38	467	647	379	450
11	418	197	296	109	319	64	64	30	496	674	408	501
12	421	249	296	107	65	105	68	46	478	e275	347	566
13	366	218	215	109	56	106	66	60	518	e46	290	340
14	383	---	119	105	55	95	83	110	619	e23	340	281
15	364	---	107	112	72	93	72	53	730	e22	319	260
16	386	---	98	94	139	84	75	---	732	e25	236	e222
17	397	---	109	103	273	92	66	---	669	e8.1	313	309
18	---	---	222	114	274	82	63	76	600	e9.3	e282	518
19	---	---	161	101	265	93	57	145	575	e5.4	294	498
20	e455	---	116	101	148	95	74	396	620	e1.9	176	464
21	498	---	95	112	104	109	81	358	628	e-3.3	257	458
22	668	---	103	86	95	93	94	299	603	56	304	428
23	731	---	114	99	367	72	96	e73	597	e28	372	428
24	734	---	115	112	462	75	58	120	698	47	376	434
25	740	---	111	127	267	78	57	38	e689	90	352	411
26	735	---	152	102	89	95	73	31	e607	e89	352	398
27	681	---	197	96	72	111	65	17	---	126	400	409
28	649	---	115	103	60	98	---	91	---	---	544	419
29	578	---	109	92	---	83	---	112	595	---	522	389
30	514	---	106	85	---	92	---	130	580	112	522	378
31	497	---	169	e100	---	110	---	e212	---	e108	515	---
TOTAL	---	---	---	3959	4322	3789	---	---	---	---	10444	12728
MEAN	---	---	---	128	154	122	---	---	---	---	337	424
MAX	---	---	---	266	462	332	---	---	---	---	544	566
MIN	---	---	---	85	55	47	---	---	---	---	94	222
AC-FT	---	---	---	7850	8570	7520	---	---	---	---	20720	25250

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1963 - 2002, BY WATER YEAR (WY)

	331	245	177	175	170	161	140	178	346	290	323	340
MEAN	331	245	177	175	170	161	140	178	346	290	323	340
MAX	642	727	348	408	408	625	623	650	829	740	920	891
(WY)	1967	1970	1970	1995	1969	1970	1970	1979	1968	1966	1966	1966
MIN	4.64	3.41	1.49	9.39	3.26	28.3	4.87	-4.84	31.3	10.0	1.64	1.94
(WY)	1994	1994	1994	1994	1996	1996	1998	2001	1993	1993	1993	1993

## SUMMARY STATISTICS

## WATER YEARS 1963 - 2002

ANNUAL MEAN	269
HIGHEST ANNUAL MEAN	518
LOWEST ANNUAL MEAN	114
HIGHEST DAILY MEAN	1550
LOWEST DAILY MEAN	-64
ANNUAL SEVEN-DAY MINIMUM	-13
ANNUAL RUNOFF (AC-FT)	194700
10 PERCENT EXCEEDS	562
50 PERCENT EXCEEDS	216
90 PERCENT EXCEEDS	59

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

EVERGLADES AND SOUTHEASTERN COASTAL AREA

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255026080231300 SNAPPER CREEK CANAL EXTENSION AT NW 74TH STREET, NEAR HIALEAH, FL

LOCATION.--Lat 25°50'26", long 80°23'13", in SE 1/4 sec.12, T.53 S., R.39 E., Miami-Dade County, Hydrologic Unit 03090202, on the north side of a short spur canal that runs west from the main canal at N.W. 74th Street, and 5.5 mi upstream from the Tamiami Canal.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--April 1984 to current year.

GAGE.--Electronic data logger. Datum of gage is National Geodetic Vertical Datum of 1929.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 7.07 ft Oct. 15-17, 1999; minimum, 0.21 ft June 5, 6, 1989.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 6.43 ft Oct. 22; minimum, 2.54 ft May 14.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.78	5.78	4.70	4.23	3.78	3.84	3.57	3.04	3.83	4.80	4.83	4.58
2	5.73	5.73	4.67	4.18	3.78	3.82	3.71	3.00	3.75	4.95	4.82	4.65
3	5.68	5.69	4.63	4.17	3.91	3.80	3.88	2.97	3.67	4.98	4.81	4.67
4	5.65	5.65	4.59	4.12	3.86	3.78	3.78	2.95	3.61	4.96	4.80	4.64
5	5.70	5.73	4.54	4.09	3.81	3.75	3.70	2.93	3.56	4.98	4.74	4.64
6	5.67	5.71	4.55	4.08	3.79	3.74	3.65	2.89	3.55	4.98	4.70	4.67
7	5.64	5.64	4.65	4.06	3.78	3.80	3.61	2.84	3.68	4.98	4.69	4.66
8	5.60	5.59	4.65	4.02	3.77	3.91	3.58	2.80	3.77	5.16	4.71	4.69
9	5.59	5.55	4.60	3.99	3.79	3.87	3.56	2.76	3.75	5.27	4.69	4.68
10	5.58	5.52	4.56	3.97	3.98	3.85	3.54	2.72	3.66	5.30	4.65	4.70
11	5.56	5.48	4.52	3.95	3.95	3.81	3.53	2.68	3.64	5.37	4.62	4.77
12	5.53	5.44	4.48	3.94	3.89	3.78	3.51	2.64	3.66	5.39	4.59	4.83
13	5.51	5.39	4.45	3.93	3.87	3.76	3.49	2.60	3.74	5.38	4.56	4.82
14	5.50	5.36	4.42	3.90	3.86	3.74	3.49	2.57	4.00	5.33	4.52	4.90
15	5.53	5.32	4.40	3.89	3.85	3.73	3.48	2.72	4.26	5.30	4.47	4.86
16	5.56	5.29	4.39	3.88	3.83	3.73	3.46	3.53	4.40	5.30	4.46	4.82
17	5.54	5.25	4.37	3.88	3.82	3.73	3.44	3.53	4.27	5.27	4.43	4.78
18	5.55	5.21	4.35	3.88	3.79	3.71	3.42	3.36	4.21	5.26	4.40	4.75
19	5.70	5.18	4.33	3.88	3.76	3.71	3.39	3.46	4.28	5.27	4.34	4.74
20	5.75	5.15	4.31	3.88	3.74	3.68	3.36	3.96	4.30	5.22	4.31	4.75
21	5.88	5.11	4.27	3.87	3.74	3.66	3.34	3.90	4.56	5.18	4.38	4.75
22	6.34	5.07	4.24	3.85	3.75	3.66	3.31	3.81	4.56	5.15	4.34	4.71
23	6.35	5.03	4.21	3.84	4.05	3.63	3.28	3.70	4.56	5.11	4.31	4.71
24	6.29	4.99	4.18	3.83	4.04	3.60	3.25	3.62	4.52	5.12	4.31	4.74
25	6.28	4.95	4.15	3.83	3.96	3.58	3.21	3.55	4.53	5.13	4.28	4.73
26	6.24	4.90	4.16	3.82	3.92	3.59	3.18	3.51	4.75	5.08	4.26	4.70
27	6.17	4.86	4.11	3.81	3.90	3.67	3.15	3.46	4.82	5.04	4.30	4.68
28	6.07	4.82	4.09	3.80	3.86	3.64	3.13	3.59	4.78	4.99	4.44	4.69
29	5.99	4.78	4.08	3.79	---	3.62	3.10	3.68	4.73	4.94	4.58	4.69
30	5.92	4.73	4.06	3.79	---	3.59	3.07	3.62	4.70	4.90	4.58	4.68
31	5.85	---	4.12	3.78	---	3.57	---	3.64	---	4.86	4.56	---
TOTAL	179.73	158.90	135.83	121.93	107.83	115.35	103.17	100.03	124.10	158.95	140.48	141.68
MEAN	5.80	5.30	4.38	3.93	3.85	3.72	3.44	3.23	4.14	5.13	4.53	4.72
MAX	6.35	5.78	4.70	4.23	4.05	3.91	3.88	3.96	4.82	5.39	4.83	4.90
MIN	5.50	4.73	4.06	3.78	3.74	3.57	3.07	2.57	3.55	4.80	4.26	4.58

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02286400 MIAMI CANAL AT S-354, AND S-3, AT LAKE HARBOR, FL

LOCATION.--Lat 26°41'42", long 80°48'25", in SE 1/4 sec. 35, T.44 S., R.35 E., Palm Beach County, Hydrologic Unit 03090202, 0.25 mi downstream of S-354 and pump station 3 at Lake Okeechobee, 0.05 mi south of U.S. Highway 27 on the Miami Canal in Lake Harbor, FL.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--Prior to October 1940, monthly discharge only, published in WSP 1304. October 1988 to current year. December 1939 to June 1943 (published as Miami Canal at Lake Harbor, October 1957 to September 1988, published as Miami Canal at HGS-3, and S-3, at Lake Harbor.

REVISED RECORDS.--WDR FL-93-2A: 1992

GAGE.--Satellite data collection platform with water-stage shaft encoder, acoustic velocity meter and acoustic doppler velocity meter. Datum of gage is National Geodetic Vertical Datum of 1929. December 1, 1939 to June 30, 1943, nonrecording gage at this site at same datum. October 1, 1957 to September 30, 1959, dual water-stage recorder at present site, at datum 0.05 ft lower and October 1, 1959 to February 7, 1962, at datum 0.22 ft lower. October 1, 1957 to September 30, 1968, two deflection vane recorders. From 1981 water year to April 1, 1987, electromagnetic velocity meter and digital recorder. Electromagnetic velocity meter reinstalled May 11, 1988. Satellite data collection platform and acoustic velocity meter installed September 11, 1991 to present. The acoustic acoustic doppler meter installed May 23, 2002. The acoustic velocity meter was removed October 3, 2002.

The acoustic velocity meter and acoustic doppler meter were run in tandem for the period of May 23, 2002 to October 3, 2002. Prior to October 1, 1998, Lake stage published under station number 02286399. Lake station discontinued September 30, 1998. REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow regulated by gates and pump station at Lake Okeechobee. Discharge is the flow through acoustic velocity meter site approximately 0.25 mi below S-354 structure. Stage collected also at the acoustic velocity meter site. Flow frequently reversed during and after periods of heavy rainfall by pumpage into the canal from agricultural lands in the Everglades, or by the operation of pump station 3 (negative figure indicates reverse flow). Discharge computed from relations between velocity index vs. mean velocity. The acoustic velocity meter velocity data used to compute discharge for October 1, 1991 until September 30, 2002. The acoustic doppler velocity meter velocity data used to compute discharge October 1, 2002 to present.

COOPERATION.--S-3 pump, syphon record and S-354 gate-operation record provided by South Florida Water Management District.

ANNUAL MEAN AND ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 38 complete water years of discharge (1957-89, 1993-97, 2001).

EXTREME CANAL STAGES FOR PERIOD OF RECORD.--Maximum gage height 14.92 ft, present datum, Mar. 21, 1960 and Oct. 2, 1965: minimum, 7.45 ft May 2, 2001.

EXTREME CANAL STAGES FOR CURRENT YEAR.--Maximum gage height, 12.90 ft June 26; minimum, 8.75 ft Nov. 5.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.84	9.89	10.86	10.87	e10.80	10.75	e11.09	11.26	10.26	10.75	e10.01	e11.33
2	11.48	10.50	10.93	10.86	e10.73	10.81	e11.28	11.34	10.28	11.99	e10.31	10.74
3	10.85	9.53	10.73	10.58	e10.80	10.48	e11.09	11.34	11.32	11.76	10.86	10.46
4	10.73	9.05	e10.76	10.48	e10.84	10.60	e11.09	11.33	11.15	11.53	10.81	10.58
5	10.40	9.66	10.72	10.53	10.74	10.61	e11.04	11.20	11.24	11.33	10.99	10.60
6	10.42	e10.53	10.65	10.62	10.83	10.71	11.06	11.31	11.44	11.07	11.25	10.34
7	10.48	10.44	10.59	10.63	10.78	10.11	11.21	11.21	11.44	11.12	10.46	10.40
8	10.25	e10.53	10.69	10.54	e10.62	10.32	11.00	11.27	11.48	11.44	10.54	10.25
9	10.17	10.12	10.76	10.76	e10.81	10.71	10.97	11.20	11.06	11.53	10.43	10.49
10	10.07	e10.46	e10.97	10.69	e11.14	10.56	11.20	11.17	10.81	11.91	10.49	10.46
11	9.83	e10.62	10.97	10.63	11.35	10.46	11.23	11.36	10.79	11.47	10.29	10.51
12	11.12	10.88	10.85	10.61	10.93	---	11.13	11.19	10.89	11.45	10.72	10.03
13	11.06	10.57	10.67	10.56	10.01	---	11.12	11.30	11.39	11.34	10.80	10.39
14	11.12	10.46	10.59	10.67	10.17	e10.49	11.10	11.17	11.26	11.17	11.38	10.45
15	10.94	10.52	e10.74	11.27	10.38	e10.38	10.76	11.24	11.05	10.75	11.28	10.34
16	10.84	10.23	e10.82	11.17	10.26	e10.37	10.70	---	10.94	10.36	10.74	10.40
17	10.53	10.57	e10.78	10.61	10.75	e10.41	10.98	---	10.87	10.73	10.74	10.26
18	10.67	e10.84	10.77	e10.33	10.65	e10.39	10.79	10.40	10.48	10.82	10.39	10.22
19	10.64	10.70	10.72	10.47	10.61	e10.53	10.61	9.83	9.65	10.64	10.53	10.46
20	10.49	10.33	10.56	10.52	10.49	e10.69	11.03	10.25	10.51	10.34	e10.92	10.28
21	10.84	10.38	10.53	10.61	10.39	e10.57	11.04	10.71	11.31	11.11	10.78	e10.07
22	11.11	10.67	10.59	10.62	10.30	e10.60	10.82	10.54	10.65	12.08	10.71	10.05
23	10.59	e10.86	10.65	10.54	9.77	e10.57	10.95	e10.35	10.47	e11.62	10.57	9.90
24	10.33	10.92	10.66	10.39	10.87	e10.69	10.98	e10.17	11.59	11.40	10.20	10.23
25	10.77	10.94	10.58	10.24	10.35	e11.03	11.05	10.54	11.93	10.76	9.87	11.00
26	10.63	10.85	10.80	10.30	10.40	e11.16	11.09	10.44	12.30	10.60	10.24	11.31
27	10.26	10.57	e11.00	10.28	10.27	e11.10	11.30	10.26	11.65	10.94	10.74	10.80
28	10.65	10.73	e11.19	10.43	10.35	e11.12	11.31	10.54	11.07	10.90	11.28	10.85
29	10.81	10.66	11.26	e10.82	---	e11.09	11.22	11.26	11.01	10.90	11.26	11.34
30	10.47	10.73	11.16	e10.88	---	e11.06	11.33	11.39	11.07	10.60	11.33	11.00
31	10.35	---	11.34	10.69	---	e11.23	---	e10.66	---	10.43	11.60	---
TOTAL	330.74	313.74	334.89	329.20	296.39	---	331.57	---	331.36	344.84	332.52	315.54
MEAN	10.67	10.46	10.80	10.62	10.59	---	11.05	---	11.05	11.12	10.73	10.52
MAX	11.84	10.94	11.34	11.27	11.35	---	11.33	---	12.30	12.08	11.60	11.34
MIN	9.83	9.05	10.53	10.24	9.77	---	10.61	---	9.65	10.34	9.87	9.90

e Estimated



## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02286700 MIAMI CANAL AT S-8, NEAR LAKE HARBOR, FL

LOCATION.--Lat 26°19'53", long 80°46'29", in NE 1/4 sec.7, T.48 S., R.36 E., Broward County, Hydrologic Unit 03090202, 26 mi south of Lake Harbor, and 26.4 mi downstream from S-354 and pump station 3 at Lake Okeechobee.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--March 1962 to September 1968 (gage heights and discharge), October 1968 to December 1982, October 1990 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic doppler velocity meter. Prior to May 14, 2002, satellite data collection platform with water-stage shaft encoder and acoustic velocity meter. Acoustic doppler velocity meter installed November 16, 2001. The acoustic velocity meter and acoustic doppler meter were run in tandem for the period of November 16, 2001 to May 14, 2002. The acoustic velocity meter was installed October 2, 1990. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Records fair except for estimated discharges, which are poor. Flow regulated by pumpage and operation of gate at pump station 8, by operation of S-354 and pump station 3 at Lake Okeechobee, and operation of drainage and irrigation pumps upstream.

COOPERATION.--Discharge record furnished by South Florida Water Management District October 1968 to December 1982 for publication. Prior to October 1968, gage height, gate opening and pump records furnished by South Florida Water Management District, and records computed by U.S. Geological Survey.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTIC.--Figures represent 26 complete water years of discharge (1963-82, 1992, 1995-96, 1998, 2000, 2002).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 15.17 ft, Oct. 17, 1995; minimum (daily) gage height, 6.02 ft June 7, 1981.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 15.04 ft July 10; minimum, 8.14 ft May 19.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.51	13.04	11.43	12.00	10.87	11.48	10.84	10.24	8.76	13.79	11.98	e14.29
2	14.26	e13.21	11.49	e11.36	10.86	11.48	10.83	10.22	8.70	14.68	11.91	13.96
3	14.19	e13.27	11.33	11.20	10.83	11.41	10.80	10.19	8.72	14.52	11.87	13.60
4	14.16	e13.23	11.38	11.13	10.81	11.35	e10.77	10.16	8.80	e14.32	11.83	13.67
5	13.92	12.79	11.28	11.11	10.84	11.31	10.72	10.12	8.72	e14.19	12.23	14.01
6	13.81	13.00	11.25	11.10	10.84	11.29	10.68	10.10	8.68	e14.17	13.30	13.49
7	13.62	12.68	11.26	11.08	10.79	12.43	10.66	10.07	8.71	e14.17	13.70	13.35
8	13.73	12.66	11.40	11.04	10.72	11.89	10.64	e10.03	8.82	e14.36	13.33	13.02
9	13.41	12.34	11.43	11.05	10.71	11.48	10.61	10.00	8.93	e14.46	12.67	12.66
10	13.45	12.17	11.49	11.04	11.35	11.39	e10.58	9.96	8.91	e14.77	12.17	12.37
11	12.87	12.65	11.46	11.22	13.87	11.35	10.55	9.99	9.21	e14.65	12.20	13.21
12	12.73	e12.11	11.41	11.08	13.93	11.31	10.54	10.30	9.43	14.63	12.00	13.21
13	12.75	e12.64	11.30	11.00	12.58	11.27	10.51	10.61	10.60	14.62	12.36	12.74
14	12.75	e12.07	11.14	10.99	11.49	11.22	10.51	e10.55	11.76	14.31	13.44	12.37
15	12.74	12.01	11.27	11.45	11.37	11.16	10.55	e9.92	12.68	14.16	14.21	12.31
16	12.64	11.96	11.34	11.56	11.45	11.12	10.52	e9.09	13.63	13.85	13.63	e11.90
17	12.61	11.92	11.27	11.17	12.25	11.07	10.52	e8.39	13.88	e13.12	12.92	11.83
18	12.55	11.89	11.23	11.05	12.12	11.03	10.54	e8.23	13.44	12.77	e12.78	11.79
19	12.71	11.86	11.20	11.01	11.58	10.99	10.50	e8.20	12.29	12.69	12.24	11.75
20	12.53	11.61	11.14	11.03	11.54	10.97	10.48	e8.50	12.57	12.49	12.81	11.72
21	12.70	11.50	11.11	11.06	11.51	10.92	10.46	8.60	13.32	e12.11	12.89	11.69
22	13.36	11.45	11.10	11.06	12.60	10.89	10.44	8.63	13.85	13.68	12.80	11.66
23	13.81	11.51	11.09	11.04	12.53	10.84	10.41	8.50	13.54	14.51	12.77	11.63
24	12.93	11.53	11.07	11.00	11.65	10.82	10.38	8.49	14.20	e14.29	12.52	11.60
25	13.16	11.53	11.04	10.95	12.07	10.82	10.36	8.40	14.29	e14.11	12.10	12.42
26	13.64	11.48	11.20	10.92	11.61	10.84	10.34	8.32	14.39	e13.00	12.05	12.84
27	12.92	11.30	11.34	10.91	11.54	10.93	10.33	8.25	14.35	12.21	12.14	12.24
28	12.74	11.37	11.16	10.89	11.49	10.93	10.30	8.18	13.31	12.12	13.93	11.58
29	12.71	11.31	11.12	10.91	---	10.92	10.28	8.28	12.54	12.40	14.14	11.65
30	12.51	11.34	11.10	10.91	---	10.90	10.26	8.33	13.36	12.49	14.21	11.99
31	12.93	---	11.36	e10.89	---	10.88	---	e8.55	---	e12.50	14.46	---
TOTAL	409.35	363.43	349.19	344.21	325.80	346.69	315.91	287.40	344.39	424.14	397.59	376.55
MEAN	13.20	12.11	11.26	11.10	11.64	11.18	10.53	9.27	11.48	13.68	12.83	12.55
MAX	14.51	13.27	11.49	12.00	13.93	12.43	10.84	10.61	14.39	14.77	14.46	14.29
MIN	12.51	11.30	11.04	10.89	10.71	10.82	10.26	8.18	8.68	12.11	11.83	11.58

e Estimated



02286700 MIAMI CANAL AT S-8, NEAR LAKE HARBOR, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2580	685	e-17	e322	44	31	31	43	14	1580	e-22	e2250
2	2130	e992	e-18	e-3.0	39	13	e66	63	e-4.3	3010	e-10	1910
3	1990	e912	e-39	e-11	e-21	23	49	55	-0.01	2670	5.7	1450
4	1950	e848	e-29	e-12	e-20	13	e13	48	48	e2160	e-0.50	1540
5	1590	385	e-10	e-6.1	31	e-0.88	e-34	35	35	e1980	371	1930
6	1430	785	e-44	13	35	24	e-24	24	43	e2040	1440	1250
7	1140	381	e-11	e-2.4	28	620	8.2	45	45	e2050	1580	1090
8	1270	396	4.6	e-28	e-6.1	157	29	e35	38	e2360	1120	808
9	936	111	e-18	e-12	33	1.2	30	49	14	e2340	594	632
10	1000	e-28	47	e-7.2	324	e-14	e29	47	29	e2860	258	266
11	460	486	30	21	1710	21	26	73	8.9	e2600	278	1190
12	445	e5.1	24	6.7	1740	14	35	96	17	2790	131	871
13	496	e524	e-25	3.3	562	3.2	30	152	181	2720	441	512
14	524	e-6.1	e-32	26	e-0.47	21	12	e303	248	2130	1630	272
15	457	e-12	47	136	26	27	31	e400	884	1900	2250	251
16	373	e-17	34	74	5.7	4.9	29	e157	1570	1470	1520	e13
17	364	e-22	8.3	25	407	2.7	43	e46	1790	e627	898	e-34
18	320	e-0.15	e-18	e-2.6	304	12	35	e46	1210	450	e746	e-24
19	520	5.0	0.83	21	24	22	22	e46	319	472	267	e-38
20	315	e-89	e-5.6	e-4.4	2.6	51	19	e46	712	284	847	e-12
21	501	e-137	e-5.0	22	20	5.4	18	3.3	1480	e-1.0	856	-3.7
22	1180	e-95	24	14	701	23	19	-7.3	1750	e1850	780	e-15
23	1560	e-55	23	e-2.1	503	21	1.4	33	1370	2760	749	e-20
24	e557	e-31	11	e-13	e-19	39	39	44	2230	e2180	500	-0.91
25	e855	e-43	1.1	e-1.8	277	56	43	43	2360	e1900	225	665
26	1320	e-51	30	9.9	e-0.86	85	36	37	2460	e553	240	1040
27	523	e-58	34	5.2	0.43	27	34	52	2170	-7.5	332	494
28	438	e-41	31	8.4	e-6.3	e-8.7	52	36	1090	e-17	2010	34
29	470	e-39	32	28	---	30	47	13	418	302	2130	146
30	247	e-44	13	52	---	46	31	24	1290	392	2300	344
31	660	---	90	e30	---	36	---	e38	---	e361	2710	---
TOTAL	28601	5746.85	213.23	711.9	6743.00	1405.82	799.6	2125.0	23819.59	48765.5	27176.20	18810.39
MEAN	923	192	6.88	23.0	241	45.3	26.7	68.5	794	1573	877	627
MAX	2580	992	90	322	1740	620	66	400	2460	3010	2710	2250
MIN	247	-137	-44	-28	-21	-14	-34	-7.3	-4.3	-17	-22	-38
AC-FT	56730	11400	423	1410	13370	2790	1590	4210	47250	96730	53900	37310

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1962 - 2002, BY WATER YEAR (WY)

	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	
MEAN	449	190	143	180	284	213	261	247	467	513	572	651										
MAX	2116	1289	1551	1053	1830	1385	1395	767	2059	1854	1975	1950										
(WY)	2000	1999	1995	1979	1993	1966	1993	1996	1982	1982	1974	1992										
MIN	6.58	-33.2	-186	-54.5	-56.9	-40.5	0.000	0.065	0.000	0.097	-0.48	0.000										
(WY)	1982	2001	2000	2000	2000	2000	1968	1962	1962	1962	1966	1981										

SUMMARY STATISTICS

FOR 2002 WATER YEAR

WATER YEARS 1962 - 2002

ANNUAL TOTAL	164918.08		
ANNUAL MEAN	452	348	
HIGHEST ANNUAL MEAN		900	1995
LOWEST ANNUAL MEAN		41.6	1967
HIGHEST DAILY MEAN	3010	Jul 2	4240 Oct 22 1969
LOWEST DAILY MEAN	-137	Nov 21	-369 Aug 3 1991
ANNUAL SEVEN-DAY MINIMUM	-72	Nov 20	-300 Dec 8 1999
ANNUAL RUNOFF (AC-FT)	327100		252200
10 PERCENT EXCEEDS	1740		995
50 PERCENT EXCEEDS	43		75
90 PERCENT EXCEEDS	-14		0.00

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02287395 MIAMI CANAL EAST OF LEVEE 30, NEAR MIAMI, FL

LOCATION.--Lat 25°56'28", long 80°26'23", in NE 1/4 sec.9, T.52 S., R.39 E., Miami-Dade County, Hydrologic Unit 03090202, south of State Road 997 approximately 800 ft on south bank, 1000 ft downstream from control structure 32, 14.1 mi upstream from salinity-structure 26, 19.5 mi northwest of Miami, and 19.8 mi upstream from mouth.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1959 to current year. Published as "at broken dam, near Miami" November 1959 to September 1967, and October 1984 to November 1988.

REVISED RECORDS.--WDR FL-99-2A: 1998.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic doppler velocity meter. Datum of gage is National Geodetic Vertical Datum of 1929 (Dade County bench mark). Prior to January 20, 1968 and October 1984 to November 1988, at site 0.5 mi downstream at same datum.

REMARKS.--Records fair except for flows below 100 cfs, which are poor. Flow affected by regulation at downstream salinity-control structure S-26 and by upstream storage releases at control structures 31, 32, and 32A and S-337. Prior to August 23, 1999, water-stage recorder and electromagnetic velocity meter.

COOPERATION.--South Florida Water Management District.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 31 complete water years of discharge (1961-84, 87, 1992-94, 1999-2001).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 6.59 ft July 1, 1982; minimum, 1.40 ft May 31, 1962 (site at broken dam). See PERIOD OF RECORD.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 4.34 ft Oct. 22; minimum, 1.85 ft May 14.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.51	3.44	3.44	3.08	2.92	3.46	3.36	2.31	---	e2.57	3.23	e2.68
2	3.41	3.40	3.45	e3.06	2.93	3.46	3.39	2.30	2.68	e2.66	2.98	2.72
3	3.37	3.37	3.43	3.02	2.99	3.35	3.39	2.27	2.69	2.58	3.08	2.73
4	3.40	3.34	---	3.02	e2.98	3.37	3.33	2.24	2.64	2.52	2.89	e2.66
5	3.64	3.48	3.44	2.99	2.99	3.37	3.32	e2.23	2.60	2.53	e2.87	e2.76
6	3.41	3.39	3.47	3.00	3.00	3.23	3.33	2.18	2.59	2.50	e2.93	2.83
7	3.27	3.28	3.50	2.94	2.97	3.08	3.37	2.13	2.59	2.47	2.94	2.77
8	3.17	3.23	3.41	2.95	2.97	3.11	3.40	e2.09	2.69	2.65	3.04	2.80
9	3.15	3.13	e3.39	2.95	3.00	3.50	3.37	e2.06	2.73	2.72	3.08	2.72
10	3.16	3.06	e3.37	2.95	3.01	3.42	3.33	2.02	2.50	e2.77	3.04	2.71
11	3.30	3.03	3.33	2.96	2.88	3.42	2.98	2.01	2.16	2.81	2.99	2.78
12	3.40	e2.98	3.31	2.96	3.06	3.38	2.71	1.99	2.12	2.80	2.92	2.84
13	3.44	e2.93	3.05	2.95	3.01	3.51	2.69	1.94	2.16	2.72	2.88	2.69
14	3.45	2.86	2.91	2.97	3.06	3.48	2.71	1.91	---	2.63	2.84	2.68
15	3.44	2.80	e3.07	2.95	3.04	3.59	2.69	2.06	---	2.57	2.79	e2.61
16	3.54	2.73	3.10	2.93	2.98	3.57	2.67	---	2.57	2.54	2.61	e2.54
17	3.43	2.69	3.09	2.95	3.04	3.50	2.64	---	2.38	e2.50	2.46	2.49
18	---	2.70	3.06	2.94	3.02	3.53	2.62	e2.67	2.30	2.51	e2.44	2.46
19	---	2.63	e3.06	2.97	3.08	3.51	2.59	2.66	2.55	2.49	2.39	2.50
20	3.50	2.67	3.05	2.96	3.08	3.42	2.58	2.80	2.86	2.58	2.45	e2.53
21	3.56	2.80	3.00	2.97	3.03	3.43	2.58	2.72	2.90	2.82	e2.52	2.54
22	4.15	2.77	3.00	2.98	3.00	3.29	2.54	2.66	2.66	2.48	2.50	2.51
23	4.06	2.75	3.04	2.99	3.08	3.11	2.52	2.68	2.57	2.67	2.51	2.48
24	3.92	2.74	3.00	2.98	2.94	3.11	2.48	2.67	2.54	2.97	2.52	e2.44
25	3.86	2.70	3.01	2.95	3.05	3.20	2.47	2.75	2.52	3.00	2.70	2.44
26	3.76	3.02	e2.99	2.93	3.20	3.36	2.44	e2.68	2.77	3.02	2.91	2.39
27	3.64	3.42	e2.99	2.93	3.31	3.38	2.43	---	2.66	3.00	2.96	2.33
28	3.59	3.45	3.01	2.93	3.50	3.38	2.40	2.73	2.57	3.01	e2.95	2.32
29	3.55	3.45	2.99	2.97	---	3.37	2.35	---	2.47	2.98	2.70	2.34
30	3.51	3.45	3.00	e2.98	---	3.37	e2.32	---	2.45	3.11	2.68	2.36
31	3.47	---	3.05	2.96	---	3.39	---	---	---	e3.15	2.67	---
TOTAL	---	91.69	---	92.07	85.12	104.65	85.00	---	---	84.33	86.47	77.65
MEAN	---	3.06	---	2.97	3.04	3.38	2.83	---	---	2.72	2.79	2.59
MAX	---	3.48	---	3.08	3.50	3.59	3.40	---	---	3.15	3.23	2.84
MIN	---	2.63	---	2.93	2.88	3.08	2.32	---	---	2.47	2.39	2.32

e Estimated

02287395 MIAMI CANAL EAST OF LEVEE 30, NEAR MIAMI, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	100	e375	300	276	83	382	138	---	e167	238	e174
2	115	107	e523	e301	274	119	437	138	141	e176	246	174
3	114	104	e531	302	269	103	427	151	133	173	241	177
4	120	103	e539	298	e263	131	e446	152	138	176	252	e187
5	121	103	547	311	268	130	452	e147	135	175	e254	e188
6	122	101	542	308	274	78	459	150	128	174	e253	181
7	129	105	519	298	282	70	456	141	126	177	252	184
8	129	107	506	289	273	167	451	e144	126	173	258	183
9	133	102	e513	292	281	255	455	e140	134	175	266	180
10	134	100	e508	296	280	225	445	136	128	e175	268	177
11	123	e106	508	293	275	185	291	136	125	174	270	177
12	125	e104	507	291	274	199	161	130	125	178	275	181
13	121	e99	394	286	270	249	160	135	128	179	287	188
14	127	102	311	287	e234	418	156	134	---	183	282	188
15	123	e102	e307	282	225	373	158	134	---	185	273	e183
16	121	e102	319	281	280	344	160	---	141	186	223	e182
17	119	e102	320	284	227	388	160	---	136	e188	185	186
18	---	e102	318	277	220	378	163	e128	137	186	e182	184
19	---	e102	e309	279	227	366	163	123	e137	187	179	179
20	122	---	301	279	288	370	160	135	137	189	177	e175
21	120	267	295	278	299	378	150	137	137	184	e183	179
22	114	261	302	274	296	357	147	131	140	192	182	179
23	114	262	300	272	289	374	146	131	149	215	180	177
24	122	254	300	273	297	374	147	132	145	236	186	e181
25	122	257	287	273	306	326	141	131	146	231	178	180
26	121	423	e283	277	304	343	141	e134	147	242	168	179
27	107	488	e302	276	246	387	139	---	157	245	171	183
28	105	e495	317	277	120	381	138	131	165	245	e168	181
29	109	e502	306	275	---	366	141	---	174	247	179	187
30	106	e509	304	e276	---	372	e147	---	171	241	179	187
31	103	---	301	271	---	352	---	---	---	e237	176	---
TOTAL	---	---	11994	8856	7417	8641	7579	---	---	6091	6811	5441
MEAN	---	---	387	286	265	279	253	---	---	196	220	181
MAX	---	---	547	311	306	418	459	---	---	247	287	188
MIN	---	---	283	271	120	70	138	---	---	167	168	174
AC-FT	---	---	23790	17570	14710	17140	15030	---	---	12080	13510	10790

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1961 - 2002, BY WATER YEAR (WY)

MEAN	212	218	202	202	191	171	201	161	140	151	170	189
MAX	921	696	638	586	826	826	885	689	798	636	668	649
(WY)	1961	1961	1961	1961	1983	1983	1970	1970	1970	1982	1982	1966
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1981	1981	1981	1982	1982	1980	1980	1979	1979	1980	1980	1980

SUMMARY STATISTICS

WATER YEARS 1961 - 2002

ANNUAL MEAN	197
HIGHEST ANNUAL MEAN	476 1970
LOWEST ANNUAL MEAN	28.4 1997
HIGHEST DAILY MEAN	1090 Mar 20 1970
LOWEST DAILY MEAN	0.00 Apr 26 1979
ANNUAL SEVEN-DAY MINIMUM	0.00 Apr 26 1979
ANNUAL RUNOFF (AC-FT)	142700
10 PERCENT EXCEEDS	345
50 PERCENT EXCEEDS	190
90 PERCENT EXCEEDS	0.00

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

02287497 N.W. WELLFIELD CANAL NEAR DADE BROWARD LEVEE, NEAR PENNSUCO, FL

LOCATION.--Lat 25°53'28", long 80°26'13", in NE 1/4 sec.28, T.52 S., R.39 E., Miami-Dade County, Hydrologic Unit 03090202, (Pennsuco quadrangle), 0.7 mi north of Pennsuco Canal, 0.9 mi east of Dade Broward Levee, 2.5 mi southwest of the Miami Canal, 3 mi east of Levee 30 Canal, and 3.5 mi west of Pennsuco.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--February 1991 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic velocity meter. Datum of gage is National Geodetic Vertical Datum of 1929 (DERM bench mark).

REMARKS.--Records fair except for estimated discharges, which are poor. Flow is the sum of regulation from vertical control structure DERM No. 1 and from levee seepage. Flow is positive to the east.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 6 water years of complete discharge (1992, 1996-2000).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 7.07 ft Oct. 15-17, 1999; minimum, 1.39 ft May 28, 1992.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 6.39 ft Oct. 22; minimum, 2.57 ft May 14.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.80	5.87	4.83	4.35	3.83	3.91	3.63	3.08	3.89	e4.99	4.95	e4.82
2	5.77	5.83	4.80	e4.31	3.84	3.90	3.82	3.04	3.79	e5.13	4.92	e4.87
3	e5.75	5.80	4.75	4.30	4.00	3.88	4.01	3.01	3.71	e5.15	4.89	4.88
4	5.73	5.76	4.70	4.25	3.93	3.85	3.88	2.98	3.65	5.12	4.87	4.88
5	5.78	5.82	4.66	4.22	3.88	3.81	3.79	e2.96	3.60	5.15	e4.81	4.90
6	5.76	5.81	4.66	4.21	3.86	3.81	3.73	2.92	3.59	5.16	e4.77	4.91
7	5.73	5.76	4.75	4.18	3.84	3.86	3.70	2.87	3.75	5.15	4.77	e4.90
8	5.70	5.72	4.75	4.13	3.82	3.98	3.67	e2.82	3.86	5.16	4.79	e4.93
9	5.69	5.69	4.71	4.09	3.83	e3.94	3.65	e2.79	3.82	5.31	4.77	4.93
10	5.69	5.66	4.67	4.07	4.02	e3.91	3.63	2.76	3.73	5.40	4.74	4.96
11	5.66	5.62	4.63	4.05	3.99	3.88	3.61	2.71	3.70	5.45	4.72	e5.04
12	5.64	5.59	4.59	4.04	3.94	e3.85	3.59	2.68	3.73	5.48	4.70	5.11
13	5.62	5.55	4.55	4.02	e3.90	e3.82	3.56	2.63	3.85	5.48	4.65	e5.09
14	5.61	5.52	4.52	4.00	3.89	3.79	3.56	2.59	4.16	5.44	4.61	e5.07
15	5.62	5.50	4.50	3.99	3.89	3.78	3.54	2.76	4.41	5.41	4.57	e5.13
16	5.67	5.47	4.50	3.98	3.88	3.78	3.52	e3.56	4.51	5.40	4.57	e5.09
17	5.64	5.43	4.48	3.97	3.86	3.78	3.50	e3.57	4.38	e5.38	4.54	e5.05
18	5.64	5.41	e4.47	3.96	3.83	3.77	3.48	3.37	4.30	5.37	e4.50	5.02
19	5.77	e5.37	4.45	3.95	3.81	3.76	3.45	3.51	4.35	5.37	4.44	5.01
20	5.82	5.34	4.43	3.95	3.79	3.74	3.41	4.03	4.38	5.33	4.42	5.02
21	5.92	5.30	4.40	3.94	3.78	3.72	3.38	3.92	4.65	5.30	4.49	5.01
22	6.31	5.27	4.36	3.93	3.79	3.71	3.35	3.82	4.66	5.28	4.45	4.97
23	6.33	e5.22	4.33	3.92	4.10	3.69	3.32	3.71	4.67	5.25	4.42	4.96
24	6.28	5.17	4.29	3.91	4.09	3.67	3.29	3.63	4.63	5.25	4.42	4.98
25	6.26	5.13	4.26	3.89	4.02	3.65	3.26	3.57	4.66	5.26	4.39	4.97
26	6.23	e5.08	4.25	3.88	3.98	3.66	3.23	3.52	e4.85	5.22	4.38	e4.94
27	6.17	5.03	4.21	3.88	3.95	3.74	3.20	3.47	e4.93	5.17	4.44	4.92
28	6.10	4.98	4.20	3.87	3.92	3.71	3.17	3.61	e4.89	5.13	e4.64	4.93
29	6.04	e4.93	4.18	3.86	---	3.69	3.14	3.70	e4.84	5.08	e4.83	4.93
30	5.99	4.88	4.17	3.85	---	3.66	3.11	3.65	e4.81	5.04	e4.82	4.91
31	5.93	---	4.23	3.84	---	3.64	---	3.67	---	4.99	4.81	---
TOTAL	181.65	163.51	139.28	124.79	109.26	117.34	105.18	100.91	126.75	162.80	144.09	149.13
MEAN	5.86	5.45	4.49	4.03	3.90	3.79	3.51	3.26	4.22	5.25	4.65	4.97
MAX	6.33	5.87	4.83	4.35	4.10	3.98	4.01	4.03	4.93	5.48	4.95	5.13
MIN	5.61	4.88	4.17	3.84	3.78	3.64	3.11	2.59	3.59	4.99	4.38	4.82

e Estimated

02287497 N.W. WELLFIELD CANAL NEAR DADE BROWARD LEVEE, NEAR PENNSUCO, FL  
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e116	e91	e109	e114	92	99	98	79	103	e158	123	e158
2	110	e94	e106	e113	94	100	120	77	94	e161	114	e154
3	e108	e97	e105	e114	108	100	129	76	89	e153	107	154
4	e111	e99	e97	e115	99	101	118	75	85	e146	106	158
5	e106	e99	e92	e113	95	104	111	e75	---	e150	e104	159
6	e102	e105	e94	e108	93	103	108	74	---	154	e104	157
7	e106	e104	e95	e112	92	107	106	73	100	154	105	e154
8	e106	e122	e90	e109	91	106	106	e71	109	154	105	e155
9	e114	e119	e95	e108	90	e104	105	e71	101	e147	106	154
10	e115	e123	e96	e100	90	e106	102	70	92	e139	110	157
11	e118	e134	e95	101	91	106	101	69	96	133	110	e162
12	e117	e125	e93	98	90	e105	101	68	97	134	112	163
13	e119	e131	e93	97	e87	e101	99	68	115	134	115	e163
14	e120	e138	e92	97	89	100	98	70	135	137	114	e163
15	e118	e140	e93	98	89	98	98	84	138	138	113	e164
16	e125	e148	e98	96	90	98	98	e103	128	137	121	e164
17	e127	e154	e101	95	90	97	97	e93	122	e137	120	e160
18	e126	e154	e101	94	91	97	96	79	114	136	e117	e156
19	e104	e152	e104	93	90	98	95	96	117	136	115	e156
20	e100	e159	e106	93	90	99	92	113	119	140	114	159
21	e89	e152	e107	94	91	99	91	91	---	141	117	e157
22	e38	e153	e103	94	91	98	90	82	---	144	117	155
23	e45	e153	e99	93	101	100	89	79	---	145	115	155
24	e54	e145	e99	91	100	99	88	77	---	143	114	e154
25	e49	e141	e101	91	100	100	86	75	---	140	116	e152
26	e58	e138	e101	89	100	103	85	74	---	139	118	e148
27	e71	e128	e104	91	99	108	84	73	e145	138	133	e145
28	e74	e120	e104	91	101	106	83	84	---	136	e151	e142
29	e93	e116	e100	92	---	102	82	87	---	134	e161	e139
30	e91	e111	e104	92	---	100	80	84	---	131	e160	e132
31	e91	---	e111	91	---	99	---	89	---	127	161	---
TOTAL	3021	3845	3088	3077	2624	3143	2936	2479	---	4396	3698	4649
MEAN	97.5	128	99.6	99.3	93.7	101	97.9	80.0	---	142	119	155
MAX	127	159	111	115	108	108	129	113	---	161	161	164
MIN	38	91	90	89	87	97	80	68	---	127	104	132
AC-FT	5990	7630	6130	6100	5200	6230	5820	4920	---	8720	7330	9220

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2002, BY WATER YEAR (WY)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	170	180	172	169	168	163	167	152	158	161	181	180
MAX	219	228	225	231	225	217	268	248	235	219	229	210
(WY)	1998	1996	1999	1999	1998	1995	1994	1994	1994	1997	1994	1995
MIN	97.5	128	99.6	99.3	93.7	87.7	74.1	60.1	94.0	121	118	132
(WY)	2002	2002	2002	2002	2002	1992	1992	1992	1991	1993	1993	1993

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

WATER YEARS 1991 - 2002

ANNUAL TOTAL	42181		
ANNUAL MEAN	116	182	
HIGHEST ANNUAL MEAN		208	1996
LOWEST ANNUAL MEAN		129	1992
HIGHEST DAILY MEAN	171	Aug 8	360
LOWEST DAILY MEAN	38	Oct 22	38
ANNUAL SEVEN-DAY MINIMUM	56	Oct 22	42
ANNUAL RUNOFF (AC-FT)	83670		131600
10 PERCENT EXCEEDS	153		223
50 PERCENT EXCEEDS	112		192
90 PERCENT EXCEEDS	82		126

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02288600 MIAMI CANAL AT N.W. 36TH STREET, MIAMI, FL

LOCATION.--Lat 25°48'29", long 80°15'49", in NE 1/4 sec.29, T.53 S., R.41 E., Miami-Dade County, Hydrologic Unit 03090202, on right bank at downstream end of N.W. 36th Street bridge fender at Miami, 200 ft upstream from salinity-control structure S-26.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--February 1959 to current year.

REVISED RECORDS.--WDR FL-98-2A: 1997

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic doppler velocity meter. Prior to June 12, 2002, electronic data logger with water-stage shaft encoder and acoustic velocity meter with phone/radio telemetry provided by South Florida Water Management District. Datum of gage is National Geodetic Vertical Datum of 1929 (Dade County bench mark).

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow affected by tide and is occasionally reversed. Some seepage losses above station into Miami-Dade Water and Sewer Authority well field for groundwater withdrawals. Natural flow materially affected by levee and control structures 31, 32 and 32A about 14 mi upstream, and structure 26 downstream. Acoustic velocity meter began on October 1, 1996, and was removed on June 12, 2002. Acoustic doppler velocity meter began on June 12, 2002. Discharge computed from continuous velocity record obtained from acoustic velocity meter.

COOPERATION.--South Florida Water Management District.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 28 complete water years of discharge (1960-85, 1987-88).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 5.28 ft (estimated) Oct. 15, 1999; minimum, -0.55 ft Apr. 26, 1970.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 3.44 ft Oct. 16, 17; minimum, 0.79 ft Aug. 25.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.17	2.15	1.75	2.56	2.56	---	2.55	2.33	2.63	1.55	2.83	e1.81
2	2.12	2.15	1.69	2.51	2.62	---	2.55	2.30	2.73	1.56	2.15	1.95
3	2.37	2.04	1.70	2.52	2.68	2.13	2.53	2.27	2.76	1.55	2.34	2.02
4	2.66	2.01	1.67	2.55	2.69	2.42	2.51	2.25	2.69	1.56	1.64	1.98
5	2.33	2.31	1.80	2.48	2.68	2.45	2.55	2.23	2.63	1.56	2.12	1.96
6	1.92	1.94	e1.90	2.55	2.66	2.52	2.54	2.19	2.65	1.58	2.04	1.99
7	1.79	1.83	e1.93	2.54	2.66	2.49	2.57	2.15	2.66	1.58	2.08	2.01
8	1.80	1.90	1.78	2.57	2.71	2.06	2.63	2.11	2.71	1.67	2.05	1.96
9	1.82	1.85	1.74	2.54	2.69	2.40	2.62	2.08	2.77	1.64	2.21	1.89
10	2.01	1.80	1.77	2.54	2.41	2.27	2.63	2.04	2.20	1.66	2.18	1.88
11	2.85	1.84	1.76	2.56	2.49	2.30	2.60	2.01	1.70	1.67	2.01	1.84
12	2.98	1.82	1.75	2.55	2.76	2.21	2.64	1.99	e1.70	1.66	1.89	1.83
13	3.10	1.86	1.77	2.56	2.74	2.76	2.65	1.96	1.72	1.67	1.81	1.66
14	3.10	1.83	2.15	2.59	2.76	2.54	2.68	1.98	1.70	1.64	1.79	1.64
15	3.11	1.88	2.55	2.59	2.67	2.91	2.67	2.14	1.68	1.61	1.74	1.60
16	3.22	1.84	2.54	2.57	2.69	2.86	2.64	2.57	1.67	1.57	1.68	e1.61
17	2.63	1.84	2.53	2.55	2.72	2.42	2.62	2.72	1.64	e1.54	1.66	1.68
18	---	1.84	2.54	2.60	2.74	2.85	2.60	2.75	1.68	1.60	e1.61	1.71
19	e2.24	1.75	2.54	2.60	2.79	2.48	2.58	2.60	2.31	1.60	1.71	1.78
20	e2.15	1.70	2.54	2.57	2.75	2.44	2.58	2.55	2.73	2.04	1.74	1.82
21	2.09	1.67	2.49	2.64	2.68	2.55	2.58	2.60	2.09	2.44	1.67	1.83
22	2.49	1.63	2.52	2.62	2.65	1.99	2.55	2.58	1.81	1.61	1.70	1.82
23	2.20	1.57	2.57	2.62	2.09	1.53	2.54	2.68	1.77	2.19	1.69	1.76
24	2.07	1.58	2.57	2.59	2.27	1.58	2.50	2.70	1.75	2.56	1.67	1.70
25	1.98	1.58	2.58	2.60	2.74	2.15	2.46	2.80	1.72	2.55	2.39	1.70
26	1.83	1.60	2.54	2.57	2.95	2.55	2.44	2.73	1.78	2.57	2.76	1.69
27	1.81	1.61	2.55	2.53	2.81	2.60	2.41	2.78	1.62	2.55	2.78	1.65
28	1.92	1.66	2.58	2.54	2.79	2.60	2.39	2.70	1.55	2.56	2.34	1.64
29	2.09	1.74	2.54	2.64	---	2.57	2.39	2.66	1.53	2.57	1.65	1.61
30	2.12	1.83	2.55	2.66	---	2.54	2.36	2.69	1.49	2.84	1.71	1.72
31	2.11	---	2.57	2.59	---	2.58	---	2.67	---	e2.88	1.75	---
TOTAL	---	54.65	68.46	79.70	74.45	---	76.56	74.81	62.07	59.83	61.39	53.74
MEAN	---	1.82	2.21	2.57	2.66	---	2.55	2.41	2.07	1.93	1.98	1.79
MAX	---	2.31	2.58	2.66	2.95	---	2.68	2.80	2.77	2.88	2.83	2.02
MIN	---	1.57	1.67	2.48	2.09	---	2.36	1.96	1.49	1.54	1.61	1.60

e Estimated

02288600 MIAMI CANAL AT N.W. 36TH STREET, MIAMI, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	740	494	613	313	202	---	332	17	144	706	233	---
2	687	481	663	305	156	---	314	16	48	759	440	---
3	549	505	639	282	172	425	303	23	8.0	717	397	---
4	464	500	621	237	160	296	254	19	12	650	649	410
5	884	511	577	304	152	281	230	17	13	648	336	455
6	800	584	e645	277	154	261	223	17	7.9	613	466	462
7	738	544	e678	223	170	285	230	15	3.9	613	441	439
8	661	491	704	185	103	388	168	15	32	e620	499	488
9	646	471	674	237	170	397	173	15	13	e511	437	482
10	539	454	648	260	408	355	148	17	255	e632	428	484
11	163	424	637	244	128	329	117	16	403	e740	486	524
12	226	413	627	266	157	388	16	15	---	836	488	549
13	165	383	594	223	129	149	19	20	393	763	435	568
14	171	380	364	170	128	238	17	7.5	439	716	389	565
15	168	e357	253	207	174	118	19	8.2	640	679	382	564
16	126	e407	260	203	89	165	21	401	670	679	351	e537
17	337	e341	272	246	106	384	16	76	574	e659	341	497
18	---	e326	255	210	58	132	15	9.7	517	650	e268	e302
19	e668	399	271	224	19	352	14	199	229	631	272	430
20	e675	431	301	245	65	286	11	395	177	384	341	427
21	708	478	319	137	147	243	5.8	322	728	359	409	421
22	1060	483	301	177	149	488	8.7	264	674	586	358	412
23	973	495	284	166	594	604	6.0	143	639	306	375	435
24	907	482	254	203	304	576	2.2	73	609	306	377	449
25	902	486	253	224	69	328	18	23	597	337	111	429
26	858	528	287	234	59	279	15	54	835	326	70	420
27	761	643	243	248	192	270	20	16	787	316	70	399
28	677	652	239	228	252	273	15	168	731	302	---	283
29	599	633	287	153	---	283	9.9	93	670	287	---	319
30	558	582	291	134	---	296	8.5	95	664	152	---	349
31	545	---	301	187	---	272	---	113	---	154	---	---
TOTAL	---	14358	13355	6952	4666	---	2749.1	2682.4	---	16637	---	---
MEAN	---	479	431	224	167	---	91.6	86.5	---	537	---	---
MAX	---	652	704	313	594	---	332	401	---	836	---	---
MIN	---	326	239	134	19	---	2.2	7.5	---	152	---	---
AC-FT	---	28480	26490	13790	9260	---	5450	5320	---	33000	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2002, BY WATER YEAR (WY)

MEAN	373	282	204	188	184	147	120	126	251	259	286	362
MAX	1272	1071	1041	939	791	729	662	682	813	791	848	1146
(WY)	1961	1961	1960	1961	1961	1960	1960	1960	1968	1959	1960	1960
MIN	34.5	6.94	0.000	0.000	0.000	-1.61	0.000	-5.53	0.33	4.08	2.32	76.6
(WY)	1981	1989	1982	1981	1982	1962	1974	1993	1980	1981	1987	1987

SUMMARY STATISTICS

WATER YEARS 1959 - 2002

ANNUAL MEAN	251
HIGHEST ANNUAL MEAN	843
LOWEST ANNUAL MEAN	31.2
HIGHEST DAILY MEAN	1730
LOWEST DAILY MEAN	-279
ANNUAL SEVEN-DAY MINIMUM	-69
ANNUAL RUNOFF (AC-FT)	182000
10 PERCENT EXCEEDS	610
50 PERCENT EXCEEDS	202
90 PERCENT EXCEEDS	0.00

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

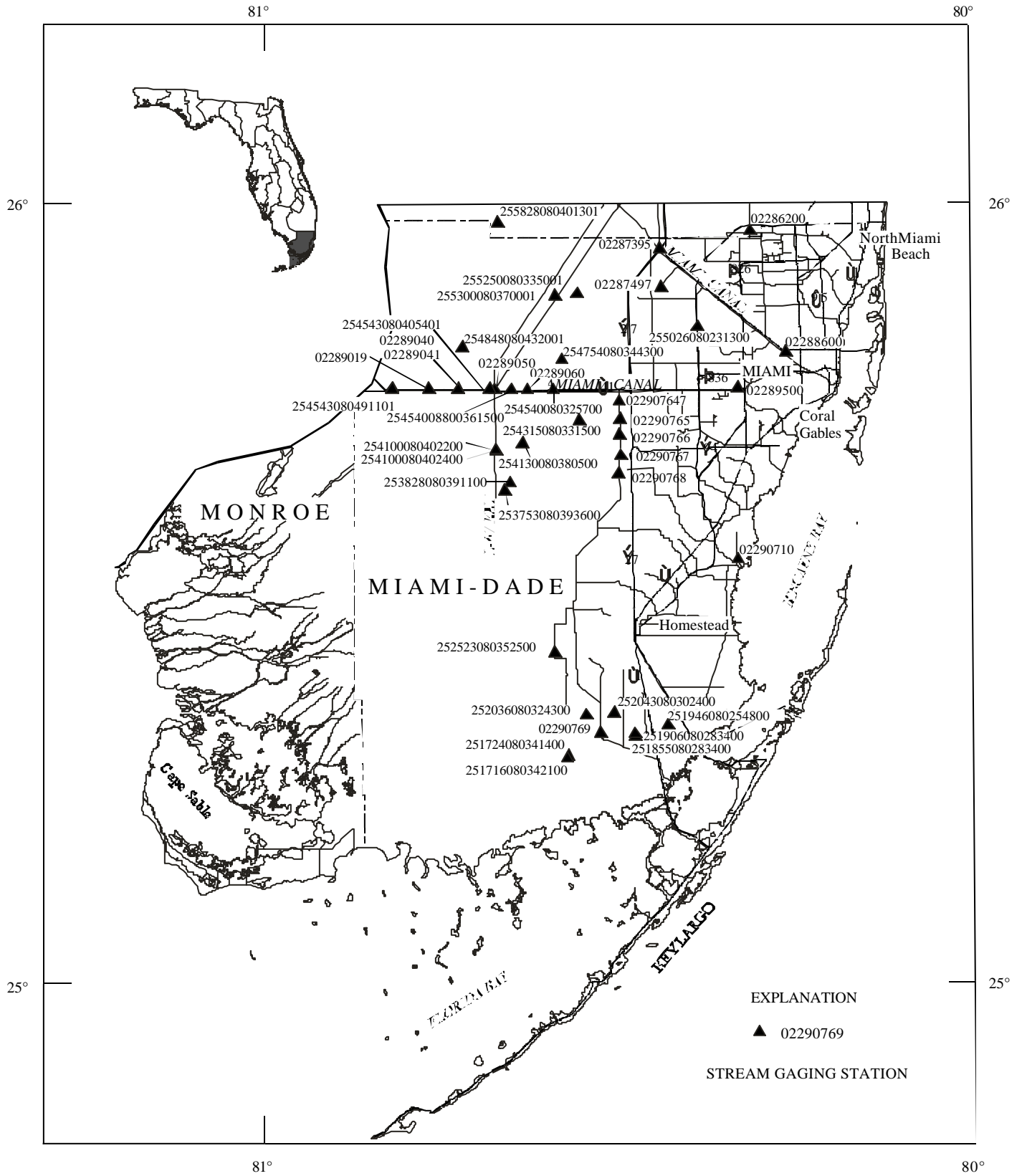
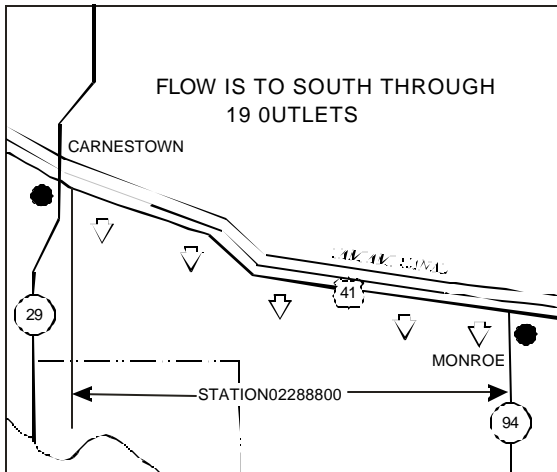
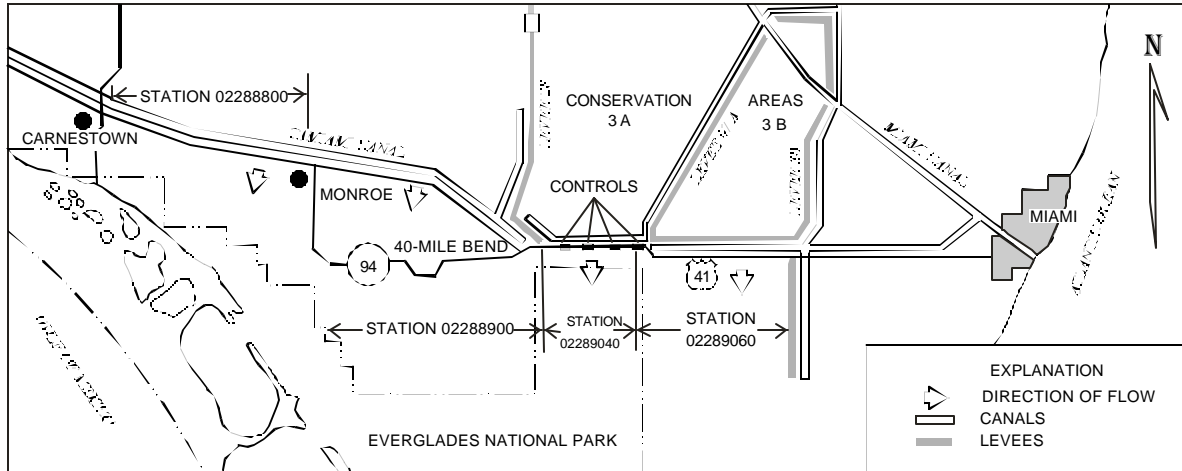


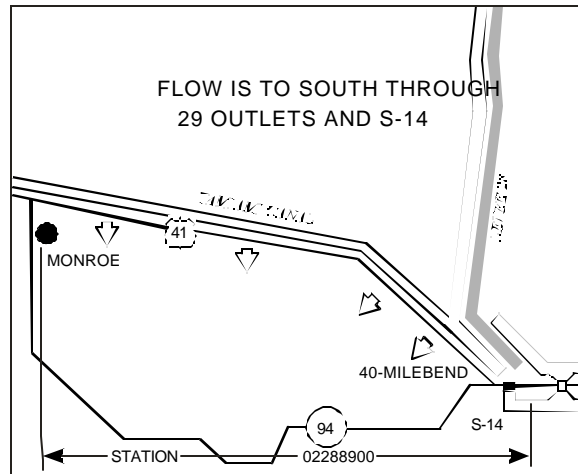
Figure 7: Location of gaging stations in the portion of the Everglades and the southeastern coastal south of latitude 26 degrees; Florida Bay, and the Florida Keys.



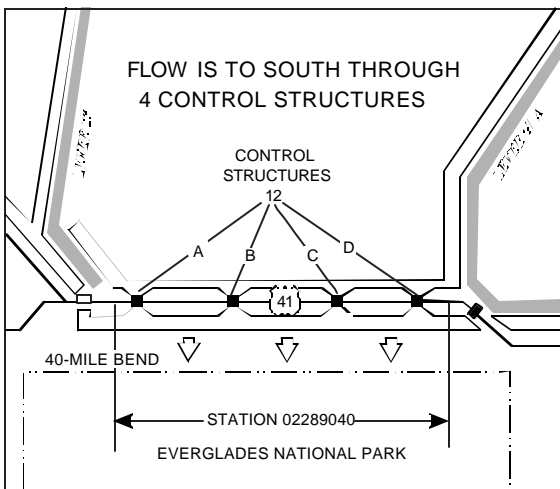
TAMIAMI CANAL OUTLETS



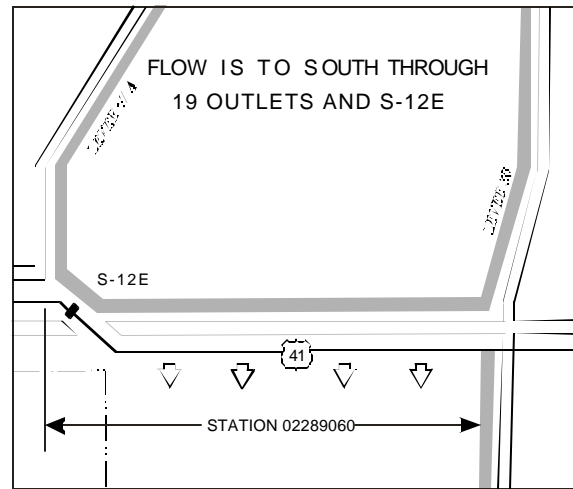
STATION 02288800 MONROE TO CARNESTOWN



STATION 02288900 40-MILE BEND TO MONROE



STATION 02289040 LEVEE 67A TO 40-MILE BEND



STATION 02289060 LEVEE 30 TO LEVEE 67A

Figure 8. Tamiami Canal Outlets.

## BIG CYPRESS SWAMP AND SOUTHWESTERN COASTAL AREA

02288800 TAMiami CANAL OUTLETS, MONROE TO CARNESTOWN, FL

LOCATION.--Lat 25°53'10", long 81°15'30", in NW 1/4 sec.6, T.53 S., R.31 E., Collier County, Hydrologic Unit 03090204, on downstream side of bridge 84 on U.S. Highway 41, 7 mi east of Carnestown, and 10 mi west of Monroe.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--August 1960 to current year.

REVISED RECORDS.--WDR FL-98-2A: 1997.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to May 2, 1963, at site 2 mi east at datum 0.93 ft lower. May 2, 1963, to February 10, 1965, at site on west bank of unnamed lateral 30 ft downstream.

REMARKS.--No estimated daily discharges. Records poor. Figures of discharge consist of runoff from Big Cypress Watershed as represented by flow through all the outlets of the Tamiami Canal from Monroe, 55 mi west of Miami, to a point 1 mi east of the intersection with State Highway 29 at Carnestown (Bridge numbers 95-77). Flow at western-most outlets affected by tide. Flow measurements under tidal influence are computed as zero flow. Zero flow occurs for numerous days, during most of the water years. Peak flow above base are not determined.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 41 complete water years of discharge (1960-94, 1996-2002).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 5.90 ft present datum Sept. 14, 1960; minimum, -0.52 ft, June 5-8, 2001.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 5.40 ft June 28; minimum, -0.38 ft May 16.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.31	4.64	3.74	3.72	3.30	2.97	1.96	0.56	0.24	5.28	4.53	4.45
2	5.36	4.61	3.71	3.76	3.28	2.94	1.88	0.48	0.16	5.19	4.48	4.47
3	5.36	4.60	3.68	3.82	3.26	2.90	1.79	0.39	0.10	5.09	4.43	4.50
4	5.33	4.60	3.65	3.82	3.24	2.86	1.70	0.32	0.12	4.99	4.43	4.47
5	5.28	4.63	3.62	3.81	3.20	2.82	1.59	0.24	0.47	4.90	4.57	4.48
6	5.22	4.62	3.59	3.80	3.17	2.80	1.50	0.17	0.63	4.87	4.53	4.56
7	5.16	4.58	3.60	3.81	3.14	2.80	1.41	0.11	0.65	4.82	4.53	4.69
8	5.12	4.54	3.64	3.79	3.12	2.84	1.33	0.05	0.95	4.74	4.71	4.81
9	5.04	4.50	3.66	3.77	3.11	2.81	1.27	-0.02	2.81	4.72	4.60	4.88
10	4.97	4.46	3.70	3.74	3.24	2.75	1.18	-0.07	3.14	4.76	4.49	5.01
11	4.91	4.43	3.72	3.72	3.27	2.69	1.12	-0.12	3.16	4.86	4.51	5.14
12	4.84	4.40	3.75	3.70	3.26	2.64	1.08	-0.18	3.18	4.93	4.60	5.27
13	4.78	4.36	3.77	3.68	3.24	2.58	1.04	-0.23	3.17	4.98	4.53	5.17
14	4.73	4.33	3.79	3.67	3.23	2.53	1.10	-0.28	3.46	4.97	4.46	5.08
15	4.69	4.30	3.80	3.68	3.22	2.48	1.51	-0.33	4.04	4.94	4.39	5.01
16	4.69	4.27	3.78	3.67	3.20	2.43	1.58	-0.29	4.38	4.90	4.32	4.94
17	4.74	4.23	3.76	3.66	3.18	2.37	1.61	0.04	4.37	4.83	4.27	4.87
18	4.68	4.20	3.73	3.63	3.14	2.29	1.65	0.19	4.35	4.74	4.26	4.81
19	4.64	4.17	3.70	3.61	3.10	2.23	1.59	0.28	4.33	4.65	4.26	4.72
20	4.61	4.13	3.67	3.59	3.06	2.15	1.50	0.91	4.39	4.56	4.28	4.65
21	4.68	4.10	3.62	3.57	3.03	2.07	1.39	1.05	4.63	4.54	4.34	4.59
22	4.81	4.06	3.59	3.55	3.00	2.00	1.30	1.02	4.71	4.75	4.38	4.54
23	4.83	4.02	3.56	3.53	3.08	1.93	1.20	0.95	4.81	4.83	4.42	4.54
24	4.82	3.99	3.53	3.49	3.15	1.86	1.11	0.86	4.95	4.85	4.43	4.75
25	4.81	3.95	3.51	3.47	3.12	1.93	1.02	0.77	5.24	4.83	4.43	4.75
26	4.81	3.92	3.63	3.44	3.08	2.50	0.94	0.68	5.28	4.81	4.43	4.73
27	4.79	3.88	3.65	3.41	3.03	2.42	0.87	0.59	5.35	4.77	4.39	4.72
28	4.75	3.84	3.63	3.39	2.99	2.31	0.80	0.53	5.39	4.69	4.38	4.72
29	4.72	3.80	3.61	3.37	---	2.21	0.72	0.46	5.40	4.61	4.46	4.73
30	4.69	3.77	3.60	3.34	---	2.12	0.64	0.38	5.36	4.56	4.51	4.73
31	4.66	---	3.62	3.32	---	2.05	---	0.31	---	4.56	4.49	---
TOTAL	151.83	127.93	113.61	112.33	88.44	76.28	39.38	9.82	99.22	149.52	137.84	142.78
MEAN	4.90	4.26	3.66	3.62	3.16	2.46	1.31	0.32	3.31	4.82	4.45	4.76
MAX	5.36	4.64	3.80	3.82	3.30	2.97	1.96	1.05	5.40	5.28	4.71	5.27
MIN	4.61	3.77	3.51	3.32	2.99	1.86	0.64	-0.33	0.10	4.54	4.26	4.45

## 02288800 TAMiami CANAL OUTLETS, MONROE TO CARNESTOWN, FL--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3040	2190	149	47	19	0.03	0.00	0.00	0.00	3330	1350	1090
2	3180	2000	138	52	19	0.00	0.00	0.00	0.00	2920	1240	1120
3	3190	1860	128	61	18	0.00	0.00	0.00	0.00	2480	1130	1160
4	3070	1770	114	68	17	0.00	0.00	0.00	0.00	2100	1120	1120
5	2870	1750	100	70	15	0.00	0.00	0.00	0.00	1820	1400	1140
6	2650	1630	90	76	14	0.00	0.00	0.00	0.00	1720	1310	1280
7	2430	1460	89	84	13	0.00	0.00	0.00	0.00	1570	1320	1540
8	2300	1300	93	87	12	0.00	0.00	0.00	0.36	1370	1680	1810
9	2080	1150	95	87	12	0.00	0.00	0.00	50	1320	1420	2000
10	1860	1030	103	89	22	0.00	0.00	0.00	115	1430	1180	2380
11	1710	923	102	90	25	0.00	0.00	0.00	120	1690	1230	2820
12	1560	824	106	92	25	0.00	0.00	0.00	127	1900	1370	3340
13	1410	736	108	95	24	0.00	0.00	0.00	125	2070	1240	2980
14	1310	652	110	100	24	0.00	0.00	0.00	260	2060	1110	2670
15	1210	580	106	109	24	0.00	0.00	0.00	949	1950	990	2450
16	1230	541	96	109	23	0.00	0.00	0.00	1530	1810	880	2240
17	1380	499	86	104	20	0.00	0.00	0.00	1500	1650	803	2060
18	1320	461	77	94	14	0.00	0.00	0.00	1400	1420	785	1820
19	1310	429	68	87	8.9	0.00	0.00	0.00	1270	1250	785	1570
20	1310	400	58	80	6.1	0.00	0.00	0.00	1310	1070	812	1370
21	1540	370	49	73	4.2	0.00	0.00	0.00	1660	1060	914	1210
22	1970	342	42	66	2.9	0.00	0.00	0.00	1770	1590	984	1070
23	2120	313	36	59	6.2	0.00	0.00	0.00	1930	1840	1040	1050
24	2190	283	32	50	9.8	0.00	0.00	0.00	2290	1950	1050	1410
25	2250	261	28	44	6.2	0.00	0.00	0.00	3200	1910	1060	1380
26	2340	239	42	39	3.7	0.00	0.00	0.00	3340	1890	1060	1300
27	2390	218	44	34	1.9	0.00	0.00	0.00	3580	1790	998	1230
28	2360	198	40	31	0.63	0.00	0.00	0.00	3730	1620	969	1180
29	2360	180	36	27	---	0.00	0.00	0.00	3760	1450	1100	1170
30	2360	164	33	24	---	0.00	0.00	0.00	3610	1370	1190	1140
31	2350	---	34	22	---	0.00	---	0.00	---	1400	1140	---
TOTAL	64650	24753	2432	2150	390.53	0.03	0.00	0.00	37626.36	54800	34660	50100
MEAN	2085	825	78.5	69.4	13.9	0.001	0.000	0.000	1254	1768	1118	1670
MAX	3190	2190	149	109	25	0.03	0.00	0.00	3760	3330	1680	3340
MIN	1210	164	28	22	0.63	0.00	0.00	0.00	0.00	1060	785	1050
AC-FT	128200	49100	4820	4260	775	0.06	0.00	0.00	74630	108700	68750	99370

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2002, BY WATER YEAR (WY)

MEAN	873	344	160	136	107	107	41.7	42.3	445	765	869	1219
MAX	2623	1877	1627	1312	840	1499	397	347	2658	2830	1948	3165
(WY)	2000	1995	1995	1995	1983	1970	1970	1996	1969	1966	1981	1960
MIN	68.7	12.8	0.029	0.011	0.000	0.000	0.000	0.000	6.58	40.0	38.0	341
(WY)	1962	1991	1991	2001	1982	1975	1961	1962	2001	1980	1963	1967

## SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1960 - 2002

ANNUAL TOTAL	217206.84	271561.92	
ANNUAL MEAN	595	744	410
HIGHEST ANNUAL MEAN			790
LOWEST ANNUAL MEAN			187
HIGHEST DAILY MEAN	3780	Sep 15	3760
LOWEST DAILY MEAN	0.00	Jan 3	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 3	0.00
ANNUAL RUNOFF (AC-FT)	430800	538600	296700
10 PERCENT EXCEEDS	2070	2090	1240
50 PERCENT EXCEEDS	24	106	99
90 PERCENT EXCEEDS	0.00	0.00	0.00

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## BIG CYPRESS SWAMP AND SOUTHWESTERN COASTAL AREA

02288900 TAMAMIAMI CANAL OUTLETS, 40-MILE BEND TO MONROE, FL

LOCATION.--Lat 25°51'05", long 80°58'50", in SW 1/4 sec.13, T.53 S., R.33 E., Collier County, Hydrologic Unit 03090202, on south bank, 25 ft east of bridge 105 on U.S. Highway 41, and 54 mi west of Miami, Dade County.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1939 to September 1963 (monthly discharge only), October 1963 to current year. Prior to October 1963, published as Tamiami Canal at bridge 105, near Miami (auxiliary). Records of gage height prior to October 1963, are available in files of the U.S. Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to February 20, 1952, non-recording gage and February 20, 1952, to May 28, 1952, water-stage recorder, at same site at datum 0.37 ft higher.

REMARKS.--No estimated daily discharges. Records poor. Figures of daily discharge consist of runoff from Big Cypress Watershed and from the southern extension of the Levee 28 canal as represented by flow through all 29 bridges from bridge 28 to 22 and bridge 117 to 96. Prior to October 1963, daily discharge for this portion of canal was published as part of the total daily discharge of station, Tamiami Canal Outlets, Miami to Monroe (station 02289000). No NASQAN water quality records collected after September 30, 1993. No peaks above base determined. Zero flow occurs numerous days, during many water years. ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Average annual mean discharge, 345 ft<sup>3</sup>/s, 250,000 acre-ft/yr. Figures represent 61 complete water years of discharge (1964-88, 1990-97, 1999-2002). Monthly discharge only, available 1941-63 water years.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 10.01 ft Oct. 20, 1947 (present datum); minimum, 2.65 ft May 26, 1974.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 8.95 ft Oct. 22; minimum, 4.35 ft May 19.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.83	8.74	8.34	8.12	7.74	7.78	6.75	5.44	5.46	8.64	8.39	8.24
2	8.80	8.71	8.33	8.13	7.71	7.74	6.69	5.40	5.93	8.63	8.37	8.25
3	8.77	8.70	8.32	8.15	7.69	7.71	6.80	5.26	6.13	8.58	8.35	8.28
4	8.74	8.68	8.30	8.13	7.66	7.68	6.98	5.15	6.05	8.54	8.37	8.32
5	8.72	8.73	8.29	8.12	7.63	7.64	6.86	5.06	5.96	8.50	8.37	8.38
6	8.69	8.73	8.28	8.11	7.59	7.61	6.74	5.00	5.88	8.47	8.36	8.39
7	8.67	8.70	8.28	8.11	7.56	7.59	6.63	4.95	5.85	8.47	8.35	8.39
8	8.65	8.68	8.28	8.09	7.53	7.58	6.53	4.91	6.32	8.54	8.39	8.37
9	8.63	8.66	8.31	8.07	7.51	7.55	6.45	4.85	6.53	8.60	8.37	8.37
10	8.62	8.65	8.33	8.06	7.61	7.51	6.41	4.79	6.46	8.62	8.35	8.39
11	8.60	8.63	8.31	8.05	7.91	7.47	6.36	4.72	6.37	8.67	8.36	8.50
12	8.58	8.61	8.30	8.03	7.92	7.44	6.31	4.66	6.35	8.66	8.37	8.60
13	8.56	8.59	8.29	8.03	7.90	7.40	6.25	4.60	6.49	8.64	8.35	8.62
14	8.57	8.57	8.28	8.03	7.89	7.36	6.34	4.57	6.53	8.62	8.36	8.62
15	8.61	8.56	8.26	8.02	7.90	7.32	6.79	4.52	7.39	8.62	8.38	8.60
16	8.61	8.54	8.25	8.01	7.96	7.27	6.80	4.47	7.98	8.61	8.36	8.58
17	8.62	8.53	8.24	8.00	7.96	7.23	6.75	4.43	8.04	8.59	8.34	8.56
18	8.59	8.50	8.22	8.00	7.94	7.19	6.68	4.38	8.08	8.58	8.32	8.53
19	8.58	8.49	8.20	7.99	7.90	7.15	6.60	4.54	8.14	8.55	8.31	8.50
20	8.58	8.47	8.19	7.98	7.87	7.10	6.53	6.05	8.24	8.52	8.32	8.48
21	8.64	8.46	8.17	7.96	7.84	7.05	6.45	6.19	8.41	8.49	8.31	8.46
22	8.80	8.44	8.15	7.96	7.81	7.00	6.36	6.10	8.50	8.48	8.31	8.44
23	8.92	8.43	8.14	7.94	7.89	6.96	6.26	5.99	8.57	8.45	8.29	8.44
24	8.88	8.42	8.13	7.92	7.93	6.92	6.17	5.86	8.62	8.42	8.28	8.46
25	8.87	8.41	8.12	7.91	7.90	6.89	6.09	5.74	8.73	8.43	8.27	8.51
26	8.88	8.40	8.12	7.89	7.88	6.87	5.99	5.63	8.74	8.45	8.25	8.49
27	8.87	8.38	8.10	7.87	7.85	6.97	5.87	5.53	8.76	8.41	8.24	8.47
28	8.83	8.37	8.09	7.84	7.81	6.89	5.75	5.43	8.75	8.38	8.23	8.46
29	8.81	8.36	8.08	7.82	---	6.87	5.63	5.33	8.70	8.35	8.23	8.50
30	8.78	8.35	8.07	7.79	---	6.87	5.53	5.24	8.65	8.36	8.23	8.47
31	8.76	---	8.08	7.77	---	6.82	---	5.29	---	8.41	8.23	---
TOTAL	270.06	256.49	254.85	247.90	218.29	225.43	192.35	160.08	220.61	264.28	258.01	253.67
MEAN	8.71	8.55	8.22	8.00	7.80	7.27	6.41	5.16	7.35	8.53	8.32	8.46
MAX	8.92	8.74	8.34	8.15	7.96	7.78	6.98	6.19	8.76	8.67	8.39	8.62
MIN	8.56	8.35	8.07	7.77	7.51	6.82	5.53	4.38	5.46	8.35	8.23	8.24

02288900 TAMiami CANAL OUTLETS, 40-MILE BEND TO MONROE, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1920	1630	597	309	68	66	13	0.00	0.0	1660	1030	656
2	1770	1580	597	324	66	63	11	0.00	2.0	1650	980	671
3	1680	1540	577	363	64	60	17	0.00	5.8	1500	959	709
4	1580	1520	539	343	62	58	27	0.00	3.8	1360	1020	801
5	1480	1740	502	320	59	54	21	0.00	2.1	1240	1010	940
6	1400	1730	486	310	56	51	16	0.00	1.1	1140	996	946
7	1310	1660	470	307	53	50	11	0.00	1.1	1150	994	930
8	1280	1570	463	284	51	50	8.3	0.00	12	1390	1090	893
9	1190	1490	512	271	50	48	6.1	0.00	19	1600	1050	880
10	1160	1430	532	259	61	45	5.2	0.00	17	1690	1010	942
11	1090	1370	502	247	99	42	4.4	0.00	13	1820	1070	1250
12	1040	1290	464	234	102	40	3.5	0.00	13	1830	1080	1590
13	993	1210	438	228	101	38	2.7	0.00	18	1780	1060	1630
14	1060	1160	408	227	101	35	6.5	0.00	20	1720	1090	1640
15	1250	1120	386	218	103	32	25	0.00	117	1720	1160	1570
16	1310	1070	356	195	114	29	26	0.00	314	1710	1100	1500
17	1330	1000	331	173	113	27	23	0.00	388	1660	1040	1420
18	1170	926	327	161	107	24	19	0.00	431	1620	981	1310
19	1150	897	305	141	101	23	15	0.00	498	1530	940	1230
20	1110	863	293	124	93	20	12	4.8	668	1430	938	1130
21	1350	819	281	116	87	18	8.6	7.7	1050	1320	913	1080
22	1980	802	268	110	82	16	6.0	5.2	1310	1300	900	1010
23	2360	767	260	103	94	14	3.5	2.7	1530	1200	864	1010
24	2210	757	258	99	96	13	1.8	0.91	1670	1110	826	1070
25	2150	721	256	95	89	13	0.84	0.17	1970	1130	775	1230
26	2200	712	258	91	82	13	0.26	0.00	2000	1190	733	1180
27	2110	689	245	87	75	18	0.00	0.00	2030	1090	701	1090
28	2000	657	239	82	71	15	0.00	0.00	2010	1010	680	1070
29	1890	646	236	79	---	15	0.00	0.00	1860	934	666	1180
30	1790	620	232	74	---	16	0.00	0.00	1730	953	655	1100
31	1690	---	257	71	---	15	---	0.00	---	1080	657	---
TOTAL	48003	33986	11875	6045	2300	1021	293.70	21.48	19703.9	43517	28968	33658
MEAN	1548	1133	383	195	82.1	32.9	9.79	0.69	657	1404	934	1122
MAX	2360	1740	597	363	114	66	27	7.7	2030	1830	1160	1640
MIN	993	620	232	71	50	13	0.00	0.00	0.00	934	655	656
AC-FT	95210	67410	23550	11990	4560	2030	583	43	39080	86320	57460	66760

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)

	840	481	265	201	153	137	77.6	63.1	339	591	684	809
MEAN	840	481	265	201	153	137	77.6	63.1	339	591	684	809
MAX	4052	3057	3369	3062	1790	971	437	583	1707	2021	1499	2275
(WY)	1996	1995	1995	1995	1995	1995	1983	1969	1982	1966	1966	1995
MIN	66.6	26.4	3.80	1.54	0.53	0.000	0.000	0.000	0.60	50.6	29.7	135
(WY)	1973	1975	1991	1990	1985	1971	1971	1967	1989	1987	1987	1967

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1964 - 2002

ANNUAL TOTAL	174999.38	229392.08	
ANNUAL MEAN	479	628	393
HIGHEST ANNUAL MEAN			1660
LOWEST ANNUAL MEAN			118
HIGHEST DAILY MEAN	2360	Oct 23	2360
LOWEST DAILY MEAN	0.00	Mar 16	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Apr 3	0.00
ANNUAL RUNOFF (AC-FT)	347100	455000	284800
10 PERCENT EXCEEDS	1510	1620	1100
50 PERCENT EXCEEDS	58	363	129
90 PERCENT EXCEEDS	0.00	1.5	1.1

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

254754080344300 SHARK RIVER SLOUGH NO. 1 IN CONSERVATION AREA 3B NEAR COOPERTOWN, FL

LOCATION.--Lat 25°47'54", long 80°33'43", in SW 1/4 sec.30, T.53 S., R.38 E., Miami-Dade County, Hydrologic Unit 03090202, 2.8 mi northwest of Coopertown on east-west ditch in Conservation Area 3B.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1976 to September 1980, October 1982 to current year. Prior to October 1977, published as "Shark Valley Slough No. 1 in Conservation Area 3B near Coopertown."

GAGE.--Satellite data collection platform with water-stage shaft encoder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Water years 1994 - 1997 were corrected by -0.02 ft, due to levels. Water years 1998 and 1999 were corrected by -0.03 ft, due to levels. Corrected data are in the files of the U.S. Geological Survey.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 9.76 ft Oct. 15, 1999; minimum, 3.95 ft May 23, 1990.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 8.76 ft Oct. 24-27; minimum, 6.39 ft May 19.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.46	8.62	8.05	7.78	7.40	7.34	7.26	6.89	6.91	7.67	7.87	e8.06
2	8.45	8.60	8.04	e7.78	7.39	7.34	7.28	6.87	6.92	7.71	7.86	8.09
3	8.43	8.58	8.02	7.79	7.37	7.34	7.31	6.84	6.92	7.72	7.87	8.11
4	8.41	8.56	8.00	7.77	7.36	7.34	7.30	6.82	6.92	7.77	7.94	8.15
5	8.42	8.60	7.99	7.76	7.35	7.33	7.29	6.79	6.91	7.82	7.93	8.16
6	8.42	8.60	7.99	7.74	7.33	7.32	7.27	6.76	6.92	7.79	7.91	8.19
7	8.40	8.57	8.01	7.73	7.32	7.34	7.25	6.73	6.97	7.78	7.90	8.18
8	8.38	8.55	8.01	7.71	7.31	7.36	7.24	e6.69	7.09	7.89	7.91	8.18
9	8.38	8.53	8.00	7.70	7.31	7.37	7.23	6.66	7.08	7.96	7.90	8.17
10	8.38	8.50	8.00	7.68	7.34	7.37	7.22	6.62	7.07	7.99	7.89	8.17
11	8.36	8.48	7.99	7.67	7.36	7.37	7.20	6.57	7.08	8.02	7.88	8.24
12	8.34	8.46	7.98	7.66	7.35	7.37	7.19	6.52	7.10	8.03	7.88	8.32
13	8.32	8.44	7.96	7.65	7.34	7.36	7.18	6.48	7.12	8.09	7.88	8.31
14	8.33	8.42	7.95	7.64	7.33	7.36	7.17	6.44	7.16	8.08	7.87	8.31
15	8.35	8.40	7.94	7.63	7.33	7.35	7.16	6.43	7.29	8.06	7.87	8.30
16	8.34	8.37	7.92	7.62	7.32	7.35	7.15	e6.47	7.39	8.05	7.87	8.29
17	8.33	8.35	7.91	7.60	7.31	7.34	7.13	6.45	7.38	8.03	7.86	8.27
18	8.32	8.33	7.90	7.59	7.30	7.33	7.11	6.42	7.36	8.06	7.86	8.26
19	8.37	8.31	7.89	7.57	7.29	7.33	7.10	6.52	7.34	8.08	7.85	8.26
20	8.42	8.29	7.88	7.56	7.28	7.32	7.08	6.83	7.35	8.07	7.84	8.25
21	8.53	8.27	7.86	7.55	7.28	7.31	7.07	6.83	7.45	8.04	7.85	8.23
22	8.72	8.25	7.85	7.53	7.27	7.30	7.05	6.87	7.47	8.03	7.84	8.21
23	8.73	8.23	7.84	7.52	7.37	7.29	7.04	6.93	7.48	8.02	7.84	8.19
24	8.74	8.20	7.83	7.50	7.38	7.28	7.03	6.91	7.53	8.01	7.85	8.19
25	8.76	8.18	7.81	7.49	7.37	7.27	7.01	6.89	7.58	7.99	7.84	8.21
26	8.76	8.16	7.81	7.47	7.36	7.27	6.99	6.88	7.60	7.98	7.83	8.18
27	8.74	8.14	7.80	7.46	7.36	7.31	6.97	6.85	7.59	7.97	7.87	8.16
28	8.71	8.11	7.78	7.45	7.34	7.32	6.95	6.86	7.63	7.95	7.91	8.17
29	8.68	8.09	7.77	7.43	---	7.31	6.93	6.85	7.67	7.92	7.92	8.18
30	8.66	8.07	7.76	7.43	---	7.30	6.91	6.86	7.65	7.90	7.97	8.16
31	8.65	---	7.75	7.41	---	7.29	---	6.91	---	7.89	8.01	---
TOTAL	263.29	251.26	245.29	235.87	205.42	227.18	214.07	208.44	217.93	246.37	244.37	246.15
MEAN	8.49	8.38	7.91	7.61	7.34	7.33	7.14	6.72	7.26	7.95	7.88	8.21
MAX	8.76	8.62	8.05	7.79	7.40	7.37	7.31	6.93	7.67	8.09	8.01	8.32
MIN	8.32	8.07	7.75	7.41	7.27	7.27	6.91	6.42	6.91	7.67	7.83	8.06

e Estimated

261533080571600 L-28 INTERCEPTOR CANAL BELOW S-190 NEAR CLEWISTON, FL

LOCATION.--Lat 26°15'33", long 80°57'16", in SW 1/4 sec.32, T.48 S., R.34 E., Hendry County, Hydrologic Unit 03090202, on east bank of Levee 28 Interceptor canal, 500 ft upstream from the northern boundary of Big Cypress National Preserve and inside the southern boundary of the Big Cypress Seminole Indian Reservation, 3.3 mi south of State Road 833, 4.6 mi west of the intersection of the Hendry, Collier and Broward county lines, 6.6 mi north of U.S. Interstate 75, and 33 mi south of Clewiston.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1996 to current year.

GAGE.--Water-stage shaft encoder and acoustic doppler velocity meter provided by the U.S. Geological Survey. Acoustic velocity meter prior to January 1, 2001. Electronic data logger with cellular phone/radio telemetry provided by South Florida Water Management District. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for daily discharges below 100 cfs and estimated discharges, which are poor. Flow affected by levee and control structure S-190 about 2 mi upstream. Discharge computed from continuous velocity record obtained from acoustic doppler velocity meter. Flow is positive to the south.

COOPERATION.--Seminole Tribe of Florida.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 4 complete water years of discharge (1998-2001).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 13.80 ft Nov. 5, 1998; minimum, 9.13 ft May 23, 2001.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 13.17 ft Oct. 1; minimum, 9.39 ft May 30.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13.04	12.23	11.44	11.30	11.17	e11.25	e11.10	e10.51	e9.63	11.80	12.08	11.85
2	12.79	12.22	11.43	11.30	11.15	e11.32	e11.11	e10.48	e9.63	11.86	12.00	11.89
3	12.71	12.22	11.47	11.27	11.14	e11.28	e11.08	e10.44	e9.62	11.87	11.99	11.90
4	12.57	12.14	11.50	11.22	11.11	e11.36	e11.07	e10.39	e9.62	11.83	11.90	11.99
5	12.40	12.12	11.42	11.23	11.11	e11.30	e11.03	e10.34	e9.60	11.79	11.95	12.00
6	12.31	12.13	11.39	11.25	11.13	e11.27	e11.01	e10.30	e9.62	11.77	12.00	12.08
7	12.23	12.06	11.41	11.29	11.12	e11.29	e11.00	e10.26	e9.77	11.75	12.07	12.11
8	12.22	12.01	11.40	11.38	11.08	e11.41	e10.99	e10.21	e9.99	11.89	12.15	12.07
9	12.19	12.01	11.40	11.29	11.11	e11.34	e10.97	e10.17	e10.13	12.10	12.03	12.08
10	12.15	11.95	11.40	11.26	11.16	e11.39	e10.95	e10.13	e10.20	12.14	12.00	12.04
11	12.13	11.94	11.38	11.25	11.27	e11.41	e10.92	e10.07	e10.26	12.12	11.95	12.15
12	12.09	11.94	11.36	11.24	11.49	e11.33	e10.93	e10.03	---	12.15	12.06	12.36
13	12.08	11.88	11.34	11.23	11.44	e11.29	e10.90	e9.98	---	12.57	12.10	12.35
14	12.07	11.80	11.34	11.25	11.42	e11.26	e10.90	e9.92	10.83	12.49	12.07	12.27
15	11.97	11.87	11.32	11.23	11.31	e11.26	e10.92	e9.88	11.20	12.31	12.09	12.17
16	11.97	11.78	11.31	11.22	11.51	e11.25	e10.92	e9.86	11.20	12.24	11.97	12.06
17	11.97	11.72	11.30	11.34	11.66	e11.23	e10.93	e9.83	11.18	12.13	11.98	12.04
18	11.95	11.81	11.27	11.32	11.49	e11.22	e10.93	e9.77	11.17	12.25	11.92	11.96
19	11.95	11.69	11.26	11.30	11.62	e11.22	e10.91	e9.77	11.14	12.38	12.01	11.98
20	12.07	11.70	11.24	11.27	11.56	e11.22	e10.88	e9.80	11.19	12.30	11.97	11.95
21	12.10	11.75	11.22	11.26	11.44	e11.19	e10.86	e9.76	11.21	12.25	11.93	11.89
22	12.24	11.64	11.22	11.24	11.58	e11.16	e10.83	e9.73	11.24	12.41	11.95	11.83
23	12.37	11.64	11.23	11.26	11.42	e11.15	e10.79	e9.71	11.30	12.29	11.85	11.84
24	12.44	11.75	11.21	11.25	11.52	e11.15	e10.77	e9.68	11.60	12.18	11.82	11.96
25	12.39	11.61	11.18	11.22	11.47	e11.15	e10.74	e9.64	11.68	12.12	11.76	12.05
26	12.63	11.55	11.20	11.20	e11.35	e11.14	e10.70	e9.60	11.69	12.10	11.74	12.04
27	12.54	11.62	11.22	11.20	e11.26	e11.15	e10.67	e9.57	11.79	12.00	11.68	11.96
28	12.53	11.58	11.22	11.19	e11.21	e11.14	e10.63	e9.52	11.72	11.95	11.76	11.91
29	12.38	11.51	11.28	11.19	---	e11.15	e10.58	e9.48	11.69	11.97	11.78	11.94
30	12.33	11.47	11.42	11.19	---	e11.15	e10.54	e9.46	11.67	12.17	11.88	11.95
31	12.32	---	11.34	11.18	---	e11.14	---	e9.48	---	12.29	11.94	---
TOTAL	381.13	355.34	351.12	348.82	317.30	348.57	326.56	307.77	---	375.47	370.38	360.67
MEAN	12.29	11.84	11.33	11.25	11.33	11.24	10.89	9.93	---	12.11	11.95	12.02
MAX	13.04	12.23	11.50	11.38	11.66	11.41	11.11	10.51	---	12.57	12.15	12.36
MIN	11.95	11.47	11.18	11.18	11.08	11.14	10.54	9.46	---	11.75	11.68	11.83

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

261533080571600 L-28 INTERCEPTOR CANAL BELOW S-190 NEAR CLEWISTON, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1180	301	-7.2	6.0	-6.8	e10	e-4.6	e-50	e48	262	396	285
2	783	306	13	8.0	24	e6.4	e2.0	e-48	e13	275	258	357
3	802	327	91	-4.0	33	e-59	e-1.5	e-33	e-3.1	323	324	259
4	636	190	0.09	-1.5	15	e81	e9.5	e-34	e-48	320	244	359
5	478	161	-13	-9.6	3.0	e1.5	e44	e-2.9	e-18	251	255	391
6	391	201	6.2	-31	0.56	e-3.9	e18	e-0.78	e-21	266	402	403
7	286	159	-17	72	-37	e3.3	e-1.2	e-34	e-8.2	201	402	423
8	334	58	-18	3.8	7.2	e70	e5.2	e-27	e-7.3	288	459	391
9	321	151	4.1	0.65	-15	e-2.8	e4.1	e-23	e24	464	321	448
10	232	34	-12	3.6	-22	e116	e-4.2	e-11	e-11	482	385	352
11	185	129	-7.9	-34	94	e34	e-16	e-9.5	e-18	424	314	436
12	210	125	-1.6	0.66	64	e-51	e-3.3	e-6.1	---	513	438	611
13	196	90	-0.52	-18	143	e-12	e-16	e-35	---	1030	414	578
14	209	60	-3.6	-51	15	e-23	e-19	e41	-11	870	376	462
15	145	135	4.0	2.7	-22	e-36	e-2.6	e49	5.4	633	366	419
16	130	44	1.8	-7.1	173	e-30	e2.9	e-27	-24	571	235	338
17	138	84	-10	72	202	e-16	e-2.3	e-32	-36	392	335	292
18	151	110	16	13	104	e-8.2	e9.1	e-37	-29	600	241	240
19	183	-6.5	22	-24	137	e-17	e18	e6.3	4.2	674	381	271
20	265	100	13	-35	25	e-30	e12	e56	-3.2	632	339	145
21	240	65	15	-40	83	e4.4	e19	e18	2.9	553	245	156
22	356	14	-0.81	3.6	86	e42	e36	e17	6.1	654	321	88
23	473	14	0.45	-6.3	13	e0.52	e66	e-6.8	-13	506	217	---
24	548	86	6.6	-13	133	e-16	e-24	e-31	259	382	268	---
25	450	-3.1	7.7	-3.0	16	e-17	e-42	e-36	229	278	152	---
26	762	0.18	0.91	17	e-2.8	e-8.2	e-20	e16	147	269	239	---
27	602	79	-0.81	-16	e18	e40	e-21	e-53	263	198	133	263
28	595	6.5	-3.4	-31	e7.7	e17	e-32	e25	215	---	140	204
29	428	-8.3	53	-6.3	---	e0.56	e13	e-4.0	169	---	217	297
30	428	20	26	-2.4	---	e-15	e26	e-48	162	---	280	229
31	387	---	5.1	-1.7	---	e-22	---	e14	---	---	294	---
TOTAL	12524	3031.78	190.11	-131.89	1290.86	59.58	75.1	-346.78	---	---	9391	---
MEAN	404	101	6.13	-4.25	46.1	1.92	2.50	-11.2	---	---	303	---
MAX	1180	327	91	72	202	116	66	56	---	---	459	---
MIN	130	-8.3	-18	-51	-37	-59	-42	-53	---	---	133	---
AC-FT	24840	6010	377	-262	2560	118	149	-688	---	---	18630	---

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)

	308	81.4	25.6	-3.58	9.98	7.73	-12.1	-11.9	20.5	70.3	149	225
MEAN	308	81.4	25.6	-3.58	9.98	7.73	-12.1	-11.9	20.5	70.3	149	225
MAX	536	302	164	80.6	108	105	2.50	7.24	73.9	144	303	485
(WY)	2001	1999	1998	1998	1998	1998	2002	1997	1999	2001	2002	2001
MIN	42.5	0.69	-49.7	-53.5	-39.2	-35.3	-29.3	-30.2	-18.9	-16.5	10.3	37.6
(WY)	1998	2001	1997	2000	1997	1997	1997	2000	2000	1998	2000	2000

## SUMMARY STATISTICS

## FOR 2001 CALENDAR YEAR

## WATER YEARS 1997 - 2002

ANNUAL TOTAL	38177.00											
ANNUAL MEAN	105								73.4			
HIGHEST ANNUAL MEAN									106			2001
LOWEST ANNUAL MEAN									38.6			2000
HIGHEST DAILY MEAN	1450					Sep 30			2050		Oct 5	2000
LOWEST DAILY MEAN	-74					Aug 30			-135		Jan 18	2000
ANNUAL SEVEN-DAY MINIMUM	-29					Apr 2			-91		Jan 17	2000
ANNUAL RUNOFF (AC-FT)	75720								53140			
10 PERCENT EXCEEDS	345								221			
50 PERCENT EXCEEDS	8.1								14			
90 PERCENT EXCEEDS	-32								-47			

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.



