

**Recommended Ten Year Flood Guidance Level
and Other Flood Stage Elevations for Crews Lake
in Pasco County, Florida**

**Prepared for:
Southwest Florida Water Management District
2379 Broad Street
Brooksville, FL 34604-6899**

**Prepared by:
Ardaman & Associates, Inc.
8008 South Orange Avenue
Orlando, FL 32809**



Ardaman & Associates, Inc.

Geotechnical, Environmental and
Materials Consultants

July 13, 2007
Project No. 06-033

Douglas A. Leeper
SWFWMD
2379 Broad Street
Brooksville, Florida 34604-6899

**Subject: Watershed Management Program Consulting Services in Selected Pasco
and Polk County Lake Watersheds (P249), Lake Report**

Dear Mr. Leeper:

As requested and authorized by the Southwest Florida Water Management District, Ardaman & Associates, Inc. submits this report for Crews Lake located in Pasco County, Florida that documents the procedure used to develop a recommended ten year flood guidance level.

We trust that this report satisfies your expectations and appreciate the opportunity to work with you on this important project. If you have any questions, or if we can be of further service to you, please do not hesitate to call.

Very truly yours,
ARDAMAN & ASSOCIATES, INC.

Esteban R. López, P.E.
Project Engineer

David A. DeLoach, P.E.
V.P., Director of Water Resources
Florida License Number 47761

TABLE OF CONTENTS

<u>Title</u>	<u>Page</u>
Introduction	1
Description of the Watershed	2
Control Point, Low Slab, and Low Road Elevations	2
Lake Level Determinations through Statistical Evaluation of Historical Data	2
Development of Watershed Parameters for Hydrologic Simulation	2
Lake Level Determinations through Storm Event Simulation	4
Summary and Recommended Ten Year Flood Guidance Level	4
Appendix A – Figures	5
Appendix B – Tables	10
Appendix C – Previously Adopted Guidance Levels Data Sheet	12
Appendix D – Historical Staff Gauge Data	14
Appendix E – Survey Reports, Field Notes, and Historical Photographs	48
Appendix F – CHAN Model Input	90
Appendix G – CHAN Model Output (1D10Y and 5D10Y)	125
Appendix H – References	128

Introduction

The Southwest Florida Water Management District (District) has developed specific methodologies for establishing Minimum Flows and Levels for lakes, wetlands, rivers and aquifers, and adopted those methodologies into the Water Levels and Rates of Flow Rule (Chapter 40D-8, F.A.C). The rule also provides for establishment of Guidance Levels, which serve as advisory information for the District, lakeshore residents and local governments, or to aid in the management or control of adjustable water level structures. Typically two Minimum Levels and three Guidance Levels are established for lakes, and, upon adoption by the District Governing Board, are incorporated into Chapter 40D-8, F.A.C.

The Ten Year Flood Guidance Level is provided as an advisory guideline for lakeshore development, and is the level of flooding expected on a frequency of not less than the ten year recurrence interval, or on a frequency of not greater than a ten percent probability of occurrence in a given year.

Authorization. Ardaman and Associates, Inc. (Ardaman) was contracted by the District to conduct specified tasks within elements of a Watershed Management Program for Selected Pasco and Polk County Lake Watersheds. A work order was issued, and the project was initiated in April 2006, for performance of that work.

Purpose and Objectives. Under the above described agreement, work order tasks were conducted to evaluate ten year recurrence water levels for Lake Annie, Crews Lake, Dinner Lake, Lake Iola, Jessamine Lake, Lake Lee, Lake Linda, Lake Mabel, Pasco Lake, Pierce Lake, Lake Starr, Lake Loyce (a.k.a. Unnamed Lake No. 22) and Venus Lake, to support the District's Minimum Flows and Levels (MFL) reporting.

Lake level evaluations included computation of 10-year recurrence lake levels according to specific requirements set forth in Chapter 40D-8, F.A.C, as well as development of 2.33- (mean annual), 25-, 50-, 100-, and 500-year flood stages. Depending on historic data availability and watershed characteristics, the evaluations were focused on the following:

- (1) Lake level determinations through statistical evaluation of historic data;
- (2) Lake level determinations through continuous simulation; and,
- (3) Lake level determinations through storm event simulation.

The lake level evaluations also included determination of the control point elevation and the identification of elevations associated with various basin-specific features (low residential floor slabs, low outbuilding slabs, low roads).

This report presents findings for Crews Lake in Pasco County, Florida.

Description of the Watershed

Crews Lake is located in north-central Pasco County approximately 8.2 miles southeast of Spring Hill, Florida (Figure 1) within the Pithlachascotee River Watershed. Crews Lake discharges to the Pithlachascotee River when lake levels exceed 54.1 feet, NGVD. For this study, Crews Lake was regarded as an open-basin system because of the high probability of stages exceeding the aforementioned overflow level relative to the available data. The local drainage area is approximately 2.83 square miles in size, and the lake receives inflows from a 36.02 square mile contributing watershed.

Control Point, Low Slab, and Low Road Elevations

A professionally licensed surveyor conducted a field survey in April 2006 to collect elevation data for low slabs, low roads, and lake level controls, as well as, to describe conveyance structure elevations and geometry (Figure 3). The low slab elevation for Crews Lake was determined to be 59.5 feet, NGVD (one story green wood house, southwest shore), and the control elevation was 54.1 feet, NGVD (natural overflow, south of the local drainage divide), which is the elevation of the Crews Lake to Pithlachascotee River overflow. No low road elevation was surveyed for Crews Lake.

Lake Level Determinations through Statistical Evaluation of Historical Data

Crews Lake was classified as an open basin lake with approximately 41 years of historical staff gauge data (1964 to 2006) available from the District Database (Universal Identification Number STA 120 120). Surficial aquifer levels within this watershed have been impacted by water withdrawals since the early to mid-1980s and a period of reduced rainfall from approximately 1970 to 1995, according to District staff. Reduced rainfall in Central Florida may be associated with a cooling phase within the Atlantic Ocean.

By analyzing the existing historical staff gauge data through probability statistics, Ardaman staff concluded that the ten year recurrence level (based on the Weibull probability distribution) is approximately 55.8 feet, NGVD for Crews Lake (Figure 2). This elevation is 1.2 feet lower than the currently adopted Ten Year Flood Guidance Level of 57.0 feet, NGVD.

Development of Watershed Parameters for Hydrologic Simulation

The following paragraphs describe the data that was assembled and processed to support storm event modeling efforts. These data were employed to identify how rainfall is apportioned as infiltration and storm water runoff, and then routed hydraulically within the watershed.

Junction/Reach Connectivity. Ardaman staff created a preliminary network of model junctions and reaches to describe storage and conveyance features. Hi-resolution aerial photography was used to identify locations of conveyance structures throughout the watershed. As-built drawings, survey data, field notes, and Environmental Resource Permit (ERP) drawings were employed to supplement aerial photography as needed.

Sub-basin Delineations. Sub-basin delineations were developed for the watershed, based on hi-resolution aerial photography, Digital Terrain Models (DTMs), as-built drawings, ERPs, and other available information. GIS was used to automatically generate preliminary sub-basin divides using surface models derived from LiDAR data. These preliminary sub-basin delineations were then visually compared to aerial and topographic information and hand edited employing engineering judgment supported by the aforementioned sources of data.