261543080495000 L28 CANAL ABOVE S-140 NEAR CLEWISTON, FL

LOCATION.--Lat 26°15'43", long 80°49'50", in SW  $\frac{1}{4}$  sec. 34, T.48 S., R.35 E., Broward County, Hydrologic Unit 03090202, Florida, on east bank, 500 ft upstream from the northern boundary of the Miccosukee Tribe of Florida and inside the southern boundary of the Big Cypress Seminole Indian Reservation, 3.1 mi east of the intersection of the Broward, Collier and Hendry county lines, 6.0 mi north of Pump Station S-140, 6.9 mi north of U.S. Interstate 75, and 33 mi south of Clewiston on the Levee 28 canal.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--February 1997 to current year.

GAGE.--Electronic data logger with water-stage shaft encoder and acoustic velocity meter with cellular phone/radio telemetry provided by South Florida Management District. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for discharge below 100 cfs and estimated discharges, which are poor. Flow affected by G-89 and USSO culvert structures upstream and pump structure S-140 downstream. Positive flow is to the south. Discharge computed from continuous velocity record obtained from acoustic velocity meter.

COOPERATION.--Seminole Tribe of Florida.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 4 complete water years of discharge (1998-2002).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 12.06 ft Oct. 16, 1999; minimum, 7.84 ft Mar. 7, 2002.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 11.43 ft July 22; minimum, 7.84 ft Mar. 07.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.48	9.81	10.44	10.21	9.59	10.39	10.44	9.82	9.61	9.54	9.64	10.09
2	9.67	9.74	10.65	9.63	10.01	10.68	10.46	9.76	9.79	9.54	9.59	10.01
3	9.57	9.67	9.84	9.89	10.23	9.87	10.45	9.70	9.87	9.51	9.69	9.97
4	9.63	9.26	9.91	9.55	10.36	10.19	10.45	9.64	9.91	9.49	10.10	9.84
5	9.66	9.75	10.34	9.65	10.43	10.63	10.43	9.59	9.91	9.56	10.16	9.75
6	9.49	9.34	10.55	10.24	10.50	9.71	10.40	9.53	9.91	9.51	10.13	9.40
7	9.85	9.18	9.77	10.53	10.54	8.86	10.36	9.48	9.98	9.57	10.22	10.40
8	9.93	9.73	9.91	10.64	10.54	8.62	10.32	9.41	10.26	9.61	10.50	10.06
9	9.38	9.49	10.42	10.70	10.57	9.89	10.28	9.35	10.50	9.67	9.58	9.76
10	9.28	9.44	9.86	10.74	10.68	10.63	10.24	9.28	10.56	9.57	9.65	9.75
11	9.66	9.56	10.05	9.93	9.90	9.93	10.20	9.22	10.65	9.52	9.55	9.56
12	9.76	9.39	10.51	10.11	10.13	10.24	10.19	9.17	10.75	9.72	9.82	9.58
13	9.58	9.39	10.68	10.49	9.62	10.68	10.15	9.13	10.67	10.03	9.63	10.01
14	9.58	10.21	9.86	10.65	9.80	9.92	10.18	9.10	10.79	9.58	9.78	9.77
15	10.04	10.05	10.01	9.91	10.37	10.06	10.31	9.05	10.12	9.66	9.72	9.68
16	10.37	9.46	10.44	10.08	10.79	10.53	10.35	9.01	9.38	9.72	9.57	9.86
17	10.10	10.11	10.64	10.53	10.27	10.67	10.45	8.98	9.48	9.50	9.54	10.06
18	9.88	10.72	9.84	9.90	10.88	10.73	10.51	8.96	9.19	9.56	9.87	10.01
19	10.10	10.07	9.93	10.17	10.23	10.75	10.49	8.97	9.26	9.66	10.06	9.93
20	9.69	10.44	10.34	10.61	10.76	10.76	10.47	9.07	9.99	9.51	10.13	9.79
21	9.50	9.94	9.54	10.74	10.18	10.75	10.43	9.09	9.11	10.0	10.08	9.55
22	9.75	10.32	9.56	9.90	9.62	10.72	10.39	9.10	9.29	9.99	9.99	10.44
23	9.38	10.74	10.03	10.08	9.49	10.72	10.34	9.10	9.55	9.48	10.03	10.04
24	9.73	9.90	9.26	10.48	10.56	10.70	10.28	9.09	9.67	9.51	9.79	9.75
25	9.36	10.11	9.46	9.98	10.26	10.68	10.22	9.06	9.44	9.48	9.79	9.89
26	8.88	10.55	10.12	10.0	9.74	10.70	10.15	9.02	9.43	9.62	9.81	9.96
27	9.00	10.71	10.46	10.34	10.19	9.94	10.08	8.99	9.62	9.40	9.81	9.92
28	9.92	10.77	9.63	10.52	10.69	9.95	10.01	8.95	9.39	9.83	9.89	9.90
29	9.94	9.90	9.64	10.60	---	10.25	9.94	8.91	10.46	9.67	10.03	9.89
30	9.93	10.05	10.16	10.65	---	10.37	9.88	8.91	9.48	9.55	9.99	9.95
31	9.90	---	9.83	9.64	---	10.43	---	9.09	---	9.57	9.86	---
TOTAL	299.99	297.80	311.68	317.09	286.93	318.95	308.85	285.53	296.02	298.13	306.00	296.57
MEAN	9.68	9.93	10.05	10.23	10.25	10.29	10.29	9.21	9.87	9.62	9.87	9.89
MAX	10.37	10.77	10.68	10.74	10.88	10.76	10.51	9.82	10.79	10.03	10.50	10.44
MIN	8.88	9.18	9.26	9.55	9.49	8.62	9.88	8.91	9.11	9.40	9.54	9.40

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

261543080495000 L28 CANAL ABOVE S-140 NEAR CLEWISTON, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	383	181	-20	18	40	96	52	40	-8.8	349	253	204
2	369	172	-2.8	114	-0.76	63	51	38	-11	386	246	226
3	369	179	86	25	-20	138	16	26	6.5	412	195	251
4	335	204	2.3	98	-8.9	35	-40	35	28	406	220	246
5	325	126	-8.5	24	-0.89	27	-38	-9.4	29	399	203	293
6	297	260	-11	41	33	114	-10	-29	25	374	205	218
7	240	160	98	3.3	39	143	-10	5.8	22	357	207	253
8	311	195	50	8.3	5.7	50	34	-4.5	6.6	371	213	272
9	260	157	54	13	43	0.56	30	30	-32	502	269	221
10	217	119	122	15	86	18	23	28	18	470	254	227
11	193	114	51	101	126	103	-4.5	23	77	476	252	257
12	193	120	48	36	33	69	27	20	143	544	288	219
13	195	134	50	6.7	106	91	46	20	151	632	253	226
14	171	54	120	30	34	112	15	7.3	141	579	257	223
15	125	123	19	95	69	72	21	-5.3	315	533	241	188
16	125	126	18	9.8	84	79	-22	10	266	504	234	150
17	148	45	62	54	142	25	-8.3	9.8	264	486	188	174
18	150	30	102	118	84	48	-39	22	245	413	154	171
19	128	109	23	39	141	79	-50	-1.8	164	406	155	177
20	148	19	21	69	92	80	-40	e-11	260	404	185	167
21	120	113	101	94	133	57	14	-2.3	248	323	179	164
22	182	44	20	108	144	15	34	-8.6	190	464	184	110
23	211	83	38	35	111	-5.1	-58	-8.8	341	379	176	173
24	195	103	98	33	64	8.1	-77	-21	360	397	179	141
25	294	7.7	20	71	125	38	-4.6	-17	381	352	160	137
26	248	6.9	27	7.2	131	43	42	-17	338	333	166	141
27	192	41	29	21	37	73	60	-17	321	307	154	155
28	187	48	115	42	43	-16	42	-7.7	240	290	174	150
29	183	94	58	68	---	-3.4	6.5	-39	265	267	195	145
30	193	2.4	3.2	68	---	45	11	-5.6	305	254	204	156
31	188	---	77	114	---	21	---	11	---	258	212	---
TOTAL	6875	3170.0	1470.2	1579.3	1915.15	1718.16	123.1	120.9	5098.3	12627	6455	5835
MEAN	222	106	47.4	50.9	68.4	55.4	4.10	3.90	170	407	208	194
MAX	383	260	122	118	144	143	60	40	381	632	288	293
MIN	120	2.4	-20	3.3	-20	-16	-77	-39	-32	254	154	110
AC-FT	13640	6290	2920	3130	3800	3410	244	240	10110	25050	12800	11570

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1997 - 2002, BY WATER YEAR (WY)

	1997	1998	1999	2000	2001	2002
MEAN	248	112	49.6	27.3	37.1	30.7
MAX	495	287	140	67.0	102	125
(WY)	2000	1999	1998	1998	1998	1997
MIN	59.3	9.04	2.72	-3.51	-7.12	-10.2
(WY)	1998	1998	2001	2000	2000	2001

## SUMMARY STATISTICS

## FOR 2002 WATER YEAR

## WATER YEARS 1997 - 2002

ANNUAL TOTAL	46987.11		
ANNUAL MEAN	129	98.4	
HIGHEST ANNUAL MEAN		129	2002
LOWEST ANNUAL MEAN		71.3	2000
HIGHEST DAILY MEAN	632	Jul 13	853 Oct 5 2000
LOWEST DAILY MEAN	-77	Apr 24	-77 Apr 24 2002
ANNUAL SEVEN-DAY MINIMUM	-31	Apr 18	-37 May 8 2001
ANNUAL RUNOFF (AC-FT)	93200		71270
10 PERCENT EXCEEDS	317		276
50 PERCENT EXCEEDS	101		54
90 PERCENT EXCEEDS	-4.5		-13

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

02289027 DRAINAGE CANAL BELOW STRUCTURE G-136, NEAR CLEWISTON, FL

LOCATION.--Lat 26°40'02", long 80°56'18", in SW 1/4 sec.9, T.44 S., R.34 E., Hendry County, Hydrologic Unit 03090202, approximately 1,000 ft east of structure G-136, and approximately 6 mi south of Clewiston, FL.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--May - July 1992 (gage heights only), August 1992 to current year.

REVISED RECORDS.--WDR FL-94-2A: 1992, 1993.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic doppler velocity meter. Prior to February 1, 2002, acoustic velocity meter. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Flow affected by structure activity at G-136 and by agricultural pumping. Discharge computed from continuous record of acoustic velocity and stage.

ANNUAL MEAN AND ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 3 complete water years of discharge (1996-97, 2000).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 13.88 ft Nov. 5, 1998; minimum, 9.08 ft May 21, 22, 2001.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 13.51 ft June 26; minimum, 9.48 ft Nov. 4, 5.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	12.33	10.27	11.21	11.27	11.16	11.17	11.26	11.35	10.48	11.38	10.26	e11.62
2	11.95	10.94	11.27	e11.22	11.06	11.21	11.48	11.45	10.40	12.67	10.63	11.04
3	11.31	9.97	11.03	10.89	11.14	10.79	11.29	11.50	11.43	12.47	11.12	10.77
4	11.15	9.53	11.14	10.79	11.15	10.91	11.31	11.51	11.29	12.17	11.07	10.84
5	10.80	10.01	11.08	10.85	11.09	10.95	11.22	11.34	11.39	11.94	11.31	10.89
6	10.78	10.90	11.01	10.92	11.18	11.07	11.23	11.49	11.63	11.70	11.61	10.65
7	10.83	10.81	10.95	10.92	11.07	10.47	11.48	11.36	11.62	11.64	10.88	10.71
8	10.66	10.90	11.03	10.83	10.93	10.64	11.24	e11.44	11.72	11.90	10.91	10.56
9	10.59	10.47	11.10	11.11	11.16	11.06	11.16	11.41	11.30	11.97	10.79	10.79
10	10.48	10.80	11.30	11.02	11.46	10.89	11.41	11.35	11.06	12.36	10.82	10.73
11	10.21	10.99	11.29	10.96	11.67	10.80	11.46	11.58	11.02	11.99	10.58	10.79
12	11.51	11.24	11.19	10.94	11.30	10.83	11.37	11.40	11.11	11.82	11.00	10.32
13	11.44	10.95	11.00	10.89	10.37	10.84	11.35	11.49	11.62	11.63	11.07	10.68
14	11.48	10.76	10.93	11.01	10.50	10.71	11.35	11.32	e11.49	11.43	11.67	10.74
15	11.30	10.79	11.10	11.59	10.72	10.63	11.00	11.40	11.28	11.00	11.57	10.62
16	11.21	10.53	11.24	11.53	10.57	10.63	10.94	---	11.14	10.60	11.04	e10.69
17	10.90	10.91	11.14	10.95	11.09	10.67	11.22	---	11.11	e10.94	11.02	10.53
18	11.03	11.18	11.09	10.66	11.01	10.64	11.04	10.59	10.79	11.04	e10.68	10.49
19	10.99	e11.03	11.02	10.80	10.99	10.78	10.79	10.05	9.96	10.85	10.80	10.73
20	10.84	10.65	10.88	e10.85	e10.83	10.91	11.25	10.49	10.79	10.54	11.19	10.56
21	11.21	10.71	10.85	10.92	10.71	10.72	11.26	10.97	e11.57	11.33	11.06	10.35
22	11.47	11.00	10.93	10.96	10.63	10.81	10.96	10.81	10.98	12.60	10.99	10.34
23	10.92	11.21	10.98	10.90	10.04	10.72	11.05	10.62	10.86	e12.30	10.86	10.18
24	10.66	11.28	10.98	10.72	11.19	10.89	11.11	10.38	12.28	11.89	10.49	10.50
25	11.15	11.29	10.89	10.57	10.71	11.23	11.23	10.76	12.62	11.23	10.14	11.25
26	11.01	e11.19	11.11	10.64	10.72	11.35	11.23	10.67	12.95	10.96	10.49	11.58
27	10.61	e10.91	11.33	10.63	10.56	11.32	11.48	10.50	12.30	11.23	10.98	11.06
28	11.04	11.08	11.52	10.75	10.67	11.35	11.48	10.59	e11.63	11.16	11.55	11.10
29	11.18	11.01	11.57	11.18	---	11.35	11.32	11.30	11.48	11.15	11.52	11.61
30	10.84	11.06	11.49	---	---	11.30	11.45	11.49	11.52	10.85	11.59	11.27
31	10.73	---	11.67	---	---	11.47	---	10.90	---	10.71	11.90	---
TOTAL	342.61	324.37	345.32	---	305.68	339.11	337.42	---	340.82	357.45	341.59	323.99
MEAN	11.05	10.81	11.14	---	10.92	10.94	11.25	---	11.36	11.53	11.02	10.80
MAX	12.33	11.29	11.67	---	11.67	11.47	11.48	---	12.95	12.67	11.90	11.62
MIN	10.21	9.53	10.85	---	10.04	10.47	10.79	---	9.96	10.54	10.14	10.18

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02289027 DRAINAGE CANAL BELOW STRUCTURE G-136, NEAR CLEWISTON, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	138	27	20	29	e5.3	18	14	4.4	16	153	33	e82
2	114	33	21	e24	e17	12	16	9.0	11	229	30	59
3	96	24	18	14	e12	12	12	18	20	223	30	38
4	84	21	18	13	e11	9.9	16	16	13	220	42	25
5	72	24	16	15	e12	14	8.8	17	13	208	73	36
6	47	32	17	14	e12	17	18	16	18	211	81	34
7	62	25	15	9.3	e16	13	20	16	13	186	96	36
8	43	26	16	14	e17	25	11	e18	18	177	96	35
9	39	23	20	13	16	36	10	16	17	173	79	40
10	33	30	17	17	17	24	13	11	14	170	55	42
11	26	30	19	17	17	15	14	14	14	173	36	29
12	30	18	17	13	18	12	11	13	11	148	38	22
13	25	19	16	17	13	19	12	23	17	124	42	22
14	27	15	16	13	13	6.4	14	6.8	e12	97	33	16
15	24	13	14	13	17	17	16	18	13	75	26	20
16	19	11	19	42	15	12	16	---	26	61	23	e6.0
17	14	15	19	41	10	13	15	---	48	e46	24	14
18	15	16	19	26	15	13	15	12	49	43	e33	11
19	16	e17	19	27	10	10	14	11	30	29	44	12
20	13	15	16	e26	e10	12	18	16	26	37	46	12
21	15	14	16	12	12	12	16	16	e43	38	34	11
22	31	16	18	15	11	15	15	15	57	170	27	11
23	20	11	17	10	8.7	13	16	15	91	e221	22	11
24	23	11	18	13	13	14	15	14	215	171	16	13
25	33	14	19	8.4	16	12	15	13	214	135	9.7	15
26	37	e16	18	15	9.3	14	17	14	199	107	11	33
27	34	e11	19	15	11	13	11	14	164	90	11	16
28	42	12	16	13	14	26	15	12	e143	69	14	22
29	37	12	27	13	---	21	7.8	16	128	54	17	15
30	32	16	24	---	---	14	16	18	118	48	31	13
31	31	---	27	---	---	21	---	16	---	42	68	---
TOTAL	1272	567	571	---	368.3	485.3	427.6	---	1771	3928	1220.7	751.0
MEAN	41.0	18.9	18.4	---	13.2	15.7	14.3	---	59.0	127	39.4	25.0
MAX	138	33	27	---	18	36	20	---	215	229	96	82
MIN	13	11	14	---	5.3	6.4	7.8	---	11	29	9.7	6.0
AC-FT	2520	1120	1130	---	731	963	848	---	3510	7790	2420	1490

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	
MEAN	56.3	28.3	23.0	22.7	28.6	21.4	13.7	17.7	39.7	49.7	52.3	59.3
MAX	138	113	84.1	77.3	73.6	38.2	19.6	33.9	116	127	131	124
(WY)	1996	1999	1995	1995	1998	1998	1997	1996	1996	2002	1997	1999
MIN	7.27	0.12	0.039	4.04	9.98	12.7	4.38	9.04	13.5	6.54	14.4	15.5
(WY)	1993	1993	1993	1994	2001	2001	1993	2001	1998	1993	2000	1996

## SUMMARY STATISTICS

## WATER YEARS 1992 - 2002

ANNUAL MEAN	30.2
HIGHEST ANNUAL MEAN	42.0
LOWEST ANNUAL MEAN	21.1
HIGHEST DAILY MEAN	376
LOWEST DAILY MEAN	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00
ANNUAL RUNOFF (AC-FT)	21850
10 PERCENT EXCEEDS	68
50 PERCENT EXCEEDS	16
90 PERCENT EXCEEDS	2.4

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

02289031 LEVEE 3 CANAL BELOW STRUCTURE G-155, NEAR CLEWISTON, FL

LOCATION.--Lat 26°19'48", long 80°52'48", in NW 1/4 sec.7, T.48 S., R.35 E., Broward County, Hydrologic Unit 03090202, approximately 1,050 ft downstream, due east of structure G-155, 3.0 mi northeast of Snake Road, and 35 mi south of Clewiston, FL.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--May to August 1992 (gage heights only), September 1992 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic velocity meter until January 17, 2002, when it was removed. Satellite data collection platform with water-stage shaft encoder and acoustic doppler velocity meter installed September 25, 2001. The acoustic velocity meter and acoustic doppler velocity meter were run in tandem for the period of September 25, 2001 to January 17, 2002. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Flow affected by structure activity at G-155 and by agricultural pumping. Gage height records revised May 1992 through September 1994, based upon new elevation for BM L-4-6 from 22.578 ft to 22.543 ft. Discharge was not revised. Revised records are available in the files of the U.S. Geological Survey. The elevation of BM L-4-6 was revised by South Florida Water Management for a second time, elevation is now 22.380 ft. Gage height records for the 1992 - 1994 water years require an adjustment of + 0.16 ft due to the revised elevation of BM L-4-6. Gage height records for the 1995 - 1996 water years require an adjustment of + 0.19 ft also due to the revised elevation of BM L-4-6.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 1 complete water year of discharge (1997).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 15.56 ft Nov. 8, 1998; minimum, 7.75 ft May 17, 2002.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 14.68 ft July 12; minimum, 7.75 ft May 17.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e14.51	13.52	12.42	13.57	12.15	13.15	11.38	9.29	9.89	13.31	13.80	e13.70
2	e14.54	13.35	12.38	e13.33	11.84	e13.34	11.44	9.48	10.12	13.84	13.40	13.64
3	14.32	13.30	12.43	13.15	11.68	13.21	11.43	9.48	10.29	14.00	13.74	e13.60
4	14.25	13.24	12.44	13.07	11.83	12.99	11.50	9.01	10.41	14.08	13.86	13.64
5	14.04	13.24	12.46	13.06	11.93	12.92	11.46	9.15	10.52	14.09	13.69	13.63
6	13.96	13.22	12.47	13.06	12.00	13.02	11.06	9.08	10.61	13.94	13.56	13.89
7	13.83	13.24	12.52	13.02	12.00	13.47	10.97	8.48	10.75	13.87	13.22	13.98
8	13.56	13.20	12.56	12.99	12.00	13.15	10.96	e8.32	10.96	13.81	13.31	14.04
9	13.55	13.18	12.60	13.02	12.07	13.07	10.67	8.11	11.06	13.99	13.58	14.27
10	13.52	13.18	12.72	13.03	12.66	13.03	10.43	8.00	11.09	14.30	13.87	14.37
11	13.47	13.17	12.78	13.02	13.38	12.96	10.11	8.28	11.16	14.34	13.94	14.32
12	13.40	13.14	12.85	13.02	13.17	12.90	10.27	8.59	11.31	e14.48	14.06	14.14
13	13.69	13.11	12.91	13.01	13.27	12.94	10.49	8.73	12.18	e14.65	14.08	14.25
14	13.55	13.10	12.92	12.96	13.69	12.95	10.67	8.36	e13.24	e14.56	13.97	14.37
15	13.64	13.10	12.92	13.16	13.60	12.82	10.81	7.98	13.23	14.45	13.65	14.39
16	13.57	13.09	12.93	13.73	13.66	12.62	10.95	e7.84	12.82	14.25	13.54	e14.46
17	13.73	13.10	12.95	e13.73	13.66	12.52	11.16	e8.07	12.65	e13.98	13.77	14.44
18	13.71	13.07	12.94	e13.59	13.63	12.43	11.26	9.34	12.52	14.11	e13.86	14.40
19	13.68	e13.02	12.84	13.20	13.63	12.11	11.23	9.00	12.47	13.97	14.01	14.31
20	13.54	13.01	12.70	e13.07	e13.64	12.03	11.07	8.54	12.69	13.84	13.96	14.25
21	13.51	12.99	12.65	12.99	13.65	11.86	11.03	8.85	13.12	13.55	14.03	14.08
22	13.46	12.95	12.63	12.96	13.49	11.72	11.03	9.77	13.08	14.03	14.08	14.14
23	13.72	12.94	12.64	12.90	13.21	11.53	10.77	9.91	13.12	13.96	13.93	13.96
24	13.74	12.90	12.67	12.84	13.33	11.36	10.47	9.56	13.14	14.02	13.88	13.76
25	13.72	12.84	12.68	12.76	13.54	11.31	10.21	8.97	13.25	14.00	13.91	13.90
26	13.88	e12.80	12.75	12.66	13.15	11.39	10.05	8.96	13.32	13.96	13.74	13.97
27	14.10	12.79	12.76	12.58	13.04	11.57	9.70	9.03	13.45	14.20	13.70	13.98
28	14.20	12.68	12.79	12.52	13.01	11.65	9.48	8.86	e13.46	14.01	13.51	14.15
29	13.93	12.51	12.79	12.51	---	11.69	9.33	9.32	13.74	13.80	13.27	14.18
30	14.08	12.46	12.86	12.50	---	11.69	9.01	9.18	13.59	13.87	13.28	14.08
31	14.02	---	13.06	12.37	---	11.51	---	9.35	---	13.91	13.55	---
TOTAL	428.42	391.44	394.02	403.38	361.91	384.91	320.40	274.89	363.24	435.17	425.75	422.29
MEAN	13.82	13.05	12.71	13.01	12.93	12.42	10.68	8.87	12.11	14.04	13.73	14.08
MAX	14.54	13.52	13.06	13.73	13.69	13.47	11.50	9.91	13.74	14.65	14.08	14.46
MIN	13.40	12.46	12.38	12.37	11.68	11.31	9.01	7.84	9.89	13.31	13.22	13.60

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02289031 LEVEE 3 CANAL BELOW STRUCTURE G-155, NEAR CLEWISTON, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e700	83	e18	76	28	27	18	13	20	194	108	e267
2	e676	73	e28	e64	24	e49	25	16	20	475	92	200
3	565	69	e30	74	23	60	20	17	19	498	81	e183
4	505	69	e27	69	35	54	23	9.4	20	505	111	206
5	377	76	e18	68	21	41	17	12	18	485	70	228
6	297	79	e22	54	29	19	9.2	12	21	388	50	364
7	203	72	e24	54	26	73	6.5	8.0	18	360	52	375
8	106	64	e28	51	34	70	15	---	23	317	142	355
9	88	73	e29	52	33	86	17	---	16	443	143	341
10	67	80	e31	68	e-4.3	87	13	---	22	617	90	320
11	59	62	e32	51	49	43	14	---	24	597	104	352
12	32	51	e27	40	62	49	19	12	26	e648	144	362
13	41	62	e37	42	38	42	19	7.0	e-31	e721	147	344
14	63	e63	e35	63	63	32	16	---	e20	e661	172	325
15	59	65	e41	36	74	42	17	---	50	584	196	317
16	45	67	e35	58	68	29	18	---	34	460	110	e285
17	50	54	e48	e82	65	30	17	---	32	e216	108	210
18	48	44	e55	e53	59	33	18	13	52	179	e151	187
19	56	e45	e56	79	60	24	12	12	49	119	204	128
20	42	45	e30	e81	e80	27	19	11	e74	118	186	98
21	57	e36	e35	69	59	18	22	9.2	e115	84	208	98
22	56	e-9.0	e39	41	88	21	23	10	94	317	244	71
23	69	e-17	e33	54	84	15	13	13	100	414	193	86
24	85	e6.2	e42	47	41	15	2.7	6.2	100	426	152	87
25	85	e-14	e54	31	102	19	15	8.1	121	392	120	108
26	271	e47	e48	36	50	22	18	5.4	155	268	57	131
27	311	e23	e46	42	65	21	17	8.2	236	197	70	61
28	207	e13	e41	38	48	25	16	3.9	e140	117	94	73
29	134	e19	e46	31	---	18	17	15	141	100	106	59
30	77	e12	e50	34	---	26	11	14	129	86	137	72
31	95	---	e24	24	---	25	---	14	---	92	233	---
TOTAL	5526	1412.2	1109	1662	1403.7	1142	487.4	---	1858	11078	4075	6293
MEAN	178	47.1	35.8	53.6	50.1	36.8	16.2	---	61.9	357	131	210
MAX	700	83	56	82	102	87	25	---	236	721	244	375
MIN	32	-17	18	24	-4.3	15	2.7	---	-31	84	50	59
AC-FT	10960	2800	2200	3300	2780	2270	967	---	3690	21970	8080	12480

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)

MEAN	248	65.6	35.8	23.8	56.0	54.0	14.6	26.2	73.9	193	223	272
MAX	594	181	189	78.8	272	351	34.0	94.2	168	605	486	491
(WY)	2000	1995	1998	1998	1998	1998	1993	1997	1994	1999	1998	1994
MIN	30.9	-2.04	-20.6	-7.67	-7.05	-11.2	-9.36	-5.17	3.43	46.3	43.6	65.4
(WY)	1993	1998	1997	1997	1999	1999	1999	1999	1999	1993	2001	2000

## SUMMARY STATISTICS

## WATER YEARS 1992 - 2002

ANNUAL MEAN	114
HIGHEST ANNUAL MEAN	114
LOWEST ANNUAL MEAN	114
HIGHEST DAILY MEAN	1040
LOWEST DAILY MEAN	-51
ANNUAL SEVEN-DAY MINIMUM	-33
ANNUAL RUNOFF (AC-FT)	82270
10 PERCENT EXCEEDS	353
50 PERCENT EXCEEDS	34
90 PERCENT EXCEEDS	-16

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

02289032 LEVEE 4 BELOW STRUCTURE G-88, NEAR CLEWISTON, FL

LOCATION.--Lat 26°19'52", long 80°52'48", in NW 1/4 sec.7, T.48 S., R.35 E., Broward County, Hydrologic Unit 03090202, approximately 1.050 ft below structure G-88, 3.0 mi northeast of Snake Road and 35 mi south of Clewiston, FL.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--May to July 1992 (gage height only), August 1992 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic doppler velocity meter. Prior to October 18, 2001, satellite data collection platform with water-stage shaft encoder and acoustic velocity meter. Acoustic doppler velocity meter installed January 10, 2001. The acoustic velocity meter and acoustic doppler velocity meter were run in tandem for the period of January 10, 2001 to October 18, 2001. Datum of gage is National Geodetic Vertical Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Flow affected by operation of G-88, pump station S-8, and by agricultural pumping. Flow reversal occurs at times, during agricultural activity. Discharge computed from continuous record of line velocity and stage. Gage height records revised -0.04 ft May 1992 through September 1994, based upon revised elevation for BM L-4-6 from 22.578 ft to 22.543 ft. Discharge was not revised. Revised records are available in the files of the U.S. Geological Survey. The elevation of BM L-4-6 was revised by South Florida Water Management for a second time, elevation is now 22.380 ft. Gage height records for the 1992 - 1994 water years are now in error +0.21 ft in the files of the U.S. Geological Survey due to the revised elevation of BM L-4-6. Gage height records for the 1995-1996 water years are now in error +0.25 ft in the files of the U.S. Geological Survey due to the revised elevation of BM L-4-6.

ANNUAL MEAN AND ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 5 complete water years of discharge (1994, 1996-97, 2001-2002).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 14.72 ft July 12, 2002; minimum, 8.11 ft May 17, 2002.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 14.72 ft July 12; minimum, 8.11 ft May 17.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.55	e13.50	12.40	13.55	e12.15	13.11	11.33	9.18	9.87	13.31	13.78	e13.69
2	14.59	e13.33	12.35	e13.32	11.83	13.29	11.38	9.37	10.10	13.87	13.39	13.62
3	14.35	e13.28	12.41	13.14	11.67	13.16	11.37	9.38	10.27	14.03	13.72	e13.58
4	14.28	e13.22	12.43	13.07	11.82	12.95	11.44	8.97	10.39	14.10	13.84	13.62
5	14.06	e13.22	12.45	13.05	11.92	12.88	11.39	9.13	10.50	14.11	13.67	13.61
6	13.97	e13.21	12.46	13.05	11.99	12.97	11.01	9.03	10.60	13.95	13.54	13.88
7	13.82	e13.23	12.51	13.01	11.98	13.42	10.92	8.43	10.73	13.88	13.20	13.96
8	13.55	e13.19	12.54	e12.98	11.98	13.12	10.91	e8.30	10.94	13.81	13.29	14.02
9	13.54	e13.16	12.58	13.01	12.05	13.03	10.64	8.21	11.05	14.00	13.55	14.25
10	13.51	13.15	12.70	13.02	12.63	12.99	10.40	8.16	11.08	14.32	13.86	14.34
11	13.45	13.15	12.76	13.00	13.35	12.91	10.07	8.21	11.17	14.37	13.92	14.31
12	13.39	13.11	12.83	13.00	13.15	12.86	10.24	8.51	11.33	14.51	14.04	14.12
13	13.67	13.09	12.89	12.99	13.25	12.89	10.46	8.69	12.20	14.69	14.06	14.23
14	13.53	13.07	12.90	12.94	13.66	12.89	10.64	8.34	e13.22	14.61	13.95	14.35
15	13.62	13.08	12.91	13.14	13.57	12.76	10.79	8.16	13.21	14.49	13.63	14.37
16	13.56	13.07	12.92	13.71	13.65	12.56	10.93	e8.12	12.80	14.28	13.52	e14.43
17	13.72	13.07	12.94	13.71	13.64	12.46	11.14	e8.16	12.62	e14.00	13.76	14.41
18	13.70	13.05	12.93	13.58	13.60	12.38	11.24	9.14	12.52	14.11	e13.84	14.37
19	13.66	e13.00	12.82	13.19	13.60	12.06	11.21	8.87	12.46	13.96	13.99	14.28
20	13.52	12.98	12.68	e13.06	e13.60	11.98	11.05	8.50	12.67	13.82	13.95	14.22
21	e13.50	12.96	12.63	12.97	13.61	11.81	11.01	8.80	e13.10	13.53	14.02	14.06
22	e13.45	12.92	12.60	12.95	13.46	11.67	11.00	9.71	13.08	14.01	14.06	14.12
23	e13.71	12.91	12.62	12.89	13.19	11.49	10.74	9.88	13.12	e13.95	13.91	13.94
24	e13.73	12.87	12.65	12.82	13.29	11.32	10.43	9.52	13.14	14.02	13.85	13.74
25	e13.71	12.81	12.66	12.74	13.50	11.26	10.18	8.93	13.26	14.00	13.88	13.88
26	e13.88	12.77	12.73	e12.64	13.12	11.34	10.01	8.92	13.34	13.95	13.71	13.95
27	e14.10	12.77	12.74	e12.56	13.01	11.51	9.65	8.99	13.46	14.17	13.67	13.96
28	e14.19	12.67	12.77	e12.51	12.97	11.58	9.44	8.69	e13.46	13.99	13.49	14.12
29	e13.92	12.50	12.77	12.49	---	11.62	9.29	9.20	13.74	13.77	13.25	14.15
30	e14.06	12.45	12.84	e12.49	---	11.63	8.94	9.04	13.60	13.85	13.27	14.05
31	e14.00	---	13.04	e12.37	---	11.45	---	9.32	---	13.89	13.53	---
TOTAL	428.29	390.79	393.46	402.95	361.24	383.35	319.25	273.86	363.03	435.35	425.14	421.63
MEAN	13.82	13.03	12.69	13.00	12.90	12.37	10.64	8.83	12.10	14.04	13.71	14.05
MAX	14.59	13.50	13.04	13.71	13.66	13.42	11.44	9.88	13.74	14.69	14.06	14.43
MIN	13.39	12.45	12.35	12.37	11.67	11.26	8.94	8.12	9.87	13.31	13.20	13.58

e Estimated

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02289032 LEVEE 4 BELOW STRUCTURE G-88, NEAR CLEWISTON, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	395	e70	8.1	55	e0.67	19	-14	-97	-0.98	85	83	e124
2	383	e64	11	e47	-17	34	8.8	-96	1.7	222	71	85
3	319	e40	8.3	40	-16	28	-7.8	-86	-0.64	237	67	e82
4	279	e34	14	49	-11	8.1	0.69	-36	4.8	245	71	91
5	191	e50	18	50	15	23	-20	-8.6	7.9	232	38	100
6	139	e56	18	33	21	24	-12	-43	8.2	185	29	149
7	86	e49	21	15	-15	42	14	-31	0.72	165	20	150
8	58	e42	25	e36	1.4	50	4.3	e-23	5.6	145	66	137
9	59	e39	33	34	20	39	0.26	-5.4	9.8	208	72	116
10	55	53	37	37	-16	31	-17	-6.6	9.4	294	64	115
11	39	54	33	34	15	32	-15	-7.5	9.3	283	64	143
12	33	42	34	41	35	23	4.3	-34	3.4	309	92	153
13	42	38	35	35	34	15	8.8	-35	-38	353	89	144
14	33	28	33	40	65	12	6.5	-13	e-6.5	319	93	129
15	41	19	38	14	66	21	13	-6.9	2.7	287	92	127
16	24	31	39	45	64	36	9.4	e-9.7	-6.3	243	68	e105
17	35	45	36	68	66	29	11	e-27	-4.8	e139	63	96
18	29	33	6.6	33	57	16	14	-126	22	108	e72	90
19	42	e29	4.5	46	60	3.3	6.9	-87	33	85	88	67
20	37	21	3.3	e43	e64	12	4.4	-11	18	62	78	56
21	e35	23	15	30	64	-15	15	-29	e52	24	95	51
22	e34	29	28	46	69	-4.4	2.1	-52	54	125	109	46
23	e54	37	34	42	50	0.69	-23	-6.1	56	e182	88	30
24	e70	32	16	32	31	6.9	-13	-34	59	196	71	35
25	e68	25	20	-2.5	64	5.5	-13	-34	103	184	54	45
26	e130	23	7.5	e-4.2	35	8.7	-25	-6.5	118	121	27	63
27	e145	28	25	e35	14	-7.3	-35	-23	120	77	36	22
28	e114	5.7	16	e31	20	-1.5	-27	-98	e90	35	43	29
29	e92	15	18	36	---	17	-35	-90	92	26	43	47
30	e80	23	34	e31	---	9.9	-62	-95	66	36	62	57
31	e76	---	13	e3.4	---	5.5	---	-18	---	63	103	---
TOTAL	3217	1077.7	682.3	1074.7	856.07	523.39	-195.35	-1275.3	889.30	5275	2111	2684
MEAN	104	35.9	22.0	34.7	30.6	16.9	-6.51	-41.1	29.6	170	68.1	89.5
MAX	395	70	39	68	69	50	15	-5.4	120	353	109	153
MIN	24	5.7	3.3	-4.2	-17	-15	-62	-126	-38	24	20	22
AC-FT	6380	2140	1350	2130	1700	1040	-387	-2530	1760	10460	4190	5320

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	
MEAN	291	79.0	81.4	63.4	32.2	13.8	-9.60	-16.7	65.1	122	67.3	234
MAX	756	242	438	290	69.7	86.0	37.4	79.5	186	218	133	676
(WY)	1996	1995	1995	1995	1998	1998	1997	1997	1999	1994	1994	1995
MIN	24.8	-6.15	-0.25	-5.53	-6.28	-30.1	-65.2	-74.7	-23.4	11.4	8.39	40.7
(WY)	1999	1998	2001	2001	1996	1999	1999	1993	2000	1993	2000	2000

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1992 - 2002

ANNUAL TOTAL	11861.30	16919.81	70.8
ANNUAL MEAN	32.5	46.4	28.3
HIGHEST ANNUAL MEAN			126
LOWEST ANNUAL MEAN			28.3
HIGHEST DAILY MEAN	395	Oct 1	395
LOWEST DAILY MEAN	-64	May 21	-126
ANNUAL SEVEN-DAY MINIMUM	-17	May 16	-63
ANNUAL RUNOFF (AC-FT)	23530	33560	51310
10 PERCENT EXCEEDS	76	124	177
50 PERCENT EXCEEDS	14	34	26
90 PERCENT EXCEEDS	-8.6	-14	-10

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.



254543080491101 TAMIAMI CANAL AT S-12-A, NEAR MIAMI, FL

LOCATION.--Lat 25°45'43", long 80°49'11", T.54 S., R.35 E., Dade County, Hydrologic Unit 03090202, on northwest bank of Levee 29 Tamiami Canal, 50 feet south of structure S-12-A. Approximately 21.8 mi west of State Road 997 (old State Road 27) along U.S. Highway 41 near 40 mile bend. No section could be determined from existing maps.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1963 to September 1965, October 1970 to September 1971, October 1975 to September 1976, October 1977 to September 1980 (discharge only), October 1980 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoders for upstream and downstream stages. Datum of gage is National Geodetic Vertical Datum of 1929. Satellite data collection platform installed April 1, 1990.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Station is one of several located downstream from the control structures, in Levee 29 at Tamiami Canal. Gage record is primarily used to determine discharge through control structure 12-A. Discharge is the total discharge through the S-12-A structure, from Conservation Area 3A. The daily discharge computed from relations between discharge, head, and gate-openings when flow is controlled by gates and computed by relation between stage and discharge under uncontrolled conditions. Stage and discharge records prior to 1980, were either fragmentary or unavailable from the files of the U.S. Geological Survey. Upstream gage height records were formerly published under 254543080491100. Upstream gage height records have been relocated under 254543080491101 as 'Published' upstream record in the files of the U.S. Geological Survey.

COOPERATION.--Gate opening records provided by U.S. Army Corps of Engineers.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 29 complete water years of discharge (1964-65, 1971,1976,1978-2002).

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 11.83 ft Dec. 21, 1994; minimum, 5.17 ft June 18, 19, 1989.

EXTREME UPSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 10.65 ft Nov. 5; minimum, 7.34 ft May 13.

EXTREME DOWNSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 11.80 ft Dec. 21, 1994; minimum, 5.21 ft June 19, 20, 1989.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 10.40 ft Oct. 25, 26; minimum, 7.38 ft May 13, 14.

UPSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.11	10.44	10.37	10.25	10.06	9.83	8.91	8.36	8.37	9.73	9.89	e9.99
2	10.10	10.48	10.36	e10.25	10.06	9.79	8.89	8.31	e8.39	9.77	9.89	9.99
3	10.08	10.50	10.34	10.26	10.16	9.73	8.88	8.29	e8.45	9.72	9.89	10.01
4	10.08	10.53	10.31	10.27	10.11	9.72	8.87	8.23	8.54	9.66	9.91	10.06
5	10.08	10.63	10.27	10.26	10.09	9.72	8.88	8.18	8.49	9.63	9.94	10.05
6	10.09	10.63	10.24	10.23	10.05	9.69	8.88	8.14	8.45	9.63	9.94	10.06
7	10.09	10.63	10.21	10.23	10.01	9.67	8.87	8.09	8.52	9.62	9.94	10.03
8	10.10	10.62	10.17	10.25	10.00	9.65	8.84	e8.00	8.67	9.64	9.95	10.01
9	10.13	10.61	10.14	10.24	9.99	9.63	8.80	7.84	8.71	9.69	9.94	10.00
10	10.14	10.60	10.13	10.23	9.99	9.60	8.77	7.72	8.69	9.71	9.93	9.99
11	e10.12	10.60	10.11	10.22	10.00	9.58	8.75	7.63	8.69	9.72	9.92	10.03
12	e10.12	10.59	10.09	10.22	9.99	9.55	8.74	7.53	8.68	9.70	9.93	10.10
13	10.11	10.59	10.12	10.21	9.98	9.51	8.71	7.42	8.70	9.69	9.94	10.08
14	10.11	10.57	10.14	10.20	9.98	9.49	8.73	7.50	8.79	9.69	9.97	10.08
15	10.12	10.55	10.15	10.20	9.96	9.46	8.81	7.85	8.99	9.69	10.00	10.06
16	10.12	10.54	10.15	10.20	9.94	9.43	8.80	e7.94	9.12	9.68	9.98	10.04
17	10.12	10.54	10.14	10.20	9.93	9.41	8.79	7.89	9.14	9.69	9.98	10.03
18	10.13	10.54	10.14	10.19	9.92	9.37	8.78	7.79	9.16	9.73	10.02	10.02
19	10.14	10.52	10.13	10.18	9.90	9.34	8.76	7.86	9.19	9.73	10.06	10.01
20	10.16	10.51	10.13	10.18	9.86	9.30	8.73	8.25	9.24	9.73	10.03	9.99
21	10.24	10.50	10.16	10.16	9.83	9.26	8.70	8.35	9.38	9.77	10.01	9.99
22	10.35	10.48	10.18	10.16	9.82	9.23	8.67	8.42	9.43	9.85	9.99	9.97
23	10.38	10.47	10.17	10.15	9.96	9.21	8.64	8.36	9.48	9.83	9.95	9.99
24	10.37	10.46	10.17	10.14	9.95	9.17	8.63	8.31	9.55	9.83	9.93	10.01
25	10.38	10.45	10.18	10.12	9.93	9.13	8.60	8.23	9.65	9.84	9.90	10.03
26	10.39	10.44	10.20	10.12	9.91	9.09	8.56	8.14	9.71	9.87	9.88	10.00
27	10.37	10.43	10.19	10.11	9.88	9.08	8.53	8.08	9.71	9.87	9.86	10.00
28	10.35	10.41	10.18	10.10	9.85	9.06	8.49	8.00	9.72	9.86	9.88	10.00
29	10.34	10.40	10.18	10.09	---	9.03	8.45	8.06	9.71	9.85	9.90	9.99
30	10.33	10.38	10.18	10.08	---	9.00	8.41	8.12	9.69	9.86	9.93	9.98
31	10.36	---	10.21	10.08	---	8.96	---	8.25	---	9.89	9.96	---
TOTAL	316.11	315.64	315.84	315.78	279.11	291.69	261.87	249.14	271.01	302.17	308.24	300.59
MEAN	10.20	10.52	10.19	10.19	9.97	9.41	8.73	8.04	9.03	9.75	9.94	10.02
MAX	10.39	10.63	10.37	10.27	10.16	9.83	8.91	8.42	9.72	9.89	10.06	10.10
MIN	10.08	10.38	10.09	10.08	9.82	8.96	8.41	7.42	8.37	9.62	9.86	9.97

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

254543080491101 TAMIAMI CANAL AT S-12-A, NEAR MIAMI, FL

DOWNSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.10	8.59	8.25	8.20	8.09	8.08	7.78	7.74	7.79	8.96	9.87	e9.97
2	10.08	8.47	8.25	e8.20	8.11	8.07	7.79	7.74	e7.80	8.98	9.87	9.97
3	10.07	8.43	8.25	8.20	8.20	8.06	7.82	7.74	e7.87	9.26	9.87	9.99
4	10.07	8.42	8.24	8.18	8.16	8.04	7.84	7.73	7.97	9.41	9.89	10.05
5	10.07	8.44	8.24	8.18	8.14	8.02	7.82	7.73	7.90	9.40	9.91	10.04
6	10.08	8.41	8.24	8.18	8.13	8.01	7.80	7.73	7.87	9.39	9.91	10.04
7	10.08	8.38	8.25	8.18	8.12	8.01	7.78	7.72	7.95	9.39	9.91	10.02
8	10.09	8.38	8.24	8.17	8.10	8.01	7.77	---	8.06	9.41	9.93	10.00
9	10.11	8.37	8.24	8.17	8.10	8.00	7.77	7.64	8.02	9.57	9.92	9.98
10	10.12	8.33	8.23	8.16	8.13	7.99	7.76	7.57	7.98	9.69	9.90	9.98
11	e10.11	8.33	8.23	8.16	8.13	7.97	7.74	7.51	7.99	9.70	9.90	10.02
12	e10.11	8.32	8.22	8.16	8.13	7.97	7.74	7.45	7.98	9.68	9.91	10.08
13	10.10	8.34	8.21	8.16	8.12	7.95	7.74	7.41	7.99	9.67	9.91	10.07
14	10.10	8.31	8.21	8.16	8.12	7.93	7.84	7.42	8.05	9.66	9.95	10.06
15	10.11	8.31	8.21	8.16	8.12	7.90	7.94	7.58	8.17	9.66	9.98	10.05
16	10.12	8.30	8.20	8.16	8.11	7.88	7.88	---	8.17	9.66	9.96	10.03
17	10.12	8.29	8.20	8.16	8.10	7.87	7.86	7.66	8.14	9.66	9.96	10.02
18	10.12	8.29	8.20	8.15	8.08	7.86	7.85	7.63	8.12	9.71	10.00	10.00
19	10.13	8.29	8.20	8.15	8.07	7.85	7.85	7.67	8.10	9.71	10.04	9.99
20	10.15	8.29	8.19	8.15	8.06	7.85	7.85	7.82	8.11	9.71	10.01	9.98
21	10.23	8.28	8.18	8.14	8.05	7.84	7.84	7.83	8.18	9.75	9.99	9.98
22	10.34	8.28	8.17	8.14	8.05	7.84	7.84	7.82	8.17	9.84	9.96	9.96
23	10.37	8.28	8.17	8.13	8.21	7.83	7.85	7.80	8.17	9.81	9.93	9.97
24	10.37	8.28	8.17	8.13	8.16	7.82	7.84	7.78	8.18	9.81	9.90	9.99
25	10.37	8.28	8.17	8.13	8.14	7.82	7.82	7.77	8.20	9.82	9.88	10.02
26	10.39	8.27	8.18	8.12	8.13	7.81	7.80	7.75	8.19	9.85	9.85	9.99
27	10.37	8.27	8.17	8.12	8.11	7.82	7.78	7.73	8.18	9.85	9.84	9.99
28	10.34	8.26	8.17	8.12	8.09	7.81	7.77	7.70	8.18	9.84	9.86	9.99
29	10.33	8.26	8.17	8.11	---	7.81	7.76	7.68	8.65	9.84	9.87	9.98
30	10.32	8.26	8.17	8.11	---	7.80	7.75	7.70	8.94	9.84	9.91	9.97
31	9.78	---	8.18	8.10	---	7.79	---	7.78	---	9.87	9.94	---
TOTAL	315.25	250.01	254.40	252.74	227.26	245.31	234.27	---	243.07	298.40	307.53	300.18
MEAN	10.17	8.33	8.21	8.15	8.12	7.91	7.81	---	8.10	9.63	9.92	10.01
MAX	10.39	8.59	8.25	8.20	8.21	8.08	7.94	---	8.94	9.87	10.04	10.08
MIN	9.78	8.26	8.17	8.10	8.05	7.79	7.74	---	7.79	8.96	9.84	9.96

e Estimated

254543080491101 TAMIAMI CANAL AT S-12-A, NEAR MIAMI, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	520	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	156	407	e540
2	517	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	154	412	541
3	514	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	280	419	555
4	511	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	306	432	579
5	506	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	297	452	569
6	513	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	295	457	564
7	512	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	288	465	550
8	516	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	294	478	536
9	527	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	352	480	523
10	527	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	397	479	519
11	e521	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	401	486	531
12	e520	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	394	497	558
13	516	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	389	506	549
14	511	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	387	532	538
15	519	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	385	551	529
16	521	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	383	542	514
17	522	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	383	542	506
18	523	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	399	563	502
19	529	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	394	583	499
20	539	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	390	565	497
21	578	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	401	555	497
22	639	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	434	544	491
23	655	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	419	527	500
24	656	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	412	512	513
25	660	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	412	497	528
26	668	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	422	487	516
27	657	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	417	481	517
28	642	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	410	489	518
29	636	0.00	0.00	0.00	---	0.00	0.00	0.00	116	404	495	515
30	631	0.00	0.00	0.00	---	0.00	0.00	0.00	160	402	511	511
31	355	---	0.00	0.00	---	0.00	---	0.00	---	408	525	---
TOTAL	17161	0.00	0.00	0.00	0.00	0.00	0.00	0.00	276.00	11265	15471	15805
MEAN	554	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.20	363	499	527
MAX	668	0.00	0.00	0.00	0.00	0.00	0.00	0.00	160	434	583	579
MIN	355	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	154	407	491
AC-FT	34040	0.00	0.00	0.00	0.00	0.00	0.00	0.00	547	22340	30690	31350

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)

	293	237	116	74.7	65.6	62.8	37.6	18.5	36.7	121	156	190
MEAN	293	237	116	74.7	65.6	62.8	37.6	18.5	36.7	121	156	190
MAX	1152	1261	1335	1346	849	580	464	267	394	714	682	722
(WY)	1996	1995	1995	1995	1995	1993	1993	1993	1993	1982	1982	1995
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964

SUMMARY STATISTICS FOR 2001 CALENDAR YEAR FOR 2002 WATER YEAR WATER YEARS 1964 - 2002

ANNUAL TOTAL	28537.00	59978.00	
ANNUAL MEAN	78.2	164	133
HIGHEST ANNUAL MEAN			672
LOWEST ANNUAL MEAN			0.000
HIGHEST DAILY MEAN	668	Oct 26	668
LOWEST DAILY MEAN	0.00	Jan 1	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00
ANNUAL RUNOFF (AC-FT)	56600		119000
10 PERCENT EXCEEDS	313		527
50 PERCENT EXCEEDS	0.00		0.00
90 PERCENT EXCEEDS	0.00		0.00

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02289019 TAMiami CANAL AT S-12-B, NEAR MIAMI, FL

LOCATION.--Lat 25°45'40", long 80°46'05", T.54 S., R.36 E., Miami-Dade County, Hydrologic Unit 03090202, on west bank of spillway, 100 ft southwest of control structure 12-B, and 35 mi west of Miami. No section could be determined from existing maps.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--April 1963 to September 1963, October 1963 to September 1965, October 1966 to September 1975 (gage heights only), October 1975 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoders for upstream and downstream stages. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Since March 9, 1990, satellite data collection platform. Station is one of several located below the gated control structures in Levee 29 at Tamiami Canal. Gage record is primarily used to determine discharge through structure 12-B. Discharge computed from relation between discharge, head, and gate openings when flow is controlled by gates and computed by relation between stage and discharge under uncontrolled conditions. Discharge records for the missing periods above were either fragmentary or unavailable from files of the U.S. Geological Survey. Upstream gage height records were formerly published under 02289018. Upstream gage height records have been relocated under 02289019 as "Published upstream" record in the files of the U.S. Geological Survey.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 29 complete water years of discharge (1964-65, 1976-2002).

COOPERATION.--Gate opening records provided by U.S. Army Corps of Engineers.

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 11.92 ft Dec. 21, 1994; minimum, 5.14 ft June 18, 19, 1989.

EXTREME UPSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 10.58 ft Nov. 5, 6; minimum, 7.35 ft May 13, 14.

EXTREME DOWNSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 11.91 ft Dec. 21, 1994; minimum, 5.02 ft June 19, 1989.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 10.57 ft Nov. 5, 6; minimum, 6.93 ft May 13.

UPSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.13	10.40	10.32	10.26	10.05	9.80	8.88	8.34	8.36	9.70	9.91	10.00
2	10.11	10.43	10.31	10.25	10.05	9.75	8.86	8.30	8.37	9.74	9.91	10.00
3	10.10	10.44	10.29	10.26	10.14	9.71	8.85	8.27	e8.43	9.69	9.91	10.02
4	10.10	10.47	10.24	10.28	10.10	9.70	8.86	8.22	e8.53	e9.63	9.93	10.09
5	10.10	10.57	10.19	10.25	10.08	9.69	8.87	8.17	e8.48	e9.60	9.95	10.08
6	10.11	10.58	10.15	10.23	10.04	9.67	8.87	8.13	8.42	9.59	9.95	10.09
7	10.11	10.57	10.13	10.23	10.00	9.64	8.85	8.08	8.49	9.59	9.96	10.07
8	10.12	10.56	10.09	10.25	9.99	9.62	8.82	e8.00	8.63	9.61	9.97	10.05
9	10.15	10.55	10.07	10.23	9.98	9.60	8.78	7.83	8.68	9.68	9.95	10.03
10	10.15	10.55	10.06	10.23	9.98	9.58	8.75	7.71	8.66	9.70	9.94	10.03
11	10.14	10.54	10.03	10.22	10.00	9.56	8.73	7.61	8.66	9.72	9.95	10.07
12	10.13	10.54	10.03	10.21	9.99	9.53	8.72	7.52	8.65	9.70	9.96	10.13
13	10.13	10.53	10.11	10.20	9.98	9.49	8.70	7.42	8.67	9.69	9.96	10.12
14	10.13	10.52	10.13	10.19	9.97	9.47	8.71	7.49	8.76	9.69	10.00	10.10
15	10.14	10.50	10.13	10.19	9.95	9.44	8.79	7.84	8.97	9.68	10.02	10.09
16	10.14	10.49	10.13	10.20	9.93	9.41	8.77	e7.94	9.10	9.68	9.99	10.07
17	10.15	10.49	10.12	10.19	9.92	9.38	8.77	7.89	9.12	9.69	10.00	10.05
18	10.15	10.48	10.13	10.19	9.90	9.34	8.76	7.79	9.15	9.74	e10.04	10.04
19	10.16	10.47	10.12	10.18	9.88	9.31	8.74	7.86	9.17	9.74	e10.07	10.03
20	10.18	10.46	10.14	10.17	9.85	9.28	8.71	8.23	9.23	9.74	10.03	10.02
21	10.26	10.45	10.17	10.16	9.82	9.24	8.68	8.33	9.37	9.78	10.01	10.01
22	10.37	10.43	10.17	10.16	9.80	9.21	8.65	8.41	9.41	9.86	9.98	10.00
23	10.41	10.42	10.17	10.14	9.94	9.18	8.62	8.35	9.46	9.85	9.95	10.01
24	10.40	10.41	10.17	10.12	9.94	9.14	8.61	8.30	9.55	9.84	9.92	10.03
25	10.41	10.40	10.18	10.12	9.92	9.10	8.59	8.23	9.65	9.85	9.89	10.05
26	10.42	10.39	10.21	10.11	9.89	9.07	8.55	8.14	9.68	9.89	9.87	10.03
27	10.41	10.37	10.19	10.11	9.87	9.06	8.52	8.07	9.68	9.88	9.86	10.03
28	10.38	10.35	10.19	10.09	9.84	9.04	8.48	8.00	9.70	9.88	9.89	10.02
29	10.37	10.34	10.18	10.08	---	9.01	8.44	8.06	9.68	9.88	9.91	10.01
30	10.36	10.33	10.19	10.08	---	8.97	8.39	8.12	9.66	9.89	9.95	10.00
31	10.36	---	10.21	10.06	---	8.93	---	8.23	---	9.91	9.98	---
TOTAL	316.78	314.03	314.95	315.64	278.80	290.92	261.32	248.88	270.37	302.11	308.61	301.37
MEAN	10.22	10.47	10.16	10.18	9.96	9.38	8.71	8.03	9.01	9.75	9.96	10.05
MAX	10.42	10.58	10.32	10.28	10.14	9.80	8.88	8.41	9.70	9.91	10.07	10.13
MIN	10.10	10.33	10.03	10.06	9.80	8.93	8.39	7.42	8.36	9.59	9.86	10.00

e Estimated

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02289019 TAMAMI CANAL AT S-12-B, NEAR MIAMI, FL

DOWNSTEAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.13	10.39	10.30	8.02	7.93	7.88	7.63	7.39	7.76	9.29	9.92	10.01
2	10.10	10.42	10.29	8.01	7.94	7.88	7.68	7.36	7.77	9.32	9.92	10.01
3	10.09	10.43	10.27	8.00	7.98	7.87	7.77	7.32	7.83	9.49	9.91	10.03
4	10.08	10.46	10.22	7.98	7.95	7.86	7.76	7.29	7.91	e9.57	9.93	10.10
5	10.09	10.55	10.16	7.97	7.93	7.86	7.77	7.26	7.83	e9.54	9.96	10.09
6	10.10	10.56	10.13	7.97	7.93	7.86	7.75	7.23	7.80	9.54	9.96	10.08
7	10.09	10.55	10.10	7.97	7.92	7.86	7.74	7.20	7.84	9.54	9.96	10.05
8	10.10	10.54	10.06	7.96	7.92	7.86	7.72	---	7.93	9.56	9.97	10.04
9	10.13	10.54	10.04	7.95	7.92	7.86	7.70	7.13	7.88	9.64	9.95	10.02
10	10.13	10.53	10.03	7.95	7.95	7.85	7.67	7.08	7.83	9.69	9.95	10.02
11	10.13	10.53	10.00	7.97	7.93	7.84	7.66	7.03	7.87	9.71	9.96	10.06
12	10.12	10.52	10.00	7.97	7.92	7.83	7.64	6.98	7.88	9.69	9.96	10.12
13	10.11	10.52	9.69	7.97	7.92	7.82	7.63	6.98	7.88	9.68	9.96	10.11
14	10.11	10.50	9.39	7.97	7.92	7.82	7.65	7.04	7.89	9.68	10.01	10.09
15	10.13	10.49	9.38	7.96	7.92	7.81	7.75	7.03	8.04	9.68	10.02	10.08
16	10.13	10.48	9.38	7.96	7.92	7.80	7.73	---	8.00	9.67	10.00	10.06
17	10.14	10.48	9.38	7.95	7.91	7.79	7.71	7.12	7.91	9.68	10.01	10.05
18	10.14	10.46	9.38	7.95	7.90	7.79	7.69	7.09	7.87	9.73	10.04	10.03
19	10.15	10.45	9.37	7.95	7.90	7.78	7.66	7.27	7.85	9.73	10.07	10.02
20	10.17	10.45	8.88	7.95	7.89	7.77	7.64	7.77	7.91	9.73	10.03	10.01
21	10.24	10.43	8.30	7.94	7.89	7.75	7.62	7.72	7.98	9.77	10.01	10.00
22	10.36	10.42	8.19	7.94	7.88	7.75	7.60	7.68	7.94	9.85	9.98	9.98
23	10.40	10.40	8.13	7.94	8.02	7.74	7.58	7.64	7.93	9.83	9.95	10.00
24	10.39	10.38	8.09	7.94	7.95	7.72	7.56	7.61	7.94	9.82	9.92	10.02
25	10.39	10.38	8.07	7.94	7.92	7.71	7.54	7.57	7.95	9.84	9.90	10.04
26	10.41	10.37	8.05	7.94	7.90	7.70	7.52	7.54	7.93	9.87	9.88	10.02
27	10.40	10.35	8.03	7.94	7.89	7.71	7.49	7.51	7.90	9.87	9.87	10.02
28	10.37	10.34	8.02	7.94	7.88	7.69	7.46	7.50	7.90	9.87	9.90	10.01
29	10.35	10.32	8.01	7.94	---	7.68	7.44	7.50	8.57	9.86	9.92	10.00
30	10.34	10.31	8.00	7.94	---	7.66	7.41	7.58	9.27	9.87	9.96	9.99
31	10.35	---	8.02	7.93	---	7.65	---	7.79	---	9.90	9.98	---
TOTAL	316.37	313.55	285.36	246.71	221.83	241.45	229.17	---	238.79	300.51	308.76	301.16
MEAN	10.21	10.45	9.21	7.96	7.92	7.79	7.64	---	7.96	9.69	9.96	10.04
MAX	10.41	10.56	10.30	8.02	8.02	7.88	7.77	---	9.27	9.90	10.07	10.12
MIN	10.08	10.31	8.00	7.93	7.88	7.65	7.41	---	7.76	9.29	9.87	9.98

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02289019 TAMiami CANAL AT S-12-B, NEAR MIAMI, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	489	616	545	0.00	0.00	0.00	0.00	0.00	0.00	279	373	433
2	483	625	542	0.00	0.00	0.00	0.00	0.00	0.00	280	376	431
3	478	631	530	0.00	0.00	0.00	0.00	0.00	0.00	345	379	437
4	476	641	504	0.00	0.00	0.00	0.00	0.00	0.00	e335	388	461
5	476	694	480	0.00	0.00	0.00	0.00	0.00	0.00	e319	403	453
6	477	696	464	0.00	0.00	0.00	0.00	0.00	0.00	300	407	447
7	474	688	453	0.00	0.00	0.00	0.00	0.00	0.00	297	412	435
8	479	678	437	0.00	0.00	0.00	0.00	0.00	0.00	308	419	424
9	492	677	429	0.00	0.00	0.00	0.00	0.00	0.00	366	417	416
10	494	668	424	0.00	0.00	0.00	0.00	0.00	0.00	364	421	413
11	490	665	416	0.00	0.00	0.00	0.00	0.00	0.00	368	430	426
12	488	658	416	0.00	0.00	0.00	0.00	0.00	0.00	362	437	446
13	479	653	325	0.00	0.00	0.00	0.00	0.00	0.00	360	440	437
14	478	640	255	0.00	0.00	0.00	0.00	0.00	0.00	360	462	428
15	485	632	257	0.00	0.00	0.00	0.00	0.00	0.00	359	474	420
16	487	627	257	0.00	0.00	0.00	0.00	0.00	0.00	357	460	412
17	491	625	258	0.00	0.00	0.00	0.00	0.00	0.00	356	462	403
18	492	618	260	0.00	0.00	0.00	0.00	0.00	0.00	368	478	398
19	495	613	260	0.00	0.00	0.00	0.00	0.00	0.00	366	487	397
20	504	615	92	0.00	0.00	0.00	0.00	0.00	0.00	361	464	392
21	540	606	0.00	0.00	0.00	0.00	0.00	0.00	0.00	368	454	391
22	601	599	0.00	0.00	0.00	0.00	0.00	0.00	0.00	393	440	388
23	622	591	0.00	0.00	0.00	0.00	0.00	0.00	0.00	381	428	394
24	614	582	0.00	0.00	0.00	0.00	0.00	0.00	0.00	375	416	401
25	617	580	0.00	0.00	0.00	0.00	0.00	0.00	0.00	376	406	410
26	629	576	0.00	0.00	0.00	0.00	0.00	0.00	0.00	383	395	402
27	622	567	0.00	0.00	0.00	0.00	0.00	0.00	0.00	376	393	405
28	604	558	0.00	0.00	0.00	0.00	0.00	0.00	0.00	371	400	404
29	594	557	0.00	0.00	---	0.00	0.00	0.00	234	366	405	399
30	590	549	0.00	0.00	---	0.00	0.00	0.00	282	366	418	402
31	593	---	0.00	0.00	---	0.00	---	0.00	---	370	427	---
TOTAL	16333	18725	7604.00	0.00	0.00	0.00	0.00	0.00	516.00	10935	13171	12505
MEAN	527	624	245	0.000	0.000	0.000	0.000	0.000	17.2	353	425	417
MAX	629	696	545	0.00	0.00	0.00	0.00	0.00	282	393	487	461
MIN	474	549	0.00	0.00	0.00	0.00	0.00	0.00	0.00	279	373	388
AC-FT	32400	37140	15080	0.00	0.00	0.00	0.00	0.00	1020	21690	26120	24800

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)

MEAN	295	246	145	84.1	68.7	63.4	33.3	18.5	37.7	105	148	194
MAX	930	1032	1232	1160	681	424	338	192	311	519	550	605
(WY)	1996	2000	1995	1995	1995	1995	1993	1993	1993	1982	1982	1995
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964

## SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1964 - 2002

ANNUAL TOTAL	55264.00	79789.00	
ANNUAL MEAN	151	219	128
HIGHEST ANNUAL MEAN			561
LOWEST ANNUAL MEAN			0.000
HIGHEST DAILY MEAN	696	Nov 6	696
LOWEST DAILY MEAN	0.00	Jan 1	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00
ANNUAL RUNOFF (AC-FT)	109600	158300	92630
10 PERCENT EXCEEDS	571	571	379
50 PERCENT EXCEEDS	0.00	0.00	20
90 PERCENT EXCEEDS	0.00	0.00	0.00

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

02289040 TAMiami CANAL OUTLETS, LEVEE 67A TO 40-MILE BEND, NEAR MIAMI, FL

LOCATION.--Lat 25°45'22", long 80°43'34", T.54 S., R.36 E., Miami-Dade County, Hydrologic Unit 03090202, on south bank of Levee 29 Borrow Canal, 100 ft northwest of control structure 12-C, and 33 mi west of Miami. No section could be determined from existing maps.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1939 to September 1963 (monthly discharge), October 1963 to current year.

REVISED RECORDS.--WDR FL-87-2A: 1986; WDR FL-89-2A: 1983.

GAGE.--Satellite data collection platform with water-stage shaft encoder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Discharge is the total discharge through the S-12 structures A, B, C, and D from Conservation Area 3A. Prior to October 1963 discharge was the total discharge of station, Tamiami Canal Outlets, Miami to Monroe (station 02289000). The daily discharge computed from relation between discharge, head, and gate openings when flow is controlled by gates and computed by relation between stage and discharge under uncontrolled conditions. Satellite data collection platform at S-12-C downstream that records upstream and downstream gages.

COOPERATION.--Gate-opening records for S-12 complex provided by U.S. Army Corps of Engineers.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Average annual mean discharge, 581 ft<sup>3</sup>/s, 420,900 acre-ft/yr. Figures represent 60 complete water years of discharge (1941-97,1999-2001). Monthly discharge only, available 1941-63 water years.

SPECIAL NOTE: Statistics for the period of record 1941-2001 computed manually. NWIS database not complete.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 11.87 ft Dec. 21, 1994; minimum, 5.17 ft June 19, 1989.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 10.58 ft Nov. 5, 6; minimum, 7.38 ft May 13.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.17	10.41	10.32	10.26	10.05	9.77	8.87	8.38	8.38	9.71	9.98	10.06
2	10.15	10.43	10.32	10.26	10.04	9.70	8.86	8.33	8.38	9.75	9.98	10.06
3	10.14	10.45	10.29	10.27	10.10	9.67	8.86	8.30	8.43	9.69	9.98	10.08
4	10.13	10.47	10.21	10.25	10.08	9.67	8.87	8.24	8.53	9.64	9.99	10.13
5	10.15	10.56	10.14	10.25	10.06	e9.68	8.89	8.19	8.48	9.61	10.01	10.12
6	10.15	10.58	10.10	10.23	10.02	e9.65	8.88	8.15	8.44	9.61	10.01	10.14
7	10.15	10.57	10.07	10.24	9.98	9.62	8.86	8.10	8.50	9.60	10.01	10.12
8	10.16	10.56	10.03	10.25	9.98	9.61	8.83	e8.02	8.63	9.64	10.02	10.11
9	10.19	10.55	10.01	10.24	9.96	9.59	8.79	7.85	8.69	9.69	10.00	10.08
10	10.19	10.55	10.01	10.22	9.96	9.57	8.76	7.73	8.66	9.72	9.99	10.08
11	10.18	10.55	9.99	10.22	9.99	9.55	8.75	7.63	8.66	9.74	10.01	10.12
12	10.17	10.54	10.01	10.21	9.98	9.51	8.74	7.54	8.66	9.72	10.01	10.18
13	10.16	10.54	10.11	10.20	9.97	9.48	8.71	7.44	8.68	9.73	10.01	10.17
14	10.17	10.52	10.12	10.19	9.96	9.45	8.72	7.52	8.78	9.72	10.06	10.15
15	10.18	10.51	10.13	10.19	9.94	9.43	8.78	7.87	9.00	9.72	10.06	10.13
16	10.19	10.50	10.13	10.20	9.92	9.41	8.78	e7.96	9.11	9.73	10.02	10.12
17	10.20	10.50	10.12	10.19	9.91	9.36	8.78	7.91	9.14	9.74	10.04	10.10
18	10.20	10.49	10.13	10.19	9.90	9.33	8.77	7.82	9.16	9.79	10.09	10.09
19	10.21	10.47	10.12	10.18	9.86	9.29	8.75	7.88	9.16	9.79	10.12	10.09
20	10.23	10.46	10.14	10.17	9.83	9.26	8.73	8.26	9.23	9.79	10.06	10.07
21	10.30	10.45	10.17	10.15	9.80	9.22	8.70	8.35	9.38	9.82	10.03	10.06
22	10.42	10.44	10.18	10.15	9.78	9.19	8.67	8.42	9.42	9.89	10.00	10.05
23	10.46	10.42	10.17	10.13	9.90	9.16	8.65	8.35	e9.48	9.89	9.98	10.06
24	10.44	10.40	10.18	10.12	9.92	9.12	8.64	8.31	e9.57	9.89	9.95	10.07
25	10.45	10.40	10.19	10.11	9.90	9.08	8.60	8.23	9.66	9.91	9.92	10.08
26	10.46	10.39	10.21	10.11	9.87	9.06	8.57	8.15	9.69	9.94	9.90	10.07
27	10.46	10.38	10.19	10.10	9.85	9.06	8.53	8.08	9.68	9.94	9.90	10.07
28	10.43	10.36	10.19	10.09	9.81	9.03	8.50	8.01	9.70	9.94	9.95	10.07
29	10.41	10.35	10.19	10.08	---	9.00	8.46	8.07	9.69	9.94	9.97	10.06
30	10.40	10.33	10.19	10.07	---	8.96	8.43	8.13	9.67	9.95	10.03	10.05
31	10.39	---	10.21	10.05	---	8.92	---	8.25	---	9.97	10.06	---
TOTAL	318.09	314.13	314.57	315.57	278.32	290.40	261.73	249.47	270.64	303.21	310.14	302.84
MEAN	10.26	10.47	10.15	10.18	9.94	9.37	8.72	8.05	9.02	9.78	10.00	10.09
MAX	10.46	10.58	10.32	10.27	10.10	9.77	8.89	8.42	9.70	9.97	10.12	10.18
MIN	10.13	10.33	9.99	10.05	9.78	8.92	8.43	7.44	8.38	9.60	9.90	10.05

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02289040 TAMiami CANAL OUTLETS, LEVEE 67A TO 40-MILE BEND, NEAR MIAMI, FL  
DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2640	2480	2340	192	119	54	88	e36	0.00	1300	2320	---
2	2600	2520	2330	192	118	53	96	e32	0.00	1310	2330	---
3	2580	2530	2280	186	119	52	104	e32	0.00	e1650	2340	---
4	2570	2570	2140	181	119	53	107	e11	0.00	e1720	2360	2660
5	2590	2760	2020	180	106	53	109	e11	0.00	e1680	2400	2640
6	2600	2790	1960	178	96	52	108	e14	0.00	e1640	2410	2650
7	2590	2780	1910	179	94	88	105	e-4.0	0.00	e1640	2410	2590
8	2620	2750	1850	179	95	111	101	e6.0	0.00	e1670	2430	2550
9	2690	2750	1820	178	94	110	99	e6.7	0.00	e1850	2400	2500
10	2680	2730	1810	178	94	110	98	e21	0.00	1920	2390	2490
11	e2650	2720	1790	178	95	109	97	e26	0.00	1950	2430	2550
12	e2650	2700	1430	177	85	107	95	e9.6	0.00	1940	2450	2650
13	2630	2680	921	177	78	114	92	e9.6	0.00	1940	2450	2630
14	2630	2660	870	177	77	118	91	e30	0.00	1940	2570	2590
15	2660	2630	880	177	77	118	98	e29	0.00	1950	2560	2550
16	2690	2620	882	178	76	116	98	e6.0	0.00	1960	2490	2500
17	2700	2610	886	177	76	114	98	0.00	0.00	1970	2550	2460
18	2710	2600	892	177	76	112	98	0.00	0.00	2040	2640	2440
19	2710	2570	889	176	75	110	96	0.00	13	2040	2670	2420
20	2740	2560	551	176	74	112	94	0.00	7.6	2050	2550	2380
21	2910	2540	327	176	62	113	90	0.00	0.00	2090	2490	2350
22	3190	2530	328	175	57	111	88	0.00	0.00	2210	2430	2320
23	3270	2490	328	175	58	109	86	0.00	0.00	2190	2380	2320
24	3240	2460	330	174	59	105	e84	0.00	e12	2180	2320	2330
25	3240	2450	331	173	58	103	e76	0.00	e19	2210	2260	2370
26	3280	2440	332	173	58	101	e63	0.00	e448	2270	2220	2330
27	3250	2420	267	173	56	102	e58	0.00	e537	2260	2220	2320
28	3170	2390	188	172	55	100	e53	0.00	526	2260	2310	2320
29	3120	2370	188	140	---	97	e49	0.00	1090	2250	2360	2290
30	3100	2350	188	119	---	94	e48	0.00	1290	2260	---	2280
31	2810	---	189	118	---	91	---	0.00	---	2310	---	---
TOTAL	87510	77450	33447	5361	2306	2992	2667	275.90	3942.60	60650	---	---
MEAN	2823	2582	1079	173	82.4	96.5	88.9	8.90	131	1956	---	---
MAX	3280	2790	2340	192	119	118	109	36	1290	2310	---	---
MIN	2570	2350	188	118	55	52	48	-4.0	0.00	1300	---	---
AC-FT	173600	153600	66340	10630	4570	5930	5290	547	7820	120300	---	---

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)

	1964	1964	1964	1964	1964	1964	1964	1965	1965	1965	1964	1964
MEAN	1602	1417	878	604	517	488	363	225	446	921	1083	1292
MAX	5310	5715	6658	6259	4115	2968	3136	1581	2998	4033	4377	3908
(WY)	1996	2000	1995	1995	1995	1970	1970	1969	1969	1968	1968	1995
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1964	1964	1964	1964	1964	1964	1989	1965	1965	1965	1964	1964

## SUMMARY STATISTICS

## FOR 2001 CALENDAR YEAR

## WATER YEARS 1964 - 2002\*

ANNUAL TOTAL	280381.20		
ANNUAL MEAN	768	819	
HIGHEST ANNUAL MEAN		3328	1995
LOWEST ANNUAL MEAN		6.82	1964
HIGHEST DAILY MEAN	3280	Oct 26	7430
LOWEST DAILY MEAN	0.00	Feb 13	-38
ANNUAL SEVEN-DAY MINIMUM	0.00	Feb 13	-5.4
ANNUAL RUNOFF (AC-FT)	556100		593500
10 PERCENT EXCEEDS	2620		2300
50 PERCENT EXCEEDS	28		322
90 PERCENT EXCEEDS	0.00		0.00

e Estimated

\*The period of record statistics were computed from complete water year's of record stored in the NWIS database. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript for the statistics for the complete period of record (1941-2001).



02289041 TAMiami CANAL BELOW S-12-C, NEAR MIAMI, FL

LOCATION.--Lat 25°45'40", long 80°43'34", T.54 S., R.36 E., Miami-Dade County, Hydrologic Unit 03090202, on west bank of spillway, 100 ft southwest of control structure 12-C, and 33 mi west of Miami. No section could be determined from existing maps.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--April 1963 to September 1963, October 1965 to September 1976 (gage heights only), October 1963 to September 1965, October 1976 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoders for upstream and downstream stages. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. Daily mean for upstream gage height published under 02289040. Station is one of several located downstream from the control structures in Levee 29 at Tamiami Canal. Gage record is primarily used to determine discharge through control structure 12-C. Discharge is the total discharge through the S-12-C structure, from Conservation Area 3A. The daily discharge computed from relation between discharge, head, and gate-openings when flow is controlled by gates and computed by relation between stage and discharge under uncontrolled conditions. Since March 16, 1990, data collection platform. Discharge records prior to 1976, for missing periods were fragmentary or missing from the files of the U.S. Geological Survey.

COOPERATION.--Gate-opening records provided by the U.S. Army Corps of Engineers.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 28 complete water years of discharge (1964-65, 1977-2002).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 11.86 ft Dec. 21, 1994; minimum, 4.87 ft June 19, 20, 1989.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 10.58 ft Nov. 5, 6; minimum, 6.95 ft May 13.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.15	10.41	10.31	8.03	7.94	7.89	7.64	7.40	7.76	9.18	9.98	10.07
2	10.13	10.43	10.30	8.01	7.95	7.88	7.70	7.37	7.78	9.20	9.99	10.07
3	10.12	10.44	10.27	8.00	8.00	7.88	7.80	7.34	7.82	9.48	9.98	10.08
4	10.12	10.47	10.20	7.98	7.96	7.87	7.79	7.30	7.90	9.64	9.99	10.12
5	10.13	10.56	10.13	7.98	7.94	7.86	7.80	7.27	7.84	9.61	10.01	10.12
6	10.14	10.58	10.09	7.98	7.93	7.87	7.78	7.24	7.80	9.61	10.01	10.13
7	10.13	10.57	10.06	7.97	7.93	7.87	7.76	7.21	7.84	9.60	10.02	10.11
8	10.14	10.56	10.02	7.96	7.92	7.87	7.74	---	7.93	9.64	10.02	10.10
9	10.17	10.55	10.01	7.95	7.93	7.87	7.71	7.14	7.88	9.70	10.00	10.08
10	10.17	10.55	10.00	7.96	7.95	7.86	7.69	7.09	7.83	9.72	9.99	10.08
11	10.16	10.54	9.98	7.98	7.94	7.85	7.68	7.04	7.84	9.74	10.01	10.12
12	10.15	10.53	9.64	7.98	7.93	7.85	7.66	6.99	7.88	9.72	10.01	10.17
13	10.15	10.53	9.16	7.98	7.92	7.84	7.64	6.97	7.89	9.73	10.01	10.17
14	10.15	10.52	9.11	7.97	7.93	7.84	7.68	7.04	7.89	9.72	10.06	10.15
15	10.16	10.50	9.08	7.97	7.92	7.83	7.77	7.04	8.03	9.72	10.06	10.14
16	10.18	10.49	9.07	7.96	7.92	7.82	7.75	---	7.99	9.72	10.02	10.12
17	10.20	10.49	9.06	7.96	7.91	7.81	7.72	7.12	7.92	9.74	10.05	10.11
18	10.21	10.48	9.06	7.95	7.90	7.81	7.70	7.10	7.88	9.79	10.09	10.10
19	10.21	10.47	9.05	7.95	7.89	7.80	7.68	7.28	7.85	9.79	10.11	10.09
20	10.22	10.46	8.72	7.95	7.89	7.79	7.66	7.78	7.90	9.79	10.06	10.08
21	10.30	10.45	8.30	7.95	7.89	7.78	7.63	7.73	7.99	9.82	10.04	10.07
22	10.42	10.43	8.20	7.95	7.89	7.77	7.61	7.69	7.95	9.89	10.01	10.06
23	10.46	10.41	8.15	7.95	8.02	7.76	7.59	7.65	7.96	9.88	9.98	10.06
24	10.44	10.39	8.11	7.94	7.96	7.74	7.57	7.61	7.96	9.89	9.95	10.08
25	10.44	10.38	8.09	7.94	7.93	7.73	7.55	7.57	7.96	9.90	9.93	10.09
26	10.46	10.38	8.07	7.94	7.91	7.72	7.53	7.54	7.94	9.94	9.90	10.07
27	10.46	10.36	8.04	7.94	7.90	7.72	7.50	7.51	7.92	9.93	9.91	10.08
28	10.43	10.34	8.03	7.94	7.89	7.71	7.47	7.50	7.91	9.93	9.95	10.08
29	10.41	10.32	8.01	7.94	---	7.70	7.45	7.50	8.58	9.93	9.97	10.07
30	10.40	10.32	8.00	7.94	---	7.68	7.42	7.58	9.16	9.94	10.03	10.06
31	10.39	---	8.02	7.94	---	7.66	---	7.80	---	9.97	10.06	---
TOTAL	317.80	313.91	282.34	246.84	221.99	241.93	229.67	---	238.78	301.86	310.20	302.93
MEAN	10.25	10.46	9.11	7.96	7.93	7.80	7.66	---	7.96	9.74	10.01	10.10
MAX	10.46	10.58	10.31	8.03	8.02	7.89	7.80	---	9.16	9.97	10.11	10.17
MIN	10.12	10.32	8.00	7.94	7.89	7.66	7.42	---	7.76	9.18	9.90	10.06

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02289041 TAMiami CANAL BELOW S-12-C, NEAR MIAMI, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	782	918	860	0.00	0.00	0.00	0.00	0.00	0.00	445	794	835
2	771	933	851	0.00	0.00	0.00	0.00	0.00	0.00	453	792	836
3	763	940	833	0.00	0.00	0.00	0.00	0.00	0.00	539	789	844
4	760	962	791	0.00	0.00	0.00	0.00	0.00	0.00	585	787	864
5	767	1030	753	0.00	0.00	0.00	0.00	0.00	0.00	574	798	859
6	772	1040	731	0.00	0.00	0.00	0.00	0.00	0.00	574	795	861
7	767	1040	717	0.00	0.00	0.00	0.00	0.00	0.00	575	793	846
8	774	1030	700	0.00	0.00	0.00	0.00	0.00	0.00	589	790	834
9	794	1030	692	0.00	0.00	0.00	0.00	0.00	0.00	616	777	822
10	789	1030	689	0.00	0.00	0.00	0.00	0.00	0.00	630	770	815
11	784	1030	679	0.00	0.00	0.00	0.00	0.00	0.00	636	773	833
12	783	1030	489	0.00	0.00	0.00	0.00	0.00	0.00	634	773	861
13	778	1020	291	0.00	0.00	0.00	0.00	0.00	0.00	636	768	852
14	779	1020	301	0.00	0.00	0.00	0.00	0.00	0.00	635	794	840
15	786	1010	306	0.00	0.00	0.00	0.00	0.00	0.00	639	793	828
16	796	1000	307	0.00	0.00	0.00	0.00	0.00	0.00	639	771	816
17	810	998	308	0.00	0.00	0.00	0.00	0.00	0.00	647	789	805
18	814	989	310	0.00	0.00	0.00	0.00	0.00	0.00	670	816	790
19	815	977	309	0.00	0.00	0.00	0.00	0.00	0.00	674	834	783
20	824	970	136	0.00	0.00	0.00	0.00	0.00	0.00	676	806	772
21	864	957	0.00	0.00	0.00	0.00	0.00	0.00	0.00	689	791	761
22	931	948	0.00	0.00	0.00	0.00	0.00	0.00	0.00	723	779	749
23	951	932	0.00	0.00	0.00	0.00	0.00	0.00	0.00	724	764	748
24	937	916	0.00	0.00	0.00	0.00	0.00	0.00	0.00	724	748	751
25	938	911	0.00	0.00	0.00	0.00	0.00	0.00	0.00	734	739	754
26	948	905	0.00	0.00	0.00	0.00	0.00	0.00	0.00	755	727	742
27	947	895	0.00	0.00	0.00	0.00	0.00	0.00	0.00	753	731	739
28	928	881	0.00	0.00	0.00	0.00	0.00	0.00	0.00	756	754	734
29	916	873	0.00	0.00	---	0.00	0.00	0.00	293	758	769	727
30	911	864	0.00	0.00	---	0.00	0.00	0.00	438	766	807	722
31	908	---	0.00	0.00	---	0.00	---	0.00	---	784	827	---
TOTAL	25887	29079	11053.00	0.00	0.00	0.00	0.00	0.00	731.00	20232	24238	24023
MEAN	835	969	357	0.000	0.000	0.000	0.000	0.000	24.4	653	782	801
MAX	951	1040	860	0.00	0.00	0.00	0.00	0.00	438	784	834	864
MIN	760	864	0.00	0.00	0.00	0.00	0.00	0.00	0.00	445	727	722
AC-FT	51350	57680	21920	0.00	0.00	0.00	0.00	0.00	1450	40130	48080	47650

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)

MEAN	501	465	294	214	164	150	88.2	55.8	92.1	252	317	400
MAX	1385	1542	1752	1677	1174	789	537	366	431	948	855	1136
(WY)	1996	2000	1995	1995	1995	1995	1993	1993	1993	1982	1982	1995
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964	1964

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1964 - 2002

ANNUAL TOTAL	94663.00	135243.00										
ANNUAL MEAN	259	371								262		
HIGHEST ANNUAL MEAN										919		1995
LOWEST ANNUAL MEAN										0.000		1964
HIGHEST DAILY MEAN	1040	Nov 6	1040	Nov 6						2500	Jan 23	1970
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Dec 21						-49	Jul 14	1990
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Dec 21						-9.7	Jul 8	1990
ANNUAL RUNOFF (AC-FT)	187800		268300							189600		
10 PERCENT EXCEEDS	899		899							714		
50 PERCENT EXCEEDS	0.00		0.00							101		
90 PERCENT EXCEEDS	0.00		0.00							0.00		

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

254543080405401 TAMIAMI CANAL AT S-12-D, NEAR MIAMI, FL

LOCATION.--Lat 25°45'43", long 80°40'54", T.54 S., R.36 E., Miami-Dade County, Hydrologic Unit 03090202, on south bank 100 ft southwest of structure 12-D, near east boundary of Indian Reservation on U.S. Highway 41. No section could be determined from existing maps.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1963 to September 1965, October 1975 to September 1977, October 1978 to September 1979, October 1980 to September 1981 (discharge only), October 1981 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoders for upstream and downstream stages, tipping bucket rain gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Station is one of several located downstream from the control structures in Levee 29 at Tamiami Canal. Gage records are primarily used to determine discharge through control structure 12-D. Discharge is the total discharge through the S-12-D structure from Conservation Area 3A. The daily discharge computed from relations between discharge, head, and gate openings when flow is controlled by gates and computed by relation between stage and discharge under uncontrolled conditions. Discharge and stage record for missing periods were fragmentary or missing from the files of the U.S. Geological Survey. Since October 1, 1989, satellite data collection platform. Rainfall data available in filed of the U.S. Geological Survey. Upstream gage height records were formerly published under 254543080405400. Upstream gage height records have been relocated under 254543080405401 as "Published upstream" record in the files of the U.S. Geological Survey.

COOPERATION.--Gate-opening records provided by the U.S. Army Corps of Engineers.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.-- Figures represent 25 complete water years of discharge (1964-65, 1976-77, 1979, 1981-97, 1999-2001).

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 11.99 ft Dec. 21, 1994; minimum, 5.16 ft June 19, 1989.

EXTREME UPSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 10.68 ft Nov. 5, 6; minimum, 7.36 ft May 13.

EXTREME DOWNSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 11.94 ft Dec. 21, 1994 (corrected); minimum, 4.70 ft June 20, 1989.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 10.65 ft Nov. 5, 6; minimum, 6.89 ft May 30.

UPSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.28	10.51	10.39	10.27	10.06	9.71	8.82	8.36	8.38	9.75	10.22	---
2	10.26	10.52	10.39	10.26	10.06	9.65	8.81	8.32	8.39	9.79	10.22	---
3	10.26	10.53	10.34	10.28	10.08	9.62	8.81	8.28	8.43	9.76	10.21	---
4	10.25	10.56	10.23	10.30	10.08	9.63	8.84	8.22	8.53	9.72	10.20	10.29
5	10.28	10.65	10.15	10.27	10.07	9.62	8.87	8.17	8.48	9.70	10.22	10.29
6	10.29	10.67	10.11	10.24	10.01	9.59	8.86	8.14	8.44	9.70	10.22	10.32
7	10.28	10.64	10.08	10.26	9.96	9.57	8.82	8.08	8.50	9.70	10.21	10.31
8	10.29	10.63	10.04	10.27	9.97	9.56	8.79	e8.00	8.61	9.75	10.20	10.29
9	10.33	10.62	10.03	10.25	9.95	9.55	8.76	7.83	8.68	9.82	10.18	10.27
10	10.32	10.62	10.02	10.24	9.95	9.53	8.74	7.72	8.65	9.84	10.17	10.26
11	10.31	10.62	10.00	10.24	9.98	9.50	8.73	7.61	8.65	9.87	10.20	10.30
12	10.31	10.61	10.03	10.23	9.98	9.46	8.72	7.52	8.65	9.87	10.20	10.35
13	10.30	10.61	10.13	10.22	9.96	9.43	8.69	7.43	8.68	9.90	10.20	10.35
14	10.30	10.60	10.14	10.21	9.95	9.41	8.69	7.52	8.80	9.90	10.25	10.34
15	10.32	10.59	10.14	10.21	9.92	9.38	8.75	7.85	9.02	9.91	10.22	10.33
16	10.33	10.59	10.13	10.22	9.91	9.35	8.75	e7.95	9.13	9.92	10.16	10.32
17	10.34	10.58	10.14	10.21	9.90	9.31	8.75	7.90	9.16	e9.93	10.24	10.30
18	10.34	10.56	10.16	10.20	9.88	9.28	8.74	7.81	9.19	e9.96	10.27	10.29
19	10.34	10.55	10.13	10.19	9.84	9.25	8.72	7.87	9.21	e9.99	10.26	10.30
20	10.36	10.54	10.15	10.19	9.80	9.21	8.70	8.25	9.27	e10.00	10.16	10.28
21	10.43	10.53	10.18	10.17	9.77	9.18	8.68	8.36	9.41	e10.02	10.14	10.26
22	10.56	10.52	10.18	10.17	9.76	9.15	8.65	8.42	9.46	e10.07	10.11	10.24
23	10.59	10.49	10.18	10.15	9.87	9.11	8.63	8.34	e9.51	10.09	10.09	10.23
24	10.58	10.48	10.19	10.14	9.90	9.06	8.61	8.30	e9.60	10.10	10.06	10.24
25	10.57	10.48	10.20	10.13	9.88	9.03	8.58	8.22	e9.69	10.12	10.03	10.26
26	10.59	10.47	10.22	10.12	9.85	9.00	8.54	8.14	e9.72	10.15	10.01	10.25
27	10.59	10.45	10.20	10.12	9.81	9.01	8.51	8.07	e9.71	10.15	10.04	10.25
28	10.56	10.43	10.20	10.11	9.75	8.98	8.48	8.00	9.72	10.16	10.12	10.26
29	10.54	10.41	10.20	10.10	---	8.95	8.44	8.07	9.72	10.17	10.16	10.25
30	10.52	10.40	10.20	10.08	---	8.91	8.41	8.12	9.71	10.18	---	10.25
31	10.51	---	10.22	10.07	---	8.86	---	8.25	---	10.21	---	---
TOTAL	322.13	316.46	315.10	316.12	277.90	288.85	260.89	249.12	271.10	308.20	---	---
MEAN	10.39	10.55	10.16	10.20	9.93	9.32	8.70	8.04	9.04	9.94	---	---
MAX	10.59	10.67	10.39	10.30	10.08	9.71	8.87	8.42	9.72	10.21	---	---
MIN	10.25	10.40	10.00	10.07	9.75	8.86	8.41	7.43	8.38	9.70	---	---

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

254543080405401 TAMIAMI CANAL AT S-12-D, NEAR MIAMI, FL

DOWNSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.28	10.50	10.38	8.76	8.49	8.33	8.40	8.35	7.24	9.38	10.20	---
2	10.26	10.51	10.37	8.75	8.49	8.33	8.45	8.31	7.20	9.40	10.20	---
3	10.25	10.52	10.33	8.74	8.50	8.33	8.49	8.27	7.34	9.50	10.19	---
4	10.24	10.54	10.22	8.72	8.49	8.32	8.50	8.22	7.52	9.58	10.19	10.26
5	10.27	10.63	10.15	8.71	8.46	8.32	8.51	8.17	7.45	9.57	10.20	10.27
6	10.28	10.65	10.10	8.71	8.44	8.32	8.51	8.13	7.37	9.58	10.20	10.29
7	10.27	10.64	10.07	8.71	8.43	8.40	8.49	8.08	7.46	9.57	10.19	10.28
8	10.29	10.63	10.03	8.72	8.43	8.48	8.48	---	7.74	9.62	10.18	10.27
9	10.32	10.63	10.02	8.72	8.43	8.48	8.46	7.83	7.65	9.73	10.17	10.25
10	10.30	10.62	10.01	8.71	8.43	8.46	8.46	7.71	7.57	9.83	10.16	10.24
11	10.29	10.61	9.99	8.71	8.43	8.46	8.45	7.61	7.60	9.87	10.18	10.27
12	10.29	10.61	9.70	8.71	8.40	8.45	8.45	7.52	7.65	9.87	10.18	10.32
13	10.29	10.60	9.17	8.70	8.37	8.48	8.44	7.43	7.60	9.90	10.18	10.32
14	10.29	10.59	9.11	8.70	8.37	8.50	8.45	7.51	7.57	9.90	10.24	10.31
15	10.30	10.58	9.10	8.70	8.36	8.49	8.46	7.85	7.81	9.91	10.20	10.30
16	10.32	10.57	9.08	8.70	8.36	8.49	8.46	---	7.87	9.92	10.15	10.29
17	10.33	10.56	9.07	8.69	8.36	8.48	8.46	7.76	7.76	9.92	10.23	10.28
18	10.32	10.55	9.07	8.69	8.35	8.48	8.45	7.59	7.68	9.96	10.26	10.27
19	10.33	10.54	9.06	8.69	8.35	8.47	8.45	7.58	7.76	9.98	10.24	10.28
20	10.34	10.53	9.06	8.68	8.35	8.48	8.44	7.71	8.04	10.00	10.14	10.26
21	10.41	10.52	9.07	8.68	8.31	8.49	8.43	7.60	8.13	10.01	10.12	10.23
22	10.54	10.50	9.06	8.68	8.26	8.48	8.42	7.48	8.13	10.06	10.10	10.22
23	10.57	10.48	9.05	8.68	8.29	8.48	8.41	7.36	8.16	10.08	10.07	10.21
24	10.56	10.47	9.05	8.67	8.27	8.47	8.40	7.24	8.17	10.09	10.05	10.22
25	10.56	10.46	9.06	8.68	8.27	8.46	8.45	7.14	8.16	10.11	10.02	10.24
26	10.57	10.45	9.07	8.67	8.30	8.45	8.48	7.06	8.97	10.13	9.99	10.23
27	10.57	10.44	8.94	8.67	8.34	8.45	8.45	6.98	9.56	10.14	10.02	10.23
28	10.54	10.41	8.75	8.67	8.33	8.45	8.43	6.95	9.58	10.15	10.11	10.23
29	10.52	10.40	8.75	8.58	---	8.44	8.40	6.95	9.46	10.15	10.14	10.23
30	10.52	10.39	8.74	8.51	---	8.43	8.39	6.98	9.35	10.16	---	10.22
31	10.50	---	8.75	8.50	---	8.42	---	7.21	---	10.20	---	---
TOTAL	321.72	316.13	292.38	269.21	234.66	261.57	253.52	---	239.55	306.27	---	---
MEAN	10.38	10.54	9.43	8.68	8.38	8.44	8.45	---	7.99	9.88	---	---
MAX	10.57	10.65	10.38	8.76	8.50	8.50	8.51	---	9.58	10.20	---	---
MIN	10.24	10.39	8.74	8.50	8.26	8.32	8.39	---	7.20	9.38	---	---



## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02289050 TAMAMIAMI CANAL AT S-333 NEAR MIAMI, FL

LOCATION.--Lat 25°45'39", long 80°40'27", in SW 1/4 sec.6, T.54 S., R.37 E., Dade County, Hydrologic Unit 03090202, on south bank of Levee 29 in control house of control structure 333 at Levee 67A, 100 ft north of U.S. Highway 41 and 29 mi west of Miami.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--August 1978 to September 1981 (gage heights only), October 1981 to current year.