Storage. Storage was calculated at lakes, ponds, wetlands, and other depressional features using GIS and the LiDAR-derived surface model. Calculation results were compared to stage-area relationships that were employed in the District's previous flood-stage analyses, to ensure consistency. Since bathymetric data were not provided, engineering judgment was used to approximate storage beneath the waterline represented on LiDAR. All lakes, ponds, wetlands, and depressional features were modeled assuming flat, level pool conditions.

Land Cover. Ardaman staff gathered, reviewed, and summarized available 1999 land use and soils data for the Crews Lake watershed. Based on this information approximately 29% of the watershed area is currently used for agricultural purposes, 5% of the watershed area is residential and commercial, and 25% of the watershed area consists of soils having high infiltration rates and low runoff potential. While historical aerial photography, dating back to 1941, indicates that the watershed has been used primarily for agriculture, a comparison between historical and modern aerial images attests that urbanization of the watershed has steadily occurred over the past 60 years.

Rainfall Excess. Rainfall excess was determined using the Natural Resource Conservation Service (NRCS) curve number methodology. An area-weighted curve number value was derived for each sub-basin based on land use and hydrologic soil group combinations. These curve numbers are representative of an average antecedent moisture condition (AMC-II), and were adapted from NRCS Technical Report No. 55 (TR-55). Dual classification soils (hydrologic soil groups identified as A/D, B/D, or C/D) were modeled as "undrained", implying that the soils are saturated throughout much of the soil column due to high surficial water table.

Time of Concentration. Time of concentration was estimated using the procedure outlined in the NRCS TR-55. Travel time segment data were developed using aerial photography and a digital terrain model to define travel paths, lengths, slopes and land cover for sheet and shallow concentrated flow segments. Lengths for sheet flow segments were restricted to no greater than 100 feet, to account for non-uniformity in vegetative cover and topography.

Runoff Hydrograph Generation. Runoff hydrographs were generated using synthetic dimensionless unit hydrographs, with peak rate factors of 256 applied to all sub-basin elements. The storm event hydrographs were computed using the NRCS Unit Hydrograph method.

Lake Level Determinations through Storm Event Simulation

Lake levels were estimated using storm events with varying frequencies of recurrence from the mean annual (2.33-year) through the 500-year event. Storm event results for this study were acquired from the Bear Creek/Pithlachascotee River model that was previously developed through the District's watershed management program with the modeling software, CHAN. Initial lake levels are representative of Crews Lake's average seasonal high water level. Storm event rainfall volumes for the 1-day storms were determined from isopluvial maps in the District's Environmental Resource Permitting Information Manual, and rainfall volumes for the 5-day storms were obtained from the District's Watershed Management Guidelines and Specifications.

Rainfall durations of 1 and 5 days were simulated to determine the watershed sensitivity to rainfall intensity and volume, respectively. The maximum stage resulting from either the 1 day or the 5 day rainfall event established the ten year recurrence level for event simulation.

Table 1 (Appendix B) provides for a summary of lake level results for various rainfall events. The Crews Lake ten year recurrence level determined through storm event modeling is 58.7 feet, NGVD. This lake level was obtained from the model response to a 5 day rainfall event, and is 1.7 feet higher than the currently adopted Ten Year Flood Guidance Level.

Summary and Recommended Ten Year Flood Guidance Level

Crews Lake is defined as an open basin lake with approximately 41 years of available historical staff gauge data (1964 to 2006). Ten year recurrence levels for the Crews Lake Watershed were estimated using probability statistics on historical staff gauge observations and storm event modeling results. Storm event modeling results were then compared with the historical staff gauge probability statistics to determine a final recommended Ten Year Flood Guidance Level (Table 2). Based on storm event modeling results, the recommended Ten Year Flood Guidance Level for Crews Lake is 58.7 feet, NGVD, which is 1.7 feet higher than the currently adopted level of 57.0 feet, NGVD. This value corresponds to the ten year recurrence level obtained from the 5 day duration storm event model.

Appendix A

Figures.

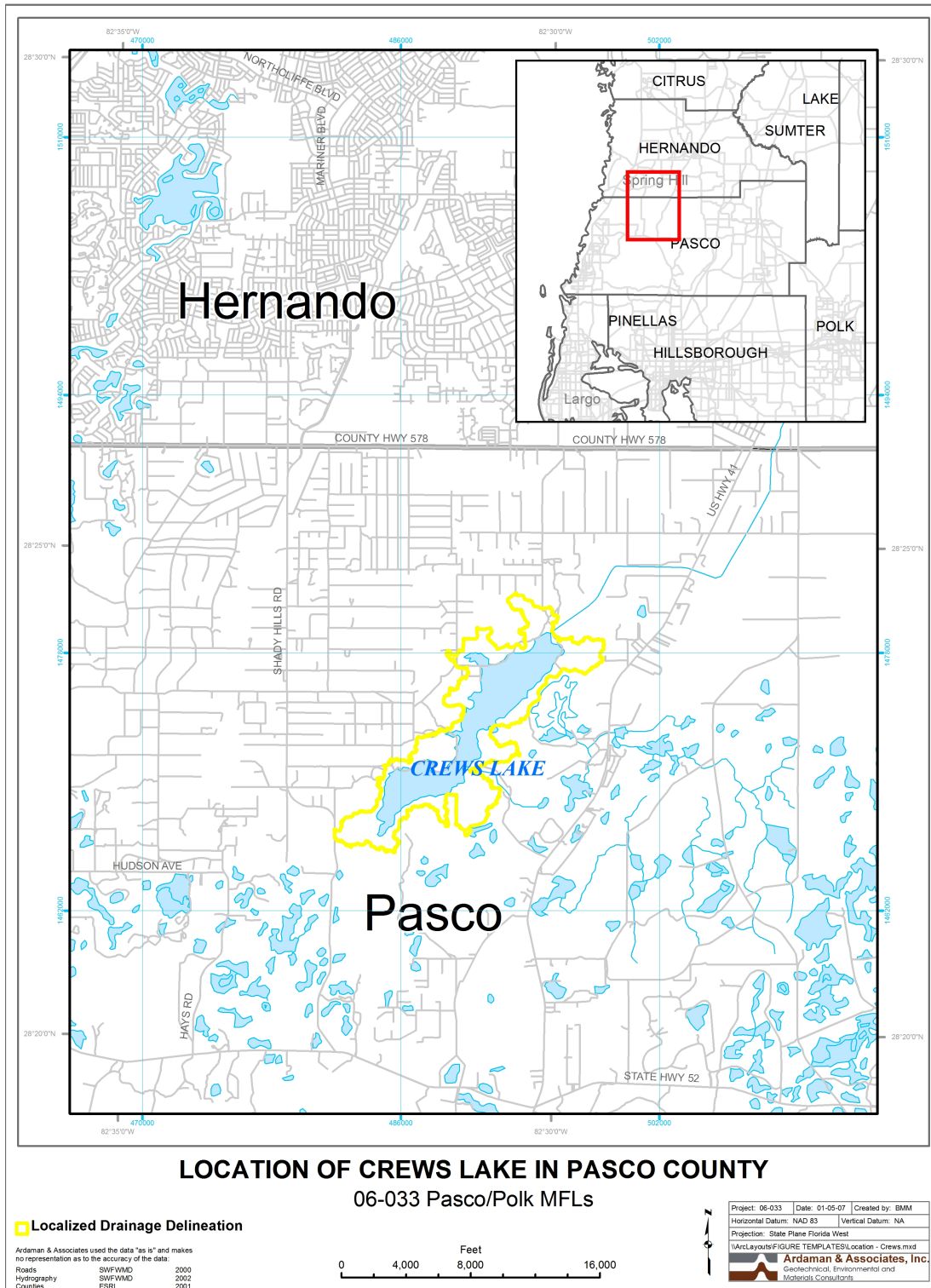


Figure 1. Local Drainage Area for Crews Lake in Pasco County, Florida.