REVISED RECORDS.--WDR FL-87-2A: 1986.

GAGE.--Water-stage shaft encoders for upstream and downstream, and gate-opening recorder with cellular phone/radio telemetry. Water-stage recorders prior to September 1, 1999. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Records good except for estimated discharges, which are poor. Flow is regulated by operation of control structure 333. Discharge computed from relations between discharge, head, and gate opening. Records prior to October 1981, are available in files of the South Florida Water Management District.

COOPERATION.--Control structure S-333 gate-operation records and upstream and downstream data provided by South Florida Water Management District.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 20 complete water years of discharge (1982-2001).

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 12.10 ft Dec. 21, 1994; minimum, 5.20 ft June 19, 1989 (estimated).

EXTREME UPSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 10.76 ft Nov. 5, 6; minimum, 7.35 ft May 13.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 8.02 ft Dec. 7, 8; minimum, 6.25 ft May 18, 19.

UPSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10.35	10.61	10.44	10.29	10.07	e9.72	8.79	8.36	e8.38	9.78	10.24	10.35
2	10.33	10.61	10.43	10.28	10.06	e9.65	8.79	8.31	8.39	9.80	---	10.33
3	10.32	10.62	10.37	10.30	10.08	9.62	8.79	8.28	8.43	9.76	e10.24	10.32
4	10.32	10.64	10.26	10.32	10.08	9.63	8.82	8.22	8.52	9.73	10.22	10.34
5	10.34	10.73	10.18	10.29	10.07	9.63	8.86	8.17	8.47	9.71	10.24	10.35
6	e10.34	10.75	e10.12	10.26	10.03	9.60	8.85	8.13	8.43	9.71	10.24	10.38
7	e10.33	10.74	e10.09	10.29	9.99	9.58	8.81	8.08	8.50	9.71	10.23	10.37
8	e10.35	10.74	10.06	10.30	10.00	9.57	8.78	8.00	8.61	9.77	10.22	10.36
9	e10.39	10.73	10.04	10.28	9.98	9.55	8.74	7.82	8.68	9.83	---	10.34
10	e10.38	10.73	10.03	10.26	9.98	9.53	8.72	7.71	8.64	9.86	---	10.32
11	e10.37	10.72	10.02	10.26	10.01	9.50	8.71	7.60	8.64	9.89	---	10.36
12	10.36	10.72	10.04	10.25	10.01	9.45	8.70	7.51	8.65	9.90	---	10.42
13	10.36	10.72	10.14	10.24	9.99	9.42	8.68	7.42	8.67	9.93	e10.26	10.42
14	10.36	10.71	e10.14	10.23	9.98	9.39	8.67	7.50	8.80	9.93	10.29	10.41
15	10.38	10.70	10.14	10.23	9.95	9.36	8.73	7.84	9.04	9.94	10.24	10.39
16	10.39	10.66	10.13	10.24	9.94	9.33	8.73	7.94	9.15	9.94	10.18	10.38
17	10.40	10.63	10.14	10.22	9.93	9.29	8.74	7.90	9.17	9.95	10.27	10.37
18	e10.39	10.62	10.16	10.22	9.91	9.26	8.74	7.82	9.20	9.98	10.30	10.35
19	e10.39	10.60	10.14	10.20	9.88	9.23	8.72	7.87	9.21	10.01	10.27	10.35
20	e10.42	10.59	10.16	10.20	9.82	9.19	8.70	8.25	9.28	10.02	10.16	10.33
21	10.50	10.58	10.20	10.18	9.78	9.15	8.67	8.36	9.42	10.04	10.15	10.31
22	10.63	10.57	10.19	10.18	9.76	9.13	8.65	8.43	9.46	10.09	10.13	10.29
23	10.66	10.55	10.20	10.16	9.88	9.09	8.62	8.35	9.56	10.10	10.10	10.29
24	10.65	10.53	10.20	10.14	9.90	9.05	8.61	8.31	9.69	10.12	10.07	10.30
25	10.64	10.52	10.21	10.14	9.88	9.01	8.57	8.23	9.73	10.15	10.05	10.31
26	10.66	10.52	10.23	10.13	9.86	8.98	8.54	8.14	9.74	10.18	10.01	10.30
27	10.66	10.50	10.22	10.12	9.82	8.99	8.51	8.07	9.73	10.18	10.09	10.30
28	10.64	10.47	10.22	10.11	9.76	8.96	8.48	8.00	9.75	10.18	10.15	10.31
29	10.63	10.46	10.22	10.10	---	8.93	8.44	8.07	9.75	10.19	10.19	10.30
30	10.62	10.45	10.22	10.09	---	8.88	8.41	8.11	9.74	10.20	10.28	10.30
31	10.61	---	10.24	10.07	---	8.84	---	e8.25	---	10.24	10.35	---
TOTAL	324.17	318.72	315.58	316.58	278.40	288.51	260.57	249.05	271.43	308.82	---	310.25
MEAN	10.46	10.62	10.18	10.21	9.94	9.31	8.69	8.03	9.05	9.96	---	10.34
MAX	10.66	10.75	10.44	10.32	10.08	9.72	8.86	8.43	9.75	10.24	---	10.42
MIN	10.32	10.45	10.02	10.07	9.76	8.84	8.41	7.42	8.38	9.71	---	10.29

e Estimated

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02289050 TAMiami CANAL AT S-333 NEAR MIAMI, FL

DOWNSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.63	7.55	7.11	7.20	7.00	e7.81	7.51	6.72	e6.48	7.05	7.09	7.37
2	7.59	7.52	7.09	7.26	7.00	e7.79	7.53	6.71	6.48	7.08	---	7.36
3	7.56	7.51	7.29	7.17	6.99	7.77	7.49	6.71	6.52	7.07	e7.13	7.37
4	7.54	7.48	7.71	7.14	6.98	7.79	7.38	6.70	6.53	7.06	7.20	7.40
5	7.51	7.51	7.87	7.15	6.99	7.80	7.28	6.68	6.51	7.05	7.19	7.41
6	e7.52	7.50	e7.97	7.22	7.05	7.79	7.27	6.67	6.49	7.05	7.17	7.43
7	e7.48	7.48	e8.01	7.21	7.10	7.79	7.28	6.65	6.57	7.05	7.24	7.41
8	e7.46	7.46	8.01	7.22	7.11	7.81	7.28	6.64	6.68	7.13	7.35	7.38
9	e7.46	7.43	7.99	7.21	7.12	7.79	7.24	6.62	6.67	7.19	---	7.37
10	e7.47	7.41	7.98	7.20	7.13	7.79	7.19	6.60	6.66	7.21	---	7.42
11	e7.45	7.40	7.94	7.19	7.13	7.76	7.14	6.59	6.68	7.24	---	7.50
12	7.42	7.38	7.86	7.19	7.13	7.68	7.12	6.57	6.71	7.26	---	7.54
13	7.40	7.36	7.71	7.18	7.22	7.66	7.11	6.53	6.75	7.33	e7.28	7.51
14	7.38	7.34	e7.71	7.18	7.35	7.66	7.09	6.52	6.71	7.31	7.20	7.48
15	7.37	7.31	7.66	7.17	7.35	7.66	7.10	6.52	6.84	7.34	7.44	7.44
16	7.36	7.30	7.54	7.17	7.35	7.66	7.05	6.38	6.91	7.31	7.59	7.42
17	7.35	7.29	7.43	7.17	7.36	7.65	6.95	6.34	6.87	7.30	7.25	7.39
18	e7.33	7.28	7.32	7.15	7.37	7.64	6.93	6.28	6.85	7.32	7.18	7.37
19	e7.41	7.26	7.35	7.15	7.38	7.63	6.90	6.34	6.86	7.36	7.45	7.35
20	e7.48	7.25	7.29	7.14	7.45	7.62	6.87	6.50	6.90	7.35	7.72	7.35
21	7.56	7.24	7.26	7.13	7.51	7.60	6.85	6.46	6.95	7.31	7.74	7.36
22	7.70	7.23	7.26	7.14	7.53	7.60	6.84	6.46	6.98	7.30	7.75	7.34
23	7.67	7.22	7.24	7.14	7.58	7.61	6.82	6.47	7.01	7.27	7.77	7.33
24	7.68	7.21	7.21	7.12	7.59	7.60	6.83	6.44	7.02	7.25	7.78	7.35
25	7.73	7.19	7.20	7.10	7.59	7.58	6.81	6.42	7.04	7.25	7.77	7.36
26	7.69	7.18	7.19	7.10	7.58	7.57	6.79	6.40	7.08	7.24	7.79	7.34
27	7.65	7.16	7.15	7.09	7.69	7.57	6.78	6.39	7.04	7.21	7.63	7.33
28	7.62	7.15	7.18	7.09	7.78	7.56	6.77	6.41	7.04	7.18	7.50	7.33
29	7.59	7.15	7.24	7.06	---	7.56	6.75	6.42	7.05	7.15	7.47	7.33
30	7.56	7.12	7.25	7.03	---	7.55	6.74	6.43	7.04	7.13	7.45	7.32
31	7.56	---	7.27	7.03	---	7.53	---	e6.49	---	7.11	7.40	---
TOTAL	233.18	219.87	232.29	221.70	204.41	237.88	211.69	202.06	203.92	223.46	---	221.67
MEAN	7.52	7.33	7.49	7.15	7.30	7.67	7.06	6.52	6.80	7.21	---	7.39
MAX	7.73	7.55	8.01	7.26	7.78	7.81	7.53	6.72	7.08	7.36	---	7.54
MIN	7.33	7.12	7.09	7.03	6.98	7.53	6.74	6.28	6.48	7.05	---	7.32

e Estimated

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02289050 TAMiami CANAL AT S-333 NEAR MIAMI, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0.00	0.00	0.00	261	173	e1130	933	99	0.00	0.00	0.00	133
2	0.00	0.00	0.00	258	174	e1120	926	98	0.00	0.00	0.00	129
3	0.00	0.00	358	247	174	1120	842	97	0.00	0.00	---	127
4	0.00	0.00	953	234	175	1120	581	94	0.00	0.00	146	127
5	0.00	0.00	1150	233	174	1110	372	92	0.00	0.00	146	126
6	0.00	0.00	e1200	230	253	1110	372	92	0.00	0.00	147	41
7	0.00	0.00	e1180	231	310	1100	367	91	0.00	0.00	369	0.00
8	0.00	0.00	1240	231	310	1090	363	88	0.00	0.00	506	0.00
9	0.00	0.00	1220	230	308	1090	363	83	0.00	0.00	---	98
10	0.00	0.00	1170	230	307	1090	298	78	0.00	0.00	---	139
11	0.00	0.00	1120	230	309	1090	271	75	0.00	0.00	---	133
12	0.00	0.00	916	230	309	1100	271	72	0.00	0.00	---	130
13	0.00	0.00	707	230	463	1090	271	70	0.00	0.00	---	124
14	0.00	0.00	e835	229	579	1080	272	72	0.00	0.00	186	122
15	0.00	0.00	834	230	576	1070	276	40	0.00	0.00	661	118
16	0.00	0.00	824	230	575	1070	212	0.00	0.00	0.00	721	117
17	0.00	0.00	658	230	573	1060	137	0.00	0.00	0.00	196	110
18	0.00	0.00	509	230	570	1050	138	0.00	0.00	0.00	199	26
19	0.00	0.00	662	230	565	1040	120	0.00	0.00	0.00	767	0.00
20	0.00	0.00	396	230	718	1030	105	0.00	0.00	0.00	1110	91
21	0.00	0.00	283	230	822	1030	104	0.00	0.00	0.00	1110	132
22	0.00	0.00	309	229	816	1020	104	0.00	0.00	0.00	1100	132
23	0.00	0.00	310	226	828	1000	104	0.00	0.00	0.00	1090	131
24	0.00	0.00	312	222	832	992	103	0.00	0.00	0.00	1080	124
25	0.00	0.00	313	223	828	986	103	0.00	0.00	0.00	1070	124
26	0.00	0.00	314	223	826	980	102	0.00	0.00	0.00	1060	123
27	0.00	0.00	288	223	1020	982	102	0.00	0.00	0.00	540	116
28	0.00	0.00	256	222	1150	974	101	0.00	0.00	0.00	325	113
29	0.00	0.00	257	189	---	964	101	0.00	0.00	0.00	329	98
30	0.00	0.00	256	173	---	951	100	0.00	0.00	0.00	180	91
31	0.00	---	256	173	---	942	---	0.00	---	0.00	132	---
TOTAL	0.00	0.00	19086.00	7017	14717	32581	8514	1241.00	0.00	0.00	---	3075.00
MEAN	0.000	0.000	616	226	526	1051	284	40.0	0.000	0.000	---	102
MAX	0.00	0.00	1240	261	1150	1130	933	99	0.00	0.00	---	139
MIN	0.00	0.00	0.00	173	173	942	100	0.00	0.00	0.00	---	0.00
AC-FT	0.00	0.00	37860	13920	29190	64620	16890	2460	0.00	0.00	---	6100

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1982 - 2002, BY WATER YEAR (WY)

	203	226	187	146	251	285	374	311	139	215	341	187
MEAN	203	226	187	146	251	285	374	311	139	215	341	187
MAX	739	689	693	558	1094	1051	936	1208	346	733	1188	655
(WY)	1986	1985	1993	2000	2000	2002	1998	1985	1985	1986	2001	1991
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1982	1982	1982	1982	1982	1989	1989	1982	1982	1983	1987	1994

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

WATER YEARS 1982 - 2002

ANNUAL TOTAL	66581.00	
ANNUAL MEAN	182	238
HIGHEST ANNUAL MEAN		572
LOWEST ANNUAL MEAN		51.8
HIGHEST DAILY MEAN	1410	Aug 28
LOWEST DAILY MEAN	0.00	Feb 13
ANNUAL SEVEN-DAY MINIMUM	0.00	Feb 13
ANNUAL RUNOFF (AC-FT)	132100	172100
10 PERCENT EXCEEDS	931	705
50 PERCENT EXCEEDS	0.00	127
90 PERCENT EXCEEDS	0.00	0.00

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.



254540080361500 TAMIAMI CANAL AT S-355A, NEAR MIAMI, FL

LOCATION.--Lat 25°45'40", long 80°36'15", in SW 1/4 sec. T.54 S., R.37 E., Miami-Dade County, Hydrologic Unit 03090202, on north bank of Levee 29 in control house 100 ft east of structure 355A, 2.4 mi west of structure 355B, 6.7 mi west of State Road 997.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 2000 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoders for upstream and downstream inside structure 355A control house; potentiometer-gage recorder attached to hydraulic ram of gate. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Station is one of two located between structure 333 and structure 334 on Levee 29. Gage records are primarily used to determine discharge. Discharge is not available at time of publication. The gate is opened once a month for about an hour when conditions allow for maintenance purposes.

COOPERATION.--U.S. Army Corps of Engineers.

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 8.78 ft Oct. 24, 2001; minimum, 4.95 ft May 22, 23, 2001.

EXTREME DOWNSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 8.40 ft Nov. 7, 2000; minimum, 4.91 ft May 22, 23, 2001.

EXTREME UPSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 8.78 ft Oct. 24; minimum, 6.59 ft May 18, 19.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 8.15 ft Dec. 7; minimum, 6.45 ft May 18, 19.

UPSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	8.63	8.09	7.82	7.43	7.42	7.34	6.94	6.93	7.72	7.88	8.08
2	---	8.60	8.07	e7.83	7.42	7.42	7.36	6.92	6.93	7.76	7.87	8.13
3	---	8.58	8.05	7.82	7.41	7.41	7.41	6.90	6.98	7.76	7.88	8.18
4	---	8.57	8.04	7.80	7.39	7.41	7.40	6.88	7.00	7.79	7.97	8.23
5	---	8.62	8.03	7.78	7.37	7.41	7.39	6.86	6.98	7.83	7.96	8.23
6	---	8.60	8.03	7.77	7.36	7.41	7.37	6.84	6.96	7.81	7.94	8.27
7	---	8.57	8.06	7.76	7.35	7.41	7.35	6.82	7.00	7.82	7.92	8.26
8	---	8.55	8.06	7.75	7.34	7.43	7.34	e6.80	7.16	7.92	7.93	8.25
9	---	8.53	8.05	7.73	7.34	7.43	7.32	6.78	7.17	8.00	7.92	8.24
10	8.44	8.50	8.04	7.72	7.39	7.43	7.30	6.76	7.17	8.02	7.90	8.26
11	8.42	8.48	8.03	7.70	7.41	7.43	7.28	6.73	7.19	8.04	7.90	8.32
12	8.40	8.46	8.02	7.69	7.39	7.43	7.26	6.71	7.21	8.05	7.90	8.39
13	8.38	8.44	8.01	7.68	7.38	7.43	7.24	6.69	7.23	8.12	7.89	e8.39
14	8.37	8.41	7.99	7.66	7.37	7.42	7.23	6.67	7.26	8.10	7.89	8.38
15	8.35	8.39	7.98	7.65	7.37	7.42	7.23	6.67	7.39	8.09	7.88	8.37
16	8.34	8.37	7.97	7.64	7.37	7.41	7.21	e6.67	7.50	8.08	7.88	8.37
17	8.33	8.35	7.95	7.63	7.36	7.41	7.19	e6.64	7.49	8.06	7.87	8.36
18	8.33	8.33	7.94	7.62	7.34	7.40	7.18	6.61	7.46	8.06	7.87	8.34
19	8.38	8.30	7.93	7.60	7.34	7.39	7.16	6.67	7.45	8.07	7.86	8.33
20	8.42	8.29	7.91	7.59	7.33	7.39	7.14	6.85	7.45	8.06	7.86	8.33
21	8.53	8.28	7.90	7.58	7.34	7.38	7.12	6.85	7.54	8.05	7.86	8.32
22	8.71	8.26	7.89	7.57	7.33	7.37	7.10	6.86	7.59	8.04	7.86	8.29
23	8.73	8.26	7.87	7.55	7.43	7.36	7.08	6.88	7.61	8.03	---	8.27
24	8.74	8.24	7.86	7.54	7.44	7.35	7.06	6.86	7.67	8.01	---	8.27
25	8.76	8.22	7.85	7.52	7.43	7.35	7.05	6.84	7.76	8.00	---	8.28
26	8.77	8.19	7.84	7.51	7.43	7.35	7.03	6.83	7.74	7.99	---	8.26
27	8.76	8.17	7.82	7.49	7.42	7.36	7.01	6.81	7.70	7.97	---	8.25
28	8.72	8.15	7.80	7.48	7.42	7.36	6.99	6.83	7.70	7.95	---	8.24
29	8.69	8.11	7.79	7.47	---	7.35	6.97	6.83	7.72	7.93	7.97	8.24
30	8.67	8.10	7.78	7.46	---	7.35	6.95	6.85	7.72	7.91	8.03	8.23
31	8.65	---	7.79	7.45	---	7.35	---	6.93	---	7.90	8.06	---
TOTAL	---	251.55	246.44	236.86	206.70	229.24	216.06	210.78	220.66	246.94	---	248.36
MEAN	---	8.38	7.95	7.64	7.38	7.39	7.20	6.80	7.36	7.97	---	8.28
MAX	---	8.63	8.09	7.83	7.44	7.43	7.41	6.94	7.76	8.12	---	8.39
MIN	---	8.10	7.78	7.45	7.33	7.35	6.95	6.61	6.93	7.72	---	8.08

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

254540080361500 TAMIAMI CANAL AT S-355A, NEAR MIAMI, FL

DOWNSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.79	7.69	7.27	7.37	7.18	7.92	7.67	6.90	6.66	7.22	7.25	7.55
2	7.76	7.66	7.26	e7.42	7.17	7.92	7.68	6.89	6.67	7.25	7.24	7.54
3	7.73	7.64	7.44	7.35	7.17	7.92	7.65	6.88	6.71	7.24	7.29	7.55
4	7.70	7.62	7.84	7.32	7.16	7.92	7.55	6.87	6.70	7.24	7.36	7.58
5	7.68	7.67	7.99	7.33	7.15	7.91	7.47	6.85	6.69	7.22	7.36	7.60
6	7.68	7.66	8.09	7.40	7.21	7.92	7.45	6.84	6.68	7.22	7.34	7.61
7	7.65	7.64	8.13	7.40	7.28	7.93	7.44	6.82	6.75	7.22	7.42	7.59
8	7.62	7.61	8.13	7.39	7.28	7.95	7.42	e6.81	6.85	7.30	7.51	7.57
9	7.63	7.60	8.12	7.39	7.29	7.94	7.41	6.79	6.84	7.36	7.52	7.54
10	7.63	7.57	8.10	7.38	7.31	7.93	7.36	6.77	6.84	7.38	7.51	7.59
11	7.61	7.56	8.08	7.37	7.31	7.88	7.31	6.76	6.87	7.41	7.52	7.68
12	7.58	7.53	8.00	7.37	7.31	7.82	7.29	6.74	6.90	7.43	7.53	7.71
13	7.56	7.52	7.87	7.36	7.40	7.80	7.28	6.72	6.94	7.50	7.48	e7.68
14	7.54	7.50	7.87	7.36	7.51	7.80	7.28	6.71	6.90	7.48	7.37	7.64
15	7.53	7.49	7.80	7.35	7.52	7.79	7.28	6.69	7.02	7.51	7.58	7.61
16	7.53	7.47	7.67	7.34	7.52	7.77	7.22	e6.56	7.09	7.48	7.72	7.58
17	7.51	7.45	7.58	7.34	7.52	7.77	7.12	6.51	7.05	7.48	7.41	7.55
18	7.50	7.44	7.48	7.33	7.53	7.76	7.09	6.47	7.04	7.50	7.36	7.52
19	7.58	7.42	7.50	7.32	7.53	7.76	7.07	6.54	7.03	7.53	7.60	7.51
20	7.65	7.41	7.45	7.32	7.61	7.75	7.05	6.68	7.07	7.52	7.84	e7.51
21	7.73	7.40	7.42	7.31	7.68	7.74	7.03	6.64	7.13	7.49	7.87	7.51
22	7.87	7.39	7.42	7.30	7.70	7.73	7.02	6.63	7.16	7.47	7.88	7.49
23	7.84	7.37	7.41	7.29	7.75	7.73	7.01	6.63	7.19	7.44	e7.92	7.49
24	7.85	7.36	7.39	7.29	7.75	7.73	7.00	6.61	7.21	7.42	e7.94	7.51
25	7.90	7.34	7.37	7.28	7.75	7.72	6.98	6.59	7.22	7.42	e7.93	7.51
26	7.87	7.33	7.36	7.27	7.75	7.71	6.97	6.58	7.25	7.40	e7.94	7.50
27	7.82	7.32	7.32	7.27	7.84	7.72	6.96	6.56	7.21	7.37	e7.88	7.49
28	7.79	7.30	7.36	7.25	7.92	7.71	6.95	6.59	7.21	7.34	e7.68	7.48
29	7.76	7.30	7.42	7.22	---	7.70	6.93	6.60	7.21	7.32	7.66	7.48
30	7.73	7.28	7.42	7.20	---	7.69	6.92	6.61	7.21	7.30	7.64	7.46
31	7.71	---	7.44	7.19	---	7.68	---	6.67	---	7.27	7.59	---
TOTAL	238.33	224.54	237.00	227.08	209.10	242.02	216.86	207.51	209.30	228.73	235.14	226.63
MEAN	7.69	7.48	7.65	7.33	7.47	7.81	7.23	6.69	6.98	7.38	7.59	7.55
MAX	7.90	7.69	8.13	7.42	7.92	7.95	7.68	6.90	7.25	7.53	7.94	7.71
MIN	7.50	7.28	7.26	7.19	7.15	7.68	6.92	6.47	6.66	7.22	7.24	7.46

e Estimated

02289060 TAMIAAMI CANAL OUTLETS, LEVEE 30 TO LEVEE 67A, NEAR MIAMI, FL

LOCATION.--Lat 25°45'40", long 80°33'40", in SE 1/4 sec.6, T.54 S., R.38 E., Miami-Dade County, Hydrologic Unit 03090202, on south bank of Levee 29, 50 ft west of bridge 53 on U.S. Highway 41, and 22.8 mi west of Miami.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1939 to September 1963 (monthly discharge), October 1963 to current year. October 1962 to September 1963, stage only (twice monthly) published as Tamiami Canal at bridge 45, near Miami (auxiliary). Stage records prior to October 1962, are available in files of the U.S. Geological Survey. Prior to October 1963, daily discharge for this portion of the canal was published as part of the total daily discharge of station, Tamiami Canal Outlets, Miami to Monroe (station 02289000).

REVISED RECORDS.--WDR FL-2000-2A: 1998-99.

GAGE.--Electronic data logger. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to August 27, 1942, non-recording gage at datum 0.80 ft lower; August 27, 1942 to February 21, 1952, non-recording gage at present datum; and February 21, 1952 to August 7, 1969, water-stage recorder at same datum, all at site 4 mi to the west.

REMARKS.--Records poor. Figures of daily discharge consist of seepage through levee 29 from Conservation Area 3B and discharges from S-333 distributed along Levee 29 from Conservation Area 3A as represented by flow through all the outlets of Tamiami Canal from levee 30 to levee 67A (Bridges 45-59). Flow releases from S-334 were observed during portions of the water year. The discharge from S-334 are not included in the table of mean daily discharge for this station.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Average annual mean discharge, 231 ft<sup>3</sup>/s, 167,400 acre-ft/yr. Figures represent 62 complete water years of discharge (1941-2002). Monthly discharge only, available 1941-1963 water years.

SPECIAL NOTE: Statistics for the period of record 1941-2002 computed manually. NWIS database not complete.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 9.76 ft Nov. 1, 1960; minimum, 1.66 ft May 13, 14, 1971.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 8.04 ft Dec. 7; minimum, 6.39 ft May 19.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.72	7.60	7.19	7.29	7.11	7.79	7.57	6.85	6.61	7.16	7.20	7.47
2	7.69	7.57	7.18	7.34	7.10	7.80	7.58	6.83	6.62	7.19	7.19	7.46
3	7.67	7.55	7.36	7.26	7.10	7.81	7.56	6.82	6.66	7.18	7.22	7.48
4	7.64	7.54	7.74	7.23	7.09	7.81	7.47	6.80	6.65	7.18	7.30	7.50
5	7.63	7.59	7.88	7.24	7.08	7.80	7.40	6.79	6.63	7.16	7.29	7.52
6	7.63	7.58	7.98	7.31	7.13	7.80	7.37	6.77	6.62	7.16	7.28	7.53
7	7.60	7.56	8.03	7.32	7.20	7.82	7.35	6.76	6.70	7.16	7.35	7.51
8	7.56	7.54	8.03	7.31	7.20	7.84	7.33	6.75	6.80	7.24	7.43	7.49
9	7.56	7.52	8.02	7.30	7.21	7.83	7.32	6.72	6.78	7.29	7.43	7.47
10	7.56	7.50	8.01	7.30	7.23	7.83	7.27	6.71	6.78	7.31	7.43	7.52
11	7.54	7.48	7.99	7.29	7.23	7.77	7.23	6.69	6.82	7.34	7.44	7.61
12	7.51	7.46	7.91	7.29	7.23	7.72	7.21	6.67	6.84	7.36	7.45	7.63
13	7.49	7.44	7.78	7.28	7.32	7.70	7.20	6.66	6.87	7.44	7.40	7.60
14	7.48	7.43	7.78	7.28	7.42	7.70	7.20	6.65	6.84	7.42	7.30	7.57
15	7.47	7.42	7.70	7.27	7.43	7.69	7.19	6.63	6.96	7.44	7.48	7.54
16	7.46	7.40	7.55	7.26	7.44	7.68	7.14	6.49	7.03	7.41	7.62	7.51
17	7.45	7.38	7.48	7.26	7.44	7.67	7.04	6.45	6.99	7.42	7.33	7.48
18	7.42	7.36	7.39	7.26	7.44	7.66	7.01	6.42	6.97	7.43	7.29	7.46
19	7.50	7.35	7.41	7.25	7.43	7.66	6.99	6.48	6.96	7.47	7.50	7.45
20	7.57	7.34	7.36	7.24	7.51	7.65	6.97	6.61	7.00	7.45	7.74	7.44
21	7.65	7.33	7.34	7.24	7.58	7.64	6.96	6.58	7.06	7.42	7.76	7.44
22	7.78	7.31	7.33	7.22	7.61	7.64	6.95	6.56	7.09	7.40	7.77	7.43
23	7.77	7.30	7.32	7.22	7.65	7.63	6.94	6.56	7.12	7.38	7.80	7.43
24	7.78	7.28	7.31	7.21	7.65	7.62	6.92	6.54	7.14	7.35	7.81	7.44
25	7.82	7.27	7.29	7.21	7.65	7.61	6.91	6.52	7.15	7.35	7.81	7.45
26	7.79	7.25	7.27	7.20	7.65	7.61	6.90	6.51	7.18	7.33	7.82	7.44
27	7.74	7.24	7.24	7.19	7.73	7.62	6.89	6.49	7.15	7.31	7.76	7.43
28	7.70	7.23	7.28	7.18	7.80	7.61	6.88	6.52	7.15	7.28	7.59	7.43
29	7.67	7.23	7.34	7.15	---	7.60	6.87	6.54	7.14	7.26	7.56	e7.41
30	7.64	7.21	7.34	7.12	---	7.59	6.86	6.55	7.14	7.24	7.55	7.39
31	7.62	---	7.35	7.11	---	7.58	---	6.61	---	7.21	7.50	---
TOTAL	236.11	222.26	234.18	224.63	206.66	238.78	214.48	205.53	207.45	226.74	232.40	224.53
MEAN	7.62	7.41	7.55	7.25	7.38	7.70	7.15	6.63	6.92	7.31	7.50	7.48
MAX	7.82	7.60	8.03	7.34	7.80	7.84	7.58	6.85	7.18	7.47	7.82	7.63
MIN	7.42	7.21	7.18	7.11	7.08	7.58	6.86	6.42	6.61	7.16	7.19	7.39

e Estimated

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02289060 TAMAMI CANAL OUTLETS, LEVEE 30 TO LEVEE 67A, NEAR MIAMI, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	111	116	102	206	211	1150	716	112	17	91	88	216
2	102	108	101	237	208	1140	714	108	18	95	86	209
3	98	101	190	201	208	1140	682	103	21	87	94	212
4	93	99	514	188	202	1120	570	99	20	81	117	222
5	92	115	822	198	197	1090	491	94	18	73	113	228
6	98	120	1140	247	232	1080	461	90	17	68	108	229
7	92	122	1250	256	318	1110	433	86	28	63	149	214
8	85	126	1250	257	325	1110	415	83	38	79	197	202
9	87	129	1230	261	331	1090	403	78	35	86	195	190
10	91	134	1210	268	345	1060	356	73	35	85	189	211
11	88	138	1170	270	345	949	319	70	41	88	195	258
12	85	142	1040	276	345	857	305	65	45	89	203	267
13	82	146	771	280	458	825	292	62	51	105	170	246
14	82	153	707	285	610	806	285	62	47	95	108	223
15	83	158	548	288	620	781	278	49	73	96	277	202
16	85	152	360	284	628	762	249	22	88	84	406	187
17	81	147	275	283	627	767	194	15	78	87	124	172
18	75	140	223	286	626	756	181	9.7	71	96	103	160
19	92	139	233	281	621	763	171	11	65	111	297	151
20	114	138	211	276	721	750	164	17	76	110	530	147
21	140	133	201	273	813	749	156	14	88	106	573	149
22	200	132	203	267	842	745	152	13	94	104	591	140
23	191	126	196	264	907	734	146	13	99	101	634	140
24	192	123	195	266	902	736	139	12	102	99	663	143
25	215	120	189	262	908	725	133	11	103	103	660	145
26	197	115	185	258	914	727	130	10	111	101	689	141
27	177	114	169	252	1040	746	125	9.1	97	99	587	135
28	157	109	192	249	1160	734	122	11	95	95	334	134
29	141	112	225	233	---	738	120	12	92	93	301	e126
30	132	105	229	219	---	731	116	13	90	91	284	116
31	125	---	239	214	---	715	---	17	---	89	240	---
TOTAL	3683	3812	15570	7885	15664	27186	9018	1443.8	1853	2850	9305	5515
MEAN	119	127	502	254	559	877	301	46.6	61.8	91.9	300	184
MAX	215	158	1250	288	1160	1150	716	112	111	111	689	267
MIN	75	99	101	188	197	715	116	9.1	17	63	86	116
AC-FT	7310	7560	30880	15640	31070	53920	17890	2860	3680	5650	18460	10940

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1964 - 2002, BY WATER YEAR (WY)

MEAN	208	213	166	120	161	160	166	137	108	169	254	192
MAX	763	624	785	503	976	979	914	784	550	828	1230	694
(WY)	1993	1986	1993	1988	1993	1993	1993	1993	1995	1986	2001	1991
MIN	48.0	46.9	23.4	1.99	0.90	0.000	-0.77	-2.61	-0.37	-0.55	1.58	18.0
(WY)	1981	1972	1974	1990	1990	1974	1964	1964	1965	1965	1965	1989

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1964 - 2002\*

ANNUAL TOTAL	75481.61	103784.8		
ANNUAL MEAN	207	284	171	1993
HIGHEST ANNUAL MEAN			660	1974
LOWEST ANNUAL MEAN			28.3	1974
HIGHEST DAILY MEAN	1560	Aug 22	1250	Dec 7
LOWEST DAILY MEAN	0.00	May 1	9.1	May 27
ANNUAL SEVEN-DAY MINIMUM	0.00	May 15	11	May 23
MAXIMUM PEAK FLOW			1180	Mar 1
MAXIMUM PEAK STAGE			8.04	Dec 7
INSTANTANEOUS LOW FLOW			6.9	May 19
ANNUAL RUNOFF (AC-FT)	149700	205900	124100	1964
10 PERCENT EXCEEDS	870	752	470	1964
50 PERCENT EXCEEDS	58	164	89	1964
90 PERCENT EXCEEDS	0.71	67	1.6	1964

e Estimated

\*The period of record statistics were computed from complete water year's of record stored in the NWIS database. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript for the statistics for the complete period of record (1941-2002).

254540080325700 TAMIAMI CANAL AT S-355B, NEAR MIAMI, FL

LOCATION.--Lat 25°45'40", long 80°32'57", in SW 1/4 sec. T.54 S., R.37 E., Miami-Dade County, Hydrologic Unit 03090202, on north bank of Levee 29 in control house 100 ft east of structure 355B, 2.4 mi east of structure 355A, 4.3 mi east of SR 997.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--July 1999 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoders for upstream and downstream inside structure 355B control house; potentiometer-gage recorder attached to hydraulic ram of gate. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Station is one of two located between structure 333 and structure 334 on Levee 29. Gage records are primarily used to determine discharge. Discharge is not available at time of publication. The gate is opened once a month for about an hour when conditions allow for maintenance purposes.

COOPERATION.--U.S. Army Corps of Engineers.

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 9.67 ft Oct. 17, 18, 1999; minimum, 4.80 ft May 23, 2001.

EXTREME DOWNSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 8.88 ft Oct. 15, 1999; minimum, 4.89 ft May 22, 23, 2001.

EXTREME UPSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 8.80 ft Oct. 24; minimum, 6.35 ft May 18, 19.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 8.08 ft Dec, 7, 8, 9; minimum, 6.50 ft May 18, 19.

UPSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.46	8.59	7.97	7.71	7.24	7.23	7.17	e6.63	6.55	7.57	7.76	7.97
2	8.44	8.56	7.95	7.71	7.23	7.23	e7.18	6.60	6.59	7.61	7.75	8.00
3	8.42	8.53	7.93	7.71	7.22	7.23	7.21	6.57	6.59	7.63	7.76	8.06
4	8.40	8.51	7.93	7.70	7.21	7.23	7.20	6.55	6.57	7.66	7.83	8.10
5	8.39	8.56	7.92	7.68	7.19	7.23	7.18	6.53	6.55	7.71	7.81	8.09
6	8.39	8.56	7.93	7.66	7.18	7.23	7.16	6.52	6.54	7.69	7.80	8.10
7	8.37	8.53	7.96	7.65	7.16	7.26	7.15	6.50	6.61	7.70	7.80	8.10
8	8.35	8.51	7.95	7.63	7.15	7.33	7.13	6.48	6.88	7.82	7.82	8.09
9	8.36	8.48	7.95	7.62	7.15	7.31	7.10	6.49	6.88	7.89	7.81	8.08
10	8.35	8.46	7.94	7.60	7.18	7.31	7.08	6.46	6.85	7.92	7.80	8.10
11	8.33	8.44	7.93	7.58	7.20	7.30	7.06	6.44	6.84	7.97	7.79	8.16
12	8.30	8.41	7.92	7.56	7.19	7.29	7.04	6.43	6.85	7.97	7.79	8.23
13	8.28	8.39	7.91	7.55	7.17	7.28	7.02	6.42	6.85	8.02	7.78	8.23
14	8.29	8.36	7.89	7.53	7.17	7.27	7.01	6.40	6.87	8.00	7.77	8.23
15	8.32	8.35	7.88	7.51	7.17	7.28	6.99	6.42	7.03	7.99	7.77	8.23
16	8.31	8.32	7.86	7.50	7.17	7.26	6.97	e6.41	7.16	7.97	7.78	8.21
17	8.30	8.30	7.85	7.48	7.15	7.25	6.95	e6.37	7.15	7.96	7.76	8.19
18	8.31	8.27	7.83	7.47	7.15	7.24	6.92	6.36	7.15	7.98	7.75	8.17
19	8.37	8.25	7.83	7.45	7.14	7.23	6.90	6.40	7.15	8.02	7.74	8.17
20	8.42	8.23	7.81	7.43	7.13	7.22	e6.88	6.52	7.17	7.99	7.75	8.16
21	8.53	8.21	7.80	7.42	7.18	7.21	e6.85	6.50	7.26	7.98	7.75	8.15
22	8.71	8.18	7.79	7.40	7.14	7.21	6.83	6.49	7.32	7.96	7.76	8.12
23	8.73	8.16	e7.77	7.39	7.22	7.20	6.80	6.49	7.33	7.95	7.77	8.11
24	8.74	8.14	e7.76	7.37	7.23	7.19	6.78	6.48	7.33	7.93	7.78	8.12
25	8.75	8.12	e7.75	7.36	7.23	7.18	6.76	6.46	e7.39	7.92	7.77	8.12
26	8.75	8.10	e7.74	7.34	7.23	7.17	6.74	6.45	7.44	7.89	7.76	8.09
27	8.74	8.07	7.72	7.32	7.23	7.19	6.72	6.43	7.45	7.87	7.82	8.07
28	8.70	8.04	7.70	7.30	7.23	7.20	6.69	6.45	7.50	7.84	7.85	8.06
29	8.67	7.99	7.68	7.29	---	7.20	6.67	6.47	7.56	7.82	7.87	8.06
30	8.65	7.98	7.67	7.27	---	7.19	e6.64	6.46	7.55	7.80	7.92	8.05
31	8.61	---	7.68	7.26	---	7.18	---	6.53	---	7.79	7.95	---
TOTAL	262.74	249.60	243.20	232.45	201.24	224.33	208.78	200.71	210.96	243.82	241.62	243.62
MEAN	8.48	8.32	7.85	7.50	7.19	7.24	6.96	6.47	7.03	7.87	7.79	8.12
MAX	8.75	8.59	7.97	7.71	7.24	7.33	7.21	6.63	7.56	8.02	7.95	8.23
MIN	8.28	7.98	7.67	7.26	7.13	7.17	6.64	6.36	6.54	7.57	7.74	7.97

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

254540080325700 TAMIAMI CANAL AT S-355B, NEAR MIAMI, FL

DOWNSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.76	7.65	7.23	7.35	7.16	7.86	7.63	e6.89	6.69	7.23	7.28	7.55
2	7.73	7.63	7.23	7.40	7.16	7.86	e7.63	e6.88	6.70	7.25	7.27	7.54
3	7.69	7.60	7.39	7.33	7.16	7.87	7.62	e6.87	6.74	7.24	7.29	7.55
4	7.67	7.59	7.78	7.29	7.15	7.87	7.53	e6.86	6.75	7.24	7.37	7.57
5	7.65	7.63	7.93	7.29	7.14	7.86	7.47	e6.84	6.72	7.23	7.36	7.58
6	7.65	7.64	8.03	7.38	7.18	7.87	7.44	e6.83	6.70	7.23	7.35	7.59
7	7.63	7.62	8.08	7.38	7.24	7.89	7.41	6.81	6.77	7.23	7.42	7.58
8	7.60	7.60	8.08	7.38	7.24	7.92	7.39	6.80	6.88	7.30	7.51	7.57
9	7.58	7.59	8.08	7.37	7.26	7.91	7.38	6.79	6.86	7.35	7.51	7.55
10	7.59	7.57	8.07	7.37	7.28	7.90	7.32	6.80	6.86	7.36	7.50	7.58
11	7.58	7.54	8.05	7.36	7.28	7.83	7.27	6.78	6.89	7.39	7.50	7.66
12	7.56	7.52	7.97	7.35	7.28	7.77	7.26	6.77	6.91	7.43	7.50	7.70
13	7.53	7.50	7.83	7.34	7.37	7.76	7.25	6.76	6.95	7.51	7.46	7.67
14	7.52	7.48	7.82	7.33	7.47	7.76	7.24	6.76	6.93	7.49	7.36	7.64
15	7.51	7.48	7.75	7.33	7.48	7.75	7.24	6.72	7.03	7.50	7.53	7.61
16	7.51	7.46	7.61	7.32	7.49	7.74	7.20	e6.60	7.11	7.49	7.67	7.58
17	7.49	7.43	7.54	7.32	7.50	7.73	7.10	e6.56	7.06	7.49	7.40	7.56
18	7.47	7.41	7.45	7.31	7.50	7.72	7.08	6.52	7.04	7.50	7.35	7.53
19	7.54	7.40	7.47	7.30	7.49	7.71	7.05	6.57	7.03	7.52	7.55	7.51
20	7.63	7.39	7.43	7.30	7.56	7.70	e7.03	6.71	7.08	7.52	7.77	7.50
21	7.70	7.38	7.40	7.29	7.63	7.70	e7.03	6.68	7.14	7.50	7.79	7.50
22	7.84	7.36	7.39	7.27	7.66	7.70	7.01	6.66	7.16	7.48	7.82	7.50
23	7.82	7.34	e7.39	7.26	7.72	7.69	6.99	6.64	7.20	7.46	7.85	7.49
24	7.83	7.33	e7.37	7.26	7.72	7.68	6.97	6.63	7.22	7.43	7.87	7.50
25	7.88	7.31	e7.35	7.26	7.72	7.68	6.96	6.61	e7.22	7.43	7.86	7.50
26	7.84	7.30	e7.34	7.25	7.72	7.67	6.95	6.60	7.25	7.41	7.87	7.50
27	7.81	7.28	7.29	7.24	7.79	7.65	6.94	6.58	7.22	7.38	7.81	7.50
28	7.75	7.27	7.33	7.24	7.86	7.66	6.93	6.60	7.22	7.35	7.66	7.49
29	7.73	7.27	7.40	7.21	---	7.65	6.93	6.63	7.22	7.33	7.63	7.49
30	7.70	7.25	7.40	7.18	---	7.65	e6.91	6.64	7.22	7.31	7.61	7.48
31	7.68	---	7.42	7.17	---	7.64	---	6.69	---	7.29	7.59	---
TOTAL	237.47	223.82	235.90	226.43	208.21	240.65	216.16	208.08	209.77	228.87	234.31	226.57
MEAN	7.66	7.46	7.61	7.30	7.44	7.76	7.21	6.71	6.99	7.38	7.56	7.55
MAX	7.88	7.65	8.08	7.40	7.86	7.92	7.63	6.89	7.25	7.52	7.87	7.70
MIN	7.47	7.25	7.23	7.17	7.14	7.64	6.91	6.52	6.69	7.23	7.27	7.48

e Estimated

02289500 TAMAMI CANAL NEAR CORAL GABLES, FL

LOCATION.--Lat 25°45'43", long 80°19'42", in SW 1/4 sec.3, T.54 S., R.40 E., Miami-Dade County, Hydrologic Unit 03090202, on upstream side of footbridge, 25 ft from south bank, 0.5 mi upstream from Coral Gables Canal, 2.5 mi west of Coral Gables city limits, 3.5 mi downstream from Snapper Creek Canal, and 6.2 mi upstream from mouth.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--January 1940 to June 1943, October 1959 to current year.

REVISED RECORDS.--WDR FL-87-2A: 1986; WDR FL-97-2A: 1995; WDR FL-98-2A: 1997.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic velocity meter. Datum of gage is National Geodetic Vertical Datum of 1929, January 1940 to June 1943, non-recording gage at same site at datum 0.22 ft lower. Benchmark was readjusted, datum prior to 1963, 0.48 lower.

REMARKS.--Records poor. The flow is slightly affected by tide and is regulated by control structures downstream at the Coral Gables Canal, Comfort Canal (S-25), S-25A, S-25B and upstream by S-336 and drainage from the Snapper Creek. Discharge computed from continuous velocity record obtained from acoustic velocity metering system and stage. Records of gage height prior to October 1960, are available in files of the U.S. Geological Survey.

COOPERATION.--South Florida Water Management District.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 32 complete water years of discharge (1941, 42, 1960-83, 1985-88, 1990, 2001).

EXTREME STAGES FOR OUTSIDE PERIOD OF RECORD.--Maximum stage known, 8.01 ft Oct. 12, 1947, present datum, from non-recording gage reading.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 7.90 ft Oct. 4, 2000; minimum, 1.08 ft May 31, 1962.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 5.13 ft Oct. 22; minimum, 2.12 ft June 12.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e3.68	3.10	2.97	2.94	3.14	3.05	3.06	2.60	3.16	2.83	2.60	e2.81
2	e3.56	3.04	3.19	e2.88	3.17	3.13	3.05	2.57	3.02	3.10	2.70	2.84
3	3.48	2.98	3.02	e2.82	3.18	2.87	2.91	2.53	2.91	3.08	2.71	2.92
4	3.52	3.00	2.88	2.83	3.18	2.80	2.82	2.50	2.81	2.85	2.74	2.93
5	3.60	3.24	2.89	3.08	3.18	2.98	2.76	2.48	2.72	2.78	2.77	2.90
6	3.37	3.19	3.13	3.09	3.18	3.10	2.73	2.44	2.67	2.74	2.85	2.92
7	3.23	3.03	3.09	2.81	3.18	3.17	2.71	2.41	2.67	2.73	2.94	2.95
8	3.14	e2.96	3.02	2.76	3.05	2.88	2.69	e2.37	2.64	---	2.99	2.98
9	3.20	e2.89	2.89	3.04	3.18	3.15	2.67	2.34	2.65	---	3.01	2.95
10	3.30	e2.85	2.82	3.12	3.10	2.94	2.65	2.31	2.76	3.41	2.97	3.03
11	3.35	e2.85	2.80	3.17	2.83	2.83	2.82	2.27	2.41	3.38	2.93	3.04
12	3.38	e2.84	2.77	3.19	3.12	2.79	2.86	2.24	2.32	3.18	2.90	2.98
13	3.41	e2.81	2.86	2.97	e3.15	2.87	2.89	2.21	2.30	3.12	2.91	2.84
14	3.43	e2.75	3.00	2.76	---	2.77	2.91	2.19	2.33	2.95	2.91	2.95
15	3.42	e2.72	2.86	2.99	---	2.98	2.92	2.21	2.75	2.84	2.89	2.87
16	3.42	2.73	2.81	3.10	e2.80	3.09	2.91	e2.87	2.95	2.83	2.87	2.81
17	3.27	2.74	2.79	3.14	e2.76	3.12	2.90	2.77	2.75	2.78	2.91	2.77
18	3.18	2.76	2.75	3.17	e2.72	3.13	2.89	2.51	2.71	2.76	2.89	2.69
19	3.52	2.73	2.84	3.18	e2.70	3.06	2.87	2.76	2.90	2.70	2.80	2.68
20	3.44	2.68	3.07	3.19	---	2.80	2.85	3.02	2.90	2.62	2.70	2.67
21	3.53	2.70	3.14	2.93	---	2.81	2.84	3.09	3.03	2.55	2.72	2.67
22	4.71	2.66	3.17	2.97	---	2.97	2.82	2.89	2.97	2.49	2.73	2.62
23	4.11	2.65	3.14	3.10	---	e2.97	2.80	3.03	2.88	2.41	2.72	2.61
24	3.95	2.64	2.89	3.14	---	e2.98	2.77	2.95	2.78	2.55	2.71	2.65
25	3.94	2.63	2.83	3.16	---	e2.98	2.74	2.96	2.70	2.64	2.71	2.65
26	3.61	2.69	2.88	3.17	---	e3.00	2.72	2.98	3.15	2.63	2.73	2.61
27	3.40	3.03	2.82	3.17	---	e3.03	2.69	2.98	3.00	2.58	2.74	2.57
28	3.28	3.17	2.90	3.16	3.16	3.03	2.67	3.03	2.78	2.56	2.81	2.57
29	3.23	3.13	3.12	3.03	---	3.03	2.65	2.92	2.70	2.55	2.81	2.57
30	3.19	2.94	3.18	2.97	---	3.02	2.62	3.13	2.65	2.54	2.81	2.57
31	3.15	---	3.08	3.09	---	3.01	---	3.01	---	2.56	2.80	---
TOTAL	108.00	86.13	91.60	94.12	---	92.34	84.19	82.57	82.97	---	87.28	83.62
MEAN	3.48	2.87	2.95	3.04	---	2.98	2.81	2.66	2.77	---	2.82	2.79
MAX	4.71	3.24	3.19	3.19	---	3.17	3.06	3.13	3.16	---	3.01	3.04
MIN	3.14	2.63	2.75	2.76	---	2.77	2.62	2.19	2.30	---	2.60	2.57

e Estimated

EVERGLADES AND SOUTHEASTERN COASTAL AREA  
02289500 TAMiami CANAL NEAR CORAL GABLES, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e408	325	223	213	71	97	108	70	154	224	164	e251
2	e346	323	179	e207	69	e86	180	65	151	285	179	242
3	312	312	230	e199	67	e134	191	67	142	281	202	231
4	304	307	238	168	66	e125	195	63	134	254	217	234
5	295	316	216	127	65	e83	187	60	129	250	214	234
6	341	325	177	146	65	67	176	59	121	241	e260	229
7	340	311	235	194	78	94	170	59	116	223	e277	215
8	340	e292	237	181	e106	e146	161	e57	105	---	259	e275
9	343	e287	218	122	e110	e87	158	59	98	---	246	e273
10	363	e305	216	118	e180	e133	153	58	88	---	258	267
11	317	e315	221	116	134	e223	87	53	e110	282	222	278
12	298	e294	222	118	98	e213	87	53	104	263	218	266
13	276	e286	198	180	---	e178	90	55	127	261	202	267
14	257	e289	186	198	---	198	85	52	e173	229	222	309
15	276	e281	216	128	---	111	86	41	---	228	236	295
16	274	289	216	117	---	90	93	e-32	---	210	237	272
17	298	291	209	117	---	94	91	35	---	197	248	251
18	309	292	206	117	---	94	86	91	---	198	243	237
19	365	298	178	120	---	134	85	21	241	188	256	219
20	361	299	138	116	---	196	85	24	237	175	257	206
21	401	298	132	176	---	157	81	37	252	163	274	202
22	637	296	132	137	---	107	80	96	253	158	269	204
23	531	295	144	118	---	e125	76	71	240	151	268	212
24	488	291	193	119	---	e122	75	89	225	154	269	225
25	499	284	194	116	---	e118	76	e76	216	178	260	228
26	457	266	204	111	---	e108	76	e107	234	169	259	218
27	422	207	204	107	---	e109	76	e129	243	166	272	209
28	380	193	171	106	---	106	74	e141	230	156	277	206
29	350	218	134	141	---	101	71	154	204	160	287	201
30	333	255	124	134	---	102	70	100	205	156	282	199
31	328	---	175	112	---	100	---	117	---	161	270	---
TOTAL	11249	8640	5966	4379	---	3838	3309	2127	---	---	7604	7155
MEAN	363	288	192	141	---	124	110	68.6	---	---	245	238
MAX	637	325	238	213	---	223	195	154	---	---	287	309
MIN	257	193	124	106	---	67	70	-32	---	---	164	199
AC-FT	22310	17140	11830	8690	---	7610	6560	4220	---	---	15080	14190

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

MEAN	196	165	160	138	124	103	78.4	82.0	140	154	161	188
MAX	398	376	346	380	329	304	286	283	303	485	344	432
(WY)	1961	1960	1961	1961	1961	1983	1960	1979	1969	1991	1994	1960
MIN	37.1	12.8	33.4	25.9	4.11	10.4	-5.43	-54.5	7.03	35.3	39.1	33.5
(WY)	1990	1990	1990	1989	1991	1990	1975	1991	1974	1990	1965	1989

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

WATER YEARS 1940 - 2002

ANNUAL TOTAL	58258.69		
ANNUAL MEAN	160	139	
HIGHEST ANNUAL MEAN		288	1960
LOWEST ANNUAL MEAN		30.8	1990
HIGHEST DAILY MEAN	637	Oct 22	1120
LOWEST DAILY MEAN	-8.2	Apr 26	-259
ANNUAL SEVEN-DAY MINIMUM	2.3	Apr 26	-127
ANNUAL RUNOFF (AC-FT)	115600		100600
10 PERCENT EXCEEDS	315		268
50 PERCENT EXCEEDS	153		120
90 PERCENT EXCEEDS	26		31

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.



254315080331500 NORTHEAST SHARK RIVER SLOUGH NO. 2 NEAR COOPERTOWN, FL

LOCATION.--Lat 25°43'11", long 80°33'26", in NW 1/4 sec.4, T.54 S., Miami-Dade County, Hydrologic Unit 03090202, 2.7 mi south of Coopertown in Northeast Shark River Slough.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1976 to September 1980, October 1982 to current year (gage heights only). Published as "Northeast Shark Valley Slough No. 2 near Coopertown" October 1976 to September 1977.

GAGE.--Satellite data collection platform with water-stage shaft encoder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Land-surface datum is 5.4 ft above National Geodetic Vertical Datum of 1929. Water levels below land-surface datum are recorded.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 8.51 ft Oct. 16, 1999; minimum, 3.41 ft estimated, Apr. 23, 1979.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 7.76 ft Oct. 24; minimum, 5.99 ft May 14.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.54	7.40	6.96	7.00	6.67	6.89	6.89	6.33	6.24	6.93	6.96	e7.20
2	7.50	7.37	6.95	7.00	6.66	6.91	6.89	6.32	6.23	6.96	6.97	7.18
3	7.47	7.35	6.94	7.00	6.65	6.92	6.91	6.29	6.22	6.96	6.97	7.20
4	7.44	7.34	6.94	6.98	6.64	6.93	6.91	6.28	6.21	6.95	6.99	7.24
5	7.43	7.39	6.95	6.96	6.62	6.94	6.90	6.26	6.19	6.93	7.00	7.26
6	7.42	7.37	7.01	6.95	6.61	6.95	6.88	6.22	6.18	6.92	6.99	7.28
7	7.39	7.35	7.09	6.94	6.60	6.98	6.86	6.20	6.28	6.92	6.98	7.26
8	7.37	7.33	7.14	6.93	6.59	7.05	6.83	e6.21	6.42	6.99	6.99	7.25
9	7.38	7.31	7.18	6.91	6.60	7.05	6.81	6.15	6.39	7.05	6.99	7.23
10	7.37	7.29	7.21	6.90	6.66	7.05	6.79	6.13	6.38	7.08	6.98	7.26
11	7.34	7.27	7.23	6.89	6.68	7.05	6.77	6.10	6.41	7.13	6.97	7.32
12	7.31	7.25	7.25	6.88	6.67	7.04	6.75	6.07	6.45	7.14	6.98	7.33
13	7.28	7.23	7.25	6.87	6.66	7.03	6.73	6.04	6.44	7.21	6.98	7.32
14	7.26	7.21	7.25	6.87	6.66	7.02	6.71	6.01	6.44	7.21	6.99	7.30
15	7.25	7.19	7.25	6.86	6.67	7.01	6.69	6.06	6.59	7.22	6.99	7.28
16	7.24	7.18	7.23	6.84	6.67	7.00	6.67	e6.06	6.73	7.20	6.99	e7.25
17	7.23	7.16	7.21	6.84	6.68	6.99	6.65	e6.04	6.72	e7.21	7.00	7.23
18	7.21	7.14	e7.17	6.83	6.68	6.98	6.63	6.02	6.72	7.23	e6.99	7.20
19	7.29	7.13	7.13	6.82	6.68	6.97	e6.61	6.04	6.73	7.27	6.97	7.19
20	7.35	7.12	7.11	6.81	6.68	6.96	e6.59	6.16	6.73	7.23	6.97	7.18
21	7.43	7.10	7.08	6.80	6.68	6.96	e6.57	6.20	6.80	7.20	7.02	7.19
22	7.58	7.09	7.06	6.79	6.70	6.95	e6.55	6.17	6.87	7.17	7.05	7.17
23	7.57	7.07	7.04	6.78	6.82	6.95	e6.51	6.18	6.90	7.15	7.08	7.17
24	7.61	7.06	7.02	6.76	6.85	6.94	6.49	6.16	6.90	7.14	7.13	7.19
25	7.66	7.04	7.01	6.75	6.85	6.93	6.46	6.14	6.91	7.13	7.15	7.20
26	7.61	7.03	7.01	6.74	6.86	6.93	6.44	6.12	6.92	7.11	7.15	7.19
27	7.56	7.01	6.99	6.73	6.87	6.93	6.42	6.09	6.92	7.08	7.19	7.18
28	7.51	7.00	6.97	6.72	6.87	6.92	6.40	6.11	6.92	7.05	7.23	7.20
29	7.48	6.98	6.96	6.71	---	6.91	6.38	6.12	6.92	7.02	7.23	7.18
30	7.45	6.97	6.95	6.70	---	6.91	6.36	6.11	6.91	6.99	7.23	7.17
31	7.42	---	6.97	6.68	---	6.90	---	6.20	---	6.97	7.23	---
TOTAL	229.95	215.73	219.51	212.24	187.53	215.95	200.05	190.59	197.67	219.75	218.34	216.80
MEAN	7.42	7.19	7.08	6.85	6.70	6.97	6.67	6.15	6.59	7.09	7.04	7.23
MAX	7.66	7.40	7.25	7.00	6.87	7.05	6.91	6.33	6.92	7.27	7.23	7.33
MIN	7.21	6.97	6.94	6.68	6.59	6.89	6.36	6.01	6.18	6.92	6.96	7.17

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

254130080380500 NORTHEAST SHARK RIVER SLOUGH NO. 1 NEAR COOPERTOWN, FL

LOCATION.--Lat 25°41'30", long 80°38'05" in NW 1/4 sec.4, T.54 S., R.31 E., Miami-Dade County, Hydrologic Unit 03090202, 0.7 mi west of southeast corner of Blue Shanty Canal, 0.8 mi south of east-west section of Shanty Canal, and 4.7 mi southwest of Coopertown.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1976 to September 1980, July 1982 to current year (gage heights only).

REVISED RECORDS.--WDR FL-79-2A: 1977; WDR FL-96-2A: 1995.

GAGE.--Satellite data collection platform with water-stage shaft encoder and tipping bucket rain gage. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Land-surface Datum is 5.9 ft above National Geodetic Vertical Datum of 1929. Rainfall data available in files of the U.S. Geological Survey. Water levels below land-surface datum are recorded. Prior to October 1977, published as "Northeast Shark Valley Slough No. 1 near Coopertown."

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 8.54 ft Oct. 16, 1999; minimum, indeterminate, well was dry.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 7.63 ft Oct. 22, 25, 26; minimum, 6.16 ft May 19.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.52	7.44	7.06	7.06	6.71	6.80	6.86	6.43	6.31	7.05	7.11	e7.35
2	7.52	7.42	7.05	7.06	6.71	6.81	6.86	6.41	6.31	7.03	7.22	7.36
3	7.49	7.40	7.04	7.07	6.70	6.83	6.90	6.40	6.34	7.03	7.17	7.39
4	7.47	7.40	7.04	7.05	6.68	6.84	6.91	6.37	6.33	7.01	7.18	7.45
5	7.44	7.45	7.03	7.03	6.67	6.84	6.91	6.36	6.33	7.00	7.17	7.47
6	7.44	7.44	7.06	7.02	6.65	6.86	6.89	6.33	6.32	6.99	7.17	7.45
7	7.41	7.41	7.11	7.00	6.64	6.88	6.88	6.32	6.37	7.00	7.16	7.42
8	7.39	7.39	7.14	6.98	6.63	6.91	6.86	e6.29	6.54	7.03	7.16	7.42
9	7.40	7.36	7.17	6.96	6.63	6.93	6.84	6.28	6.56	7.13	7.14	7.40
10	7.40	7.35	7.21	6.95	6.67	6.95	6.82	6.25	6.57	7.17	7.13	7.41
11	7.37	7.32	7.24	6.94	6.68	6.95	6.81	6.24	6.59	7.21	7.17	7.45
12	7.34	7.31	7.26	6.93	6.68	6.96	6.79	6.22	6.61	7.21	7.24	7.48
13	7.32	7.29	7.27	6.92	6.68	6.96	6.77	6.20	6.61	7.22	7.21	7.47
14	7.30	7.27	7.28	6.92	6.68	6.96	6.76	6.19	6.61	7.24	7.20	7.45
15	7.28	7.26	7.28	6.91	6.67	6.96	6.75	6.17	6.78	7.24	7.20	7.42
16	7.27	7.24	7.27	6.91	6.67	6.95	6.73	e6.19	6.96	7.28	7.20	7.40
17	7.25	7.23	7.26	6.91	6.67	6.95	6.72	6.19	6.93	7.32	7.19	7.38
18	7.24	7.21	7.24	6.90	6.67	6.94	6.70	6.17	6.92	7.30	7.18	7.36
19	7.29	7.20	7.22	6.89	6.67	6.93	6.68	6.19	6.91	7.30	7.17	7.35
20	7.35	7.20	7.20	6.86	6.66	6.92	6.66	6.28	6.92	7.29	7.18	7.33
21	7.44	7.18	7.17	6.84	6.66	6.92	6.64	6.29	6.99	7.26	7.21	7.33
22	7.62	7.16	7.14	6.83	6.66	6.91	6.62	6.28	6.99	7.24	7.22	7.32
23	7.60	7.16	7.12	6.81	6.75	6.91	6.60	6.26	7.01	7.22	7.23	7.34
24	7.58	7.14	7.10	6.80	6.78	6.91	6.58	6.25	7.00	7.21	7.26	7.38
25	7.62	7.13	7.08	6.79	6.79	6.91	6.56	6.23	7.03	7.21	7.26	7.39
26	7.61	7.12	7.08	6.78	6.79	6.90	6.53	6.21	7.04	7.20	7.27	7.38
27	7.58	7.11	7.06	6.77	6.79	6.90	6.52	6.21	7.02	7.17	7.27	7.37
28	7.54	7.09	7.04	6.76	6.79	6.90	6.49	6.21	7.00	7.16	7.32	7.37
29	7.51	7.08	7.03	6.75	---	6.89	6.47	6.22	6.99	7.13	7.37	7.35
30	7.48	7.07	7.02	6.74	---	6.88	6.45	6.23	7.01	7.12	7.36	7.34
31	7.47	---	7.02	6.72	---	6.87	---	6.29	---	7.10	7.36	---
TOTAL	230.54	217.83	221.29	213.86	187.43	214.03	201.56	194.16	201.90	222.07	223.68	221.78
MEAN	7.44	7.26	7.14	6.90	6.69	6.90	6.72	6.26	6.73	7.16	7.22	7.39
MAX	7.62	7.45	7.28	7.07	6.79	6.96	6.91	6.43	7.04	7.32	7.37	7.48
MIN	7.24	7.07	7.02	6.72	6.63	6.80	6.45	6.17	6.31	6.99	7.11	7.32

e Estimated

## 254100080402400 L-67 EXTENDED CANAL WEST NEAR FLORIDA CITY, FL

LOCATION.--Lat 25°41'00", long 80°40'24", between sec.24, T.55 S., R.36 E., and sec.6, T.55 S., R.37 E., between hiatus of unsurveyed area, Miami-Dade County, Hydrologic Unit 03090202, 5.8 mi south of U.S. Highway 41 on the Levee 67 extension and 11.8 mi west of Krome Avenue.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1983 to present year (gage heights only).

GAGE.--Electronic data logger. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--During the 1999 water year, due to a change in starting benchmarks, a -0.12 ft datum correction was applied to published records for the 1984 to 1996 water years. Revised daily mean values for 1984 - 1996 are available in the files of the Geological Survey.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 9.32 ft Oct. 16, 1999; minimum, 3.38 ft Apr. 8, 1990.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 8.21 ft Oct. 22; minimum, 6.29 ft May 12-15.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.99	8.02	8.00	7.24	6.75	6.62	6.60	6.46	6.52	7.25	7.66	7.91
2	7.94	8.02	8.00	7.23	6.74	6.62	6.64	6.44	6.51	7.26	7.69	7.89
3	7.91	8.02	7.99	7.23	6.73	6.61	6.71	6.43	6.59	7.28	7.69	7.92
4	7.88	8.03	7.98	7.19	6.72	6.60	6.72	6.40	6.66	7.29	7.73	7.95
5	7.86	8.10	7.96	7.16	6.71	6.59	6.71	6.37	6.62	7.29	7.75	7.98
6	7.85	8.12	7.97	7.14	6.69	6.59	6.69	6.35	6.59	7.31	7.74	7.98
7	7.84	8.10	7.98	7.11	6.68	6.59	6.68	6.34	6.67	7.34	7.74	7.96
8	7.83	8.10	7.96	7.09	6.66	6.61	6.67	6.32	6.85	7.38	7.74	7.97
9	7.87	8.09	7.97	7.06	6.67	6.62	6.66	6.31	6.81	7.46	7.74	7.97
10	7.88	8.09	8.01	7.04	6.73	6.62	6.65	6.33	6.77	7.52	7.73	7.98
11	7.88	8.09	7.98	7.02	6.72	6.62	6.64	6.32	6.78	7.56	7.80	8.01
12	7.87	8.08	7.95	7.00	6.70	6.63	6.63	6.30	6.81	7.57	7.86	8.04
13	7.86	8.07	7.91	6.98	6.69	6.63	6.62	6.30	6.79	7.58	7.84	8.02
14	7.86	8.07	7.86	6.97	6.68	6.63	6.63	6.30	6.75	7.58	7.83	8.01
15	7.86	8.08	7.80	6.96	6.67	6.63	6.64	6.31	6.97	7.57	7.83	7.99
16	7.87	8.07	7.74	6.94	6.66	6.63	6.63	6.33	7.14	7.59	7.82	7.98
17	7.90	8.07	7.68	6.93	6.65	6.63	6.63	6.33	7.09	7.62	7.81	7.96
18	7.89	8.06	7.64	6.92	6.63	6.63	6.62	6.31	7.04	7.63	7.80	7.95
19	7.91	8.06	7.61	6.90	6.62	6.63	6.62	6.38	6.99	7.63	7.83	7.94
20	7.97	8.05	7.56	6.89	6.61	6.62	6.61	6.50	6.98	7.61	7.86	7.93
21	8.08	8.05	7.52	6.88	6.60	6.63	6.60	6.46	7.06	7.61	7.89	7.94
22	8.20	8.05	7.49	6.87	6.59	6.62	6.60	6.44	7.04	7.61	7.87	7.92
23	8.18	8.04	7.46	6.85	6.68	6.62	6.60	6.42	7.05	7.61	7.86	7.97
24	8.16	8.03	7.42	6.84	6.68	6.62	6.59	6.40	7.12	7.61	7.84	8.03
25	8.14	8.03	7.39	6.83	6.66	6.62	6.56	6.38	7.16	7.62	7.82	8.02
26	8.14	8.02	7.37	6.82	6.64	6.62	6.51	6.36	7.15	7.63	7.80	8.01
27	8.10	8.02	7.34	6.81	6.64	6.63	6.50	6.36	7.13	7.63	7.80	8.00
28	8.07	8.01	7.31	6.80	6.62	6.62	6.49	6.37	7.16	7.63	7.88	7.99
29	8.05	8.01	7.27	6.80	---	6.62	6.48	6.38	7.18	7.64	7.87	7.98
30	8.04	8.00	7.24	6.78	---	6.62	6.46	6.41	7.21	7.64	7.91	7.97
31	8.03	---	7.23	6.77	---	6.61	---	6.52	---	7.65	7.92	---
TOTAL	246.91	241.65	238.59	216.05	186.82	205.18	198.39	197.63	207.19	233.20	241.95	239.17
MEAN	7.96	8.05	7.70	6.97	6.67	6.62	6.61	6.38	6.91	7.52	7.80	7.97
MAX	8.20	8.12	8.01	7.24	6.75	6.63	6.72	6.52	7.21	7.65	7.92	8.04
MIN	7.83	8.00	7.23	6.77	6.59	6.59	6.46	6.30	6.51	7.25	7.66	7.89

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

254100080402200 NORTHEAST SHARK RIVER SLOUGH EAST OF L 67 EXT. NEAR RICHMOND HEIGHTS, FL

LOCATION.--Lat 25°41'00", long 80°40'22", in NW 1/4 sec.6, T.55 S., R.37 E., Miami-Dade County, Hydrologic Unit 03090202, 5.8 mi south of U.S. Highway 41 on the Levee 67 extension and 11.8 mi west of Krome Avenue.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--January 1984 to current year (gage heights only).

GAGE.--Electronic data logger. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Due to a change in the starting benchmarks, a -0.12 ft datum correction was applied to the published records for the 1984 to 1996 water years. Revised daily mean values for 1984-1996 are available in the files of Geological Survey.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 8.85 ft Oct. 15, 1999; minimum, indeterminate, well was dry.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 7.86 ft Sept. 11, 12, 23, 24; minimum 6.12 ft May 14, 15.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.56	7.54	7.30	7.09	6.72	6.77	6.82	6.41	6.51	7.17	7.48	7.72
2	7.53	7.52	7.30	7.09	6.70	6.77	6.84	6.39	6.51	7.16	7.52	7.71
3	7.51	7.51	7.30	7.10	6.70	6.78	6.88	6.37	6.57	7.18	7.51	7.75
4	7.49	7.51	7.29	7.07	6.68	6.79	6.87	6.35	6.61	7.18	7.54	7.77
5	7.47	7.56	7.28	7.05	6.67	6.79	6.87	6.33	6.57	7.18	7.56	7.80
6	7.47	7.55	7.29	7.04	6.66	6.80	6.86	6.31	6.57	7.19	7.55	7.80
7	7.45	7.52	7.31	7.03	6.65	6.82	6.85	6.29	6.67	7.22	7.55	7.77
8	7.44	7.51	7.32	7.01	6.64	6.84	6.83	6.27	6.79	7.25	7.55	7.78
9	7.46	7.49	7.34	6.99	6.65	6.86	6.81	6.24	6.76	7.33	7.54	7.77
10	7.46	7.48	7.39	6.97	6.73	6.87	6.79	6.21	6.74	7.39	7.54	7.80
11	7.43	7.46	7.39	6.96	6.69	6.89	6.78	6.18	6.77	7.43	7.61	7.83
12	7.41	7.45	7.40	6.95	6.69	6.89	6.77	6.17	6.78	7.43	7.67	7.85
13	7.39	7.44	7.40	6.94	6.69	6.90	6.75	6.16	6.77	7.44	7.64	7.84
14	7.37	7.43	7.40	6.93	6.68	6.90	6.75	6.15	6.74	7.44	7.64	7.82
15	7.36	7.42	7.39	6.91	6.68	6.90	6.74	6.16	6.94	7.43	7.63	7.80
16	7.35	7.41	7.37	6.89	6.68	6.90	6.71	6.27	7.09	7.46	7.63	7.78
17	7.34	7.40	7.35	6.88	6.67	6.89	6.69	6.22	7.05	7.49	7.61	7.77
18	7.34	7.39	7.33	6.88	6.66	6.89	6.68	6.16	7.01	7.49	7.60	7.76
19	7.37	7.38	7.31	6.86	6.65	6.88	6.66	6.32	6.97	7.49	7.62	7.74
20	7.42	7.38	7.28	6.85	6.64	6.88	6.64	6.53	6.96	7.48	7.65	7.74
21	7.52	7.37	7.25	6.84	6.64	6.87	6.62	6.44	7.05	7.46	7.69	7.74
22	7.67	7.36	7.22	6.83	6.64	6.86	6.59	6.41	7.03	7.45	7.67	7.74
23	7.65	7.35	7.19	6.82	6.79	6.86	6.57	6.36	7.04	7.45	7.66	7.78
24	7.63	7.34	7.17	6.81	6.76	6.85	6.56	6.31	7.08	7.45	7.65	7.85
25	7.65	7.33	7.15	6.80	6.76	6.85	6.54	6.29	7.11	7.46	7.63	7.84
26	7.66	7.32	7.14	6.79	6.76	6.86	6.52	6.27	7.12	7.47	7.62	7.82
27	7.63	7.32	7.12	6.78	6.76	6.87	6.49	6.30	7.09	7.46	7.63	7.81
28	7.60	7.31	7.10	6.77	6.76	6.85	6.47	6.31	7.10	7.46	7.70	7.79
29	7.58	7.31	7.07	6.76	---	6.84	6.45	6.30	7.11	7.46	7.71	7.78
30	7.56	7.30	7.06	6.75	---	6.83	6.43	6.37	7.13	7.46	7.72	7.78
31	7.55	---	7.07	6.73	---	6.82	---	6.56	---	7.46	7.74	---
TOTAL	232.32	222.66	225.28	214.17	187.40	212.37	200.83	195.41	206.24	228.87	236.06	233.53
MEAN	7.49	7.42	7.27	6.91	6.69	6.85	6.69	6.30	6.87	7.38	7.61	7.78
MAX	7.67	7.56	7.40	7.10	6.79	6.90	6.88	6.56	7.13	7.49	7.74	7.85
MIN	7.34	7.30	7.06	6.73	6.64	6.77	6.43	6.15	6.51	7.16	7.48	7.71

253828080391100 NORTHEAST SHARK RIVER SLOUGH NO. 4, NORTH OF GROSSMAN, FL

LOCATION.--Lat 25°38'24", long 80°39'10", in NW 1/4 sec.4, T.54 S., R. Government Lot 6 E., Miami-Dade County, Hydrologic Unit 03090202, approximately 2.0 mi northeast of the extreme southern end of the Levee 67 extension and 11.8 mi west of Krome Avenue.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--July 1985 to current year (gage heights only).

REVISED RECORDS.--WDR FL-93-2A: 1990-1992; WDR FL-95-2A: 1994; WDR FL-96-2A: 1993, 1986-1989 (extremes only).

GAGE.--Satellite data collection platform with water-stage shaft encoder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Hurricane Andrew destroyed the gage and all reference marks in 1992. The station was rebuilt on February 19, 1993, and precise adjustments to the gage datum prior to 1993 based on Everglades National Park contractor surveys were not possible.

The reader should use -0.40 to approximate this adjustment for water years prior to 1993. Land-surface datum is approximately 5.5 ft above National Geodetic Vertical Datum of 1929. Gage is capable of recording water levels below land-surface datum.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 8.41 ft Oct. 15, 1999; minimum, indeterminate, well was dry.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 7.53 ft Oct. 22; minimum, 5.90 May 19, 28.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.45	7.34	7.02	6.96	e6.59	6.60	6.60	6.25	6.10	e6.84	6.96	e7.17
2	7.42	7.33	7.01	6.95	e6.58	6.60	6.61	6.23	6.12	e6.86	7.02	7.17
3	7.39	7.31	7.01	6.97	e6.57	6.60	6.64	6.20	6.12	6.88	7.02	7.19
4	7.36	7.31	7.00	6.94	e6.55	6.60	6.65	6.19	6.10	6.86	7.01	7.25
5	7.34	7.37	6.99	6.92	6.54	6.60	6.64	6.16	6.10	6.86	7.00	7.28
6	7.33	7.35	7.02	6.91	6.53	6.60	6.63	6.14	6.12	6.86	7.00	7.31
7	7.32	7.33	7.05	6.90	6.52	6.61	6.63	6.12	6.18	6.87	7.00	7.28
8	7.30	7.30	7.05	6.87	6.50	6.64	6.62	e6.10	6.22	6.90	7.00	7.26
9	7.31	7.29	7.10	6.85	6.51	6.65	e6.60	6.08	6.22	6.98	6.99	7.25
10	7.30	7.27	7.15	6.84	6.59	6.65	e6.58	6.06	6.23	7.04	6.98	7.25
11	7.27	7.25	7.13	6.83	6.59	6.63	e6.57	6.03	6.30	7.09	7.01	7.27
12	7.24	7.24	7.13	6.81	6.58	6.64	e6.56	6.02	6.34	7.09	7.08	7.30
13	7.22	7.22	7.13	6.81	6.57	6.64	e6.55	5.99	6.35	7.10	7.08	7.30
14	7.20	7.21	7.13	6.80	6.57	6.65	e6.53	5.99	6.35	7.09	7.07	7.29
15	7.19	7.19	7.13	6.78	6.56	6.65	e6.52	5.96	e6.52	7.09	7.07	7.27
16	7.17	7.17	7.13	6.77	6.56	6.65	e6.51	e5.95	e6.69	7.08	7.08	7.26
17	7.16	7.16	7.12	6.76	6.55	6.65	e6.49	5.94	e6.68	7.12	7.06	7.24
18	7.15	7.15	7.11	6.75	6.53	6.65	e6.48	5.92	e6.69	7.11	7.05	7.22
19	7.21	7.14	7.10	6.74	6.52	6.64	e6.46	5.93	e6.69	7.11	7.05	7.21
20	7.23	7.13	7.08	6.73	6.51	6.63	e6.45	6.01	e6.76	7.10	7.09	7.20
21	7.34	7.13	7.06	6.72	6.50	6.62	e6.43	6.01	e6.89	7.07	7.14	7.20
22	7.53	7.11	7.04	6.70	6.50	6.62	e6.42	6.00	e6.86	7.06	7.11	7.19
23	7.50	7.10	7.02	e6.69	6.61	6.62	6.40	5.99	e6.86	7.05	7.10	7.24
24	7.48	7.09	7.01	e6.68	6.61	6.62	6.38	5.97	e6.83	7.03	7.11	7.33
25	7.50	7.08	6.99	e6.67	6.61	6.61	6.37	5.95	e6.85	7.03	7.10	7.31
26	7.50	7.07	6.98	e6.66	6.61	6.62	6.34	5.94	e6.87	7.02	7.09	7.29
27	7.46	7.06	6.97	e6.64	6.61	6.64	6.32	5.92	e6.85	7.01	7.09	7.26
28	7.42	7.05	6.95	e6.63	6.60	6.63	6.30	5.94	e6.82	6.99	7.11	7.26
29	7.40	7.04	6.93	e6.62	---	6.62	6.28	5.98	e6.81	6.98	7.14	7.25
30	7.38	7.03	6.92	e6.61	---	6.61	6.26	6.01	e6.83	6.98	7.15	7.24
31	7.36	---	6.93	e6.60	---	6.61	---	6.10	---	6.97	7.17	---
TOTAL	227.43	215.82	218.39	210.11	183.67	205.40	194.82	187.08	195.35	217.12	218.93	217.54
MEAN	7.34	7.19	7.04	6.78	6.56	6.63	6.49	6.03	6.51	7.00	7.06	7.25
MAX	7.53	7.37	7.15	6.97	6.61	6.65	6.65	6.25	6.89	7.12	7.17	7.33
MIN	7.15	7.03	6.92	6.60	6.50	6.60	6.26	5.92	6.10	6.84	6.96	7.17

e Estimated

253753080393600 NORTHEAST SHARK RIVER SLOUGH NO. 5, SOUTH OF GROSSMAN, FL

LOCATION.--Lat 25°37'55", long 80°39'42", in NW 1/4 sec.4, T.54 S., R. Government Lot 6 E., Miami-Dade County, Hydrologic Unit 03090202, approximately 0.3 mi northeast of the extreme southern end of the Levee 67 extension levee and 11.8 mi west of Krome Avenue.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--July 1985 to current year (gage heights only).

REVISED RECORDS.--WDR FL-95-2A: 1994.

GAGE.--Satellite data collection platform with water-stage shaft encoder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records for water years prior to 1993 were published with a datum of 0.48 ft lower. Levels were run during the 1995 water year. The gage datum was reset based on elevations provided by James Beadman and Associates, Inc. Levels were run during the 2000 water year. A -0.07 ft correction was prorated from a zero correction in 1995 to a -0.07 ft correction in the 2000 water year. Data were revised for water years 1997-2000 and are available in the files of the U.S. Geological Survey.

Land-surface datum is approximately 5.2 ft above National Geodetic Vertical Datum of 1929.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 8.45 ft Oct. 15, 1999; minimum, indeterminate many days during 1989, 1990, 1991, 1992, 2001 water years when well went dry.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 7.42 ft Oct. 1; minimum, 3.34 ft May 16.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.40	7.27	6.96	6.86	6.49	6.48	6.51	6.17	6.05	6.80	6.88	e7.07
2	7.36	7.25	6.95	6.86	6.48	6.48	6.53	6.15	6.04	6.79	6.92	7.07
3	7.33	7.24	6.94	6.87	6.47	6.48	6.59	6.13	6.04	6.79	6.92	7.09
4	7.30	7.24	6.93	6.84	6.46	6.48	6.61	6.11	6.02	6.77	6.92	7.14
5	7.27	7.30	6.92	6.82	6.44	6.47	6.59	6.09	6.01	6.77	6.91	7.18
6	7.27	7.28	6.95	6.81	6.43	6.47	6.57	6.07	6.01	6.78	6.91	7.21
7	7.25	7.26	6.98	6.80	6.41	6.48	6.55	6.05	6.07	6.80	6.91	7.18
8	7.24	7.24	6.97	6.77	6.40	6.51	6.54	e6.04	6.13	6.82	6.91	7.16
9	7.24	7.22	7.04	6.75	6.41	6.52	6.53	6.01	6.13	6.90	6.91	7.15
10	7.23	7.20	7.08	6.74	6.49	6.53	6.51	5.99	6.13	6.97	6.90	7.16
11	7.20	7.18	7.06	6.72	6.49	6.53	6.50	5.97	6.21	7.01	6.93	7.17
12	7.17	7.17	7.05	6.71	6.48	6.54	6.49	5.95	6.26	7.01	7.00	7.20
13	7.15	7.15	7.05	6.70	6.47	6.54	6.47	5.94	6.27	7.02	7.00	7.20
14	7.13	7.14	7.05	6.69	6.47	6.54	6.46	5.94	6.27	7.00	7.00	7.19
15	7.12	7.12	7.05	6.68	6.45	6.54	6.45	5.92	6.46	6.99	7.00	7.18
16	7.10	7.10	7.03	6.67	6.45	6.55	6.44	e5.91	6.64	6.98	7.00	7.16
17	7.09	7.09	7.03	6.65	6.45	6.55	6.43	5.89	6.64	7.01	6.99	7.14
18	7.09	7.08	7.01	6.64	6.44	6.55	6.41	5.87	6.64	7.02	6.98	7.13
19	7.15	7.07	7.00	6.63	6.43	6.55	6.40	5.89	6.64	7.02	6.97	7.11
20	7.16	7.07	6.98	6.62	6.42	6.54	6.37	5.96	6.69	7.00	7.01	7.11
21	7.27	7.05	6.96	6.61	6.41	6.54	6.36	5.96	6.83	6.98	7.05	7.11
22	7.41	7.04	6.94	6.61	6.40	6.53	6.34	5.95	6.80	6.96	7.03	7.10
23	7.39	7.03	6.92	6.59	6.51	6.53	6.32	5.93	6.80	6.95	7.03	7.15
24	7.38	7.02	6.90	6.58	6.52	6.53	6.30	5.91	6.78	6.94	7.03	7.25
25	7.38	7.01	6.89	6.57	6.51	6.53	6.29	5.89	6.80	6.94	7.01	7.23
26	7.39	7.00	6.89	6.56	6.50	6.54	6.27	5.87	6.82	6.93	6.99	7.20
27	7.38	6.99	6.87	6.55	6.49	6.57	6.25	5.86	6.79	6.92	6.99	7.18
28	7.35	6.98	6.86	6.53	6.48	6.56	6.23	5.91	6.77	6.90	7.01	7.18
29	7.32	6.98	6.84	6.52	---	6.54	6.21	5.94	6.75	6.89	7.05	7.16
30	7.30	6.96	6.82	6.51	---	6.53	6.19	5.97	6.76	6.89	7.06	7.15
31	7.28	---	6.83	6.50	---	6.52	---	6.05	---	6.88	7.07	---
TOTAL	225.10	213.73	215.75	206.96	180.85	202.25	192.71	185.29	193.25	214.43	216.29	214.71
MEAN	7.26	7.12	6.96	6.68	6.46	6.52	6.42	5.98	6.44	6.92	6.98	7.16
MAX	7.41	7.30	7.08	6.87	6.52	6.57	6.61	6.17	6.83	7.02	7.07	7.25
MIN	7.09	6.96	6.82	6.50	6.40	6.47	6.19	5.86	6.01	6.77	6.88	7.07

e Estimated

02290710 BLACK CREEK CANAL AT S-21, NEAR GOULDS, FL

LOCATION.--Lat 25°32'34", long 80°19'52", in NE 1/4 sec.21, T.56 S., R.40 E., Dade County, Hydrologic Unit 03090202, in control house of salinity-control structure S-21, 0.5 mi upstream from mouth, and 3.5 mi east of Goulds.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--March 1957 to October 1969 (gage heights only), November 1969 to September 1977, October 1978 to current year.

REVISED RECORDS.--WDR FL-89-2A: 1988; WDR FL-01-2A: 2000.

GAGE.--Electronic data loggers for upstream and downstream stages and electronic data logger with shaft encoders for gate operation. Datum of gage is National Geodetic Vertical Datum of 1929 (Dade County bench mark). Prior to August 9, 1960, water-stage recorder at site 270 ft upstream in north lateral borrow canal, and April 9, 1960 to July 8, 1968, at site 810 ft upstream in north lateral borrow canal, all at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow is regulated by the operation of salinity-control structure S-21 and by some upstream pumpage for irrigation. Downstream stage is basically tidal, but at times is affected by gate operation. Starting in the 2002 water year, the downstream stage record published is the maximum and minimum stage for each calendar day. Prior to the 2002 water year, the daily mean for the downstream stage was published. Discharge computed from relation between head, discharges and gate-openings at structure S-21. Records of gage heights prior to October 1962, are available in files of the U.S. Geological Survey. Discharge occurring under submerged weir flow conditions is considered estimated.

COOPERATION.--Supplementary gate-opening record and gage-height record provided by the South Florida Water Management District. ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 22 complete water years of discharge (1971-77, 1979-90, 1995, 1998, 2002).

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 10.17 ft Aug. 24, 1992; minimum, -1.09 ft Aug. 24, 1992.

EXTREME UPSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 3.18 ft Oct. 19; minimum, 0.96 ft Oct. 17.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 3.40 ft Nov. 5; minimum, -0.78 ft Jan. 26.

UPSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.77	2.14	1.58	1.63	1.61	2.04	2.01	1.99	2.23	1.57	2.18	2.14
2	1.80	2.02	1.73	1.61	1.62	1.94	1.89	1.98	2.08	1.53	2.13	2.18
3	1.92	1.97	1.61	1.61	1.66	1.99	2.03	1.96	2.18	1.59	2.19	2.14
4	2.14	2.13	1.84	1.48	1.62	2.02	2.17	1.93	2.09	1.55	2.20	2.11
5	2.13	2.22	1.73	1.66	1.66	2.02	2.24	1.90	2.31	1.49	2.17	1.72
6	2.05	1.70	1.77	1.64	1.86	1.90	2.26	1.88	2.33	1.55	2.20	1.81
7	1.97	1.68	1.70	1.56	1.90	2.05	2.27	1.85	2.06	1.58	2.14	1.77
8	1.98	1.72	1.61	1.44	1.63	1.91	2.28	1.82	2.31	1.54	2.21	1.78
9	2.12	1.72	1.64	1.46	1.81	1.99	2.29	1.79	2.18	1.56	2.22	2.00
10	2.11	1.70	1.65	1.44	1.64	1.95	2.29	1.76	2.18	1.51	2.24	2.11
11	2.13	1.71	1.63	1.49	1.66	2.02	2.29	1.73	1.86	1.44	2.29	1.90
12	2.12	1.71	1.61	1.64	2.03	1.91	2.29	1.71	1.73	1.47	2.25	1.76
13	2.14	1.73	1.65	1.54	2.16	2.00	2.29	1.68	1.68	1.56	2.15	1.90
14	2.09	1.70	1.62	1.61	2.31	1.94	2.29	1.67	1.70	1.56	2.18	2.19
15	1.99	1.75	1.65	1.54	2.00	2.00	2.29	1.66	1.69	1.59	2.18	2.11
16	2.00	1.76	1.68	1.53	2.18	2.02	2.27	1.67	1.67	1.83	2.21	2.08
17	1.82	1.70	1.63	1.49	2.32	1.95	2.26	1.67	1.67	2.02	2.19	1.96
18	2.08	1.78	1.55	1.53	1.97	1.92	2.25	1.66	1.70	2.05	2.17	1.65
19	1.95	1.68	1.69	1.51	2.23	2.04	2.23	1.74	1.71	2.06	2.13	1.72
20	1.85	1.73	1.54	1.51	2.29	1.94	2.21	1.85	1.76	2.13	2.15	1.64
21	1.86	1.69	1.76	1.53	2.13	1.92	2.18	1.90	1.66	2.07	2.10	1.68
22	1.71	1.81	1.70	1.49	2.13	1.98	2.16	2.03	1.65	2.16	2.18	1.74
23	1.62	1.70	1.70	1.54	1.73	1.72	2.14	2.04	1.59	2.11	2.16	1.70
24	1.52	1.67	1.78	1.56	1.59	1.70	2.13	2.04	1.65	2.14	2.21	1.69
25	1.49	1.67	1.67	1.53	1.97	1.81	2.11	2.04	1.68	2.13	2.16	1.67
26	1.56	1.70	1.80	1.54	2.18	1.97	2.09	2.03	1.72	2.13	2.23	1.70
27	1.56	1.60	1.60	1.57	2.18	2.00	2.07	2.03	1.72	2.14	2.15	1.71
28	1.79	1.80	1.85	1.56	1.93	1.99	2.05	2.18	1.71	2.20	2.17	1.62
29	1.91	1.57	1.60	1.60	---	1.94	2.04	2.33	1.70	2.19	2.13	1.64
30	1.80	1.84	1.81	1.61	---	2.03	2.02	2.23	1.68	2.25	2.13	1.65
31	2.14	---	1.63	1.75	---	2.00	---	1.98	---	2.19	2.12	---
TOTAL	59.12	53.30	52.01	48.20	54.00	60.61	65.39	58.73	55.88	56.89	67.52	55.47
MEAN	1.91	1.78	1.68	1.55	1.93	1.96	2.18	1.89	1.86	1.84	2.18	1.85
MAX	2.14	2.22	1.85	1.75	2.32	2.05	2.29	2.33	2.33	2.25	2.29	2.19
MIN	1.49	1.57	1.54	1.44	1.59	1.70	1.89	1.66	1.59	1.44	2.10	1.62







## 022907647 LEVEE 31 NORTH EXTENSION AT 1 MILE NEAR WEST MIAMI, FL

LOCATION.--Lat 25°44'53", long 80°29'53", in SE 1/4 sec. 35, T.54 S., R.38 E., Miami-Dade County, Hydrologic Unit 03090202, (South Miami NW quadrangle), 0.5 mi west of intersection of U.S. Highway 41 and Krome Avenue, and 1.0 mi south of U.S. Highway 41 on the west side of Levee 31 North.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORDS.--November 1989 to November 1990, (gage heights only). February 1992 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic velocity meter. Datum of gage is 0.10 ft below National Geodetic Vertical Datum of 1929 (FCE bench mark).

REMARKS.--Records poor. Flow is the sum of regulation from upstream control structures S-334, S-335, and S-336 and from levee seepage and rainfall. Positive flow is to the south and may reverse for short periods. Datum of gage is based upon an adjustment to the RM elevation.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 5 complete water years of discharge (1997-2001).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 8.17 ft Oct. 15, 1999; minimum, 2.33 ft May 23, 1990.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 6.85 ft Oct. 22; minimum, 4.14 ft May 19.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e6.61	5.73	5.79	5.95	5.80	5.83	5.80	4.53	5.62	6.01	5.76	e5.80
2	e6.39	5.63	5.78	5.91	5.82	5.83	5.89	4.47	5.65	6.06	5.74	5.82
3	6.34	5.55	5.76	5.93	5.85	5.82	5.95	4.47	5.62	6.03	5.80	5.80
4	6.37	5.91	5.76	5.88	5.84	5.81	5.88	4.55	5.58	6.00	5.86	5.81
5	6.33	5.90	5.74	5.86	5.81	5.80	5.88	4.55	5.50	5.96	5.84	5.85
6	6.30	5.88	5.76	5.90	5.79	5.79	5.47	4.43	5.45	6.01	5.83	5.92
7	6.26	5.88	5.84	5.87	5.73	5.84	5.47	4.35	5.57	6.06	5.85	6.03
8	6.27	5.87	5.91	5.87	5.71	5.88	5.36	e4.38	5.83	6.14	5.81	5.92
9	6.28	5.88	e5.89	5.86	5.70	5.86	5.25	4.51	5.82	6.24	5.80	5.78
10	6.29	5.88	5.80	5.86	5.82	5.83	5.18	4.47	5.79	6.32	5.79	5.85
11	6.25	5.88	5.80	5.86	5.82	5.82	5.22	4.45	5.80	6.43	5.77	5.81
12	6.20	5.88	5.82	5.85	5.79	5.86	5.30	4.42	5.80	6.35	5.76	5.82
13	6.15	5.88	5.80	5.84	5.80	5.83	5.30	4.36	5.83	6.44	5.74	5.81
14	6.12	5.87	5.75	5.83	5.81	5.81	5.28	4.32	5.91	6.45	5.73	5.83
15	6.16	5.92	5.77	5.82	5.82	5.82	5.21	4.54	6.01	6.34	5.74	5.82
16	6.17	5.87	5.81	5.81	5.82	5.85	5.12	---	5.95	6.31	5.75	5.81
17	6.13	5.90	5.80	5.73	5.83	5.85	5.07	4.70	5.86	6.31	5.73	5.80
18	6.07	5.87	5.79	5.71	5.83	5.90	5.11	4.67	5.93	6.27	5.77	5.82
19	6.19	5.83	5.86	5.71	5.82	5.87	e5.07	4.46	5.92	6.36	5.80	5.84
20	6.19	5.83	5.80	5.76	5.80	5.84	5.13	4.70	5.92	6.28	5.85	5.88
21	6.27	5.81	5.83	5.77	5.78	5.84	5.17	5.03	5.98	6.22	5.87	5.85
22	6.77	5.82	5.82	5.77	5.78	5.90	5.08	5.06	5.96	6.13	5.87	5.84
23	6.80	5.81	5.82	5.77	5.94	5.90	4.98	5.06	5.98	5.94	5.87	5.85
24	6.62	5.80	5.82	5.76	5.91	5.90	4.93	5.04	5.95	5.82	5.80	5.87
25	6.36	5.81	5.80	5.72	5.91	5.87	4.87	5.03	6.00	5.85	5.77	5.86
26	6.10	5.81	5.83	5.69	5.90	5.85	4.83	5.00	6.00	5.83	5.86	5.84
27	6.00	5.81	5.92	5.66	5.85	5.88	4.81	4.97	6.01	5.81	5.84	5.87
28	5.90	5.81	5.89	5.63	5.82	5.87	4.82	4.84	5.93	5.77	5.81	5.84
29	5.89	5.80	5.87	5.79	---	5.86	4.70	4.88	5.92	5.73	5.83	5.85
30	5.90	5.79	5.87	5.82	---	5.82	4.61	4.82	5.97	5.74	5.83	5.86
31	5.76	---	5.90	5.73	---	5.82	---	4.95	---	5.73	5.80	---
TOTAL	193.44	174.91	180.40	179.92	162.90	181.25	156.51	---	175.06	188.94	179.87	175.35
MEAN	6.24	5.83	5.82	5.80	5.82	5.85	5.22	---	5.84	6.09	5.80	5.84
MAX	6.80	5.92	5.92	5.95	5.94	5.90	5.95	---	6.01	6.45	5.87	6.03
MIN	5.76	5.55	5.74	5.63	5.70	5.79	4.61	---	5.45	5.73	5.73	5.78

e Estimated

022907647 LEVEE 31 NORTH EXTENSION AT 1 MILE NEAR WEST MIAMI, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e340	963	715	365	273	307	583	313	117	279	553	e468
2	e363	875	709	367	262	306	542	313	99	295	560	462
3	329	525	706	370	266	303	477	372	101	297	601	462
4	317	573	700	364	264	310	358	354	127	276	632	471
5	351	460	709	370	260	315	319	353	79	285	607	464
6	334	417	697	384	259	324	234	390	52	345	600	343
7	334	431	681	398	227	319	204	388	90	308	587	286
8	324	437	588	401	256	298	208	e434	249	306	e599	334
9	310	444	e525	404	244	294	204	443	239	298	592	408
10	301	449	582	403	227	308	208	449	241	222	561	421
11	324	455	658	408	262	503	272	436	211	245	562	371
12	341	463	667	410	259	614	272	431	183	292	602	389
13	305	467	668	415	238	631	281	426	143	254	593	417
14	301	477	648	415	225	621	259	429	141	243	593	443
15	301	437	670	413	231	602	296	471	103	243	599	e466
16	320	426	693	410	227	591	305	---	128	295	592	e513
17	337	443	694	392	230	572	322	519	110	e243	606	499
18	349	471	707	388	233	555	355	472	139	248	631	474
19	336	573	729	382	228	568	e355	334	177	248	645	431
20	353	594	708	375	214	587	332	480	175	262	637	471
21	362	641	705	371	214	576	335	524	182	e260	631	491
22	270	656	706	357	207	514	376	485	184	e290	630	514
23	356	661	714	365	165	487	401	465	166	426	586	516
24	413	669	710	358	162	515	373	460	181	501	525	530
25	466	677	703	356	152	546	379	443	206	518	535	521
26	477	683	714	339	157	558	354	446	244	547	558	527
27	458	696	593	341	223	542	342	442	251	569	491	540
28	454	700	359	341	281	552	313	273	291	564	471	530
29	458	711	368	238	---	567	363	45	281	559	463	528
30	563	717	e372	283	---	574	357	18	267	580	430	525
31	915	---	e378	302	---	571	---	12	---	550	464	---
TOTAL	11762	17191	19776	11485	6446	14930	9979	---	5157	10848	17736	13815
MEAN	379	573	638	370	230	482	333	---	172	350	572	460
MAX	915	963	729	415	281	631	583	---	291	580	645	540
MIN	270	417	359	238	152	294	204	---	52	222	430	286
AC-FT	23330	34100	39230	22780	12790	29610	19790	---	10230	21520	35180	27400

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

	1998	1999	2000	2001	2002
MEAN	299	381	382	385	354
MAX	379	573	638	852	594
(WY)	2002	2002	2002	2000	2000
MIN	183	184	186	194	230
(WY)	1998	1998	1998	2002	2001

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

WATER YEARS 1998 - 2002

ANNUAL TOTAL	104588.57		
ANNUAL MEAN	287	330	
HIGHEST ANNUAL MEAN		439	2000
LOWEST ANNUAL MEAN		231	2001
HIGHEST DAILY MEAN	963	Nov 1	1090 Jan 16 2000
LOWEST DAILY MEAN	-55	Jun 28	-112 Oct 4 2000
ANNUAL SEVEN-DAY MINIMUM	-4.7	Jun 6	-4.7 Jun 6 2001
ANNUAL RUNOFF (AC-FT)	207500		239200
10 PERCENT EXCEEDS	613		634
50 PERCENT EXCEEDS	261		268
90 PERCENT EXCEEDS	18		135

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02290765 LEVEE 31 NORTH EXTENSION AT 3 MILE NEAR WEST MIAMI, FL

LOCATION.--Lat 25°43'02", long 80°29'50", in SE 1/4 sec.35, T.54 S., R.38 E., Miami-Dade County, Hydrologic Unit 03090202, (South Miami NW quadrangle), 0.5 mi west of intersection of U.S. Highway 41 and Krome Avenue, and 3 mi south of U.S. Highway 41 on the west side of Levee 31 North.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--March 1992 to current year.

REVISED RECORDS.--WDR 97-2A: 1992-96.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic velocity meter. Datum of gage is 0.10 ft below National Geodetic Vertical Datum of 1929 (FCE bench mark). (Corrected).

REMARKS.--Records poor. Flow is the sum of regulation from upstream control structures S-334, S-335, and S-336, downstream from structures G-211 and S-338, and from levee seepage and rainfall. Positive flow is to the south and may reverse for short periods.

Datum of gage is based upon an adjustment to the RM elevation. Negative discharge is considered estimated due to insufficient measurements to verify negative portion of the rating.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 9 complete water years of discharge (1993-2001).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 8.19 ft Oct. 15, 1999; minimum, 3.48 ft May 23, 2001.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 6.86 ft Oct. 22; minimum, 4.13 ft May 19.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.62	5.69	5.77	5.95	5.81	5.83	5.77	4.51	5.61	6.01	5.75	e5.79
2	6.40	5.59	5.76	5.90	5.83	5.82	5.87	4.45	5.64	6.06	5.73	5.81
3	6.35	5.54	5.75	5.93	5.86	5.81	5.93	4.45	5.61	6.03	5.78	5.79
4	6.37	5.90	5.74	5.89	5.85	5.81	5.86	4.52	5.57	5.99	5.85	5.81
5	6.33	5.89	5.71	5.86	5.82	5.81	5.65	4.53	5.50	5.96	5.82	5.84
6	6.30	e5.88	5.74	5.90	5.79	5.79	5.47	4.41	5.44	6.01	5.82	5.91
7	6.27	e5.87	5.82	5.88	5.73	5.84	5.46	4.32	5.56	6.06	5.83	6.03
8	6.27	e5.86	5.89	5.87	5.72	5.88	5.34	e4.35	5.82	6.13	5.80	5.91
9	6.28	5.87	5.88	5.86	5.70	5.86	5.23	4.48	5.81	6.23	5.78	5.77
10	6.30	5.87	5.81	5.85	5.83	5.83	5.17	4.44	5.79	6.31	5.77	5.83
11	6.25	5.87	5.80	5.85	5.83	5.80	5.20	4.42	5.80	6.42	5.76	5.81
12	6.20	5.87	5.80	5.84	5.80	5.83	5.28	4.39	5.80	6.34	5.75	5.81
13	6.16	5.87	5.79	5.84	5.80	5.81	5.29	4.33	5.82	6.43	5.72	5.80
14	6.13	5.86	5.74	5.83	5.81	5.80	5.26	4.29	5.90	6.44	5.72	5.82
15	6.16	5.91	5.76	5.82	5.82	5.80	5.20	4.51	6.01	6.33	5.72	5.81
16	6.18	5.87	5.80	5.81	5.82	5.84	5.11	---	5.94	6.31	5.74	5.80
17	6.14	5.90	5.79	5.73	5.83	5.83	5.06	4.67	5.85	6.30	5.71	5.79
18	6.08	5.87	5.78	5.71	5.83	5.88	5.09	4.63	5.92	6.26	5.76	5.81
19	6.20	5.81	5.84	5.71	5.81	5.86	5.08	4.44	5.92	6.35	5.78	5.83
20	6.20	5.81	5.79	5.76	5.79	5.82	5.11	4.67	5.91	6.27	5.83	5.87
21	6.28	5.80	5.81	5.77	5.78	5.83	5.15	5.01	5.98	6.21	5.85	5.83
22	6.77	5.80	5.81	5.77	5.77	5.89	5.06	5.04	5.96	6.12	5.85	5.83
23	6.80	5.79	5.80	5.77	5.94	5.89	4.97	5.03	5.97	5.93	5.85	5.83
24	6.62	5.78	5.80	5.76	5.92	5.89	4.92	5.02	5.94	5.81	5.78	5.85
25	6.36	5.79	5.79	5.72	5.91	5.86	4.86	5.00	6.00	5.83	5.76	5.84
26	6.11	5.79	5.82	5.69	5.90	5.84	4.82	4.97	5.99	5.82	5.84	5.81
27	6.02	5.79	5.91	5.66	5.85	5.87	4.79	4.94	6.01	5.80	5.83	5.85
28	5.90	5.79	5.89	5.63	5.82	5.86	4.81	4.82	5.93	5.76	5.80	5.83
29	5.89	5.78	5.87	5.80	---	5.84	4.69	4.86	5.91	5.72	5.82	5.84
30	5.89	5.77	5.87	5.82	---	5.80	4.60	4.82	5.97	5.72	5.82	5.85
31	5.72	---	5.90	5.73	---	5.80	---	4.94	---	5.72	5.79	---
TOTAL	193.55	174.48	180.03	179.91	162.97	180.92	156.10	---	174.88	188.68	179.41	175.00
MEAN	6.24	5.82	5.81	5.80	5.82	5.84	5.20	---	5.83	6.09	5.79	5.83
MAX	6.80	5.91	5.91	5.95	5.94	5.89	5.93	---	6.01	6.44	5.85	6.03
MIN	5.72	5.54	5.71	5.63	5.70	5.79	4.60	---	5.44	5.72	5.71	5.77

e Estimated

02290765 LEVEE 31 NORTH EXTENSION AT 3 MILE NEAR WEST MIAMI, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	366	1210	850	408	305	324	640	345	50	e337	657	e623
2	386	1140	842	417	298	331	576	345	e-39	357	684	617
3	379	653	835	405	306	350	481	371	71	370	685	626
4	392	707	829	401	281	353	431	356	175	381	690	621
5	439	582	835	423	260	e357	371	349	72	e400	687	619
6	495	e523	831	436	253	e361	251	377	27	390	692	467
7	462	e574	823	440	228	363	195	376	104	394	700	421
8	e449	e541	704	454	279	366	212	e423	262	399	677	529
9	393	536	637	456	253	393	250	438	249	401	669	578
10	355	547	718	469	231	379	287	456	269	309	657	589
11	e380	549	809	476	265	605	348	432	225	371	662	519
12	376	549	817	486	289	729	318	430	216	406	672	520
13	396	557	815	476	268	753	338	433	154	352	669	548
14	405	549	808	479	219	744	319	424	118	396	677	576
15	395	504	814	480	232	720	368	490	81	358	686	611
16	439	492	833	480	236	702	379	---	145	e380	685	624
17	419	513	846	490	228	682	374	544	208	367	691	645
18	387	563	849	480	230	639	393	490	248	378	721	624
19	403	694	873	457	195	664	404	368	288	411	722	593
20	459	717	837	446	190	669	391	494	204	388	721	618
21	453	786	818	437	204	665	429	537	194	393	703	611
22	330	806	833	433	210	588	434	500	262	410	709	652
23	417	809	851	413	154	548	435	473	259	559	682	631
24	504	807	839	402	154	563	410	477	236	718	651	629
25	614	820	818	414	194	607	418	443	240	730	677	609
26	629	823	821	434	197	618	386	451	227	728	724	613
27	589	844	682	420	256	615	363	443	288	752	641	633
28	591	843	403	417	308	634	339	255	316	745	638	606
29	580	856	413	260	---	629	369	68	344	725	648	611
30	705	856	413	331	---	632	385	15	311	731	615	611
31	1160	---	421	329	---	624	---	-17	---	683	e616	---
TOTAL	14747	20950	23517	13349	6723	17207	11294	---	5804	14719	21008	17774
MEAN	476	698	759	431	240	555	376	---	193	475	678	592
MAX	1160	1210	873	490	308	753	640	---	344	752	724	652
MIN	330	492	403	260	154	324	195	---	-39	309	615	421
AC-FT	29250	41550	46650	26480	13340	34130	22400	---	11510	29200	41670	35250

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1992 - 2002, BY WATER YEAR (WY)

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	
MEAN	368	392	393	386	366	398	473	356	228	314	376	391
MAX	476	698	759	877	645	564	887	845	542	479	678	592
(WY)	2002	2002	2002	2000	2000	1999	1998	1998	1998	1995	2002	2002
MIN	262	244	233	231	240	219	206	77.5	-30.7	56.9	244	278
(WY)	1998	1998	2001	1994	2002	2001	2001	2001	2001	2001	1992	1997

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

WATER YEARS 1992 - 2002

ANNUAL TOTAL	117036.60		
ANNUAL MEAN	321	358	
HIGHEST ANNUAL MEAN		467	2000
LOWEST ANNUAL MEAN		251	2001
HIGHEST DAILY MEAN	1210	Nov 1	1210 Nov 1 2001
LOWEST DAILY MEAN	-148	Jun 28	-218 Oct 4 2000
ANNUAL SEVEN-DAY MINIMUM	-69	Jul 10	-69 Jul 10 2001
ANNUAL RUNOFF (AC-FT)	232100		259100
10 PERCENT EXCEEDS	745		547
50 PERCENT EXCEEDS	282		336
90 PERCENT EXCEEDS	-16		192

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02290766 LEVEE 31 NORTH EXTENSION AT 4 MILE NEAR WEST MIAMI, FL

LOCATION.--Lat 25°42'06", long 80°29'46", in NE 1/4 NE 1/4 NE 1/4 sec.35, T.54 S., R. 38 E., Miami-Dade County, Hydrologic Unit 03090202, 0.5 mi west of the junction of U.S. Highway 41 and Krome Avenue and 4.1 mi south of U.S. Highway 41 on west side of Levee 31 North, near West Miami, FL.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--June 1994 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic velocity meter. Datum of gage is National Geodetic Vertical Datum of 1929 (FCE bench mark).

REMARKS.--Records poor. Flow is the sum of regulation from upstream control structure S-334, S-335 and S-336, downstream at G-211 and S-338, and from levee seepage and rainfall. Positive flow is to the south and may reverse for short periods.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 6 complete water years of discharge (1995, 1997-2001).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 8.32 ft Oct. 15, 1999; minimum, 3.53 ft May 23, 2001.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 6.85 ft Oct. 22; minimum, 4.19 ft May 19.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.67	5.68	5.79	6.00	5.86	5.88	5.82	4.56	5.67	6.06	5.79	5.83
2	6.44	5.59	5.78	5.95	5.88	5.87	5.92	4.50	5.69	6.11	5.77	5.85
3	6.39	5.55	5.76	5.98	5.91	5.86	5.99	4.51	5.66	6.07	5.82	5.83
4	6.41	5.91	5.76	5.94	5.90	5.87	5.92	4.58	5.63	6.04	e5.89	5.85
5	6.38	5.92	5.74	5.90	5.87	5.86	5.70	4.59	5.55	6.01	5.86	5.88
6	6.34	e5.91	5.76	5.93	5.84	5.85	5.52	4.47	5.49	6.05	5.85	5.96
7	6.31	e5.90	5.85	5.92	5.78	5.89	5.52	4.38	5.61	6.10	5.87	6.08
8	6.32	e5.89	5.93	5.93	5.78	5.93	5.39	4.42	5.88	6.17	5.84	5.96
9	6.33	5.91	5.92	5.91	5.76	5.91	5.28	4.54	5.87	6.26	5.82	5.81
10	6.34	5.90	5.85	5.90	5.88	5.89	5.22	4.50	5.85	6.35	5.81	5.88
11	6.29	5.90	5.83	5.90	5.89	5.85	5.25	4.49	5.85	6.46	5.79	5.85
12	6.24	5.90	5.83	5.90	5.86	5.88	5.34	4.45	5.85	6.39	5.78	5.86
13	6.19	5.90	5.82	5.89	5.86	5.86	5.34	4.39	5.87	6.47	5.76	5.85
14	6.16	5.89	5.77	5.88	5.87	5.84	5.32	4.35	5.95	6.48	5.76	5.86
15	6.20	5.94	5.79	5.87	5.87	5.85	5.25	4.57	6.05	6.37	5.76	5.85
16	6.22	5.90	5.83	5.86	5.87	5.89	5.16	---	5.98	6.35	5.77	5.85
17	6.18	5.93	5.82	5.79	5.88	5.88	5.11	e4.73	5.90	6.34	5.75	5.84
18	6.12	5.90	5.81	5.76	5.88	5.93	5.15	4.69	5.97	6.30	5.79	5.86
19	6.23	5.84	5.87	5.76	5.87	5.91	5.14	4.49	5.97	6.39	5.81	5.88
20	6.23	5.84	5.82	5.82	5.84	5.87	5.17	4.72	5.96	6.31	5.87	5.92
21	6.31	5.82	5.85	5.82	5.83	5.88	5.21	5.06	6.03	---	5.89	5.89
22	6.79	5.82	5.84	e5.82	5.83	5.94	5.12	5.09	6.01	6.16	5.89	5.88
23	6.82	5.81	5.84	5.82	6.00	5.94	5.02	5.09	6.02	5.97	5.89	5.89
24	6.65	5.80	5.83	5.81	5.98	5.94	4.97	5.07	6.00	---	5.83	5.90
25	6.38	5.81	5.82	5.77	5.97	5.91	4.91	5.06	6.05	---	5.80	5.89
26	6.14	5.81	5.85	5.74	5.95	5.89	4.87	5.03	6.05	5.84	5.88	5.87
27	6.04	5.81	5.95	5.71	5.90	5.92	4.85	5.00	6.06	5.82	5.87	5.90
28	5.92	5.81	5.93	5.69	5.88	5.91	4.86	4.88	5.98	5.78	5.84	5.89
29	5.90	5.80	5.91	5.86	---	5.88	4.74	4.92	5.96	5.74	5.86	5.89
30	5.90	5.79	5.92	5.88	---	5.85	4.65	4.86	6.02	5.74	5.87	5.90
31	5.72	---	5.95	5.79	---	5.84	---	5.00	---	5.75	5.83	---
TOTAL	194.56	175.18	181.02	181.50	164.49	182.47	157.71	---	176.43	---	180.61	176.45
MEAN	6.28	5.84	5.84	5.85	5.87	5.89	5.26	---	5.88	---	5.83	5.88
MAX	6.82	5.94	5.95	6.00	6.00	5.94	5.99	---	6.06	---	5.89	6.08
MIN	5.72	5.55	5.74	5.69	5.76	5.84	4.65	---	5.49	---	5.75	5.81

e Estimated

02290766 LEVEE 31 NORTH EXTENSION AT 4 MILE NEAR WEST MIAMI, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	404	1180	834	460	334	398	659	330	65	398	651	599
2	451	1100	831	460	335	384	603	332	e21	373	661	585
3	437	702	822	460	334	388	520	371	42	368	691	583
4	403	e744	814	459	321	404	444	339	130	394	e684	596
5	403	e624	818	462	303	403	406	325	102	e409	686	591
6	436	e542	818	471	302	407	312	402	e57	e415	687	427
7	482	e559	802	486	272	414	262	382	140	381	693	388
8	434	e570	706	494	312	413	302	408	279	411	678	482
9	412	573	646	504	291	426	316	445	267	402	683	542
10	397	571	722	513	263	452	325	459	277	326	672	571
11	393	575	800	516	312	626	368	445	237	362	670	518
12	403	578	803	529	301	741	364	438	211	403	671	529
13	417	583	803	525	329	766	357	433	162	378	678	538
14	409	591	792	513	264	756	335	425	128	405	676	571
15	384	549	815	523	281	732	356	503	156	431	686	579
16	384	544	825	525	283	721	385	---	181	341	680	588
17	424	556	829	522	274	702	389	e535	210	404	677	604
18	431	582	837	514	296	662	397	480	271	401	704	575
19	426	688	853	481	273	677	437	395	254	440	710	563
20	480	713	832	e491	249	692	384	500	238	438	713	614
21	489	766	825	e467	253	670	361	552	258	e431	710	603
22	358	778	824	e464	252	605	406	508	280	462	705	615
23	411	782	821	453	211	584	442	482	285	622	679	632
24	515	786	823	432	223	594	433	486	288	e698	634	633
25	632	797	815	441	242	621	424	455	e275	e704	651	624
26	668	806	831	449	241	638	367	472	302	723	681	628
27	662	824	698	447	318	632	357	461	291	706	650	624
28	663	824	449	438	369	648	334	314	392	699	634	602
29	647	829	475	278	---	659	388	101	313	682	614	608
30	754	834	473	365	---	657	345	e46	355	694	594	610
31	1130	---	469	369	---	652	---	e34	---	664	584	---
TOTAL	15339	21150	23505	14511	8038	18124	11778	---	6467	14965	20787	17222
MEAN	495	705	758	468	287	585	393	---	216	483	671	574
MAX	1130	1180	853	529	369	766	659	---	392	723	713	633
MIN	358	542	449	278	211	384	262	---	21	326	584	388
AC-FT	30420	41950	46620	28780	15940	35950	23360	---	12830	29680	41230	34160

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001	2002			
MEAN	385	434	438	439	397	416	511	338	226	291	382	396
MAX	495	705	758	977	725	585	892	833	465	483	671	574
(WY)	2002	2002	2002	2000	2000	2002	1998	1998	1998	1995	2002	2002
MIN	240	238	241	264	235	236	213	115	9.68	84.2	242	265
(WY)	1998	1998	1998	1997	1996	1996	2001	2001	2001	2001	1997	1997

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

WATER YEARS 1994 - 2002

ANNUAL TOTAL	123105.5		
ANNUAL MEAN	337	385	
HIGHEST ANNUAL MEAN		526	2000
LOWEST ANNUAL MEAN		271	2001
HIGHEST DAILY MEAN	1180	Nov 1	1210 Jan 16 2000
LOWEST DAILY MEAN	-73	May 30	-300 Jun 10 1997
ANNUAL SEVEN-DAY MINIMUM	-16	May 29	-16 May 29 2001
ANNUAL RUNOFF (AC-FT)	244200		278700
10 PERCENT EXCEEDS	759		665
50 PERCENT EXCEEDS	295		350
90 PERCENT EXCEEDS	26		175

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## 02290767 LEVEE 31 NORTH EXTENSION AT 5 MILE NEAR WEST MIAMI, FL

LOCATION.--Lat 25°41'09", long 80°29'50", T.54 S., R.38 E., Dade County, Hydrologic Unit 03090202, (South Miami NW quadrangle), 1.05 mi west of the junction of U.S. Highway 41 and Krome Avenue, and 5.25 mi south of U.S. Highway 41 on west side of Levee 31 North, near West Miami, FL.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--June 16, 1994 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic velocity meter. Datum of gage is National Geodetic Vertical Datum of 1929 (FCE bench mark).

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow is the sum of regulation from upstream control structures S-334, S-335 and S-336, downstream at G-211 and S-338, and from levee seepage and rainfall. Positive flow is to the south and may reverse for short periods.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 6 water years of discharge (1995, 1997-2001).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 8.27 ft Oct. 15, 1999; minimum, 3.48 ft May 23, 2001.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 6.83 ft Oct. 22; minimum, 4.13 ft May 19.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.58	5.60	5.73	e5.94	5.76	5.80	5.80	4.49	5.60	5.98	5.71	e5.75
2	6.36	5.51	5.72	e5.88	5.80	5.79	5.86	4.43	5.62	6.02	5.69	5.77
3	6.31	5.50	5.70	e5.85	5.83	5.77	5.90	4.44	5.59	6.00	5.74	5.76
4	6.33	5.86	5.70	e5.83	5.82	5.79	5.83	4.53	5.56	5.96	5.84	5.77
5	6.31	5.87	5.68	e5.78	5.79	5.78	5.82	e4.54	5.48	5.94	e5.83	5.80
6	6.27	e5.86	5.70	e5.80	5.76	5.76	5.45	4.42	5.43	5.98	e5.81	5.89
7	6.24	5.84	5.76	e5.79	5.70	5.80	5.44	4.33	5.55	6.03	5.79	6.01
8	6.24	5.83	5.84	5.78	5.70	5.86	5.32	e4.36	5.84	6.09	5.76	5.92
9	6.25	5.85	5.87	5.78	5.68	5.83	5.21	e4.49	5.84	6.19	5.74	5.78
10	6.26	5.84	5.83	5.78	5.78	5.81	5.15	4.46	5.82	6.27	5.73	5.80
11	6.22	e5.85	5.82	5.78	5.82	5.76	5.18	4.44	5.82	6.39	5.71	5.78
12	6.18	5.85	5.82	5.79	5.81	5.77	5.26	4.41	5.80	6.31	5.70	5.77
13	6.13	5.85	5.81	5.79	5.82	5.76	5.26	4.34	5.79	6.40	5.68	5.77
14	6.10	5.83	e5.73	5.80	5.81	5.76	5.24	4.29	5.87	6.41	5.68	5.77
15	6.13	e5.88	e5.71	5.81	5.79	5.76	5.18	4.52	5.97	6.32	5.68	5.77
16	6.15	5.84	e5.76	5.79	5.79	5.77	5.09	---	5.91	6.27	5.69	e5.78
17	6.12	5.87	e5.75	5.71	5.80	5.77	5.04	---	5.83	e6.26	5.67	5.77
18	6.06	5.84	e5.74	5.69	5.80	5.82	5.07	4.65	5.90	6.21	e5.71	5.80
19	6.16	e5.78	e5.80	5.68	5.79	5.82	5.06	4.45	5.90	6.29	5.73	5.85
20	6.17	e5.76	e5.75	5.74	5.76	5.80	5.09	4.66	5.90	6.23	5.77	5.87
21	6.23	5.76	e5.77	5.74	5.75	5.83	5.13	4.98	5.96	6.18	5.81	5.82
22	6.72	e5.76	e5.76	5.74	e5.74	5.87	5.04	5.02	5.94	6.09	5.81	5.80
23	6.77	e5.75	5.76	5.74	e5.93	5.86	4.95	5.01	5.95	5.89	5.82	5.80
24	6.59	5.74	5.76	5.72	e5.90	5.85	4.90	5.00	5.93	5.76	5.82	e5.81
25	6.32	e5.75	5.75	5.69	e5.89	5.82	4.84	4.99	5.98	5.78	5.78	5.81
26	6.09	5.75	5.78	5.66	5.88	5.80	4.79	4.98	5.97	5.78	5.80	5.78
27	6.00	e5.75	5.88	5.63	5.83	5.83	4.78	4.94	5.97	5.76	5.84	5.79
28	5.88	5.75	5.84	5.61	5.80	5.84	4.80	e4.81	5.90	5.73	e5.78	5.81
29	5.85	e5.74	5.83	5.77	---	5.83	4.68	4.85	5.89	5.69	5.78	5.82
30	5.84	e5.73	e5.86	5.80	---	5.82	4.59	4.80	5.95	5.68	5.79	5.83
31	5.64	---	e5.89	5.70	---	5.81	---	4.93	---	5.68	5.76	---
TOTAL	192.50	173.39	179.10	178.59	162.33	179.94	155.55	---	174.46	187.57	178.45	174.25
MEAN	6.21	5.78	5.78	5.76	5.80	5.80	5.18	---	5.82	6.05	5.76	5.81
MAX	6.77	5.88	5.89	5.94	5.93	5.87	5.90	---	5.98	6.41	5.84	6.01
MIN	5.64	5.50	5.68	5.61	5.68	5.76	4.59	---	5.43	5.68	5.67	5.75

e Estimated



02290767 LEVEE 31 NORTH EXTENSION AT 5 MILE NEAR WEST MIAMI, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	467	1280	886	e444	295	381	653	328	e-33	352	665	e635
2	523	1210	887	e447	297	395	603	338	e-12	365	671	624
3	501	753	874	e483	307	403	508	371	e1.9	383	677	618
4	460	788	870	e503	301	417	424	350	e21	362	693	625
5	442	686	874	e481	283	406	394	e361	e19	375	e679	620
6	454	e607	860	e474	280	412	320	396	e25	388	e672	481
7	492	628	848	e498	253	410	262	375	83	390	677	376
8	485	629	733	512	299	413	288	e403	219	385	679	447
9	454	635	673	512	261	418	311	e432	193	375	649	548
10	446	631	767	518	249	439	314	446	189	300	659	585
11	440	e617	860	529	294	646	344	422	185	337	661	543
12	440	634	870	523	273	750	344	418	161	376	668	539
13	448	640	871	513	294	774	336	439	102	336	668	565
14	445	646	e865	514	253	758	342	417	56	414	670	587
15	421	e575	e879	519	242	734	347	491	100	432	666	597
16	416	578	e887	525	253	713	382	---	167	372	652	e602
17	462	602	e866	507	256	693	388	---	205	e409	668	615
18	492	633	e884	514	273	654	400	476	235	413	e673	586
19	480	e750	e895	483	234	670	414	387	227	425	678	538
20	530	e762	e889	458	243	690	368	485	216	429	692	588
21	530	830	e880	451	236	688	371	544	227	437	693	612
22	e373	e855	e876	443	e227	604	409	495	236	448	687	623
23	414	e852	870	438	e202	587	432	470	261	553	677	624
24	549	860	874	437	e218	593	406	e478	252	707	659	e621
25	688	e854	877	435	e219	639	402	e442	259	713	669	615
26	e743	864	904	426	238	647	373	e468	246	723	685	612
27	e773	e879	726	420	307	639	348	e436	281	720	670	623
28	754	880	e470	421	375	658	317	e308	343	707	e662	607
29	714	e887	e496	234	---	655	370	80	336	698	653	610
30	815	e877	e493	337	---	653	360	e12	327	709	632	609
31	1230	---	e513	317	---	652	---	e-30	---	679	635	---
TOTAL	16881	22922	25017	14316	7462	18191	11530	---	5127.9	14712	20739	17475
MEAN	545	764	807	462	266	587	384	---	171	475	669	582
MAX	1230	1280	904	529	375	774	653	---	343	723	693	635
MIN	373	575	470	234	202	381	262	---	-33	300	632	376
AC-FT	33480	45470	49620	28400	14800	36080	22870	---	10170	29180	41140	34660

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001	2002			
MEAN	414	460	459	451	430	415	517	336	228	304	420	426
MAX	604	776	828	1066	804	587	914	859	462	509	669	582
(WY)	2001	2000	2000	2000	2000	2002	1998	1998	1998	2000	2002	2002
MIN	231	229	256	246	266	189	266	110	-47.8	76.3	251	266
(WY)	1998	1998	1998	1997	2002	1996	2001	1996	2001	1994	1997	1997

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

WATER YEARS 1994 - 2002

ANNUAL TOTAL	134629.6		
ANNUAL MEAN	369		405
HIGHEST ANNUAL MEAN			605
LOWEST ANNUAL MEAN			280
HIGHEST DAILY MEAN	1280	Nov 1	1300
LOWEST DAILY MEAN	-123	May 30	-285
ANNUAL SEVEN-DAY MINIMUM	-68	Jun 6	-68
ANNUAL RUNOFF (AC-FT)	267000		293100
10 PERCENT EXCEEDS	821		702
50 PERCENT EXCEEDS	336		363
90 PERCENT EXCEEDS	-7.2		191

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

02290768 LEVEE 31 NORTH EXTENSION AT 7 MILE NEAR WEST MIAMI, FL

LOCATION.--Lat 25°39'48", long 80°29'54", (corrected) NE 1/4 NE 1/4 SE 1/4 sec.11, T.55 S., R.38 E., Miami-Dade County, Hydrologic Unit 03090202, (South Miami NW quadrangle), 0.5 mi west of junction of U.S. Highway 41 and Krome Avenue and 6.9 mi south of U.S. Highway 41 on the west side of Levee 31 North Levee, near West Miami, FL.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--June 1994 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic velocity meter. Datum of gage is National Geodetic Vertical Datum of 1929 (FCE bench mark).

REMARKS.--Records fair except for estimated daily discharge, which are poor. Flow is the sum of regulation from upstream control structures S-334, S-335 and S-336 from levee seepage and rainfall, and from structures S-338 and G-211 downstream. Positive flow is to the south and may reverse for short periods.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 6 complete water years of discharge (1995, 1997-98, 2000-02).

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum gage height, 8.19 ft Oct. 15, 1999; minimum, 3.46 ft May 23, 2001.

EXTREME STAGES FOR CURRENT YEAR.--Maximum gage height, 6.78 ft Oct. 22; minimum, 4.12 ft May 19.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.58	5.46	5.64	e5.86	5.77	5.78	5.72	4.48	5.61	5.99	5.69	5.70
2	6.33	5.38	5.63	5.84	5.79	5.76	5.83	4.42	5.64	6.03	5.67	5.72
3	6.29	5.41	5.62	5.87	5.82	5.74	5.90	4.42	5.60	6.00	5.72	5.71
4	6.31	5.77	5.61	5.84	5.81	5.78	5.84	4.50	5.56	5.96	5.78	5.72
5	6.28	5.79	5.59	e5.76	5.78	5.77	5.63	4.52	5.49	5.94	5.76	5.75
6	6.24	5.78	5.62	5.82	5.75	5.75	5.45	4.39	5.43	5.98	5.75	5.85
7	6.22	5.77	5.71	5.81	5.68	5.79	5.45	4.30	5.55	6.03	e5.75	5.97
8	6.23	5.76	5.79	5.82	5.68	5.84	5.32	4.33	5.81	6.11	5.71	5.85
9	6.24	5.78	5.79	5.80	5.66	5.81	5.20	4.46	5.80	6.20	5.69	5.70
10	6.25	5.77	5.71	5.79	5.79	5.79	5.14	4.42	5.78	6.28	5.68	5.76
11	6.20	5.77	5.68	5.80	5.80	5.73	5.17	4.40	5.78	6.40	5.66	5.73
12	6.14	5.78	5.68	5.78	5.76	5.74	5.25	4.37	5.78	6.32	5.66	5.73
13	6.10	5.78	5.67	5.78	5.77	5.72	5.26	4.30	5.80	6.40	5.63	5.72
14	6.06	5.76	5.62	5.77	5.78	5.71	5.24	4.26	5.88	6.42	5.63	5.74
15	6.10	5.82	5.64	5.77	5.77	5.72	5.17	4.49	5.99	6.30	5.63	5.73
16	6.12	5.78	5.68	5.76	5.78	5.76	5.08	e4.67	5.91	6.28	5.65	5.72
17	6.09	5.81	5.67	5.68	5.80	e5.75	5.03	4.64	5.83	6.27	5.62	5.71
18	6.02	5.77	5.66	5.65	5.79	e5.80	5.07	4.60	5.90	e6.22	5.66	5.74
19	6.13	5.70	5.72	5.65	5.77	e5.80	5.06	4.41	5.91	6.31	5.68	5.76
20	6.12	5.70	5.67	5.72	5.74	e5.78	5.10	4.64	5.89	6.24	5.73	5.79
21	6.20	5.67	5.70	5.72	5.73	e5.80	5.13	4.98	5.96	6.18	5.76	5.75
22	6.69	5.67	5.69	5.73	5.73	5.85	5.04	5.01	5.94	6.09	5.76	5.74
23	6.72	5.67	5.69	5.72	5.90	5.85	4.94	5.01	5.95	5.89	5.76	5.75
24	6.52	5.66	5.68	5.70	5.89	5.85	4.90	5.00	5.92	5.75	5.70	5.76
25	6.24	5.67	5.68	5.67	5.87	5.81	4.83	4.98	5.98	5.78	5.67	5.75
26	6.00	5.67	5.71	5.64	5.86	5.79	4.79	4.96	5.98	5.76	5.75	5.72
27	5.91	5.66	5.81	5.61	5.81	5.83	4.77	4.93	5.99	5.74	5.73	5.76
28	5.79	5.66	5.82	5.58	5.78	5.82	4.79	4.81	5.91	5.71	5.71	5.75
29	5.77	5.65	5.80	5.76	---	5.79	4.66	4.86	5.89	5.66	5.73	5.76
30	5.74	5.64	5.81	5.78	---	5.75	4.57	4.80	5.95	5.66	5.73	5.77
31	5.50	---	e5.81	5.69	---	5.74	---	4.94	---	5.66	5.70	---
TOTAL	191.13	170.96	176.60	178.17	161.86	179.20	155.33	143.30	174.41	187.56	176.75	172.61
MEAN	6.17	5.70	5.70	5.75	5.78	5.78	5.18	4.62	5.81	6.05	5.70	5.75
MAX	6.72	5.82	5.82	5.87	5.90	5.85	5.90	5.01	5.99	6.42	5.78	5.97
MIN	5.50	5.38	5.59	5.58	5.66	5.71	4.57	4.26	5.43	5.66	5.62	5.70

e Estimated

02290768 LEVEE 31 NORTH EXTENSION AT 7 MILE NEAR WEST MIAMI, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	543	1340	853	e487	294	405	644	345	14	381	685	677
2	604	1280	855	502	290	396	571	338	62	408	690	661
3	569	828	846	498	291	398	478	362	69	412	705	661
4	531	838	841	e512	298	412	410	322	96	406	719	668
5	532	755	843	e520	289	410	395	305	95	409	708	678
6	529	678	844	509	277	410	315	384	77	414	701	540
7	521	704	854	511	262	421	e269	367	104	410	e705	454
8	513	692	749	e521	290	423	312	391	265	420	699	525
9	506	697	691	e493	266	422	331	407	229	423	695	610
10	495	688	790	e513	240	429	333	428	230	354	698	637
11	502	686	869	514	296	647	364	403	222	375	691	605
12	505	682	885	513	272	746	347	397	208	e457	694	624
13	506	685	896	515	277	772	335	402	144	e379	687	635
14	498	681	885	515	247	758	330	399	110	e445	692	649
15	488	630	902	515	247	724	329	459	191	e505	699	662
16	492	613	908	514	251	714	370	e514	283	e426	691	661
17	497	628	912	495	256	e700	376	492	281	e421	689	669
18	528	666	906	497	262	e703	384	453	293	e445	704	637
19	546	775	913	477	237	e703	410	385	320	e450	711	591
20	582	787	893	449	229	e690	353	e476	310	503	726	644
21	593	835	873	441	235	e575	332	e535	313	e507	719	675
22	458	860	889	442	234	605	394	472	311	527	721	672
23	495	851	885	433	227	605	406	445	316	633	711	687
24	633	854	884	429	229	602	398	438	337	771	676	681
25	794	856	865	430	240	626	386	421	313	752	687	677
26	842	854	874	419	240	636	367	425	308	763	713	673
27	835	872	e731	408	305	618	331	426	324	749	702	682
28	823	870	483	415	e377	627	299	296	388	740	697	668
29	787	876	484	238	---	629	352	107	376	728	687	665
30	892	870	490	320	---	638	347	e121	375	739	690	676
31	1300	---	e487	346	---	631	---	101	---	703	673	---
TOTAL	18939	23931	25080	14391	7458	18075	11268	11816	6964	16055	21665	19244
MEAN	611	798	809	464	266	583	376	381	232	518	699	641
MAX	1300	1340	913	521	377	772	644	535	388	771	726	687
MIN	458	613	483	238	227	396	269	101	14	354	673	454
AC-FT	37570	47470	49750	28540	14790	35850	22350	23440	13810	31850	42970	38170

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)

	2000	2001	2002	2000	2001	2002	2000	2001	2002	2000	2001	2002
MEAN	548	663	624	578	466	407	343	340	177	361	517	517
MAX	611	798	809	998	745	583	450	519	266	518	699	641
(WY)	2002	2002	2002	2000	2000	2002	2000	2000	2000	2002	2002	2002
MIN	453	413	258	273	266	220	202	118	32.8	109	388	416
(WY)	2000	2001	2001	2001	2002	2001	2001	2001	2001	2001	2001	2000

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 2000 - 2002

ANNUAL TOTAL	134704.04	194886	
ANNUAL MEAN	369	534	462
HIGHEST ANNUAL MEAN			564
LOWEST ANNUAL MEAN			288
HIGHEST DAILY MEAN	1340	Nov 1	1340
LOWEST DAILY MEAN	-20	May 30	14
ANNUAL SEVEN-DAY MINIMUM	18	Jun 20	73
ANNUAL RUNOFF (AC-FT)	267200	386600	334800
10 PERCENT EXCEEDS	841	841	843
50 PERCENT EXCEEDS	286	511	428
90 PERCENT EXCEEDS	41	271	170

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

EVERGLADES AND SOUTHEASTERN COASTAL AREA

02290769 CANAL 111 AT S-18-C, NEAR FLORIDA CITY, FL

LOCATION.--Lat 25°19'49", long 80°31'31", in NW 1/4 sec.3, T.59 S., R.38 E., Miami-Dade County, Hydrologic Unit 03090202, at control structure 18-C, and 8.5 mi south of Florida City.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1968 to current year.

REVISED RECORDS.--WDR FL-78-2A: 1974-77.

GAGE.--Satellite data collection platform with water-stage shaft encoder and acoustic doppler velocity meter. Prior to September 30, 2001, satellite data collection platform with water-stage shaft encoder and acoustic velocity meter. The acoustic velocity meter and acoustic doppler velocity meter were run in tandem for the period of May 24, 2001 to October 17, 2001. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Records good except for estimated and negative daily discharges, which are poor. Flow regulated by S-18-C. Prior to November 30, 1992, discharge computed from relation between head, and gate openings at S-18-C. After December 1, 1992, discharge computed based on continuous record of stage and velocity at newly established acoustic velocity meter site downstream of S-18-C. Prior to the 1993 water year the downstream gage height is available in files of the U.S. Geological Survey under station number 02290770. Starting with the 1993 water year, the downstream gage height is available in files of the U.S. Geological Survey under station number 02290769. Prior to 1994 water year discharge published under the name Canal 111 Above S-18-C under the same station number (02290769). Prior to December 1, 1992, digital water-stage recorders, electromagnetic velocity meter recorder, and dual graphic water-stage and gate opening recorder.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 28 complete water years of discharge (1969-90, 1993-94, 1996, 1998-99, 2002).

COOPERATION.--Gate-opening recorder record and record of slot operations provided by South Florida Water Management District, upon request.

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD (1969-92).--Maximum gage height, 3.62 ft July 24, 1985; minimum, -1.53 ft estimated May 14, 1971.

EXTREME DOWNSTREAM STAGES FOR PERIOD OF RECORD (1993-current year).--Maximum gage height, 3.82 ft Oct. 15, 1999; minimum, 0.13 ft May 19, 2002.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 3.00 ft Oct. 22; minimum, 0.13 ft May 19.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2.71	2.68	2.26	2.19	1.79	1.74	1.48	e0.65	1.96	2.51	2.41	e2.31
2	e2.59	2.67	2.26	e2.26	e1.79	1.72	1.47	e0.60	e1.94	2.65	2.43	2.36
3	2.57	2.64	2.25	2.38	1.77	1.69	1.45	e0.59	1.94	2.63	2.41	2.37
4	2.60	2.63	2.25	2.32	1.76	1.65	1.41	0.54	1.86	2.59	e2.38	2.38
5	2.58	2.62	2.24	2.30	1.75	e1.65	1.38	0.50	1.76	2.52	2.37	2.40
6	2.55	2.56	e2.28	2.29	1.71	1.63	1.37	0.46	1.74	2.51	2.36	2.52
7	2.53	e2.60	2.31	2.25	1.67	1.62	1.37	0.43	1.70	2.51	2.35	2.51
8	2.52	2.57	2.32	2.24	1.64	1.63	1.37	e0.38	1.64	2.54	2.35	2.49
9	2.54	e2.58	2.29	e2.23	1.66	1.62	1.33	0.35	1.77	2.63	2.36	2.45
10	2.57	2.54	2.26	2.19	1.71	1.60	1.30	e0.32	1.86	2.64	2.36	2.42
11	2.55	2.52	2.25	2.18	1.71	1.59	1.26	0.29	1.93	2.66	2.37	2.41
12	2.53	2.51	2.24	2.17	1.74	1.58	1.23	0.27	2.00	2.60	2.38	2.41
13	2.51	2.49	2.24	2.16	1.73	1.56	1.19	0.24	2.06	2.54	2.36	2.39
14	2.50	2.47	2.26	2.15	1.73	1.55	1.16	0.20	2.13	2.54	2.34	2.38
15	2.48	2.44	2.26	2.14	1.73	1.54	e1.15	0.21	2.28	2.58	2.34	2.35
16	2.46	2.42	2.26	2.13	1.78	1.52	1.10	e0.24	2.55	2.55	2.35	e2.34
17	2.44	2.39	2.25	2.11	1.81	1.50	1.07	e0.23	2.55	e2.53	2.37	2.32
18	2.45	2.37	2.24	2.07	1.80	1.49	1.03	0.18	2.52	2.54	e2.34	2.30
19	2.61	e2.40	2.23	2.06	1.81	1.47	0.99	0.47	2.58	2.52	2.32	e2.28
20	2.64	2.36	2.23	2.04	1.77	1.45	0.94	0.88	2.51	2.50	2.33	2.27
21	2.72	2.35	2.22	2.02	1.68	1.42	0.90	1.12	2.62	2.47	2.39	2.26
22	2.84	2.34	2.22	1.97	1.66	1.44	0.87	1.23	2.59	2.45	2.37	2.24
23	2.71	2.36	2.22	1.90	1.87	1.55	0.83	1.23	2.71	2.41	2.35	2.26
24	2.68	2.38	e2.23	1.89	1.90	1.54	0.81	1.23	2.59	2.39	2.33	2.36
25	2.63	2.36	2.21	1.87	1.89	1.53	0.81	1.22	2.56	2.40	2.31	2.33
26	2.73	2.34	2.22	1.86	1.86	1.52	0.78	1.19	2.53	2.38	2.28	2.30
27	2.68	2.33	2.22	1.85	1.82	1.52	0.78	1.18	2.43	2.36	2.27	2.27
28	2.61	2.32	2.17	1.84	1.77	1.53	0.76	1.24	2.45	2.34	2.26	2.26
29	2.64	e2.33	2.13	1.82	---	1.53	0.73	1.38	2.52	2.31	2.25	2.24
30	2.65	2.28	2.12	e1.83	---	1.52	0.70	1.45	2.48	2.30	2.27	2.24
31	2.69	---	2.14	1.80	---	1.50	---	e1.84	---	2.32	2.29	---
TOTAL	80.51	73.85	69.28	64.51	49.31	48.40	33.02	22.34	66.76	77.42	72.65	70.42
MEAN	2.60	2.46	2.23	2.08	1.76	1.56	1.10	0.72	2.23	2.50	2.34	2.35
MAX	2.84	2.68	2.32	2.38	1.90	1.74	1.48	1.84	2.71	2.66	2.43	2.52
MIN	2.44	2.28	2.12	1.80	1.64	1.42	0.70	0.18	1.64	2.30	2.25	2.24

e Estimated



## EVERGLADES AND SOUTHEASTERN COASTAL AREA

251716080342100 EVERGLADES 5A IN C-111 BASIN NEAR HOMESTEAD, FL

LOCATION.--Lat 25°17'10", long 80°34'22", in SW 1/4 sec.18, T.59 S., R.38 E., Miami-Dade County, Hydrologic Unit 03090202, in C-111 drainage basin, 2.5 mi south of Levee 31 canal and 7 mi west of U.S. Highway 1, 12.5 mi southwest of Florida City.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Electronic data logger. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Land surface datum is 1.1 ft above National Geodetic Vertical Datum of 1929. Data prior to 1993 water year are unpublished and in files of the U.S. Geological Survey. Unit values prior to 1993 water year were not available for review to determine instantaneous maximum and minimum gage height. Water levels below Land surface datum are recorded.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum mean daily gage height, 3.06 ft Oct. 16, 1999; minimum, -0.98 ft May 19, 2002.

EXTREME STAGES FOR CURRENT YEAR.--Maximum mean daily gage height, 2.23 ft Oct 25; minimum, -0.98 ft May 19.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.93	1.73	1.35	1.29	1.13	1.12	0.67	-0.41	0.64	1.63	1.61	1.33
2	1.88	1.71	1.34	1.29	1.13	1.10	0.64	-0.45	0.72	1.63	1.58	1.38
3	1.83	1.69	1.33	1.30	1.12	1.08	0.62	-0.49	0.94	1.60	1.53	1.43
4	1.79	1.69	1.32	1.29	1.10	1.07	0.63	-0.53	0.91	1.58	1.50	1.50
5	1.76	1.75	1.30	1.28	1.08	1.04	0.60	-0.57	0.90	1.55	1.49	1.61
6	1.73	1.74	1.30	1.28	1.06	1.02	0.70	-0.61	0.91	1.56	1.48	1.88
7	1.72	1.72	1.32	1.28	1.06	1.04	0.64	-0.65	0.93	1.57	1.49	1.81
8	1.71	1.69	1.32	1.27	1.04	1.07	0.57	-0.69	1.05	1.69	1.54	1.77
9	1.70	1.67	1.32	1.27	1.05	1.06	0.50	-0.73	1.15	1.83	1.63	1.71
10	1.73	1.65	1.32	1.26	1.10	1.04	0.45	-0.76	1.17	1.96	1.59	1.68
11	1.71	1.63	1.32	1.26	1.09	1.03	0.39	-0.80	1.33	2.00	1.59	1.69
12	1.68	1.61	1.31	1.26	1.08	1.01	0.34	-0.84	1.41	1.96	1.54	1.67
13	1.67	1.59	1.30	1.26	1.07	1.01	0.30	-0.87	1.56	1.90	1.50	1.63
14	1.67	1.57	1.30	1.26	1.06	1.00	0.26	-0.89	1.70	1.84	1.47	1.59
15	1.66	1.56	1.30	1.25	1.05	0.97	0.22	-0.90	1.75	1.79	1.45	1.54
16	1.65	1.55	1.29	1.25	1.12	0.95	0.19	-0.89	1.79	1.75	1.44	1.48
17	1.63	1.53	1.28	1.25	1.13	0.93	0.15	-0.91	1.76	1.72	1.44	1.43
18	1.63	1.52	1.27	1.24	1.12	0.90	0.11	-0.95	1.72	1.73	1.40	1.38
19	1.76	1.53	1.27	1.24	1.10	0.88	0.06	-0.17	1.66	1.71	1.36	1.35
20	1.75	1.52	1.26	1.23	1.07	0.85	0.02	0.46	1.66	1.67	1.37	1.31
21	1.81	1.50	1.25	1.22	1.05	0.83	-0.02	0.56	1.80	1.63	1.39	1.29
22	2.17	1.49	1.23	1.21	1.04	0.85	-0.06	0.55	1.80	1.59	1.35	1.29
23	2.12	1.47	1.23	1.20	1.18	0.93	-0.09	0.50	1.82	1.55	1.33	1.38
24	2.06	1.45	1.22	1.19	1.18	0.90	-0.13	0.44	1.85	1.52	1.34	1.66
25	2.04	1.44	1.22	1.18	1.17	0.88	-0.15	0.38	1.82	1.53	1.34	1.70
26	2.10	1.42	1.23	1.18	1.15	0.85	-0.19	0.35	1.79	1.52	1.32	1.67
27	1.99	1.41	1.23	1.17	1.14	0.83	-0.24	0.33	1.76	1.49	1.30	1.62
28	1.90	1.39	1.22	1.16	1.13	0.80	-0.29	0.32	1.71	1.45	1.30	1.57
29	1.83	1.38	1.21	1.15	---	0.77	-0.32	0.32	1.67	1.42	1.32	1.51
30	1.79	1.37	1.21	1.15	---	0.73	-0.36	0.35	1.65	1.39	1.33	1.46
31	1.76	---	1.24	1.14	---	0.70	---	0.64	---	1.45	1.33	---
TOTAL	56.16	46.97	39.61	38.26	30.80	29.24	6.21	-7.91	43.33	51.21	44.65	46.32
MEAN	1.81	1.57	1.28	1.23	1.10	0.94	0.21	-0.26	1.44	1.65	1.44	1.54
MAX	2.17	1.75	1.35	1.30	1.18	1.12	0.70	0.64	1.85	2.00	1.63	1.88
MIN	1.63	1.37	1.21	1.14	1.04	0.70	-0.36	-0.95	0.64	1.39	1.30	1.29

251724080341400 EVERGLADES 5B IN C-111 BASIN NEAR HOMESTEAD, FL

LOCATION.--Lat 25°17'14", long 80°34'08", in SW 1/4 sec.18, T.59 S., R.38 E., Miami-Dade County, Hydrologic Unit 03090202, in C-111 drainage basin, 2.5 mi south of Levee 31 canal and 7 mi west of U.S. Highway 1, 12.5 mi southwest of Florida City.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Electronic data logger. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Land-surface datum is 1.1 ft above National Geodetic Vertical Datum of 1929. Water levels below land-surface datum are recorded. Data prior to 1993 water year are unpublished and in the files of the U.S. Geological Survey. Unit values data prior to 1993 water year was not available to determine instantaneous maximum and minimum gage height.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum mean daily gage height, 3.10 ft Oct. 16, 1999; minimum, indeterminate.

EXTREME STAGES FOR CURRENT YEAR.--Maximum mean daily gage height, 2.31 ft Oct. 25; minimum, indeterminate, well was dry for many days.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	1.80	1.47	1.42	1.28	1.27	---	---	---	e1.67	e1.54	1.42
2	---	1.79	1.47	1.42	1.28	---	---	---	---	e1.66	e1.52	1.46
3	---	1.77	1.46	1.43	1.27	---	---	---	---	e1.64	e1.48	1.50
4	---	1.77	1.45	1.42	1.26	---	---	---	---	e1.61	e1.45	1.54
5	---	1.83	1.44	1.41	1.26	---	---	---	---	e1.59	e1.45	1.63
6	---	1.82	1.44	1.41	1.25	---	---	---	---	e1.60	e1.44	1.91
7	---	1.80	1.46	1.41	1.25	---	---	---	---	e1.61	e1.44	1.84
8	---	1.77	1.45	1.41	1.25	---	---	---	---	e1.73	e1.48	1.80
9	---	1.75	1.45	1.41	1.25	---	---	---	1.24	e1.86	e1.58	1.74
10	---	1.73	1.46	1.41	1.26	---	---	---	1.26	e1.99	e1.54	1.71
11	---	1.71	1.46	1.41	1.26	---	---	---	1.38	e2.03	e1.55	1.72
12	---	1.70	1.45	1.41	1.25	---	---	---	1.45	e1.99	e1.50	1.71
13	---	1.68	1.44	1.40	1.25	---	---	---	1.57	e1.92	e1.46	1.67
14	---	1.67	1.44	1.40	1.25	---	---	---	1.71	e1.87	e1.44	1.63
15	---	1.65	1.44	1.39	1.25	---	---	---	1.77	e1.81	e1.41	1.58
16	---	1.64	1.43	1.39	1.29	---	---	---	1.81	e1.77	e1.40	1.53
17	---	1.63	1.42	1.38	1.29	---	---	---	1.78	e1.75	e1.40	1.49
18	---	1.62	1.41	1.38	1.27	---	---	---	1.74	e1.75	e1.37	1.45
19	---	1.63	1.41	1.37	1.26	---	---	---	1.69	e1.74	e1.33	1.42
20	---	1.61	1.40	1.37	1.25	---	---	---	1.70	e1.70	---	1.40
21	---	1.60	1.39	1.36	1.25	---	---	---	1.84	e1.66	---	1.37
22	---	1.59	1.38	1.35	1.24	---	---	---	1.84	e1.62	1.43	1.38
23	---	1.57	1.37	1.34	1.33	---	---	---	1.85	e1.59	1.42	1.43
24	---	1.56	1.37	1.33	1.32	---	---	---	1.89	e1.56	1.44	1.69
25	2.09	1.55	1.37	1.32	1.31	---	---	---	1.86	e1.59	1.44	1.73
26	2.16	1.53	1.38	1.32	1.30	---	---	---	1.84	e1.57	1.43	1.70
27	2.06	1.52	1.37	1.31	1.29	---	---	---	1.81	e1.53	1.42	1.65
28	1.96	1.51	1.36	1.31	1.28	---	---	---	1.77	e1.50	1.40	1.60
29	1.90	1.49	1.36	1.30	---	---	---	---	1.72	e1.48	1.43	1.55
30	1.86	1.49	1.35	1.30	---	---	---	---	e1.70	e1.45	1.43	1.51
31	1.83	---	1.38	1.28	---	---	---	---	---	e1.47	1.42	---
TOTAL	---	49.78	43.93	42.57	35.55	---	---	---	---	52.31	---	47.76
MEAN	---	1.66	1.42	1.37	1.27	---	---	---	---	1.69	---	1.59
MAX	---	1.83	1.47	1.43	1.33	---	---	---	---	2.03	---	1.91
MIN	---	1.49	1.35	1.28	1.24	---	---	---	---	1.45	---	1.37

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

251906080283400 EVERGLADES 2A IN C-111 BASIN NEAR HOMESTEAD, FL

LOCATION.--Lat 25°18'57", long 80°28'41", in sec.7, T.59 S., R.39 E., Miami-Dade County, Hydrologic Unit 03090202, in C-111 basin between C-109 and C-110 Canals, 1.6 mi west of U.S. Highway 1 and 1.5 mi north of C-111 Canal, approximately 8.5 mi south of Florida City.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--September 25, 1985 to current year.

GAGE.--Electronic data logger. Datum of gage is National Geodetic Vertical Datum of 1929

REMARKS.--Unit values prior to 1993 water year were not available to determine instantaneous maximum and minimum gage height.

Land-surface datum is 1.2 ft above National Geodetic Vertical Datum of 1929. Water levels below land-surface datum are recorded. Gage height records prior to October 1992, are available in the files of the U.S. Geological Survey. Water year 2000 was revised. Revised data is available in the files of the U.S. Geological Survey.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum mean daily gage height, 3.60 ft Oct. 15, 1999, (estimated); minimum, 0.03 ft May 18, 19, 2002.

EXTREME STAGES FOR CURRENT YEAR.--Maximum mean daily gage height, 2.98 ft Oct. 22; minimum, 0.03 ft May 18, 19.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.76	2.66	2.25	2.15	1.83	1.78	1.47	0.56	1.26	2.57	2.38	2.27
2	2.70	2.66	2.24	2.16	1.82	1.76	1.46	0.52	1.31	2.62	2.42	2.28
3	2.66	2.65	2.23	2.22	1.81	1.75	1.44	0.49	1.35	2.62	2.42	2.36
4	2.63	2.64	2.22	2.23	1.81	1.73	1.43	0.45	1.40	2.61	2.40	2.40
5	2.61	2.70	2.21	2.23	1.79	1.71	1.41	0.41	1.42	2.59	2.38	2.39
6	2.58	2.68	2.21	2.23	1.76	1.70	1.39	0.37	1.43	2.62	2.37	2.42
7	2.55	2.66	2.23	2.23	1.75	1.70	1.37	0.33	---	2.62	2.37	2.43
8	2.53	2.63	2.23	2.22	1.73	1.70	1.34	0.29	---	2.63	2.37	2.44
9	2.53	2.60	2.23	2.21	1.73	1.69	1.32	0.24	---	2.75	2.37	2.43
10	2.56	2.57	2.22	2.19	1.81	1.68	1.28	0.21	---	2.82	2.36	2.42
11	2.54	2.55	2.21	2.19	1.78	1.67	1.25	0.16	---	2.83	2.39	2.42
12	2.51	2.53	2.20	2.17	1.77	1.66	1.21	0.13	---	2.78	2.37	2.42
13	2.50	2.51	2.19	2.16	1.75	1.64	1.17	0.10	---	2.72	2.36	2.41
14	2.50	2.49	2.19	2.15	1.75	1.63	1.14	0.08	---	2.66	2.35	2.39
15	2.49	2.47	2.18	2.14	1.74	1.61	1.11	0.08	---	2.63	2.34	2.37
16	2.47	2.45	2.17	2.13	1.78	1.59	1.08	0.08	---	2.60	2.34	2.36
17	2.45	2.43	2.16	2.12	1.79	1.57	1.04	0.08	---	2.58	2.38	2.34
18	2.46	2.40	2.16	2.11	1.78	1.55	0.99	0.05	---	2.60	2.36	2.32
19	2.59	2.41	2.15	2.09	1.77	1.53	0.95	0.31	---	2.58	2.34	2.30
20	2.62	2.39	2.15	2.08	1.75	1.51	0.91	0.69	2.44	2.55	2.32	2.30
21	2.73	2.38	2.14	2.06	1.74	1.49	0.88	0.94	2.59	2.52	2.32	2.28
22	2.96	2.36	2.13	2.04	1.73	1.50	0.84	1.08	2.60	2.49	2.31	2.26
23	2.91	2.34	2.12	2.01	1.78	1.57	0.80	1.04	2.73	2.45	2.30	2.26
24	2.87	2.33	2.12	1.98	1.80	1.56	0.76	1.02	2.78	2.44	2.29	2.38
25	2.84	2.32	2.11	1.95	1.80	1.55	0.73	1.01	2.77	2.43	2.28	2.35
26	2.83	2.31	2.13	1.93	1.81	1.54	0.69	1.00	2.78	2.40	2.29	2.32
27	2.78	2.30	2.12	1.91	1.80	1.53	0.66	1.01	2.72	2.38	2.27	2.30
28	2.73	2.29	2.12	1.89	1.79	1.52	0.63	1.07	2.67	2.35	2.26	2.28
29	2.69	2.27	2.11	1.87	---	1.50	0.61	1.14	2.64	2.33	2.25	2.26
30	2.67	2.26	2.10	1.86	---	1.49	0.59	1.17	2.59	2.33	2.25	2.25
31	2.67	---	2.11	1.85	---	1.48	---	1.23	---	2.34	2.27	---
TOTAL	81.92	74.24	67.34	64.76	49.75	49.89	31.95	17.34	---	79.44	72.48	70.41
MEAN	2.64	2.47	2.17	2.09	1.78	1.61	1.06	0.56	---	2.56	2.34	2.35
MAX	2.96	2.70	2.25	2.23	1.83	1.78	1.47	1.23	---	2.83	2.42	2.44
MIN	2.45	2.26	2.10	1.85	1.73	1.48	0.59	0.05	---	2.33	2.25	2.25



251946080254800 EVERGLADES 1 IN C-111 BASIN NEAR HOMESTEAD, FL

LOCATION.--Lat 25°19'50", long 80°26'06", in NE 1/4 sec.4, T.59 S., R.39 E., Dade County, Hydrologic Unit 03090202, approximately 1 mi east of U.S. Highway 1, 1.3 mi west-southwest of Levee 31-E, east of S-18-C, southeast of Florida City.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--April 1985 to current year.

GAGE.--Electronic data logger. Datum of gage is National Geodetic Vertical Datum of 1929 (U.S. Army Corps of Engineers bench mark).

REMARKS.--Land-surface datum is 1.10 ft above National Geodetic Vertical Datum of 1929. Data prior to 1993 water year are available in files of the U.S. Geological Survey. Unit values prior to 1993 water year were not available for review to determine maximum and minimum instantaneous gage height. Water levels below land-surface datum can be recorded.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum mean daily gage height, 3.26 ft Nov. 15, 1994; minimum, 0.05 ft May 18, 19, 2002.

EXTREME STAGES FOR CURRENT YEAR.--Maximum mean daily gage height, 2.83 ft Nov. 5; minimum, 0.05 ft May 18, 19.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e2.04	2.25	e2.00	e1.79	1.49	1.47	1.20	0.52	1.57	1.89	1.78	1.69
2	e2.02	2.27	e1.99	e1.79	1.49	1.47	1.19	0.48	1.51	1.91	1.92	1.68
3	e2.01	2.24	e1.98	e1.77	1.49	1.46	1.17	0.44	1.48	1.89	1.85	1.72
4	e1.99	2.25	e1.97	1.76	1.50	1.45	1.15	0.40	1.45	1.88	1.80	1.76
5	e1.98	2.59	e1.97	1.73	1.48	1.43	1.11	0.35	1.43	1.90	1.77	1.75
6	e1.98	2.51	e1.96	1.73	1.47	1.43	1.09	0.31	1.42	1.94	1.75	1.77
7	e1.97	2.27	e1.97	1.72	1.46	1.43	1.09	0.27	1.41	1.94	1.73	1.78
8	e1.97	e2.14	e1.98	1.71	1.44	1.45	1.11	0.23	1.41	1.93	1.73	1.82
9	e1.98	e2.13	e1.97	1.71	1.44	1.45	1.13	0.20	1.45	2.01	1.73	1.82
10	2.14	e2.12	e1.96	1.70	1.47	1.44	1.13	0.16	1.51	2.02	1.73	1.80
11	2.18	e2.12	e1.95	1.70	1.47	1.43	1.12	0.13	1.62	2.01	1.76	1.78
12	2.13	e2.11	e1.94	1.70	1.46	1.43	1.11	0.13	1.71	1.98	1.76	1.78
13	e2.05	e2.10	e1.93	1.68	1.46	1.42	1.08	0.11	1.74	1.95	1.74	1.79
14	e2.02	e2.10	e1.93	1.68	1.46	1.41	1.06	0.10	1.75	1.92	1.73	1.78
15	e1.99	e2.09	e1.92	1.67	1.44	1.39	1.04	0.11	1.78	1.88	1.74	1.75
16	e1.97	e2.08	e1.91	1.67	1.48	1.37	1.00	0.15	1.80	1.85	1.74	1.77
17	1.96	e2.08	e1.90	1.65	1.49	1.32	0.94	0.17	1.82	1.84	1.77	1.75
18	2.00	e2.08	e1.90	1.65	1.48	1.28	0.90	0.10	1.78	1.86	1.75	1.73
19	2.19	e2.10	e1.89	1.64	1.47	1.25	0.86	0.37	1.76	1.85	1.73	1.72
20	2.20	e2.09	e1.88	1.63	1.45	1.23	0.82	0.86	1.75	1.84	1.72	1.72
21	2.26	e2.08	e1.87	1.62	1.43	1.20	0.76	0.93	1.91	1.83	1.71	1.72
22	2.49	e2.07	e1.87	1.61	1.43	1.21	0.71	1.05	1.91	1.81	1.69	1.71
23	2.32	e2.06	e1.86	1.60	1.49	1.34	0.68	1.06	2.03	1.79	1.68	1.72
24	e2.26	e2.05	e1.85	1.59	1.51	1.33	0.65	1.12	2.03	1.78	1.67	1.83
25	e2.19	e2.04	e1.85	1.57	1.50	1.31	0.64	1.25	2.02	1.78	1.66	1.79
26	e2.18	e2.03	e1.84	1.55	1.49	1.29	0.63	1.49	2.01	1.76	1.67	1.75
27	e2.15	e2.02	e1.84	1.53	1.48	1.28	0.62	1.51	1.97	1.75	1.66	1.73
28	e2.14	e2.01	e1.83	1.53	1.47	1.26	0.60	1.54	1.95	1.72	1.66	1.72
29	e2.13	e2.01	e1.82	1.52	---	1.25	0.58	1.59	1.92	1.70	1.66	1.70
30	2.20	e2.00	e1.81	1.51	---	1.23	0.56	1.59	1.89	1.71	1.67	1.70
31	2.24	---	e1.80	1.50	---	1.21	---	1.62	---	1.72	1.69	---
TOTAL	65.33	64.09	59.14	51.21	41.19	41.92	27.73	20.34	51.79	57.64	53.65	52.53
MEAN	2.11	2.14	1.91	1.65	1.47	1.35	0.92	0.66	1.73	1.86	1.73	1.75
MAX	2.49	2.59	2.00	1.79	1.51	1.47	1.20	1.62	2.03	2.02	1.92	1.83
MIN	1.96	2.00	1.80	1.50	1.43	1.20	0.56	0.10	1.41	1.70	1.66	1.68

e Estimated

## EVERGLADES AND SOUTHEASTERN COASTAL AREA

252036080324300 EVERGLADES 4 IN C-111 BASIN NEAR HOMESTEAD, FL

LOCATION.--Lat 25°20'19", long 80°32'47", in sec.30, T.58 S., R.38 E., Miami-Dade County, Hydrologic Unit 03090202, approximately 1.3 mi northwest of S-18-C and approximately 1.8 mi east of Aerojet Road.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1985 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Land-surface datum is 2.4 ft above National Geodetic Vertical Datum of 1929. Gage is capable of recording water levels below land-surface datum. Unpublished data prior to 1993 water year are available in the files of the U.S. Geological Survey. Unit value data prior to 1993 water year were not available for review to determine instantaneous maximum and minimum gage height.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum mean daily gage height, 3.58 ft Oct. 16, 1999; minimum, indeterminate, well was dry during many years.

EXTREME STAGES FOR CURRENT YEAR.--Maximum mean daily gage height, 2.97 ft Oct. 22; minimum, indeterminate, well was dry Apr. 30 to May 19.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.76	2.61	2.33	2.26	1.97	1.91	1.54	---	1.77	2.50	2.53	2.37
2	2.71	2.60	2.32	2.28	1.97	1.90	1.49	---	1.81	2.52	2.55	2.40
3	2.66	2.59	2.31	2.33	1.97	1.88	1.48	---	1.89	2.53	2.52	2.39
4	2.64	2.58	2.30	2.32	1.95	1.86	1.54	---	1.84	2.52	2.50	2.38
5	2.62	2.62	2.28	2.31	1.92	1.84	1.50	---	1.81	2.52	2.49	2.38
6	2.59	2.61	2.27	2.31	1.89	1.83	1.51	---	1.79	2.52	2.47	2.45
7	2.60	2.59	2.29	2.30	1.88	1.86	1.44	---	1.82	2.52	2.44	2.43
8	2.63	2.57	2.29	2.29	1.86	1.91	1.39	---	2.02	2.61	2.46	2.42
9	2.61	2.56	2.29	2.28	1.89	1.88	1.36	---	2.12	2.74	2.52	2.40
10	2.63	2.55	2.32	2.27	2.03	1.85	1.32	---	2.11	2.83	2.48	2.39
11	2.60	2.54	2.31	2.26	1.99	1.84	1.28	---	2.20	2.84	2.45	2.39
12	2.58	2.53	2.29	2.25	1.96	1.83	1.24	---	2.26	2.78	2.42	2.39
13	2.57	2.51	2.29	2.23	1.92	1.82	1.21	---	2.28	2.72	2.40	2.38
14	2.56	2.50	2.28	2.22	1.93	1.79	1.19	---	2.30	2.66	2.38	2.36
15	2.56	2.49	2.27	2.21	1.90	1.76	1.15	---	2.35	2.63	2.36	2.35
16	2.54	2.48	2.26	2.19	2.03	1.73	1.11	---	2.37	2.60	2.36	2.34
17	2.53	2.46	2.24	2.18	2.02	1.68	1.08	---	2.38	2.59	2.38	2.32
18	2.52	2.44	2.23	2.17	1.98	1.65	1.04	---	2.39	2.58	2.38	2.30
19	2.61	2.45	2.22	2.15	1.94	1.62	1.00	---	2.40	2.56	2.34	2.28
20	2.62	2.44	2.21	2.13	1.90	1.59	0.96	1.32	2.40	2.55	2.38	2.27
21	2.68	2.42	2.20	2.11	1.87	1.56	0.91	1.89	2.55	2.54	2.47	2.26
22	2.96	2.41	2.19	2.09	1.86	1.72	0.86	1.71	2.57	2.52	2.43	2.28
23	2.90	2.39	2.17	2.07	2.15	2.02	0.82	1.56	2.62	2.49	2.41	2.30
24	2.84	2.38	2.17	2.06	2.11	1.93	0.79	1.43	2.64	2.48	2.40	2.35
25	2.81	2.37	2.17	2.06	2.06	1.88	0.75	1.33	2.67	2.50	2.38	2.33
26	2.88	2.36	2.19	2.05	2.02	1.83	0.70	1.24	2.68	2.47	2.36	2.31
27	2.80	2.36	2.18	2.04	1.97	1.78	0.65	1.18	2.63	2.44	2.34	2.30
28	2.73	2.35	2.17	2.02	1.94	1.73	0.61	1.30	2.58	2.41	2.32	2.28
29	2.67	2.34	2.16	2.01	---	1.67	0.57	1.49	2.55	2.38	2.32	2.27
30	2.64	2.33	2.15	2.00	---	1.61	---	1.53	2.52	2.37	2.36	2.26
31	2.62	---	2.19	1.98	---	1.57	---	1.77	---	2.42	2.35	---
TOTAL	82.67	74.43	69.54	67.43	54.88	55.33	---	---	68.32	79.34	74.95	70.33
MEAN	2.67	2.48	2.24	2.18	1.96	1.78	---	---	2.28	2.56	2.42	2.34
MAX	2.96	2.62	2.33	2.33	2.15	2.02	---	---	2.68	2.84	2.55	2.45
MIN	2.52	2.33	2.15	1.98	1.86	1.56	---	---	1.77	2.37	2.32	2.26

## 252043080302400 EVERGLADES 3 IN C-111 BASIN NEAR HOMESTEAD, FL

LOCATION.--Lat 25°20'53", long 80°30'28", in sec.23, T.58 S., R.38 E., Miami-Dade County, Hydrologic Unit 03090202, approximately 1.5 mi north-northeast of S-18-C and approximately 3.2 mi west of U.S. Highway 1 southwest of Florida City.  
DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1985 to current year.

REVISED RECORDS.--WDR FL-96-2A: 1994, 1995.

GAGE.--Electronic data logger. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Land-surface datum is 1.7 ft above National Geodetic Vertical Datum of 1929. Data prior to 1993 water year are unpublished and in files of the U.S. Geological Survey.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum mean daily gage height, 3.76 ft Oct. 16, 1999; minimum, 0.40 ft May 17, 1991.

EXTREME STAGES FOR CURRENT YEAR.--Maximum mean daily gage height, 3.13 ft July 10; minimum 0.50 ft Apr. 18, 19.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.95	2.78	2.34	2.23	1.97	1.95	1.67	0.72	1.98	2.79	2.59	2.38
2	2.90	2.78	2.33	2.28	1.97	1.94	1.63	0.70	e2.01	2.83	2.64	2.41
3	2.85	2.76	2.32	2.37	1.95	1.92	1.62	0.67	e2.08	2.83	2.60	2.45
4	2.80	2.75	2.30	2.36	1.94	1.91	1.67	0.66	e2.04	2.81	2.57	2.50
5	2.76	2.80	2.29	2.35	1.92	1.90	1.65	0.64	e2.00	2.78	2.54	2.51
6	2.73	2.77	2.29	2.33	1.90	1.90	1.63	0.62	e1.96	2.78	2.51	2.58
7	2.70	2.74	2.31	2.32	1.89	1.93	1.59	0.61	e1.93	2.78	2.50	2.58
8	2.69	2.71	2.30	2.32	1.88	1.96	1.55	0.59	e1.97	2.81	2.52	2.57
9	2.70	2.69	2.30	2.30	1.89	1.94	1.50	0.58	e2.03	2.95	2.56	2.55
10	2.73	2.67	2.30	2.28	2.02	1.92	1.46	0.56	e2.09	3.07	2.52	2.54
11	2.70	2.65	2.29	2.27	2.00	1.91	1.43	0.55	e2.17	3.09	2.55	2.54
12	2.67	2.63	2.29	2.25	1.98	1.89	1.39	0.54	e2.24	3.04	2.59	2.53
13	2.64	2.61	2.28	2.23	1.97	1.87	1.36	0.53	e2.28	2.98	2.54	2.51
14	2.63	2.59	2.27	2.22	1.97	1.86	1.33	0.53	e2.35	2.93	2.50	2.49
15	2.62	2.57	2.26	2.21	1.95	1.83	1.29	0.54	e2.39	2.88	2.48	2.47
16	2.60	2.55	2.26	2.19	2.01	1.80	1.26	0.53	e2.47	2.83	2.48	2.46
17	2.58	2.53	2.24	2.18	2.01	1.76	1.23	0.52	e2.50	2.82	2.51	2.44
18	2.58	2.51	2.23	2.17	1.99	1.73	1.19	0.51	e2.54	2.84	2.48	2.41
19	2.68	2.50	2.22	2.15	1.96	1.70	1.15	0.99	2.56	2.79	2.45	2.39
20	2.73	2.48	2.22	2.13	1.94	1.67	1.11	1.26	2.59	2.76	2.43	2.38
21	2.83	2.47	2.21	2.11	1.92	1.63	1.07	1.40	2.77	2.73	2.44	2.36
22	3.08	2.44	2.20	2.09	1.91	1.73	1.03	1.45	2.77	2.69	2.43	2.34
23	3.06	2.43	2.19	2.09	2.05	1.91	0.99	1.43	2.85	2.65	2.41	2.36
24	3.02	2.42	2.18	2.08	2.05	1.90	0.95	1.39	2.90	2.63	2.40	2.42
25	2.99	2.41	2.18	2.07	2.03	1.90	0.92	1.34	2.96	2.62	2.38	2.41
26	3.01	2.40	2.18	2.07	2.00	1.88	0.88	1.31	2.99	2.60	2.37	2.39
27	2.97	2.39	2.18	2.05	1.97	1.86	0.84	1.29	2.94	2.57	2.35	2.38
28	2.92	2.38	2.18	2.04	1.95	1.84	0.81	1.55	2.89	2.54	2.33	2.36
29	2.87	2.36	2.17	2.02	---	1.80	0.78	1.82	2.84	2.50	2.32	2.34
30	2.83	2.35	2.16	2.01	---	1.75	0.76	1.84	2.79	2.50	2.34	2.33
31	2.81	---	2.18	1.99	---	1.70	---	1.97	---	2.52	2.35	---
TOTAL	86.63	77.12	69.65	67.76	54.99	57.19	37.74	29.64	72.88	85.94	76.68	73.38
MEAN	2.79	2.57	2.25	2.19	1.96	1.84	1.26	0.96	2.43	2.77	2.47	2.45
MAX	3.08	2.80	2.34	2.37	2.05	1.96	1.67	1.97	2.99	3.09	2.64	2.58
MIN	2.58	2.35	2.16	1.99	1.88	1.63	0.76	0.51	1.93	2.50	2.32	2.33

e Estimated

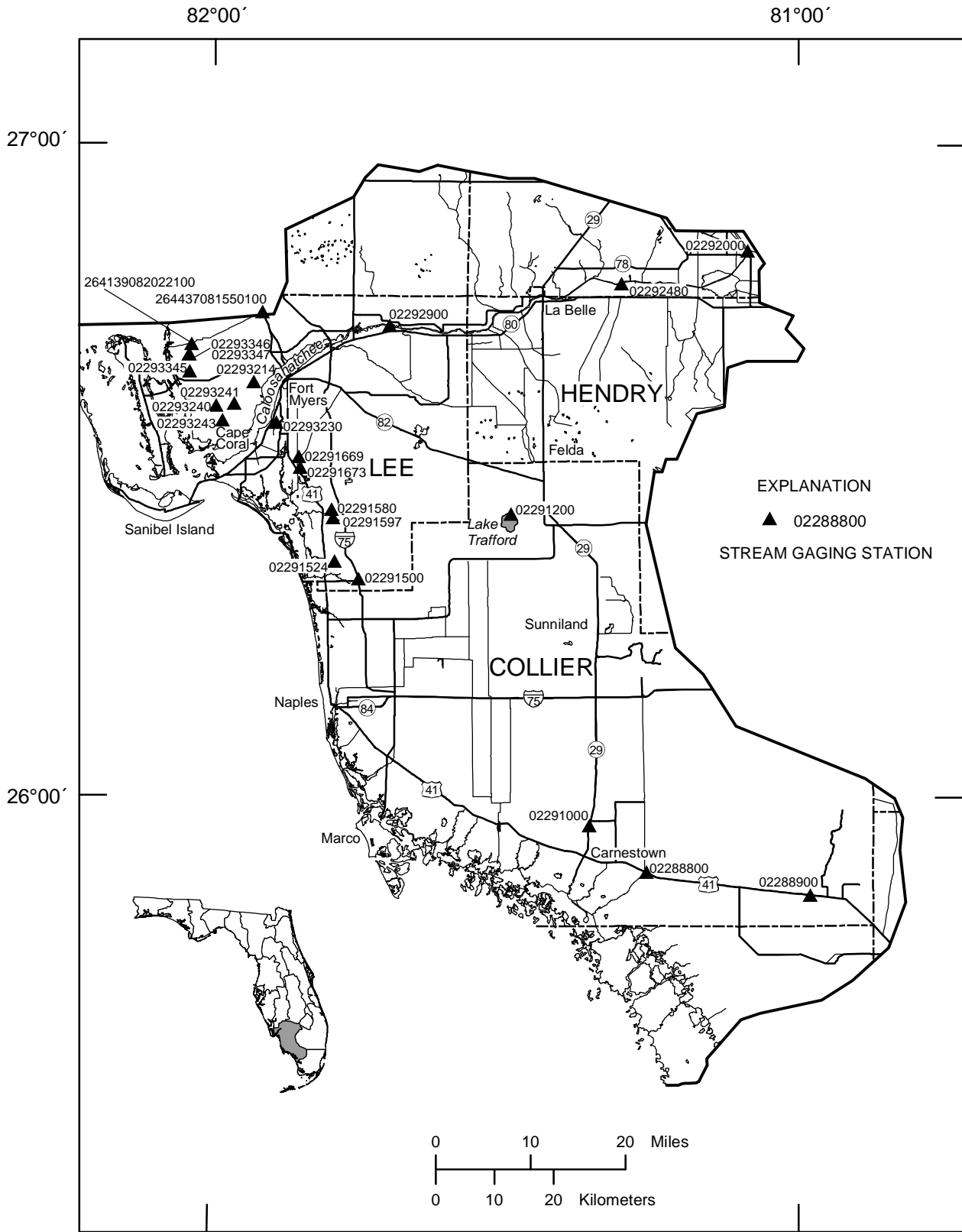


Figure 9. Location of gaging stations in the Big Cypress Swamp and southwestern coastal area, the Calooshattee River, Lake Trafford, Charlotte Harbor and the coastal area.

## BIG CYPRESS SWAMP AND SOUTHWESTERN COASTAL AREA

02291000 BARRON RIVER CANAL NEAR EVERGLADES, FL

LOCATION.--Lat 25°57'28", long 81°21'19", in NW 1/4 sec.7, T.52 S., R.30 E., Collier County, Hydrologic Unit 03090204, on right bank 40 ft upstream from control structure No. 6, 0.7 mi north of Copeland, 7 mi north of town of Everglades City, and 7.5 mi upstream from mouth.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--July to December 1951 (discharge measurements only), January 1952 to current year.

GAGE.--Electronic data logger. Datum of gage is National Geodetic Vertical Datum of 1929 (State Department of Transportation bench mark). Prior to January 24, 1952, non-recording gage.

REMARKS.--No estimated daily discharges. Records fair/poor. Zero flow for numerous days, during many water years. Flow regulated by operation of control structure at, above, and below station. Overbank flow not included in discharge figures. Records prior to January 1952 are available in files of the U.S. Geological Survey.

ANNUAL MEAN and ANNUAL SUMMARY STATISTICS.--Figures represent 47 complete years of discharge (1952-87, 1989-94, 1996, 1998-2002).

EXTREME STAGE FOR PERIOD OF RECORD.--Maximum gage height, 7.07 ft Aug. 26, 1995; minimum, 0.21 ft May 18, 1962 and May 18, 1972.  
EXTREMES FOR STAGES FOR CURRENT YEAR.--Maximum gage height, 6.03 ft Oct. 2; minimum, 1.13 ft June 6-8.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.03	5.65	5.18	5.14	4.35	3.71	2.41	1.65	1.20	5.64	5.48	5.57
2	6.03	5.62	5.16	5.16	4.31	3.68	2.36	1.62	1.18	5.62	5.45	5.57
3	6.01	5.60	5.12	5.20	4.26	3.65	2.31	1.60	1.17	5.54	5.42	5.56
4	5.98	5.56	5.08	5.16	4.19	3.67	2.27	1.57	1.16	5.47	5.42	5.51
5	5.95	5.56	5.04	5.14	4.11	3.61	2.24	1.55	1.15	5.42	5.44	5.49
6	5.99	5.52	5.03	5.17	4.06	3.57	2.21	1.52	1.14	5.40	5.42	5.49
7	5.94	5.54	5.13	5.18	4.01	3.58	2.17	1.50	1.14	5.41	5.44	5.51
8	5.87	5.54	5.21	5.15	3.97	3.62	2.14	1.48	1.17	5.42	5.62	5.49
9	5.81	5.51	5.21	5.11	3.92	3.54	2.10	1.45	1.33	5.46	5.60	5.51
10	5.76	5.49	5.24	5.08	3.90	3.49	2.07	1.43	1.46	5.57	5.56	5.55
11	5.70	5.47	5.25	5.05	3.86	3.45	2.04	1.40	1.54	5.68	5.54	5.62
12	5.65	5.46	5.26	5.02	3.81	3.40	2.02	1.38	1.58	5.67	5.55	5.77
13	5.61	5.46	5.27	4.99	3.77	3.36	1.99	1.36	1.61	5.65	5.54	5.74
14	5.58	5.45	5.27	4.97	3.78	3.30	1.96	1.34	1.70	5.63	5.54	5.69
15	5.57	5.45	5.26	5.03	3.74	3.24	1.94	1.32	3.42	5.60	5.49	5.65
16	5.58	5.44	5.24	4.99	3.75	3.19	1.93	1.31	4.73	5.58	5.46	5.60
17	5.58	5.43	5.22	4.94	3.81	3.14	1.94	1.30	4.73	5.63	5.51	5.55
18	5.56	5.42	5.20	4.90	3.71	3.08	1.93	1.28	4.62	5.59	5.61	5.51
19	5.57	5.41	5.16	4.86	3.66	3.03	1.92	1.29	4.65	5.55	5.64	5.48
20	5.60	5.39	5.11	4.82	3.65	2.97	1.90	1.29	5.09	5.53	5.72	5.45
21	5.62	5.38	5.05	4.79	3.63	2.91	1.88	1.28	5.35	5.54	5.77	5.43
22	5.72	5.36	5.00	4.75	3.62	2.86	1.86	1.28	5.39	5.60	5.74	5.41
23	5.75	5.35	4.95	4.71	3.81	2.80	1.84	1.27	5.49	5.55	5.68	5.43
24	5.77	5.33	4.91	4.68	3.95	2.74	1.82	1.26	5.56	5.52	5.61	5.50
25	5.78	5.32	4.88	4.63	3.89	2.74	1.79	1.26	5.71	5.52	5.55	5.51
26	5.78	5.30	5.18	4.58	3.84	2.86	1.77	1.26	5.72	5.54	5.56	5.48
27	5.77	5.28	5.10	4.54	3.80	2.74	1.74	1.25	5.70	5.51	5.53	5.43
28	5.75	5.26	5.06	4.51	3.74	2.65	1.72	1.24	5.70	5.49	5.50	5.42
29	5.73	5.24	5.03	4.48	---	2.57	1.69	1.23	5.69	5.51	5.63	5.47
30	5.70	5.21	5.01	4.43	---	2.52	1.67	1.22	5.66	5.49	5.60	5.46
31	5.68	---	5.08	4.39	---	2.46	---	1.21	---	5.51	5.59	---
TOTAL	178.42	163.00	158.89	151.55	108.90	98.13	59.63	42.40	101.74	171.84	172.21	165.85
MEAN	5.76	5.43	5.13	4.89	3.89	3.17	1.99	1.37	3.39	5.54	5.56	5.53
MAX	6.03	5.65	5.27	5.20	4.35	3.71	2.41	1.65	5.72	5.68	5.77	5.77
MIN	5.56	5.21	4.88	4.39	3.62	2.46	1.67	1.21	1.14	5.40	5.42	5.41

## BIG CYPRESS SWAMP AND SOUTHWESTERN COASTAL AREA

02291000 BARRON RIVER CANAL NEAR EVERGLADES, FL--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	132	101	65	67	61	53	18	5.8	2.2	78	76	71
2	131	100	64	68	60	52	17	5.6	2.1	78	75	71
3	129	100	64	69	60	52	16	5.3	2.0	77	74	72
4	126	99	63	68	58	52	16	5.0	1.9	76	73	70
5	122	99	62	68	57	50	15	4.9	1.9	74	73	70
6	127	97	62	69	56	50	14	4.6	1.9	74	73	70
7	121	95	64	69	55	50	13	4.5	1.9	74	73	72
8	114	89	65	69	55	51	13	4.2	2.1	75	77	71
9	108	86	65	68	54	49	12	4.0	3.2	75	76	73
10	105	85	66	68	54	48	12	3.8	4.3	78	75	75
11	103	83	66	67	53	47	11	3.6	5.1	79	74	80
12	101	82	66	67	52	46	11	3.5	5.6	79	74	95
13	100	82	67	66	51	44	10	3.3	5.9	79	73	92
14	99	81	67	66	52	43	9.8	3.1	7.0	78	73	88
15	99	81	67	67	51	42	9.5	3.0	38	78	72	84
16	99	80	66	67	52	41	9.3	2.9	61	77	71	81
17	99	80	66	66	53	39	9.5	2.8	61	78	72	78
18	99	79	66	66	51	37	9.4	2.7	60	77	74	76
19	99	78	66	66	50	35	9.1	2.7	60	77	75	74
20	100	77	65	66	50	33	8.9	2.8	68	77	81	74
21	100	76	64	66	50	32	8.6	2.8	73	77	86	74
22	103	74	63	65	50	30	8.3	2.8	74	78	83	74
23	105	73	63	65	54	29	7.9	2.7	76	77	78	75
24	105	72	62	65	58	27	7.6	2.6	77	77	73	77
25	105	71	62	64	57	27	7.3	2.6	81	76	70	78
26	105	70	67	63	56	30	7.0	2.6	82	77	70	76
27	105	68	66	63	55	27	6.8	2.6	80	76	70	75
28	105	66	65	63	54	24	6.5	2.5	80	76	69	75
29	104	66	65	62	---	22	6.2	2.4	80	76	73	76
30	103	65	65	62	---	21	6.0	2.4	79	76	71	76
31	102	---	66	62	---	20	---	2.3	---	76	71	---
TOTAL	3355	2455	2010	2047	1519	1203	315.7	106.4	1177.1	2380	2298	2293
MEAN	108	81.8	64.8	66.0	54.2	38.8	10.5	3.43	39.2	76.8	74.1	76.4
MAX	132	101	67	69	61	53	18	5.8	82	79	86	95
MIN	99	65	62	62	50	20	6.0	2.3	1.9	74	69	70
AC-FT	6650	4870	3990	4060	3010	2390	626	211	2330	4720	4560	4550

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1952 - 2002, BY WATER YEAR (WY)

MEAN	144	110	84.8	72.8	63.0	53.6	36.4	28.3	70.6	111	137	156
MAX	231	248	220	218	200	225	192	173	196	239	230	233
(WY)	1960	1960	1960	1958	1958	1970	1958	1958	1969	1970	1982	1973
MIN	13.4	5.09	1.65	0.000	0.000	0.000	0.000	0.000	0.000	0.013	1.21	5.25
(WY)	1990	1991	1989	1989	1989	1989	1989	1989	1985	1989	1989	1989

## SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1952 - 2002

ANNUAL TOTAL	18966.09	21159.2										
ANNUAL MEAN	52.0	58.0							89.8			
HIGHEST ANNUAL MEAN									189			1958
LOWEST ANNUAL MEAN									3.52			1989
HIGHEST DAILY MEAN				156	Sep 14		132	Oct 1	292		Sep 25	1962
LOWEST DAILY MEAN				0.15	Jun 13		1.9	Jun 4				
ANNUAL SEVEN-DAY MINIMUM				0.26	Jun 9		2.0	Jun 2				
MAXIMUM PEAK FLOW									292		Sep 25	1962
MAXIMUM PEAK STAGE									6.57		Sep 4	1983
ANNUAL RUNOFF (AC-FT)	37620	41970							65040			
10 PERCENT EXCEEDS		118							196			
50 PERCENT EXCEEDS		33							77			
90 PERCENT EXCEEDS		1.6					4.8		6.0			

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## BIG CYPRESS SWAMP AND SOUTHWESTERN COASTAL AREA

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## 02291200 LAKE TRAFFORD NEAR IMMOKALEE, FL

LOCATION.--Lat 26°26'08", long 81°29'25", in NW 1/4 sec.35, T.46 S., R.28 E., Collier County, Hydrologic Unit 03090204, at county boat ramp dock, on north side of lake and 4.2 mi west of Immokalee.

SURFACE AREA.--1,485 acres.

DRAINAGE AREA.--27 mi<sup>2</sup>, approximately.

PERIOD OF RECORD.--March 1941 to current year. Records of elevations prior to October 1960 are available in files of the U.S. Geological Survey.

GAGE.--Electronic data logger. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to October 6, 1960, gage was located at sites in the immediate vicinity at same datum. May 15, 1962, to September 30, 1962, auxiliary non-recording gage in canal at county boat landing, 0.3 mi southeast. October 1, 1962, to November 25, 1968, non-recording gage at same site and datum. Gage relocated March 30, 1988, because of excessive aquatic growth in ditch causing erroneous record at low stage.