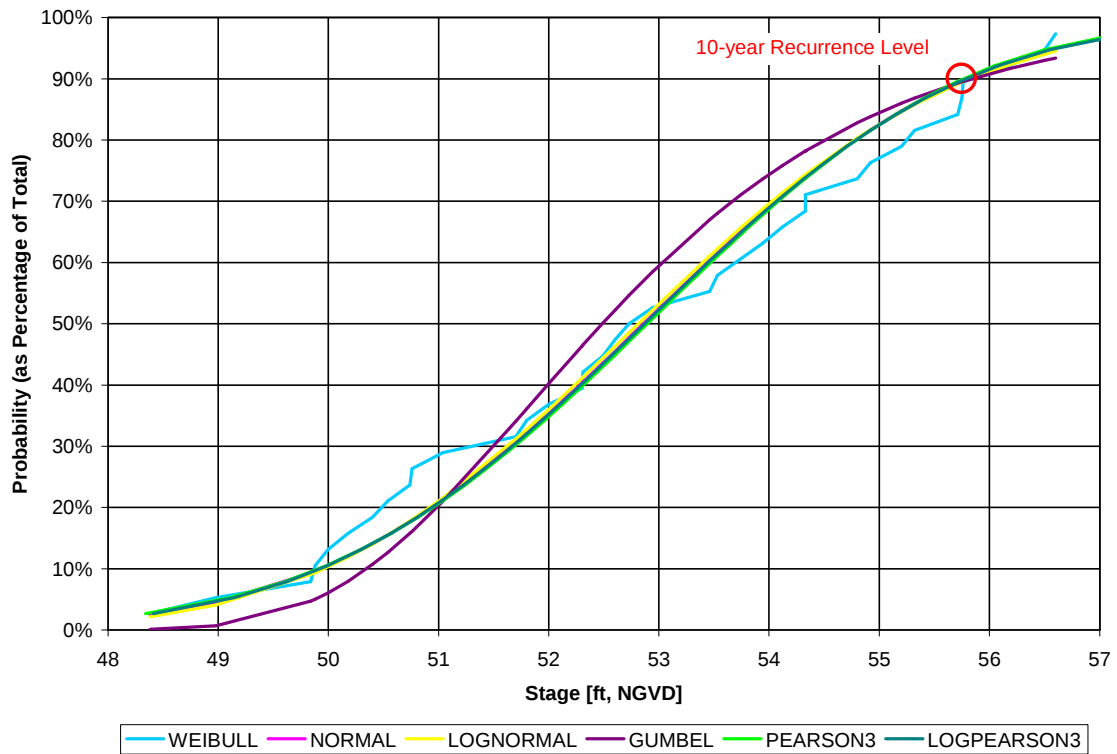


Figure 2. Probability Distribution Plot of Annual Maximum Lake-Stage Values for Period of Record Water Level Data for Crews Lake (STA 120 120), Fit with a Variety of Statistical Distributions.

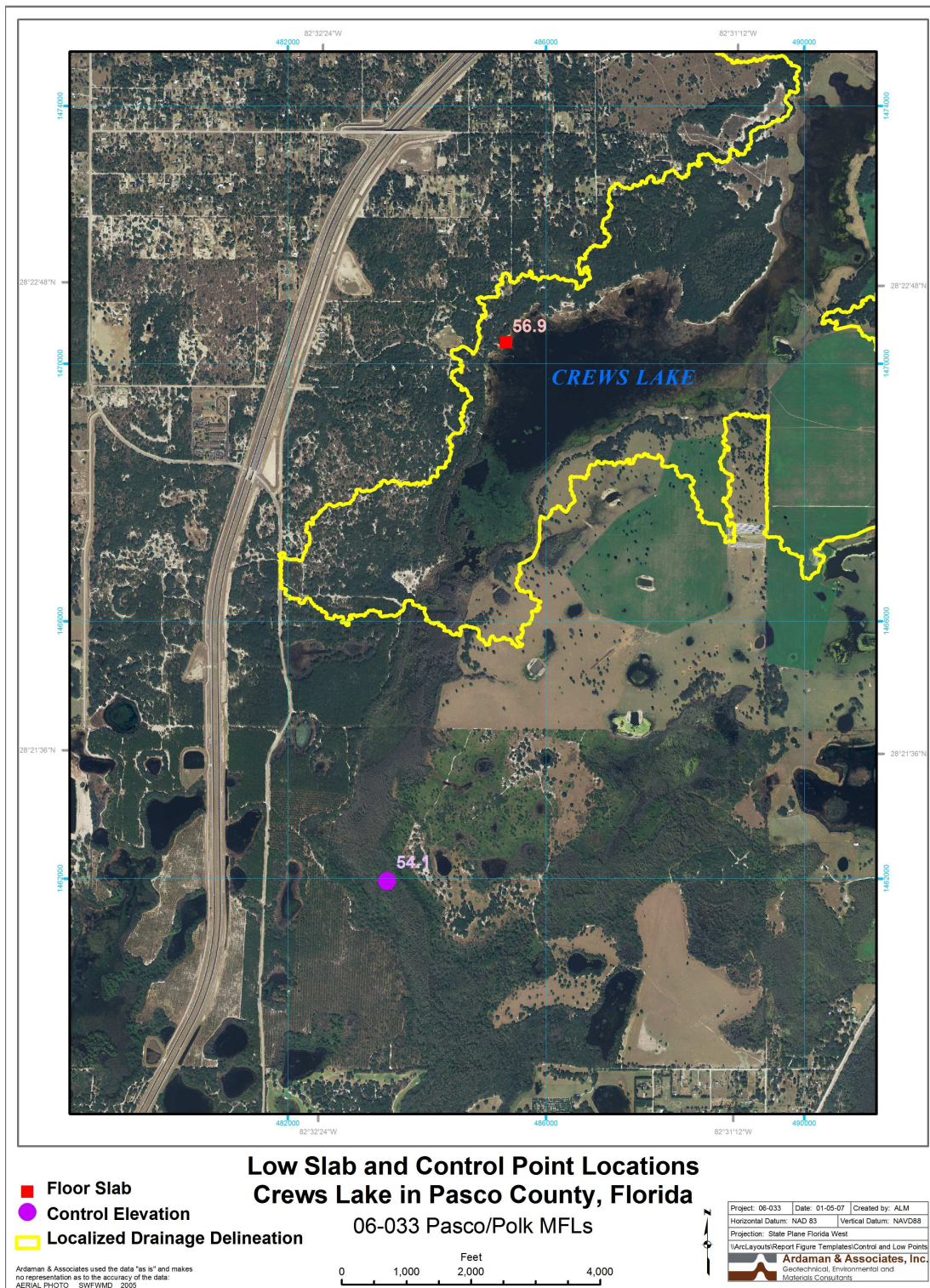


Figure 3. Locations of the Low Slab and Control Point for the Crews Lake Watershed in Pasco County, Florida.