REMARKS.--Lake is landlocked except above an elevation of about 21 ft, when there is overflow to the south into Corkscrew Swamp.

EXTREME STAGES FOR PERIOD OF RECORD.--Maximum elevation, 22.79 ft Sept. 23, 1947; minimum, 15.90 ft estimated, June 6-10, 1962.

EXTREME STAGES FOR CURRENT YEAR.--Maximum elevation, 21.69 ft Oct. 1; minimum, 18.47 ft June 7.

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.69	20.62	20.10	19.87	19.83	19.65	19.30	19.04	18.56	19.07	20.30	20.45
2	21.68	20.60	20.08	19.88	19.81	19.66	19.27	19.02	18.55	19.12	20.29	20.49
3	21.65	20.58	20.07	19.88	19.80	19.66	19.27	19.00	18.55	19.20	20.28	20.58
4	21.61	20.56	20.05	19.86	19.79	19.63	19.28	18.97	18.52	19.23	20.26	20.64
5	21.57	20.56	20.03	19.85	19.75	19.59	19.26	18.94	18.50	19.24	20.25	20.71
6	21.52	20.55	20.02	19.86	19.74	19.58	19.23	18.91	18.48	19.24	20.24	20.81
7	21.47	20.53	20.02	19.85	19.75	19.61	19.19	18.88	18.47	19.25	20.26	20.84
8	21.40	20.51	20.03	19.83	19.72	19.67	19.17	18.85	18.48	19.25	20.33	20.85
9	21.33	20.50	20.03	19.82	19.72	19.67	19.15	18.83	18.52	19.27	20.31	20.86
10	21.28	20.48	20.02	19.82	19.75	19.67	19.13	18.79	18.50	19.39	20.29	20.86
11	21.23	20.46	20.01	19.81	19.79	19.66	19.12	18.76	18.49	19.51	20.28	20.93
12	21.18	20.42	20.00	19.81	19.79	19.66	19.10	18.73	18.49	19.55	20.29	20.97
13	21.13	20.40	19.98	19.80	19.78	19.65	19.08	18.72	18.55	19.59	20.29	20.99
14	21.10	20.38	19.97	19.81	19.76	19.63	19.17	18.71	18.56	19.61	20.28	21.05
15	21.07	20.37	19.96	19.90	19.76	19.62	19.37	18.66	18.68	19.61	20.26	21.04
16	21.03	20.34	19.95	19.92	19.76	19.60	19.37	18.65	18.73	19.62	20.24	21.02
17	20.97	20.32	19.94	19.92	19.75	19.58	19.35	18.66	18.79	19.62	20.26	21.00
18	20.92	20.30	19.93	19.92	19.73	19.57	19.33	18.65	18.78	19.64	20.29	20.98
19	20.90	20.29	19.92	19.92	19.72	19.55	19.31	18.73	18.76	19.64	20.28	20.97
20	20.88	20.27	19.90	19.92	19.72	19.53	19.30	18.81	18.75	19.64	20.27	20.95
21	20.86	20.25	19.87	19.91	19.71	19.52	19.28	18.79	18.75	19.66	20.29	20.93
22	20.86	20.23	19.86	19.91	19.71	19.48	19.27	18.75	18.77	19.75	20.30	20.90
23	20.83	20.21	19.85	19.90	19.72	19.45	19.24	18.72	18.80	19.82	20.29	20.90
24	20.81	20.21	19.85	19.90	19.72	19.43	19.21	18.71	18.86	19.86	20.27	20.96
25	20.79	20.18	19.84	19.89	19.72	19.42	19.18	18.69	18.93	19.95	20.25	20.98
26	20.79	20.16	19.85	19.88	19.71	19.40	19.17	18.67	18.96	20.14	20.24	20.99
27	20.76	20.15	19.85	19.88	19.69	19.39	19.14	18.65	18.97	20.14	20.22	20.97
28	20.71	20.13	19.84	19.87	19.66	19.36	19.11	18.62	18.99	20.15	20.23	20.95
29	20.68	20.12	19.85	19.86	---	19.34	19.09	18.61	19.00	20.17	20.30	20.99
30	20.66	20.11	19.84	19.85	---	19.33	19.07	18.59	19.02	20.20	20.41	20.96
31	20.65	---	19.86	19.83	---	19.31	---	18.57	---	20.31	20.43	---
TOTAL	654.01	610.79	618.37	615.93	552.86	605.87	576.51	581.68	560.76	608.44	628.78	626.52
MEAN	21.10	20.36	19.95	19.87	19.75	19.54	19.22	18.76	18.69	19.63	20.28	20.88
MAX	21.69	20.62	20.10	19.92	19.83	19.67	19.37	19.04	19.02	20.31	20.43	21.05
MIN	20.65	20.11	19.84	19.80	19.66	19.31	19.07	18.57	18.47	19.07	20.22	20.45

## BIG CYPRESS SWAMP AND SOUTHWESTERN COASTAL AREA

02291500 IMPERIAL RIVER NEAR BONITA SPRINGS, FL

LOCATION.--Lat 26°20'07", long 81°44'59", in SW 1/4 sec.31, T.47 S., R.26 E., Lee County, Hydrologic Unit 03090204, on left bank, 4 ft downstream of bridge on Orr Road, 0.3 mi north of Bonita Beach Road, 2.0 mi east of U.S. Highway 41 at Bonita Springs, and 7.4 mi upstream from mouth.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--May 1940 to November 1954, February 1987 to current year.

GAGE.--Satellite data collection platform with a water-stage shaft encoder. Datum of gage is National Geodetic Vertical Datum of 1929. May 1940 to November 1954, water-stage recorder at wooden control on right bank, 1.5 mi east of Bonita Springs (lat 26°20'05", long 81°45'20"). Prior to September 10, 1941, staff gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Days of no flows for the period of record only occurred during the period of May 27 to June 3, 1940.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 29 complete water years of discharge (1941-54, 1988-2002).

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.39	6.81	3.78	3.53	3.28	3.12	2.97	2.81	2.79	3.78	e3.71	9.21
2	11.49	6.63	3.73	3.57	3.26	3.11	2.96	2.82	2.78	3.74	e3.81	9.04
3	11.56	6.50	3.69	3.63	3.25	3.11	2.95	2.81	2.78	3.62	e3.72	e8.81
4	11.61	6.30	3.66	3.59	e3.25	3.10	e2.93	2.80	2.78	3.51	e3.51	8.69
5	11.59	6.30	3.62	3.55	3.24	3.10	e2.91	2.79	2.78	3.44	e3.42	8.62
6	11.57	6.16	3.59	3.55	3.23	3.10	e2.90	2.78	2.78	3.39	3.40	8.98
7	11.47	5.98	3.58	3.56	3.23	3.10	e2.90	2.78	2.77	3.38	3.66	9.35
8	11.33	5.84	3.59	3.52	3.23	3.09	e2.89	2.77	2.84	3.33	4.51	9.48
9	11.14	5.70	3.60	3.46	3.22	3.08	e2.88	2.76	2.88	3.34	4.58	9.49
10	10.92	5.54	3.68	3.43	3.21	3.07	e2.88	2.75	2.90	3.38	4.43	9.56
11	10.68	5.42	3.67	3.41	3.22	3.06	e2.88	2.75	2.92	3.38	4.25	10.06
12	10.38	5.33	3.63	3.39	3.21	3.05	e2.87	2.77	2.92	3.34	4.12	10.39
13	10.08	5.21	3.58	3.37	3.20	3.05	e2.87	2.79	2.94	3.31	4.05	10.41
14	9.81	5.11	3.57	3.35	3.20	3.05	e2.86	2.78	2.96	3.29	4.23	10.36
15	9.63	5.02	3.56	3.56	3.19	3.05	e2.86	2.77	3.06	3.25	4.20	10.25
16	9.69	4.91	3.53	3.78	3.19	3.04	e2.87	2.76	3.12	3.23	4.09	10.16
17	9.40	4.80	3.51	3.78	3.19	3.04	e2.86	2.76	3.28	3.25	4.12	10.19
18	9.10	4.71	3.49	3.77	3.19	3.04	e2.85	2.76	3.33	3.34	4.31	10.01
19	8.85	4.63	3.47	3.76	3.18	3.03	e2.85	2.85	3.31	3.70	4.43	9.75
20	8.66	4.57	3.46	3.71	3.18	3.02	e2.84	2.87	3.28	3.66	4.86	9.58
21	8.46	4.49	3.43	3.67	3.18	3.01	e2.84	2.88	3.28	3.51	6.66	9.97
22	8.33	4.40	3.41	3.62	3.18	3.01	e2.83	2.88	3.29	3.46	8.50	9.73
23	8.21	4.32	3.41	3.58	3.18	3.00	e2.82	2.88	3.26	3.49	9.34	9.48
24	8.09	4.24	3.40	3.53	3.17	3.00	e2.82	2.88	3.27	3.53	9.28	9.35
25	7.93	4.17	3.37	3.47	3.16	3.00	e2.81	2.87	3.34	3.49	8.94	9.07
26	7.96	4.10	3.36	3.42	3.17	2.99	e2.81	2.86	3.50	3.51	8.86	8.82
27	7.88	4.02	3.36	3.38	3.16	2.98	e2.81	2.86	3.94	3.61	9.05	8.64
28	7.64	3.95	3.35	3.36	3.14	2.97	e2.80	2.85	3.88	3.57	9.32	8.63
29	7.42	3.88	3.34	3.34	---	2.97	e2.80	2.85	3.75	3.48	9.41	8.82
30	7.20	3.83	3.33	3.32	---	2.97	2.80	2.83	3.72	3.45	9.48	8.65
31	7.00	---	3.37	3.29	---	2.97	---	2.81	---	3.59	9.36	---
TOTAL	296.47	152.87	109.12	109.25	89.69	94.28	85.92	87.18	94.43	107.35	179.61	283.55
MEAN	9.56	5.10	3.52	3.52	3.20	3.04	2.86	2.81	3.15	3.46	5.79	9.45
MAX	11.61	6.81	3.78	3.78	3.28	3.12	2.97	2.88	3.94	3.78	9.48	10.41
MIN	7.00	3.83	3.33	3.29	3.14	2.97	2.80	2.75	2.77	3.23	3.40	8.62

e Estimated



02291500 IMPERIAL RIVER NEAR BONITA SPRINGS, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	765	206	32	24	17	13	10	7.8	7.9	35	e33	446
2	789	192	30	25	16	13	10	7.9	7.8	34	e36	428
3	805	182	29	27	16	13	9.8	7.9	7.6	29	e33	e404
4	816	167	28	26	e16	12	e9.4	7.7	7.7	27	e26	391
5	813	167	27	24	16	12	e9.1	7.5	7.8	24	e23	384
6	807	157	26	24	15	12	e9.1	7.4	7.7	22	23	422
7	783	144	25	25	15	12	e9.0	7.3	7.5	22	32	462
8	752	135	26	23	15	12	e9.0	7.2	8.7	21	64	477
9	712	126	26	22	15	12	e8.7	7.1	9.6	21	68	477
10	673	115	28	21	15	12	e8.7	6.9	10	22	61	486
11	633	108	28	20	15	12	e8.7	6.9	10	22	53	547
12	587	102	27	20	15	12	e8.6	7.2	10	21	48	596
13	543	95	25	19	15	12	e8.6	7.6	11	20	45	599
14	511	90	25	19	15	12	e8.4	7.4	11	20	52	591
15	490	85	25	25	15	12	e8.3	7.3	13	19	51	574
16	497	79	24	32	15	11	e8.6	7.2	15	18	47	560
17	463	73	23	32	15	11	e8.4	7.3	19	19	48	565
18	428	69	22	31	15	11	e8.3	7.3	20	21	56	538
19	400	65	22	31	14	11	e8.3	8.7	20	32	60	508
20	380	63	22	30	14	11	e8.2	9.1	19	31	82	488
21	358	59	21	28	14	11	e8.1	9.2	19	27	209	534
22	345	55	20	27	14	11	e8.0	9.2	19	25	373	505
23	333	52	20	25	14	11	e7.9	9.2	19	26	461	477
24	321	49	20	24	14	11	e7.9	9.2	19	27	455	462
25	305	46	19	22	14	11	e7.8	9.1	21	26	418	431
26	308	43	19	21	14	11	e7.7	9.0	26	26	409	405
27	300	40	19	19	14	11	e7.7	8.8	41	30	429	386
28	277	38	19	19	13	10	e7.5	8.8	38	28	459	385
29	258	35	18	18	---	10	e7.5	8.8	34	25	468	404
30	238	33	18	18	---	10	7.5	8.5	33	24	476	388
31	221	---	19	17	---	10	---	8.2	---	29	463	---
TOTAL	15911	2870	732	738	415	355	254.8	248.7	499.3	773	5561	14320
MEAN	513	95.7	23.6	23.8	14.8	11.5	8.49	8.02	16.6	24.9	179	477
MAX	816	206	32	32	17	13	10	9.2	41	35	476	599
MIN	221	33	18	17	13	10	7.5	6.9	7.5	18	23	384
AC-FT	31560	5690	1450	1460	823	704	505	493	990	1530	11030	28400

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2002, BY WATER YEAR (WY)

	MEAN	249	86.4	37.9	32.0	26.9	24.0	16.9	8.80	43.0	149	208	316
MAX	1097	387	219	185	184	226	207	55.4	331	569	709	1178	
(WY)	1996	1996	1988	1995	1998	1998	1941	1941	1947	1992	1995	1995	
MIN	7.01	1.73	1.51	1.25	0.82	0.86	0.74	0.72	0.61	1.84	20.8	61.5	
(WY)	1951	1943	1943	1951	1949	1949	1949	1950	1951	1944	1942	1990	

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1940 - 2002

ANNUAL TOTAL	50809.0	42677.8	
ANNUAL MEAN	139	117	100
HIGHEST ANNUAL MEAN			273
LOWEST ANNUAL MEAN			24.1
HIGHEST DAILY MEAN	816	Oct 4	816
LOWEST DAILY MEAN	4.8	May 18	6.9
ANNUAL SEVEN-DAY MINIMUM	5.3	Apr 23	7.1
MAXIMUM PEAK FLOW			819
MAXIMUM PEAK STAGE			11.62
INSTANTANEOUS LOW FLOW			6.6
ANNUAL RUNOFF (AC-FT)	100800	84650	72680
10 PERCENT EXCEEDS	478	462	290
50 PERCENT EXCEEDS	19	22	20
90 PERCENT EXCEEDS	6.3	8.2	1.2

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## BIG CYPRESS SWAMP AND SOUTHWESTERN COASTAL AREA

02291524 SPRING CREEK HEADWATER NEAR BONITA SPRINGS, FL

LOCATION.--Lat 26°21'42", long 81°47'27", in SE 1/4 sec.22, T.47 S., R.25 E., Lee County, Hydrologic Unit 03090204, at culvert on State Road 887 (old U.S. Highway 41), 1.8 mi north of Bonita Springs, 4.7 mi upstream from mouth and 5.6 mi south of Estero.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1987 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder. Datum of gage is National Geodetic Vertical Datum of 1929 (Florida State Road Department Bench Mark).

REMARKS.--No estimated daily discharges. Records good. Days of no flow occurred during water years 1989, 1990, 1997.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 14 complete water years of discharge (1989-2002).

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.02	7.34	7.05	6.75	6.74	6.64	6.62	6.63	6.48	7.67	7.32	8.46
2	7.81	7.32	7.03	6.75	6.74	6.63	6.61	6.61	6.48	7.61	7.27	8.20
3	7.73	7.31	7.01	6.75	6.74	6.62	6.60	6.60	6.47	7.54	7.22	8.02
4	7.64	7.30	6.98	6.74	6.73	6.64	6.60	6.60	6.48	7.48	7.18	7.91
5	7.60	7.30	6.97	6.72	6.72	6.63	6.60	6.58	6.48	7.42	7.14	7.82
6	7.57	7.30	6.95	6.72	6.71	6.63	6.59	6.56	6.47	7.39	7.13	8.09
7	7.55	7.28	6.94	6.72	6.71	6.71	6.59	6.54	6.46	7.41	7.30	7.90
8	7.52	7.27	6.94	6.71	6.72	6.81	6.59	6.54	6.58	7.37	7.81	7.75
9	7.49	7.26	6.94	6.70	6.71	6.79	6.59	6.54	7.02	7.33	7.60	7.68
10	7.47	7.25	6.94	6.69	6.71	6.77	6.58	6.53	7.01	7.32	7.47	7.67
11	7.46	7.24	6.93	6.68	6.70	6.77	6.59	6.52	7.06	7.28	7.40	7.69
12	7.44	7.23	6.92	6.67	6.70	6.76	6.60	6.53	7.30	7.25	7.36	7.84
13	7.41	7.22	6.89	6.67	6.70	6.75	6.67	6.53	7.44	7.24	7.36	7.76
14	7.40	7.21	6.86	6.68	6.69	6.75	6.65	6.51	7.55	7.21	7.46	7.66
15	7.42	7.20	6.84	6.83	6.69	6.75	6.64	6.50	8.19	7.18	7.38	7.61
16	7.64	7.20	6.82	6.92	6.70	6.75	6.71	6.50	8.18	7.15	7.33	7.57
17	7.55	7.18	6.80	6.91	6.69	6.74	6.92	6.50	7.88	7.13	7.33	7.55
18	7.51	7.17	6.80	6.89	6.68	6.74	6.87	6.50	7.66	7.12	7.37	7.48
19	7.48	7.16	6.80	6.86	6.68	6.73	6.84	6.56	7.62	7.19	7.63	7.44
20	7.46	7.15	6.78	6.85	6.67	6.72	6.81	6.62	7.96	7.16	7.84	7.53
21	7.45	7.15	6.77	6.84	6.67	6.71	6.78	6.61	8.35	7.13	9.00	8.22
22	7.43	7.15	6.76	6.83	6.68	6.70	6.76	6.60	8.07	7.09	8.61	8.02
23	7.41	7.15	6.76	6.83	6.69	6.67	6.74	6.60	7.92	7.11	8.36	7.85
24	7.39	7.14	6.75	6.82	6.68	6.67	6.72	6.57	8.35	7.18	8.07	7.82
25	7.38	7.12	6.73	6.81	6.66	6.67	6.70	6.55	8.81	7.25	7.95	7.70
26	7.47	7.11	6.73	6.79	6.66	6.66	6.69	6.54	8.34	7.34	8.25	7.60
27	7.48	7.09	6.72	6.78	6.65	6.65	6.68	6.52	8.19	7.34	8.46	7.71
28	7.43	7.07	6.71	6.78	6.64	6.65	6.66	6.51	7.94	7.29	8.80	7.74
29	7.40	7.06	6.70	6.77	---	6.65	6.65	6.50	7.81	7.30	9.76	8.11
30	7.38	7.06	6.70	6.75	---	6.64	6.64	6.50	7.74	7.39	9.22	7.96
31	7.36	---	6.73	6.74	---	6.63	---	6.49	---	7.39	8.78	---
TOTAL	232.75	215.99	212.25	209.95	187.46	207.63	200.29	202.99	224.29	226.26	243.16	234.36
MEAN	7.51	7.20	6.85	6.77	6.70	6.70	6.68	6.55	7.48	7.30	7.84	7.81
MAX	8.02	7.34	7.05	6.92	6.74	6.81	6.92	6.63	8.81	7.67	9.76	8.46
MIN	7.36	7.06	6.70	6.67	6.64	6.62	6.58	6.49	6.46	7.09	7.13	7.44

02291524 SPRING CREEK HEADWATER NEAR BONITA SPRINGS, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19	6.5	3.2	2.8	2.6	1.4	1.2	1.3	0.42	14	7.2	33
2	15	6.2	3.0	2.9	2.6	1.3	1.1	1.2	0.42	13	6.4	25
3	13	5.9	2.8	2.9	2.6	1.2	1.1	1.1	0.40	12	5.8	21
4	12	5.8	2.7	2.9	2.5	1.3	1.1	1.1	0.43	11	5.3	19
5	11	5.8	2.6	2.7	2.4	1.3	1.1	1.0	0.43	10	4.8	17
6	11	5.7	2.5	2.8	2.3	1.3	1.0	0.89	0.41	9.6	4.7	23
7	10	5.5	2.6	2.8	2.3	2.0	1.0	0.77	0.37	9.8	6.7	18
8	9.9	5.2	2.6	2.7	2.3	2.7	0.99	0.76	1.2	9.2	13	15
9	9.5	5.1	2.7	2.6	2.2	2.6	0.98	0.74	5.0	8.7	10	14
10	9.2	5.0	2.7	2.6	2.2	2.4	0.97	0.69	4.8	8.5	9.3	14
11	9.1	4.9	2.7	2.4	2.1	2.4	0.98	0.64	5.5	7.9	8.3	14
12	8.9	4.8	2.7	2.3	2.1	2.3	1.1	0.70	8.3	7.4	7.9	17
13	8.5	4.7	2.6	2.3	2.1	2.2	1.6	0.69	9.9	7.3	7.9	15
14	8.2	4.7	2.4	2.4	2.0	2.2	1.4	0.60	12	6.9	9.2	14
15	8.5	4.6	2.3	3.8	2.0	2.2	1.4	0.54	26	6.4	8.2	13
16	11	4.6	2.2	4.6	2.0	2.2	2.0	0.53	24	6.1	7.5	12
17	10	4.4	2.1	4.5	1.9	2.1	3.8	0.54	17	5.7	7.5	12
18	9.4	4.3	2.2	4.3	1.9	2.2	3.3	0.53	13	5.6	8.0	11
19	9.0	4.2	2.3	4.0	1.9	2.0	3.0	0.92	13	6.3	11	10
20	8.6	4.1	2.2	3.9	1.7	1.9	2.8	1.3	20	5.9	17	12
21	8.5	4.1	2.1	3.8	1.7	1.9	2.5	1.2	29	5.5	55	25
22	8.1	4.1	2.2	3.7	1.8	1.8	2.4	1.1	21	5.1	39	20
23	7.9	4.1	2.3	3.6	1.9	1.6	2.2	1.1	18	5.1	30	16
24	7.5	4.0	2.3	3.5	1.8	1.5	2.0	0.92	34	5.9	23	16
25	7.3	3.8	2.2	3.4	1.6	1.6	1.9	0.81	47	6.6	20	14
26	8.4	3.7	2.3	3.2	1.5	1.5	1.8	0.74	29	7.7	27	12
27	8.5	3.5	2.3	3.1	1.5	1.4	1.7	0.65	25	7.6	34	14
28	7.8	3.4	2.2	3.0	1.4	1.4	1.5	0.60	19	7.0	48	14
29	7.4	3.3	2.3	2.9	---	1.4	1.5	0.53	16	7.0	111	22
30	7.0	3.3	2.3	2.7	---	1.3	1.4	0.53	15	8.2	68	18
31	6.8	---	2.6	2.7	---	1.3	---	0.49	---	8.0	46	---
TOTAL	296.0	139.3	76.2	97.8	56.9	55.9	50.82	25.21	415.58	245.0	666.7	500
MEAN	9.55	4.64	2.46	3.15	2.03	1.80	1.69	0.81	13.9	7.90	21.5	16.7
MAX	19	6.5	3.2	4.6	2.6	2.7	3.8	1.3	47	14	111	33
MIN	6.8	3.3	2.1	2.3	1.4	1.2	0.97	0.49	0.37	5.1	4.7	10
AC-FT	587	276	151	194	113	111	101	50	824	486	1320	992

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2002, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	17.2	7.23	4.35	3.68	3.50	2.61	1.96	1.23	6.81	15.0	19.1	23.1				
MAX	95.9	26.5	14.1	9.45	15.3	11.8	5.56	6.41	28.9	42.0	46.1	52.6				
(WY)	1996	1999	1998	1995	1998	1998	1993	1991	1992	1999	1995	1995				
MIN	4.05	1.63	1.02	0.71	0.28	0.11	0.11	0.18	0.43	0.90	5.16	9.20				
(WY)	1990	1990	1993	1997	1997	1997	1990	1989	1988	1988	1989	1996				

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1987 - 2002

ANNUAL TOTAL	2597.59	2625.41		
ANNUAL MEAN	7.12	7.19	9.03	
HIGHEST ANNUAL MEAN			17.2	1995
LOWEST ANNUAL MEAN			3.18	1989
HIGHEST DAILY MEAN	100	Jul 24	111	Aug 29
LOWEST DAILY MEAN	0.07	May 20	0.37	Jun 7
ANNUAL SEVEN-DAY MINIMUM	0.12	May 15	0.41	Jun 1
MAXIMUM PEAK FLOW			125	Aug 29
MAXIMUM PEAK STAGE			9.90	Aug 29
INSTANTANEOUS LOW FLOW			0.35	Jun 3
ANNUAL RUNOFF (AC-FT)	5150	5210	6540	
10 PERCENT EXCEEDS	16	17	20	
50 PERCENT EXCEEDS	2.8	3.5	3.5	
90 PERCENT EXCEEDS	0.64	1.1	0.61	

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## BIG CYPRESS SWAMP AND SOUTHWESTERN COASTAL AREA

02291580 NORTH BRANCH ESTERO RIVER AT ESTERO, FL

LOCATION.--Lat 26°26'30", long 81°47'45", in SW 1/4 SW 1/4 NE 1/4 sec.27, T.46 S., R.25 E., Lee County, Hydrologic Unit 03090204, on right bank behind house at east end of Broadway Road, 0.95 mi east of U.S. Highway 41, 0.9 mi upstream from confluence with South Branch Estero River and 5.6 mi upstream from mouth of Estero River. (Corrected).

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--February 1987 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records poor. Flow occasionally affected by a construction development upstream from station during water year 2002.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 15 complete water years of discharge (1988-2002).

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.46	8.37	7.44	7.55	7.34	7.12	6.89	6.36	5.95	7.34	7.36	8.09
2	11.02	8.34	7.44	7.54	7.31	7.11	6.88	6.33	5.89	7.36	7.36	8.05
3	10.68	8.30	7.43	7.54	7.29	7.10	6.87	6.29	5.83	7.37	7.35	8.05
4	10.37	8.28	7.42	7.51	7.24	7.09	6.85	6.26	5.80	7.37	7.32	8.09
5	10.12	8.30	7.41	7.45	7.19	7.10	6.82	6.22	5.82	7.36	7.34	8.16
6	9.95	8.26	7.42	7.51	7.16	7.10	6.80	6.19	5.79	7.42	7.37	9.47
7	9.76	8.22	7.46	7.50	7.15	7.12	6.77	6.15	5.76	7.50	7.39	9.04
8	9.58	8.19	7.58	7.45	7.15	7.13	6.74	6.12	5.85	7.52	7.39	8.61
9	9.38	8.16	7.54	7.41	7.15	7.12	6.72	6.09	6.09	7.53	7.38	8.39
10	9.20	8.14	7.53	7.37	7.15	7.10	6.70	6.08	6.12	7.55	7.37	8.76
11	9.05	8.11	7.50	7.33	7.15	7.09	6.69	6.08	6.14	7.55	7.38	8.55
12	8.92	8.07	7.47	7.31	7.15	7.09	6.74	6.08	6.19	7.55	7.38	8.75
13	8.82	8.04	7.42	7.30	7.14	7.08	6.98	6.10	6.39	7.53	7.39	8.67
14	8.72	8.02	7.41	7.30	7.14	7.08	7.00	6.11	6.74	7.51	7.39	8.47
15	8.67	7.99	7.40	7.60	7.14	7.08	7.01	6.12	7.04	7.49	7.38	8.39
16	8.63	7.96	7.38	7.67	7.14	7.06	7.01	6.11	7.10	7.47	7.42	8.40
17	8.56	7.91	7.37	7.70	7.14	7.05	7.04	6.12	7.10	7.44	7.47	8.49
18	8.49	7.88	7.39	7.65	7.13	7.04	7.03	6.13	7.10	7.44	7.48	8.37
19	8.45	7.83	7.41	7.60	7.13	7.04	7.02	6.23	7.11	7.46	7.56	8.14
20	8.46	7.79	7.38	7.56	7.13	7.04	7.00	6.38	7.13	7.44	7.56	8.03
21	8.49	7.75	7.37	7.53	7.13	7.04	6.98	6.42	7.14	7.42	7.73	8.03
22	8.57	7.70	7.37	7.51	7.14	7.03	6.96	6.40	7.16	7.40	7.91	8.00
23	8.64	7.67	7.37	7.48	7.16	7.02	6.90	6.38	7.17	7.26	8.13	7.98
24	8.58	7.64	7.39	7.46	7.15	7.02	6.83	6.33	7.18	7.19	7.90	7.96
25	8.52	7.60	7.39	7.44	7.14	7.00	6.75	6.28	7.19	7.21	7.58	7.90
26	8.79	7.56	7.41	7.42	7.13	7.00	6.67	6.23	7.19	7.24	7.66	7.86
27	8.88	7.53	7.40	7.40	7.13	6.98	6.59	6.20	7.20	7.25	8.13	7.97
28	8.66	7.49	7.38	7.39	7.12	6.97	6.51	6.16	7.21	7.21	8.55	8.06
29	8.53	7.46	7.41	7.38	---	6.94	6.45	6.11	7.23	7.23	8.85	9.41
30	8.46	7.45	7.47	7.36	---	6.92	6.40	6.05	7.26	7.36	8.53	9.06
31	8.41	---	7.51	7.35	---	6.90	---	5.99	---	7.38	8.12	---
TOTAL	282.82	238.01	230.27	231.57	200.62	218.56	204.60	192.10	198.87	229.35	237.13	251.20
MEAN	9.12	7.93	7.43	7.47	7.17	7.05	6.82	6.20	6.63	7.40	7.65	8.37
MAX	11.46	8.37	7.58	7.70	7.34	7.13	7.04	6.42	7.26	7.55	8.85	9.47
MIN	8.41	7.45	7.37	7.30	7.12	6.90	6.40	5.99	5.76	7.19	7.32	7.86

02291580 NORTH BRANCH ESTERO RIVER AT ESTERO, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	133	10	0.71	0.49	0.37	0.03	0.00	0.00	0.00	0.16	0.00	5.8
2	110	9.3	0.69	0.46	0.30	0.02	0.00	0.00	0.00	0.20	0.00	5.3
3	93	8.8	0.65	0.44	0.25	0.02	0.00	0.00	0.00	0.21	0.00	5.4
4	79	8.5	0.64	0.34	0.16	0.02	0.00	0.00	0.00	0.21	0.00	5.8
5	67	8.8	0.60	0.33	0.09	0.02	0.00	0.00	0.00	0.20	0.00	7.2
6	59	8.2	0.62	0.46	0.06	0.02	0.00	0.00	0.00	0.38	0.01	39
7	51	7.5	0.80	0.47	0.05	0.03	0.00	0.00	0.00	0.65	0.02	25
8	43	7.1	1.3	0.49	0.05	0.04	0.00	0.00	0.00	0.71	0.02	14
9	36	6.7	1.1	0.38	0.05	0.03	0.00	0.00	0.00	0.78	0.01	10
10	30	6.4	1.0	0.28	0.05	0.02	0.00	0.00	0.00	0.85	0.01	18
11	25	6.1	0.88	0.20	0.05	0.01	0.00	0.00	0.00	0.86	0.01	13
12	22	5.6	0.72	0.16	0.05	0.01	0.00	0.00	0.00	0.85	0.01	17
13	19	5.2	0.52	0.15	0.05	0.01	0.00	0.00	0.00	0.77	0.02	16
14	17	5.0	0.46	0.16	0.05	0.01	0.00	0.00	0.00	0.70	0.01	12
15	16	4.7	0.40	1.4	0.04	0.01	0.00	0.00	0.01	0.62	0.01	10
16	15	4.3	0.34	1.9	0.05	0.01	0.00	0.00	0.01	0.52	0.07	11
17	13	3.8	0.29	2.1	0.04	0.00	0.00	0.00	0.02	0.44	0.20	12
18	12	3.5	0.32	1.8	0.04	0.00	0.00	0.00	0.01	0.42	0.31	10
19	11	3.1	0.35	1.4	0.04	0.00	0.00	0.00	0.01	0.50	0.75	6.5
20	12	2.7	0.28	1.2	0.04	0.00	0.00	0.00	0.02	0.42	0.91	5.1
21	12	2.4	0.23	1.1	0.04	0.00	0.00	0.00	0.02	0.35	2.1	5.1
22	14	2.1	0.22	0.99	0.04	0.00	0.00	0.00	0.03	0.30	3.9	4.8
23	15	1.9	0.21	0.87	0.06	0.00	0.00	0.00	0.03	0.07	6.3	4.6
24	14	1.7	0.23	0.77	0.05	0.00	0.00	0.00	0.03	0.02	3.8	4.3
25	13	1.5	0.22	0.71	0.05	0.00	0.00	0.00	0.03	0.03	1.3	3.7
26	19	1.2	0.25	0.64	0.04	0.00	0.00	0.00	0.03	0.04	1.8	3.4
27	21	1.1	0.21	0.58	0.04	0.00	0.00	0.00	0.03	0.05	7.9	4.4
28	16	0.91	0.16	0.52	0.03	0.00	0.00	0.00	0.04	0.03	13	5.6
29	13	0.79	0.21	0.50	---	0.00	0.00	0.00	0.05	0.04	20	37
30	11	0.74	0.31	0.44	---	0.00	0.00	0.00	0.07	0.03	14	26
31	11	---	0.41	0.40	---	0.00	---	0.00	---	0.01	6.2	---
TOTAL	1022	139.64	15.33	22.13	2.23	0.31	0.00	0.00	0.44	11.42	82.67	347.0
MEAN	33.0	4.65	0.49	0.71	0.080	0.010	0.000	0.000	0.015	0.37	2.67	11.6
MAX	133	10	1.3	2.1	0.37	0.04	0.00	0.00	0.07	0.86	20	39
MIN	11	0.74	0.16	0.15	0.03	0.00	0.00	0.00	0.00	0.01	0.00	3.4
AC-FT	2030	277	30	44	4.4	0.6	0.00	0.00	0.9	23	164	688

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2002, BY WATER YEAR (WY)

MEAN	25.5	8.61	2.64	1.51	3.40	1.44	0.17	0.032	2.82	7.83	11.1	26.2
MAX	153	59.7	23.6	11.2	49.2	21.0	1.42	0.26	24.1	30.8	82.4	104
(WY)	1996	1999	1998	1998	1998	1998	1987	1998	1996	1999	1995	2001
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
(WY)	1990	1990	1990	1990	1990	1988	1989	1988	1989	1989	1989	1989

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1987 - 2002

ANNUAL TOTAL	5061.43	1643.17		
ANNUAL MEAN	13.9	4.50	7.80	
HIGHEST ANNUAL MEAN			17.9	1995
LOWEST ANNUAL MEAN			0.000	1990
HIGHEST DAILY MEAN	284	Sep 14	133	Oct 1
LOWEST DAILY MEAN	0.00	Jan 19	0.00	Mar 17
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 19	0.00	Mar 17
MAXIMUM PEAK FLOW			145	Oct 1
MAXIMUM PEAK STAGE			11.68	Oct 1
ANNUAL RUNOFF (AC-FT)	10040	3260	5650	Aug 25 1995
10 PERCENT EXCEEDS	31	13	16	
50 PERCENT EXCEEDS	0.06	0.21	0.01	
90 PERCENT EXCEEDS	0.00	0.00	0.00	

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## BIG CYPRESS SWAMP AND SOUTHWESTERN COASTAL AREA

02291597 SOUTH BRANCH ESTERO RIVER AT ESTERO, FL

LOCATION.--Lat 26°25'43", long 81°47'36", in NW 1/4 sec.34, T.46 S., R.25 E., Lee County, Hydrologic Unit 03090204, near left bank on downstream culvert headwall on Corkscrew Road, 1.1 mi east of U.S. Highway 41 at Estero and 3.9 mi upstream from mouth of Estero River.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--February 1987 to current year.

REVISED RECORDS.--WDR FL-2000-2A: 1999.

GAGE.--Satellite data collection platform with water-stage shaft encoder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records poor. Water years 2000 and 2001 at datum 0.30 ft higher than current datum. Water years 1987-1999 at datum near 0.30 ft higher than current datum (original benchmark destroyed during road construction in July 1999). Days of no flow occurred during water years 1996, 1999, 2000.

ANNUAL MEAN AND ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 13 complete water years of discharge (1989-98, 2000-2002).

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.73	3.09	2.84	2.84	2.85	2.94	2.82	2.79	e2.59	2.99	3.10	4.07
2	5.44	3.06	2.85	2.83	2.85	2.91	2.81	2.73	e2.58	3.01	3.08	3.85
3	5.14	3.02	2.84	2.84	2.85	2.81	2.80	2.72	e2.57	2.98	3.05	3.69
4	4.86	3.00	2.82	2.82	2.85	2.80	2.79	2.71	e2.56	2.96	3.02	3.79
5	4.60	3.06	2.82	2.80	e2.82	2.83	2.78	2.71	e2.56	2.94	3.02	3.84
6	4.38	3.02	2.84	2.80	e2.80	2.81	2.76	2.70	e2.55	3.14	3.04	4.88
7	4.17	2.98	2.83	2.81	2.80	2.89	2.75	e2.68	e2.55	3.20	3.14	4.90
8	3.98	2.95	2.82	2.78	2.80	2.93	2.73	e2.67	e2.77	3.15	3.27	4.71
9	3.79	2.95	2.82	2.81	2.80	2.90	2.73	e2.66	2.85	3.13	3.18	4.41
10	3.62	2.95	2.81	2.77	2.80	2.88	2.72	e2.65	e2.79	3.14	3.08	4.48
11	3.50	2.95	2.82	2.78	2.81	2.87	2.71	e2.64	e2.71	3.11	3.03	4.46
12	3.45	2.95	2.82	2.77	2.81	2.89	2.75	e2.64	2.68	3.13	3.00	4.74
13	3.37	2.95	2.82	2.77	2.81	2.83	2.86	e2.63	2.74	3.08	3.06	4.63
14	3.30	2.95	2.82	2.78	2.82	2.82	2.82	e2.62	2.78	3.06	3.12	4.44
15	3.24	2.95	2.82	2.90	2.83	2.83	2.83	e2.61	2.90	3.03	3.05	4.43
16	3.19	2.94	2.81	2.88	2.84	2.82	2.82	e2.60	2.87	3.02	3.00	4.29
17	3.11	2.94	2.80	2.86	2.83	2.83	2.84	e2.60	2.85	3.03	3.03	4.17
18	3.07	2.94	2.80	2.88	2.82	2.84	2.82	e2.59	2.83	3.04	3.13	4.00
19	3.02	2.93	2.79	2.86	2.80	2.85	2.81	e2.68	2.85	3.03	3.19	3.88
20	3.04	2.93	2.79	2.87	2.80	2.85	2.80	2.72	3.01	3.00	3.41	3.92
21	3.05	2.91	2.79	2.87	2.80	2.85	2.78	2.69	3.08	2.98	3.89	4.08
22	3.14	2.90	2.79	2.87	2.81	2.85	2.78	2.68	3.01	2.96	3.73	3.89
23	3.12	2.89	2.79	2.86	2.84	2.84	2.76	2.67	2.98	2.93	4.27	3.71
24	3.10	2.88	2.79	2.87	2.85	2.84	2.76	2.66	3.06	2.96	3.65	3.70
25	3.06	2.87	2.79	2.87	2.84	2.84	2.75	e2.63	3.13	3.07	3.39	3.60
26	3.51	2.88	2.80	2.86	2.84	2.84	2.74	e2.63	3.04	3.06	3.31	3.52
27	3.47	2.88	2.80	2.86	2.84	2.83	2.75	e2.62	3.01	3.08	3.46	3.62
28	3.32	2.86	2.80	2.86	2.83	2.83	2.82	e2.61	3.01	3.03	3.91	3.65
29	3.23	2.86	2.80	2.86	---	2.83	2.84	e2.60	3.01	3.04	4.86	4.71
30	3.20	2.85	2.80	2.85	---	2.82	2.85	e2.60	3.00	3.14	4.66	4.49
31	3.13	---	2.82	2.85	---	2.82	---	e2.59	---	3.16	4.31	---
TOTAL	113.33	88.29	87.15	87.93	79.04	88.32	83.58	82.33	84.92	94.58	105.44	124.55
MEAN	3.66	2.94	2.81	2.84	2.82	2.85	2.79	2.66	2.83	3.05	3.40	4.15
MAX	5.73	3.09	2.85	2.90	2.85	2.94	2.86	2.79	3.13	3.20	4.86	4.90
MIN	3.02	2.85	2.79	2.77	2.80	2.80	2.71	2.59	2.55	2.93	3.00	3.52

e Estimated

## 02291597 SOUTH BRANCH ESTERO RIVER AT ESTERO, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	95	7.0	3.6	2.6	2.0	2.6	1.2	1.0	e0.24	2.4	4.1	31
2	83	6.4	3.9	2.5	2.0	2.2	1.2	0.61	e0.22	2.6	3.7	24
3	71	5.4	3.7	2.6	2.0	1.2	1.1	0.59	e0.20	2.3	3.3	19
4	60	5.0	3.4	2.4	2.0	1.1	1.0	0.54	e0.18	2.0	2.7	22
5	51	6.4	3.3	2.0	e1.7	1.3	0.95	0.52	e0.18	1.8	2.8	24
6	44	5.5	3.5	2.0	e1.5	1.2	0.79	0.50	e0.17	6.0	3.1	58
7	37	4.7	3.3	2.2	1.4	2.1	0.71	e0.44	e0.17	6.0	5.1	58
8	31	4.3	3.3	1.8	1.4	2.4	0.62	e0.42	e1.3	4.9	7.6	51
9	25	4.2	3.1	2.1	1.4	2.0	0.60	e0.39	1.5	4.5	5.5	41
10	20	4.4	2.9	1.6	1.4	1.8	0.56	e0.37	e1.0	4.6	3.7	43
11	17	4.4	3.1	1.7	1.5	1.7	0.55	e0.34	e0.50	4.2	2.9	42
12	15	4.4	3.0	1.6	1.5	1.9	0.82	e0.34	0.43	4.6	2.5	51
13	14	4.5	3.0	1.6	1.4	1.4	1.6	e0.32	0.62	3.8	3.5	47
14	12	4.5	2.9	1.7	1.5	1.2	1.3	e0.30	0.85	3.3	4.3	40
15	11	4.6	2.9	3.2	1.6	1.3	1.3	e0.28	1.8	3.0	3.2	40
16	9.4	4.6	2.7	2.8	1.7	1.3	1.2	e0.26	1.5	2.8	2.5	35
17	7.6	4.5	2.6	2.5	1.6	1.3	1.4	e0.26	1.3	2.9	3.0	31
18	6.5	4.6	2.7	2.7	1.4	1.4	1.3	e0.24	1.1	3.1	4.7	26
19	5.5	4.5	2.4	2.5	1.2	1.5	1.2	e0.44	1.3	3.0	5.7	23
20	5.8	4.6	2.4	2.6	1.2	1.5	1.1	0.60	4.1	2.5	13	24
21	6.1	4.2	2.4	2.6	1.2	1.5	0.94	0.47	4.1	2.2	25	28
22	8.1	4.1	2.4	2.5	1.3	1.5	0.90	0.44	3.0	2.0	21	22
23	7.7	4.1	2.3	2.4	1.6	1.4	0.81	0.41	2.6	1.7	37	18
24	7.3	3.8	2.3	2.5	1.6	1.4	0.79	0.38	4.0	2.1	18	17
25	6.4	3.9	2.3	2.5	1.5	1.4	0.73	e0.32	4.8	3.5	11	15
26	17	4.2	2.4	2.4	1.5	1.4	0.67	e0.32	3.3	3.5	8.7	13
27	16	4.1	2.3	2.3	1.5	1.4	0.77	e0.30	2.8	3.7	13	15
28	12	3.8	2.3	2.3	1.4	1.3	1.2	e0.28	2.8	2.9	26	16
29	10	4.0	2.3	2.3	---	1.3	1.4	e0.26	2.7	3.0	57	46
30	9.7	3.8	2.3	2.1	---	1.3	1.5	e0.26	2.5	4.9	50	38
31	8.0	---	2.5	2.1	---	1.3	---	e0.24	---	5.0	39	---
TOTAL	729.1	138.5	87.5	70.7	43.0	47.6	30.21	12.44	51.26	104.8	392.6	958
MEAN	23.5	4.62	2.82	2.28	1.54	1.54	1.01	0.40	1.71	3.38	12.7	31.9
MAX	95	7.0	3.9	3.2	2.0	2.6	1.6	1.0	4.8	6.0	57	58
MIN	5.5	3.8	2.3	1.6	1.2	1.1	0.55	0.24	0.17	1.7	2.5	13
AC-FT	1450	275	174	140	85	94	60	25	102	208	779	1900

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2002, BY WATER YEAR (WY)

MEAN	31.8	11.8	4.14	3.02	5.02	3.30	1.25	0.71	5.94	17.7	29.6	41.8
MAX	220	59.5	28.6	13.6	57.4	31.5	8.66	4.69	29.8	60.7	126	142
(WY)	1996	1999	1998	1998	1998	1998	1987	1987	1996	1992	1995	1995
MIN	4.87	0.61	0.30	0.29	0.10	0.10	0.067	0.015	0.17	0.85	2.60	4.91
(WY)	1989	1993	1991	1997	1997	1997	2000	2000	1988	2000	1989	1990

## SUMMARY STATISTICS

## FOR 2001 CALENDAR YEAR

## FOR 2002 WATER YEAR

## WATER YEARS 1987 - 2002

ANNUAL TOTAL	5023.04	2665.71		
ANNUAL MEAN	13.8	7.30	12.6	
HIGHEST ANNUAL MEAN			33.6	1995
LOWEST ANNUAL MEAN			2.03	1989
HIGHEST DAILY MEAN	225	Sep 14	410	Aug 26 1995
LOWEST DAILY MEAN	0.18	Apr 27	0.17	Jun 6
ANNUAL SEVEN-DAY MINIMUM	0.18	Apr 27	0.19	Jun 1
MAXIMUM PEAK FLOW			101	Oct 1
MAXIMUM PEAK STAGE			5.87	Oct 1
INSTANTANEOUS LOW FLOW				0.00
ANNUAL RUNOFF (AC-FT)	9960	5290	9100	May 10 1990
10 PERCENT EXCEEDS	44	22	35	
50 PERCENT EXCEEDS	1.5	2.5	1.8	
90 PERCENT EXCEEDS	0.28	0.55	0.20	

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## BIG CYPRESS SWAMP AND SOUTHWESTERN COASTAL AREA

02291669 SIXMILE CYPRESS CREEK NORTH NEAR FORT MYERS, FL

LOCATION.--Lat 26°31'18", long 81°51'09", in SW 1/4 NW 1/4 NW 1/4 sec.31, T.45 S., R.25 E., Lee County, Hydrologic Unit 03090204, 10 ft upstream from Tenmile Canal, 0.4 mi south of Sixmile Cypress parkway, and 5.2 mi south of Colonial Boulevard in Ft. Myers, FL.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--December 1987 to 1990, 1992 to current year.

REVISED RECORDS.--WDR FL-01-2A: 2000.

GAGE.--Satellite data collection platform with water-stage shaft encoder. Datum of gage is National Geodetic Vertical Datum of 1929.

COOPERATION.--Gate operation log provided by the county of Lee.

REMARKS.--No estimated daily discharges. Records poor. Flow can be regulated by four vertical lift gates, two on either side of control weir. New control weir constructed in 1991. Records of discharge for water years 1999-2002 represent only flow over the top of the weir. Daily value discharge during water years 1999-2002 are not provided when partial or full gate openings occurred. Records of discharge prior to water year 1999 include combinations of flow over the weir and gate flow. No distinctions in flow types prior to water year 1999 have been made. Zero flow occurs numerous days, during all water years. During the 2002 water year, discharge data for August 30 to September 27 were deleted due to gate operations. Discharge for water year 2000 has been revised based on an evaluation of the high end of the rating used.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 9 complete water years of discharge (1989-90, 1992-98).

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.48	10.99	9.89	7.16	9.11	6.18	5.17	5.37	5.00	11.04	11.14	10.84
2	11.46	10.98	9.71	7.25	8.94	6.12	5.14	5.35	4.97	11.07	11.14	11.00
3	11.42	10.98	9.53	7.64	8.77	6.08	5.12	5.33	4.94	11.09	11.12	10.88
4	11.36	10.98	9.33	7.97	8.61	6.02	5.09	5.30	4.90	11.09	11.11	9.59
5	11.31	10.98	9.13	8.19	8.46	5.96	5.06	5.27	4.91	11.07	11.10	9.00
6	11.26	10.98	8.91	8.30	8.32	5.92	5.03	5.24	4.89	11.08	11.10	9.78
7	11.22	10.98	8.74	8.36	8.20	5.91	4.99	5.20	4.88	11.05	11.10	9.29
8	11.19	10.97	8.73	8.35	8.09	5.92	4.96	5.16	4.90	11.04	11.11	9.48
9	11.15	10.96	8.69	8.24	7.98	5.91	4.93	5.13	4.98	11.02	11.12	9.25
10	11.12	10.96	8.66	8.08	7.89	5.88	4.91	5.09	5.00	11.02	11.14	8.58
11	11.09	10.96	8.63	7.92	7.81	5.84	4.90	5.05	5.05	11.02	11.15	8.07
12	11.08	10.96	8.58	7.76	7.74	5.81	4.89	5.01	5.13	11.02	11.17	7.95
13	11.06	10.96	8.51	7.61	7.65	5.76	4.90	4.99	5.28	11.03	11.15	7.64
14	11.05	10.96	8.42	7.48	7.57	5.72	4.91	4.95	5.45	11.05	11.18	7.37
15	11.04	10.95	8.30	7.94	7.48	5.66	4.99	4.91	5.52	11.05	11.18	7.09
16	11.03	10.94	8.18	9.12	7.39	5.62	5.19	4.89	5.52	11.04	11.18	6.66
17	11.02	10.93	8.07	9.80	7.28	5.58	5.53	4.87	5.56	11.03	11.19	6.19
18	11.00	10.93	7.98	9.99	7.14	5.54	5.52	4.84	5.56	11.02	11.22	5.77
19	11.01	10.92	7.90	9.98	7.00	5.51	5.51	4.92	5.54	11.02	11.32	5.57
20	11.04	10.91	7.83	9.99	6.85	5.48	5.50	5.04	5.58	11.05	11.40	6.17
21	11.03	10.89	7.74	10.01	6.72	5.46	5.49	5.09	5.66	11.13	11.42	6.30
22	11.03	10.86	7.66	10.01	6.62	5.44	5.49	5.12	5.64	11.16	11.40	6.26
23	11.02	10.81	7.57	10.02	6.60	5.42	5.47	5.14	5.93	11.14	11.38	6.25
24	11.01	10.76	7.51	10.01	6.56	5.39	5.46	5.14	7.10	11.11	11.35	6.25
25	11.01	10.70	7.46	9.96	6.46	5.36	5.45	5.14	8.02	11.10	11.34	6.15
26	11.02	10.61	7.40	9.89	6.38	5.33	5.44	5.14	8.64	11.13	11.32	9.13
27	11.01	10.51	7.32	9.82	6.31	5.30	5.43	5.14	9.70	11.15	11.28	11.12
28	10.99	10.37	7.25	9.73	6.24	5.27	5.42	5.12	10.17	11.11	11.28	11.12
29	10.99	10.22	7.20	9.60	---	5.24	5.41	5.09	10.63	11.11	11.38	11.14
30	10.99	10.05	7.20	9.45	---	5.21	5.39	5.06	10.98	11.13	11.18	11.13
31	10.99	---	7.17	9.28	---	5.18	---	5.03	---	11.15	10.76	---
TOTAL	344.48	324.96	255.20	274.91	210.17	175.02	156.69	158.12	186.03	343.32	347.41	251.02
MEAN	11.11	10.83	8.23	8.87	7.51	5.65	5.22	5.10	6.20	11.07	11.21	8.37
MAX	11.48	10.99	9.89	10.02	9.11	6.18	5.53	5.37	10.98	11.16	11.42	11.14
MIN	10.99	10.05	7.17	7.16	6.24	5.18	4.89	4.84	4.88	11.02	10.76	5.57



## 02291669 SIXMILE CYPRESS CREEK NORTH NEAR FORT MYERS, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	293	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	31	73	---
2	283	14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	42	73	---
3	249	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48	65	---
4	212	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	48	53	---
5	179	13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	40	48	---
6	146	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	45	48	---
7	123	12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	34	49	---
8	103	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28	53	---
9	83	9.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23	56	---
10	68	8.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23	72	---
11	60	8.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23	76	---
12	54	8.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23	89	---
13	43	8.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	27	80	---
14	38	7.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33	92	---
15	34	6.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	33	96	---
16	29	5.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	30	95	---
17	25	5.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28	99	---
18	20	4.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	24	118	---
19	25	3.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23	185	---
20	31	2.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	35	233	---
21	31	1.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	67	251	---
22	30	0.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	82	234	---
23	27	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	73	220	---
24	23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	59	204	---
25	21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	52	197	---
26	22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	66	185	---
27	20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	76	157	---
28	17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	59	157	56
29	16	0.00	0.00	0.00	---	0.00	0.00	0.00	0.06	57	223	70
30	15	0.00	0.00	0.00	---	0.00	0.00	0.00	14	67	---	64
31	15	---	0.00	0.00	---	0.00	---	0.00	---	80	---	---
TOTAL	2335	180.97	0.00	0.00	0.00	0.00	0.00	0.00	14.06	1379	---	---
MEAN	75.3	6.03	0.000	0.000	0.000	0.000	0.000	0.000	0.47	44.5	---	---
MAX	293	15	0.00	0.00	0.00	0.00	0.00	0.00	14	82	---	---
MIN	15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23	---	---
AC-FT	4630	359	0.00	0.00	0.00	0.00	0.00	0.00	28	2740	---	---

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2002, BY WATER YEAR (WY)

	MEAN	52.2	7.69	2.58	3.44	2.78	4.77	0.42	0.025	6.13	28.7	78.1	70.8
MAX	216	38.0	22.7	18.6	23.2	48.5	5.04	0.31	42.1	153	195	238	
(WY)	1996	1996	1998	1998	1998	1998	1998	1994	1992	1992	1995	1995	1995
MIN	2.45	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.079	2.79	26.3	
(WY)	1990	1993	1990	1989	1989	1990	1988	1988	1988	1988	1993	1997	

## SUMMARY STATISTICS

## WATER YEARS 1987 - 2002

ANNUAL MEAN	23.3
HIGHEST ANNUAL MEAN	47.2
LOWEST ANNUAL MEAN	6.84
HIGHEST DAILY MEAN	860
MAXIMUM PEAK FLOW	1830
MAXIMUM PEAK STAGE	12.12
ANNUAL RUNOFF (AC-FT)	16910
10 PERCENT EXCEEDS	70
50 PERCENT EXCEEDS	0.00
90 PERCENT EXCEEDS	0.00

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## BIG CYPRESS SWAMP AND SOUTHWESTERN COASTAL AREA

02291673 TENMILE CANAL AT CONTROL NEAR ESTERO, FL

LOCATION.--Lat 26°30'19", long 81°51'00", in NW 1/4 SW 1/4 NW 1/4 sec. 6, T.46 S., R.24 E., Lee County, Hydrologic Unit 03090204, on left bank 367 ft upstream of weir, 1.05 mi north of Alico Road, and 5.3 mi northwest of Estero.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--December 1987 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder. Datum of gage is National Geodetic Vertical Datum of 1929 (State Department of Transportation bench mark).

REMARKS.--Records poor. Downstream gage discontinued as of October 1, 1997. Flow can be regulated by two vertical lift gates, one on each side of the control weir. Records of discharge for water years 1999-2002 represent only flow over the top of the weir. Daily value discharge during water years 1999-2002 are not provided when partial or full gate openings occurred. During the 2002 water year, discharge data for August 30 to September 19, and September 26 have been deleted due to gate operations. Records of discharge prior to water year 1999 include combinations of flow over the weir with gate flow included. No distinctions in flow types prior to water year 1999 have been made. Zero flow occurs numerous days during most water years.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 9 complete water years of discharge (1990-98).

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.23	5.66	5.51	5.51	5.51	5.50	5.16	5.37	5.00	5.73	5.79	5.96
2	6.18	5.66	5.50	5.51	5.51	5.49	5.14	5.35	4.98	5.78	5.79	6.04
3	6.12	5.67	5.50	5.51	5.51	5.50	5.11	5.33	4.94	5.77	5.78	6.01
4	6.05	5.66	5.50	5.51	5.51	5.48	e5.10	5.31	4.91	5.74	5.76	5.91
5	6.00	5.67	5.50	5.51	5.51	5.46	e5.06	5.28	4.91	5.71	5.74	5.92
6	5.95	5.66	5.49	5.51	5.51	5.47	5.03	5.24	4.89	5.72	5.73	6.19
7	5.92	5.65	5.50	5.51	5.51	5.48	5.00	5.20	4.88	5.70	5.74	6.00
8	5.89	5.63	5.50	5.51	5.50	5.50	4.96	5.17	4.92	5.69	5.81	5.93
9	5.84	5.62	5.50	5.51	5.50	5.49	4.93	5.13	5.00	5.67	5.79	5.88
10	5.81	5.61	5.50	5.51	5.51	5.49	4.91	5.09	5.02	5.67	5.79	5.80
11	5.78	5.60	5.50	5.51	5.51	5.49	4.89	5.05	5.07	5.67	5.78	5.68
12	5.75	5.60	5.50	5.51	5.50	5.48	4.88	5.02	5.14	5.66	5.79	5.79
13	5.72	5.59	5.50	5.51	5.50	5.48	4.91	4.99	5.30	5.67	5.80	5.73
14	5.71	5.59	5.50	5.51	5.50	5.48	4.92	4.96	5.46	5.68	5.85	5.63
15	5.70	5.59	5.50	5.52	5.50	5.47	5.02	4.92	5.51	5.66	5.83	5.50
16	5.69	5.57	5.50	5.52	5.50	5.48	5.20	e4.88	5.51	5.65	5.83	5.04
17	5.67	5.57	5.49	5.52	5.50	5.47	5.50	e4.85	5.55	5.69	5.92	4.35
18	5.65	5.56	5.49	5.52	5.50	5.46	5.50	4.83	5.54	5.70	6.04	3.76
19	5.68	5.56	5.49	5.52	5.50	5.45	5.49	4.93	5.53	5.70	6.03	4.01
20	5.71	5.56	5.49	5.52	5.50	5.44	5.49	5.07	5.56	5.70	6.13	5.80
21	5.71	5.55	5.49	5.52	5.50	5.44	5.48	5.11	5.64	5.76	6.26	5.84
22	5.71	5.54	5.49	5.52	5.50	5.44	5.48	5.14	5.62	5.81	6.18	5.82
23	5.71	5.54	5.49	5.52	5.51	5.41	5.47	5.15	5.62	5.78	6.13	5.83
24	5.69	5.54	5.49	5.52	5.51	5.38	5.46	5.15	5.63	5.74	6.05	5.83
25	5.69	5.54	5.48	5.51	5.50	5.35	5.46	5.15	e5.64	5.73	6.01	5.80
26	5.69	5.53	5.47	5.51	5.50	5.33	5.45	5.14	5.63	5.80	6.00	5.75
27	5.69	5.52	5.48	5.51	5.50	5.31	5.43	5.13	5.67	5.85	5.99	5.80
28	5.67	5.52	5.49	5.51	5.49	5.28	5.42	5.12	5.66	5.80	6.09	5.81
29	5.67	5.52	5.49	5.51	---	5.24	5.40	5.09	5.67	5.78	6.21	5.88
30	5.66	5.52	5.50	5.51	---	5.20	5.39	5.06	5.70	5.79	6.19	5.85
31	5.66	---	5.51	5.51	---	5.18	---	5.03	---	5.81	5.98	---
TOTAL	179.60	167.60	170.34	170.91	154.10	168.12	156.64	158.24	160.10	177.61	183.81	169.14
MEAN	5.79	5.59	5.49	5.51	5.50	5.42	5.22	5.10	5.34	5.73	5.93	5.64
MAX	6.23	5.67	5.51	5.52	5.51	5.50	5.50	5.37	5.70	5.85	6.26	6.19
MIN	5.65	5.52	5.47	5.51	5.49	5.18	4.88	4.83	4.88	5.65	5.73	3.76

e Estimated

## 02291673 TENMILE CANAL AT CONTROL NEAR ESTERO, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	445	36	7.7	8.6	8.7	5.5	0.00	0.07	0.00	75	105	---
2	399	35	6.5	8.5	8.7	5.3	0.00	0.01	0.00	96	101	---
3	339	39	6.1	8.6	8.7	5.7	0.00	0.00	0.00	91	98	---
4	283	37	5.8	8.6	8.0	3.9	e0.00	0.00	0.00	76	82	---
5	245	39	5.6	8.7	7.2	2.8	e0.00	0.00	0.00	61	72	---
6	203	36	5.4	8.6	7.2	3.0	0.00	0.00	0.00	68	68	---
7	177	32	5.7	8.5	7.1	4.5	0.00	0.00	0.00	60	73	---
8	152	28	6.0	8.0	6.4	5.9	0.00	0.00	0.00	53	112	---
9	123	26	6.0	8.5	6.1	5.5	0.00	0.00	0.00	45	99	---
10	103	22	6.0	8.7	7.0	4.8	0.00	0.00	0.00	48	99	---
11	85	20	6.0	8.7	6.7	4.9	0.00	0.00	0.00	45	96	---
12	65	19	6.0	8.7	6.3	4.3	0.00	0.00	0.00	41	102	---
13	54	18	6.0	8.7	6.2	4.0	0.00	0.00	0.01	46	105	---
14	50	20	6.0	8.7	6.0	3.7	0.00	0.00	3.5	49	134	---
15	47	19	5.8	10	6.0	3.5	0.00	0.00	7.2	43	125	---
16	41	17	5.5	10	6.1	3.7	1.4	e0.00	7.7	39	123	---
17	35	16	5.4	10	6.0	3.0	6.6	e0.00	15	56	188	---
18	31	14	5.2	10	5.8	2.4	5.5	0.00	13	58	269	---
19	40	14	5.0	10	5.9	1.9	5.0	0.00	11	60	268	---
20	50	14	4.6	10	5.7	1.7	4.8	0.00	18	60	353	101
21	51	11	5.0	10	5.6	1.5	4.4	0.00	35	90	471	126
22	52	10	5.5	10	6.0	1.4	3.9	0.00	30	114	394	115
23	48	10	5.7	10	7.1	0.59	3.3	0.00	30	96	348	121
24	44	10	5.9	9.7	6.9	0.15	2.9	0.00	32	75	278	119
25	43	10	5.3	9.2	6.6	0.03	2.3	0.00	e35	71	252	105
26	45	8.7	4.2	8.7	6.2	0.00	1.8	0.00	34	111	244	---
27	45	7.7	4.7	8.7	5.7	0.00	1.3	0.00	45	139	237	104
28	41	8.6	5.5	8.7	5.4	0.00	0.77	0.00	44	110	314	107
29	38	8.6	6.6	8.7	---	0.00	0.49	0.00	46	95	422	154
30	36	8.6	7.3	8.7	---	0.00	0.21	0.00	59	101	---	132
31	36	---	8.1	8.7	---	0.00	---	0.00	---	114	---	---
TOTAL	3446	594.2	180.1	281.2	185.3	83.67	44.67	0.08	465.41	2286	---	---
MEAN	111	19.8	5.81	9.07	6.62	2.70	1.49	0.003	15.5	73.7	---	---
MAX	445	39	8.1	10	8.7	5.9	6.6	0.07	59	139	---	---
MIN	31	7.7	4.2	8.0	5.4	0.00	0.00	0.00	0.00	39	---	---
AC-FT	6840	1180	357	558	368	166	89	0.2	923	4530	---	---

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1988 - 2002, BY WATER YEAR (WY)

MEAN	135	28.9	19.1	21.6	25.6	17.1	5.56	8.76	55.6	143	228	241
MAX	603	118	131	65.8	186	136	14.6	107	212	676	555	827
(WY)	1996	1994	1998	1998	1998	1998	1994	1991	1991	1991	1990	1995
MIN	14.7	2.84	0.91	0.020	0.000	1.85	0.000	0.000	1.20	3.90	35.3	67.2
(WY)	1989	1990	1991	1989	1989	1990	1999	1988	1998	1988	1993	1997

## SUMMARY STATISTICS

## WATER YEARS 1988 - 2002

ANNUAL MEAN	90.4
HIGHEST ANNUAL MEAN	165 1995
LOWEST ANNUAL MEAN	29.6 1993
HIGHEST DAILY MEAN	2170 Sep 18 2000
MAXIMUM PEAK STAGE	8.34 Aug 26 1995
ANNUAL RUNOFF (AC-FT)	65510
10 PERCENT EXCEEDS	261
50 PERCENT EXCEEDS	16
90 PERCENT EXCEEDS	0.29

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## CALOOSAHATCHEE RIVER

02292000 CALOOSAHATCHEE CANAL AT MOORE HAVEN, FL

LOCATION.--Lat 26°50'22", long 81°05'15", in NW 1/4 NW 1/4 sec.12, T.42 S., R.32 E., Glades County, Hydrologic Unit 03090205, on the west side of the lock structure approximately 75 ft north of lock control house, 0.1 mi west of control structure 77, 0.45 mi upstream from U.S. Highway 27, and 15 mi upstream from lock 2.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--May to September 1913 (discharge measurements), October 1938 to current year. Monthly discharge only for some periods, published in WSP 1304. Prior to October 1938, published as Threemile Canal near Ritta.

REVISED RECORDS.--WDR FL-98-2A: 1996-97

GAGE.--U.S. Army Corps of Engineers owned and operated satellite data collection platform with water-stage shaft encoders. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by U.S. Army Corps of Engineers). Prior to January 17, 1952, at site 0.5 mi downstream, at datum 1.44 ft lower. January 17, 1952 to September 30, 1966, at site 0.5 mi downstream at present datum. October 1938 to September 1966, auxiliary water-stage recorder 0.2 mi upstream from Lake Hicpochee and 3.0 mi downstream. Since October 1966, auxiliary water-stage recorder on upstream side of hurricane gate structure and lock 1. U.S. Geological Survey satellite data collection platform removed October 19, 1998.

REMARKS.--Records poor. Flow regulated by operation of control structure S-77 at Lake Okeechobee. Gage height and discharge records revised October 1995 through September 1997, except 1996 canal gage height, based upon new elevation for lake and canal measuring point. Revised records are available in the files of the U.S. Geological Survey.

COOPERATION.-- Stage, gate-opening and lock operation record provided by U.S. Army Corps of Engineer. ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS--Figures represent 62 complete water years of discharge (1939-96, 1998-2000, 2002).

EXTREME LAKE STAGES FOR PERIOD OF RECORD.--Maximum lake gage height, 18.61 ft Oct. 23, 1995; minimum, 7.24 ft present datum, estimated Aug. 8, 1940.

EXTREME LAKE STAGES FOR CURRENT YEAR.--Maximum gage height, 15.89 ft Sept. 28; minimum, 10.96 ft June 15.

EXTREME CANAL STAGES FOR PERIOD OF RECORD.--Maximum canal gage height, 16.98 ft present datum, Sept. 27, 1948; minimum, 7.14 ft present datum, estimated Aug. 8, 1940.

EXTREME CANAL STAGES FOR CURRENT YEAR.--Maximum gage height, 11.95 ft June 16; minimum, 10.31 ft Sept. 21.

LAKE  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14.22	14.79	14.89	14.67	14.56	14.42	13.76	e12.70	11.79	12.90	14.64	15.04
2	14.22	14.81	14.89	14.64	14.58	e14.28	13.76	e12.78	11.63	12.91	14.51	14.90
3	14.19	14.86	14.88	14.55	14.51	e14.25	13.71	12.76	11.56	12.95	14.42	14.97
4	14.25	14.87	14.89	14.50	14.45	14.24	13.70	12.52	11.66	13.02	e14.51	15.10
5	14.24	15.04	14.90	14.52	14.62	14.39	13.72	12.37	11.78	13.09	e14.60	15.20
6	e14.20	14.94	14.89	14.49	14.53	14.30	13.78	12.66	11.75	13.20	e14.60	15.38
7	14.26	14.95	14.87	14.49	14.24	14.25	13.91	12.67	11.53	13.31	e14.60	15.49
8	14.45	14.91	14.84	14.52	14.39	14.29	13.85	12.59	11.69	13.49	e14.73	15.54
9	14.74	14.89	14.82	14.46	14.41	14.28	13.69	12.54	11.88	13.55	e14.77	15.53
10	14.52	14.90	14.85	14.52	14.40	14.28	13.58	12.48	11.83	13.59	e14.77	15.48
11	14.46	14.91	14.83	14.51	14.47	14.30	13.56	12.50	11.70	13.62	e14.74	15.22
12	14.37	14.93	14.87	14.50	14.47	14.19	13.57	12.48	11.57	13.71	e14.72	15.08
13	14.31	14.94	14.86	14.49	14.50	14.00	13.51	12.24	11.59	13.71	e14.76	15.21
14	14.24	14.89	14.83	14.52	14.54	14.19	13.45	11.93	11.43	13.78	e14.71	15.46
15	14.30	14.75	14.83	14.57	14.47	14.20	13.45	11.99	11.35	13.87	14.67	15.55
16	14.32	14.85	14.88	14.62	14.46	14.18	13.43	12.12	11.63	13.71	14.71	15.62
17	14.47	14.97	14.84	14.61	14.43	14.19	13.43	12.13	11.82	13.47	14.64	15.67
18	14.52	14.97	14.72	14.59	14.55	14.17	13.47	12.03	11.96	13.65	14.68	15.67
19	14.36	14.94	14.74	14.59	14.52	14.15	13.44	12.07	12.03	13.78	14.67	15.66
20	14.33	14.91	14.72	14.60	14.39	14.10	13.34	12.41	12.19	13.91	14.67	15.71
21	14.36	14.91	14.77	14.60	14.34	13.96	13.26	12.48	12.27	14.03	14.73	15.71
22	14.44	14.93	14.71	14.64	14.33	14.14	13.21	12.58	12.17	14.16	14.79	15.71
23	14.39	14.92	14.70	14.65	14.37	14.14	13.22	12.51	12.29	14.22	14.82	15.70
24	14.44	14.93	14.65	14.59	14.33	14.09	13.27	12.47	12.36	14.24	14.84	15.70
25	14.55	14.93	14.67	14.57	14.42	14.00	13.14	12.27	12.44	14.39	14.82	15.73
26	14.72	14.92	14.66	14.59	14.35	13.93	13.02	12.25	12.54	14.61	14.78	15.51
27	14.79	14.95	14.65	14.61	14.22	13.89	13.00	12.27	12.58	14.65	14.82	15.24
28	14.82	14.95	14.58	14.62	14.35	13.95	13.00	12.19	12.59	14.64	14.88	15.36
29	14.78	14.92	14.48	14.61	---	13.97	12.90	11.95	12.73	14.69	14.95	15.52
30	14.74	14.87	14.59	14.62	---	13.91	12.86	11.85	12.76	14.72	15.05	15.67
31	14.75	---	14.60	14.63	---	13.82	---	11.86	---	14.69	15.11	---
TOTAL	447.75	447.25	457.90	451.69	404.20	438.45	402.99	382.65	359.10	428.26	456.71	463.33
MEAN	14.44	14.91	14.77	14.57	14.44	14.14	13.43	12.34	11.97	13.81	14.73	15.44
MAX	14.82	15.04	14.90	14.67	14.62	14.42	13.91	12.78	12.76	14.72	15.11	15.73
MIN	14.19	14.75	14.48	14.46	14.22	13.82	12.86	11.85	11.35	12.90	14.42	14.90

e Estimated

## CALOOSAHATCHEE RIVER

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02292000 CALOOSAHATCHEE CANAL AT MOORE HAVEN, FL--Continued

CANAL  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.19	11.00	11.14	11.25	11.46	10.83	11.32	e11.23	11.10	10.78	10.86	10.89
2	11.09	10.88	11.06	11.37	11.45	e11.14	11.02	e10.92	10.99	11.14	11.19	11.10
3	10.94	10.74	10.97	11.37	11.43	e11.28	10.79	e11.05	10.89	11.10	11.10	11.04
4	10.95	10.89	10.75	11.23	11.41	11.06	10.92	e11.16	11.26	11.02	11.02	11.02
5	11.11	10.96	10.95	11.36	11.38	10.89	10.92	e11.17	11.31	10.88	10.76	11.11
6	e11.20	11.30	11.13	11.38	11.43	10.91	11.00	e11.03	10.82	10.90	10.79	11.20
7	11.24	11.33	11.07	11.32	11.43	11.34	10.95	e10.77	10.62	10.80	11.02	10.85
8	11.14	11.25	11.15	10.81	11.24	11.38	11.09	e11.02	11.16	10.90	10.92	10.98
9	11.16	11.29	11.16	11.14	11.11	11.29	11.09	e11.02	11.25	10.87	11.13	10.94
10	11.06	11.30	11.17	11.40	11.35	11.15	10.86	e10.84	11.21	11.09	11.07	10.78
11	10.99	11.31	11.04	11.41	11.54	10.92	10.77	e11.07	11.25	11.07	10.94	11.17
12	10.79	11.31	10.87	11.40	11.52	10.80	10.84	e11.30	11.36	10.65	11.01	11.45
13	10.65	11.29	10.75	11.45	11.60	11.11	10.86	e11.28	11.48	10.79	10.82	11.11
14	11.01	11.31	10.96	11.50	11.64	11.11	11.16	e10.97	11.59	10.66	10.74	10.88
15	10.95	11.34	10.80	11.54	11.55	11.28	11.34	e10.88	11.42	10.58	10.84	10.72
16	10.83	11.33	11.08	11.32	11.58	10.92	11.36	e10.94	11.51	10.96	10.86	10.79
17	10.73	11.29	11.02	11.54	11.59	10.85	11.10	e11.00	11.61	10.97	10.91	10.63
18	10.70	11.29	10.90	11.56	11.52	10.98	10.96	e11.04	11.42	11.03	11.16	10.89
19	10.75	11.27	10.72	11.51	11.25	10.87	11.24	e11.08	11.33	11.09	10.92	11.02
20	11.01	11.07	10.89	11.45	11.23	11.07	11.25	e11.37	11.27	10.91	10.92	10.66
21	11.20	10.86	10.91	11.53	11.21	11.25	11.05	e11.45	11.49	10.91	10.85	10.51
22	11.15	10.83	10.68	11.55	11.25	11.16	11.29	11.32	11.35	11.29	11.07	10.65
23	10.92	10.75	11.08	11.51	11.21	11.28	11.31	11.30	11.57	11.17	10.96	10.56
24	11.14	10.60	11.17	11.57	11.14	11.26	11.01	10.91	11.39	11.11	10.75	10.72
25	11.04	10.88	11.15	11.51	11.27	11.14	10.86	10.77	11.38	10.83	10.85	10.94
26	11.09	11.09	11.16	11.53	10.91	10.95	10.55	10.81	11.36	10.81	10.87	11.01
27	10.97	11.14	11.21	11.61	10.65	11.40	10.90	10.74	11.08	10.85	10.97	10.96
28	11.07	10.97	11.20	11.62	10.62	11.44	11.47	10.83	10.99	10.84	10.87	10.88
29	10.98	10.82	11.10	11.53	---	11.13	11.28	10.76	11.03	10.75	11.01	10.75
30	11.20	10.75	11.16	11.49	---	10.97	11.31	10.84	10.92	10.92	11.05	10.66
31	11.31	---	11.14	11.47	---	11.28	---	10.93	---	10.88	10.98	---
TOTAL	341.56	332.44	341.54	354.23	316.97	344.44	331.87	341.80	337.41	338.55	339.21	326.87
MEAN	11.02	11.08	11.02	11.43	11.32	11.11	11.06	11.03	11.25	10.92	10.94	10.90
MAX	11.31	11.34	11.21	11.62	11.64	11.44	11.47	11.45	11.61	11.29	11.19	11.45
MIN	10.65	10.60	10.68	10.81	10.62	10.80	10.55	10.74	10.62	10.58	10.74	10.51

e Estimated



## 02292480 CALOOSAHATCHEE CANAL AT ORTONA LOCK NEAR LA BELLE, FL

LOCATION.--Lat 26°47'22", long 81°18'11", in SW 1/4 sec.26, T.42 S., R.30 E., Glades County, Hydrologic Unit 03090205, near right bank, 500 ft upstream from Ortona Lock, 1.4 mi downstream from Long Hammock Creek, and 9.0 mi east of La Belle.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1948 to September 1950 (discharge measurements and gage heights), July 1971 to current year. Records of gage heights and discharge measurements can be found in the files of the U.S. Geological Survey.

REVISED RECORDS.--WDR FL-80-2A: 1979; WDR FL-96-2A: 1995.

GAUGE.--U.S. Army Corps of Engineers owned and operated satellite data collection platform with water-stage shaft encoders. Prior to September 29, 1998, similar equipment belonging to the U.S. Geological Survey was used. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated discharges, which are poor. Flow regulated by operation of control structures 77 and 78. Satellite data collection platform installed September 7, 1994. Extremes for downstream stages for the period of record are not available at the present time.

COOPERATION.--Stage, gate-opening and lock operation records provided by U.S. Army Corps of Engineers.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 28 complete water years of discharge (1972-93, 1995, 1996-99, 2002).

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 12.80 ft June 26, 1974; minimum, 8.59 ft May 16, 2001.

EXTREME UPSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 11.82 ft June 26; minimum, 10.26 ft June 7.

EXTREME DOWNSTREAM STAGES FOR PERIOD OF RECORD.--Not available.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 4.29 ft June 26; minimum, 2.00 ft Nov. 2.

UPSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11.24	11.12	11.24	11.33	11.55	10.95	11.39	11.21	11.03	10.80	10.87	10.86
2	11.15	10.98	11.15	11.45	11.54	11.19	11.11	10.91	10.88	11.14	11.10	10.97
3	11.01	10.90	11.06	11.44	11.51	11.30	10.88	11.05	10.79	11.11	10.97	10.94
4	11.03	10.99	10.86	11.28	11.48	11.10	11.00	11.11	11.17	11.05	10.92	10.96
5	11.18	11.07	11.08	11.44	11.50	10.98	10.99	11.10	11.24	10.92	10.76	11.09
6	11.23	11.39	11.25	11.44	11.52	11.03	11.10	11.02	10.75	10.97	10.80	11.18
7	11.28	11.41	11.18	11.37	11.47	11.41	11.09	10.76	10.52	10.87	11.05	10.88
8	11.25	11.32	11.23	10.87	11.31	11.47	11.23	11.02	11.07	10.99	10.99	11.03
9	11.32	11.36	11.23	11.22	11.20	11.37	11.22	11.01	e11.28	10.94	11.22	10.98
10	11.17	11.38	11.25	11.49	11.44	11.24	10.97	10.83	e11.29	11.16	11.17	10.81
11	11.10	11.39	11.13	11.50	11.62	11.02	10.89	11.08	11.15	11.08	11.06	10.98
12	10.89	11.39	10.97	11.48	11.60	10.88	10.94	11.31	11.26	10.71	11.11	e11.03
13	10.74	11.37	10.85	11.54	11.69	11.14	10.96	11.24	11.41	10.84	10.88	10.76
14	11.07	11.37	11.06	11.59	11.73	11.18	11.24	10.85	11.49	10.71	10.82	10.77
15	11.02	11.36	10.91	11.60	11.64	11.36	11.42	10.79	11.30	10.66	10.93	10.74
16	10.90	11.38	11.21	11.40	11.66	11.01	11.46	10.89	11.30	10.96	10.96	10.90
17	10.84	11.39	11.11	11.62	11.66	10.95	11.19	10.97	11.36	e10.97	10.97	10.79
18	10.83	11.39	10.97	11.63	11.63	11.07	11.06	10.97	11.19	e11.02	11.19	10.97
19	10.86	11.35	10.78	11.58	11.37	10.96	11.31	11.02	11.09	11.06	10.96	11.05
20	11.11	11.14	10.99	11.53	11.32	11.16	11.31	11.32	11.05	10.90	10.97	10.75
21	11.28	10.94	10.97	11.60	11.28	11.30	e11.14	11.41	11.48	10.93	10.94	10.62
22	11.19	10.92	10.78	11.63	11.31	11.26	e11.35	11.29	11.26	11.19	e11.20	10.73
23	10.97	10.84	11.18	11.60	11.25	11.38	11.36	11.29	11.27	11.12	e11.08	e10.65
24	11.19	10.70	11.24	11.66	11.20	11.37	11.08	10.90	11.13	11.07	10.86	e10.78
25	11.10	11.00	11.23	11.58	11.34	11.24	10.90	10.75	11.08	e10.84	10.97	10.87
26	11.17	11.20	11.22	11.61	10.96	11.04	10.59	10.78	11.09	e10.84	10.98	10.67
27	11.04	11.23	11.28	11.70	10.68	11.48	10.96	10.73	11.05	10.89	11.07	10.53
28	11.17	11.07	11.25	11.71	10.71	11.52	11.51	10.82	11.01	10.89	10.97	10.62
29	11.09	10.91	11.13	11.63	---	11.24	11.30	10.70	11.05	10.80	11.12	10.60
30	11.28	10.85	11.24	11.60	---	11.08	11.33	10.77	10.97	10.96	11.07	10.63
31	11.37	---	11.21	11.58	---	11.37	---	10.87	---	10.90	11.04	---
TOTAL	344.07	335.11	344.24	356.70	319.17	347.05	334.28	340.77	334.01	339.29	341.00	325.14
MEAN	11.10	11.17	11.10	11.51	11.40	11.20	11.14	10.99	11.13	10.94	11.00	10.84
MAX	11.37	11.41	11.28	11.71	11.73	11.52	11.51	11.41	11.49	11.19	11.22	11.18
MIN	10.74	10.70	10.78	10.87	10.68	10.88	10.59	10.70	10.52	10.66	10.76	10.53

e Estimated

## CALOOSAHATCHEE RIVER

02292480 CALOOSAHATCHEE CANAL AT ORTONA LOCK NEAR LA BELLE, FL

DOWNSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.11	2.92	3.05	3.06	2.90	2.75	2.87	2.70	3.21	3.31	2.88	2.75
2	3.02	2.78	3.14	3.03	2.86	2.80	2.78	2.91	2.96	3.22	2.91	2.92
3	3.00	2.72	3.23	2.94	3.04	2.82	2.80	2.97	2.96	3.17	2.98	2.95
4	2.97	2.72	3.15	2.96	3.11	2.79	2.87	3.10	3.23	3.21	3.02	3.05
5	3.12	2.85	3.12	3.17	2.96	2.70	2.96	2.92	3.25	3.07	2.93	2.97
6	3.01	3.05	3.12	3.36	2.85	2.87	2.91	2.87	3.07	3.09	2.85	2.98
7	3.12	3.09	3.19	3.18	2.93	2.90	2.96	3.01	3.03	3.01	3.09	2.75
8	2.84	3.00	3.28	3.00	2.90	3.15	3.04	3.03	3.08	2.94	3.01	2.77
9	2.85	2.96	3.15	3.24	2.90	2.96	2.90	2.78	e3.33	2.86	2.99	2.77
10	2.95	3.10	3.14	3.27	3.09	2.84	2.72	2.84	e3.13	2.85	2.82	2.60
11	2.96	3.04	3.16	3.24	3.14	2.84	2.84	2.94	3.21	3.02	2.97	2.95
12	3.00	2.91	3.03	3.10	2.99	2.76	2.92	2.92	3.16	2.92	2.99	e3.18
13	3.00	3.03	3.02	3.11	3.08	2.92	2.92	2.92	3.21	3.04	2.96	2.99
14	2.99	3.01	3.04	3.17	3.12	3.25	2.97	3.01	2.85	2.92	2.98	3.17
15	3.04	3.10	2.98	3.09	3.00	2.99	3.10	2.82	3.05	2.87	2.90	2.87
16	2.95	3.11	2.97	2.93	3.05	3.00	2.98	2.80	3.06	2.96	2.83	2.61
17	3.15	3.09	3.03	3.20	3.02	3.11	2.87	3.12	3.03	e2.94	2.89	2.54
18	3.11	3.01	3.12	3.18	2.82	3.14	2.92	3.00	2.95	e3.02	2.92	2.88
19	3.15	3.08	3.24	3.09	2.69	3.22	2.83	3.16	3.02	3.02	2.82	2.90
20	3.07	3.09	3.14	3.00	2.76	3.14	2.72	2.98	2.99	3.02	2.99	2.57
21	3.06	3.06	2.86	3.09	3.03	2.85	e2.95	3.11	3.18	3.02	2.87	2.68
22	3.08	3.15	3.08	3.08	2.81	2.78	e2.90	3.03	3.24	2.84	e2.80	2.75
23	3.11	3.06	3.12	2.95	3.05	2.77	2.77	3.11	3.48	2.73	e2.73	2.81
24	3.09	3.13	3.03	2.90	3.09	2.88	3.04	2.93	3.41	2.66	2.76	2.59
25	3.02	3.08	3.07	3.02	2.91	3.01	2.80	2.85	3.37	e2.73	2.78	2.81
26	3.07	3.03	3.17	3.05	2.82	3.21	2.76	2.89	3.59	e2.75	2.79	3.04
27	2.99	3.00	3.01	3.16	2.60	3.16	2.93	2.94	3.30	2.75	2.85	2.94
28	3.06	2.95	3.18	3.12	2.68	2.87	2.82	3.02	3.14	2.73	2.86	2.85
29	3.00	2.91	3.22	3.11	---	2.87	2.97	3.03	3.13	2.88	2.94	2.88
30	3.03	2.87	3.19	3.16	---	2.85	2.81	2.95	3.12	2.86	2.91	2.70
31	3.02	---	3.16	2.96	---	2.89	---	2.92	---	2.89	2.84	---
TOTAL	93.94	89.90	96.39	95.92	82.20	91.09	86.63	91.58	94.74	91.30	89.86	85.22
MEAN	3.03	3.00	3.11	3.09	2.94	2.94	2.89	2.95	3.16	2.95	2.90	2.84
MAX	3.15	3.15	3.28	3.36	3.14	3.25	3.10	3.16	3.59	3.31	3.09	3.18
MIN	2.84	2.72	2.86	2.90	2.60	2.70	2.72	2.70	2.85	2.66	2.73	2.54

e Estimated





## CALOOSAHATCHEE RIVER

02292900 CALOOSAHATCHEE RIVER AT S-79, NEAR OLGA, FL

LOCATION.--Lat 26°43'25", long 81°41'55", in SW 1/4 sec.23, T.43 S., R.26 E., Lee County, Hydrologic Unit 03090205, in control house at southeast end of lock at salinity-control structure 79, 1 mi upstream from Telegraph Creek, and 1.2 mi northeast of Olga.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--December 1964 to March 1966 (gage heights only), April 1966 to current year.

REVISED RECORDS.--WDR FL-79-2A: 1978.

GAGE.--U.S. Army Corps of Engineers owned and operated satellite data collection platform with water-stage shaft encoders. Prior to October 16, 1998, similar equipment belonging to the U.S. Geological Survey was used. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except for estimated discharges, which are fair. Flow regulated by operation of salinity-control structure 79. Downstream stage is basically tidal, but at times is affected by gate operation. Starting in the 2002 water year the downstream stage record published is the maximum and minimum gage height for each calendar day. Prior to the 2002 water year daily mean for downstream stage was published. Discharge computed from relations between discharge, head, and gate opening. Satellite data collection platform with shaft encoders were installed August 30, 1991 to collect upstream and downstream stages. U.S. Army Corps of Engineers equipment installed on October 16, 1998. Extremes for downstream stages for the period of record are not available at the present time.

COOPERATION.--Records of stage, gate and lock operation provided by U.S. Army Corps of Engineers.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 29 complete years of discharge (1967-94, 1996-97).

EXTREME UPSTREAM STAGES FOR PERIOD OF RECORD.--Maximum gage height, 6.04 ft Sept. 14, 2001; minimum, 1.18 ft Sept. 22, 1966.

EXTREME UPSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 3.85 ft June 9; minimum, 2.47 ft July 26.

EXTREME DOWNSTREAM STAGES FOR PERIOD OF RECORD.--Not available.

EXTREME DOWNSTREAM STAGES FOR CURRENT YEAR.--Maximum gage height, 3.53 ft Sept. 4; minimum, -1.69 ft Mar. 5.

UPSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.20	3.16	3.26	3.28	3.06	2.98	3.01	2.83	3.36	3.13	3.06	2.83
2	3.14	3.00	3.33	3.24	3.04	2.97	2.94	3.05	3.07	2.98	2.97	2.98
3	3.15	2.98	3.43	3.12	3.19	2.94	2.95	3.13	3.09	3.00	3.05	3.17
4	3.14	2.91	3.38	3.14	3.26	2.90	3.00	3.23	3.40	3.11	3.09	3.29
5	3.27	3.02	3.37	3.38	3.17	2.87	3.10	3.06	3.43	3.04	3.06	3.25
6	3.15	3.24	3.36	3.52	3.05	3.07	3.07	3.05	3.23	3.13	3.00	3.19
7	3.28	3.29	3.42	3.33	3.05	3.06	3.19	3.18	e3.17	3.05	3.15	3.07
8	3.05	3.19	3.48	3.17	3.06	3.34	3.28	3.21	3.25	3.02	3.04	3.11
9	3.10	3.16	3.35	3.42	3.08	3.12	3.11	2.96	3.51	2.94	3.10	3.02
10	3.16	3.30	3.36	3.46	3.27	3.00	2.91	3.03	3.33	2.91	2.96	3.00
11	3.17	3.23	3.36	3.42	3.31	3.02	3.03	3.16	3.39	3.01	3.14	3.04
12	3.20	3.12	3.27	3.28	3.15	2.90	3.09	3.13	3.32	2.98	3.15	2.98
13	3.18	3.23	3.23	3.30	3.24	3.02	3.08	3.06	3.35	3.05	3.11	3.06
14	3.15	3.18	3.26	3.36	3.29	3.41	3.13	3.07	2.97	2.97	3.16	3.24
15	3.20	3.23	3.20	3.25	3.17	3.15	3.27	2.96	3.16	2.97	3.07	3.14
16	3.11	3.28	3.23	3.13	3.22	3.17	3.17	2.96	3.14	2.95	3.08	3.06
17	3.34	3.30	3.23	3.38	3.18	3.31	3.06	3.29	3.02	2.90	3.15	3.18
18	3.32	3.24	3.32	3.35	3.03	3.31	3.12	3.13	2.99	2.96	3.01	3.16
19	3.34	3.29	3.42	3.27	2.90	3.40	3.02	3.31	3.08	2.99	2.94	3.01
20	3.25	3.28	3.34	3.20	2.93	3.31	2.90	3.16	3.08	3.05	3.11	2.78
21	3.26	3.25	3.04	3.26	3.17	2.97	3.08	3.28	3.10	3.12	3.06	2.93
22	3.21	3.35	3.30	3.27	2.94	2.94	3.01	3.22	e3.22	2.96	3.03	2.93
23	3.27	3.28	3.34	3.15	3.17	2.95	2.92	3.33	3.24	2.95	2.98	3.01
24	3.22	3.35	3.22	3.07	3.23	3.08	3.24	3.15	3.23	2.90	3.01	3.02
25	3.17	3.30	3.26	3.18	3.07	3.19	2.98	3.05	3.09	3.02	3.03	3.03
26	3.20	3.26	3.35	3.23	2.95	3.38	2.93	3.07	3.17	2.93	3.05	3.02
27	3.12	3.23	3.22	3.35	2.72	3.28	3.10	3.17	3.11	3.06	e3.08	2.84
28	3.24	3.18	3.35	3.29	2.83	3.02	2.97	3.22	3.04	3.03	3.10	2.98
29	3.21	3.13	3.38	3.30	---	3.05	3.09	3.17	3.05	3.14	3.24	2.97
30	3.22	3.07	3.38	3.36	---	3.03	2.95	3.11	3.07	3.06	3.10	2.94
31	3.20	---	3.35	3.17	---	3.05	---	3.07	---	3.05	2.95	---
TOTAL	99.22	96.03	102.79	101.63	86.73	96.19	91.70	96.80	95.66	93.36	95.03	91.23
MEAN	3.20	3.20	3.32	3.28	3.10	3.10	3.06	3.12	3.19	3.01	3.07	3.04
MAX	3.34	3.35	3.48	3.52	3.31	3.41	3.28	3.33	3.51	3.14	3.24	3.29
MIN	3.05	2.91	3.04	3.07	2.72	2.87	2.90	2.83	2.97	2.90	2.94	2.78

e Estimated

CALOOSAHATCHEE RIVER

02292900 CALOOSAHATCHEE RIVER AT S-79, NEAR OLGA, FL

DOWNSTREAM  
GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	1.62	0.17	2.29	0.00	2.16	0.13	1.84	-0.19	1.29	-0.13	0.76	-0.46
2	1.81	0.39	2.14	0.22	1.84	-0.02	1.55	-0.05	0.99	-0.24	2.18	-0.15
3	1.84	0.41	2.12	0.26	1.89	-0.06	2.00	0.16	1.17	-0.26	2.08	0.70
4	1.98	0.51	1.89	-0.02	1.58	-0.31	0.53	-0.83	0.73	-0.13	1.16	-0.64
5	2.12	0.62	2.18	0.14	1.44	-0.33	1.12	-0.33	0.99	-0.75	-0.31	-1.69
6	2.36	0.84	2.12	0.35	1.40	-0.34	2.13	0.39	1.98	-0.29	0.60	-1.17
7	2.36	0.61	1.78	0.22	1.34	0.06	1.20	0.19	2.10	0.41	1.31	-0.52
8	1.56	0.04	2.01	0.41	1.82	0.60	0.55	-1.11	1.52	-0.35	1.33	-0.22
9	0.95	-0.85	1.93	0.37	1.84	0.37	0.96	-0.72	1.28	-0.19	1.37	-0.11
10	1.24	-0.22	1.74	0.32	1.66	0.30	1.44	-0.37	1.42	-0.11	1.05	-0.23
11	2.74	0.95	2.13	0.75	1.84	0.23	1.60	-0.10	1.23	-0.45	0.81	-0.51
12	2.31	0.61	2.09	0.50	1.91	0.12	1.49	-0.21	1.27	-0.19	1.45	0.07
13	2.66	1.02	1.90	0.23	1.83	-0.04	2.06	-0.03	1.26	-0.19	1.84	0.25
14	2.80	1.09	1.99	0.28	2.15	0.22	1.64	0.06	0.90	-0.43	1.26	-0.03
15	2.32	0.78	2.14	0.34	2.11	0.14	2.23	0.05	1.18	-0.40	1.24	-0.02
16	2.13	0.52	2.22	0.24	1.68	-0.27	1.04	-0.33	1.25	0.00	1.34	0.03
17	1.81	-0.16	1.64	-0.36	1.94	0.21	1.00	-0.26	0.94	-0.10	1.02	-0.13
18	1.11	-0.56	1.64	-0.28	2.21	0.39	1.14	-0.15	0.63	-0.52	1.37	-0.17
19	1.58	-0.07	1.97	0.16	1.69	0.36	1.16	-0.05	1.19	-0.40	1.41	-0.14
20	2.30	0.40	2.13	0.49	1.64	-0.06	1.08	-0.06	2.02	0.13	1.82	0.00
21	2.04	0.35	2.12	0.38	0.76	-0.44	0.97	0.17	1.75	0.38	1.72	0.15
22	1.99	0.57	1.80	0.39	1.12	-0.17	0.95	-0.21	1.54	0.18	1.08	-0.12
23	2.42	0.89	1.65	0.49	1.97	0.40	1.32	-0.30	1.58	0.00	1.19	-0.86
24	2.28	1.00	1.70	0.68	1.99	0.82	1.79	-0.20	1.28	-0.26	1.66	-0.36
25	2.07	0.66	1.77	0.33	1.58	0.24	1.83	0.12	1.53	-0.16	1.73	0.11
26	1.73	0.09	1.57	0.33	1.55	-0.03	1.40	-0.21	1.93	0.24	1.60	0.05
27	0.77	-0.12	1.47	0.11	1.91	-0.30	1.59	-0.24	2.21	-0.30	1.59	0.00
28	1.20	0.23	1.79	0.18	2.19	0.28	1.73	-0.11	0.95	-0.35	1.40	-0.07
29	1.23	0.13	1.86	0.28	2.77	0.95	1.74	-0.07	---	---	1.52	-0.03
30	1.48	0.34	2.06	0.24	2.23	0.23	1.60	-0.19	---	---	1.85	0.00
31	1.78	0.44	---	---	1.92	0.12	1.46	-0.10	---	---	2.13	0.27
MONTH	2.80	-0.85	2.29	-0.36	2.77	-0.44	2.23	-1.11	2.21	-0.75	2.18	-1.69

DAY	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN	MAX	MIN
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1.93	0.37	2.19	0.13	1.90	0.36	1.80	0.78	1.81	0.68	2.33	0.82
2	1.89	0.18	2.08	0.27	1.65	0.44	1.84	0.92	2.37	0.86	2.51	1.09
3	1.84	0.19	1.95	0.27	1.55	0.30	2.00	0.99	2.46	0.87	2.83	1.27
4	1.47	0.00	1.63	0.23	1.52	0.39	2.05	0.94	2.46	0.61	3.53	1.36
5	0.97	-0.12	1.32	0.27	1.67	0.55	2.05	0.69	2.22	0.54	3.09	1.37
6	0.86	-0.61	1.24	0.09	1.82	0.50	2.38	0.81	2.31	0.43	2.91	1.42
7	0.65	-0.77	1.26	0.14	e2.06	e0.46	2.02	0.54	2.72	0.42	2.45	0.96
8	1.35	-0.42	1.43	0.28	2.26	0.45	2.03	0.51	2.40	0.76	2.28	0.65
9	1.89	0.40	1.68	0.45	1.72	0.13	2.21	0.50	2.26	0.56	2.22	0.74
10	1.71	0.37	1.54	0.30	1.84	0.09	2.41	0.56	1.98	0.42	2.30	0.86
11	1.55	0.27	1.23	0.10	2.34	0.27	2.66	0.62	2.16	0.42	2.43	1.28
12	1.99	0.27	2.02	0.04	2.63	0.44	2.66	0.75	2.04	0.51	2.57	1.34
13	1.75	0.39	2.08	0.27	2.44	0.62	2.58	0.82	1.85	0.61	2.35	0.99
14	1.68	0.35	2.16	0.36	2.83	0.78	2.10	0.90	1.86	0.37	2.33	1.08
15	1.74	0.18	1.07	0.16	2.92	1.13	1.67	0.59	2.04	0.63	2.13	0.72
16	1.74	0.15	2.02	-0.25	2.66	1.02	2.15	0.34	1.63	0.22	2.05	0.64
17	1.58	0.12	2.17	0.02	2.14	0.95	2.12	0.86	2.01	0.43	1.91	0.46
18	1.49	0.03	2.13	0.33	2.02	0.72	2.20	0.80	2.16	0.50	1.98	0.44
19	1.59	-0.06	1.79	0.42	1.85	0.40	2.51	0.93	2.17	0.42	2.12	0.53
20	1.55	-0.05	1.64	0.18	1.71	0.10	2.36	0.63	2.31	0.54	2.20	0.62
21	1.68	0.03	0.87	-0.25	2.25	0.69	2.44	0.70	2.64	0.61	2.36	0.76
22	1.65	0.13	0.89	-0.47	e2.74	e0.81	2.57	0.68	2.14	0.54	2.26	0.86
23	1.65	0.19	0.85	-0.39	2.55	0.92	2.37	0.91	2.06	0.55	2.48	1.15
24	1.40	0.04	1.48	0.00	2.56	0.87	2.27	0.79	2.06	0.56	2.43	1.01
25	1.60	0.31	1.87	0.08	2.65	0.90	2.48	0.65	2.27	0.58	2.44	1.30
26	2.06	0.38	2.02	0.23	2.67	1.06	2.34	0.69	2.17	0.70	2.92	1.88
27	2.05	0.32	2.06	0.28	2.51	1.06	2.25	0.60	e1.78	e0.74	2.77	1.49
28	2.10	0.36	1.95	0.33	2.22	0.84	1.95	0.56	2.20	0.80	2.33	0.88
29	2.06	0.30	2.42	0.30	2.00	0.70	1.81	0.40	2.00	0.70	2.08	0.56
30	1.97	0.23	2.39	0.53	1.76	0.65	1.61	0.50	2.02	0.81	1.80	0.34
31	---	---	2.19	0.52	---	---	1.76	0.62	2.11	0.84	---	---
MONTH	2.10	-0.77	2.42	-0.47	2.92	0.09	2.66	0.34	2.72	0.22	3.53	0.34
YEAR	3.53	-1.69										

e Estimated

CALOOSAHATCHEE RIVER

02292900 CALOOSAHATCHEE RIVER AT S-79, NEAR OLGA, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6040	1650	0.00	431	0.00	1350	0.00	0.00	1480	9340	2490	4870
2	4010	1880	0.00	0.00	0.00	1220	0.00	0.00	2030	9910	4250	5410
3	3160	1370	0.00	303	0.00	1400	166	0.00	829	9150	4370	5060
4	2050	1630	0.00	631	0.00	1450	277	1590	285	8430	4220	5160
5	2090	375	0.00	679	0.00	1120	516	2350	184	7020	3410	4580
6	1480	941	0.00	450	0.00	971	749	780	0.00	5580	2670	6790
7	1930	1140	0.00	523	482	776	823	265	0.00	5980	3420	4980
8	1400	757	376	345	774	1330	154	66	0.00	4810	6080	4230
9	1100	235	511	382	613	1420	0.00	0.00	1440	4910	4720	3620
10	1090	261	65	757	359	1580	0.00	0.00	632	4740	3580	2800
11	691	776	484	930	756	1320	0.00	0.00	431	5580	2590	5800
12	556	116	187	476	760	529	0.00	0.00	538	4550	2450	9070
13	695	151	147	316	67	0.00	195	0.00	2620	5510	1720	8960
14	670	160	146	286	466	241	265	1430	1410	4250	1970	7870
15	511	129	190	1990	188	628	485	2470	2440	3730	1910	6820
16	295	135	20	867	0.00	727	750	1020	2320	4970	1360	4900
17	36	281	38	272	0.00	662	624	410	4910	7020	1700	2990
18	451	229	0.00	687	0.00	504	163	116	3990	7010	2760	2690
19	17	134	0.00	767	0.00	465	0.00	701	4510	6210	2330	2340
20	595	168	219	358	0.00	321	0.00	529	3520	5590	2890	2120
21	619	92	951	0.00	936	73	0.00	831	6100	4550	2840	1180
22	2370	232	850	314	1320	0.00	0.00	182	e5670	6330	2700	1220
23	1720	158	498	601	1340	0.00	0.00	450	8050	5910	2640	2920
24	2090	196	404	695	1410	218	796	157	8290	5290	2050	4270
25	2390	204	114	634	1260	489	906	0.00	8770	4860	1190	4950
26	3770	0.00	0.00	407	1100	696	244	0.00	11500	4650	749	7010
27	2970	0.00	0.00	302	326	616	0.00	0.00	10600	3730	e1350	9070
28	2300	0.00	1200	443	558	457	0.00	0.00	7060	3630	2220	7210
29	1150	0.00	1450	60	---	426	---	0.00	6730	2570	2160	6870
30	1500	0.00	896	190	---	400	0.00	0.00	6260	2850	3510	4960
31	1620	---	908	98	---	103	---	0.00	---	0.00	4350	---
TOTAL	51366	13400.00	9654.00	15194.00	12715.00	21492.00	---	13347.00	112599.00	168660.00	86649	150720
MEAN	1657	447	311	490	454	693	---	431	3753	5441	2795	5024
MAX	6040	1880	1450	1990	1410	1580	---	2470	11500	9910	6080	9070
MIN	17	0.00	0.00	0.00	0.00	0.00	---	0.00	0.00	0.00	749	1180
AC-FT101900		26580	19150	30140	25220	42630	---	26470	223300	334500	171900	299000

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1966 - 2002, BY WATER YEAR (WY)

	2045	1083	657	1155	1367	1678	1247	747	1967	2495	2755	2451
MEAN	2045	1083	657	1155	1367	1678	1247	747	1967	2495	2755	2451
MAX	10390	6869	5519	7486	10080	10320	8198	2914	6053	7376	10750	9357
(WY)	1996	1970	1995	1970	1983	1983	1983	2000	1982	1974	1974	1995
MIN	84.7	23.9	0.000	2.91	0.000	5.68	10.0	10.0	192	80.7	228	370
(WY)	1973	1997	2001	1982	2001	1990	1967	1967	1979	1981	1972	1972

SUMMARY STATISTICS

WATER YEARS 1966 - 2002

ANNUAL MEAN	1571
HIGHEST ANNUAL MEAN	5203
LOWEST ANNUAL MEAN	296
HIGHEST DAILY MEAN	21400
LOWEST DAILY MEAN	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00
ANNUAL RUNOFF (AC-FT)	1138000
10 PERCENT EXCEEDS	5100
50 PERCENT EXCEEDS	452
90 PERCENT EXCEEDS	9.8

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## 02293214 MEADE CANAL AT CAPE CORAL, FL

LOCATION.--Lat 26°38'10", long 81°55'48", in NE 1/4 NW 1/4 NE 1/4 sec.20 T.44 S., R.24 E., Lee County, Hydrologic Unit 0300205, near left bank on upstream side of containment wall, 20 ft east of bridge wingwall, on Viscaya Parkway, 100 ft west of SE 21st Avenue, and 1.2 mi upstream from Caloosahatchee River at Cape Coral.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1986 to current year.

REVISED RECORDS.--WDR FL-99-2A: 1997, 1998.

GAGE.--Electronic data logger. Datum of gage is National Geodetic Vertical Datum of 1929 (State Road Department Bench Mark).

REMARKS.--Records poor. Zero flow occurs for numerous days, during most water years. Station subjected to major shifting of the stage discharge relationship based on heavy debris buildup on carp grates and installation and removal of stoplogs, which are installed on top of the weir.

ANNUAL MEAN and RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 15 complete water years of discharge (1988-2002).

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.60	5.30	5.29	5.30	5.29	5.28	5.24	5.21	5.29	6.11	5.36	5.77
2	5.57	5.30	5.29	5.31	5.29	5.28	5.25	5.21	5.29	5.94	5.53	5.69
3	5.55	5.30	5.29	5.33	5.29	5.28	5.24	5.21	5.29	5.76	5.56	5.70
4	5.52	5.30	5.29	5.31	5.28	5.28	5.24	5.20	5.28	5.69	5.48	5.94
5	5.51	5.35	5.27	5.30	5.27	5.26	5.24	5.20	5.28	5.63	5.44	6.29
6	5.50	5.33	5.26	5.31	5.27	5.25	5.23	5.19	5.28	5.71	5.41	6.15
7	5.50	5.31	5.28	5.31	5.27	5.26	5.22	5.18	5.28	e6.10	5.43	5.39
8	5.50	5.29	5.29	5.30	5.27	5.27	5.21	5.17	5.31	e6.07	5.48	5.18
9	5.50	5.29	5.28	5.29	5.27	5.27	5.21	5.16	5.38	5.91	5.45	5.07
10	5.41	5.29	5.28	5.28	5.27	5.26	5.21	5.15	5.35	5.83	5.41	5.07
11	5.37	5.29	5.28	5.27	5.28	5.26	5.22	5.14	5.33	5.75	5.40	5.31
12	5.36	5.29	5.27	5.27	5.28	5.26	5.23	5.14	5.33	5.70	5.41	5.52
13	5.34	5.29	5.27	5.27	5.28	5.26	5.24	5.19	5.34	5.68	5.40	5.32
14	5.34	5.29	5.27	5.27	5.28	5.26	5.24	5.20	5.37	5.68	5.40	5.20
15	5.34	5.28	5.27	5.40	5.28	5.26	5.25	5.19	5.41	5.62	5.39	5.13
16	5.33	5.28	5.27	5.36	5.28	5.27	5.28	5.25	5.48	5.59	5.38	5.07
17	5.32	5.28	5.27	5.34	5.28	5.26	5.28	5.39	5.65	6.43	5.57	5.22
18	5.30	5.28	5.27	5.33	5.27	5.26	5.27	5.33	5.58	6.08	5.76	5.34
19	5.33	5.28	5.27	5.32	5.27	5.26	5.26	5.53	5.54	5.59	5.62	5.38
20	5.37	5.29	5.26	5.32	5.27	5.25	5.25	5.49	5.80	5.49	5.58	e5.42
21	5.35	5.29	5.26	5.31	5.27	5.25	5.25	5.40	6.10	5.44	5.54	e5.45
22	5.34	5.29	5.26	5.31	5.29	5.26	5.25	5.37	5.86	5.41	5.53	e5.51
23	5.35	5.29	5.26	5.30	5.33	5.24	5.24	5.35	5.77	5.39	5.50	e5.73
24	5.34	5.29	5.27	5.30	5.31	5.24	5.23	5.33	5.75	5.39	5.46	e5.47
25	5.33	5.29	5.27	5.30	5.30	5.24	5.23	5.32	5.69	5.41	5.43	e5.40
26	5.34	5.29	5.28	5.29	5.30	5.25	5.23	5.32	5.63	5.42	5.54	5.36
27	5.31	5.29	5.26	5.29	5.29	5.25	5.22	5.31	e5.84	5.41	5.68	e5.58
28	5.30	5.29	5.27	5.29	5.28	5.25	5.22	5.31	e6.08	5.39	6.06	e5.49
29	5.29	5.29	5.28	5.29	---	5.25	5.22	5.30	e6.09	5.38	6.14	5.41
30	5.29	5.29	5.28	5.29	---	5.25	5.21	5.30	e6.05	5.37	6.03	5.39
31	5.30	---	5.29	5.29	---	5.24	---	5.30	---	5.37	5.92	---
TOTAL	167.10	158.81	163.50	164.45	147.91	163.01	157.11	163.34	166.72	175.74	172.29	163.95
MEAN	5.39	5.29	5.27	5.30	5.28	5.26	5.24	5.27	5.56	5.67	5.56	5.46
MAX	5.60	5.35	5.29	5.40	5.33	5.28	5.28	5.53	6.10	6.43	6.14	6.29
MIN	5.29	5.28	5.26	5.27	5.27	5.24	5.21	5.14	5.28	5.37	5.36	5.07

e Estimated

CALOOSAHATCHEE RIVER

02293214 MEADE CANAL AT CAPE CORAL, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	3.2	1.4	1.7	2.7	0.99	1.5	0.43	2.2	71	7.3	11
2	5.5	3.2	1.2	1.8	2.7	0.99	1.6	0.43	1.8	48	20	5.0
3	3.9	3.3	1.0	2.6	2.7	1.2	1.6	0.41	1.8	29	20	4.4
4	2.8	3.0	2.0	1.8	2.4	1.1	1.5	0.31	1.6	24	13	31
5	2.2	5.3	2.9	1.4	1.8	1.5	1.5	0.24	1.5	19	9.9	54
6	1.9	3.9	2.4	1.7	1.3	1.8	1.1	0.10	1.5	26	7.4	62
7	1.7	3.2	2.5	1.4	1.5	2.2	0.65	0.00	1.3	e68	8.6	9.8
8	1.7	2.4	3.2	0.90	1.5	2.7	0.38	0.00	2.5	e64	12	0.51
9	7.6	3.0	2.8	2.3	1.4	2.5	0.35	0.00	5.8	44	9.7	0.00
10	10	3.6	2.7	3.1	1.6	2.2	0.45	0.00	4.3	36	7.7	0.00
11	8.1	3.4	2.5	2.8	1.9	2.2	0.82	0.00	3.3	29	7.1	13
12	7.2	3.1	1.9	2.7	1.8	2.2	1.1	0.02	3.0	24	7.3	18
13	6.6	3.1	1.8	2.7	1.6	2.3	1.4	0.16	3.2	23	6.9	5.3
14	6.2	3.1	1.8	2.9	1.7	2.2	1.4	0.28	4.5	23	6.9	0.39
15	5.6	2.7	1.8	9.5	1.7	2.3	1.7	0.15	7.0	19	6.6	0.00
16	5.3	2.2	1.8	6.8	1.8	2.5	3.3	3.0	12	16	5.9	0.00
17	4.7	2.2	1.6	5.8	1.3	2.3	3.1	8.6	23	117	21	1.1
18	3.7	2.2	1.4	5.3	0.96	2.2	2.6	5.4	18	74	31	6.6
19	5.1	2.2	1.4	4.9	0.90	2.2	2.2	19	15	23	19	8.5
20	7.5	2.1	1.2	4.7	0.92	2.0	1.9	15	44	15	14	e10
21	6.4	2.2	0.99	4.2	1.2	2.0	1.8	9.2	70	13	10	e12
22	6.0	2.2	0.82	4.1	1.7	2.1	1.6	7.0	41	10	8.8	e16
23	6.4	2.2	0.74	3.7	3.4	1.6	1.4	5.9	32	9.2	5.6	e34
24	6.0	1.8	0.94	3.5	2.6	1.5	1.2	5.0	30	9.2	2.8	e14
25	5.0	1.8	1.1	3.5	2.1	1.5	0.98	4.3	25	10	0.86	e8.7
26	5.1	1.8	1.3	2.8	2.2	1.8	1.0	4.0	20	11	4.9	6.6
27	3.8	1.8	0.74	2.7	1.8	1.8	0.87	3.2	e37	11	12	e21
28	2.9	1.5	0.70	2.7	0.97	1.8	0.68	3.1	e65	9.3	42	e14
29	2.7	1.4	0.93	2.7	---	1.8	0.60	2.9	e66	8.4	47	8.6
30	2.8	1.4	1.1	2.7	---	1.7	0.45	2.7	e61	8.3	33	7.5
31	3.0	---	1.5	2.7	---	1.5	---	2.6	---	8.0	22	---
TOTAL	154.5	78.5	50.16	102.10	50.15	58.68	40.73	103.43	604.3	899.4	430.26	383.00
MEAN	4.98	2.62	1.62	3.29	1.79	1.89	1.36	3.34	20.1	29.0	13.9	12.8
MAX	10	5.3	3.2	9.5	3.4	2.7	3.3	19	70	117	47	62
MIN	1.7	1.4	0.70	0.90	0.90	0.99	0.35	0.00	1.3	8.0	0.86	0.00
AC-FT	306	156	99	203	99	116	81	205	1200	1780	853	760

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2002, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	5.90	2.34	2.18	3.61	2.70	2.04	1.48	1.61	9.21	13.8	12.2	10.5				
MAX	22.5	10.7	9.69	9.98	16.3	5.80	4.48	5.05	24.8	29.0	38.3	22.9				
(WY)	2001	1999	1998	1999	1998	1998	1997	1997	1995	1995	1995	1995				
MIN	0.000	0.079	0.052	0.43	0.11	0.17	0.000	0.014	1.27	1.59	3.20	4.14				
(WY)	1989	1990	1997	2001	1994	1995	1990	1993	1988	1996	1991	1992				

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1987 - 2002

ANNUAL TOTAL	2218.34	2955.21	
ANNUAL MEAN	6.08	8.10	5.73
HIGHEST ANNUAL MEAN			10.6
LOWEST ANNUAL MEAN			2.28
HIGHEST DAILY MEAN	321	Jul 23	321
LOWEST DAILY MEAN	0.00	May 10	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	May 10	0.02
MAXIMUM PEAK FLOW			138
MAXIMUM PEAK STAGE			6.55
ANNUAL RUNOFF (AC-FT)	4400	5860	4150
10 PERCENT EXCEEDS	13	21	16
50 PERCENT EXCEEDS	1.8	2.7	2.2
90 PERCENT EXCEEDS	0.17	0.90	0.00

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## 02293230 WHISKEY CREEK AT FT. MYERS, FL

LOCATION.--Lat 26°34'27", long 81°53'29", in NW 1/4 NW 1/4 SE 1/4, sec.10, T.45 S., R.24 E., Lee County, Hydrologic Unit

03090205, 300 ft upstream from mouth on left bank, above spillway at Whiskey Creek Drive, 1.4 mi south of Colonial Boulevard.

DRAINAGE AREA.--Approximately 9 mi sq. Information provided by Johnson Engineering, Inc. 1979.

PERIOD OF RECORD.--April 1994 to current year.

GAGE.--Satellite data collection platform with water-stage shaft encoder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Discharge for all periods when the vertical gates are opened are not included. Formerly published as Whiskey Creek at Whiskey Creek Drive near Ft. Myers, Fl. Days of zero flow occurred during water years 1994, 1995 and 1997.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 5 complete water years of discharge (1995-98, 2002).

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.12	3.06	3.03	3.06	3.07	3.13	2.96	2.98	e3.00	3.16	3.09	3.16
2	3.10	3.05	3.05	3.06	3.05	3.13	2.96	2.97	e3.01	3.16	3.10	3.14
3	3.10	3.05	3.03	3.05	3.06	3.12	2.97	2.96	e3.01	3.14	3.09	3.14
4	3.09	3.06	3.02	3.04	3.06	e3.10	2.96	2.96	e3.00	3.11	3.09	3.14
5	3.09	3.09	3.02	3.05	3.06	e3.12	2.96	2.96	e3.00	3.10	3.08	3.17
6	3.09	3.06	3.02	3.05	3.07	3.08	2.96	2.96	e3.02	3.09	3.06	3.20
7	3.09	3.04	3.02	3.04	3.08	3.01	2.96	2.96	e3.02	3.09	3.11	3.14
8	3.10	3.04	3.02	3.03	3.06	3.04	2.93	2.97	e3.01	3.09	3.10	3.12
9	3.09	3.04	3.03	3.03	3.08	3.03	2.93	2.96	e3.03	3.07	3.09	3.11
10	3.08	3.06	3.04	3.02	3.08	3.02	2.94	2.96	e3.02	3.06	3.08	3.10
11	3.08	3.06	3.04	3.02	3.10	3.02	2.96	2.97	3.01	3.06	3.09	3.17
12	3.08	3.06	3.02	3.02	3.10	3.03	2.99	2.97	3.02	3.06	3.08	3.18
13	3.08	3.06	3.03	3.02	3.08	3.02	3.02	2.96	3.11	3.06	3.15	3.16
14	3.08	3.06	3.03	3.03	3.10	2.99	3.00	2.97	3.11	3.05	3.12	3.13
15	3.09	3.06	3.03	3.22	3.10	2.97	2.99	2.96	3.10	3.06	3.10	3.11
16	3.10	3.06	3.03	3.11	3.10	2.97	3.02	2.96	3.08	3.11	3.16	3.10
17	3.10	3.05	3.03	3.10	3.10	3.00	3.02	2.95	3.10	3.17	3.26	3.10
18	3.07	3.05	3.03	3.10	3.10	2.99	3.00	2.95	3.07	3.13	3.20	3.09
19	3.09	3.05	3.03	3.10	3.09	2.98	3.01	3.12	3.06	3.12	3.14	3.09
20	3.09	3.06	3.03	3.10	3.10	2.96	3.00	3.06	3.12	3.10	3.36	3.12
21	3.08	3.06	3.03	3.10	3.12	2.96	3.00	3.06	3.11	3.16	3.35	3.11
22	3.09	3.05	3.03	3.10	3.12	2.96	3.00	3.06	3.09	3.14	3.26	3.17
23	3.09	3.05	3.03	3.10	3.16	2.97	3.00	3.05	3.08	3.10	3.24	3.18
24	3.08	3.05	3.03	3.10	3.14	2.96	3.00	e3.04	3.09	3.09	3.17	3.13
25	3.08	3.04	3.03	3.08	3.13	2.96	3.00	e3.03	3.10	3.11	3.14	3.11
26	3.09	3.04	3.05	3.09	3.10	2.98	3.00	e3.04	3.10	3.16	3.13	3.10
27	3.08	e3.04	3.06	3.09	3.12	2.96	2.99	e3.03	3.10	3.15	3.14	3.11
28	3.07	e3.04	3.06	3.08	3.13	2.96	2.99	e3.02	3.09	3.12	3.26	3.11
29	3.07	3.02	3.06	3.06	---	2.96	2.99	e3.01	3.12	3.11	3.30	e3.18
30	3.07	3.02	3.04	3.07	---	2.96	2.98	e3.01	3.13	3.10	3.25	e3.11
31	3.06	---	3.05	3.08	---	2.96	---	e3.01	---	3.10	3.19	---
TOTAL	95.67	91.53	94.05	95.20	86.66	93.30	89.49	92.87	91.91	96.33	97.98	93.98
MEAN	3.09	3.05	3.03	3.07	3.10	3.01	2.98	3.00	3.06	3.11	3.16	3.13
MAX	3.12	3.09	3.06	3.22	3.16	3.13	3.02	3.12	3.13	3.17	3.36	3.20
MIN	3.06	3.02	3.02	3.02	3.05	2.96	2.93	2.95	3.00	3.05	3.06	3.09

e Estimated

CALOOSAHATCHEE RIVER

02293230 WHISKEY CREEK AT FT. MYERS, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	24	5.6	2.1	5.8	4.8	6.1	1.5	1.5	e1.9	26	8.5	21
2	20	4.8	2.9	6.0	3.5	6.3	1.7	1.2	e2.3	25	9.9	19
3	18	4.4	3.0	4.6	3.7	4.5	1.9	0.94	e2.4	20	8.5	18
4	16	5.6	2.9	4.2	3.1	e2.5	1.9	0.92	e1.7	15	8.3	19
5	15	8.5	3.0	5.1	3.2	e4.0	1.5	0.93	e1.8	13	6.7	26
6	14	6.9	3.0	4.5	4.2	3.3	1.7	0.83	e2.4	12	4.7	32
7	14	7.0	3.6	4.1	5.1	2.7	1.8	1.0	e2.6	12	11	18
8	15	7.0	3.0	3.3	3.8	4.5	0.56	1.1	e2.2	12	8.5	16
9	12	6.7	3.8	3.8	4.0	4.1	0.42	0.95	e3.3	9.6	6.4	14
10	11	7.8	5.2	3.9	4.1	3.3	0.73	1.1	e2.9	8.3	5.6	12
11	10	7.9	4.4	3.9	6.0	3.4	1.4	1.3	1.9	8.3	7.6	27
12	9.9	7.8	3.3	3.5	6.2	3.7	2.8	0.96	2.6	7.7	5.9	26
13	8.5	7.9	3.7	3.0	4.1	2.9	5.4	0.77	27	7.7	20	22
14	8.3	7.8	4.3	4.0	5.5	2.2	3.1	1.1	13	6.3	12	16
15	8.1	6.9	3.9	4.0	4.8	2.5	2.7	0.84	9.8	6.8	8.3	13
16	9.5	6.4	3.6	14	4.8	2.6	5.9	0.67	7.6	16	22	11
17	8.3	6.0	3.7	12	4.8	4.5	5.2	0.51	9.7	26	51	11
18	7.0	6.0	4.0	11	4.8	3.7	3.4	0.49	11	17	27	9.1
19	17	6.2	3.7	11	4.1	3.4	3.6	20	9.8	16	15	9.6
20	15	5.6	3.9	11	4.8	2.3	3.5	7.5	21	13	95	15
21	12	5.4	4.2	11	5.4	2.0	3.4	7.4	15	28	71	12
22	14	5.3	3.5	11	5.5	2.1	3.2	6.9	12	18	45	29
23	13	4.8	3.1	10	11	2.2	3.3	5.6	12	10	39	25
24	12	4.5	3.2	9.1	8.2	1.6	3.1	e4.9	12	9.6	22	14
25	11	3.7	3.3	7.0	6.8	1.6	2.7	e4.1	13	14	18	11
26	12	3.5	5.3	7.8	3.6	2.5	2.4	e4.4	14	23	15	9.8
27	10	e3.3	5.8	8.1	4.7	1.7	2.2	e3.8	14	19	17	11
28	8.7	e2.9	6.2	7.2	5.7	1.8	2.1	e3.0	13	14	46	11
29	8.5	2.1	6.5	4.4	---	1.8	2.0	e2.1	19	12	58	e24
30	7.8	2.0	3.6	5.3	---	1.7	1.8	e2.1	18	11	41	e10
31	7.2	---	4.8	5.5	---	1.7	---	e2.1	---	9.5	27	---
TOTAL	376.8	170.3	120.5	245.1	140.3	93.2	76.91	91.01	278.9	445.8	740.9	511.5
MEAN	12.2	5.68	3.89	7.91	5.01	3.01	2.56	2.94	9.30	14.4	23.9	17.1
MAX	24	8.5	6.5	40	11	6.3	5.9	20	27	28	95	32
MIN	7.0	2.0	2.1	3.0	3.1	1.6	0.42	0.49	1.7	6.3	4.7	9.1
AC-FT	747	338	239	486	278	185	153	181	553	884	1470	1010

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1994 - 2002, BY WATER YEAR (WY)

	1994	1995	1996	1997	1998	1999	2000	2001	2002			
MEAN	10.3	5.03	4.62	4.42	2.86	4.06	3.55	2.83	13.7	24.2	22.5	27.0
MAX	16.3	9.22	10.0	8.10	5.01	10.6	5.32	6.18	32.4	31.0	37.5	50.0
(WY)	1997	2000	1998	1996	2002	1998	2000	1996	1996	2001	2001	2001
MIN	3.81	1.41	1.52	0.88	0.72	1.00	1.35	0.71	2.21	14.4	10.7	13.4
(WY)	1995	1997	1997	2001	2001	1995	1999	1994	1994	2002	1997	1994

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1994 - 2002

ANNUAL TOTAL	4917.43	3291.22
ANNUAL MEAN	13.5	9.02
HIGHEST ANNUAL MEAN		10.9
LOWEST ANNUAL MEAN		13.1
HIGHEST DAILY MEAN	200	95
LOWEST DAILY MEAN	0.13	0.42
ANNUAL SEVEN-DAY MINIMUM	0.23	0.76
MAXIMUM PEAK FLOW		492
MAXIMUM PEAK STAGE		4.34
ANNUAL RUNOFF (AC-FT)	9750	6530
10 PERCENT EXCEEDS	34	19
50 PERCENT EXCEEDS	4.8	5.9
90 PERCENT EXCEEDS	0.68	1.8

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.



## CHARLOTTE HARBOR AND COASTAL AREA

02293240 ARIES CANAL AT CAPE CORAL, FL

LOCATION.--Lat 26°36'00", long 81°59'39", in SE 1/4 SW 1/4 NE 1/4 sec.34, T.44 S., R.23 E., Lee County, Hydrologic Unit 03090205, on right wingwall on downstream side of bridge at SW 28th Street, 0.33 mi west of Skyline Boulevard, and 4.6 mi upstream from Caloosahatchee River at Cape Coral.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--December 1989 to current year.

GAGE.--Electronic data logger. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records fair. Zero flow occurs for numerous days, during most water years. Station subjected to major shifting of the stage discharge relationship based on heavy debris build up on carp grates and installation and removal of stoplogs, which are installed on top of the weir.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 13 complete water years of discharge (1990-2002).

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.63	3.18	3.11	3.16	3.15	3.12	2.98	2.89	3.10	3.89	3.44	3.69
2	3.55	3.18	3.11	3.17	3.15	3.13	2.98	2.88	3.09	3.87	3.42	3.58
3	3.49	3.17	3.11	3.19	3.15	3.14	2.98	2.86	3.09	3.78	3.44	3.52
4	3.42	3.17	3.12	3.17	3.18	3.13	2.96	2.84	3.08	3.69	3.56	3.49
5	3.34	3.22	3.11	3.16	3.17	3.11	2.96	2.82	3.08	3.58	3.48	3.47
6	3.32	3.20	3.10	3.17	3.16	3.10	2.94	2.79	3.08	3.59	3.38	3.52
7	3.30	3.18	3.11	3.17	3.15	3.12	2.91	2.77	3.08	3.97	3.32	3.55
8	3.28	3.18	3.12	3.15	3.14	3.13	2.90	2.76	3.14	4.12	3.34	3.55
9	3.26	3.18	3.12	3.14	3.14	3.14	2.89	2.75	3.23	3.84	3.30	3.52
10	3.24	3.17	3.12	3.14	3.13	3.14	2.88	2.72	3.19	3.71	3.27	3.50
11	3.21	3.17	3.11	3.14	3.14	3.13	2.89	2.70	3.17	3.64	3.26	3.88
12	3.21	3.16	3.10	3.14	3.14	3.13	2.90	2.68	3.17	3.56	3.26	3.93
13	3.20	3.15	3.09	3.13	3.13	3.11	2.90	2.71	3.25	3.55	3.26	3.67
14	3.19	3.16	3.09	3.13	3.13	3.09	2.90	2.71	3.50	3.56	3.26	3.56
15	3.19	3.16	3.09	3.30	3.13	3.08	2.90	2.69	3.42	3.48	3.26	3.56
16	3.18	3.15	3.09	3.23	3.13	3.08	2.93	2.76	3.44	3.56	3.29	3.51
17	3.17	3.14	3.10	3.21	3.13	3.07	2.98	3.04	3.64	4.02	3.34	3.53
18	3.17	3.14	3.10	3.19	3.12	3.07	3.00	3.05	3.58	3.83	3.37	3.43
19	3.23	3.14	3.10	3.19	3.12	3.05	3.00	3.22	3.58	3.53	3.33	3.39
20	3.30	3.14	3.09	3.19	3.11	3.04	3.00	3.28	4.00	3.37	3.34	3.44
21	3.25	3.13	3.08	3.19	3.11	3.05	2.99	3.22	3.99	3.30	3.35	3.46
22	3.25	3.13	3.08	3.19	3.12	3.04	2.98	3.19	3.73	3.27	3.37	3.58
23	3.29	3.13	3.09	3.18	3.18	3.02	2.97	3.17	3.61	3.26	3.36	3.86
24	3.27	3.13	3.09	3.17	3.17	3.01	2.96	3.16	3.53	3.26	3.39	3.50
25	3.25	3.13	3.10	3.17	3.16	3.01	2.95	3.14	3.48	3.25	3.41	3.40
26	3.25	3.12	3.11	3.17	3.16	3.01	2.94	3.13	3.56	3.30	3.42	3.37
27	3.22	3.12	3.10	3.16	3.16	3.01	2.93	3.13	3.73	3.37	3.47	3.49
28	3.20	3.12	3.11	3.16	3.14	3.01	2.91	3.12	4.15	3.48	3.80	3.42
29	3.19	3.12	3.12	3.16	---	2.99	2.90	3.12	4.47	3.41	3.83	3.42
30	3.19	3.12	3.14	3.15	---	3.00	2.90	3.12	4.15	3.45	3.84	3.35
31	3.19	---	3.14	3.15	---	2.99	---	3.11	---	3.51	3.84	---
TOTAL	101.43	94.59	96.25	98.32	88.00	95.25	88.21	91.53	104.31	111.00	106.00	106.14
MEAN	3.27	3.15	3.10	3.17	3.14	3.07	2.94	2.95	3.48	3.58	3.42	3.54
MAX	3.63	3.22	3.14	3.30	3.18	3.14	3.00	3.28	4.47	4.12	3.84	3.93
MIN	3.17	3.12	3.08	3.13	3.11	2.99	2.88	2.68	3.08	3.25	3.26	3.35

## CHARLOTTE HARBOR AND COASTAL AREA

02293240 ARIES CANAL AT CAPE CORAL, FL--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	56	5.7	3.8	3.9	3.0	1.9	0.00	0.00	3.0	80	37	39
2	47	5.3	3.6	4.5	3.2	2.3	0.00	0.00	2.7	76	35	26
3	39	4.9	3.7	5.8	3.1	2.8	0.00	0.00	2.3	64	37	18
4	30	5.0	4.0	4.5	4.9	2.3	0.00	0.00	2.0	50	51	14
5	22	8.3	3.6	3.8	4.4	1.6	0.00	0.00	1.9	37	41	11
6	20	7.1	2.9	4.1	3.5	0.91	0.00	0.00	2.0	37	31	13
7	18	5.8	3.2	4.0	3.2	1.7	0.00	0.00	1.9	93	24	13
8	16	5.5	3.6	2.8	2.6	2.7	0.00	0.00	5.9	113	26	11
9	14	5.5	3.6	2.1	2.2	2.8	0.00	0.00	12	68	22	9.3
10	12	5.8	3.4	1.9	1.9	3.0	0.00	0.00	9.0	50	19	7.7
11	9.6	5.4	2.8	2.0	2.4	2.6	0.00	0.00	7.5	41	18	81
12	9.0	4.9	2.2	1.7	2.2	2.2	0.00	0.00	7.5	33	18	104
13	8.1	4.5	1.9	1.4	1.7	1.2	0.00	0.00	17	31	18	66
14	7.7	4.8	1.5	1.5	1.7	0.41	0.00	0.00	40	33	18	51
15	7.2	4.9	1.6	13	1.9	0.25	0.00	0.00	30	25	18	51
16	6.5	4.4	1.4	8.0	1.9	0.12	0.00	0.00	33	33	20	45
17	5.7	4.0	1.9	6.1	1.9	0.08	0.00	0.10	56	93	24	48
18	5.4	4.0	1.9	5.1	1.6	0.18	0.00	0.32	47	76	25	36
19	10	4.2	1.9	4.6	1.2	0.00	0.00	13	47	47	20	32
20	16	4.2	1.3	4.9	0.81	0.00	0.00	16	106	30	19	38
21	12	3.6	0.74	4.9	1.3	0.00	0.00	11	103	22	20	39
22	11	3.6	0.54	4.8	2.2	0.00	0.00	8.5	64	19	20	60
23	15	3.6	0.77	4.3	5.3	0.00	0.00	7.0	48	18	17	95
24	14	3.9	0.94	3.9	5.1	0.00	0.00	6.4	38	18	19	45
25	12	4.1	1.3	4.2	4.4	0.00	0.00	5.8	32	17	20	33
26	12	3.9	1.8	4.2	4.2	0.00	0.00	5.1	41	22	19	29
27	9.1	3.6	1.1	3.8	3.9	0.00	0.00	4.9	61	30	22	42
28	6.8	3.6	1.2	3.6	2.7	0.00	0.00	4.5	137	41	59	34
29	6.3	3.6	2.2	3.6	---	0.00	0.00	4.2	187	34	62	32
30	6.2	3.6	3.0	3.3	---	0.00	0.00	4.1	123	39	61	23
31	6.0	---	3.3	3.0	---	0.00	---	3.5	---	45	59	---
TOTAL	469.6	141.3	70.69	129.3	78.41	29.05	0.00	94.42	1267.7	1415	899	1146.0
MEAN	15.1	4.71	2.28	4.17	2.80	0.94	0.000	3.05	42.3	45.6	29.0	38.2
MAX	56	8.3	4.0	13	5.3	3.0	0.00	16	187	113	62	104
MIN	5.4	3.6	0.54	1.4	0.81	0.00	0.00	0.00	1.9	17	17	7.7
AC-FT	931	280	140	256	156	58	0.00	187	2510	2810	1780	2270

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2002, BY WATER YEAR (WY)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	16.4	4.75	3.80	7.93	5.65	3.57	2.61	2.26	18.1	42.1	29.4	41.6	
MAX	33.2	15.3	20.6	22.3	31.6	11.8	8.56	8.67	60.0	127	57.9	110	
(WY)	1992	1999	1998	1999	1998	1998	1992	1996	1992	1999	2000	2000	
MIN	2.52	0.015	0.40	1.25	0.74	0.23	0.000	0.000	0.92	7.92	6.02	13.6	
(WY)	1999	1997	1991	1990	2001	1997	1999	1994	1994	1994	1994	1996	

## SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1990 - 2002

ANNUAL TOTAL	5731.97	5740.47											
ANNUAL MEAN	15.7	15.7								14.9			
HIGHEST ANNUAL MEAN										27.9		1999	
LOWEST ANNUAL MEAN										5.73		1990	
HIGHEST DAILY MEAN	587	Jul 23				187	Jun 29		587	Jul 23	2001		
LOWEST DAILY MEAN	0.00	Feb 19				0.00	Mar 19						
ANNUAL SEVEN-DAY MINIMUM	0.00	Feb 19				0.00	Mar 19						
MAXIMUM PEAK FLOW						336	Jun 28		849	Jul 24	2001		
MAXIMUM PEAK STAGE						5.14	Jun 28		7.17	Jul 24	2001		
ANNUAL RUNOFF (AC-FT)	11370					11390			10790				
10 PERCENT EXCEEDS	36					47			38				
50 PERCENT EXCEEDS	3.3					4.5			4.7				
90 PERCENT EXCEEDS	0.00					0.00			0.00				

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## CALOOSAHATCHEE RIVER

02293241 SAN CARLOS CANAL AT CAPE CORAL, FL

LOCATION.--Lat 26°36'11", long 81°57'48", in NW 1/4 SW 1/4 NE 1/4 sec.36, T.44 S., R.23 E., Lee County, Hydrologic Unit 03090205, near right bank on upstream side of wingwall of bridge on SE 26th Terrace, 300 ft west of Retunda Parkway and 2.4 mi upstream of Caloosahatchee River.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1986 to current year.

REVISED RECORDS.--WDR FL-01-2A: 2000.

GAGE.--Electronic data logger. Datum of gage is National Geodetic Vertical Datum of 1929 (State Road Department bench mark).

REMARKS.--Records poor. Station is subject to major shifting of the stage discharge relationship based on heavy debris buildup on the carp gates, and installation and removal of stoplogs, which are installed on top of the weir.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 15 complete water years of discharge (1988-2002).

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.43	5.20	4.85	4.29	4.73	4.21	3.34	3.76	4.54	5.69	5.28	4.57
2	5.39	5.21	4.81	4.31	4.69	4.21	3.31	3.69	4.53	5.77	5.30	4.50
3	5.37	5.18	4.80	4.36	4.64	4.21	3.29	3.67	4.55	5.68	5.29	4.51
4	5.34	5.17	4.78	4.40	4.60	4.21	3.25	3.63	4.58	5.65	5.24	4.67
5	5.33	5.24	4.74	4.41	4.57	4.19	3.25	3.57	4.61	5.56	5.20	4.92
6	5.32	5.24	4.71	4.42	4.52	4.17	3.25	3.50	4.63	5.83	5.17	5.25
7	5.31	5.20	4.71	4.46	4.47	4.15	3.19	3.44	4.67	6.10	5.16	5.29
8	5.32	5.17	4.71	4.50	4.48	4.19	3.12	3.36	4.82	5.98	5.22	5.29
9	5.32	5.18	4.68	4.49	4.45	4.19	3.08	3.30	5.09	5.74	5.22	5.29
10	5.28	5.16	4.67	4.47	4.39	4.19	3.09	3.27	5.11	5.60	5.19	5.42
11	5.25	5.14	4.67	4.50	4.36	4.17	3.13	3.25	5.11	5.44	5.15	5.76
12	5.24	5.15	4.63	4.50	4.36	4.15	3.21	3.23	5.11	5.34	5.15	5.65
13	5.21	5.16	4.57	4.49	4.34	4.13	3.28	3.24	5.19	5.31	5.14	5.27
14	5.18	5.13	4.57	4.48	4.29	4.10	3.31	3.22	5.42	5.30	5.13	5.23
15	5.20	5.10	4.56	4.79	4.28	4.09	3.37	3.21	5.42	5.23	5.12	5.31
16	5.20	5.10	4.53	4.84	4.26	4.06	3.49	3.19	5.48	5.14	5.17	5.21
17	5.17	5.09	4.51	4.87	4.23	3.99	3.66	3.33	5.75	5.15	5.35	5.26
18	5.12	5.06	4.50	4.93	4.18	3.92	3.72	3.35	5.56	4.96	5.46	5.28
19	5.18	5.05	4.46	4.94	4.16	3.87	3.80	3.58	5.45	4.86	5.39	5.27
20	5.28	5.05	4.40	4.92	4.13	3.81	3.85	3.91	5.65	4.78	5.40	e5.32
21	5.24	5.03	4.39	4.93	4.10	3.73	3.85	4.01	5.89	4.70	5.38	e5.32
22	5.26	5.00	4.36	4.94	4.11	3.72	3.88	4.08	5.64	4.65	5.42	e5.46
23	5.28	4.99	4.30	4.93	4.18	3.71	3.91	4.14	5.55	4.59	5.38	e5.52
24	5.27	4.98	4.28	4.90	4.20	3.66	3.91	4.22	5.52	4.58	5.33	e5.34
25	5.25	4.98	4.28	4.92	4.20	3.60	3.90	4.28	5.47	4.60	5.28	5.29
26	5.27	4.97	4.28	4.92	4.23	3.59	3.89	4.33	5.44	4.75	5.29	5.27
27	5.24	4.96	4.22	4.84	4.22	3.56	3.89	4.38	5.59	4.99	5.31	5.61
28	5.21	4.93	4.22	4.83	4.20	3.51	3.85	4.45	5.77	5.18	5.49	5.49
29	5.21	4.88	4.22	4.83	---	3.47	3.82	4.48	5.71	5.22	5.45	5.46
30	5.21	4.87	4.23	4.79	---	3.45	3.79	4.49	5.65	5.28	5.18	5.40
31	5.21	---	4.25	4.72	---	3.39	---	4.51	---	5.32	4.77	---
TOTAL	163.09	152.57	139.89	144.92	121.57	121.60	105.68	116.07	157.50	162.97	163.01	157.43
MEAN	5.26	5.09	4.51	4.67	4.34	3.92	3.52	3.74	5.25	5.26	5.26	5.25
MAX	5.43	5.24	4.85	4.94	4.73	4.21	3.91	4.51	5.89	6.10	5.49	5.76
MIN	5.12	4.87	4.22	4.29	4.10	3.39	3.08	3.19	4.53	4.58	4.77	4.50

e Estimated

CALOOSAHATCHEE RIVER

02293241 SAN CARLOS CANAL AT CAPE CORAL, FL--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15	3.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	23	9.9	0.00
2	12	3.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	28	11	0.00
3	10	2.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	20	11	0.00
4	8.9	2.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	19	8.1	0.00
5	8.4	4.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12	6.5	0.69
6	8.0	4.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	57	5.1	8.2
7	7.6	2.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	80	4.8	10
8	8.1	2.6	0.00	0.00	0.00	0.00	0.00	0.00	0.05	59	7.0	10
9	8.6	3.6	0.00	0.00	0.00	0.00	0.00	0.00	0.69	26	7.0	10
10	8.1	2.9	0.00	0.00	0.00	0.00	0.00	0.00	0.83	15	5.9	18
11	6.4	2.4	0.00	0.00	0.00	0.00	0.00	0.00	0.28	5.7	4.4	61
12	6.0	2.7	0.00	0.00	0.00	0.00	0.00	0.00	0.05	1.9	4.3	39
13	4.7	2.8	0.00	0.00	0.00	0.00	0.00	0.00	2.5	1.4	4.0	9.6
14	3.3	2.0	0.00	0.00	0.00	0.00	0.00	0.00	10	0.92	3.6	8.4
15	3.8	1.2	0.00	0.00	0.00	0.00	0.00	0.00	9.6	0.00	3.1	11
16	4.1	1.4	0.00	0.00	0.00	0.00	0.00	0.00	15	0.10	5.2	6.7
17	2.9	1.1	0.00	0.00	0.00	0.00	0.00	0.00	33	4.6	15	8.8
18	1.6	0.30	0.00	0.00	0.00	0.00	0.00	0.00	15	0.10	21	9.6
19	3.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.0	0.00	16	8.8
20	7.3	0.11	0.00	0.00	0.00	0.00	0.00	0.00	31	0.00	17	e11
21	5.3	0.03	0.00	0.00	0.00	0.00	0.00	0.00	46	0.00	15	e11
22	5.8	0.00	0.00	0.00	0.00	0.00	0.00	0.00	18	0.00	18	e20
23	7.2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	0.00	15	e25
24	6.5	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.7	0.00	12	e12
25	5.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.8	0.00	9.6	10
26	6.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.8	0.00	10	8.9
27	5.1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	17	0.96	12	33
28	3.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29	5.7	23	22
29	3.6	0.00	0.00	0.00	---	0.00	0.00	0.00	23	6.9	20	21
30	3.8	0.00	0.00	0.00	---	0.00	0.00	0.00	18	10	6.1	17
31	3.5	---	0.00	0.00	---	0.00	---	0.00	---	12	0.00	---
TOTAL	195.3	46.34	0.00	0.00	0.00	0.00	0.00	0.00	309.30	389.28	310.60	410.69
MEAN	6.30	1.54	0.000	0.000	0.000	0.000	0.000	0.000	10.3	12.6	10.0	13.7
MAX	15	4.4	0.00	0.00	0.00	0.00	0.00	0.00	46	80	23	61
MIN	1.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
AC-FT	387	92	0.00	0.00	0.00	0.00	0.00	0.00	613	772	616	815

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2002, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	6.54	1.76	1.48	2.67	1.65	1.31	0.56	0.50	7.78	11.7	11.3	13.3				
MAX	19.8	5.46	9.42	9.77	12.7	5.60	2.03	3.63	34.1	33.8	29.3	39.5				
(WY)	1996	1999	1998	1998	1998	1998	1987	1996	1995	1995	2001	1995				
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.017	0.038	4.48	2.39				
(WY)	1999	2001	1991	1997	1996	1995	1990	1988	2001	1997	1999	1987				

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1987 - 2002

ANNUAL TOTAL	2997.19	1661.51		
ANNUAL MEAN	8.21	4.55	5.13	
HIGHEST ANNUAL MEAN			11.5	1995
LOWEST ANNUAL MEAN			2.39	1997
HIGHEST DAILY MEAN	330	Jul 23	80	Jul 7
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Nov 19
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Nov 22
MAXIMUM PEAK FLOW			147	Jul 6
MAXIMUM PEAK STAGE			6.42	Jul 6
INSTANTANEOUS LOW FLOW			0.00	Apr 9
ANNUAL RUNOFF (AC-FT)	5940	3300	3710	
10 PERCENT EXCEEDS	23	15	13	
50 PERCENT EXCEEDS	0.00	0.00	1.3	
90 PERCENT EXCEEDS	0.00	0.00	0.00	

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## 02293243 COURTNEY CANAL AT CAPE CORAL, FL

LOCATION.--Lat 26°34'40", long 81°59'00", in SW 1/4 SE 1/4 SW 1/4 sec.2, T.45 S., R.23 E., Lee County, Hydrologic Unit 03090205, near left bank on upstream side of wing wall of bridge at Mohawk Parkway, 200 ft west of 5th Avenue, 1.07 mi north of West Cape Coral Parkway and 3.15 mi upstream from Caloosahatchee River at Cape Coral.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--November 1986 to current year.

GAGE.--Electronic data logger. Datum of gage is National Geodetic Vertical Datum of 1929 (State Road Department bench mark).

REMARKS.--Records poor. Zero flow occurs for numerous days during all water years. Station subjected to major shifting of the stage discharge relationship based on heavy debris buildup on carp grates and installation and removal of stoplogs, which are installed on top of the weir.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 15 complete water years of discharge (1988-2002).

REVISIONS.--Discharge records for September 11-30, 2001, have been revised. Revised discharge data are available in the files of the U.S. Geological Survey.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.09	4.25	3.46	4.12	3.81	3.98	3.74	3.84	3.14	5.68	4.77	5.07
2	5.03	4.27	3.47	4.14	3.73	3.98	3.81	3.76	3.13	5.61	4.81	4.95
3	4.95	4.22	3.55	4.23	3.63	3.95	3.83	3.83	3.16	5.24	4.86	4.85
4	4.88	4.14	3.69	4.31	3.60	3.99	3.83	3.82	3.22	5.20	4.84	4.72
5	4.87	4.22	3.72	4.31	3.64	4.05	3.95	3.65	3.28	5.16	4.82	4.72
6	4.85	4.27	3.73	4.32	3.59	3.99	3.97	3.52	3.31	5.35	4.77	4.92
7	4.81	4.20	3.86	4.35	3.57	3.93	3.89	3.39	3.48	5.79	4.76	5.01
8	4.85	4.11	3.95	4.40	3.67	4.01	3.88	3.26	3.76	5.85	4.86	5.00
9	4.81	4.12	3.98	4.33	3.66	3.98	3.89	3.09	4.24	5.58	4.83	4.97
10	4.58	4.04	4.06	4.23	3.62	3.90	3.77	3.19	4.35	5.43	4.75	5.00
11	4.45	3.94	4.09	4.24	3.69	3.89	3.74	3.25	4.39	5.30	4.68	5.37
12	4.49	3.94	4.04	4.17	3.76	3.87	3.86	3.23	4.29	5.00	4.68	5.30
13	4.44	3.94	3.98	4.08	3.74	3.80	3.95	3.29	4.35	4.95	4.66	5.00
14	4.39	3.86	4.03	4.06	3.71	3.69	3.93	3.30	4.82	4.96	4.62	4.94
15	4.42	3.79	4.00	4.46	3.79	3.74	3.92	3.22	4.71	4.94	4.61	4.98
16	4.44	3.80	3.93	4.49	3.75	3.69	4.03	3.22	4.77	5.04	4.64	4.87
17	4.35	3.72	3.94	4.45	3.69	3.60	4.09	3.56	5.04	5.47	e4.86	4.80
18	4.22	3.62	3.99	4.48	3.68	3.58	4.08	3.62	4.91	5.33	e4.97	4.76
19	4.24	3.60	3.94	4.41	3.71	3.63	4.18	3.82	4.87	5.09	e4.84	4.72
20	4.32	3.59	3.90	4.35	3.67	3.58	4.19	4.22	5.16	4.85	e4.92	4.77
21	4.29	3.45	3.95	4.33	3.63	3.51	4.10	4.30	5.45	4.66	e4.90	4.80
22	4.36	3.30	3.93	4.34	3.73	3.61	4.11	4.11	5.26	4.55	e4.94	4.90
23	4.48	3.30	3.88	4.24	3.83	3.58	4.16	3.88	5.13	4.41	e4.92	5.15
24	4.46	3.18	3.90	4.16	3.89	3.48	4.12	3.81	5.08	4.33	e4.88	4.89
25	4.42	3.01	3.96	4.18	3.91	3.48	4.05	3.66	5.04	4.28	4.84	4.76
26	4.47	2.99	3.96	4.11	3.97	3.56	4.16	3.40	5.03	4.43	4.89	4.69
27	4.43	3.14	3.92	3.99	3.95	3.57	4.16	3.16	5.19	4.65	4.95	4.91
28	4.34	3.20	3.97	3.97	3.90	3.58	4.05	3.02	5.61	4.82	5.21	4.87
29	4.35	3.22	3.99	3.98	---	3.72	3.97	2.92	5.83	4.71	5.20	4.93
30	4.38	3.40	4.00	3.90	---	3.74	3.93	2.90	5.76	4.80	5.18	4.96
31	4.32	---	4.04	3.79	---	3.71	---	3.09	---	4.83	5.22	---
TOTAL	140.78	111.83	120.81	130.92	104.52	116.37	119.34	108.33	135.76	156.29	150.68	147.58
MEAN	4.54	3.73	3.90	4.22	3.73	3.75	3.98	3.49	4.53	5.04	4.86	4.92
MAX	5.09	4.27	4.09	4.49	3.97	4.05	4.19	4.30	5.83	5.85	5.22	5.37
MIN	4.22	2.99	3.46	3.79	3.57	3.48	3.74	2.90	3.13	4.28	4.61	4.69

e Estimated

CALOOSAHATCHEE RIVER

02293243 COURTNEY CANAL AT CAPE CORAL, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	34	21	52
2	18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	44	24	39
3	10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37	29	28
4	4.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	34	28	16
5	3.6	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	29	25	16
6	2.0	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	49	20	38
7	0.21	0.00	0.00	0.41	0.00	0.00	0.00	0.00	0.00	93	20	50
8	0.77	0.00	0.00	2.6	0.00	0.00	0.00	0.00	0.00	98	29	51
9	11	0.00	0.00	0.62	0.00	0.00	0.00	0.00	0.00	72	26	51
10	5.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.0	58	19	56
11	0.15	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.1	44	13	91
12	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	14	13	88
13	0.32	0.00	0.00	0.00	0.00	0.00	0.00	0.00	13	10	10	59
14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	37	11	7.3	53
15	0.00	0.00	0.00	6.8	0.00	0.00	0.00	0.00	20	9.2	6.7	57
16	0.03	0.00	0.00	8.6	0.00	0.00	0.00	0.00	22	18	8.9	45
17	0.02	0.00	0.00	6.1	0.00	0.00	0.00	0.00	43	61	e29	37
18	0.00	0.00	0.00	7.9	0.00	0.00	0.00	0.00	24	63	e41	32
19	0.00	0.00	0.00	3.3	0.00	0.00	0.00	0.00	16	53	e27	29
20	0.00	0.00	0.00	0.62	0.00	0.00	0.00	0.00	39	28	e36	34
21	0.00	0.00	0.00	0.06	0.00	0.00	0.00	0.03	64	10	e34	36
22	0.22	0.00	0.00	0.04	0.00	0.00	0.00	0.00	39	2.9	e38	45
23	4.0	0.00	0.00	0.01	0.00	0.00	0.00	0.00	21	0.00	e36	71
24	2.9	0.00	0.00	0.00	0.00	0.00	0.00	0.00	11	0.00	e31	45
25	1.3	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.8	0.00	28	30
26	4.7	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.3	0.63	32	24
27	2.4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.1	12	39	47
28	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	44	25	65	41
29	0.01	0.00	0.00	0.00	---	0.00	0.00	0.00	63	15	65	48
30	0.64	0.00	0.00	0.00	---	0.00	0.00	0.00	49	23	62	51
31	0.18	---	0.00	0.00	---	0.00	---	0.00	---	26	67	---
TOTAL	99.00	0.00	0.00	37.07	0.00	0.00	0.00	0.03	522.66	973.73	929.9	1360
MEAN	3.19	0.000	0.000	1.20	0.000	0.000	0.000	0.001	17.4	31.4	30.0	45.3
MAX	25	0.00	0.00	8.6	0.00	0.00	0.00	0.03	64	98	67	91
MIN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.7	16
AC-FT	196	0.00	0.00	74	0.00	0.00	0.00	0.06	1040	1930	1840	2700

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2002, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	11.7	4.06	3.30	6.69	5.87	3.58	1.11	0.58	12.1	24.2	24.1	23.5				
MAX	33.7	29.9	34.2	44.0	66.7	39.3	6.09	2.64	59.7	72.2	57.3	54.5				
(WY)	2001	1999	1998	1998	1998	2001	1991	1999	1998	2000	1995					
MIN	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.60	4.02				
(WY)	1989	1989	1988	1989	1988	1989	1988	1988	1994	1999	1987					

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1987 - 2002

ANNUAL TOTAL	4517.30	3922.39		
ANNUAL MEAN	12.4	10.7	10.3	
HIGHEST ANNUAL MEAN			28.2	1998
LOWEST ANNUAL MEAN			3.51	1988
HIGHEST DAILY MEAN	194	Jul 23	98	Jul 8
LOWEST DAILY MEAN	0.00	Jan 4	0.00	Oct 14
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 4	0.00	Nov 1
MAXIMUM PEAK FLOW			138	Jul 7
MAXIMUM PEAK STAGE			6.20	Jul 7
INSTANTANEOUS LOW FLOW			0.00	May 30
ANNUAL RUNOFF (AC-FT)	8960	7780	7430	
10 PERCENT EXCEEDS	42	42	32	
50 PERCENT EXCEEDS	0.01	0.00	0.02	
90 PERCENT EXCEEDS	0.00	0.00	0.00	

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

## CHARLOTTE HARBOR AND COASTAL AREA

02293345 SHADROE CANAL AT CAPE CORAL, FL

LOCATION.--Lat 26°39'07", long 82°02'22", in SE 1/4 SW 1/4 SW 1/4 sec.8 T.44 S., R.23 E., Lee County, Hydrologic Unit 03100103, near right bank on downstream side of wingwall of bridge on Embers Parkway, 75 ft west of NW 29th Place, 0.28 mi east of State Road 765 (Burnt Store Road) and 0.3 mi upstream of weir, at Cape Coral.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--January 1987 to current year.

GAGE.--Electronic Data Logger. Datum of gage is National Geodetic Vertical Datum of 1929 (State Road Department Bench Mark).

REMARKS.--Records good except for estimated daily discharges, which are poor. Zero flow occurs for numerous days, during most water years.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT)SUMMARY STATISTICS.--Figures represent 15 complete water years of discharge (1988-2002).

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.57	2.54	2.50	2.48	2.48	2.48	2.41	2.34	2.48	2.82	2.62	2.65
2	2.57	2.54	2.50	2.50	2.48	2.47	2.41	2.33	2.48	2.73	2.61	2.63
3	2.56	2.53	2.50	2.51	2.48	2.48	2.42	2.33	2.48	2.66	2.61	2.60
4	2.56	2.54	2.50	2.49	2.48	2.48	2.41	2.33	2.48	2.63	2.59	2.59
5	2.55	2.67	2.49	2.48	2.47	2.47	2.41	2.32	2.48	2.61	2.58	2.58
6	2.55	2.58	2.49	2.48	2.46	2.45	2.41	2.31	2.49	2.70	2.58	2.60
7	2.55	2.56	2.49	2.49	2.47	2.46	2.39	2.31	2.50	3.01	2.60	2.60
8	2.54	2.56	2.50	2.48	2.47	2.47	2.39	2.29	2.52	2.95	2.63	e2.59
9	2.53	2.55	2.50	2.48	2.47	2.46	2.38	2.28	2.52	e2.70	2.59	e2.57
10	2.52	2.54	2.50	2.48	2.48	2.46	2.37	2.27	2.50	e2.65	2.57	e2.58
11	2.52	2.54	2.49	2.48	2.49	2.46	2.39	2.24	2.49	e2.64	2.57	e2.79
12	2.52	2.54	2.49	2.48	2.48	2.45	2.43	2.21	2.48	e2.67	2.57	2.80
13	2.52	2.53	2.49	2.48	2.47	2.45	2.44	2.29	2.55	2.90	e2.56	2.68
14	2.52	2.53	2.49	2.48	2.48	2.45	2.44	2.30	2.57	2.79	e2.56	2.68
15	2.52	2.54	2.49	2.57	2.48	2.45	2.44	2.30	2.57	2.66	2.59	2.70
16	2.52	2.53	2.48	2.54	2.48	2.45	2.46	2.31	2.59	e2.64	2.60	2.66
17	2.52	2.53	2.48	2.52	2.47	2.45	2.49	2.41	2.60	2.68	2.64	2.67
18	2.50	2.52	2.48	2.52	2.46	2.45	2.46	2.43	2.60	2.65	2.65	2.62
19	2.65	2.52	2.47	2.51	2.46	2.44	2.45	2.66	2.63	e2.61	2.61	2.61
20	2.71	2.52	2.47	2.51	2.45	2.44	2.44	2.60	2.76	e2.58	2.60	2.61
21	2.58	2.52	2.47	2.51	2.46	2.44	2.43	2.54	2.66	e2.57	2.59	2.62
22	2.60	2.52	2.47	2.51	2.48	2.44	2.42	2.52	2.62	e2.58	2.59	2.61
23	2.67	2.52	2.46	2.51	2.53	2.43	2.41	2.51	2.60	e2.63	2.57	2.63
24	2.61	2.51	2.47	2.50	2.51	2.43	2.41	2.50	2.62	e2.63	e2.57	e2.60
25	2.58	2.51	2.47	2.50	2.50	2.43	2.40	2.50	2.59	e2.61	e2.56	e2.59
26	2.59	2.51	2.48	2.49	2.50	2.43	2.39	2.49	2.58	2.63	e2.59	e2.59
27	2.57	2.51	2.47	2.49	2.49	2.43	2.38	2.49	2.64	2.70	2.64	2.64
28	2.55	2.50	2.47	2.49	2.48	2.43	2.37	2.49	2.77	2.72	2.78	2.61
29	2.55	2.50	2.47	2.49	---	2.43	2.36	2.49	2.81	2.64	2.66	2.68
30	2.54	2.50	2.48	2.49	---	2.41	2.35	2.49	2.85	2.68	2.69	2.61
31	2.54	---	2.48	2.49	---	2.41	---	2.49	---	2.67	2.73	---
TOTAL	79.38	76.01	76.99	77.43	69.41	75.88	72.36	74.37	77.51	83.34	80.90	78.99
MEAN	2.56	2.53	2.48	2.50	2.48	2.45	2.41	2.40	2.58	2.69	2.61	2.63
MAX	2.71	2.67	2.50	2.57	2.53	2.48	2.49	2.66	2.85	3.01	2.78	2.80
MIN	2.50	2.50	2.46	2.48	2.45	2.41	2.35	2.21	2.48	2.57	2.56	2.57

e Estimated

CHARLOTTE HARBOR AND COASTAL AREA

02293345 SHADROE CANAL AT CAPE CORAL, FL--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	8.3	3.9	2.6	2.3	2.2	0.07	0.00	1.9	52	13	20
2	13	8.0	3.9	3.6	2.4	1.7	0.13	0.00	1.7	32	13	16
3	12	7.6	3.9	4.6	2.3	2.2	0.17	0.00	1.6	18	13	13
4	12	8.2	3.7	2.9	2.1	2.2	0.14	0.00	1.7	14	10	12
5	10	26	3.4	2.3	1.6	1.5	0.10	0.00	1.7	11	9.0	11
6	10	12	3.0	2.5	1.3	0.83	0.08	0.00	2.2	31	8.9	13
7	9.7	9.5	3.3	2.8	1.5	1.2	0.00	0.00	2.9	116	11	13
8	9.2	8.8	3.9	2.3	1.6	1.8	0.00	0.00	3.8	89	16	e12
9	8.6	7.8	3.8	2.3	1.7	1.2	0.00	0.00	4.2	e25	10	e9.1
10	8.3	7.3	3.5	2.3	2.2	1.1	0.00	0.00	2.1	e16	8.4	e10
11	8.4	7.3	3.0	2.3	2.7	1.1	0.02	0.00	1.5	e15	8.6	e61
12	8.3	7.0	3.0	2.3	2.3	0.81	0.28	0.00	1.2	e22	8.8	53
13	8.3	6.5	2.8	2.6	1.9	0.82	0.53	0.00	7.5	72	e7.2	25
14	8.3	6.8	2.9	2.6	2.3	0.81	0.59	0.00	8.0	44	e7.2	26
15	8.3	6.9	2.8	10	2.2	0.83	0.54	0.00	8.4	19	10	28
16	8.3	6.6	2.4	6.9	2.3	0.81	1.5	0.00	11	e15	12	22
17	7.8	6.4	2.3	5.4	1.5	0.83	2.8	0.12	12	21	17	24
18	6.6	6.0	2.3	5.4	1.2	0.68	1.3	2.0	12	16	19	16
19	39	5.6	2.0	4.7	1.0	0.61	0.71	32	18	e12	13	14
20	42	5.6	1.8	4.7	0.85	0.53	0.44	13	41	e7.9	11	14
21	14	5.6	1.6	4.7	1.2	0.52	0.26	6.3	20	e7.3	10	16
22	18	5.6	1.5	4.7	2.6	0.48	0.18	5.0	14	e8.8	11	15
23	29	5.5	1.3	4.6	6.5	0.41	0.12	4.0	12	e15	9.6	17
24	18	5.0	1.6	4.1	4.6	0.33	0.07	3.2	14	e15	e9.0	e13
25	14	4.8	1.9	3.7	3.9	0.33	0.00	2.9	10	e13	e8.2	e12
26	15	4.7	2.3	3.3	3.7	0.33	0.00	2.6	9.3	16	e11	e11
27	13	4.5	1.7	3.0	3.4	0.33	0.00	2.5	20	31	19	14
28	10	4.2	1.7	3.0	2.5	0.33	0.00	2.4	42	32	48	10
29	9.0	3.9	2.0	3.0	---	0.28	0.00	2.3	49	16	21	19
30	8.6	3.9	2.3	2.9	---	0.12	0.00	2.3	60	26	28	11
31	8.4	---	2.6	2.7	---	0.08	---	2.3	---	22	34	---
TOTAL	408.1	215.9	82.1	114.8	65.65	27.30	10.03	82.92	394.7	850.0	434.9	550.1
MEAN	13.2	7.20	2.65	3.70	2.34	0.88	0.33	2.67	13.2	27.4	14.0	18.3
MAX	42	26	3.9	10	6.5	2.2	2.8	32	60	116	48	61
MIN	6.6	3.9	1.3	2.3	0.85	0.08	0.00	0.00	1.2	7.3	7.2	9.1
AC-FT	809	428	163	228	130	54	20	164	783	1690	863	1090

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2002, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	17.4	5.65	3.23	5.29	5.23	3.58	2.15	2.57	8.09	20.6	18.3	25.0				
MAX	114	17.1	15.5	19.3	38.2	13.1	7.98	14.4	22.3	63.6	68.4	75.8				
(WY)	1996	1996	1998	1998	1998	1998	1987	1987	1992	1995	1995	1995				
MIN	2.56	0.50	0.000	0.82	0.31	0.37	0.030	0.000	0.011	3.31	3.43	3.77				
(WY)	1989	1991	1991	2001	2001	1990	2000	1999	1988	1988	1989	1990				

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1987 - 2002

ANNUAL TOTAL	4617.45	3236.50		
ANNUAL MEAN	12.7	8.87	9.42	
HIGHEST ANNUAL MEAN			21.8	1995
LOWEST ANNUAL MEAN			3.70	1990
HIGHEST DAILY MEAN	903	Jul 23	903	Jul 23 2001
LOWEST DAILY MEAN	0.00	Feb 20	0.00	Apr 7
ANNUAL SEVEN-DAY MINIMUM	0.00	Feb 20	0.00	Apr 25
MAXIMUM PEAK FLOW			355	Jul 7
MAXIMUM PEAK STAGE			3.78	Jul 7
ANNUAL RUNOFF (AC-FT)	9160	6420	6830	Jul 23 2001
10 PERCENT EXCEEDS	18	20	18	Sep 3 1995
50 PERCENT EXCEEDS	3.7	4.6	3.4	
90 PERCENT EXCEEDS	0.00	0.14	0.10	

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.



02293346 HORSESHOE CANAL AT CAPE CORAL, FL

LOCATION.--Lat 26°40'41", long 82°02'26", in SW 1/4 NW 1/4 NW 1/4 sec.5, T.44 S., R.23 E., Lee County, Hydrologic Unit 03100103, on left bank, 100 ft north of Diplomat Parkway 152 ft upstream from weir and 252 ft east of State Road 765 (Burnt Store Road) in Cape Coral.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--January 1987 to current year.

GAGE.--Electronic Data Logger. Datum of gage is National Geodetic Vertical Datum of 1929 (State Road Department bench mark).

REMARKS.--No estimated daily discharges. Records poor. Gage-height records for the 1998, 1999 and 2000 water years were revised based on levels run during the 2001 water year. The corrected gage-heights are in the files of the U.S. Geological Survey. Extremely low flows are occasionally affected by water that is diverted from the canal during dry periods by the City of Cape Coral to supplement their dual water supply. Zero flow occurs for numerous days during most water years.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 15 complete water years of discharge (1988-2002).

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.91	2.68	2.59	2.54	2.50	2.48	2.25	1.99	2.53	3.15	2.80	3.05
2	2.86	2.67	2.59	2.54	2.50	2.45	2.24	1.96	2.53	3.08	2.83	3.07
3	2.84	2.66	2.59	2.54	2.50	2.44	2.22	1.94	2.52	3.01	2.84	3.03
4	2.83	2.66	2.59	2.53	2.50	2.45	2.21	1.91	2.53	2.96	2.82	2.96
5	2.83	2.75	2.57	2.53	2.48	2.43	2.18	1.88	2.52	2.91	2.82	2.93
6	2.81	2.71	2.55	2.53	2.46	2.42	2.17	1.86	2.53	3.00	2.82	3.03
7	2.80	2.70	2.54	2.53	2.46	2.42	2.16	1.84	2.53	3.12	2.86	2.97
8	2.80	2.70	2.54	2.53	2.44	2.45	2.14	1.83	2.54	3.05	2.95	2.91
9	2.73	2.70	2.54	2.53	2.45	2.45	2.12	1.80	2.54	2.97	2.93	2.89
10	2.70	2.69	2.54	2.53	2.44	2.45	2.11	1.79	2.51	2.92	2.94	2.88
11	2.70	2.69	2.54	2.53	2.46	2.45	2.11	1.78	2.52	2.90	2.93	3.11
12	2.70	2.69	2.54	2.53	2.47	2.45	2.13	1.80	2.51	2.92	2.92	3.19
13	2.70	2.67	2.54	2.52	2.45	2.45	2.14	1.98	2.57	3.07	2.89	3.04
14	2.70	2.66	2.54	2.53	2.46	2.46	2.12	1.97	2.57	3.03	2.88	3.01
15	2.70	2.65	2.54	2.56	2.45	2.45	2.12	1.97	2.57	2.95	2.92	2.96
16	2.70	2.65	2.53	2.54	2.45	2.44	2.12	1.97	2.58	2.92	2.93	2.90
17	2.69	2.64	2.53	2.54	2.43	2.43	2.13	2.05	2.58	2.94	2.97	2.87
18	2.68	2.64	2.53	2.53	2.44	2.42	2.13	2.06	2.60	2.93	3.08	2.85
19	2.74	2.63	2.52	2.54	2.43	2.42	2.12	2.48	2.63	2.90	2.97	2.85
20	2.81	2.62	2.53	2.52	2.41	2.40	2.11	2.60	2.87	2.89	2.94	2.83
21	2.74	2.62	2.52	2.53	2.41	2.38	2.09	2.59	3.23	2.88	2.92	2.82
22	2.73	2.62	2.52	2.53	2.42	2.36	2.09	2.58	3.02	2.89	2.88	2.80
23	2.74	2.62	2.51	2.52	2.52	2.35	2.07	2.58	2.95	2.90	2.87	2.79
24	2.73	2.62	2.51	2.52	2.51	2.33	2.07	2.57	3.02	2.86	2.85	2.78
25	2.72	2.62	2.53	2.52	2.51	2.33	2.06	2.56	2.97	2.86	2.82	2.76
26	2.72	2.61	2.53	2.52	2.50	2.32	2.04	2.56	2.98	2.87	2.89	2.77
27	2.70	2.61	2.53	2.52	2.50	2.31	2.03	2.55	3.31	2.88	3.01	2.84
28	2.69	2.61	2.51	2.52	2.50	2.30	2.02	2.54	3.24	2.86	3.26	2.80
29	2.68	2.60	2.52	2.52	---	2.28	2.01	2.54	3.19	2.93	3.16	2.83
30	2.68	2.59	2.52	2.51	---	2.28	2.00	2.54	3.19	2.90	3.23	2.79
31	2.68	---	2.53	2.51	---	2.27	---	2.54	---	2.86	3.18	---
TOTAL	85.04	79.58	78.71	78.39	69.05	74.32	63.51	67.61	82.38	91.31	91.11	87.31
MEAN	2.74	2.65	2.54	2.53	2.47	2.40	2.12	2.18	2.75	2.95	2.94	2.91
MAX	2.91	2.75	2.59	2.56	2.52	2.48	2.25	2.60	3.31	3.15	3.26	3.19
MIN	2.68	2.59	2.51	2.51	2.41	2.27	2.00	1.78	2.51	2.86	2.80	2.76

## CHARLOTTE HARBOR AND COASTAL AREA

02293346 HORSESHOE CANAL AT CAPE CORAL, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	83	13	5.2	1.1	0.18	0.06	0.00	0.00	0.06	119	12	65
2	68	11	6.1	1.6	0.18	0.00	0.00	0.00	0.04	94	18	69
3	61	9.8	6.1	1.4	0.18	0.00	0.00	0.00	0.03	70	19	56
4	57	9.8	5.7	0.82	0.15	0.00	0.00	0.00	0.02	53	15	34
5	56	28	4.2	0.82	0.06	0.00	0.00	0.00	0.02	39	16	27
6	51	20	1.8	0.94	0.01	0.00	0.00	0.00	0.01	72	15	54
7	48	17	1.4	0.93	0.01	0.00	0.00	0.00	0.02	109	26	39
8	47	17	1.5	0.79	0.00	0.00	0.00	0.00	0.04	84	49	23
9	30	16	1.3	0.76	0.00	0.00	0.00	0.00	0.01	57	42	20
10	20	17	1.3	0.77	0.00	0.00	0.00	0.00	0.00	43	44	19
11	20	17	1.4	0.82	0.02	0.00	0.00	0.00	0.00	36	42	112
12	19	16	1.4	0.82	0.02	0.00	0.00	0.00	0.00	43	38	126
13	19	14	1.3	0.53	0.00	0.00	0.00	0.00	1.3	88	31	70
14	19	12	1.3	0.82	0.01	0.01	0.00	0.00	0.06	76	30	61
15	19	11	1.2	3.2	0.00	0.00	0.00	0.00	0.04	51	37	48
16	18	9.7	0.86	1.5	0.00	0.00	0.00	0.00	0.08	42	39	34
17	16	10	0.82	1.1	0.00	0.00	0.00	0.00	0.07	48	53	26
18	15	9.7	0.79	0.83	0.00	0.00	0.00	0.00	0.11	45	87	23
19	31	8.3	0.63	1.1	0.00	0.00	0.00	24	3.5	38	49	24
20	49	7.6	0.82	0.61	0.00	0.00	0.00	7.4	57	32	38	21
21	29	7.3	0.53	0.82	0.00	0.00	0.00	5.4	171	30	35	21
22	25	7.3	0.58	0.94	0.01	0.00	0.00	4.2	85	35	23	17
23	29	7.3	0.33	0.53	0.49	0.00	0.00	3.0	59	35	20	17
24	26	7.9	0.40	0.52	0.39	0.00	0.00	1.7	82	24	15	16
25	22	8.7	0.71	0.49	0.32	0.00	0.00	1.1	66	24	11	14
26	22	7.8	0.94	0.54	0.18	0.00	0.00	0.84	68	25	24	15
27	19	7.3	0.88	0.45	0.19	0.00	0.00	0.57	197	29	59	34
28	16	7.3	0.40	0.57	0.17	0.00	0.00	0.39	165	25	153	27
29	14	6.2	0.63	0.47	---	0.00	0.00	0.21	140	45	106	33
30	14	4.9	0.51	0.34	---	0.00	0.00	0.19	141	34	136	26
31	13	---	0.86	0.29	---	0.00	---	0.17	---	23	113	---
TOTAL	975	345.9	51.89	27.22	2.57	0.07	0.00	49.17	1236.41	1568	1395	1171
MEAN	31.5	11.5	1.67	0.88	0.092	0.002	0.000	1.59	41.2	50.6	45.0	39.0
MAX	83	28	6.1	3.2	0.49	0.06	0.00	24	197	119	153	126
MIN	13	4.9	0.33	0.29	0.00	0.00	0.00	0.00	0.00	23	11	14
AC-FT	1930	686	103	54	5.1	0.1	0.00	98	2450	3110	2770	2320

## STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2002, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	29.2	10.3	6.96	9.58	12.0	10.2	5.55	7.43	34.6	57.8	54.1	55.9				
MAX	93.0	27.4	60.5	62.4	130	72.9	27.8	43.4	88.0	115	134	128				
(WY)	1996	1999	1998	1998	1998	1998	1987	1991	1995	1991	1995	2001				
MIN	4.44	0.14	0.007	0.007	0.004	0.002	0.000	0.000	0.037	8.90	27.5	12.7				
(WY)	1990	2001	2001	2001	2001	2002	1999	1999	2001	2000	2000	1990				

## SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1987 - 2002

ANNUAL TOTAL	10854.57	6822.23		
ANNUAL MEAN	29.7	18.7	24.2	
HIGHEST ANNUAL MEAN			50.1	1998
LOWEST ANNUAL MEAN			10.9	1989
HIGHEST DAILY MEAN	819	Jul 23	1060	Aug 25 1995
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Feb 8
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Feb 15
MAXIMUM PEAK FLOW			353	Jun 27
MAXIMUM PEAK STAGE			3.64	Jun 27
INSTANTANEOUS LOW FLOW				5.10
ANNUAL RUNOFF (AC-FT)	21530	13530	17540	0.00
10 PERCENT EXCEEDS	90	56	65	
50 PERCENT EXCEEDS	0.31	1.4	6.5	
90 PERCENT EXCEEDS	0.00	0.00	0.00	

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

CHARLOTTE HARBOR AND COASTAL AREA

02293347 HERMOSA CANAL AT CAPE CORAL, FL

LOCATION.--Lat 26°40'41", long 82°02'26", in NW 1/4 SW 1/4 SW 1/4 sec.5, T.44 S., R.23 E., Lee County, Hydrologic Unit 03100103, on right bank, 175 ft upstream of bridge on State Road 765 (Burnt Store Road) and approximately 50 ft south of NW 9th Terrace in Cape Coral.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--January 1987 to current year.

REVISED RECORDS.--WDR FL-01-2A: 2000.

GAGE.--Electronic data logger. Datum of gage is National Geodetic Vertical Datum of 1929 (State Road Department bench mark).

REMARKS.--Records good except for estimated daily discharges, which are poor. Revised figures of discharge for the 2000 water year based upon weir cleaning and inspection records from the City of Cape Coral.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 15 complete water years of discharge (1988-2002).

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.85	2.65	2.58	e2.48	2.48	2.48	2.40	2.23	2.48	3.10	2.71	2.94
2	2.81	2.64	2.57	e2.49	2.49	2.46	2.39	2.22	2.49	3.03	2.72	2.95
3	2.78	2.63	2.56	e2.48	2.49	2.47	2.39	2.21	2.48	2.95	2.72	2.96
4	2.77	2.64	2.56	e2.48	2.48	2.47	2.38	2.20	2.49	2.91	2.69	2.90
5	2.77	2.78	e2.56	e2.48	2.47	2.47	2.37	2.19	2.49	2.87	2.67	2.89
6	2.77	2.70	e2.54	e2.49	2.46	2.46	2.36	2.18	2.50	2.99	2.67	2.96
7	2.76	2.69	e2.53	e2.47	2.47	2.48	2.35	2.17	2.50	3.20	2.71	2.88
8	2.76	2.69	e2.52	e2.48	2.47	2.50	2.33	2.13	2.51	2.98	2.78	2.85
9	2.75	2.68	e2.52	2.48	2.47	2.49	2.31	2.12	2.51	2.87	2.73	2.82
10	2.75	2.66	e2.52	2.48	2.48	2.49	2.30	2.10	2.49	2.83	2.73	2.83
11	2.75	2.64	e2.52	2.49	2.49	2.49	2.30	2.09	2.48	2.82	2.74	3.10
12	2.75	2.64	e2.52	2.49	2.48	2.48	2.32	2.08	2.48	2.86	2.75	3.18
13	2.75	2.64	e2.51	2.49	2.48	2.48	2.32	2.14	2.58	3.04	2.71	2.99
14	2.74	2.64	e2.51	2.50	2.49	2.48	2.32	2.18	2.57	2.96	2.69	2.95
15	2.73	2.64	e2.50	2.54	2.49	2.48	2.31	2.23	2.56	2.86	2.70	2.92
16	2.72	2.64	e2.50	2.51	2.49	2.48	2.34	2.23	2.57	2.83	2.72	2.87
17	2.70	2.64	e2.50	2.50	2.48	2.48	2.38	2.27	2.57	2.85	2.79	2.84
18	2.67	2.63	e2.50	2.50	2.48	2.47	2.37	2.27	2.57	2.84	2.91	2.80
19	2.76	2.62	e2.49	2.50	2.47	2.47	2.36	2.58	2.60	2.81	2.80	2.78
20	2.87	2.62	e2.50	2.50	2.46	2.46	2.35	2.54	2.82	2.78	2.79	2.77
21	2.76	2.61	e2.49	2.50	2.46	2.46	2.34	2.51	3.09	2.78	2.78	2.75
22	2.74	2.60	e2.50	2.51	2.49	2.46	2.33	2.50	2.93	2.79	2.77	2.74
23	2.77	2.59	e2.49	2.50	2.53	2.45	2.32	2.50	2.87	2.82	2.76	2.72
24	2.75	2.59	e2.49	2.50	2.50	2.44	2.32	2.49	2.92	2.82	2.75	2.72
25	2.73	2.59	e2.49	2.49	2.49	2.43	2.30	2.49	2.88	2.80	2.73	2.70
26	2.75	2.59	e2.50	2.49	2.49	2.43	2.29	2.49	2.87	2.82	2.77	2.70
27	2.72	2.58	e2.50	2.49	2.48	2.42	2.28	2.49	3.24	2.85	2.89	2.78
28	2.69	2.58	e2.49	2.49	2.48	2.42	2.26	2.49	3.19	2.82	3.19	2.76
29	2.65	2.58	e2.50	2.49	---	2.41	2.25	2.49	3.14	2.84	3.06	2.80
30	2.64	2.58	e2.50	2.50	---	2.41	2.24	2.49	3.16	2.87	3.15	2.76
31	2.64	---	e2.51	2.49	---	2.40	---	2.49	---	2.81	3.10	---
TOTAL	85.05	79.00	77.97	77.28	69.49	76.27	69.88	71.79	81.03	89.40	86.68	85.61
MEAN	2.74	2.63	2.52	2.49	2.48	2.46	2.33	2.32	2.70	2.88	2.80	2.85
MAX	2.87	2.78	2.58	2.54	2.53	2.50	2.40	2.58	3.24	3.20	3.19	3.18
MIN	2.64	2.58	2.49	2.47	2.46	2.40	2.24	2.08	2.48	2.78	2.67	2.70

e Estimated

CHARLOTTE HARBOR AND COASTAL AREA

02293347 HERMOSA CANAL AT CAPE CORAL, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	71	7.8	3.9	e1.5	0.82	0.11	0.00	0.00	0.00	81	17	38
2	57	7.4	3.1	e2.4	1.3	0.00	0.00	0.00	0.00	61	18	40
3	49	6.6	2.5	e1.5	1.2	0.01	0.00	0.00	0.00	46	18	40
4	45	7.5	2.5	e1.5	0.57	0.01	0.00	0.00	0.00	40	14	34
5	43	29	e2.4	e1.5	0.18	0.00	0.00	0.00	0.00	36	11	33
6	41	16	e0.53	e2.4	0.01	0.00	0.00	0.00	0.23	63	11	39
7	38	14	e0.03	e0.53	0.02	0.55	0.00	0.00	0.01	121	16	31
8	36	14	e0.03	e1.5	0.02	1.1	0.00	0.00	0.21	53	25	29
9	33	13	e0.03	1.5	0.03	0.39	0.00	0.00	0.01	35	20	26
10	31	10	e0.03	1.6	0.49	0.30	0.00	0.00	0.00	31	20	27
11	30	7.9	e0.03	2.2	1.5	0.38	0.00	0.00	0.00	30	21	129
12	28	8.4	e0.53	2.4	1.00	0.03	0.00	0.00	0.00	36	21	159
13	27	8.4	e0.03	2.8	0.54	0.02	0.00	0.00	8.4	65	18	93
14	24	8.4	e0.03	3.1	1.5	0.03	0.00	0.00	2.9	47	14	83
15	21	8.4	e0.00	7.5	1.1	0.06	0.00	0.00	2.2	35	16	74
16	18	8.4	e0.03	4.2	1.4	0.03	0.00	0.00	3.0	30	18	60
17	14	8.4	e0.03	3.2	0.85	0.05	0.00	0.00	3.3	32	27	53
18	9.2	7.4	e0.03	3.1	0.38	0.01	0.00	0.00	3.3	31	39	43
19	32	6.1	e0.00	3.6	0.01	0.00	0.00	29	6.9	28	26	39
20	49	5.7	e0.53	3.3	0.00	0.00	0.00	5.7	43	25	25	35
21	24	6.3	e0.03	3.3	0.00	0.00	0.00	2.4	94	24	25	33
22	20	5.1	e0.53	3.4	1.2	0.00	0.00	0.93	52	26	24	29
23	25	4.5	e0.53	2.7	4.2	0.00	0.00	0.43	42	29	23	27
24	23	4.2	e0.53	2.5	1.4	0.00	0.00	0.18	49	29	22	25
25	19	4.2	e0.53	1.9	0.55	0.00	0.00	0.09	42	28	19	23
26	22	4.1	e2.4	1.4	0.38	0.00	0.00	0.10	40	29	23	22
27	18	3.5	e2.4	1.4	0.22	0.00	0.00	0.09	154	33	35	39
28	15	3.3	e1.5	1.4	0.03	0.00	0.00	0.01	121	29	106	33
29	8.5	3.3	e2.4	1.6	---	0.00	0.00	0.00	99	32	62	44
30	7.6	3.6	e2.4	2.0	---	0.00	0.00	0.00	104	35	98	34
31	7.4	---	e3.3	1.3	---	0.00	---	0.00	---	28	78	---
TOTAL	885.7	244.9	32.84	74.23	20.90	3.08	0.00	38.93	870.46	1248	910	1414
MEAN	28.6	8.16	1.06	2.39	0.75	0.099	0.000	1.26	29.0	40.3	29.4	47.1
MAX	71	29	3.9	7.5	4.2	1.1	0.00	29	154	121	106	159
MIN	7.4	3.3	0.00	0.53	0.00	0.00	0.00	0.00	0.00	24	11	22
AC-FT	1760	486	65	147	41	6.1	0.00	77	1730	2480	1800	2800

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1987 - 2002, BY WATER YEAR (WY)

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	34.2	13.8	8.58	9.62	10.1	7.38	3.69	5.24	26.0	45.1	44.7	48.1				
MAX	88.1	47.0	53.5	59.6	98.2	41.1	12.0	25.6	79.5	92.9	114	126				
(WY)	1996	1988	1998	1998	1998	1998	1994	1991	1995	1995	1995	2000				
MIN	7.51	2.52	1.00	0.23	0.000	0.002	0.000	0.000	0.28	8.93	16.4	7.21				
(WY)	1989	1991	1997	1997	2000	2000	1999	1999	1998	2000	1999	1987				

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1987 - 2002

ANNUAL TOTAL	9516.55	5743.04		
ANNUAL MEAN	26.1	15.7	21.9	
HIGHEST ANNUAL MEAN			39.1	1995
LOWEST ANNUAL MEAN			12.7	1990
HIGHEST DAILY MEAN	745	Jul 23	159	Sep 12
LOWEST DAILY MEAN	0.00	Feb 9	0.00	Dec 15
ANNUAL SEVEN-DAY MINIMUM	0.00	Feb 9	0.00	Mar 19
MAXIMUM PEAK FLOW			439	Jun 27
MAXIMUM PEAK STAGE			3.84	Jun 27
ANNUAL RUNOFF (AC-FT)	18880	11390	15890	
10 PERCENT EXCEEDS	83	42	57	
50 PERCENT EXCEEDS	2.4	3.1	8.6	
90 PERCENT EXCEEDS	0.00	0.00	0.00	

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

264437081550100 GATOR SLOUGH AT U.S. 41 NEAR FT. MYERS, FL

LOCATION.--Lat 26°44'38", long 81°54'59", in SE 1/4 NE 1/4 SW 1/4 sec.9, T.43 S., R.24 E., Lee County, Hydrologic Unit 03100103, 325 ft upstream of bridge on U.S. Highway 41, 4.4 mi north of State Road 78, and 8.3 mi upstream from mouth.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--1973 to 1984 (annual maximum gage heights only), June 1984 to current year. Prior to 1984, published as Gator Slough near Ft. Myers, FL.

GAGE.--Satellite data collection platform with water-stage shaft encoder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to April 26, 1988, at site 325 ft downstream on upstream side of bridge on U.S. Highway 41 at datum -1.07 ft lower. Gage was extended into deeper water at same location May 27, 1997.

REMARKS.--Records are fair except for estimated daily discharges, which are poor. Zero flow occurs for numerous days during most water years.

ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 17 complete water years of discharge (1985-2002).