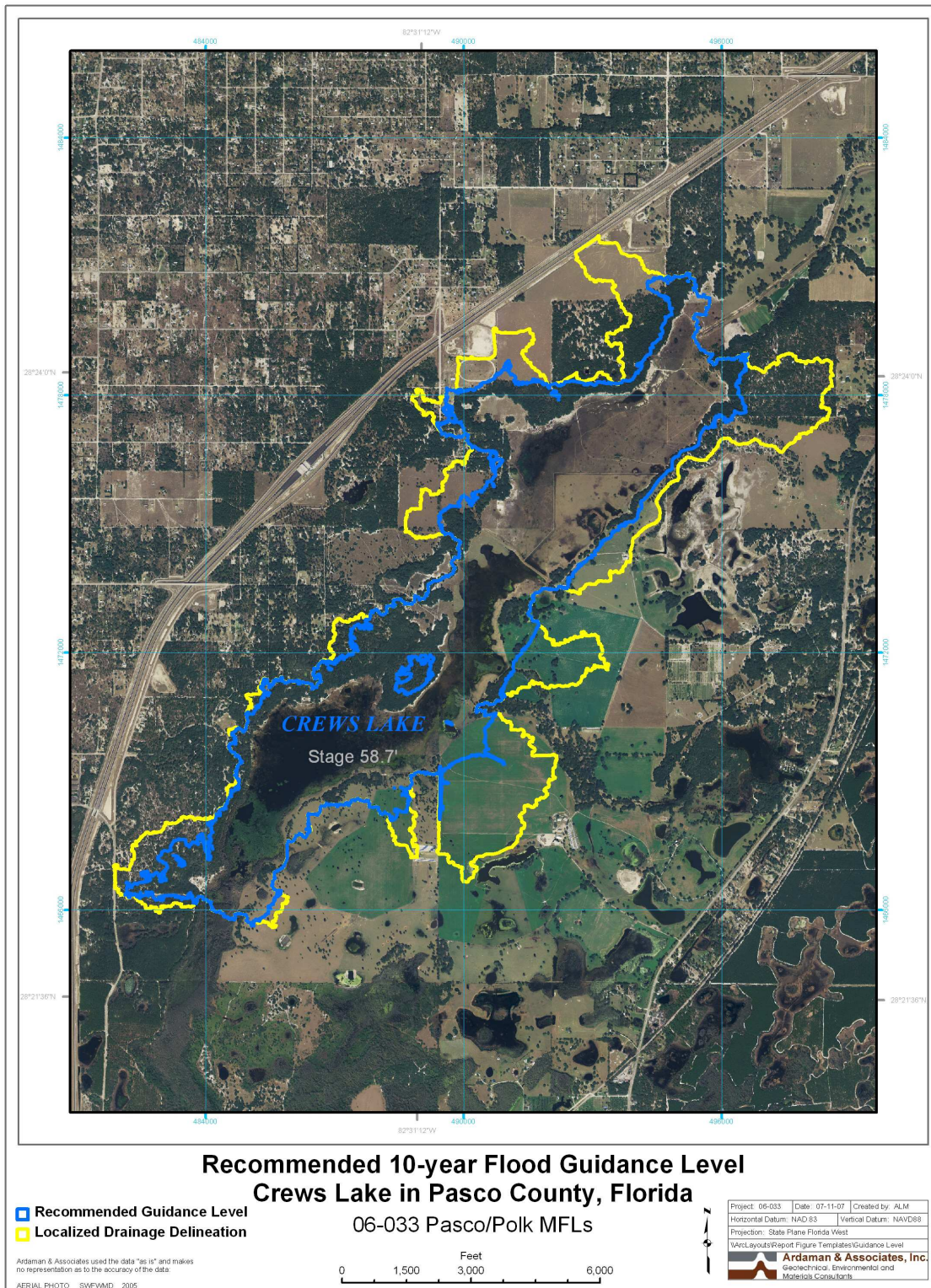


Figure 4. Aerial Extent of Recommended Ten Year Flood Guidance Level and Local Drainage Area for Crews Lake in Pasco County, Florida.

Appendix B

Tables.

Table 1. Storm Event Simulation Results for the Crews Lake Watershed.

Return Period (Years)	Rainfall Duration (Days)	Rainfall Volume (Inches)	Maximum Stage ¹ (ft, NGVD)
2.33	1	5.3	54.7
10	1	7.5	55.5
25	1	9.0	57.6
50	1	10.5	58.2
100	1	12.5	59.4
500	1	15.1	60.6
10	5	11.3	58.7
50	5	15.7	60.8
100	5	17.0	61.4
500	5	21.4	62.1

¹Based on an initial elevation of 53.0 ft, NGVD

Table 2. Ten Year Recurrence Elevations for the Crews Lake Watershed.

Description	Elevation (ft, NGVD)
Currently adopted SWFWMD Ten Year Flood Guidance Level	57.0
Ten year recurrence level based on statistical analysis of available historical data	55.8
Initial elevation used for storm event simulation	53.0
Ten year recurrence level based on results from 5 day duration storm event simulation	58.7

Appendix C

Previously Adopted Guidance Levels Data Sheet.

Crews Lake Data Sheet

Location : Sec. 16, T. 24 S., R. 18 E.

County : Pasco **Basin :** Coastal - 15

Size : 693 acres **Sta. ID # :** 120 120

Drainage Area (sq. miles) : 138

Hydrologic Record : March 1964 - current

USGS Quad. map: Port Richey NE

Number of Property Owners : several

Date of Field Check : 3/16/84

Checked by : R. D. Gant

Reviewed by : P. M. Dooris

Remarks and Recommendations :

Elevation shown on 1954 Port Richey NE USGS quad map - 56.00'

Elevation shown on 1974 District aerial mapping - 50.30'

Elevations NGVD (msl)		Remarks	Elevations NGVD (msl)		Remarks
High of Record:	56.60'	Sept. 24, 1964	High Dock:	-	none
10-Yr. Warning:	57.00'	adopted 11/7/84	High Seawall:	-	none
Min. Flood:	55.00'	adopted 11/7/84	Low Dock:	-	
Max. Desirable:	54.50'		Low Seawall:	-	
Min. Level (Low):	52.00'	adopted 11/7/84	Low Floor:	60.78'	by survey
Min. Level (Ext. Low):	50.00'	adopted 11/7/84	Low Road:	N/D	
Low of Record:	dry	1968, 1973, 1994, 2000, 2001			

Items*	Yes	No	N/D	Remarks
Inlets	X			from Jumping Gulley and Masaryktown Canal
Outlets	X			headwaters of the Pithlachascotee River
Public Access	X			County operated park with boat ramp on south shore
Staff Gauge	X			discontinued USGS gauge on south shore District Reg. gauge on south shore - Datum NGVD
*Meandered		X		
WUP Withdrawal		X		
Augmentation		X		
Storm Drainage		X		
Dredge Holes		X		natural sinkhole located on northwest shore
Development Canals		X		
Water Quality	X			District and USGS data
Control Structure		X		
Bottom Contouring		X		
Hydrograph	X			
Aerial Mapping	X			District mapping w/ 1' contouring

*Information from Florida Lakes Gazetteer
N/D Not determined

Lake Levels Program - Environmental Section
Southwest Florida Water Management District

Appendix D

Historical Staff Gauge Data.