REVISIONS.--Discharge for September 5-30, 2001 has been revised. Data are available in the files of the U.S. Geological Survey.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.69	15.78	15.42	15.27	15.17	15.03	---	---	15.01	17.30	15.95	e16.57
2	16.59	15.77	15.41	15.28	15.14	15.03	---	---	15.02	17.37	15.92	16.64
3	16.53	15.76	15.40	15.31	15.13	15.02	---	---	15.01	17.06	15.90	16.48
4	16.35	15.76	15.39	15.32	15.11	15.01	---	---	14.99	16.77	15.88	16.32
5	16.18	15.93	15.39	15.31	15.11	15.01	---	---	---	16.85	15.92	16.38
6	16.13	15.95	15.37	15.32	15.10	15.00	---	---	---	16.84	e15.89	16.98
7	16.10	15.91	15.37	15.33	15.09	15.00	---	---	15.11	16.85	e16.02	16.74
8	16.05	15.87	15.37	15.32	15.08	14.99	---	---	15.23	16.64	16.10	16.48
9	16.02	15.83	15.39	15.31	15.08	14.99	---	---	15.25	16.56	e16.09	16.32
10	16.00	15.78	15.46	15.29	15.07	---	---	---	15.24	16.52	e16.04	16.23
11	15.98	15.74	15.41	15.28	15.07	---	---	---	15.22	16.47	e15.98	16.46
12	15.96	15.70	e15.39	15.27	15.07	---	---	---	e15.19	16.50	e15.97	16.87
13	15.94	15.68	e15.38	15.26	15.07	---	---	---	e15.16	16.66	15.96	16.74
14	15.92	15.67	e15.37	15.25	15.07	---	---	---	e15.25	16.58	15.98	16.77
15	15.91	15.65	e15.36	e15.43	15.06	---	---	---	15.33	16.47	15.97	16.55
16	15.92	15.65	e15.36	e15.37	15.06	---	---	---	15.36	16.47	15.95	16.38
17	15.96	15.62	e15.35	e15.35	15.06	---	---	---	15.38	16.91	15.97	16.28
18	15.94	15.60	e15.35	e15.34	15.05	---	---	---	15.38	16.83	16.12	16.19
19	15.94	15.59	e15.34	e15.33	15.05	---	---	15.15	15.39	16.71	16.47	16.14
20	15.96	15.57	e15.34	e15.32	15.05	---	---	e15.39	15.63	16.55	16.64	16.10
21	15.94	15.56	e15.33	e15.31	15.04	---	---	e15.32	16.38	16.41	16.50	16.06
22	15.94	15.54	e15.32	e15.30	15.04	---	---	e15.27	16.33	16.34	16.35	16.02
23	15.94	15.52	e15.32	e15.29	15.04	---	---	e15.23	16.34	16.30	16.29	16.00
24	15.93	15.51	e15.30	e15.27	15.04	---	---	e15.18	17.02	16.25	16.22	16.01
25	15.92	15.50	e15.30	15.26	15.04	---	---	15.16	16.88	16.19	16.21	16.03
26	15.92	15.48	e15.30	15.27	15.04	---	---	15.14	16.60	16.18	16.73	16.02
27	15.91	15.47	e15.28	15.28	15.04	---	---	15.10	16.48	16.13	16.57	16.20
28	15.86	15.45	e15.27	15.29	15.04	---	---	15.07	16.43	16.10	16.79	16.20
29	15.82	15.43	15.26	15.27	---	---	---	15.04	16.38	16.06	17.28	16.34
30	15.80	15.42	15.25	15.25	---	---	---	15.03	16.56	16.03	17.29	16.30
31	15.79	---	15.26	15.21	---	---	---	15.02	---	15.98	16.81	---
TOTAL	496.84	469.69	475.81	474.26	422.01	---	---	---	---	512.88	503.76	490.80
MEAN	16.03	15.66	15.35	15.30	15.07	---	---	---	---	16.54	16.25	16.36
MAX	16.69	15.95	15.46	15.43	15.17	---	---	---	---	17.37	17.29	16.98
MIN	15.79	15.42	15.25	15.21	15.04	---	---	---	---	15.98	15.88	16.00

e Estimated

CHARLOTTE HARBOR AND COASTAL AREA

264437081550100 GATOR SLOUGH AT U.S. 41 NEAR FT. MYERS, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	2.8	0.43	0.01	0.00	0.00	0.00	0.00	0.00	88	4.7	e28
2	27	2.7	0.42	0.01	0.00	0.00	0.00	0.00	0.00	95	4.3	32
3	24	2.5	0.39	0.03	0.00	0.00	0.00	0.00	0.00	66	4.0	23
4	17	2.6	0.36	0.04	0.00	0.00	0.00	0.00	0.00	41	3.7	16
5	12	5.4	0.36	0.02	0.00	0.00	0.00	0.00	0.00	47	4.3	21
6	10	5.8	0.31	0.03	0.00	0.00	0.00	0.00	0.00	47	e3.8	58
7	9.1	5.0	0.30	0.05	0.00	0.00	0.00	0.00	0.06	47	e6.0	39
8	8.0	4.4	0.30	0.03	0.00	0.00	0.00	0.00	0.04	32	8.0	23
9	7.3	3.8	0.39	0.02	0.00	0.00	0.00	0.00	0.06	27	e7.8	16
10	6.9	3.2	0.60	0.01	0.00	0.00	0.00	0.00	0.05	25	e6.4	12
11	6.5	2.7	0.41	0.00	0.00	0.00	0.00	0.00	0.02	23	e5.3	25
12	5.9	2.2	e0.33	0.00	0.00	0.00	0.00	0.00	e0.02	25	e5.1	49
13	5.5	2.1	e0.30	0.00	0.00	0.00	0.00	0.00	e0.06	33	4.9	39
14	5.1	1.9	e0.27	0.00	0.00	0.00	0.00	0.00	e0.07	29	5.3	41
15	5.0	1.8	e0.23	e0.49	0.00	0.00	0.00	0.00	0.20	23	5.1	26
16	5.2	1.7	e0.23	e0.30	0.00	0.00	0.00	0.00	0.27	24	4.7	17
17	5.9	1.5	e0.20	e0.26	0.00	0.00	0.00	0.00	0.33	52	5.1	13
18	5.4	1.4	e0.18	e0.23	0.00	0.00	0.00	0.00	0.33	46	9.1	9.6
19	5.4	1.3	e0.17	e0.21	0.00	0.00	0.00	0.40	0.36	37	23	8.0
20	5.9	1.2	e0.15	e0.18	0.00	0.00	0.00	e0.37	2.5	27	33	7.0
21	5.4	1.1	e0.12	e0.16	0.00	0.00	0.00	e0.18	19	20	25	6.0
22	5.3	1.00	e0.11	e0.14	0.00	0.00	0.00	e0.08	17	16	18	5.2
23	5.2	0.90	e0.09	e0.11	0.00	0.00	0.00	e0.03	19	15	15	4.7
24	5.1	0.85	e0.06	e0.08	0.00	0.00	0.00	e0.00	62	13	13	4.9
25	4.9	0.78	e0.05	0.07	0.00	0.00	0.00	0.00	50	11	13	5.3
26	4.9	0.70	e0.05	0.08	0.00	0.00	0.00	0.00	30	10	38	5.0
27	4.7	0.63	e0.02	0.11	0.00	0.00	0.00	0.00	24	9.1	28	9.0
28	3.9	0.56	e0.01	0.11	0.00	0.00	0.00	0.00	21	8.0	43	9.1
29	3.3	0.50	0.01	0.08	---	0.00	0.00	0.00	19	7.0	87	14
30	3.0	0.47	0.00	0.06	---	0.00	0.00	0.00	30	6.2	87	12
31	2.9	---	0.00	0.02	---	0.00	---	0.00	---	5.3	44	---
TOTAL	256.7	63.49	6.85	2.94	0.00	0.00	0.00	1.06	295.37	954.6	564.6	577.8
MEAN	8.28	2.12	0.22	0.095	0.000	0.000	0.000	0.034	9.85	30.8	18.2	19.3
MAX	31	5.8	0.60	0.49	0.00	0.00	0.00	0.40	62	95	87	58
MIN	2.9	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.3	3.7	4.7
AC-FT	509	126	14	5.8	0.00	0.00	0.00	2.1	586	1890	1120	1150

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2002, BY WATER YEAR (WY)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	8.30	2.51	1.71	2.01	1.98	1.72	0.84	2.14	11.7	19.2	17.1	16.7							
MAX	39.8	8.32	14.7	15.1	23.8	18.6	4.38	28.3	47.3	41.5	49.7	41.9							
(WY)	1996	1988	1998	1998	1998	1998	1998	1991	1995	1991	1995	1995							
MIN	0.96	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.010	1.66	1.24	0.79							
(WY)	1990	1989	1989	1989	1986	1989	1989	1989	2001	1998	1990	1990							

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1984 - 2002

ANNUAL TOTAL	3004.53	2723.41		
ANNUAL MEAN	8.23	7.46	7.20	
HIGHEST ANNUAL MEAN			17.5	1995
LOWEST ANNUAL MEAN			0.64	1990
HIGHEST DAILY MEAN	154	Jul 24	277	Jun 28 1992
LOWEST DAILY MEAN	0.00	Jan 1	0.00	Dec 30
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00	Feb 1
MAXIMUM PEAK FLOW			93	Aug 29
MAXIMUM PEAK STAGE			17.66	Aug 29
ANNUAL RUNOFF (AC-FT)	5960	5400	5220	
10 PERCENT EXCEEDS	29	25	21	
50 PERCENT EXCEEDS	0.25	0.30	1.3	
90 PERCENT EXCEEDS	0.00	0.00	0.00	

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.

264139082022100 GATOR SLOUGH AT SR 765 AT CAPE CORAL, FL

LOCATION.--Lat 26°41'38", long 82°02'14" in SW 1/4 NW 1/4 NW 1/4 sec.32, T.43 S., R.23 E., Lee County, Hydrologic Unit 380 ft upstream from bridge on SR-765 (Burnt Store Road) in Cape Coral, 280 ft upstream from weir, and 2.9 mi north of Pine Island Road in Cape Coral, Fl.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--1973-83 (annual maximum gage heights, only), May 1984 to October 5, 1997, June 2000 to current year. Prior to 1984, published as "near Pine Island."

GAGE.--Electronic data logger. Datum of gage is National Geodetic Vertical Datum of 1929. (State road department bench mark).

REMARKS.--Records poor. Zero flow occurs for numerous days during most water years. Formerly published as, "near Ft. Myers, Fl." ANNUAL MEAN and ANNUAL RUNOFF (AC-FT) SUMMARY STATISTICS.--Figures represent 15 complete water years of discharge (1985-97, 2002).

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.88	2.57	2.57	2.49	2.49	2.47	2.39	2.21	2.50	e3.09	2.70	e3.04
2	2.83	2.56	2.57	2.50	2.49	2.45	2.39	2.20	2.49	e3.11	2.68	e3.05
3	2.79	2.56	2.57	2.50	2.49	2.46	2.38	2.19	2.50	e2.99	2.67	e3.06
4	2.76	2.56	2.56	2.49	2.49	2.48	2.38	2.20	2.50	e2.92	2.66	e3.00
5	2.75	2.60	2.55	2.49	2.48	2.47	2.37	2.20	2.50	e2.94	2.67	e2.91
6	2.74	2.59	2.54	2.49	2.47	2.47	2.36	2.19	2.50	e2.92	2.67	3.11
7	2.73	2.59	2.53	2.49	2.47	2.47	2.36	2.18	2.50	e2.90	2.72	3.04
8	2.71	2.59	2.53	2.49	2.47	2.49	2.34	2.18	2.51	2.82	2.81	2.93
9	2.67	2.59	2.53	2.49	2.47	2.48	2.34	2.17	2.51	2.79	e2.82	2.86
10	2.63	2.59	2.52	2.49	2.47	2.47	2.33	2.15	2.49	2.77	e2.83	2.83
11	2.63	2.60	2.52	2.49	2.47	2.47	2.33	2.13	2.49	2.77	e2.84	2.96
12	2.63	2.59	2.52	2.49	2.47	2.46	2.33	2.14	2.48	2.78	e2.85	3.16
13	2.62	2.58	2.52	2.49	2.47	2.46	2.34	2.20	2.51	2.83	e2.81	3.12
14	2.61	2.58	2.53	2.49	2.48	2.46	2.33	2.19	2.51	2.83	e2.79	3.08
15	2.61	2.58	2.53	2.50	2.47	2.46	2.33	2.19	2.51	2.80	e2.80	3.01
16	2.60	2.57	2.52	2.50	2.48	2.46	2.34	2.20	2.51	2.76	e2.82	2.91
17	2.60	2.57	2.51	2.49	2.48	2.46	2.36	2.24	2.52	2.81	e2.89	2.86
18	2.59	2.57	2.50	2.50	2.47	2.45	2.35	2.24	2.52	2.84	e2.96	2.82
19	2.61	2.57	2.50	2.50	2.46	2.44	2.33	e2.63	2.54	2.81	e3.29	2.79
20	2.63	2.57	2.50	2.50	2.45	2.44	2.31	e2.68	2.65	2.78	e3.37	2.75
21	2.61	2.57	2.50	2.50	2.45	2.43	2.31	e2.61	2.76	2.76	e3.26	2.73
22	2.61	2.57	2.50	2.50	2.47	2.44	2.30	e2.57	2.77	2.75	e3.15	2.71
23	2.61	2.56	2.49	2.50	2.48	2.43	2.30	e2.56	e2.79	2.75	e3.07	2.69
24	2.61	2.56	2.49	2.50	2.49	2.43	2.30	e2.54	e2.97	2.74	e3.02	2.69
25	2.60	2.56	2.50	2.50	2.48	2.42	2.29	e2.53	e2.94	2.74	e2.97	2.67
26	2.60	2.57	2.50	2.50	2.48	2.42	2.28	e2.52	e2.86	2.75	e3.39	2.67
27	2.59	2.57	2.49	2.50	2.48	2.42	2.28	2.49	e2.83	2.75	e3.33	2.72
28	2.60	2.57	2.49	2.50	2.48	2.41	2.24	2.49	2.84	2.73	e3.54	2.72
29	2.59	2.57	2.49	2.49	---	2.40	2.23	2.50	2.87	2.77	e3.64	2.72
30	2.59	2.57	2.49	2.49	---	2.39	2.22	2.50	e2.92	2.81	e3.54	2.73
31	2.57	---	2.49	2.49	---	2.38	---	2.50	---	2.76	e3.20	---
TOTAL	82.20	77.25	78.05	77.34	69.30	75.84	69.74	72.52	78.79	87.57	92.76	86.34
MEAN	2.65	2.58	2.52	2.49	2.48	2.45	2.32	2.34	2.63	2.82	2.99	2.88
MAX	2.88	2.60	2.57	2.50	2.49	2.49	2.39	2.68	2.97	3.11	3.64	3.16
MIN	2.57	2.56	2.49	2.49	2.45	2.38	2.22	2.13	2.48	2.73	2.66	2.67

e Estimated

CHARLOTTE HARBOR AND COASTAL AREA

264139082022100 GATOR SLOUGH AT SR 765 AT CAPE CORAL, FL

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002  
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	144	18	19	3.4	1.8	0.24	0.00	0.00	2.7	e285	44	e233
2	118	15	19	3.7	1.9	0.02	0.00	0.00	2.3	e303	37	e239
3	101	13	18	3.5	1.8	0.11	0.00	0.00	2.7	e222	33	e253
4	88	14	15	2.8	2.0	0.29	0.00	0.00	2.8	e160	30	e206
5	80	26	13	2.8	1.4	0.28	0.00	0.00	2.8	e174	33	e142
6	77	21	10	2.9	0.35	0.13	0.00	0.00	2.8	e170	32	306
7	73	21	9.7	2.8	0.34	0.31	0.00	0.00	2.8	e155	47	239
8	64	21	9.9	2.8	0.35	0.54	0.00	0.00	4.5	110	81	158
9	50	21	8.4	2.8	0.35	0.35	0.00	0.00	4.4	94	e84	114
10	37	23	7.3	2.8	0.35	0.17	0.00	0.00	2.3	88	e90	101
11	34	23	7.3	2.8	0.35	0.14	0.00	0.00	1.6	85	e95	193
12	32	22	7.4	2.8	0.35	0.08	0.00	0.00	1.4	89	e100	353
13	30	20	8.2	2.8	0.44	0.09	0.00	0.00	4.9	108	e81	317
14	28	19	9.2	2.8	0.60	0.10	0.00	0.00	5.1	108	e73	280
15	26	19	8.8	4.1	0.45	0.12	0.00	0.00	6.2	96	e77	219
16	24	17	7.6	4.1	0.56	0.09	0.00	0.00	5.9	79	e86	151
17	23	17	5.6	3.4	0.56	0.09	0.00	0.00	7.2	101	e119	117
18	20	19	4.7	3.3	0.48	0.0	0.00	0.00	7.3	112	e175	99
19	26	19	4.0	2.6	0.18	0.00	0.00	e34	14	95	e455	85
20	32	19	4.2	2.8	0.11	0.00	0.00	e50	44	82	e523	70
21	25	19	3.9	2.8	0.12	0.00	0.00	e27	85	73	e430	59
22	24	18	3.5	3.4	0.35	0.00	0.00	e16	88	70	e336	53
23	25	17	2.9	3.1	0.61	0.00	0.00	e14	e88	70	e253	47
24	23	16	3.2	2.9	0.53	0.00	0.00	e9.3	e190	64	e213	45
25	21	17	4.3	2.4	0.35	0.00	0.00	e7.3	e168	62	e175	41
26	21	18	4.3	2.3	0.35	0.00	0.00	e5.6	e122	66	e541	39
27	20	19	3.0	2.8	0.38	0.00	0.00	1.8	e107	64	e488	58
28	19	19	2.8	2.4	0.36	0.00	0.00	1.8	153	57	e675	56
29	17	19	3.0	2.0	---	0.00	0.00	2.7	140	79	e789	58
30	17	19	2.9	2.0	---	0.00	0.00	2.8	e160	89	e675	61
31	17	---	3.0	1.9	---	0.00	---	2.8	---	65	e382	---
TOTAL	1336	568	233.1	89.8	17.77	3.15	0.00	175.10	1428.7	3475	7252	4392
MEAN	43.1	18.9	7.52	2.90	0.63	0.10	0.000	5.65	47.6	112	234	146
MAX	144	26	19	4.1	2.0	0.54	0.00	50	190	303	789	353
MIN	17	13	2.8	1.9	0.11	0.00	0.00	0.00	1.4	57	30	39
AC-FT	2650	1130	462	178	35	6.2	0.00	347	2830	6890	14380	8710

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2002, BY WATER YEAR (WY)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	67.4	20.4	7.64	11.7	7.46	12.1	9.81	13.3	64.9	111	135	113							
MAX	253	42.2	18.9	38.1	20.1	41.5	43.2	58.0	215	284	359	268							
(WY)	1996	1997	1988	1987	1993	1987	1987	1991	1995	1995	1997	2001							
MIN	17.4	2.31	0.23	0.000	0.000	0.000	0.000	0.002	0.24	9.15	55.3	23.3							
(WY)	1989	2001	2001	2001	1997	1997	2002	2001	1985	2000	1993	1990							

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1984 - 2002

ANNUAL TOTAL	17859.40	18970.62	
ANNUAL MEAN	48.9	52.0	48.4
HIGHEST ANNUAL MEAN			92.7
LOWEST ANNUAL MEAN			21.7
HIGHEST DAILY MEAN	1400	Sep 14	789
LOWEST DAILY MEAN	0.00	Jan 1	0.00
ANNUAL SEVEN-DAY MINIMUM	0.00	Jan 1	0.00
MAXIMUM PEAK FLOW			2550
MAXIMUM PEAK STAGE			4.61
INSTANTANEOUS LOW FLOW			0.00
ANNUAL RUNOFF (AC-FT)	35420	37630	35080
10 PERCENT EXCEEDS	118	154	125
50 PERCENT EXCEEDS	5.8	8.2	15
90 PERCENT EXCEEDS	0.00	0.00	0.29

e Estimated

The period of record statistics were computed from complete water year's of record. See the annual mean and annual runoff (ac-ft) summary statistics section of the manuscript.



SURFACE WATER QUALITY RECORDS  
FIELD MEASUREMENTS

## SURFACE WATER QUALITY RECORDS

## FIELD MEASUREMENTS

## MULTIPLE STATION ANALYSES

Station number	Local ident- ifier	Lat- i- tude	Long- i- tude	Date	Time	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
02282100	CYPRESS CREEK C AT S-37A,	26 12 20 N	080 07 57 W	10-24-01	1025	399	54.0
		26 12 20 N	080 07 57 W	01-29-02	--	511	56.0
		26 12 20 N	080 07 57 W	04-24-02	1025	515	60.0
		26 12 20 N	080 07 57 W	07-24-02	0836	463	32.0
02282101	CYPRESS CREEK C BL S-37A N	26 12 20 N	080 07 56 W	10-24-01	1030	1450	350
		26 12 20 N	080 07 56 W	01-29-02	--	26500	8200
		26 12 20 N	080 07 56 W	04-24-02	1030	36100	9000
		26 12 20 N	080 07 56 W	07-24-02	0836	803	145
02282700	MIDDLE RIVER CANAL AT S-36	26 10 22 N	080 10 47 W	10-24-01	1436	441	40.0
		26 10 22 N	080 10 47 W	01-29-02	--	583	76.0
		26 10 22 N	080 10 47 W	04-24-02	1515	608	78.0
		26 10 22 N	080 10 47 W	07-24-02	1530	558	58.0
02282701	MIDDLE RIVER CANAL BL S-36	26 10 22 N	080 10 44 W	10-24-01	1440	442	42.0
		26 10 22 N	080 10 44 W	01-29-02	--	675	114
		26 10 22 N	080 10 44 W	04-24-02	1515	15100	4100
		26 10 22 N	080 10 44 W	07-24-02	1535	564	64.0
02283200	PLANTATION RD CA AT S-33 N	26 08 05 N	080 11 42 W	10-24-01	1038	337	28.0
		26 08 05 N	080 11 42 W	01-29-02	--	425	70.0
		26 08 05 N	080 11 42 W	04-24-02	1535	433	82.0
		26 08 05 N	080 11 42 W	07-24-02	1520	402	36.0
02283201	PLANTATION RD CA BL S-33 N	26 08 05 N	080 11 40 W	10-24-01	1040	337	26.0
		26 08 05 N	080 11 40 W	01-29-02	--	394	30.0
		26 08 05 N	080 11 40 W	04-24-02	1535	1960	530
		26 08 05 N	080 11 40 W	07-24-02	1527	425	32.0
02285000	NORTH NEW RIVER CANAL NEAR	26 05 39 N	080 13 48 W	10-23-01	1505	435	32.0
		26 05 39 N	080 13 48 W	01-30-02	--	568	74.0
		26 05 39 N	080 13 48 W	04-25-02	1425	523	82.0
		26 05 39 N	080 13 48 W	07-25-02	1430	553	66.0
02285001	NORTH NEW RIVER CANAL BL C	26 05 39 N	080 13 50 W	10-23-01	1525	430	46.0
		26 05 39 N	080 13 50 W	01-30-02	--	1290	305
		26 05 39 N	080 13 50 W	04-25-02	1445	9100	3100
		26 05 39 N	080 13 50 W	07-25-02	1432	568	70.0
02285101	NORTH NEW RIVER CA AT SR7	26 05 15 N	080 12 00 W	10-23-01	1523	428	54.0
		26 05 15 N	080 12 00 W	01-30-02	--	16400	4900
		26 05 15 N	080 12 00 W	04-25-02	1440	15500	5700
		26 05 15 N	080 12 00 W	07-25-02	1410	945	185
260037080100700	HOLLYWOOD CANAL AT HOLLYWO	26 00 37 N	080 10 07 W	10-25-01	1150	543	54.0
		26 00 37 N	080 10 07 W	03-25-02	1437	2670	780
		26 00 37 N	080 10 07 W	04-25-02	0745	17500	5800
		26 00 37 N	080 10 07 W	07-24-02	0845	546	44.0
260104080101300	HOLLYWOOD CANAL AT JOHNSON	26 01 04 N	080 10 13 W	10-26-01	1200	685	90.0
		26 01 04 N	080 10 13 W	01-29-02	1432	5240	1560
		26 01 04 N	080 10 13 W	03-25-02	1525	6610	2700
		26 01 04 N	080 10 13 W	04-24-02	0859	23900	8500
26 01 04 N	080 10 13 W	07-24-02	0945	576	46.0		
260132080094900	HOLLYWOOD CANAL AT TAFT ST	26 01 32 N	080 09 49 W	10-26-01	1530	1030	235
		26 01 32 N	080 09 49 W	01-29-02	1524	11900	4600
		26 01 32 N	080 09 49 W	03-25-02	1620	20800	8500
		26 01 32 N	080 09 49 W	04-25-02	0952	29100	10400
26 01 32 N	080 09 49 W	07-24-02	1124	856	150		

VOLUME 2A: SOUTH FLORIDA

SURFACE WATER QUALITY RECORDS

FIELD MEASUREMENTS

MULTIPLE STATION ANALYSES

Station number	Local identifier	Latitude	Longitude	Date	Time	SPECIFIC CONDUCTANCE (US/CM) (00095)	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)
260212080112500	HOLLYWOOD CANAL AT N46 AVE	26 02 12 N	080 11 25 W	10-26-01	1400	323	48.0
		26 02 12 N	080 11 25 W	01-29-02	1611	728	176
		26 02 12 N	080 11 25 W	03-26-02	1000	2790	920
		26 02 12 N	080 11 25 W	04-25-02	1105	2310	800
		26 02 12 N	080 11 25 W	07-24-02	1324	419	74.0
260225080095800	HOLLYWOOD CANAL AT N29 AVE	26 02 25 N	080 09 58 W	10-26-01	1350	736	124
		26 02 25 N	080 09 58 W	01-29-02	1600	17000	7500
		26 02 25 N	080 09 58 W	03-25-02	1503	26800	11500
		26 02 25 N	080 09 58 W	04-25-02	1031	36900	13500
		26 02 25 N	080 09 58 W	07-24-02	1308	2000	580
260956080094200	MIDDLE RIVER CA AT OAKLAND	26 09 56 N	080 09 42 W	10-24-01	1412	410	36.0
		26 09 56 N	080 09 42 W	01-29-02	--	1560	400
		26 09 56 N	080 09 42 W	04-24-02	1400	2510	700
		26 09 56 N	080 09 42 W	07-24-02	1420	574	76.0
		26 09 56 N	080 09 42 W	07-24-02	1420	574	76.0
261000080084900	N FORK MIDDLE RIVER AT AND	26 10 00 N	080 08 49 W	10-24-01	1512	455	42.0
		26 10 00 N	080 08 49 W	01-29-02	--	9900	3450
		26 10 00 N	080 08 49 W	04-24-02	1230	21600	6100
		26 10 00 N	080 08 49 W	07-24-02	1145	774	120
		26 10 00 N	080 08 49 W	07-24-02	1145	774	120
261010080090400	N FORK MIDDLE R AT NW 34 S	26 10 10 N	080 09 04 W	10-24-01	1500	476	42.0
		26 10 10 N	080 09 04 W	01-29-02	--	6050	2000
		26 10 10 N	080 09 04 W	04-24-02	1455	20600	6600
		26 10 10 N	080 09 04 W	07-24-02	1425	632	76.0
		26 10 10 N	080 09 04 W	07-24-02	1425	632	76.0
261019080100300	ROYAL PALM ISLES CA (C-13F	26 10 19 N	080 10 03 W	10-24-01	1406	504	40.0
		26 10 19 N	080 10 03 W	01-29-02	--	1020	210
		26 10 19 N	080 10 03 W	04-24-02	1415	1380	295
		26 10 19 N	080 10 03 W	07-24-02	1420	561	56.0
		26 10 19 N	080 10 03 W	07-24-02	1420	561	56.0
261019080100600		26 10 19 N	080 10 06 W	10-24-01	1417	471	50.0
		26 10 19 N	080 10 06 W	01-29-02	--	1780	500
		26 10 19 N	080 10 06 W	04-24-02	1406	16300	4400
		26 10 19 N	080 10 06 W	07-24-02	1420	633	90.0
		26 10 19 N	080 10 06 W	07-24-02	1420	633	90.0
261020080091700	N FORK MIDDLE R AT NW 9 AV	26 10 20 N	080 09 17 W	10-24-01	1424	328	28.0
		26 10 20 N	080 09 17 W	01-29-02	--	2330	680
		26 10 20 N	080 09 17 W	04-24-02	1500	21600	8100
		26 10 20 N	080 09 17 W	07-24-02	1515	353	38.0
		26 10 20 N	080 09 17 W	07-24-02	1515	353	38.0
261034080093500	CA-13 FEEDER CA AT 10TH AV	26 10 34 N	080 09 35 W	10-24-01	1305	362	34.0
		26 10 34 N	080 09 35 W	01-29-02	--	342	36.0
		26 10 34 N	080 09 35 W	04-24-02	1300	374	40.0
		26 10 34 N	080 09 35 W	07-24-02	1255	360	36.0
		26 10 34 N	080 09 35 W	07-24-02	1255	360	36.0

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NATIONAL WATER-QUALITY ASSESSMENT  
(NAWQA) DATA

AND

MISCELLANEOUS DATA COLLECTED BY THE  
TAMPA, FL USGS OFFICE

## WATER RESOURCES DATA - FLORIDA, 2002

## VOLUME 2A: SOUTH FLORIDA

## NATIONAL WATER-QUALITY ASSESSMENT (NAWQA) PROGRAM

The National Water-Quality Assessment (NAWQA) Program of the U.S. Geological Survey is a long-term program with goals to describe the status and trends of water-quality conditions for a large, representative part of the Nation's ground- and surface-water resources; provide an improved understanding of the primary natural and human factors affecting these observed conditions and trends; and provide information that supports development and evaluation of management, regulatory, and monitoring decisions by other agencies.

02281200 - HILLSBORO CANAL AT S-6 NEAR SHAWANO

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	GAGE HEIGHT (FEET) (00065)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00301)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	ALKA- LILITY WAT DIS FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER FIELD MG/L AS HCO3 (00453)	CAR- BONATE WATER FIELD MG/L AS CO3 (00452)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
OCT													
11...	1030	11.05	765	1.8	22	7.4	1270	27.5	25.0	355	433	--	169
NOV													
08...	1020	10.11	770	3.4	39	7.4	1380	25.0	22.5	396	475	--	169
JAN													
24...	1010	10.83	769	2.7	30	7.3	1160	25.5	21.0	290	354	--	154
FEB													
13...	1020	--	766	2.1	24	7.2	1250	25.0	22.0	325	397	--	142
MAR													
14...	1000	10.59	765	2.9	33	7.4	1200	26.5	22.5	314	383	--	160
APR													
11...	1040	--	769	4.4	52	7.5	1140	27.0	24.5	301	367	--	158
MAY													
23...	1020	10.32	764	5.6	71	7.9	771	29.0	27.5	171	196	6	104
JUN													
27...	1020	9.16	765	1.8	23	7.2	1230	32.5	27.0	315	384	--	143
JUL													
10...	1030	--	765	1.9	24	7.3	1310	30.0	26.5	355	433	--	153
AUG													
22...	1050	8.92	765	2.0	26	7.7	1200	35.5	29.0	261	319	--	171
SEP													
19...	1025	10.14	761	.2	3	7.2	1230	31.0	28.0	310	378	--	158

VOLUME 2A: SOUTH FLORIDA

NATIONAL WATER-QUALITY ASSESSMENT (NAWQA) PROGRAM  
02281200 - HILLSBORO CANAL AT S-6 NEAR SHAWANO

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) (71846)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3) (71851)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS NO2) (71856)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	ORTHO-PHOS-GEN, NITRO-TOTAL (MG/L AS N) (00600)	PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)
	OCT 11...	61.6	.447	2.5	.58	.16	.717	.223	.200	.061	2.1	2.7	.012
NOV 08...	87.3	.228	2.6	.29	.43	1.89	.472	.151	.046	2.4	3.1	.072	.109
JAN 24...	52.8	.280	1.9	.36	.17	.739	.185	.059	.018	1.6	2.1	E.006	.020
FEB 13...	92.2	.552	3.1	.71	3.61	16.0	3.88	.877	.267	2.5	7.0	.060	.092
MAR 14...	56.8	.134	1.9	.17	.22	.978	.241	.066	.020	1.8	2.2	<.007	.027
APR 11...	49.5	.212	1.9	.27	.45	1.99	.473	.079	.024	1.7	2.4	E.006	.019
MAY 23...	53.3	.067	1.6	.09	.07	.314	.078	.023	.007	1.5	1.6	<.007	.037
JUN 27...	93.1	.570	3.0	.73	2.12	9.38	2.28	.523	.159	2.5	5.3	.067	.104
JUL 10...	94.5	.537	3.0	.69	1.03	4.57	1.12	.273	.083	2.5	4.1	.066	.105
AUG 22...	82.8	.134	2.6	.17	.19	.837	.206	.056	.017	2.4	2.8	.016	.092
SEP 19...	74.8	.304	2.3	.39	.05	.221	.064	.046	.014	2.0	2.3	.017	.049

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	2,6-DI-ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL-ATE, WATER, REC (UG/L) (04028)	CAR-BARYL, WATER, FLTRD GF, REC (UG/L) (82680)	CARBO-FURAN, WATER, FLTRD GF, REC (UG/L) (82674)	CHLOR-PYRIFOS, DIS-SOLVED (UG/L) (38933)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA, WATER, FLTRD GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)
	OCT 11...	--	--	--	--	--	--	--	--	--	--	--	--
NOV 08...	<.002	<.004	<.002	<.005	.202	<.010	<.002	E.003	<.020	E.003	<.018	<.003	E.007
JAN 24...	<.006	<.006	<.004	<.005	.638	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.010
FEB 13...	<.006	<.006	<.004	<.005	4.03	<.010	<.002	E.010	E.328	.015	<.018	<.003	E.076
MAR 14...	<.006	<.006	<.004	<.005	.940	<.010	<.002	<.041	E.021	<.005	<.018	<.003	E.012
APR 11...	<.006	<.006	<.004	<.005	1.23	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.022
MAY 23...	<.006	<.006	<.004	<.005	.285	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.025
JUN 27...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 10...	<.006	<.006	<.004	<.005	.148	<.010	<.002	<.041	<.020	<.005	<.018	<.003	E.012
AUG 22...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 19...	<.006	<.006	<.004	<.005	.040	<.010	<.002	<.041	<.020	<.005	<.018	<.003	<.010

WATER RESOURCES DATA - FLORIDA, 2002

VOLUME 2A: SOUTH FLORIDA

NATIONAL WATER-QUALITY ASSESSMENT (NAWQA) PROGRAM  
 252414080333200 -- C-111 CANAL 100 FT ABV S-177 NR HOMESTEAD

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	GAGE HEIGHT (FEET) (00065)	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, DIS-SOLVED (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	ALKA-LINITY WAT DIS FIELD (MG/L AS CACO3) (39086)	BICAR-BONATE WATER DIS IT FIELD (MG/L AS HCO3) (00453)	CAR-BONATE WATER DIS IT FIELD (MG/L AS CO3) (00452)
NOV 07...	1000	4.12	337	769	2.7	32	7.2	474	24.0	24.0	203	247	--
JAN 23...	1020	3.67	.0	769	4.3	51	7.3	492	26.5	24.0	194	237	--
FEB 12...	0940	3.71	.0	768	6.4	74	7.7	484	25.0	23.0	194	237	--
MAR 13...	1010	3.20	.0	763	7.0	83	7.7	492	28.5	24.0	195	238	--
APR 10...	0930	3.44	.0	769	4.9	59	7.5	498	26.5	25.0	187	228	--
MAY 22...	1020	2.62	.0	764	3.9	49	7.6	641	27.5	27.0	238	273	8
JUN 26...	0950	3.79	606	767	.6	7	7.6	514	27.0	25.0	204	249	--
JUL 09...	0950	4.14	709	765	1.2	14	7.2	493	25.5	24.5	194	237	--
AUG 21...	1020	3.73	407	765	1.2	15	7.4	490	30.0	25.5	199	243	--
SEP 18...	0955	3.64	212	762	.8	10	7.2	503	30.0	26.5	198	242	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC (MG/L AS N) (00625)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) (71846)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3) (71851)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS NO2) (71856)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)
NOV 07...	31.3	4.9	.113	.44	.15	.07	.328	.079	.016	.005	.33	.52	<.007
JAN 23...	33.1	3.5	.039	.50	.05	.04	.190	.047	.013	.004	.46	.55	<.007
FEB 12...	32.9	2.2	.042	.48	.05	--	--	.028	--	<.002	.43	.51	<.007
MAR 13...	35.7	2.3	.016	.48	.02	--	--	.031	--	E.002	.46	.51	<.007
APR 10...	39.3	1.5	.050	.81	.06	--	--	.045	--	E.002	.76	.85	<.007
MAY 22...	59.8	2.1	.133	1.2	.17	.09	.381	.091	.016	.005	1.0	1.2	<.007
JUN 26...	35.4	4.5	.136	.53	.18	.02	.089	.027	.023	.007	.40	.56	<.007
JUL 09...	33.0	4.2	.126	.43	.16	.02	.084	.025	.020	.006	.30	.46	<.007
AUG 21...	32.2	3.9	.116	.50	.15	--	--	.017	--	E.002	.39	.52	<.007
SEP 18...	32.0	3.9	.093	.45	.12	.01	.053	.015	.010	.003	.36	.47	<.007



WATER RESOURCES DATA - FLORIDA, 2002

VOLUME 2A: SOUTH FLORIDA

NATIONAL WATER-QUALITY ASSESSMENT (NAWQA) PROGRAM  
 252414080333200 -- C-1111 CANAL 100 FT ABV S-177 NR HOMESTEAD

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	2,6-DI- ETHYL ANILINE WAT FLT 0.7 U GF, REC (UG/L) (82660)	ACETO- CHLOR, WATER, FLTRD REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL WATER 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)
NOV 07...	.007	<.002	<.004	<.002	<.005	.008	<.010	<.002	<.041	<.020	<.005	<.018	<.003
JAN 23...	.006	<.006	<.006	<.004	<.005	.007	<.010	<.002	<.041	<.020	.032	<.018	<.003
FEB 12...	.007	<.006	<.006	<.004	<.005	.008	<.010	<.002	<.041	<.020	E.004	<.018	<.003
MAR 13...	.009	<.006	<.006	<.004	<.005	.009	<.010	<.002	<.041	<.020	.005	<.018	<.003
APR 10...	.008	<.006	<.006	<.004	<.005	.023	<.010	<.002	<.041	<.020	<.005	<.018	<.003
MAY 22...	.020	<.006	<.006	<.004	<.005	.013	<.010	<.002	<.041	<.020	<.005	<.018	<.003
JUN 26...	.008	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	.015	<.006	<.006	<.004	<.005	.009	<.010	<.002	<.041	<.020	<.005	<.018	<.003
AUG 21...	.008	--	--	--	--	--	--	--	--	--	--	--	--
SEP 18...	.005	<.006	<.006	<.004	<.005	.010	<.010	<.002	<.041	<.020	<.005	<.018	<.003

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FONOFOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, WAT FLT DIS- SOLVED (UG/L) (39532)	METHYL AZIN- PHOS WAT FLT GF, REC (UG/L) (82686)	METHYL PARA- THION WAT FLT GF, REC (UG/L) (82667)
NOV 07...	E.004	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.050	<.006
JAN 23...	E.004	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.050	<.006
FEB 12...	E.003	E.003	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.050	<.006
MAR 13...	E.003	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.050	<.006
APR 10...	<.006	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.050	<.006
MAY 22...	<.006	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.050	<.006
JUN 26...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	E.003	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.050	<.006
AUG 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 18...	<.006	<.005	<.005	<.02	<.002	<.009	<.005	<.003	<.004	<.035	<.027	<.050	<.006

WATER RESOURCES DATA - FLORIDA, 2002

VOLUME 2A: SOUTH FLORIDA

NATIONAL WATER-QUALITY ASSESSMENT (NAWQA) PROGRAM  
252414080333200 -- C-111 CANAL 100 FT ABV S-177 NR HOMESTEAD

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	P,P' DDE DISSOLV (UG/L) (34653)	PARA- THION, DIS- SOLVED (UG/L) (39542)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PRO- METON, WATER, DISS, 0.7 U GF, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPA- CHLOR, WATER, DISS, REC (UG/L) (04024)
NOV 07...	E.013	<.006	<.002	<.007	<.003	<.007	<.002	<.010	<.006	<.011	<.01	<.004	<.010
JAN 23...	E.008	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.006	<.011	<.01	<.004	<.010
FEB 12...	E.009	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.006	<.011	<.01	<.004	<.010
MAR 13...	E.006	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.006	<.011	<.01	<.004	<.010
APR 10...	<.013	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.006	<.011	<.01	<.004	<.010
MAY 22...	E.003	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.006	<.011	<.01	<.004	<.010
JUN 26...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUL 09...	E.009	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.006	<.011	<.01	<.004	<.010
AUG 21...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 18...	E.012	<.006	<.002	<.007	<.003	<.010	<.004	<.022	<.006	<.011	<.01	<.004	<.010

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (MG/L) (80154)	SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) (80155)
NOV 07...	<.011	<.02	<.011	<.02	<.034	<.02	<.005	<.002	<.009	2.0	1.8
JAN 23...	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	.0	--
FEB 12...	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	2.0	--
MAR 13...	<.011	<.02	<.005	M	<.034	<.02	<.005	<.002	<.009	1.0	--
APR 10...	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	2.0	--
MAY 22...	<.011	<.02	<.005	E.01	<.034	<.02	<.005	<.002	<.009	2.0	--
JUN 26...	--	--	--	--	--	--	--	--	--	.0	.0
JUL 09...	<.011	<.02	<.005	E.01	<.034	<.02	<.005	<.002	<.009	3.8	7.3
AUG 21...	--	--	--	--	--	--	--	--	--	1.0	1.1
SEP 18...	<.011	<.02	<.005	<.02	<.034	<.02	<.005	<.002	<.009	1.5	.86

Remark codes used in this report:  
 < -- Less than  
 E -- Estimated value  
 M -- Presence verified, not quantified



## WATER RESOURCES DATA - FLORIDA, 2002

## VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
255218081225700 -- BARRON R CANAL NR EVERGLADES CITY BRIDGE FL

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	ACENAPH THENE SED, BM WS, <2MM DW, REC (UG/KG) (49429)	ACENAPH THYLENE SED, BM WS, <2MM DW, REC (UG/KG) (49428)	ACRI- DINE SED, BM WS, <2MM DW, REC (UG/KG) (49430)	ALDRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49319)	ALPHA- BHC, SED, BM WS, <2MM DW, REC (UG/KG) (49338)	ANTHRA- CENE, 2- METHYL- SED, BM WS, <2MM DW, REC (UG/KG) (49435)	ANTHRA- CENE SED, BM WS, <2MM DW, REC (UG/KG) (49434)	AZO- BENZENE SED, BM WS, <2MM DW, REC (UG/KG) (49443)	BENZ(A) ANTHRA- CENE SED, BM WS, <2MM DW, REC (UG/KG) (49436)	BENZENE 124TRI- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49438)	BENZENE HEXA- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49343)	BENZENE M-DI- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49441)	BENZENE NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49444)
OCT 26...	<100	E10	<100	<1	<1	<100	<100	<100	E55	<100	<1	<100	<100

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	BENZENE O-DI- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49439)	BENZENE P-DI- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49442)	BENZENE PNTCHLR NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49446)	BENZO (A) PYRENE SED, BM WS, <2MM DW, REC (UG/KG) (49389)	BENZOB ANTHENE SED, BM WS, <2MM DW, REC (UG/KG) (49458)	BENZO(G HI)PERY LENE SED, BM WS, <2MM DW, REC (UG/KG) (49408)	BENZO K FLUOR- ANTHENE SED, BM WS, <2MM DW, REC (UG/KG) (49397)	BENZOCI NNOLINE BED MAT REC (UG/KG) (49468)	BETA- BHC, ZOLE SED, BM WS, <2MM DW, REC (UG/KG) (49339)	CARBA- ZOLE SED, BM WS, <2MM DW, REC (UG/KG) (49449)	CHLORO- NEB, SED, BM WS, <2MM DW, REC (UG/KG) (49322)	CHRY- SENE SED, BM WS, <2MM DW, REC (UG/KG) (49450)	CIS- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49320)
OCT 26...	<100	<100	<100	E68	120	E42	E33	<100	<1	E1	<5	E68	<1

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	CIS- NONA- CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49316)	CIS- PER- METHRIN SED, BM WS, <2MM DW, REC (UG/KG) (49349)	DCPA, SED, BM WS, <2MM DW, REC (UG/KG) (49324)	DIBENZ (AH), AN THRACEN SED, BM WS, <2MM DW, REC (UG/KG) (49461)	DIEL- DRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49331)	DIPHNYL AMINE, N NITROSO SED, BM WS, <2MM DW, REC (UG/KG) (49433)	DPROPYL AMINE, N NITROSO SED, BM WS, <2MM DW, REC (UG/KG) (49431)	ENDO- SULFAN I, SED, BM WS, <2MM DW, REC (UG/KG) (49332)	ENDRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49335)	FLUOR- ANTHENE BED MAT WS <2MM DRY WGT REC (UG/KG) (49466)	HEPTA- CHLOR EPOXIDE SED, BM WS, <2MM DW, REC (UG/KG) (49342)	HEPTA- CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49341)	INDENO 123-CD PYRENE SED, BM WS, <2MM DW, REC (UG/KG) (49390)
OCT 26...	<1	<5	<5	<100	<1	<100	<100	<1	<2	E95	<1	<1	E46

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	ISODRIN SED, BM WS, <2MM DW, REC (UG/KG) (49344)	ISOPHOR ONE SED, BM WS, <2MM DW, REC (UG/KG) (49400)	ISO- QUINO- LINE, SED, BM WS, <2MM DW, REC (UG/KG) (49394)	LINDANE SED, BM WS, <2MM DW, REC (UG/KG) (49345)	M-CRE- SOL, 4- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49422)	METHANE 2CHLORO ETHOXY SED, BM WS, <2MM DW, REC (UG/KG) (49401)	METHOXY CHLOR, O, P'-, SED, BM WS, <2MM DW, REC (UG/KG) (49347)	METHOXY CHLOR P, P'-, SED, BM WS, <2MM DW, REC (UG/KG) (49346)	MIREX, SED, BM WS, <2MM DW, REC (UG/KG) (49348)	NAPHTHAL ENE, 12 DIMETHL SED, BM WS, <2MM DW, REC (UG/KG) (49403)	NAPHTHAL ENE, 16 DIMETHL SED, BM WS, <2MM DW, REC (UG/KG) (49404)	NAPHTHAL ENE, 236 TRIMETH SED, BM WS, <2MM DW, REC (UG/KG) (49405)	NAPHTHAL ENE, 26 DIMETHL SED, BM WS, <2MM DW, REC (UG/KG) (49406)
OCT 26...	<1	<100	<100	<1	<100	<100	<5	<5	<1	<100	<100	<100	E58

VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
255218081225700 -- BARRON R CANAL NR EVERGLADES CITY BRIDGE FL

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	NAPHTHAL- ENE, 2- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49407)	NAPHTHAL- ENE, 2- ETHYL- SED, BM WS, <2MM DW, REC (UG/KG) (49948)	NAPHTH- ALENE, SED, BM WS, <2MM DW, REC (UG/KG) (49402)	O, P'- DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49325)	O, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49327)	O, P'- DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49329)	OXY- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49318)	P, P'- DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49326)	P, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49328)	P, P'- DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49330)	PCB, SED, BM WS, <2MM DW, REC (UG/KG) (49459)	P- CRESOL SED, BM WS, <2MM DW, REC (UG/KG) (49451)	PENTA- CHLORO- ANISOLE SED, BM WS, <2MM DW, REC (UG/KG) (49460)
OCT 26...	<100	<100	<100	<1	<1	<2	<1	<1	<1	<2	<50	2400	<1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	PHENAN- THRENE 1METHYL SED, BM WS, <2MM DW, REC (UG/KG) (49410)	PHENAN- THRI- DINE SED, BM WS, <2MM DW, REC (UG/KG) (49409)	PHENAN- THRI- DINE SED, BM WS, <2MM DW, REC (UG/KG) (49393)	PHENOL C8- PHENOL SED, BM WS, <2MM DW, REC (UG/KG) (49413)	PHENOL C8- 2CHLORO BED MAT SED, BM WS, <2MM DRY WGT REC (UG/KG) (49424)	PHTHALA TE, BIS2 ETHHEXL SED, BM WS, <2MM DW, REC (UG/KG) (49426)	PHTHALA TEBUTYL BENZYL- SED, BM WS, <2MM DW, REC (UG/KG) (49427)	PHTHAL- ATE, DIBUTYL SED, BM WS, <2MM DW, REC (UG/KG) (49381)	PHTHAL- ATE, D IETHYL SED, BM WS, <2MM DW, REC (UG/KG) (49383)	PHTHAL- ATE, DI- METHYL SED, BM WS, <2MM DW, REC (UG/KG) (49384)	PHTHAL ATE, D IOCTYL SED, BM WS, <2MM DW, REC (UG/KG) (49382)	PYRENE, 1- METHYL, SED, BM WS, <2MM DW, REC (UG/KG) (49388)	
OCT 26...	E6	<100	<100	E22	<100	<100	140	E41	E37	<100	E5	<100	<100

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	PYRENE, SED, BM WS, <2MM DW, REC (UG/KG) (49387)	QUINO- LINE, SED, BM WS, <2MM DW, REC (UG/KG) (49392)	THIOPH ENE, DI- BENZO- SED, BM WS, <2MM DW, REC (UG/KG) (49452)	TOLUENE 2,4-DI- NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49395)	TOLUENE 2,6-DI- NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49396)	TOXA- PHENE SED, BM WS, <2MM DW, REC (UG/KG) (49351)	TRANS- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49321)	TRANS- NONA- CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49317)	TRANS- PER- METHRIN SED, BM WS, <2MM DW, REC (UG/KG) (49350)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)
OCT 26...	100	<100	<100	<100	<100	<200	<1	<1	<5	1.8

Remark codes used in this report:  
< -- Less than  
E -- Estimated value

WATER RESOURCES DATA - FLORIDA, 2002

VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
255353081155400 -- TURNER RIVER NORTH OF US-41

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	BARO-METRIC PRES-SURE (MM OF HG) (00025)	PH WATER FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)
OCT 29...	0850	764	7.0	429

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	COLOR (PLAT-INUM-COBALT UNITS) (00080)	BARO-METRIC PRES-SURE (MM OF HG) (00025)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	PH WATER FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	ALKA-LINITY WAT DIS FIELD (MG/L AS CACO3) (39086)	BICAR-BONATE DIS IT FIELD (MG/L AS HCO3) (00453)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
APR 08...	0945	60	768	2.0	23	7.4	2380	28.0	22.5	216	264	565	103
JUN 24...	1310	50	765	3.0	37	7.2	306	33.0	26.0	131	160	12.7	2.7
SEP 25...	0915	45	762	3.0	37	7.3	256	28.5	26.5	119	145	8.92	.3

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) (71846)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (71856)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	2,4-D METHYL ESTER, WATER FLTRD REC (UG/L) (50470)
APR 08...	.037	.70	.88	.05	<.013	--	E.002	.67	.84	.017	E.006	.033	<.009
JUN 24...	E.012	.56	.73	--	<.013	.010	.003	--	--	.010	<.007	.018	<.009
SEP 25...	E.012	.42	.55	--	<.013	--	E.002	--	--	E.004	<.007	.014	<.009

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	2,4-D, DIS-SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U (UG/L) (38746)	2,6-DI-ETHYL ANILINE WAT FLT GF, REC (UG/L) (82660)	3HYDRXY CARBO-FURAN WAT, FLT REC (UG/L) (49308)	3-KETO CARBO-FURAN WATER FLTRD REC (UG/L) (50295)	ACETO-CHLOR, WATER FLTRD REC (UG/L) (49260)	ACIFL-UORFEN WATER, FLTRD, GF 0.7U (UG/L) (49315)	ALA-CHLOR, WATER, DISS, REC (UG/L) (46342)	ALDI-CARB SULFONE WAT, FLT REC (UG/L) (49313)	ALDICA-RB SUL-FOXIDE, WAT, FLT REC (UG/L) (49314)	ALDI-CARB, WATER, FLTRD, REC (UG/L) (49312)	ALPHA-BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)
APR 08...	<.02	<.02	<.006	<.006	<2	<.006	<.127	<.004	<.02	<.008	<.04	<.005	E.005
JUN 24...	<.02	<.02	<.006	<.006	<2	<.006	<.007	<.004	<.02	<.008	<.04	<.005	<.007
SEP 25...	<.02	<.02	<.006	<.006	<2	<.006	<.007	<.004	<.02	<.008	<.04	<.005	<.007

VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
255353081155400 -- TURNER RIVER NORTH OF US-41

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	BENDIO-CARB, WATER FLTRD	BEN-FLUR-ALIN WAT FLD	BENOMYL WATER FLTRD	BEN-SUL-FURON METHYL WAT FLT	BENTA-ZON, WATER, FLTRD, GF 0.7U	BRO-MACIL, WATER, DISS, REC	BRO-MOXYNIL, WATER, FLTRD, GF 0.7U	BUTYL-ATE, WATER, DISS, REC	CAF-FEINE, WATER, FLTRD, REC	CAR-BARYL, WATER, FLTRD, GF 0.7U	CAR-BARYL, WATER, FLTRD, GF, REC	CARBO-FURAN, WATER, FLTRD, REC	CARBO-FURAN, WATER, FLTRD, GF, REC
	(UG/L) (50299)	(UG/L) (82673)	(UG/L) (50300)	(UG/L) (61693)	(UG/L) (38711)	(UG/L) (04029)	(UG/L) (49311)	(UG/L) (04028)	(UG/L) (50305)	(UG/L) (49310)	(UG/L) (82680)	(UG/L) (49309)	(UG/L) (82674)
APR 08...	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	<.010	<.03	<.041	<.006	<.020
JUN 24...	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	<.010	<.03	<.041	<.006	<.020
SEP 25...	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002	<.010	<.03	<.041	<.006	<.020

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	CHLOR-AMBN, METHYL ESTER WATER FLTRD	CHLORI-MURON, WATER FLTRD	CHLORO-THALO-NIL, WAT FLT	CHLOR-PYRIFOS, WATER, DIS-SOLVED	CLOPYR-ALID, WATER, FLTRD, GF 0.7U	CYANA-ZINE, WATER, DISS, REC	CY-CLOATE, WATER, DISS, REC	DACTHAL MONO-ACID, WAT FLT	DCPA WATER, FLTRD, GF 0.7U	DEETHYL ATRA-ZINE, WATER, DISS, REC	DEETHYL DEISO-PROPYL ATRAZIN, WATER, DISS, REC	DEISO-PROPYL ATRAZIN, WATER, DISS, REC	DI-AZINON, DIS-SOLVED
	(UG/L) (61188)	(UG/L) (50306)	(UG/L) (49306)	(UG/L) (38933)	(UG/L) (49305)	(UG/L) (04041)	(UG/L) (04031)	(UG/L) (49304)	(UG/L) (82682)	(UG/L) (04040)	(UG/L) (04039)	(UG/L) (04038)	(UG/L) (39572)
APR 08...	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	<.006	<.01	<.04	<.005
JUN 24...	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	<.006	<.01	<.04	<.005
SEP 25...	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01	<.003	<.006	<.01	<.04	<.005

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	DICAMBA WATER, FLTRD, GF 0.7U	DICHLOR PROP, WATER, FLTRD, GF 0.7U	DI-ELDRIN, DIS-SOLVED	DINOSEB WATER, FLTRD, GF 0.7U	DIPHEN-AMID, WATER, DISS, REC	DISUL-FOTON, WATER, FLTRD, GF, REC	DIURON, WATER, FLTRD, GF 0.7U	EPTC WATER, FLTRD, GF, REC	ETHAL-FLUR-ALIN, WAT FLT	ETHO-PROP WATER, FLTRD, GF, REC	FEN-URON, WATER, FLTRD, GF 0.7U	FLUMET-SULAM, WATER, FLTRD, REC	FLUO-METURON, WATER, FLTRD, GF 0.7U
	(UG/L) (38442)	(UG/L) (49302)	(UG/L) (39381)	(UG/L) (49301)	(UG/L) (04033)	(UG/L) (82677)	(UG/L) (49300)	(UG/L) (82668)	(UG/L) (82663)	(UG/L) (82672)	(UG/L) (49297)	(UG/L) (61694)	(UG/L) (38811)
APR 08...	<.01	<.01	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03
JUN 24...	<.01	<.01	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03
SEP 25...	<.01	<.01	<.005	<.01	<.03	<.02	<.01	<.002	<.009	<.005	<.03	<.01	<.03

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	FONOFOS WATER, DISS REC	HYDROXY ATRA-ZINE, WATER, FLTRD, REC	IMAZ-AQUIN, WATER, FLTRD, REC	IMAZE-THAPYR, WATER, FLTRD, REC	IMID-ACLOP-RID, WATER, FLTRD, REC	LINDANE DIS-SOLVED	LINURON, WATER, FLTRD, GF 0.7U	LIN-URON, WATER, FLTRD, GF, REC	MALA-THION, DIS-SOLVED	MCPA, WATER, FLTRD, REC	MCPB, WATER, FLTRD, REC	METAL-AXYL, WATER, FLTRD, REC	METHIO-CARB, WATER, FLTRD, GF 0.7U
	(UG/L) (04095)	(UG/L) (50355)	(UG/L) (50356)	(UG/L) (50407)	(UG/L) (61695)	(UG/L) (39341)	(UG/L) (38478)	(UG/L) (82666)	(UG/L) (39532)	(UG/L) (38482)	(UG/L) (38487)	(UG/L) (50359)	(UG/L) (38501)
APR 08...	<.003	<.008	<.02	<.02	<.007	<.004	<.01	<.035	<.027	<.10	<.01	<.02	<.008
JUN 24...	<.003	<.008	<.02	<.02	<.007	<.004	<.01	<.035	<.027	<.02	<.01	<.02	<.008
SEP 25...	<.003	<.008	<.02	<.02	<.007	<.004	<.01	<.035	<.027	<.02	<.01	<.02	<.008

## WATER RESOURCES DATA - FLORIDA, 2002

## VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
255353081155400 -- TURNER RIVER NORTH OF US-41

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	METH-OMYL, WATER, FLTRD, GF 0.7U (UG/L) (49296)	METHYL-AZIN- PHOS, WAT FLT (UG/L) (82686)	METHYL-PARA- THION, WAT FLT (UG/L) (82667)	METO-LACHLOR, WATER (UG/L) (39415)	METRI-BUZIN, SENCOR, WATER (UG/L) (82630)	MET-SUL-FURON, METHYL, WAT FLT (UG/L) (61697)	MOL-INATE, WATER, FLTRD (UG/L) (82671)	NAPROP-AMIDE, WATER, FLTRD (UG/L) (82684)	NEB-URON, WATER, FLTRD, GF 0.7U (UG/L) (49294)	NICOSUL-FURON, WATER, FLTRD (UG/L) (50364)	NORFLUR-AZON, WATER, FLTRD, GF 0.7U (UG/L) (49293)	ORY-ZALIN, WATER, FLTRD, GF 0.7U (UG/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7U (UG/L) (38866)
APR 08...	<.004	<.050	<.006	<.013	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	<.01
JUN 24...	<.004	<.050	<.006	<.013	<.006	<.03	<.002	<.007	<.01	<.01	<.02	<.02	<.01
SEP 25...	<.004	<.050	<.006	<.013	<.006	<.03	<.002	<.007	<.01	<.01	E.01	<.02	<.01

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	P,P' DDE, DISSOLV (UG/L) (34653)	PARA-THION, DIS- SOLVED (UG/L) (39542)	PEB-ULATE, WATER, FILTRD, 0.7 U (UG/L) (82669)	PENDI-METH- ALIN, WAT FLT (UG/L) (82683)	PER-METHRIN, CIS, WAT FLT (UG/L) (82687)	PHORATE, WATER, FLTRD, 0.7 U (UG/L) (82664)	PIC-LORAM, WATER, FLTRD, GF 0.7U (UG/L) (49291)	PRO-METON, WATER, DISS, (UG/L) (04037)	PRON-AMIDE, WATER, FLTRD, 0.7 U (UG/L) (82676)	PROPA-CHLOR, WATER, FLTRD, 0.7 U (UG/L) (04024)	PRO-PANIL, WATER, FLTRD, 0.7 U (UG/L) (82679)	PRO-PARGITE, WATER, FLTRD, 0.7 U (UG/L) (82685)	PRO-PHAM, WATER, FLTRD, GF 0.7U (UG/L) (49236)
APR 08...	<.003	<.010	<.004	<.022	<.006	<.011	<.02	<.01	<.004	<.010	<.011	<.02	<.010
JUN 24...	<.003	<.010	<.004	<.022	<.006	<.011	<.02	<.01	<.004	<.010	<.011	<.02	<.010
SEP 25...	<.003	<.010	<.004	<.022	<.006	<.011	<.02	<.01	<.004	<.010	<.011	<.02	<.010

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	PROP-ICONA-ZOLE, WATER, FLTRD (UG/L) (50471)	PRO-POXUR, WATER, FLTRD, GF 0.7U (UG/L) (38538)	SIDURON, WATER, FLTRD, REC (UG/L) (38548)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	SULFO-MET-RURON, METHYL, WTR FLT (UG/L) (50337)	TEBU-THIURON, WATER, FLTRD, 0.7 U (UG/L) (82670)	TER-BACIL, WATER, DISS, REC (UG/L) (04032)	TER-BACIL, WATER, FLTRD, 0.7 U (UG/L) (82665)	TER-BUFOS, WATER, FLTRD, 0.7 U (UG/L) (82675)	THIO-BENCARB, WATER, FLTRD, 0.7 U (UG/L) (82681)	TRIAL-LATE, WATER, FLTRD, GF, REC (UG/L) (82678)	TRI-CLOPYR, WATER, FLTRD, GF 0.7U (UG/L) (49235)	TRI-FLUR-ALIN, WATER, FLTRD, GF, REC (UG/L) (82661)
APR 08...	<.02	<.008	<.02	<.005	<.009	<.02	<.010	<.034	<.02	<.005	<.002	<.02	<.009
JUN 24...	<.02	<.008	<.02	<.005	<.009	<.02	<.010	<.034	<.02	<.005	<.002	.22	<.009
SEP 25...	<.02	<.008	<.02	<.005	<.009	<.02	<.010	<.034	<.02	<.005	<.002	.04	<.009

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	UREA 3(4-CHLOROPHENYL METHYL WAT FLT REC (UG/L) (61692)
APR 08...	<.02
JUN 24...	<.02
SEP 25...	<.02



VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
255511081213000 -- BARRON R. 0.7 MILES N OF US-41 NR NAPLES, FL

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	MOIS- TURE CONTENT DRY WT. (% OF TOTAL) (00495)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	CARBON DIOXIDE DIS- SOLVED (MG/L AS CO2) (00405)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (00300)	OXYGEN, PH WATER SPE- CIFIC CON- DUCT- ANCE (US/CM UNITS) (00301)	(00400)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	
OCT 26...	1340	26	--	--	3.6	--	7.1	501	25.0	--	--	--	--
28...	0935	--	765	32	2.6	31	7.1	472	23.5	200	73.7	4.49	1.34

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	SODIUM AD- SORP- TION RATIO (MG/L AS NA) (00931)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	CALCIUM BOT MAT <63U WS FIELD (34830)	MAGNE- SIUM BOT MAT <63U WS FIELD (34900)	POTAS- SIUM BOT MAT <63U WS FIELD (34940)	SODIUM BOT MAT <63U WS FIELD (34960)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SULFUR BOT MAT <63U WS FIELD PERCENT (34970)	SOLIDS, DIS- SOLVED PER AC-FT) (70303)
OCT 26...	--	--	--	--	2.1	.039	.026	.022	--	--	--	--	.07	--
28...	.4	14.6	13	--	--	--	--	25.4	.1	6.04	1.1	--	.39	

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL SOLVED (MG/L AS N) (00625)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4) (71846)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3) (71851)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2) (71856)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)
OCT 26...	--	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	284	252	.019	.59	.87	.02	.62	.03	.137	.034	.010	.003	.57	

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS PO4) (00660)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS BOT MAT <63U WS FIELD PERCENT (34935)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC PARTIC- ULATE TOTAL (MG/L AS C) (00689)	CARBON, INORG, SED, BM WS, <63U DW, REC (PER- CENT) (49269)	CARBON, INORG, SED, BM WS, <2MM DW, REC (G/KG) (49270)	CARBON, ORG + INORG SED, BM WS, <2MM DW, REC (G/KG) (49272)
OCT 26...	--	--	--	--	--	--	800	.022	--	--	.62	7.5	15	
28...	.85	.90	.040	.015	.013	.022	--	--	12.0	.2	--	--	--	

WATER RESOURCES DATA - FLORIDA, 2002

VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
255511081213000 -- BARRON R. 0.7 MILES N OF US-41 NR NAPLES, FL

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	CARBON, ORG + INORG, SED, BM WS, <63U DW, REC PERCENT (49267)	CARBON, ORGANIC SED, BM WS, <2MM DW, REC (G/KG) (49271)	CARBON, ORGANIC SED, BM WS, <63U DW, REC (PER-CENT) (49266)	IRON, DIS- SOLVED (UG/L) (01046)	MANGA- NESE, DIS- SOLVED (UG/L) AS MN (01056)	ALUM- INUM BOT MAT <63U WS FIELD (34790)	ANTI- MONY BOT MAT <63U WS FIELD (34795)	ARSENIC BOT MAT <63U WS FIELD (34800)	BARIUM BOT MAT <63U WS FIELD (34805)	BERYL- LIUM BOT MAT <63U WS FIELD (34810)	BISMUTH BOT MAT <180UWS FIELD (34816)	CADIUM BOT MAT <63U WS FIELD (34825)	CERIUM BOT MAT <63U WS FIELD (34835)
OCT 26...	1.4	7.5	.78	--	--	.150	<.1	1.1	34	<.1	<1	<.1	12
28...	--	--	--	117	10.4	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	CHRO- MIUM BOT MAT <63U WS FIELD (34840)	COBALT BOT MAT <63U WS FIELD (34845)	COPPER BOT MAT <63U WS FIELD (34850)	EURO- PIUM BOT MAT <63U WS FIELD (34855)	GALLIUM BOT MAT <63U WS FIELD (34860)	GOLD BOT MAT <63U WS FIELD (34870)	HOLMIUM BOT MAT <63U WS FIELD (34875)	IRON BOT MAT <63U WS PERCENT (34880)	LANTHA- NUM BOT MAT <63U WS FIELD (34885)	LEAD BOT MAT <63U WS FIELD (34890)	LITHIUM BOT MAT <63U WS FIELD (34895)	MANGA- NESE BOT MAT <63U WS FIELD (34905)	MERCURY BOT MAT <63U WS FIELD (34910)
OCT 26...	6	<1	2	<1	<1	<1	<1	.160	6	3	3	15	.02
28...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	MOLYB- DENUM BOT MAT <63U WS FIELD (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (34920)	NICKEL BOT MAT <63U WS FIELD (34925)	NIObIUM BOT MAT <63U WS FIELD (34930)	SCAN- DIUM BOT MAT <63U WS FIELD (34945)	SELE- NIUM BOT MAT <63U WS FIELD (34950)	SILVER BOT MAT <63U WS FIELD (34955)	STRON- TIUM BOT MAT <63U WS FIELD (34965)	TANTA- LUM BOT MAT <63U WS FIELD (34975)	THAL- LIUM BOT MAT <63 U TOTAL (04064)	THORIUM BOT MAT <63U WS FIELD (34980)	TIN BOT MAT <63U WS FIELD (34985)	TITA- NIUM, SED, BM WS, <63U DRY WGT REC (49274)
OCT 26...	<.5	5	<2	<4	<2	<.1	.1	27	<1	<1	2	<1	.042
28...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	VANA- DIUM BOT MAT <63U WS FIELD (35005)	YTTER- BIUM BOT MAT <63U WS FIELD (35015)	YTTRIUM BOT MAT <63U WS FIELD (35010)	ZINC BOT MAT <63U WS FIELD (35020)	2,4,5-T DIS- SOLVED (UG/L) (39742)	2,4-D, DIS- SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (38746)	ETHYL ANILINE WATER, FLTRD, GF 0.7U REC (82660)	3HYDRXY CARBO- FURAN WAT,FLT GF 0.7U REC (49308)	ACIFL- UORFEN CHLOR, WATER, FLTRD, GF 0.7U REC (49260)	ALA- CHLOR, WATER, REC (49315)	ALDI- CARB SULFONE WAT,FLT GF 0.7U REC (46342)	
OCT 26...	5	<1	2	5	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	<.04	<.15	<.24	<.003	<.01	<.002	<.04	<.002	<.10

VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
255511081213000 -- BARRON R. 0.7 MILES N OF US-41 NR NALPES, FL

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	ALDICA- RB SUL- FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ALDI- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALPHA BHC DIS- SOLVED (UG/L) (34253)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BENTA- ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	BRO- MACIL, WATER, DISS, REC (UG/L) (04029)	BRO- MOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)	CAR- BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CAR- BARYL WATER FLTRD 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L) (82674)
OCT 26...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<.02	<.55	<.002	E.006	<.002	<.01	<.04	<.04	<.002	<.008	E.007	<.12	<.003

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	CHLOR- AMBEN, METHYL ESTER WATER FLTRD (UG/L) (61188)	CHLORO- THALO- NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CHLOR- PYRIFOS DIS- SOLVED (UG/L) (38933)	CLOPYR- ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	DACTHAL MONO- ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLO- BENIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49303)	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)
OCT 26...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<.42	<.48	<.004	<.23	<.02	<.002	<.002	<.002	<.04	<1.20	<.03	<.001	<.04

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L) (82677)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	DNOC WAT,FLT GF 0.7U REC (UG/L) (49299)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FEN- URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUO- METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)	MALA- THION, DIS- SOLVED (UG/L) (39532)
OCT 26...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<.02	<.02	<.42	<.002	<.004	<.003	<.01	<.04	<.003	<.004	<.02	<.002	<.005

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METHIO- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH- OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN WATER DISSOLV (UG/L) (82630)	INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	NEB- URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY- ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)
OCT 26...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<.17	<.14	<.03	<.02	<.001	<.006	<.002	<.004	<.004	<.003	<.01	<.02	<.31





WATER RESOURCES DATA - FLORIDA, 2002

VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
 255511081213000 -- BARRON R. 0.7 MILES N OF US-41 NR NAPLES, FL

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	PHTHALA TEBUTYL- BENZYL- SED, BM WS,<2MM DW, REC (UG/KG) (49427)	PHTHAL- ATE, DIBUTYL- SED, BM WS,<2MM DW, REC (UG/KG) (49381)	PHTHAL- ATE, D IETHYL SED, BM WS,<2MM DW, REC (UG/KG) (49383)	PHTHAL- ATE,DI- METHYL SED, BM WS,<2MM DW, REC (UG/KG) (49384)	PHTHAL ATE, D IOCTYL SED, BM WS,<2MM DW, REC (UG/KG) (49382)	PYRENE, 1- METHYL, SED, BM WS,<2MM DW, REC (UG/KG) (49388)	PYRENE, SED, BM WS,<2MM DW, REC (UG/KG) (49387)	QUINO- LINE, SED, BM WS,<2MM DW, REC (UG/KG) (49392)	THIOPH ENE,DI- BENZO- SED, BM WS,<2MM DW, REC (UG/KG) (49452)	TOLUENE 2,4-DI- NITRO- SED, BM WS,<2MM DW, REC (UG/KG) (49395)	TOLUENE 2,6-DI- NITRO- SED, BM WS,<2MM DW, REC (UG/KG) (49396)	TOXA- PHENE SED, BM WS,<2MM DW, REC (UG/KG) (49351)	TRANS- CHLOR- DANE, SED, BM WS,<2MM DW, REC (UG/KG) (49321)
OCT													
26...	E40	E13	<50	<50	<50	<50	57	<50	<50	<50	<50	<200	<1
28...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	TRANS- NONA- CHLOR, SED, BM WS,<2MM DW, REC (UG/KG) (49317)	TRANS- PER- METHRIN SED, BM WS,<2MM DW, REC (UG/KG) (49350)	URANIUM BOT MAT <63U FIELD (UG/G) (35000)	SEDI- MENT, SUS- PENDEDED (MG/L) (80154)
OCT				
26...	<1	<5	.6	--
28...	--	--	--	2.0

Remark codes used in this report:  
 < -- Less than  
 E -- Estimated value

VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
 255740081211100 -- BARRON RIVER BELOW WAGON WHEEL RD

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	OXYGEN, DIS- (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)
OCT 26...	1540	3.2	7.2	459	25.5

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	GAGE HEIGHT (FEET) (00065)	COLOR (PLAT- INUM- UNITS) (00080)	BARO- METRIC PRES- SURE (MM HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	
APR 08...	1120	--	25	768	1.7	19	7.2	596	28.0	22.0	265	323	29.1
JUN 18...	1610	--	--	--	--	--	--	585	--	--	--	--	--
JUN 24...	1440	--	50	765	2.1	26	7.2	385	36.0	25.5	166	203	15.8
JUL 16...	1230	--	--	--	--	--	--	326	--	--	--	--	--
AUG 08...	1130	5.64	--	--	--	--	--	314	--	--	--	--	--
SEP 10...	1100	5.56	--	--	--	--	--	360	--	27.5	--	--	--
SEP 25...	1050	5.52	60	--	2.1	--	--	360	32.0	27.0	164	200	15.6

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS NH4) (00625)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (71846)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3) (71851)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2) (71856)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)
APR 08...	1.2	.037	.38	.50	.05	--	--	--	<.013	--	<.002	.34	.46
JUN 18...	--	--	--	.57	--	--	--	--	--	--	--	--	--
JUN 24...	4.1	.022	.56	.75	.03	--	--	--	E.011	.010	.003	.54	.73
JUL 16...	--	--	--	.64	--	--	--	--	--	--	--	--	--
AUG 08...	--	--	--	.60	--	--	--	--	--	--	--	--	--
SEP 10...	--	--	--	.62	--	--	--	--	--	--	--	--	--
SEP 25...	.8	.021	.55	.66	.03	.57	.02	.071	.019	.010	.003	.53	.64

WATER RESOURCES DATA - FLORIDA, 2002

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WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	2,4-D METHYL WATER FLTRD REC (UG/L) (50470)	2,4-D, DIS- SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U (UG/L) (38746)	2,6-DI- ETHYL ANILINE WAT FLT GF, REC (UG/L) (82660)	3HYDRXY CARBO- FURAN WAT,FLT GF 0.7U (UG/L) (49308)	3-KETO CARBO- FURAN WATER FLTRD REC (UG/L) (50295)	ACETO- UORFEN CHLOR, WATER FLTRD REC (UG/L) (49260)	ACIFL- WATER, FLTRD, GF 0.7U REC (UG/L) (49315)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)
APR 08...	--	.008	<.007	.014	<.009	<.02	<.02	<.006	<.006	<2	<.006	<.127	<.004
JUN 18...	--	--	--	.014	--	--	--	--	--	--	--	--	--
JUN 24...	--	.014	E.004	.023	<.009	<.02	<.02	<.006	<.006	<2	<.006	<.007	<.004
JUL 16...	--	--	--	.021	--	--	--	--	--	--	--	--	--
AUG 08...	--	--	--	.018	--	--	--	--	--	--	--	--	--
SEP 10...	--	--	--	.016	--	--	--	--	--	--	--	--	--
SEP 25...	.68	.011	E.005	.020	<.009	<.02	<.02	<.006	<.006	<2	<.006	<.007	<.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	ALDI- CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA- RB SUL- FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ALDI- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALPHA BHC DIS- SOLVED REC (UG/L) (34253)	ATRA- ZINE, WATER, DISS, REC (UG/L) (39632)	BENDIO- CARB, WATER, FLTRD REC (UG/L) (50299)	BEN- FLUR- ALIN WAT FLD GF, REC (UG/L) (82673)	BENOMYL WATER FLTRD REC (UG/L) (50300)	BEN- SUL- FURON METHYL WAT FLT REC (UG/L) (61693)	BENTA- ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	BRO- MACIL, WATER, DISS, REC (UG/L) (04029)	BRO- MOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	BUTYL- ATE, WATER, DISS, REC (UG/L) (04028)
APR 08...	<.02	<.008	<.04	<.005	<.007	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 24...	<.02	<.008	<.04	<.005	<.007	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002
JUL 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 25...	<.02	<.008	<.04	<.005	<.007	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	CAF- FEINE, WATER FLTRD REC (UG/L) (50305)	CAR- BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CAR- BARYL WATER, FLTRD GF, REC (UG/L) (82680)	CARBO- FURAN, FLTRD, GF 0.7U REC (UG/L) (49309)	CARBO- FURAN WATER FLTRD GF, REC (UG/L) (82674)	CHLOR- AMBEN, METHYL ESTER WATER FLTRD REC (UG/L) (61188)	CHLORI- MURON, WATER FLTRD REC (UG/L) (50306)	CHLORO- THALO- NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CHLOR- PYRIFOS DIS- SOLVED REC (UG/L) (38933)	CLOPYR- ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA- ZINE, WATER, DISS, REC (UG/L) (04041)	CY- CLOATE, WATER, DISS, REC (UG/L) (04031)	DACTHAL MONO- ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)
APR 08...	<.010	<.03	<.041	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 24...	<.010	<.03	<.041	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01
JUL 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 25...	<.010	<.03	<.041	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01



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WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L) (04040)	DEETHYL DEISO- PROPYL ATRAZIN WATER, DISS, REC (UG/L) (04039)	DEISO- PROPYL ATRAZIN WATER, DISS, REC (UG/L) (04038)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DIPHEN- AMID, WATER, DISS, REC (UG/L) (04033)	DISUL- FOTON WATER, FLTRD, GF, REC (UG/L) (82677)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)
APR 08...	<.003	<.006	<.01	<.04	<.005	<.01	<.01	<.005	<.01	<.03	<.02	<.01	<.002
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 24...	<.003	<.006	<.01	<.04	<.005	<.01	<.01	<.005	<.01	<.03	<.02	<.01	<.002
JUL 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 25...	<.003	<.006	<.01	<.04	<.005	<.01	<.01	<.005	<.01	<.03	<.02	<.01	<.002

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FEN- URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUMET- SULAM WATER FLTRD, REC (UG/L) (61694)	FLUO- METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	FONOPOS WATER DISS REC (UG/L) (04095)	HYDROXY ATRA- ZINE WATER FLTRD, REC (UG/L) (50355)	IMAZ- AQUIN WATER FLTRD REC (UG/L) (50356)	IMAZE- THAPYR WATER FLTRD REC (UG/L) (50407)	IMID- ACLOP- RID WATER FLTRD REC (UG/L) (61695)	LINDANE DIS- SOLVED (UG/L) (39341)	LINURON, WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)
APR 08...	<.009	<.005	<.03	<.01	<.03	<.003	<.008	<.02	<.02	<.007	<.004	<.01	<.035
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 24...	<.009	<.005	<.03	<.01	<.03	<.003	<.008	<.02	<.02	<.007	<.004	<.01	<.035
JUL 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 25...	<.009	<.005	<.03	<.01	<.03	<.003	<.008	<.02	<.02	<.007	<.004	<.01	<.035

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	MALA- THION, DIS- SOLVED (UG/L) (39532)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METAL- AXYL WATER FLTRD, REC (UG/L) (50359)	METHIO- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH- OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	METHYL AZIN- PHOS WAT FLT GF, REC (UG/L) (82686)	METHYL PARA- THION WAT FLT GF, REC (UG/L) (82667)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN WATER WATER DISSOLV (UG/L) (82630)	MET- SUL- FURON METHYL WAT FLT REC (UG/L) (61697)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
APR 08...	<.027	<.10	<.01	<.02	<.008	<.004	<.050	<.006	<.013	<.006	<.03	<.002	<.007
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 24...	<.027	.07	<.01	<.02	<.008	<.004	<.050	<.006	<.013	<.006	<.03	<.002	<.007
JUL 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 25...	<.027	<.02	<.01	<.02	<.008	<.004	<.050	<.006	<.013	<.006	<.03	<.002	<.007

WATER RESOURCES DATA - FLORIDA, 2002

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255740081211100 -- BARRON RIVER BELOW WAGON WHEEL RD

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	NEB- URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NICOSUL FURON WATER FLTRD REC (UG/L) (50364)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY- ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	P,P' DDE DISSOLV (UG/L) (34653)	PARA- THION, DIS- SOLVED (UG/L) (39542)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PIC- LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO- METON, WATER, DISS, REC (UG/L) (04037)
APR 08...	<.01	<.01	<.02	<.02	<.01	<.003	<.010	<.004	<.022	<.006	<.011	<.02	<.01
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 24...	<.01	<.01	<.02	<.02	<.01	<.003	<.010	<.004	<.022	<.006	<.011	<.02	<.01
JUL 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 25...	<.01	<.01	<.02	<.02	<.01	<.003	<.010	<.004	<.022	<.006	<.011	<.02	<.01

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPA- CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRO- PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PROP- ICONA- ZOLE , WATER FLTRD REC (UG/L) (50471)	PRO- POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SIDURON WATER FLTRD REC (UG/L) (38548)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	SULFO- MET- RURON WATER, METHYL WTR FLT REC (UG/L) (50337)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL, WATER, DISS, REC (UG/L) (04032)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)
APR 08...	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.010	<.034
JUN 18...	--	--	--	--	--	--	--	--	--	--	--	--	--
JUN 24...	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.010	<.034
JUL 16...	--	--	--	--	--	--	--	--	--	--	--	--	--
AUG 08...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 10...	--	--	--	--	--	--	--	--	--	--	--	--	--
SEP 25...	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.010	<.034

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	UREA 3( 4-CHLOR OPHENYL METHYL WAT FLT REC (UG/L) (61692)
APR 08...	<.02	<.005	<.002	<.02	<.009	<.02
JUN 18...	--	--	--	--	--	--
JUN 24...	<.02	<.005	<.002	E5.77	<.009	<.02
JUL 16...	--	--	--	--	--	--
AUG 08...	--	--	--	--	--	--
SEP 10...	--	--	--	--	--	--
SEP 25...	<.02	<.005	<.002	<.02	<.009	<.02

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MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
255937081205000 -- BARRON R AT JEROME SIGN FOR NORTH BOUND LANE

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	MOIS- TURE CONTENT DRY WT. (% OF TOTAL) (00495)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT OF SATUR- ATION) (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT OF SATUR- ATION) (00301)	PH WATER FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	CALCIUM BOT MAT <63U WS FIELD PERCENT (34830)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (34900)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)	SULFUR BOT MAT <63U WS FIELD PERCENT (34970)
OCT 27...	1000	88	767	1.6	19	6.6	444	24.0	4.1	.083	.044	.012	.05

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS SED, BM WS,<63U DW, REC FIELD PERCENT (34935)	CARBON, INORG, SED, BM WS,<63U DW, REC (PER- CENT) (49269)	CARBON, INORG, SED, BM WS,<2MM DW, REC (G/KG) (49270)	CARBON, ORG + INORG SED, BM WS,<2MM DW, REC (G/KG) (49272)	CARBON, ORG + INORG SED, BM WS,<63U DW, REC PERCENT (49267)	CARBON, ORGANIC SED, BM WS,<63U DW, REC (PER- CENT) (49271)	CARBON, ORGANIC SED, BM WS,<63U DW, REC PERCENT (49266)	ALUM- INUM BOT MAT <63U WS FIELD PERCENT (34790)	ANTI- MONY BOT MAT <63U WS FIELD PERCENT (34795)	ARSENIC BOT MAT <63U WS FIELD PERCENT (34800)	BARIUM BOT MAT <63U WS FIELD PERCENT (34805)	BERYL- LIUM BOT MAT <63U WS FIELD PERCENT (34810)
OCT 27...	14000	.040	1.1	11	45	3.9	34	2.8	.620	.3	5.7	29	.3	

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	BISMUTH BOT MAT <63U WS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)	GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS PERCENT (34880)	LANTHA- NUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)
OCT 27...		<1	<.1	13	31	<1	3	<1	2	<1	<1	.510	7	7

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)	MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THAL- LIUM BED MAT D SIEVE <63 U TOTAL (UG/G) (04064)
OCT 27...		12	21	.03	<.5	6	4	<4	<2	.1	<.1	45	<1	<1

## WATER RESOURCES DATA - FLORIDA, 2002

## VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
255937081205000 -- BARRON R AT JEROME SIGN FOR NORTH BOUND LANE

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	TITA- NIUM, BM WS, <63U DRY WGT REC (49274)	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)	2,2'-BI QUINO- LINE, BM WS, <2MM DW, REC (49391)	3,5- XYLENOL SED, BM WS, <2MM DW, REC (49421)	4-BROMO PHNPHNL ETHER SED, BM WS, <2MM DW, REC (49454)	4CHLORO PHNPHN LEATHER SED, BM WS, <2MM DW, REC (49455)	4HCYPEN PHENAN THRENE SED, BM WS, <2MM DW, REC (49411)	9,10- ANTHRA- QUINONE SED, BM WS, <2MM DW, REC (49437)
OCT 27...	2	<1	.057	29	<1	4	12	<50	<50	<50	<50	<50	<50

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	9H-FLU- ORENE, 1METHYL SED, BM WS, <2MM DW, REC (49398)	9H-FLU- ORENE SED, BM WS, <2MM DW, REC (49399)	ACENAPH THENE SED, BM WS, <2MM DW, REC (49429)	ACENAPH THYLENE SED, BM WS, <2MM DW, REC (49428)	ACRI- DINE SED, BM WS, <2MM DW, REC (49430)	ALDRIN, SED, BM WS, <2MM DW, REC (49319)	ALPHA- BHC, SED, BM WS, <2MM DW, REC (49338)	ANTHRA- CENE, 2- METHYL- SED, BM WS, <2MM DW, REC (49435)	ANTHRA- CENE SED, BM WS, <2MM DW, REC (49434)	AZO- BENZENE SED, BM WS, <2MM DW, REC (49443)	BENZ(A) ANTHRA- CENE SED, BM WS, <2MM DW, REC (49436)	BENZENE HEXA- CHLORO- SED, BM WS, <2MM DW, REC (49343)	BENZENE M-DI- CHLORO- SED, BM WS, <2MM DW, REC (49441)
OCT 27...	<50	<50	E45	E6	<50	<1	<1	<50	E24	<50	E22	<1	<50

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	BENZENE NITRO- SED, BM WS, <2MM DW, REC (49444)	BENZENE O-DI- CHLORO- SED, BM WS, <2MM DW, REC (49439)	BENZENE P-DI- CHLORO- SED, BM WS, <2MM DW, REC (49442)	BENZENE PNTCHLR NITRO- SED, BM WS, <2MM DW, REC (49446)	BENZO (A) PYRENE SED, BM WS, <2MM DW, REC (49389)	BENZOB FLUOR- ANTHENE SED, BM WS, <2MM DW, REC (49458)	BENZO(G HI)PERY LENE SED, BM WS, <2MM DW, REC (49408)	BENZO K FLUOR- ANTHENE SED, BM WS, <2MM DW, REC (49397)	BENZOCI NNOLINE BED MAT WS <2MM REC (49468)	BETA- BHC, SED, BM WS, <2MM DW, REC (49339)	CARBA- ZOLE SED, BM WS, <2MM DW, REC (49449)	CHLORO- NEB, SED, BM WS, <2MM DW, REC (49322)	CHRY- SENE SED, BM WS, <2MM DW, REC (49450)
OCT 27...	<50	<50	<50	<50	E29	50	E24	E10	<50	<1	<50	<5	E23

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	CIS- CHLOR- DANE, SED, BM WS, <2MM DW, REC (49320)	CIS- NONA- CHLOR, SED, BM WS, <2MM DW, REC (49316)	CIS- PER- METHRIN SED, BM WS, <2MM DW, REC (49349)	DIBENZ (AH),AN DCPA, THRACEN SED, BM WS, <2MM DW, REC (49324)	DIBENZ (AH),AN THRACEN SED, BM WS, <2MM DW, REC (49461)	DIEL- DRIN, SED, BM WS, <2MM DW, REC (49331)	DIPHNYL AMINE,N NITROSO SED, BM WS, <2MM DW, REC (49433)	DIPROPYL AMINE,N NITROSO SED, BM WS, <2MM DW, REC (49431)	ENDO- SULFAN I, SED, BM WS, <2MM DW, REC (49332)	FLUOR- ANTHENE BED MAT WS <2MM REC (49335)	ENDRIN, SED, BM WS, <2MM DW, REC (49466)	HEPTA- CHLOR EPOXIDE SED, BM WS, <2MM DW, REC (49342)	HEPTA- CHLOR, SED, BM WS, <2MM DW, REC (49341)
OCT 27...	<1	<1	<5	<5	<50	<1	<50	<50	<1	<2	110	<1	<1

VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
255937081205000 -- BARRON R AT JEROME SIGN FOR NORTH BOUND LANE

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	INDENO 123-CD PYRENE SED, BM WS,<2MM DW, REC (UG/KG) (49390)	ISOPHOR ONE SED, BM WS,<2MM DW, REC (UG/KG) (49344)	ISO- QUINO- LINE, SED, BM WS,<2MM DW, REC (UG/KG) (49394)	LINDANE SED, BM WS,<2MM DW, REC (UG/KG) (49345)	M-CRE- SOL, 4- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49422)	METHANE 2CHLORO ETHOXY SED, BM WS,<2MM DW, REC (UG/KG) (49401)	METHOXY CHLOR, O,P'-, SED, BM WS,<2MM DW, REC (UG/KG) (49347)	METHOXY CHLOR P,P'-, SED, BM WS,<2MM DW, REC (UG/KG) (49346)	MIREX, SED, BM WS,<2MM DW, REC (UG/KG) (49348)	NAPHTHAL ENE, 12 DIMETHL SED, BM WS,<2MM DW, REC (UG/KG) (49403)	NAPHTHAL ENE, 16 DIMETHL SED, BM WS,<2MM DW, REC (UG/KG) (49404)	NAPHTHAL ENE,236 TRIMETH SED, BM WS,<2MM DW, REC (UG/KG) (49405)
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OCT 27...	E23	<1	<50	<50	<1	<50	<50	<5	<5	<1	<50	<50	<50
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WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	NAPHTHAL ENE, 26 DIMETHL SED, BM WS,<2MM DW, REC (UG/KG) (49406)	NAPHTHAL ENE, 2- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49407)	NAPHTHAL ENE, 2- ETHYL- SED, BM WS,<2MM DW, REC (UG/KG) (49948)	NAPHTH- ALENE, SED, BM WS,<2MM DW, REC (UG/KG) (49402)	O, P'- DDD, SED, BM WS,<2MM DW, REC (UG/KG) (49325)	O, P'- DDE, SED, BM WS,<2MM DW, REC (UG/KG) (49327)	O, P'- DDT, SED, BM WS,<2MM DW, REC (UG/KG) (49329)	OXY- CHLOR- DANE, SED, BM WS,<2MM DW, REC (UG/KG) (49318)	P, P'- DDD, SED, BM WS,<2MM DW, REC (UG/KG) (49326)	P, P'- DDE, SED, BM WS,<2MM DW, REC (UG/KG) (49328)	P, P'- DDT, SED, BM WS,<2MM DW, REC (UG/KG) (49330)	PCB, SED, BM WS,<2MM DW, REC (UG/KG) (49459)	P- CRESOL SED, BM WS,<2MM DW, REC (UG/KG) (49451)
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OCT 27...	E46	<50	<50	82	<1	<1	<2	<1	<1	<1	<2	<50	940
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WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	PENTA- CHLORO- ANISOLE SED, BM WS,<2MM DW, REC (UG/KG) (49460)	PHENAN THRENE LMETHYL SED, BM WS,<2MM DW, REC (UG/KG) (49410)	PHENAN THRENE SED, BM WS,<2MM DW, REC (UG/KG) (49409)	PHENAN- THRI- DINE SED, BM WS,<2MM DW, REC (UG/KG) (49393)	PHENOL ALKYL- SED, BM WS,<2MM DW, REC (UG/KG) (49413)	PHENOL C8- BED MAT SED, BM WS,<2MM DW, REC (UG/KG) (49424)	PHENOL, 2CHLORO SED, BM WS,<2MM DW, REC (UG/KG) (49467)	PHTHALA TE,BIS2 ETHHEXL SED, BM WS,<2MM DW, REC (UG/KG) (49426)	PHTHALA TEBUTYL BENZYL- SED, BM WS,<2MM DW, REC (UG/KG) (49427)	PHTHAL- ATE, DIBUTYL SED, BM WS,<2MM DW, REC (UG/KG) (49381)	PHTHAL- ATE, D IETHYL SED, BM WS,<2MM DW, REC (UG/KG) (49383)	PHTHAL- ATE,DI- METHYL SED, BM WS,<2MM DW, REC (UG/KG) (49384)	PHTHAL ATE, D IOCTYL SED, BM WS,<2MM DW, REC (UG/KG) (49382)
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OCT 27...	<1	<50	100	<50	E31	<50	<50	55	E41	E43	<50	<50	<50
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WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	PYRENE, 1- METHYL, SED, BM WS,<2MM DW, REC (UG/KG) (49388)	PYRENE, PYRENE, SED, BM WS,<2MM DW, REC (UG/KG) (49387)	QUINO- LINE, SED, BM WS,<2MM DW, REC (UG/KG) (49392)	THIOPH ENE,DI- BENZO- SED, BM WS,<2MM DW, REC (UG/KG) (49452)	TOLUENE 2,4-DI- NITRO- SED, BM WS,<2MM DW, REC (UG/KG) (49395)	TOLUENE 2,6-DI- NITRO- SED, BM WS,<2MM DW, REC (UG/KG) (49396)	TOXA- PHENE SED, BM WS,<2MM DW, REC (UG/KG) (49351)	TRANS- CHLOR- DANE, SED, BM WS,<2MM DW, REC (UG/KG) (49321)	TRANS- NONA- CHLOR, SED, BM WS,<2MM DW, REC (UG/KG) (49317)	TRANS- PER- METHRIN SED, BM WS,<2MM DW, REC (UG/KG) (49350)	URANIUM BOT MAT FIELD (UG/G) (35000)
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OCT 27...	<50	98	<50	<50	<50	<50	<200	<1	<1	<5	1.1
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Remark codes used in this report:  
< -- Less than  
E -- Estimated value

## WATER RESOURCES DATA - FLORIDA, 2002

## VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDSM  
260231081203900 -- BARRON RIVER CANAL AT COPELAND ROAD CAMP NO 27

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	MOIS- TURE CONTENT DRY WT. (% OF TOTAL) (00495)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	CARBON DIOXIDE SOLVED (MG/L) AS CO2) (00405)	OXYGEN, DIS- SOLVED (PER- CENT (STAND- ARD UNITS) (00300) (00301)	OXYGEN, DIS- SOLVED (PER- CENT (STAND- ARD UNITS) (00300) (00301)	PH WATER FIELD (CON- DUCT- ANCE WATER (US/CM) (00400) (00095)	SPE- CIFIC CON- TEMPER- ATURE (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
OCT												
27...	1420	78	--	--	3.4	--	7.0	365	25.0	--	--	--
28...	0845	--	765	20	2.8	33	7.2	376	23.5	160	57.7	4.05

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	SODIUM AD- SORP- TION RATIO (00931)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	CALCIUM BOT MAT <63U WS FIELD PERCENT (34830)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (34900)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SULFUR BOT MAT <63U WS FIELD PERCENT (34970)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)
OCT													
27...	--	--	--	19	.330	.140	.035	--	--	--	--	.38	--
28...	.4	11.8	14	--	--	--	--	20.3	.1	6.34	.8	--	.32

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL SOLVED (MG/L AS N) (00625)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4) (00602)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3) (00618)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2) (00613)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)
OCT													
27...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	235	201	.026	.68	.71	.03	.70	.01	.066	.020	.016	.005	.66

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00600)	PHOS- PHATE, ORTHOPHOS- PHATE, DIS- SOLVED (MG/L AS PO4) (00660)	PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	NITRO- GEN,NH4 + ORG. PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00665)	NITRO- GEN BOT MAT (MG/KG AS N) (00626)	PHOS- PHATE <63U WS FIELD PERCENT (34935)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC PARTIC- ULATE TOTAL (MG/L AS C) (00689)	CARBON, INORG, SED, BM WS,<63U DW, REC (PER- CENT) (49269)	CARBON, INORG, SED, BM WS,<2MM DW, REC (G/KG) (49270)	CARBON, ORG + INORG SED, BM WS,<2MM DW, REC (G/KG) (49272)
OCT													
27...	--	--	--	--	--	10000	.150	--	--	5.7	61	190	
28...	.69	.73	.052	.025	.017	.028	--	14.0	.2	--	--	--	

WATER RESOURCES DATA - FLORIDA, 2002

VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
 260231081203900 -- BARRON RIVER CANAL AT COPELAND ROAD CAMP NO 27

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	CARBON, ORG + INORG, SED, BM WS, <63U DW, REC PERCENT (49267)	CARBON, ORGANIC SED, BM WS, <2MM DW, REC (G/KG) (49271)	CARBON, ORGANIC SED, BM WS, <63U DW, REC (PER-CENT) (49266)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	ALUM- INUM BOT MAT <63U WS FIELD PERCENT (34790)	ANTI- MONY BOT MAT <63U WS FIELD (UG/G) (34795)	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BARIUM BOT MAT <63U WS FIELD (UG/G) (34805)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)
OCT 27...	18	130	13	--	--	1.8	.6	5.8	57	.7	<1	.3	30
28...	--	--	--	110	5.2	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)	GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS PERCENT (34880)	LANTHA- NUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)
OCT 27...	77	3	15	<1	4	<1	<1	1.1	16	21	26	73	.15
28...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THAL- LIUM BOT MAT <63 U TOTAL (UG/G) (04064)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	TITA- NIUM, SED, BM WS, <63U DRY WGT REC PERCENT (49274)
OCT 27...	.9	14	16	5	3	.9	<.1	180	<1	<1	5	1	.120
28...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	VANA- DIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTER- BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	YTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)	2,4,5-T DIS- SOLVED (UG/L) (39742)	2,4-D, DIS- SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (38746)	6-DI- ETHYL CARBO- ANILINE WAT FLT 0.7 U GF, REC (82660)	3HYDRXY CARBO- FURAN WAT,FLT REC (49308)	ACETO- CHLOR, WATER, FLTRD REC (49260)	ACIPL- UORFEN WATER, FLTRD, GF 0.7U REC (49315)	ALA- CHLOR, WATER, DISS, REC (46342)	ALDI- CARB SULFONE WAT,FLT GF 0.7U REC (49313)
OCT 27...	46	<1	11	57	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	<.04	<.15	<.24	<.003	<.01	<.002	<.04	<.002	<.10

## WATER RESOURCES DATA - FLORIDA, 2002

## VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
260231081203900 -- BARRON RIVER CANAL AT COPELAND ROAD CAMP NO 27

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	ALDICA- RB SUL- FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ALDI- CARB, WATER, FLTRD, BHC DIS- SOLVED (UG/L) (49312)	ALPHA ZINE, WATER, FLTRD, DISS, REC (UG/L) (34253)	ATRA- ZINE, WATER, WAT,FLD 0.7 U GF, REC (UG/L) (82673)	BEN- FLUR- ALIN FLTRD, WAT,FLD 0.7 U GF, REC (UG/L) (82673)	BENTA- ZON, WATER, FLTRD, WATER, FLTRD, DISS, REC (UG/L) (38711)	BRO- MACIL, WATER, FLTRD, WATER, FLTRD, DISS, REC (UG/L) (04029)	BRO- MOXYNIL WATER, FLTRD, WATER, FLTRD, DISS, REC (UG/L) (49311)	BUTYL- ATE, WATER, FLTRD, WATER, FLTRD, DISS, REC (UG/L) (04028)	CAR- BARYL, WATER, FLTRD, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CAR- BARYL WATER, FLTRD, WATER, FLTRD, GF 0.7 U GF, REC (UG/L) (82680)	CARBO- FURAN, WATER, FLTRD, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)	CARBO- FURAN WATER, FLTRD, WATER, FLTRD, GF 0.7 U GF, REC (UG/L) (82674)
OCT 27...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<.02	<.55	<.002	E.007	<.002	<.01	<.04	<.04	<.002	<.008	E.008	<.12	<.003

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	CHLOR- AMBEN, METHYL ESTER WATER FLTRD (UG/L) (61188)	CHLORO- THALO- NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CHLOR- PVRIFOS DIS- SOLVED (UG/L) (38933)	CLOPYR- ALID, WATER, FLTRD, GF 0.7U DISS, REC (UG/L) (49305)	CYANA- ZINE, WATER, WAT,FLT DISS, REC (UG/L) (04041)	DACTHAL MONO- ACID, WAT,FLT GF 0.7U DISS, REC (UG/L) (49304)	DCPA WATER FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA- ZINE, WATER, FLTRD, DISS, REC (UG/L) (04040)	DI- AZINON, DIS- SOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLO- BENIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49303)	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DI- ELDRIN DIS- SOLVED (UG/L) (39381)
OCT 27...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<.42	<.48	<.004	<.23	<.004	<.02	<.002	E.003	<.002	<.04	<1.20	<.03	<.001

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DISUL- FOTON WATER, FLTRD, GF 0.7 U GF, REC (UG/L) (82677)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	DNOC WAT,FLT FLTRD, GF 0.7U REC (UG/L) (49299)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT,FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FEN- URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUO- METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	FONOPOS WATER FLTRD, DISS (UG/L) (04095)	LINDANE DIS- SOLVED (UG/L) (39341)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)
OCT 27...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<.04	<.02	<.02	<.42	<.002	<.004	<.003	<.01	<.04	<.003	<.004	<.02	<.002

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	MALA- THION, DIS- SOLVED (UG/L) (39532)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METHIO- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH- OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	METHYL AZIN- PHOS WAT,FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA- THION WAT,FLT 0.7 U GF, REC (UG/L) (82667)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN WATER FLTRD WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)	NEB- URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)
OCT 27...	--	--	--	--	--	--	--	--	--	--	--	--	--
28...	<.005	<.17	<.14	<.03	<.02	<.001	<.006	<.004	<.004	<.004	<.003	<.01	<.02



WATER RESOURCES DATA - FLORIDA, 2002

VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS
260231081203900 -- BARRON RIVER CANAL AT COPELAND ROAD CAMP NO 27

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Table with 13 columns: Date, ORY-ZALIN, OXAMYL, PARA-THION, PEB-ULATE, PENDI-METH, PER-METHRIN, PHORATE, PIC-LORAM, PRO-METON, PRON-AMIDE, PROPA-CHLOR, PRO-PANIL. Values include (49292), (38866), (34653), (39542), (82669), (82683), (82687), (82664), (49291), (04037), (82676), (04024), (82679).