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
3/20/1964	55.2	8/24/1964	55.18	12/15/1966	53.02
3/23/1964	55.1	8/26/1964	55.2	2/10/1967	52.31
3/25/1964	55	9/1/1964	55.08	4/3/1967	52.08
3/28/1964	55.08	9/4/1964	55.2	5/4/1967	51.28
3/29/1964	55.25	9/8/1964	55.15	5/19/1967	50.83
4/1/1964	55.3	9/11/1964	56.1	9/4/1968	52.82
4/6/1964	55.25	9/16/1964	56.3	10/11/1968	52.83
4/10/1964	55.12	9/24/1964	56.6	11/5/1968	52.94
4/16/1964	54.96	10/3/1964	56.6	11/25/1968	52.66
4/20/1964	54.78	10/12/1964	55.94	1/15/1969	52.17
4/25/1964	54.55	10/24/1964	55.55	2/13/1969	51.9
4/28/1964	54.44	10/28/1964	55.35	3/27/1969	52.91
4/29/1964	54.5	11/6/1964	55.2	5/15/1969	51.76
5/4/1964	54.6	11/12/1964	55	6/11/1969	51.41
5/6/1964	54.55	11/18/1964	54.8	7/25/1969	51.61
5/11/1964	54.4	11/23/1964	54.7	8/25/1969	53.61
5/15/1964	54.3	12/1/1964	54.45	10/20/1969	53.3
5/19/1964	54.1	12/3/1964	54.4	11/19/1969	55.32
5/22/1964	53.9	12/8/1964	54.6	1/8/1970	56.14
5/25/1964	53.75	12/16/1964	54.5	2/11/1970	56.5
5/30/1964	53.55	12/21/1964	54.48	3/25/1970	56.1
6/4/1964	53.3	12/30/1964	54.35	4/7/1970	55.85
6/9/1964	53.2	1/5/1965	54.19	5/4/1970	54.82
6/11/1964	53.26	1/11/1965	54	6/19/1970	53.56
6/13/1964	53.1	1/19/1965	53.92	7/30/1970	52.44
6/15/1964	53.02	1/28/1965	53.8	8/20/1970	52.52
6/17/1964	52.92	2/5/1965	53.6	10/2/1970	53.31
6/20/1964	52.9	2/8/1965	53.65	11/6/1970	52.54
6/24/1964	52.76	2/12/1965	53.6	12/17/1970	52.02
6/29/1964	52.74	2/18/1965	53.45	1/29/1971	51.85
7/2/1964	52.7	4/23/1965	52.39	3/19/1971	52.8
7/6/1964	53.02	5/21/1965	51	4/23/1971	52.16
7/10/1964	53	6/4/1965	50.51	5/20/1971	51.86
7/12/1964	52.92	6/7/1965	50.33	6/8/1971	51.3
7/15/1964	52.84	6/11/1965	51.15	7/15/1971	50.96
7/19/1964	53	7/15/1965	51.12	8/24/1971	51.34
7/22/1964	53.2	8/31/1965	56.18	10/7/1971	53.53
7/27/1964	54.4	10/18/1965	55.66	11/19/1971	52.81
7/30/1964	54.7	11/29/1965	54.54	1/11/1972	51.12
8/2/1964	54.8	1/17/1966	53.57	3/10/1972	52.49
8/5/1964	55	3/4/1966	54.26	3/21/1972	52.32
8/10/1964	55.04	3/28/1966	53.9	5/12/1972	51.59
8/12/1964	55.06	4/21/1966	53.8	6/23/1972	51.54
8/15/1964	55.06	5/23/1966	52.52	8/1/1972	50.99
8/18/1964	55.08	8/29/1966	54.25	3/6/1973	49.7
8/20/1964	55.1	9/2/1966	54.33	8/23/1973	50.18

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
5/4/1979	50.29	6/19/1979	51.84	8/4/1979	51.11
5/5/1979	50.25	6/20/1979	51.81	8/5/1979	51.09
5/6/1979	50.24	6/21/1979	51.78	8/6/1979	51.1
5/7/1979	50.31	6/22/1979	51.75	8/7/1979	51.26
5/8/1979	51.1	6/23/1979	51.73	8/8/1979	51.36
5/9/1979	51.68	6/24/1979	51.69	8/9/1979	51.54
5/10/1979	51.75	6/25/1979	51.66	8/10/1979	51.56
5/11/1979	51.93	6/26/1979	51.64	8/11/1979	51.61
5/12/1979	52.05	6/27/1979	51.65	8/12/1979	51.8
5/13/1979	52.12	6/28/1979	51.68	8/13/1979	51.93
5/14/1979	52.12	6/29/1979	51.66	8/14/1979	51.97
5/15/1979	52.13	6/30/1979	51.64	8/15/1979	52
5/16/1979	52.13	7/1/1979	51.6	8/16/1979	52.02
5/17/1979	52.14	7/2/1979	51.57	8/17/1979	52.12
5/18/1979	52.14	7/3/1979	51.54	8/18/1979	52.25
5/19/1979	52.15	7/4/1979	51.51	8/19/1979	52.33
5/20/1979	52.15	7/5/1979	51.5	8/20/1979	52.47
5/21/1979	52.16	7/6/1979	51.5	8/21/1979	52.66
5/22/1979	52.17	7/7/1979	51.5	8/22/1979	52.78
5/23/1979	52.17	7/8/1979	51.55	8/23/1979	52.99
5/24/1979	52.18	7/9/1979	51.57	8/24/1979	53.23
5/25/1979	52.18	7/10/1979	51.54	8/25/1979	53.28
5/26/1979	52.19	7/11/1979	51.51	8/26/1979	53.29
5/27/1979	52.2	7/12/1979	51.48	8/27/1979	53.29
5/28/1979	52.2	7/13/1979	51.45	8/28/1979	53.34
5/29/1979	52.21	7/14/1979	51.43	8/29/1979	53.42
5/30/1979	52.22	7/15/1979	51.4	8/30/1979	53.5
5/31/1979	52.23	7/16/1979	51.39	8/31/1979	53.59
6/1/1979	52.23	7/17/1979	51.41	9/1/1979	53.68
6/2/1979	52.24	7/18/1979	51.4	9/2/1979	53.75
6/3/1979	52.24	7/19/1979	51.4	9/3/1979	53.85
6/4/1979	52.25	7/20/1979	51.41	9/4/1979	53.93
6/5/1979	52.25	7/21/1979	51.39	9/5/1979	54.02
6/6/1979	52.26	7/22/1979	51.35	9/6/1979	54.11
6/7/1979	52.24	7/23/1979	51.33	9/7/1979	54.1
6/8/1979	52.21	7/24/1979	51.34	9/8/1979	54.08
6/9/1979	52.17	7/25/1979	51.34	9/9/1979	54.06
6/10/1979	52.13	7/26/1979	51.32	9/10/1979	54.05
6/11/1979	52.09	7/27/1979	51.29	9/11/1979	54.04
6/12/1979	52.07	7/28/1979	51.26	9/12/1979	54.05
6/13/1979	52.03	7/29/1979	51.24	9/13/1979	54.12
6/14/1979	52	7/30/1979	51.21	9/14/1979	54.21
6/15/1979	51.96	7/31/1979	51.17	9/15/1979	54.49
6/16/1979	51.92	8/1/1979	51.14	9/16/1979	54.64
6/17/1979	51.89	8/2/1979	51.14	9/17/1979	54.72
6/18/1979	50.06	8/3/1979	51.14	9/18/1979	54.78