Summary table for OCT 27... and 28... with values: --, <.31, <.02, <.006, <.004, <.004, <.004, <.005, <.002, <.05, <.02, <.003, <.007, <.004.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Table with 13 columns: Date, PRO-PARGITE, PRO-PHAM, PRO-POXUR, SI-MAZINE, TEBU-THIURON, TER-BACIL, TER-BUFOS, THIO-BENCARB, TRIAL-LATE, TRI-CLOPYR, TRI-FLUR, 2,2'-BI-QUINO. Values include (82685), (49236), (38538), (39762), (04035), (82670), (82665), (82675), (82681), (82678), (49235), (82661), (49391).

Summary table for OCT 27... and 28... with values: --, <.01, <.04, <.04, <.02, <.010, <.01, <.007, <.01, <.002, <.001, <.25, <.002, <150.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Table with 13 columns: Date, 3,5-XYLENOL, 4-BROMO-PHNPBN, 4CHLORO-PHNPBN, 4HCYPEN-PHENAN, 9,10-ANTHRA-QUINONE, 9H-FLU-ORENE, 9H-FLU-ORENE, ACENAPH-THENE, ACENAPH-THYLENE, ACRI-DINE, ALDRIN, ALPHA-BHC, ANTHRA-CENE. Values include (49421), (49454), (49455), (49411), (49437), (49398), (49399), (49429), (49428), (49430), (49319), (49338), (49435).

Summary table for OCT 27... and 28... with values: <150, <150, <150, <150, <150, <150, <150, <150, E26, <150, <4, <4, <150.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Table with 13 columns: Date, ANTHRA-CENE, AZO-BENZENE, BENZ(A)-ANTHRA-CENE, BENZENE-124TRI-CHLORO, BENZENE-HEXA-CHLORO, BENZENE-M-DI-CHLORO, BENZENE-NITRO-CHLORO, BENZENE-O-DI-CHLORO, BENZENE-P-DI-CHLORO, BENZENE-PNTCHLR, BENZO(A)-PYRENE, BENZOB-ANTHENE, BENZO(G)HI)PERYLENE. Values include (49434), (49443), (49436), (49438), (49343), (49441), (49444), (49439), (49442), (49446), (49389), (49458), (49408).

Summary table for OCT 27... and 28... with values: E21, <150, E46, <150, <4, <150, <150, <150, <150, <150, E110, 190, E81.



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MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
260231081203900 -- BARRON RIVER CANAL AT COPELAND ROAD CAMP NO 27

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	PHTHALA TEBUTYL BENZYL- SED, BM WS, <2MM DW, REC (UG/KG) (49427)	PHTHAL- ATE, DIBUTYL SED, BM WS, <2MM DW, REC (UG/KG) (49381)	PHTHAL- ATE, D IETHYL SED, BM WS, <2MM DW, REC (UG/KG) (49383)	PHTHAL- ATE, DI- METHYL SED, BM WS, <2MM DW, REC (UG/KG) (49384)	PHTHAL ATE, D IOCTYL SED, BM WS, <2MM DW, REC (UG/KG) (49382)	PYRENE, 1- METHYL, SED, BM WS, <2MM DW, REC (UG/KG) (49388)	PYRENE, SED, BM WS, <2MM DW, REC (UG/KG) (49387)	THIOPH ENE, DI- BENZO- SED, BM WS, <2MM DW, REC (UG/KG) (49452)	TOLUENE 2,4-DI- NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49395)	TOLUENE 2,6-DI- NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49396)	TOXA- PHENE SED, BM WS, <2MM DW, REC (UG/KG) (49351)	TRANS- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49321)	TRANS- NONA- CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49317)
OCT 27...	750	<150	<150	<150	<150	<150	E94	<150	<150	<150	<800	<4	<4
28...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	TRANS- PER- METHRIN SED, BM WS, <2MM DW, REC (UG/KG) (49350)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)
OCT 27...	<20	5.3
28...	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	COLOR (PLAT- INUM- COBALT UNITS) (00080)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT (MG/L) SATUR- ATION) (00300)	OXYGEN, DIS- SOLVED WHOLE FIELD (STAND- ARD UNITS) (00301)	PH WATER FIELD (CON- DUCT- ANCE (US/CM) (00400)	SPE- CIFIC CON- DUCT- ANCE (DEG C) (00095)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	ALKA- LINITY WAT DIS TOT IT FIELD MG/L AS CACO3 (39086)	BICAR- BONATE WATER DIS IT FIELD MG/L AS HCO3 (00453)	CHLO- RIDE, DIS- SOLVED AS CL) (MG/L AS SO4) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
APR 09...	0815	60	768	4.0	46	7.3	547	23.5	22.5	234	286	31.3	.8
JUN 25...	0900	40	766	1.4	17	7.0	391	27.0	24.0	167	204	19.5	2.3
SEP 26...	0820	E75	759	2.2	28	7.4	379	28.0	27.5	152	185	19.6	1.7

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN, AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, DIS- SOLVED (MG/L AS NH4) (71846)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, DIS- SOLVED (MG/L AS NO3) (71851)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, DIS- SOLVED (MG/L AS NO2) (71856)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, TOTAL (MG/L AS N) (00600)
APR 09...	.050	.64	.83	.06	.66	.01	.062	.017	.010	.003	.59	.78	.84
JUN 25...	.086	.57	.68	.11	--	--	--	<.013	.010	.003	.48	.60	--
SEP 26...	.015	.75	.80	.02	.79	.03	.142	.036	.013	.004	.74	.78	.83

WATER RESOURCES DATA - FLORIDA, 2002

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MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
260231081203900 -- BARRON RIVER CANAL AT COPELAND ROAD CAMP NO 27

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04) (00660)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	2,4-D METHYL ESTER, WATER FLTRD REC (UG/L 50470)	2,4-D, DIS- SOLVED (UG/L 39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L 38746)	2,6-DI- ETHYL ANILINE WAT FLT GF, REC (UG/L 82660)	3HYDRXY CARBO- FURAN WAT,FLT GF 0.7U REC (UG/L 49308)	3-KETO CARBO- FURAN WATER FLTRD REC (UG/L 50295)	ACETO- CHLOR, WATER FLTRD GF 0.7U REC (UG/L 49260)	ACIFL- UORFEN WATER, FLTRD, GF 0.7U REC (UG/L 49315)	ALA- CHLOR, WATER, DISS, REC (UG/L 46342)
APR 09...	.034	.020	.011	.042	<.009	<.02	<.02	<.006	<.006	<2	<.006	<.007	<.004
JUN 25...	.101	.048	.033	.062	<.009	<.02	<.02	<.006	<.006	<2	<.006	<.007	<.004
SEP 26...	.025	.018	.008	.031	<.009	<.02	<.02	<.006	<.006	<2	<.006	<.007	<.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	ALDI- CARB SULFONE WAT,FLT GF 0.7U REC (UG/L 49313)	ALDICA- RB SUL- FOXIDE, WAT,FLT GF 0.7U REC (UG/L 49314)	ALDI- CARB, WATER, FLTRD, GF 0.7U REC (UG/L 49312)	ALPHA BHC DIS- SOLVED (UG/L 34253)	ATRA- ZINE, WATER, FLTRD REC (UG/L 39632)	BENDIO- CARB, WATER FLTRD REC (UG/L 50299)	BEN- FLUR- ALIN WAT FLD 0.7 U GF, REC (UG/L 82673)	BENOMYL WATER FLTRD REC (UG/L 50300)	BEN- SUL- FURON METHYL WAT FLT REC (UG/L 61693)	BENTA- ZON, WATER, FLTRD, GF 0.7U REC (UG/L 38711)	BRO- MACIL, WATER, DISS, REC (UG/L 04029)	BRO- MOXYNIL WATER, FLTRD, GF 0.7U REC (UG/L 49311)	BUTYL- ATE, WATER, DISS, REC (UG/L 04028)
APR 09...	<.02	<.008	<.04	<.005	E.007	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002
JUN 25...	<.02	<.008	<.04	<.005	<.007	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002
SEP 26...	<.02	<.008	<.04	<.005	<.007	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	CAF- FEINE, WATER FLTRD REC (UG/L 50305)	CAR- BARYL, WATER FLTRD GF 0.7U REC (UG/L 49310)	CAR- BARYL FLTRD 0.7 U GF, REC (UG/L 82680)	CARBO- FURAN, WATER FLTRD GF 0.7U REC (UG/L 49309)	CARBO- FURAN WATER FLTRD 0.7 U GF, REC (UG/L 82674)	CHLOR- AMBEN, METHYL ESTER WATER FLTRD (UG/L 61188)	CHLORI- MURON, WATER FLTRD REC (UG/L 50306)	CHLORO- THALO- NIL, WAT,FLT GF 0.7U REC (UG/L 49306)	CHLOR- PYRIFOS DIS- SOLVED REC (UG/L 38933)	CLOPYR- ALID, WATER, FLTRD, DIS- GF 0.7U REC (UG/L 49305)	CYANA- ZINE, WATER, DISS, REC (UG/L 04041)	CY- CLOATE, WATER, DISS, REC (UG/L 04031)	DACTHAL MONO- ACID, WAT,FLT GF 0.7U REC (UG/L 49304)
APR 09...	<.010	<.03	<.041	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01
JUN 25...	<.010	<.03	<.041	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01
SEP 26...	<.010	<.03	<.041	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	DCPA WATER FLTRD 0.7 U GF, REC (UG/L 82682)	DEETHYL ATRA- ZINE, WATER, DISS, REC (UG/L 04040)	DEETHYL DEISO- PROPYL ATRAZIN WATER, DISS, REC (UG/L 04039)	DEISO- PROPYL WATER, DISS, REC (UG/L 04038)	DI- AZINON, DIS- SOLVED (UG/L 39572)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L 38442)	DICHLOR PROP, WATER, FLTRD, GF 0.7U REC (UG/L 49302)	DI- ELDRIN DIS- SOLVED (UG/L 39381)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L 49301)	DIPHEN- AMID, WATER, DISS, REC (UG/L 04033)	DISUL- FOTON WATER FLTRD 0.7 U GF, REC (UG/L 82677)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L 49300)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L 82668)
APR 09...	<.003	<.006	<.01	<.04	<.005	<.01	<.01	<.005	<.01	<.03	<.02	<.01	<.002
JUN 25...	<.003	<.006	<.01	<.04	<.005	<.01	<.01	<.005	<.01	<.03	<.02	<.01	<.002
SEP 26...	<.003	<.006	<.01	<.04	<.005	<.01	<.01	<.005	<.01	<.03	<.02	<.01	<.002

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MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
260231081203900 -- BARRON RIVER CANAL AT COPELAND ROAD CAMP NO 27

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FEN- URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUMET- SULAM WATER FLTRD, FLTRD REC (UG/L) (61694)	FLUO- METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	FONOFOS WATER DISS REC (UG/L) (04095)	HYDROXY ATRA- ZINE WATER FLTRD REC (UG/L) (50355)	IMAZ- AQUIN WATER FLTRD REC (UG/L) (50356)	IMAZE- THAPYR WATER FLTRD REC (UG/L) (50407)	IMID- ACLOP- RID WATER FLTRD REC (UG/L) (61695)	LINDANE DIS- SOLVED (UG/L) (39341)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)
APR 09...	<.009	<.005	<.03	<.01	<.03	<.003	E.197	<.02	<.02	<.007	<.004	<.01	<.035
JUN 25...	<.009	<.005	<.03	<.01	<.03	<.003	<.008	<.02	<.02	<.007	<.004	<.01	<.035
SEP 26...	<.009	<.005	<.03	<.01	<.03	<.003	<.008	<.02	<.02	<.007	<.004	<.01	<.035

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	MALA- THION, DIS- SOLVED (UG/L) (39532)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METAL- AXYL WATER FLTRD, FLTRD REC (UG/L) (50359)	METHIO- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH- OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	METHYL AZIN- PHOS WAT FLT GF, REC (UG/L) (82686)	METHYL PARA- THION WAT FLT GF, REC (UG/L) (82667)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN WATER DISSOLV (UG/L) (82630)	MET- SUL- FURON METHYL WAT FLT REC (UG/L) (61697)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
APR 09...	<.027	<.02	<.01	<.02	<.008	<.004	<.050	<.006	<.013	<.006	<.03	<.002	<.007
JUN 25...	<.027	<.02	<.01	<.02	<.008	<.004	<.050	<.006	<.013	<.006	<.03	<.002	<.007
SEP 26...	<.027	<.02	<.01	<.02	<.008	<.004	<.050	<.006	<.013	<.006	<.03	<.002	<.007

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	NEB- URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NICOSUL FURON WATER FLTRD REC (UG/L) (50364)	NORPLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY- ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	P, P' DDE DISSOLV (UG/L) (34653)	PARA- THION, DIS- SOLVED (UG/L) (39542)	PEB- ULATE WATER FILTRD GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PIC- LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO- METON, WATER, DISS, REC (UG/L) (04037)
APR 09...	<.01	<.01	<.02	<.02	<.01	<.003	<.010	<.004	<.022	<.006	<.011	<.02	<.01
JUN 25...	<.01	<.01	<.02	<.02	<.01	<.003	<.010	<.004	<.022	<.006	<.011	<.02	<.01
SEP 26...	<.01	<.01	E.01	<.02	<.01	<.003	<.010	<.004	<.022	<.006	<.011	<.02	<.01

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPA- CHLOR, WATER, FLTRD, DISS, REC (UG/L) (04024)	PRO- PANIL WATER FLTRD GF, REC (UG/L) (82679)	PRO- PARGITE WATER FLTRD GF, REC (UG/L) (82685)	PRO- PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PROP- ICONA- ZOLE , WATER FLTRD REC (UG/L) (50471)	PRO- POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SIDURON WATER FLTRD REC (UG/L) (38548)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	SULFO- MET- RURON METHYL WTR FLT REC (UG/L) (50337)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL, WATER, DISS, REC (UG/L) (04032)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)
APR 09...	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.010	<.034
JUN 25...	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.010	<.034
SEP 26...	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.010	<.034

## WATER RESOURCES DATA - FLORIDA, 2002

## VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
 260231081203900 -- BARRON RIVER CANAL AT COPELAND ROAD CAMP NO 27

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	UREA 3( 4-CHLOR OPHENYL METHYL WAT FLT REC (UG/L) (61692)
APR 09...	<.02	<.005	<.002	<.02	<.009	<.02
JUN 25...	<.02	<.005	<.002	<.02	<.009	<.02
SEP 26...	<.02	<.005	<.002	<.02	<.009	<.02

Remark codes used in this report:  
 < -- Less than  
 E -- Estimated value

VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
260650081204100 -- BARRON R CANAL 2.9 MI SOUTH OF I-75

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	MOIS- TURE CONTENT DRY WT. (% OF TOTAL) (00495)	OXYGEN, DIS- SOLVED (MG/L) (00300)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	CALCIUM BOT MAT <63U WS FIELD (34830)	MAGNE- SIUM BOT MAT <63U WS FIELD (34900)	POTAS- SIUM BOT MAT <63U WS FIELD (34940)	SODIUM BOT MAT <63U WS FIELD (34960)	SULFUR BOT MAT <63U WS FIELD (34970)	NITRO- GEN,NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS BOT MAT <63U WS FIELD (34935)
OCT 28...	0800	77	2.3	6.8	344	23.0	23	.390	.130	.030	.29	10000	.200

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	CARBON, INORG, SED, BM WS,<63U DW, REC (PER- CENT) (49269)	CARBON, ORG + INORG, SED, BM WS,<2MM DW, REC (G/KG) (49270)	CARBON, ORG + INORG, SED, BM WS,<2MM DW, REC (G/KG) (49272)	CARBON, ORG + INORG, SED, BM WS,<63U DW, REC (G/KG) (49267)	CARBON, ORGANIC SED, BM WS,<2MM DW, REC (G/KG) (49271)	CARBON, ORGANIC SED, BM WS,<63U DW, REC (PER- CENT) (49266)	ALUM- INUM BOT MAT <63U WS FIELD (34790)	ANTI- MONY BOT MAT <63U WS FIELD (34795)	ARSENIC BOT MAT <63U WS FIELD (34800)	BARIUM BOT MAT <63U WS FIELD (34805)	BERYL- LIUM BOT MAT <63U WS FIELD (34810)	BISMUTH BOT MAT <180UWS FIELD (34816)	CADMIUM BOT MAT <63U WS FIELD (34825)
OCT 28...	6.7	66	180	17	110	10	1.6	.6	5.9	63	.6	<1	.3	

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)	GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD (UG/G) (34880)	LANTHA- NUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)
OCT 28...	22	73	3	17	<1	4	<1	<1	1.8	12	16	21	130	

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)	MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THAL- LIUM BED MAT D SIEVE TOTAL (UG/G) (04064)	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)
OCT 28...	.13	.8	10	16	4	3	.8	<.1	210	<1	<1	3	<1	

## WATER RESOURCES DATA - FLORIDA, 2002

## VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
260650081204100 -- BARRON R CANAL 2.9 MI SOUTH OF I-75

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	TITANIUM, SED, BM WS, <63U DRY WGT REC PERCENT (49274)	VANADIUM, BOT MAT <63U WS FIELD (UG/G) (35005)	YTTERBIUM, BOT MAT <63U WS FIELD (UG/G) (35015)	YTRIUM, BOT MAT <63U WS FIELD (UG/G) (35010)	ZINC, BOT MAT <63U WS FIELD (UG/G) (35020)	2,2'-BIQUINOLINE, SED, BM WS, <2MM DW, REC (UG/KG) (49391)	3,5-DIETHYLPHTHALATE, SED, BM WS, <2MM DW, REC (UG/KG) (49421)	4-BROMOPHTHALATE, SED, BM WS, <2MM DW, REC (UG/KG) (49454)	4-CHLOROPHTHALATE, SED, BM WS, <2MM DW, REC (UG/KG) (49455)	4-CYCLOPHENANTHRENE, SED, BM WS, <2MM DW, REC (UG/KG) (49411)	9,10-DIANTHRAQUINONE, SED, BM WS, <2MM DW, REC (UG/KG) (49437)	9H-FLUORENE, 1-METHYL-, SED, BM WS, <2MM DW, REC (UG/KG) (49398)	9H-FLUORENE, SED, BM WS, <2MM DW, REC (UG/KG) (49399)
OCT 28...	.100	46	<1	9	54	<100	<100	<100	<100	<100	<100	<100	<100

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	ACENAPHTHENE, SED, BM WS, <2MM DW, REC (UG/KG) (49429)	ACENAPHTHYLENE, SED, BM WS, <2MM DW, REC (UG/KG) (49428)	ACRIDINE, SED, BM WS, <2MM DW, REC (UG/KG) (49430)	ALDRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49319)	ALPHA-BHC, SED, BM WS, <2MM DW, REC (UG/KG) (49338)	ANTHRA-CENE, 2-METHYL-, SED, BM WS, <2MM DW, REC (UG/KG) (49435)	ANTHRA-CENE, SED, BM WS, <2MM DW, REC (UG/KG) (49434)	AZOBENZENE, SED, BM WS, <2MM DW, REC (UG/KG) (49443)	BENZ(A)ANTHRA-CENE, SED, BM WS, <2MM DW, REC (UG/KG) (49436)	BENZENE, CHLORO-, SED, BM WS, <2MM DW, REC (UG/KG) (49438)	BENZENE, CHLORO-, SED, BM WS, <2MM DW, REC (UG/KG) (49343)	BENZENE, M-DI-, CHLORO-, SED, BM WS, <2MM DW, REC (UG/KG) (49441)	BENZENE, NITRO-, SED, BM WS, <2MM DW, REC (UG/KG) (49444)
OCT 28...	<100	E12	<100	<2	<2	<100	<100	<100	E3	<100	<2	<100	<100

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	BENZENE, O-DI-, CHLORO-, SED, BM WS, <2MM DW, REC (UG/KG) (49439)	BENZENE, P-DI-, CHLORO-, SED, BM WS, <2MM DW, REC (UG/KG) (49442)	BENZENE, PNTCHLR NITRO-, SED, BM WS, <2MM DW, REC (UG/KG) (49446)	BENZO(PYRENE), SED, BM WS, <2MM DW, REC (UG/KG) (49389)	BENZOBANTHENE, SED, BM WS, <2MM DW, REC (UG/KG) (49458)	BENZO(GHI)PERYLENE, SED, BM WS, <2MM DW, REC (UG/KG) (49408)	BENZO KANTHENE, SED, BM WS, <2MM DW, REC (UG/KG) (49397)	BENZOCIBED MAT, WS <2MM DRY WGT REC (UG/KG) (49468)	BETA-BHC, SED, BM WS, <2MM DW, REC (UG/KG) (49339)	CARBAZOLE, SED, BM WS, <2MM DW, REC (UG/KG) (49449)	CHLORONEB, SED, BM WS, <2MM DW, REC (UG/KG) (49322)	CHRYSENE, SED, BM WS, <2MM DW, REC (UG/KG) (49450)	CIS-CHLORDANE, SED, BM WS, <2MM DW, REC (UG/KG) (49320)
OCT 28...	<100	<100	<100	E46	E74	E56	E13	<100	<2	<100	<10	E14	<2

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	CIS-NONA-CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49316)	CIS-PERMETHRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49349)	DIBENZ(DCPA), THACEN, SED, BM WS, <2MM DW, REC (UG/KG) (49324)	DIBENZ(AH), ANTHRACEN, SED, BM WS, <2MM DW, REC (UG/KG) (49461)	DIELDRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49331)	DIPHNYLAMINE, NITROSO, SED, BM WS, <2MM DW, REC (UG/KG) (49433)	DIPROPYLAMINE, NITROSO, SED, BM WS, <2MM DW, REC (UG/KG) (49431)	ENDO-SULFAN I, SED, BM WS, <2MM DW, REC (UG/KG) (49332)	ENDRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49335)	FLUORANTHENE, BED MAT WS <2MM DRY WGT REC (UG/KG) (49466)	HEPTACHLOR EPOXIDE, SED, BM WS, <2MM DW, REC (UG/KG) (49342)	HEPTACHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49341)	INDENO-123-CD, PYRENE, SED, BM WS, <2MM DW, REC (UG/KG) (49390)
OCT 28...	<2	<10	<10	<100	<2	<100	<100	<2	<4	E17	<2	<2	E43



VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
260650081204100 -- BARRON R CANAL 2.9 MI SOUTH OF I-75

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	ISODRIN SED, BM WS, <2MM DW, REC (UG/KG) (49344)	ISOPHOR ONE SED, BM WS, <2MM DW, REC (UG/KG) (49400)	ISO- QUINO- LINE, SED, BM WS, <2MM DW, REC (UG/KG) (49394)	LINDANE SED, BM WS, <2MM DW, REC (UG/KG) (49345)	M-CRE- SOL, 4- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49422)	METHANE 2CHLORO ETHOXY SED, BM WS, <2MM DW, REC (UG/KG) (49401)	METHOXY CHLOR, O,P'-, SED, BM WS, <2MM DW, REC (UG/KG) (49347)	METHOXY CHLOR P,P'-, SED, BM WS, <2MM DW, REC (UG/KG) (49346)	MIREX, SED, BM WS, <2MM DW, REC (UG/KG) (49348)	NAPHTHAL ENE, 12 DIMETHL SED, BM WS, <2MM DW, REC (UG/KG) (49403)	NAPHTHAL ENE, 16 DIMETHL SED, BM WS, <2MM DW, REC (UG/KG) (49404)	NAPHTHAL ENE, 236 TRIMETH SED, BM WS, <2MM DW, REC (UG/KG) (49405)	NAPHTHAL ENE, 26 DIMETHL SED, BM WS, <2MM DW, REC (UG/KG) (49406)
OCT 28...	<2	E35	<100	<2	<100	<100	<10	<10	<2	<100	E30	<100	410

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	NAPHTHAL ENE, 2- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49407)	NAPHTHAL ENE, 2- ETHYL- SED, BM WS, <2MM DW, REC (UG/KG) (49948)	NAPHTH- ALENE, SED, BM WS, <2MM DW, REC (UG/KG) (49402)	O, P'- DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49325)	O, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49327)	O, P'- DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49329)	OXY- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49318)	P, P'- DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49326)	P, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49328)	P, P'- DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49330)	PCB, SED, BM WS, <2MM DW, REC (UG/KG) (49459)	P- CRESOL SED, BM WS, <2MM DW, REC (UG/KG) (49451)	PENTA- CHLORO- ANISOLE SED, BM WS, <2MM DW, REC (UG/KG) (49460)
OCT 28...	<100	<100	<100	<2	<2	<4	<2	<2	<2	<4	<100	2000	<2

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	PHENAN THRENE 1METHYL SED, BM WS, <2MM DW, REC (UG/KG) (49410)	PHENAN THRI- DINE SED, BM WS, <2MM DW, REC (UG/KG) (49393)	PHENOL PHENOL SED, BM WS, <2MM DW, REC (UG/KG) (49413)	PHENOL C8- ALKYL- SED, BM WS, <2MM DW, REC (UG/KG) (49424)	PHENOL, 2CHLORO BED MAT WS, <2MM DRY WGT REC (UG/KG) (49467)	PHTHALA TE, BIS2 ETHHEXL SED, BM WS, <2MM DW, REC (UG/KG) (49426)	PHTHALA TEBUTYL BENZYL- SED, BM WS, <2MM DW, REC (UG/KG) (49427)	PHTHAL- ATE, SED, BM WS, <2MM DW, REC (UG/KG) (49381)	PHTHAL- ATE, D SED, BM WS, <2MM DW, REC (UG/KG) (49383)	PHTHAL- ATE, DI- METHYL SED, BM WS, <2MM DW, REC (UG/KG) (49384)	PHTHAL ATE, D IOCTYL SED, BM WS, <2MM DW, REC (UG/KG) (49382)	PYRENE, 1- METHYL, SED, BM WS, <2MM DW, REC (UG/KG) (49388)	
OCT 28...	<100	E4	<100	110	<100	<100	2500	170	E97	E25	<100	<100	<100

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	PYRENE, SED, BM WS, <2MM DW, REC (UG/KG) (49387)	QUINO- LINE, SED, BM WS, <2MM DW, REC (UG/KG) (49392)	THIOPH ENE, DI- BENZO- SED, BM WS, <2MM DW, REC (UG/KG) (49452)	TOLUENE 2,4-DI- NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49395)	TOLUENE 2,6-DI- NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49396)	TOXA- PHENE SED, BM WS, <2MM DW, REC (UG/KG) (49351)	TRANS- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49321)	TRANS- NONA- CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49317)	TRANS- PER- METHRIN SED, BM WS, <2MM DW, REC (UG/KG) (49350)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)
OCT 28...		E27	<100	<100	<100	<400	<2	<2	<10	6.6

Remark codes used in this report:  
< -- Less than  
E -- Estimated value

WATER RESOURCES DATA - FLORIDA, 2002

VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
 261036081204400 -- BARRON R CANAL 1.5 MI N OF I-75 (GATES AND BRIDGE)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	MOIS- TURE CONTENT DRY WT. (% OF TOTAL) (00495)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT (MG/L) (00300)	OXYGEN, PH DIS- SOLVED (PER- CENT (MG/L) (00301)	PH WATER WHOLE FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	CALCIUM BOT MAT <63U WS FIELD (34830)	MAGNE- SIUM BOT MAT <63U WS FIELD (34900)	POTAS- SIUM BOT MAT <63U WS FIELD (34940)	SODIUM BOT MAT <63U WS FIELD (34960)	SULFUR BOT MAT <63U WS FIELD (34970)
OCT 28...	0925	57	765	1.8	21	6.9	338	23.5	8.5	.170	.290	.039	.17

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS BOT MAT <63U WS FIELD (34935)	CARBON, INORG, SED, BM WS, <63U DW, REC (PER- CENT) (49269)	CARBON, INORG, SED, BM WS, <2MM DW, REC (G/KG) (49270)	CARBON, ORG + INORG, SED, BM WS, <2MM DW, REC (G/KG) (49272)	CARBON, ORG + INORG, SED, BM WS, <63U DW, REC PERCENT (49267)	CARBON, ORGANIC SED, BM WS, <63U DW, REC (PER- CENT) (49271)	CARBON, ORGANIC SED, BM WS, <63U DW, REC PERCENT (49266)	ALUM- INUM BOT MAT <63U WS FIELD (34790)	ANTI- MONY BOT MAT <63U WS FIELD (34795)	ARSENIC BOT MAT <63U WS FIELD (34800)	BARIUM BOT MAT <63U WS FIELD (34805)	BERYL- LIUM BOT MAT <63U WS FIELD (34810)
OCT 28...	4200	.100	2.5	28	100	8.2	72	5.7	1.2	.4	3.8	94	.4	

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)	GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS PERCENT (34880)	LANTHA- NUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)
OCT 28...		<1	.1	23	37	2	12	<1	3	<1	<1	1.1	12	14

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)	MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THAL- LIUM BOT MAT <63 U TOTAL (UG/G) (04064)
OCT 28...	11	70	.08	<.5	10	7	4	2	.4	<.1	100	<1	<1	

VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
261036081204400 -- BARRON R CANAL 1.5 MI N OF I-75 (GATES AND BRIDGE)

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	TITANIUM, SED, BM WS,<63U DRY WGT PERCENT (49274)	VANADIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTERIUM BIUM BOT MAT <63U WS FIELD (UG/G) (35015)	YTRITIUM BOT MAT <63U WS FIELD (UG/G) (35010)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)	2,2'-BIQUINO- LINE, SED, BM WS,<2MM DW, REC (UG/KG) (49391)	3,5-XYLENOL SED, BM WS,<2MM DW, REC (UG/KG) (49421)	4-BROMOPHNP PHNP SED, BM WS,<2MM DW, REC (UG/KG) (49454)	4CHLORO PHNP SED, BM WS,<2MM DW, REC (UG/KG) (49455)	4HCYPEN PHENAN SED, BM WS,<2MM DW, REC (UG/KG) (49411)	9,10-ANTHRA- QUINONE SED, BM WS,<2MM DW, REC (UG/KG) (49437)
OCT 28...	4	<1	.150	36	<1	6	37	<100	<100	<100	<100	<100	<100

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	9H-FLUORENE, 1METHYL SED, BM WS,<2MM DW, REC (UG/KG) (49398)	9H-FLUORENE SED, BM WS,<2MM DW, REC (UG/KG) (49399)	ACENAPHTHENE SED, BM WS,<2MM DW, REC (UG/KG) (49429)	ACENAPHTHYLENE SED, BM WS,<2MM DW, REC (UG/KG) (49428)	ACRIDINE SED, BM WS,<2MM DW, REC (UG/KG) (49430)	ALDRIN, SED, BM WS,<2MM DW, REC (UG/KG) (49319)	ALPHABHC, SED, BM WS,<2MM DW, REC (UG/KG) (49338)	ANTHRACENE,2- METHYL- SED, BM WS,<2MM DW, REC (UG/KG) (49435)	ANTHRACENE SED, BM WS,<2MM DW, REC (UG/KG) (49434)	AZOBENZENE SED, BM WS,<2MM DW, REC (UG/KG) (49443)	BENZ(A)ANTHRA- CENE SED, BM WS,<2MM DW, REC (UG/KG) (49436)	BENZENE 124TRI- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49438)	BENZENE HEXA- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49343)
OCT 28...	<100	<100	<100	E13	<100	<1	<1	<100	E12	<100	E21	<100	<1

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	BENZENE M-DI- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49441)	BENZENE NITRO- SED, BM WS,<2MM DW, REC (UG/KG) (49444)	BENZENE O-DI- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49439)	BENZENE P-DI- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49442)	BENZENE PNTCHLR NITRO- SED, BM WS,<2MM DW, REC (UG/KG) (49446)	BENZO(A) PYRENE SED, BM WS,<2MM DW, REC (UG/KG) (49389)	BENZOBANTHENE SED, BM WS,<2MM DW, REC (UG/KG) (49458)	BENZO(G) HI)PERY LENE SED, BM WS,<2MM DW, REC (UG/KG) (49408)	BENZO K ANTHENE SED, BM WS,<2MM DW, REC (UG/KG) (49397)	BENZOCINFLUOR- NNOLINE BED MAT WS <2MM REC (UG/KG) (49468)	BETA-BHC, SED, BM WS,<2MM DW, REC (UG/KG) (49339)	CARBAZOLE SED, BM WS,<2MM DW, REC (UG/KG) (49449)	CHLORO- NEB, SED, BM WS,<2MM DW, REC (UG/KG) (49322)
OCT 28...	<100	<100	<100	<100	<100	E50	E93	E38	E28	<100	<1	<100	<5

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	CHRYSENE SED, BM WS,<2MM DW, REC (UG/KG) (49450)	CIS-CHLOR-DANE SED, BM WS,<2MM DW, REC (UG/KG) (49320)	CIS-NONA- CHLOR, SED, BM WS,<2MM DW, REC (UG/KG) (49316)	CIS-PER- METHRIN SED, BM WS,<2MM DW, REC (UG/KG) (49349)	DCPA, SED, BM WS,<2MM DW, REC (UG/KG) (49324)	DIBENZ(AH),AN THRACEN SED, BM WS,<2MM DW, REC (UG/KG) (49461)	DIEL- DRIN, SED, BM WS,<2MM DW, REC (UG/KG) (49331)	DIPHNYLAMINE,N NITROSO SED, BM WS,<2MM DW, REC (UG/KG) (49433)	DPROPYLAMINE,N NITROSO SED, BM WS,<2MM DW, REC (UG/KG) (49431)	ENDO-SULFAN I, SED, BM WS,<2MM DW, REC (UG/KG) (49332)	ENDRIN, SED, BM WS,<2MM DW, REC (UG/KG) (49335)	FLUORANTHENE BED MAT WS <2MM REC (UG/KG) (49466)	HEPTACHLOR EPOXIDE SED, BM WS,<2MM DW, REC (UG/KG) (49342)
OCT 28...	E46	<1	<1	<5	<5	<100	<1	<100	<100	<1	<2	E63	<1

## WATER RESOURCES DATA - FLORIDA, 2002

## VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
261036081204400 -- BARRON R CANAL 1.5 MI N OF I-75 (GATES AND BRIDGE)

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	HEPTA- CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49341)	INDENO 123-CD PYRENE SED, BM WS, <2MM DW, REC (UG/KG) (49390)	ISODRIN SED, BM WS, <2MM DW, REC (UG/KG) (49344)	ISOPHOR ONE SED, BM WS, <2MM DW, REC (UG/KG) (49400)	ISO- QUINO- LINE, SED, BM WS, <2MM DW, REC (UG/KG) (49394)	LINDANE SED, BM WS, <2MM DW, REC (UG/KG) (49345)	M-CRE- SOL, 4- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49422)	METHANE 2CHLORO ETHOXY SED, BM WS, <2MM DW, REC (UG/KG) (49401)	METHOXY CHLOR, O, P'-, SED, BM WS, <2MM DW, REC (UG/KG) (49347)	METHOXY CHLOR P, P'-, SED, BM WS, <2MM DW, REC (UG/KG) (49346)	MIREX, SED, BM WS, <2MM DW, REC (UG/KG) (49348)	NAPHTHAL ENE, 12 DIMETHL SED, BM WS, <2MM DW, REC (UG/KG) (49403)	NAPHTHAL ENE, 16 DIMETHL SED, BM WS, <2MM DW, REC (UG/KG) (49404)
OCT 28...	<1	E41	<1	E27	<100	<1	<100	<100	<5	<5	<1	<100	<100

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	NAPHTHAL ENE, 236 TRIMETH SED, BM WS, <2MM DW, REC (UG/KG) (49405)	NAPHTHAL ENE, 26 DIMETHL SED, BM WS, <2MM DW, REC (UG/KG) (49406)	NAPHTHAL ENE, 2- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49407)	NAPHTHAL ENE, 2- ETHYL- SED, BM WS, <2MM DW, REC (UG/KG) (49948)	NAPHTH- ALENE, SED, BM WS, <2MM DW, REC (UG/KG) (49402)	O, P'- DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49325)	O, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49327)	O, P'- DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49329)	OXY- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49318)	P, P'- DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49326)	P, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49328)	P, P'- DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49330)	PCB, SED, BM WS, <2MM DW, REC (UG/KG) (49459)
OCT 28...	<100	100	<100	<100	<100	<1	<1	<2	<1	<1	<1	<2	<50

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	P- CRESOL SED, BM WS, <2MM DW, REC (UG/KG) (49451)	PENTA- CHLORO- ANISOLE SED, BM WS, <2MM DW, REC (UG/KG) (49460)	PHENAN THRENE 1METHYL SED, BM WS, <2MM DW, REC (UG/KG) (49410)	PHENAN- THRENE SED, BM WS, <2MM DW, REC (UG/KG) (49409)	PHENAN- THRI- DINE SED, BM WS, <2MM DW, REC (UG/KG) (49393)	PHENOL C8- ALKYL- SED, BM WS, <2MM DW, REC (UG/KG) (49413)	PHENOL 2CHLORO BED MAT SED, BM WS, <2MM DW, REC (UG/KG) (49424)	PHENOL TE, BIS2 ETHHEXL SED, BM WS, <2MM DW, REC (UG/KG) (49467)	PHTHALA TE, BIS2 ETHHEXL SED, BM WS, <2MM DW, REC (UG/KG) (49426)	PHTHALA TEBUTYL BENZYL- SED, BM WS, <2MM DW, REC (UG/KG) (49427)	PHTHAL- ATE, DIBUTYL SED, BM WS, <2MM DW, REC (UG/KG) (49381)	PHTHAL- ATE, D IETHYL SED, BM WS, <2MM DW, REC (UG/KG) (49383)	PHTHAL- ATE, DI- METHYL SED, BM WS, <2MM DW, REC (UG/KG) (49384)
OCT 28...	5400	<1	<100	E17	<100	E88	<100	<100	E90	E48	E59	<100	<100

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	PHTHAL ATE, D IOCTYL SED, BM WS, <2MM DW, REC (UG/KG) (49382)	PYRENE, 1- METHYL, SED, BM WS, <2MM DW, REC (UG/KG) (49388)	PYRENE, SED, BM WS, <2MM DW, REC (UG/KG) (49387)	QUINO- LINE, SED, BM WS, <2MM DW, REC (UG/KG) (49392)	THIOPH ENE, DI- BENZO- SED, BM WS, <2MM DW, REC (UG/KG) (49452)	TOLUENE 2,4-DI- NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49395)	TOLUENE 2,6-DI- NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49396)	TOXA- CHLOR- PHENE SED, BM WS, <2MM DW, REC (UG/KG) (49351)	TRANS- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49321)	TRANS- NONA- CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49317)	TRANS- PER- METHRIN SED, BM WS, <2MM DW, REC (UG/KG) (49350)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)
OCT 28...	<100	<100	E58	<100	<100	<100	<100	<200	<1	<1	<5	2.2

Remark codes used in this report:

< -- Less than  
E -- Estimated value

VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
261306081204000 -- BARRON R CANAL 4.3 MILES NORTH OF I-75

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	BARO-METRIC PRES-SURE (MM OF HG) (00025)	CARBON DIOXIDE SOLVED (MG/L AS CO2) (00405)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	TEMPER-ATURE (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
OCT 27...	1330	767	12	2.2	26	7.3	325	32.0	24.0	130	44.7	4.96	3.10

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	SODIUM AD-SORP-TION RATIO (00931)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	SOLIDS, DIS-SOLVED (TONS PER SOLVED) (70303)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + DIS-ORGANIC (MG/L AS N) (00623)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)
OCT 27...	.6	14.6	19	25.7	.3	7.74	1.5	.29	215	177	.033	.91	.85

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS NH4) (71846)	NITRO-GEN DIS-SOLVED (MG/L AS N) (00602)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS N) (00618)	NITRO-GEN, NITRATE DIS-SOLVED (MG/L AS NO3) (71851)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS NO2) (71856)	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00600)	PHOS-PHATE, ORTHO-DIS-SOLVED (MG/L AS P04) (00660)	PHOS-PHORUS DIS-SOLVED (MG/L AS P) (00666)	ORTHO-PHOS-PHATE, DIS-SOLVED (MG/L AS P) (00671)
OCT 27...	.04	.97	.05	.212	.054	.020	.006	.88	.81	.90	.107	.042	.035	

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC PARTIC-ULATE TOTAL (MG/L AS C) (00689)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	2,4,5-T DIS-SOLVED (UG/L) (39742)	2,4-D, DIS-SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, REC (UG/L) (38746)	2,6-DI-ETHYL ANILINE WAT FLT (UG/L) (82660)	3HYDRXY CARBO-FURAN WAT,FLT (UG/L) (49308)	ACETO-CHLOR, WATER FLTRD, REC (UG/L) (49260)	ACIFL-UORFEN WATER, FLTRD, REC (UG/L) (49315)	ALA-CHLOR, WATER, DISS, REC, (UG/L) (46342)
OCT 27...	.061	17.0	.4	190	9.3	<.04	<.15	<.24	<.003	<.01	<.002	<.04	<.002	

## WATER RESOURCES DATA - FLORIDA, 2002

## VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
261306081204000 -- BARRON R CANAL 4.3 MILES NORTH OF I-75

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA-RB SUL-FOKIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BEN-FLUR-ALIN, WAT FLD 0.7 U GF, REC (UG/L) (82673)	BENTA-ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	BRO-MOXYNIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)	CAR-BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CAR-BARYL, WATER, FLTRD, GF, REC (UG/L) (82680)	CARBO-FURAN, WATER, FLTRD, GF 0.7U REC (UG/L) (49309)
OCT 27...	<.10	<.02	<.55	<.002	.010	<.002	<.01	<.04	<.04	<.002	<.008	E.009	<.12

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	CARBO-FURAN WATER, FLTRD 0.7 U GF, REC (UG/L) (82674)	CHLOR-AMBEN, METHYL ESTER WATER, FLTRD (UG/L) (61188)	CHLORO-THALO-NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CHLOR-PYRIFOS DIS-SOLVED (UG/L) (38933)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	DACTHAL MONO-ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)	DCPA WATER, FLTRD 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DICAMBA DI-AZINON, DIS-SOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLO-BENIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49303)	DICHLO-PROP, WATER, FLTRD, GF 0.7U REC (UG/L) (49302)	DI-ELDRIN DIS-SOLVED (UG/L) (39381)
OCT 27...	<.003	<.42	<.48	<.004	<.23	<.02	<.002	E.003	<.002	<.04	<1.20	<.03	<.001

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DISUL-FOTON WATER, FLTRD, GF 0.7U REC (UG/L) (82677)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	DNOC WAT,FLT GF 0.7U REC (UG/L) (49299)	EPTC WATER, FLTRD, GF 0.7U REC (UG/L) (82668)	ETHAL-FLUR-ALIN, WAT FLT GF, REC (UG/L) (82663)	ETHO-PROP WATER, FLTRD, GF 0.7U REC (UG/L) (82672)	FEN-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUO-METURON, WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	FONOFOS WATER, DISS, REC (UG/L) (04095)	LINDANE DIS-SOLVED (UG/L) (39341)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	LIN-URON WATER, FLTRD, GF 0.7U REC (UG/L) (82666)
OCT 27...	<.04	<.02	<.02	<.42	<.002	<.004	<.003	<.01	<.04	<.003	<.004	<.02	<.002

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	MALA-THION, DIS-SOLVED (UG/L) (39532)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METHIO-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH-OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	METHYL-AZIN-PHOS, WAT FLT GF, REC (UG/L) (82686)	METHYL-PARA-THION, WAT FLT GF, REC (UG/L) (82667)	METO-LACHLOR, WATER, DISSOLV (UG/L) (39415)	METRI-BUZIN, WATER, FLTRD, GF 0.7U REC (UG/L) (82630)	MOL-INATE, WATER, FLTRD, GF 0.7U REC (UG/L) (82671)	NAPROP-AMIDE, WATER, FLTRD, GF, REC (UG/L) (82684)	NEB-URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NORFLUR-AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)
OCT 27...	<.005	<.17	<.14	<.03	<.02	<.001	<.006	.005	.007	<.004	<.003	<.01	<.02

VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
261306081204000 -- BARRON R CANAL 4.3 MILES NORTH OF I-75

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	ORY- ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	P,P' DDE DISSOLV (UG/L) (34653)	PARA- THION, DIS- SOLVED (UG/L) (39542)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PIC- LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO- METON, WATER, FLTRD, DISS, REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPA- CHLOR, WATER, FLTRD, DISS, REC (UG/L) (04024)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)
OCT 27...	<.31	<.02	<.006	<.004	<.004	<.004	<.005	<.002	<.05	<.02	<.003	<.007	E.004

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	PRO- PARGITE WATER FLTRD 0.7 U GF, REC (UG/L) (82685)	PRO- PHAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49236)	PRO- POXUR, WATER, FLTRD, GF 0.7U REC (UG/L) (38538)	SILVEX, DIS- SOLVED (UG/L) (39762)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)	TRI- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	SEDI- MENT, SUS- PENDEDED (MG/L) (80154)
OCT 27...	<.01	<.04	<.04	<.02	.005	<.01	<.007	<.01	<.002	<.001	<.25	<.002	2.0

Remark codes used in this report:  
< -- Less than  
E -- Estimated value

## WATER RESOURCES DATA - FLORIDA, 2002

## VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
261524081202900 -- BARRON RIVER CANAL AT NORTHERN BCP BOUNDARY

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	Time	COLOR (PLAT- INUM- COBALT UNITS) (00080)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (MG/L) (00300)	OXYGEN, (PER- CENT SATUR- ATION) (00301)	PH WATER FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	ALKA- LILITY WAT DIS FIELD MG/L AS CACO3 (39086)	BICAR- BONATE DIS IT FIELD MG/L AS HCO3 (00453)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)
APR 09...	0930	100	768	1.0	12	7.0	700	26.5	23.0	287	350	43.8	2.8
JUN 25...	1020	75	766	3.4	42	7.1	346	28.0	26.0	130	159	15.6	12.7
SEP 26...	0920	E125	759	1.7	22	7.2	432	32.0	27.5	172	210	19.7	7.5

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4) (71846)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3) (71851)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2) (71856)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, TOTAL (MG/L AS N) (00600)
APR 09...	.122	.86	1.1	.16	--	--	--	<.013	--	E.002	.74	.97	--
JUN 25...	.160	1.0	1.4	.21	1.4	.34	1.49	.385	.161	.049	.85	1.3	1.8
SEP 26...	.123	.99	1.1	.16	1.2	.21	.907	.225	.066	.020	.87	1.0	1.4

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	PHOS- PHATE, ORTHO, DIS- SOLVED (MG/L AS P04) (00660)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	PHOS- PHORUS TOTAL (MG/L AS P) (00665)	2,4-D METHYL ESTER, WATER FLTRD REC (UG/L) (50470)	2,4-D, DIS- SOLVED (UG/L) (39732)	2,4-DB WATER, FLTRD, GF 0.7U REC (UG/L) (38746)	2,6-DI- ETHYL ANILINE WAT FLT GF, REC (UG/L) (82660)	3HYDRXY CARBO- FURAN WAT,FLT GF 0.7U REC (UG/L) (49308)	3-KETO CARBO- FURAN WATER FLTRD REC (UG/L) (50295)	ACIFL- UORFEN WATER, FLTRD, GF 0.7U REC (UG/L) (49260)	ALA- CHLOR, WATER, DISS, REC, (UG/L) (46342)	
APR 09...	--	.011	E.006	.108	<.009	<.02	<.02	<.007	<.006	<2	<.006	<.007	<.004
JUN 25...	.497	.195	.162	.26	<.009	<.02	<.02	<.006	<.006	<2	<.006	<.007	<.004
SEP 26...	.172	.070	.056	.137	<.009	E.10	<.02	<.006	<.006	<2	<.006	<.007	<.004



VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
261524081202900 -- BARRON RIVER CANAL AT NORTHERN BCP BOUNDARY

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	ALDI-CARB SULFONE WAT,FLT GF 0.7U REC (UG/L) (49313)	ALDICA-RB SUL-FOXIDE, WAT,FLT GF 0.7U REC (UG/L) (49314)	ALDI-CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (49312)	ALPHA BHC DIS-SOLVED (UG/L) (34253)	ATRA-ZINE, WATER, DISS, REC (UG/L) (39632)	BENDIO-CARB, WATER, FLTRD, REC (UG/L) (50299)	BEN-FLUR-ALIN WAT FLD 0.7 U GF, REC (UG/L) (82673)	BENOMYL WATER REC (UG/L) (50300)	BEN-SUL-FURON METHYL WAT FLT REC (UG/L) (61693)	BENTA-ZON, WATER, FLTRD, GF 0.7U REC (UG/L) (38711)	BRO-MACIL, WATER, DISS, REC (UG/L) (04029)	BRO-MOXYNIL, WATER, FLTRD, GF 0.7U REC (UG/L) (49311)	BUTYL-ATE, WATER, DISS, REC (UG/L) (04028)
APR 09...	<.02	<.008	<.04	<.005	E.006	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002
JUN 25...	E.01	E.009	<.04	<.005	<.007	<.03	<.010	<.004	<.02	<.01	E.30	<.02	<.002
SEP 26...	<.02	<.008	<.04	<.005	<.007	<.03	<.010	<.004	<.02	<.01	<.03	<.02	<.002

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	CAF-FEINE, WATER, FLTRD, REC (UG/L) (50305)	CAR-BARYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49310)	CAR-BARYL, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82680)	CARBO-FURAN, WATER, FLTRD, REC (UG/L) (49309)	CARBO-FURAN, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82674)	CHLOR-AMBEN, METHYL ESTER, WATER, FLTRD, REC (UG/L) (61188)	CHLORI-MURON, WATER, FLTRD, REC (UG/L) (50306)	CHLORO-THALO-NIL, WAT,FLT GF 0.7U REC (UG/L) (49306)	CHLOR-PYRIFOS, DIS-SOLVED (UG/L) (38933)	CLOPYR-ALID, WATER, FLTRD, GF 0.7U REC (UG/L) (49305)	CYANA-ZINE, WATER, DISS, REC (UG/L) (04041)	CY-CLOATE, WATER, DISS, REC (UG/L) (04031)	DACTHAL MONO-ACID, WAT,FLT GF 0.7U REC (UG/L) (49304)
APR 09...	<.010	<.03	<.041	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01
JUN 25...	<.010	<.03	<.041	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01
SEP 26...	<.010	<.03	E.005	<.006	<.020	<.02	<.010	<.04	<.005	<.01	<.018	<.01	<.01

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	DCPA WATER, FLTRD, 0.7 U GF, REC (UG/L) (82682)	DEETHYL ATRA-ZINE, WATER, DISS, REC (UG/L) (04040)	DEETHYL DEISO-PROPYL ATRAZIN, DISS, REC (UG/L) (04039)	DEISO-PROPYL WATER, DISS, REC (UG/L) (04038)	DI-AZINON, DIS-SOLVED (UG/L) (39572)	DICAMBA WATER, FLTRD, GF 0.7U REC (UG/L) (38442)	DICHLOR PROP, WATER, FLTRD, REC (UG/L) (49302)	DI-ELDRIN, DIS-SOLVED (UG/L) (39381)	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DIPHEN-AMID, WATER, DISS, REC (UG/L) (04033)	DISUL-FOTON, WATER, FLTRD, 0.7 U GF, REC (UG/L) (82677)	DIURON, WATER, FLTRD, GF 0.7U REC (UG/L) (49300)	EPTC WATER, FLTRD, 0.7 U GF, REC (UG/L) (82668)
APR 09...	<.003	<.006	<.01	<.04	<.005	<.01	<.01	<.005	<.01	<.03	<.02	E.01	<.002
JUN 25...	<.003	<.006	E.05	E.09	<.005	<.01	<.01	<.005	<.01	<.03	<.02	.33	<.002
SEP 26...	<.003	<.006	<.01	<.04	<.005	<.01	<.01	<.005	<.01	<.03	<.02	<.01	<.002

## WATER RESOURCES DATA - FLORIDA, 2002

## VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
261524081202900 -- BARRON RIVER CANAL AT NORTHERN BCP BOUNDARY

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FEN- URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49297)	FLUMET- SULAM WATER FLTRD (UG/L) (61694)	FLUO- METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	FONOFO S WATER FLTRD GF 0.7U DISS REC (UG/L) (04095)	HYDROXY ATRA- ZINE WATER FLTRD (UG/L) (50355)	IMAZ- AQUIN WATER FLTRD (UG/L) (50356)	IMAZE- THAPYR WATER FLTRD (UG/L) (50407)	IMID- ACLOP- RID WATER FLTRD REC (UG/L) (61695)	LINDANE DIS- SOLVED (UG/L) (39341)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)
APR 09...	<.009	<.005	<.03	<.01	<.03	<.003	<.008	<.02	<.02	<.007	<.004	<.01	<.035
JUN 25...	<.009	<.005	<.03	<.01	<.03	<.003	E.044	<.02	<.02	<.007	<.004	<.01	<.035
SEP 26...	<.009	<.005	<.03	<.01	<.03	<.003	<.008	<.02	<.02	<.007	<.004	<.01	<.035

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	MALA- THION, DIS- SOLVED (UG/L) (39532)	MCPA, WATER, FLTRD, GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD, GF 0.7U REC (UG/L) (38487)	METAL- AXYL WATER FLTRD REC (UG/L) (50359)	METHIO- CARB, WATER, FLTRD, GF 0.7U REC (UG/L) (38501)	METH- OMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (49296)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA- THION WAT FLT 0.7 U GF, REC (UG/L) (82667)	METO- LACHLOR WATER WAT FLT DISSOLV (UG/L) (39415)	METRI- BUZIN WATER WAT FLT DISSOLV (UG/L) (82630)	MET- SUL- FURON METHYL WAT FLT REC (UG/L) (61697)	MOL- INATE WATER FLTRD 0.7 U GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82684)
APR 09...	<.027	<.02	<.01	E.01	<.008	<.004	<.050	<.006	<.013	<.006	<.03	<.002	<.007
JUN 25...	<.027	<.02	<.01	<.02	<.008	<.004	<.050	<.006	.042	<.006	<.03	<.002	<.007
SEP 26...	<.027	<.02	<.01	<.02	<.008	<.004	<.050	<.006	E.013	<.011	<.03	<.002	<.007

## WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	NEB- URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NICOSUL FURON WATER FLTRD REC (UG/L) (50364)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)	ORY- ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, WATER, FLTRD, GF 0.7U REC (UG/L) (38866)	P,P' DDE DISSOLV SOLVED (UG/L) (34653)	PARA- THION, DIS- SOLVED (UG/L) (39542)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- CIS WATER WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD GF, REC (UG/L) (82664)	PIC- LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO- METON, WATER, DISS, REC (UG/L) (04037)
APR 09...	<.01	<.01	<.02	<.02	<.01	<.003	<.010	<.004	<.022	<.006	<.011	<.02	<.01
JUN 25...	<.01	<.01	E.05	<.02	<.01	<.003	<.010	<.004	<.022	<.006	<.011	<.02	<.01
SEP 26...	<.01	<.01	E.05	<.02	<.01	<.003	<.010	<.004	<.022	<.006	<.011	<.02	<.01

VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
261524081202900 -- BARRON RIVER CANAL AT NORTHERN BCP BOUNDARY

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	PRON-AMIDE WATER, FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPA-CHLOR, WATER, DISS, REC (UG/L) (04024)	PRO-PANIL WATER, FLTRD 0.7 U GF, REC (UG/L) (82679)	PRO-PARGITE WATER, FLTRD 0.7 U GF, REC (UG/L) (82685)	PRO-PHAM, WATER, FLTRD 0.7U GF, REC (UG/L) (49236)	PROP-ICONA-ZOLE, WATER, FLTRD REC (UG/L) (50471)	PRO-POXUR, WATER, FLTRD 0.7U GF, REC (UG/L) (38538)	SIDURON WATER, FLTRD REC (UG/L) (38548)	SI-MAZINE, WATER, DISS, REC (UG/L) (04035)	SULFO-MET-RURON, METHYL WTR FLT REC (UG/L) (50337)	TEBU-THIURON WATER, FLTRD 0.7 U GF, REC (UG/L) (82670)	TER-BACIL, WATER, DISS, REC (UG/L) (04032)	TER-BACIL WATER, FLTRD 0.7 U GF, REC (UG/L) (82665)
APR 09...	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02	<.005	<.009	<.02	<.010	<.034
JUN 25...	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02	.300	<.009	<.02	<.010	<.034
SEP 26...	<.004	<.010	<.011	<.02	<.010	<.02	<.008	<.02	.008	<.009	<.02	<.010	<.034

WATER-QUALITY DATA, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

Date	TER-BUFOS WATER, FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO-BENCARB WATER, FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL-LATE WATER, FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI-CLOPYR, WATER, FLTRD GF 0.7U REC (UG/L) (49235)	TRI-FLUR-ALIN, WAT FLT REC (UG/L) (82661)	UREA 3(4-CHLOR OPHENYL METHYL WAT FLT REC (UG/L) (61692)
APR 09...	<.02	<.005	<.002	<.02	<.009	<.02
JUN 25...	<.02	<.005	<.002	<.02	<.009	<.02
SEP 26...	<.02	<.005	<.002	E.50	<.009	<.02

## WATER RESOURCES DATA - FLORIDA, 2002

## VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
261812081203400 -- BARRON R CANAL 0.3 MILES SOUTH OF CR-858

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	MOIS- TURE CONTENT DRY WT. (% OF TOTAL) (00495)	BARO- METRIC PRES- SURE (MM OF HG) (00025)	OXYGEN, DIS- SOLVED (PER- CENT (MG/L) (00300)	OXYGEN, DIS- SOLVED (PER- CENT (MG/L) (00301)	PH WATER FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE WATER (DEG C) (00010)	CALCIUM BOT MAT <63U WS FIELD (34830)	MAGNE- SIUM BOT MAT <63U WS FIELD (34900)	POTAS- SIUM BOT MAT <63U WS FIELD (34940)	SODIUM BOT MAT <63U WS FIELD (34960)	SULFUR BOT MAT <63U WS FIELD (34970)
OCT 28...	1355	69	765	3.4	41	6.9	436	25.5	8.2	.240	.250	.040	.51

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	NITRO- GEN, NH4 + ORG. TOT IN BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS BOT MAT <63U WS FIELD (34935)	CARBON, INORG, SED, BM WS, <63U DW, REC (PER- CENT) (49269)	CARBON, INORG, SED, BM WS, <2MM DW, REC (G/KG) (49270)	CARBON, ORG + INORG SED, BM WS, <2MM DW, REC (G/KG) (49272)	CARBON, ORG + INORG SED, BM WS, <63U DW, REC PERCENT (49267)	CARBON, ORGANIC SED, BM WS, <63U DW, REC (PER- CENT) (49271)	CARBON, ORGANIC SED, BM WS, <63U DW, REC (PER- CENT) (49266)	ALUM- INUM BOT MAT <63U WS FIELD (34790)	ANTI- MONY BOT MAT <63U WS FIELD (34795)	ARSENIC BOT MAT <63U WS FIELD (34800)	BARIUM BOT MAT <63U WS FIELD (34805)	BERYL- LIUM BOT MAT <63U WS FIELD (34810)
OCT 28...	10000	.490	2.1	22	170	16	150	14	2.4	.8	14	180	.8	

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)	CERIUM BOT MAT <63U WS FIELD (UG/G) (34835)	CHRO- MIUM BOT MAT <63U WS FIELD (UG/G) (34840)	COBALT BOT MAT <63U WS FIELD (UG/G) (34845)	COPPER BOT MAT <63U WS FIELD (UG/G) (34850)	EURO- PIUM BOT MAT <63U WS FIELD (UG/G) (34855)	GALLIUM BOT MAT <63U WS FIELD (UG/G) (34860)	GOLD BOT MAT <63U WS FIELD (UG/G) (34870)	HOLMIUM BOT MAT <63U WS FIELD (UG/G) (34875)	IRON BOT MAT <63U WS FIELD PERCENT (34880)	LANTHA- NUM BOT MAT <63U WS FIELD (UG/G) (34885)	LEAD BOT MAT <63U WS FIELD (UG/G) (34890)
OCT 28...	<1	.6	41	58	4	82	<1	6	<1	<1	4.0	24	40	

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	LITHIUM BOT MAT <63U WS FIELD (UG/G) (34895)	MANGA- NESE BOT MAT <63U WS FIELD (UG/G) (34905)	MERCURY BOT MAT <63U WS FIELD (UG/G) (34910)	MOLYB- DENUM BOT MAT <63U WS FIELD (UG/G) (34915)	NEODYM- IUM BOT MAT <63U WS FIELD (UG/G) (34920)	NICKEL BOT MAT <63U WS FIELD (UG/G) (34925)	NIOBIUM BOT MAT <63U WS FIELD (UG/G) (34930)	SCAN- DIUM BOT MAT <63U WS FIELD (UG/G) (34945)	SELE- NIUM BOT MAT <63U WS FIELD (UG/G) (34950)	SILVER BOT MAT <63U WS FIELD (UG/G) (34955)	STRON- TIUM BOT MAT <63U WS FIELD (UG/G) (34965)	TANTA- LUM BOT MAT <63U WS FIELD (UG/G) (34975)	THAL- LIUM BED MAT D SIEVE TOTAL (UG/G) (04064)
OCT 28...	32	110	.18	1.8	18	14	8	4	1.4	.2	170	<1	<1	

WATER RESOURCES DATA - FLORIDA, 2002

VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
261812081203400 -- BARRON R CANAL 0.3 MILES SOUTH OF CR-858

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	THORIUM BOT MAT <63U WS FIELD (UG/G) (34980)	TIN BOT MAT <63U WS FIELD (UG/G) (34985)	TITANIUM, SED, BM WS,<63U DRY WGT REC (UG/G) (49274)	VANADIUM BOT MAT <63U WS FIELD (UG/G) (35005)	YTTTRIUM BOT MAT <63U WS FIELD (UG/G) (35015)	YTTTRIUM BOT MAT <63U WS FIELD (UG/G) (35010)	ZINC BOT MAT <63U WS FIELD (UG/G) (35020)	2,2'-BIQUINO- LINE, SED, BM WS,<2MM DW, REC (UG/KG) (49391)	3,5-XYLENOL SED, BM WS,<2MM DW, REC (UG/KG) (49421)	4-BROMOPHNPHNL ETHER SED, BM WS,<2MM DW, REC (UG/KG) (49454)	4CHLOROPHNPHN LETHRER SED, BM WS,<2MM DW, REC (UG/KG) (49455)	4HCYPEN PHENAN SED, BM WS,<2MM DW, REC (UG/KG) (49411)	9,10-ANTHRAQUINONE SED, BM WS,<2MM DW, REC (UG/KG) (49437)
OCT 28...	7	2	.230	60	<1	12	180	<100	<100	<100	<100	E12	<100

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	9H-FLUORENE, 1METHYL SED, BM WS,<2MM DW, REC (UG/KG) (49398)	9H-FLUORENE SED, BM WS,<2MM DW, REC (UG/KG) (49399)	ACENAPHTHENE SED, BM WS,<2MM DW, REC (UG/KG) (49429)	ACENAPHTHYLENE SED, BM WS,<2MM DW, REC (UG/KG) (49428)	ACRIDINE SED, BM WS,<2MM DW, REC (UG/KG) (49430)	ALDRIN, SED, BM WS,<2MM DW, REC (UG/KG) (49319)	ALPHA-BHC, SED, BM WS,<2MM DW, REC (UG/KG) (49338)	ANTHRACENE,2-METHYL- SED, BM WS,<2MM DW, REC (UG/KG) (49435)	ANTHRACENE SED, BM WS,<2MM DW, REC (UG/KG) (49434)	AZOBENZENE SED, BM WS,<2MM DW, REC (UG/KG) (49443)	BENZ(A)ANTHRA- CENE SED, BM WS,<2MM DW, REC (UG/KG) (49436)	BENZENE 124TRI- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49438)	BENZENE HEXA- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49343)
OCT 28...	<100	E28	<100	E51	<100	<2	<2	<100	E84	<100	170	<100	<2

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	BENZENE M-DI- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49441)	BENZENE NITRO- SED, BM WS,<2MM DW, REC (UG/KG) (49444)	BENZENE O-DI- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49439)	BENZENE P-DI- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49442)	BENZENE PNTCHLR NITRO- SED, BM WS,<2MM DW, REC (UG/KG) (49446)	BENZO(A) PYRENE SED, BM WS,<2MM DW, REC (UG/KG) (49389)	BENZOBANTHENE SED, BM WS,<2MM DW, REC (UG/KG) (49458)	BENZO(G) HI)PERY LENE SED, BM WS,<2MM DW, REC (UG/KG) (49408)	BENZO K ANTHENE SED, BM WS,<2MM DW, REC (UG/KG) (49397)	BENZOCINNOLINE BED MAT WS <2MM REC (UG/KG) (49468)	BETA-BHC, SED, BM WS <2MM DW, REC (UG/KG) (49339)	CARBAZOLE SED, BM WS,<2MM DW, REC (UG/KG) (49449)	CHLORONEB, SED, BM WS,<2MM DW, REC (UG/KG) (49322)
OCT 28...	<100	<100	<100	<100	<100	200	390	150	E50	<100	<2	<100	<10

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	CHRYSENE SED, BM WS,<2MM DW, REC (UG/KG) (49450)	CIS-CHLORDANE SED, BM WS,<2MM DW, REC (UG/KG) (49320)	CIS-NONACHLOR, SED, BM WS,<2MM DW, REC (UG/KG) (49316)	CIS-PERMETHRIN SED, BM WS,<2MM DW, REC (UG/KG) (49349)	DCPA, SED, BM WS,<2MM DW, REC (UG/KG) (49324)	DIBENZ(AH),AN THRACEN SED, BM WS,<2MM DW, REC (UG/KG) (49461)	DIELDRIN, SED, BM WS,<2MM DW, REC (UG/KG) (49331)	DIPHNYLAMINE,N NITROSO SED, BM WS,<2MM DW, REC (UG/KG) (49433)	DPROPYLAMINE,N NITROSO SED, BM WS,<2MM DW, REC (UG/KG) (49431)	ENDOSULFAN I, SED, BM WS,<2MM DW, REC (UG/KG) (49332)	ENDRIN, SED, BM WS,<2MM DW, REC (UG/KG) (49335)	FLUORANTHENE BED MAT WS <2MM DRY WGT REC (UG/KG) (49466)	HEPTACHLOR EPOXIDE SED, BM WS,<2MM DW, REC (UG/KG) (49342)
OCT 28...	260	<2	<2	<10	<10	E54	<2	<100	<100	<2	<4	460	<2

## WATER RESOURCES DATA - FLORIDA, 2002

## VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
261812081203400 -- BARRON R CANAL 0.3 MILES SOUTH OF CR-858

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	HEPTA- CHLOR, SED, BM WS,<2MM DW, REC (UG/KG) (49341)	INDENO 123-CD PYRENE SED, BM WS,<2MM DW, REC (UG/KG) (49390)	ISODRIN SED, BM WS,<2MM DW, REC (UG/KG) (49344)	ISOPHOR ONE SED, BM WS,<2MM DW, REC (UG/KG) (49400)	ISO- QUINO- LINE, SED, BM WS,<2MM DW, REC (UG/KG) (49394)	LINDANE SED, BM WS,<2MM DW, REC (UG/KG) (49345)	M-CRE- SOL, 4- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49422)	METHANE ETHOXY SED, BM WS,<2MM DW, REC (UG/KG) (49401)	METHOXY CHLOR, O,P'-, P,P'-, SED, BM WS,<2MM DW, REC (UG/KG) (49347)	METHOXY CHLOR P,P'-, SED, BM WS,<2MM DW, REC (UG/KG) (49346)	MIREX, SED, BM WS,<2MM DW, REC (UG/KG) (49348)	NAPHTHAL ENE, 12 DIMETHL SED, BM WS,<2MM DW, REC (UG/KG) (49403)	NAPHTHAL ENE, 16 DIMETHL SED, BM WS,<2MM DW, REC (UG/KG) (49404)
OCT 28...	<2	140	<2	E52	<100	<2	<100	<100	<10	<10	<2	<100	E25

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	NAPHTHAL ENE,236 TRIMETH SED, BM WS,<2MM DW, REC (UG/KG) (49405)	NAPHTHAL ENE, 26 DIMETHL SED, BM WS,<2MM DW, REC (UG/KG) (49406)	NAPHTHAL ENE, 2- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49407)	NAPHTHAL ENE, 2- ETHYL- SED, BM WS,<2MM DW, REC (UG/KG) (49948)	NAPHTH- ALENE, SED, BM WS,<2MM DW, REC (UG/KG) (49402)	O, P'- DDD, SED, BM WS,<2MM DW, REC (UG/KG) (49325)	O, P'- DDE, SED, BM WS,<2MM DW, REC (UG/KG) (49327)	O, P'- DDT, SED, BM WS,<2MM DW, REC (UG/KG) (49329)	OXY- CHLOR- DANE, SED, BM WS,<2MM DW, REC (UG/KG) (49318)	P, P'- DDD, SED, BM WS,<2MM DW, REC (UG/KG) (49326)	P, P'- DDE, SED, BM WS,<2MM DW, REC (UG/KG) (49328)	P, P'- DDT, SED, BM WS,<2MM DW, REC (UG/KG) (49330)	PCB, SED, BM WS,<2MM DW, REC (UG/KG) (49459)
OCT 28...	<100	250	<100	<100	<100	<2	<2	<4	<2	<2	3	<4	<100

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	P- CRESOL SED, BM WS,<2MM DW, REC (UG/KG) (49451)	PENTA- CHLORO- SED, BM WS,<2MM DW, REC (UG/KG) (49460)	PHENAN THRENE SED, BM WS,<2MM DW, REC (UG/KG) (49410)	PHENAN- THRENE SED, BM WS,<2MM DW, REC (UG/KG) (49409)	PHENAN- DINE SED, BM WS,<2MM DW, REC (UG/KG) (49393)	PHENOL SED, BM WS,<2MM DW, REC (UG/KG) (49413)	PHENOL C8- ALKYL- SED, BM WS,<2MM DW, REC (UG/KG) (49424)	PHENOL 2CHLORO BED MAT SED, BM WS,<2MM DRY WGT REC (UG/KG) (49467)	PHTHALA TE,BIS2 ETHHEXL SED, BM WS,<2MM DW, REC (UG/KG) (49426)	PHTHALA TEBUTYL- BENZYL- SED, BM WS,<2MM DW, REC (UG/KG) (49427)	PHTHAL- ATE, DIBUTYL SED, BM WS,<2MM DW, REC (UG/KG) (49381)	PHTHAL- ATE, D IETHYL SED, BM WS,<2MM DW, REC (UG/KG) (49383)	PHTHAL- ATE,DI- METHYL SED, BM WS,<2MM DW, REC (UG/KG) (49384)
OCT 28...	4600	<2	<100	130	<100	140	<100	<100	160	1100	E94	<100	E17

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	PHTHAL ATE, D IOCTYL SED, BM WS,<2MM DW, REC (UG/KG) (49382)	PYRENE, 1- METHYL, SED, BM WS,<2MM DW, REC (UG/KG) (49388)	PYRENE, SED, BM WS,<2MM DW, REC (UG/KG) (49387)	QUINO- LINE, SED, BM WS,<2MM DW, REC (UG/KG) (49392)	THIOPH ENE,DI- SED, BM WS,<2MM DW, REC (UG/KG) (49452)	TOLUENE 2,4-DI- SED, BM WS,<2MM DW, REC (UG/KG) (49395)	TOLUENE 2,6-DI- SED, BM WS,<2MM DW, REC (UG/KG) (49396)	TOXA- PHENE SED, BM WS,<2MM DW, REC (UG/KG) (49351)	TRANS- CHLOR- DANE, SED, BM WS,<2MM DW, REC (UG/KG) (49321)	TRANS- NONA- CHLOR, SED, BM WS,<2MM DW, REC (UG/KG) (49317)	TRANS- PER- METHRIN SED, BM WS,<2MM DW, REC (UG/KG) (49350)	URANIUM BOT MAT <63U FIELD (UG/G) (35000)
OCT 28...	<100	<100	390	<100	<100	<100	<100	<400	<2	<2	<10	3.2

Remark codes used in this report:

< -- Less than  
E -- Estimated value

VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
262247081215500 -- BARRON R CANAL 2.4 MI SOUTH OF PANTHER PASS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	Time	MOIS- TURE CONTENT DRY WT. (% OF TOTAL) (00495)	BARO- METRIC PRES- SURE OF HG (00025)	CARBON DIOXIDE DIS- SOLVED (MG/L) AS CO2 (00405)	OXYGEN, DIS- SOLVED (PER- CENT CENT) (MG/L) SOLVED ATON) (00300)	OXYGEN, DIS- SOLVED (PER- CENT CENT) (MG/L) SOLVED ATON) (00301)	PH WATER FIELD (STAND- ARD UNITS) (00400)	SPE- CIFIC CON- DUCT- ANCE (US/CM) (00095)	TEMPER- ATURE AIR (DEG C) (00020)	TEMPER- ATURE WATER (DEG C) (00010)	HARD- NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
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OCT													
29...	0810	--	765	27	2.4	28	7.0	335	28.0	23.0	140	50.9	4.15
29...	1225	35	764	--	2.7	33	6.7	337	--	26.0	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM FIELD PERCENT (00932)	CALCIUM BOT MAT <63U WS FIELD PERCENT (34830)	MAGNE- SIUM BOT MAT <63U WS FIELD PERCENT (34900)	POTAS- SIUM BOT MAT <63U WS FIELD PERCENT (34940)	SODIUM BOT MAT <63U WS FIELD PERCENT (34960)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	SULFUR BOT MAT <63U WS FIELD PERCENT (34970)
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OCT													
29...	3.68	.4	10.7	14	--	--	--	--	17.8	.1	8.91	3.7	--
29...	--	--	--	--	1.2	.047	.036	.008	--	--	--	--	.11

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITU- ENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) (00623)	NITRO- GEN,AM- MONIA + ORGANIC TOTAL SOLVED (MG/L AS N) (00625)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS NH4) (71846)	NITRO- GEN DIS- SOLVED (MG/L AS N) (00602)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS N) (00618)	NITRO- GEN, NITRATE DIS- SOLVED (MG/L AS NO3) (71851)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS NO2) (71856)	NITRO- GEN, NITRITE DIS- SOLVED (MG/L AS N) (00613)
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OCT													
29...	.31	225	185	.276	1.3	1.5	.36	1.6	.24	1.06	.262	.076	.023
29...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00600)	PHOS- PHATE, DIS- SOLVED (MG/L AS PO4) (00660)	PHOS- PHORUS DIS- SOLVED (MG/L AS P) (00666)	ORTHO- PHOS- PHATE, DIS- SOLVED (MG/L AS P) (00671)	NITRO- GEN,NH4 + ORG. BOT MAT (MG/KG AS N) (00626)	PHOS- PHORUS TOT IN BOT MAT (MG/KG AS N) (34935)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC PARTIC- ULATE TOTAL (MG/L AS C) (00689)	CARBON, INORG, SED, BM WS,<63U DW, REC (PER- CENT) (49269)	CARBON, INORG, SED, BM WS,<2MM DW, REC (G/KG) (49270)
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OCT												
29...	1.0	1.2	1.7	.396	.149	.129	.370	--	--	19.0	2.4	--
29...	--	--	--	--	--	--	--	2100	.070	--	--	5.0

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	CARBON, ORG + INORG SED, BM WS,<2MM DW, REC (G/KG) (49272)	CARBON, ORG + INORG SED, BM WS,<63U DW, REC PERCENT (49267)	CARBON, ORGANIC SED, BM WS,<2MM DW, REC (G/KG) (49271)	CARBON, ORGANIC SED, BM WS,<63U DW, REC (PER- CENT) (49266)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	ALUM- INUM BOT MAT <63U WS FIELD PERCENT (34790)	ANTI- MONY BOT MAT <63U WS FIELD (UG/G) (34795)	ARSENIC BOT MAT <63U WS FIELD (UG/G) (34800)	BARIUM BOT MAT <63U WS FIELD (UG/G) (34805)	BERYL- LIUM BOT MAT <63U WS FIELD (UG/G) (34810)	BISMUTH BOT MAT <180UWS FIELD (UG/G) (34816)	CADMIUM BOT MAT <63U WS FIELD (UG/G) (34825)
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OCT												
29...	--	--	--	--	512	26.8	--	--	--	--	--	--
29...	25	2.8	20	2.3	--	--	.670	.1	1.6	28	.2	<1





VOLUME 2A: SOUTH FLORIDA

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
262247081215500 -- BARRON R CANAL 2.4 MI SOUTH OF PANTHER PASS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	DINOSEB WATER, FLTRD, GF 0.7U REC (UG/L) (49301)	DISUL- FOTON WATER, FLTRD 0.7 U GF, REC (UG/L) (82677)	DIURON, WATER, FLTRD GF 0.7U REC (UG/L) (49300)	DNOC WAT,FLT GF 0.7U REC (UG/L) (49299)	EPTC WATER FLTRD 0.7 U GF, REC (UG/L) (82668)	ETHAL- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82663)	ETHO- PROP WATER FLTRD 0.7 U GF, REC (UG/L) (82672)	FEN- URON, WATER, FLTRD GF 0.7U REC (UG/L) (49297)	FLUO- METURON WATER, FLTRD, GF 0.7U REC (UG/L) (38811)	FONOFOS WATER DISS REC (UG/L) (04095)	LINDANE DIS- SOLVED REC (UG/L) (39341)	LINURON WATER, FLTRD, GF 0.7U REC (UG/L) (38478)	LIN- URON WATER FLTRD 0.7 U GF, REC (UG/L) (82666)
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OCT 29...	<.04	<.02	.05	<.42	<.002	<.004	<.003	<.01	<.04	<.003	<.004	<.02	<.002
29...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	MALA- THION, DIS- SOLVED (UG/L) (39532)	MCPA, WATER, FLTRD GF 0.7U REC (UG/L) (38482)	MCPB, WATER, FLTRD GF 0.7U REC (UG/L) (38487)	METHIO- CARB, WATER, FLTRD GF 0.7U REC (UG/L) (38501)	METH- OMYL, WATER, FLTRD GF 0.7U REC (UG/L) (49296)	METHYL AZIN- PHOS WAT FLT 0.7 U GF, REC (UG/L) (82686)	METHYL PARA- THON WAT FLT 0.7 U GF, REC (UG/L) (82667)	METO- LACHLOR WATER DISSOLV (UG/L) (39415)	METRI- BUZIN WATER DISSOLV (UG/L) (82630)	MOL- INATE WATER GF, REC (UG/L) (82671)	NAPROP- AMIDE WATER GF, REC (UG/L) (82684)	NEB- URON, WATER, FLTRD, GF 0.7U REC (UG/L) (49294)	NORFLUR AZON, WATER, FLTRD, GF 0.7U REC (UG/L) (49293)
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OCT 29...	<.005	<.17	<.14	<.03	<.02	<.001	<.006	E.005	<.004	<.004	<.003	<.01	E.02
29...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	ORY- ZALIN, WATER, FLTRD, GF 0.7U REC (UG/L) (49292)	OXAMYL, WATER, FLTRD GF 0.7U REC (UG/L) (38866)	P, P' DDE DISSOLV (UG/L) (34653)	PARA- THION, DIS- SOLVED (UG/L) (39542)	PEB- ULATE WATER FILTRD 0.7 U GF, REC (UG/L) (82669)	PENDI- METH- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82683)	PER- METHRIN CIS WAT FLT 0.7 U GF, REC (UG/L) (82687)	PHORATE WATER FLTRD 0.7 U GF, REC (UG/L) (82664)	PIC- LORAM, WATER, FLTRD, GF 0.7U REC (UG/L) (49291)	PRO- METON, WATER, DISS, 0.7 U REC (UG/L) (04037)	PRON- AMIDE WATER FLTRD 0.7 U GF, REC (UG/L) (82676)	PROPA- CHLOR, WATER, DISS, 0.7 U REC (UG/L) (04024)	PRO- PANIL WATER FLTRD 0.7 U GF, REC (UG/L) (82679)
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OCT 29...	<.31	<.02	<.006	<.004	<.004	<.004	<.005	<.002	<.05	<.02	<.003	<.007	<.004
29...	--	--	--	--	--	--	--	--	--	--	--	--	--

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	PRO- PARGITE WATER, FLTRD 0.7 U GF, REC (UG/L) (82685)	PRO- PHAM, WATER, FLTRD GF 0.7U REC (UG/L) (49236)	PRO- POKUR, WATER, FLTRD GF 0.7U REC (UG/L) (38538)	SILVEX, DIS- SOLVED (UG/L) (39762)	SI- MAZINE, WATER, DISS, REC (UG/L) (04035)	TEBU- THIURON WATER FLTRD 0.7 U GF, REC (UG/L) (82670)	TER- BACIL WATER FLTRD 0.7 U GF, REC (UG/L) (82665)	TER- BUFOS WATER FLTRD 0.7 U GF, REC (UG/L) (82675)	THIO- BENCARB WATER, FLTRD 0.7 U GF, REC (UG/L) (82681)	TRIAL- LATE WATER FLTRD 0.7 U GF, REC (UG/L) (82678)	TRI- CLOPYR, WATER, FLTRD, GF 0.7U REC (UG/L) (49235)	TRI- FLUR- ALIN WAT FLT 0.7 U GF, REC (UG/L) (82661)	2,2'-BI QUINO- LINE, SED, BM WS, <2MM DW, REC (UG/KG) (49391)
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OCT 29...	<.01	<.04	<.04	<.02	<.036	<.01	<.007	<.01	<.002	<.001	<.25	<.002	--
29...	--	--	--	--	--	--	--	--	--	--	--	--	<50

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	3,5- XYLENOL SED, BM WS, <2MM DW, REC (UG/KG) (49421)	4-BROMO PHNPHNL ETHER SED, BM WS, <2MM DW, REC (UG/KG) (49454)	4CHLORO PHNPHN LEATHER SED, BM WS, <2MM DW, REC (UG/KG) (49455)	4HCYPEN PHENAN THRENE SED, BM WS, <2MM DW, REC (UG/KG) (49411)	9,10- ANTHRA- QUINONE SED, BM WS, <2MM DW, REC (UG/KG) (49437)	9H-FLU- ORENE, 1METHYL SED, BM WS, <2MM DW, REC (UG/KG) (49398)	9H-FLU- ORENE SED, BM WS, <2MM DW, REC (UG/KG) (49399)	ACENAPH THENE SED, BM WS, <2MM DW, REC (UG/KG) (49429)	ACENAPH THYLENE SED, BM WS, <2MM DW, REC (UG/KG) (49428)	ACRI- DINE SED, BM WS, <2MM DW, REC (UG/KG) (49430)	ALDRIN, SED, BM WS, <2MM DW, REC (UG/KG) (49319)	ALPHA- BHC, SED, BM WS, <2MM DW, REC (UG/KG) (49338)	ANTHRA- CENE, 2- METHYL- SED, BM WS, <2MM DW, REC (UG/KG) (49435)
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OCT 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
29...	<50	<50	<50	<50	<50	E29	<50	<50	E5	<50	<1	<1	<50

MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
 262247081215500 -- BARRON R CANAL 2.4 MI SOUTH OF PANTHER PASS

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	ANTHRA- CENE SED, BM WS, <2MM DW, REC (UG/KG) (49434)	AZO- BENZENE SED, BM WS, <2MM DW, REC (UG/KG) (49443)	BENZ(A) ANTHRA- CENE SED, BM WS, <2MM DW, REC (UG/KG) (49436)	BENZENE 124TRI- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49438)	BENZENE HEXA- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49343)	BENZENE M-DI- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49441)	BENZENE NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49444)	BENZENE O-DI- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49439)	BENZENE P-DI- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49442)	BENZENE PNTCHLR NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49446)	BENZO (A) PYRENE SED, BM WS, <2MM DW, REC (UG/KG) (49389)	BENZOB ANTHENE SED, BM WS, <2MM DW, REC (UG/KG) (49458)	BENZO(G HI)PERY LENE SED, BM WS, <2MM DW, REC (UG/KG) (49408)
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OCT 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
29...	E11	<50	E15	<50	<1	<50	<50	<50	<50	<50	E31	65	E27

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	BENZO K FLUOR- ANTHENE SED, BM WS, <2MM DW, REC (UG/KG) (49397)	BENZOCI NNOLINE BED MAT WGT REC (UG/KG) (49468)	BETA- BHC, SED, BM WS, <2MM DW, REC (UG/KG) (49339)	CARBA- ZOLE SED, BM WS, <2MM REC (UG/KG) (49449)	CHLORO- NEB, SED, BM WS, <2MM REC (UG/KG) (49322)	CHRY- SENE SED, BM WS, <2MM REC (UG/KG) (49450)	CIS- CHLOR- DANE, SED, BM WS, <2MM REC (UG/KG) (49320)	CIS- NONA- CHLOR, SED, BM WS, <2MM REC (UG/KG) (49316)	CIS- PER- METHRIN SED, BM WS, <2MM REC (UG/KG) (49349)	DIBENZ (AH),AN THRACEN SED, BM WS, <2MM REC (UG/KG) (49324)	DIEL- DRIN, SED, BM WS, <2MM REC (UG/KG) (49461)	DIPHNYL AMINE,N NITROSO SED, BM WS, <2MM REC (UG/KG) (49331)	DIPHNYL AMINE,N NITROSO SED, BM WS, <2MM REC (UG/KG) (49433)
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OCT 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
29...	E19	<50	<1	M	<5	E31	<1	<1	<5	<5	<50	<1	<50

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	DPROPYL AMINE,N NITROSO SED, BM WS, <2MM DW, REC (UG/KG) (49431)	ENDO- SULFAN I, SED, BM WS, <2MM DW, REC (UG/KG) (49332)	FLUOR- ANTHENE ENDRIN, BED MAT SED, BM WS, <2MM DRY WGT REC (UG/KG) (49335)	HEPTA- CHLOR EPOXIDE SED, BM WS, <2MM REC (UG/KG) (49466)	HEPTA- CHLOR, CHLOR, SED, BM WS, <2MM REC (UG/KG) (49342)	INDENO 123-CD PYRENE SED, BM WS, <2MM REC (UG/KG) (49341)	INDENO 123-CD PYRENE SED, BM WS, <2MM REC (UG/KG) (49390)	ISOPHOR ONE SED, BM WS, <2MM REC (UG/KG) (49344)	ISO- QUINO- LINE, SED, BM WS, <2MM REC (UG/KG) (49400)	ISO- QUINO- LINE, SED, BM WS, <2MM REC (UG/KG) (49394)	M-CRE- SOL, 4- CHLORO- SED, BM WS, <2MM REC (UG/KG) (49345)	M-CRE- SOL, 4- CHLORO- SED, BM WS, <2MM REC (UG/KG) (49422)	METHANE 2CHLORO ETHOXY SED, BM WS, <2MM REC (UG/KG) (49401)
------	---	---	--	--	--	--	--	--	---	---	--	--	--

OCT 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
29...	<50	<1	<2	E31	<1	<1	E30	<1	<50	<50	<1	<50	<50

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	METHOXY CHLOR, O,P'-, SED, BM WS, <2MM DW, REC (UG/KG) (49347)	METHOXY CHLOR P,P'-, SED, BM WS, <2MM DW, REC (UG/KG) (49346)	NAPHTHAL ENE, 12 DIMETHL SED, BM WS, <2MM DW, REC (UG/KG) (49348)	NAPHTHAL ENE, 16 DIMETHL SED, BM WS, <2MM DW, REC (UG/KG) (49403)	NAPHTHAL ENE, 236 TRIMETH SED, BM WS, <2MM DW, REC (UG/KG) (49404)	NAPHTHAL ENE, 26 DIMETHL SED, BM WS, <2MM DW, REC (UG/KG) (49405)	NAPHTHAL ENE, 26 DIMETHL SED, BM WS, <2MM DW, REC (UG/KG) (49406)	NAPHTHAL ENE, 2- CHLORO- SED, BM WS, <2MM DW, REC (UG/KG) (49407)	NAPHTHAL ENE, 2- ETHYL- SED, BM WS, <2MM DW, REC (UG/KG) (49948)	NAPHTH- ALENE, SED, BM WS, <2MM DW, REC (UG/KG) (49402)	O, P'- DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49325)	O, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49327)	O, P'- DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49329)
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OCT 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
29...	<5	<5	<1	<50	<50	<50	60	<50	<50	<50	<1	<1	<2

## WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	OXY- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49318)	P, P'- DDD, SED, BM WS, <2MM DW, REC (UG/KG) (49326)	P, P'- DDE, SED, BM WS, <2MM DW, REC (UG/KG) (49328)	P, P'- DDT, SED, BM WS, <2MM DW, REC (UG/KG) (49330)	PCB, SED, BM WS, <2MM DW, REC (UG/KG) (49459)	P- CRESOL SED, BM WS, <2MM DW, REC (UG/KG) (49451)	PENTA- CHLORO- ANISOLE SED, BM WS, <2MM DW, REC (UG/KG) (49460)	PHENAN THRENE 1METHYL SED, BM WS, <2MM DW, REC (UG/KG) (49410)	PHENAN THRENE SED, BM WS, <2MM DW, REC (UG/KG) (49409)	PHENAN- THRI- DINE SED, BM WS, <2MM DW, REC (UG/KG) (49393)	PHENOL C8- ALKYL- SED, BM WS, <2MM DW, REC (UG/KG) (49413)	PHENOL C8- ALKYL- SED, BM WS, <2MM DW, REC (UG/KG) (49424)	PHENOL, 2CHLORO BED MAT WS, <2MM REC (UG/KG) (49467)
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OCT 29...	--	--	--	--	--	--	--	--	--	--	--	--	--
29...	<1	<1	1	<2	<50	140	<1	<50	E8	E5	E17	<50	<50

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MISCELLANEOUS SURFACE WATER QUALITY RECORDS  
262247081215500 -- BARRON R CANAL 2.4 MI SOUTH OF PANTHER PASS

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	PTHALA TE,BIS2 ETHHEXL SED, BM WS, <2MM DW, REC (UG/KG) (49426)	PTHALA TEBUTYL BENZYL- SED, BM WS, <2MM DW, REC (UG/KG) (49427)	PTHAL- ATE, DIBUTYL SED, BM WS, <2MM DW, REC (UG/KG) (49381)	PTHAL- ATE, D IETHYL SED, BM WS, <2MM DW, REC (UG/KG) (49383)	PTHAL- ATE,DI- METHYL SED, BM WS, <2MM DW, REC (UG/KG) (49384)	PTHAL ATE, D IOCTYL SED, BM WS, <2MM DW, REC (UG/KG) (49382)	PYRENE, 1- METHYL, SED, BM WS, <2MM DW, REC (UG/KG) (49388)	QUINO- LINE, SED, BM WS, <2MM DW, REC (UG/KG) (49392)	THIOPH ENE,DI- BENZO- SED, BM WS, <2MM DW, REC (UG/KG) (49452)	TOLUENE 2,4-DI- NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49395)	TOLUENE 2,6-DI- NITRO- SED, BM WS, <2MM DW, REC (UG/KG) (49396)	TOXA- PHENE SED, BM WS, <2MM DW, REC (UG/KG) (49351)
OCT 29...	--	--	--	--	--	--	--	--	--	--	--	--
29...	62	E27	E35	E10	E2	<50	<50	E39	<50	<50	<50	<200

WATER-QUALITY DATA, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

Date	TRANS- CHLOR- DANE, SED, BM WS, <2MM DW, REC (UG/KG) (49321)	TRANS- NONA- CHLOR, SED, BM WS, <2MM DW, REC (UG/KG) (49317)	TRANS- PER- METHRIN SED, BM WS, <2MM DW, REC (UG/KG) (49350)	URANIUM BOT MAT <63U WS FIELD (UG/G) (35000)	SEDI- MENT, SUS- PENDED (MG/L) (80154)
OCT 29...	--	--	--	--	15
29...	<1	<1	<5	.8	--

Remark codes used in this report:  
 < -- Less than  
 E -- Estimated value  
 M -- Presence verified, not quantified

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## CONVERSION FACTORS

<b>Multiply</b>	<b>By</b>	<b>To obtain</b>
<b><i>Length</i></b>		
inch (in.)	$2.54 \times 10^1$	millimeter
	$2.54 \times 10^{-2}$	meter
foot (ft)	$3.048 \times 10^{-1}$	meter
mile (mi)	$1.609 \times 10^0$	kilometer
<b><i>Area</i></b>		
acre	$4.047 \times 10^3$	square meter
	$4.047 \times 10^{-1}$	square hectometer
	$4.047 \times 10^{-3}$	square kilometer
square mile (mi <sup>2</sup> )	$2.590 \times 10^0$	square kilometer
<b><i>Volume</i></b>		
gallon (gal)	$3.785 \times 10^0$	liter
	$3.785 \times 10^0$	cubic decimeter
	$3.785 \times 10^{-3}$	cubic meter
million gallons (Mgal)	$3.785 \times 10^3$	cubic meter
	$3.785 \times 10^{-3}$	cubic hectometer
cubic foot (ft <sup>3</sup> )	$2.832 \times 10^1$	cubic decimeter
	$2.832 \times 10^{-2}$	cubic meter
cubic-foot-per-second day [(ft <sup>3</sup> /s) d]	$2.447 \times 10^3$	cubic meter
	$2.447 \times 10^{-3}$	cubic hectometer
acre-foot (acre-ft)	$1.233 \times 10^3$	cubic meter
	$1.233 \times 10^{-3}$	cubic hectometer
	$1.233 \times 10^{-6}$	cubic kilometer
<b><i>Flow</i></b>		
cubic foot per second (ft <sup>3</sup> /s)	$2.832 \times 10^1$	liter per second
	$2.832 \times 10^1$	cubic decimeter per second
	$2.832 \times 10^{-2}$	cubic meter per second
gallon per minute (gal/min)	$6.309 \times 10^{-2}$	liter per second
	$6.309 \times 10^{-2}$	cubic decimeter per second
	$6.309 \times 10^{-5}$	cubic meter per second
million gallons per day (Mgal/d)	$4.381 \times 10^1$	cubic decimeter per second
	$4.381 \times 10^{-2}$	cubic meter per second
<b><i>Mass</i></b>		
ton (short)	$9.072 \times 10^{-1}$	megagram or metric ton

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

$$\text{°F} = (1.8 \times \text{°C}) + 32$$

**U.S. DEPARTMENT OF THE INTERIOR**  
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