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
9/19/1979	54.82	11/4/1979	53.59	12/20/1979	52.47
9/20/1979	54.85	11/5/1979	53.52	12/21/1979	52.46
9/21/1979	54.87	11/6/1979	53.46	12/22/1979	52.44
9/22/1979	54.9	11/7/1979	53.4	12/23/1979	52.43
9/23/1979	54.99	11/8/1979	53.34	12/24/1979	52.41
9/24/1979	55.2	11/9/1979	53.29	12/25/1979	52.4
9/25/1979	55.29	11/10/1979	53.24	12/26/1979	52.38
9/26/1979	55.44	11/11/1979	53.21	12/27/1979	52.37
9/27/1979	55.63	11/12/1979	53.2	12/28/1979	52.35
9/28/1979	55.67	11/13/1979	53.25	12/29/1979	52.34
9/29/1979	55.72	11/14/1979	53.24	12/30/1979	52.33
9/30/1979	55.76	11/15/1979	53.19	12/31/1979	52.31
10/1/1979	55.71	11/16/1979	53.15	1/1/1980	52.3
10/2/1979	55.66	11/17/1979	53.12	1/2/1980	52.28
10/3/1979	55.61	11/18/1979	53.08	1/3/1980	52.27
10/4/1979	55.56	11/19/1979	53.05	1/4/1980	52.26
10/5/1979	55.51	11/20/1979	53.02	1/5/1980	52.26
10/6/1979	55.44	11/21/1979	53	1/6/1980	52.25
10/7/1979	55.37	11/22/1979	52.97	1/7/1980	52.24
10/8/1979	55.3	11/23/1979	52.93	1/8/1980	52.22
10/9/1979	55.24	11/24/1979	52.9	1/9/1980	52.22
10/10/1979	55.21	11/25/1979	52.88	1/10/1980	52.21
10/11/1979	55.21	11/26/1979	52.86	1/11/1980	52.2
10/12/1979	55.18	11/27/1979	52.84	1/12/1980	52.2
10/13/1979	55.13	11/28/1979	52.82	1/13/1980	52.22
10/14/1979	55.09	11/29/1979	52.8	1/14/1980	52.22
10/15/1979	55.04	11/30/1979	52.77	1/15/1980	52.23
10/16/1979	54.97	12/1/1979	52.74	1/16/1980	52.21
10/17/1979	54.91	12/2/1979	52.71	1/17/1980	52.2
10/18/1979	54.84	12/3/1979	52.69	1/18/1980	52.19
10/19/1979	54.77	12/4/1979	52.67	1/19/1980	52.18
10/20/1979	54.69	12/5/1979	52.65	1/20/1980	52.16
10/21/1979	54.6	12/6/1979	52.63	1/21/1980	52.15
10/22/1979	54.51	12/7/1979	52.64	1/22/1980	52.13
10/23/1979	54.44	12/8/1979	52.63	1/23/1980	52.12
10/24/1979	54.37	12/9/1979	52.61	1/24/1980	52.12
10/25/1979	54.28	12/10/1979	52.59	1/25/1980	52.1
10/26/1979	54.2	12/11/1979	52.57	1/26/1980	52.12
10/27/1979	54.12	12/12/1979	52.56	1/27/1980	52.17
10/28/1979	54.05	12/13/1979	52.54	1/28/1980	52.17
10/29/1979	53.97	12/14/1979	52.52	1/29/1980	52.16
10/30/1979	53.9	12/15/1979	52.51	1/30/1980	52.15
10/31/1979	53.83	12/16/1979	52.51	1/31/1980	52.13
11/1/1979	53.78	12/17/1979	52.53	2/1/1980	52.12
11/2/1979	53.71	12/18/1979	52.5	2/2/1980	52.1
11/3/1979	53.65	12/19/1979	52.48	2/3/1980	52.08

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
2/4/1980	52.06	3/21/1980	52.03	5/6/1980	52.01
2/5/1980	52.05	3/22/1980	52.02	5/7/1980	52
2/6/1980	52.03	3/23/1980	52.01	5/8/1980	52
2/7/1980	52.02	3/24/1980	52	5/9/1980	52
2/8/1980	52.01	3/25/1980	51.98	5/10/1980	52
2/9/1980	51.99	3/26/1980	51.98	5/11/1980	51.98
2/10/1980	52	3/27/1980	51.97	5/12/1980	51.96
2/11/1980	52	3/28/1980	52	5/13/1980	51.93
2/12/1980	51.98	3/29/1980	52.02	5/14/1980	51.9
2/13/1980	51.97	3/30/1980	52.03	5/15/1980	51.87
2/14/1980	51.97	3/31/1980	52.07	5/16/1980	51.84
2/15/1980	51.98	4/1/1980	52.08	5/17/1980	51.82
2/16/1980	51.97	4/2/1980	52.07	5/18/1980	51.79
2/17/1980	51.99	4/3/1980	52.06	5/19/1980	51.77
2/18/1980	51.99	4/4/1980	52.05	5/20/1980	51.73
2/19/1980	51.98	4/5/1980	52.04	5/21/1980	51.71
2/20/1980	51.96	4/6/1980	52.03	5/22/1980	51.73
2/21/1980	51.95	4/7/1980	52.03	5/23/1980	51.78
2/22/1980	51.93	4/8/1980	52.03	5/24/1980	51.81
2/23/1980	51.92	4/9/1980	52.04	5/25/1980	51.8
2/24/1980	51.91	4/10/1980	52.06	5/26/1980	51.88
2/25/1980	51.91	4/11/1980	52.08	5/27/1980	51.88
2/26/1980	51.94	4/12/1980	52.09	5/28/1980	51.86
2/27/1980	51.92	4/13/1980	52.12	5/29/1980	51.83
2/28/1980	51.9	4/14/1980	52.15	5/30/1980	51.81
2/29/1980	51.88	4/15/1980	52.12	5/31/1980	51.78
3/1/1980	51.93	4/16/1980	52.1	6/1/1980	51.75
3/2/1980	52.09	4/17/1980	52.09	6/2/1980	51.72
3/3/1980	52.08	4/18/1980	52.07	6/3/1980	51.68
3/4/1980	52.07	4/19/1980	52.06	6/4/1980	51.65
3/5/1980	52.06	4/20/1980	52.05	6/5/1980	51.62
3/6/1980	52.05	4/21/1980	52.04	6/6/1980	51.59
3/7/1980	52.04	4/22/1980	52.04	6/7/1980	51.56
3/8/1980	52.03	4/23/1980	52.04	6/8/1980	51.53
3/9/1980	52.03	4/24/1980	52.03	6/9/1980	51.5
3/10/1980	52.03	4/25/1980	52.03	6/10/1980	51.51
3/11/1980	52.03	4/26/1980	52.03	6/11/1980	51.53
3/12/1980	52.05	4/27/1980	52.02	6/12/1980	51.51
3/13/1980	52.08	4/28/1980	52.02	6/13/1980	51.48
3/14/1980	52.13	4/29/1980	52.03	6/14/1980	51.44
3/15/1980	52.12	4/30/1980	52.03	6/15/1980	51.4
3/16/1980	52.1	5/1/1980	52.03	6/16/1980	51.37
3/17/1980	52.08	5/2/1980	52.02	6/17/1980	51.33
3/18/1980	52.06	5/3/1980	52.01	6/18/1980	51.3
3/19/1980	52.04	5/4/1980	52.01	6/19/1980	51.27
3/20/1980	52.03	5/5/1980	52.01	6/20/1980	51.25

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
6/21/1980	51.25	8/6/1980	51.22	9/21/1980	51.26
6/22/1980	51.29	8/7/1980	51.21	9/22/1980	51.22
6/23/1980	51.3	8/8/1980	51.16	9/23/1980	51.15
6/24/1980	51.32	8/9/1980	51.11	9/24/1980	51.15
6/25/1980	51.35	8/10/1980	51.12	9/25/1980	51.15
6/26/1980	51.34	8/11/1980	51.19	9/26/1980	51.14
6/27/1980	51.38	8/12/1980	51.23	9/27/1980	51.12
6/28/1980	51.35	8/13/1980	51.26	9/28/1980	51.1
6/29/1980	51.32	8/14/1980	51.27	9/29/1980	51.09
6/30/1980	51.31	8/15/1980	51.27	9/30/1980	51.07
7/1/1980	51.3	8/16/1980	51.26	10/1/1980	51.05
7/2/1980	51.3	8/17/1980	51.24	10/2/1980	51.07
7/3/1980	51.3	8/18/1980	51.25	10/3/1980	51.08
7/4/1980	51.29	8/19/1980	51.28	10/4/1980	51.06
7/5/1980	51.28	8/20/1980	51.31	10/5/1980	51.04
7/6/1980	51.28	8/21/1980	51.31	10/6/1980	51.01
7/7/1980	51.27	8/22/1980	51.29	10/7/1980	50.99
7/8/1980	51.27	8/23/1980	51.28	10/8/1980	50.96
7/9/1980	51.27	8/24/1980	51.29	10/9/1980	50.94
7/10/1980	51.25	8/25/1980	51.3	10/10/1980	50.91
7/11/1980	51.21	8/26/1980	51.3	10/11/1980	50.87
7/12/1980	51.17	8/27/1980	51.29	10/12/1980	50.84
7/13/1980	51.13	8/28/1980	51.27	10/13/1980	50.81
7/14/1980	51.11	8/29/1980	51.24	10/14/1980	50.79
7/15/1980	51.12	8/30/1980	51.22	10/15/1980	50.77
7/16/1980	51.17	8/31/1980	51.17	10/16/1980	50.75
7/17/1980	51.15	9/1/1980	51.14	10/17/1980	50.72
7/18/1980	51.14	9/2/1980	51.15	10/18/1980	50.68
7/19/1980	51.14	9/3/1980	51.18	10/19/1980	50.66
7/20/1980	51.21	9/4/1980	51.18	10/20/1980	50.65
7/21/1980	51.27	9/5/1980	51.19	10/21/1980	50.63
7/22/1980	51.26	9/6/1980	51.18	10/22/1980	50.61
7/23/1980	51.25	9/7/1980	51.2	10/23/1980	50.59
7/24/1980	51.26	9/8/1980	51.25	10/24/1980	50.59
7/25/1980	51.34	9/9/1980	51.25	10/25/1980	50.56
7/26/1980	51.39	9/10/1980	51.25	10/26/1980	50.54
7/27/1980	51.39	9/11/1980	51.23	10/27/1980	50.51
7/28/1980	51.39	9/12/1980	51.21	10/28/1980	50.49
7/29/1980	51.38	9/13/1980	51.19	10/29/1980	50.48
7/30/1980	51.37	9/14/1980	51.17	10/30/1980	50.47
7/31/1980	51.35	9/15/1980	51.15	10/31/1980	50.46
8/1/1980	51.32	9/16/1980	51.15	11/1/1980	50.43
8/2/1980	51.28	9/17/1980	51.21	11/2/1980	50.4
8/3/1980	51.25	9/18/1980	51.26	11/3/1980	50.38
8/4/1980	51.23	9/19/1980	51.26	11/4/1980	50.36
8/5/1980	51.22	9/20/1980	51.26	11/5/1980	50.34

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
11/6/1980	50.3	12/22/1980	50.05	2/6/1981	49.35
11/7/1980	50.28	12/23/1980	50.03	2/7/1981	49.34
11/8/1980	50.25	12/24/1980	50.02	2/8/1981	49.54
11/9/1980	50.23	12/25/1980	50	2/9/1981	49.64
11/10/1980	50.22	12/26/1980	49.97	2/10/1981	49.65
11/11/1980	50.22	12/27/1980	49.95	2/11/1981	49.66
11/12/1980	50.19	12/28/1980	49.94	2/12/1981	49.68
11/13/1980	50.16	12/29/1980	49.92	2/13/1981	49.67
11/14/1980	50.14	12/30/1980	49.9	2/14/1981	49.66
11/15/1980	50.3	12/31/1980	49.88	2/15/1981	49.65
11/16/1980	50.38	1/1/1981	49.86	2/16/1981	49.64
11/17/1980	50.4	1/2/1981	49.85	2/17/1981	49.62
11/18/1980	50.41	1/3/1981	49.84	2/18/1981	49.61
11/19/1980	50.41	1/4/1981	49.82	2/19/1981	49.59
11/20/1980	50.41	1/5/1981	49.81	2/20/1981	49.57
11/21/1980	50.38	1/6/1981	49.78	2/21/1981	49.54
11/22/1980	50.36	1/7/1981	49.77	2/22/1981	49.52
11/23/1980	50.34	1/8/1981	49.76	2/23/1981	49.52
11/24/1980	50.33	1/9/1981	49.75	2/24/1981	49.48
11/25/1980	50.35	1/10/1981	49.73	2/25/1981	49.45
11/26/1980	50.35	1/11/1981	49.71	2/26/1981	49.43
11/27/1980	50.34	1/12/1981	49.69	2/27/1981	49.41
11/28/1980	50.37	1/13/1981	49.67	2/28/1981	49.39
11/29/1980	50.37	1/14/1981	49.66	3/1/1981	49.35
11/30/1980	50.36	1/15/1981	49.65	3/2/1981	49.33
12/1/1980	50.35	1/16/1981	49.63	3/3/1981	49.32
12/2/1980	50.33	1/17/1981	49.61	3/4/1981	49.3
12/3/1980	50.32	1/18/1981	49.59	3/5/1981	49.28
12/4/1980	50.3	1/19/1981	49.57	3/6/1981	49.28
12/5/1980	50.28	1/20/1981	49.56	3/7/1981	49.27
12/6/1980	50.26	1/21/1981	49.57	3/8/1981	49.25
12/7/1980	50.25	1/22/1981	49.57	3/9/1981	49.23
12/8/1980	50.23	1/23/1981	49.57	3/10/1981	49.2
12/9/1980	50.21	1/24/1981	49.55	3/11/1981	49.18
12/10/1980	50.19	1/25/1981	49.54	3/12/1981	49.15
12/11/1980	50.18	1/26/1981	49.52	3/13/1981	49.13
12/12/1980	50.16	1/27/1981	49.51	3/14/1981	49.11
12/13/1980	50.12	1/28/1981	49.51	3/15/1981	49.08
12/14/1980	50.1	1/29/1981	49.5	3/16/1981	49.04
12/15/1980	50.09	1/30/1981	49.47	3/17/1981	49.03
12/16/1980	50.08	1/31/1981	49.46	3/18/1981	49.01
12/17/1980	50.09	2/1/1981	49.44	3/19/1981	49.02
12/18/1980	50.09	2/2/1981	49.41	3/20/1981	49
12/19/1980	50.09	2/3/1981	49.41	3/21/1981	48.99
12/20/1980	50.08	2/4/1981	49.38	3/22/1981	49.04
12/21/1980	50.07	2/5/1981	49.36	3/23/1981	49.13

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
3/24/1981	49.13	5/9/1981	47.94	6/24/1981	47.7
3/25/1981	49.13	5/10/1981	47.9	6/25/1981	47.69
3/26/1981	49.13	5/11/1981	47.87	6/26/1981	47.66
3/27/1981	49.12	5/12/1981	47.84	6/27/1981	47.65
3/28/1981	49.1	5/13/1981	47.81	6/28/1981	47.64
3/29/1981	49.07	5/14/1981	47.78	6/29/1981	47.6
3/30/1981	49.03	5/15/1981	47.74	6/30/1981	47.56
3/31/1981	49.03	5/16/1981	47.7	7/1/1981	47.51
4/1/1981	49.03	5/17/1981	47.67	7/2/1981	47.47
4/2/1981	49.01	5/18/1981	47.63	7/3/1981	47.43
4/3/1981	48.98	5/19/1981	47.61	7/4/1981	47.41
4/4/1981	48.95	5/20/1981	47.55	7/5/1981	47.37
4/5/1981	48.92	5/21/1981	47.53	7/6/1981	47.34
4/6/1981	48.88	5/22/1981	47.53	7/7/1981	47.31
4/7/1981	48.86	5/23/1981	47.47	7/8/1981	47.28
4/8/1981	48.83	5/24/1981	47.43	7/9/1981	47.26
4/9/1981	48.8	5/25/1981	47.4	7/10/1981	47.24
4/10/1981	48.78	5/26/1981	47.36	7/11/1981	47.19
4/11/1981	48.75	5/27/1981	47.37	7/12/1981	47.19
4/12/1981	48.73	5/28/1981	47.34	7/13/1981	47.16
4/13/1981	48.69	5/29/1981	47.33	7/14/1981	47.13
4/14/1981	48.67	5/30/1981	47.3	7/15/1981	47.1
4/15/1981	48.64	5/31/1981	47.27	7/16/1981	47.07
4/16/1981	48.61	6/1/1981	47.23	7/17/1981	47.07
4/17/1981	48.57	6/2/1981	47.19	7/18/1981	47.19
4/18/1981	48.54	6/3/1981	47.18	7/19/1981	47.36
4/19/1981	48.51	6/4/1981	47.23	7/20/1981	47.56
4/20/1981	48.48	6/5/1981	47.42	7/21/1981	47.56
4/21/1981	48.46	6/6/1981	47.41	7/22/1981	47.54
4/22/1981	48.44	6/7/1981	47.37	7/23/1981	47.6
4/23/1981	48.41	6/8/1981	47.32	7/24/1981	47.8
4/24/1981	48.39	6/9/1981	47.27	7/25/1981	47.8
4/25/1981	48.36	6/10/1981	47.23	7/26/1981	47.79
4/26/1981	48.33	6/11/1981	47.23	7/27/1981	47.8
4/27/1981	48.32	6/12/1981	47.27	7/28/1981	47.79
4/28/1981	48.3	6/13/1981	47.24	7/29/1981	47.8
4/29/1981	48.27	6/14/1981	47.21	7/30/1981	48.01
4/30/1981	48.24	6/15/1981	47.18	7/31/1981	48.53
5/1/1981	48.21	6/16/1981	47.13	8/1/1981	48.58
5/2/1981	48.19	6/17/1981	47.09	8/2/1981	48.58
5/3/1981	48.13	6/18/1981	47.05	8/3/1981	48.57
5/4/1981	48.09	6/19/1981	47.06	8/4/1981	48.58
5/5/1981	48.06	6/20/1981	47.63	8/5/1981	48.64
5/6/1981	48.02	6/21/1981	47.65	8/6/1981	48.63
5/7/1981	47.99	6/22/1981	47.7	8/7/1981	48.64
5/8/1981	47.97	6/23/1981	47.7	8/8/1981	48.62

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
8/9/1981	48.63	9/24/1981	49.87	11/9/1981	49
8/10/1981	48.63	9/25/1981	49.85	11/10/1981	48.99
8/11/1981	48.6	9/26/1981	49.83	11/11/1981	48.98
8/12/1981	48.6	9/27/1981	49.8	11/12/1981	48.96
8/13/1981	48.58	9/28/1981	49.78	11/13/1981	48.95
8/14/1981	48.56	9/29/1981	49.76	11/14/1981	48.92
8/15/1981	48.53	9/30/1981	49.74	11/15/1981	48.9
8/16/1981	48.5	10/1/1981	49.72	11/16/1981	48.87
8/17/1981	48.47	10/2/1981	49.7	11/17/1981	48.87
8/18/1981	48.45	10/3/1981	49.67	11/18/1981	48.86
8/19/1981	48.42	10/4/1981	49.65	11/19/1981	48.84
8/20/1981	48.46	10/5/1981	49.63	11/20/1981	48.84
8/21/1981	48.55	10/6/1981	49.61	11/21/1981	48.84
8/22/1981	48.57	10/7/1981	49.58	11/22/1981	48.82
8/23/1981	48.57	10/8/1981	49.56	11/23/1981	48.8
8/24/1981	48.58	10/9/1981	49.54	11/24/1981	48.78
8/25/1981	48.62	10/10/1981	49.52	11/25/1981	48.76
8/26/1981	48.65	10/11/1981	49.5	11/26/1981	48.75
8/27/1981	48.8	10/12/1981	49.48	11/27/1981	48.73
8/28/1981	48.96	10/13/1981	49.46	11/28/1981	48.71
8/29/1981	49.1	10/14/1981	49.43	11/29/1981	48.7
8/30/1981	49.19	10/15/1981	49.4	11/30/1981	48.69
8/31/1981	49.2	10/16/1981	49.4	12/1/1981	48.66
9/1/1981	49.21	10/17/1981	49.4	12/2/1981	48.66
9/2/1981	49.2	10/18/1981	49.4	12/3/1981	48.66
9/3/1981	49.2	10/19/1981	49.3	12/4/1981	48.64
9/4/1981	49.17	10/20/1981	49.3	12/5/1981	48.62
9/5/1981	49.12	10/21/1981	49.3	12/6/1981	48.6
9/6/1981	49.15	10/22/1981	49.3	12/7/1981	48.58
9/7/1981	49.31	10/23/1981	49.2	12/8/1981	48.56
9/8/1981	49.31	10/24/1981	49.2	12/9/1981	48.54
9/9/1981	49.29	10/25/1981	49.2	12/10/1981	48.52
9/10/1981	49.31	10/26/1981	49.2	12/11/1981	48.5
9/11/1981	49.37	10/27/1981	49.1	12/12/1981	48.49
9/12/1981	49.39	10/28/1981	49.1	12/13/1981	48.48
9/13/1981	49.38	10/29/1981	49.1	12/14/1981	48.47
9/14/1981	49.37	10/30/1981	49.1	12/15/1981	48.5
9/15/1981	49.36	10/31/1981	49	12/16/1981	48.52
9/16/1981	49.36	11/1/1981	49	12/17/1981	48.5
9/17/1981	49.52	11/2/1981	49	12/18/1981	48.48
9/18/1981	49.78	11/3/1981	49.06	12/19/1981	48.47
9/19/1981	49.83	11/4/1981	49.05	12/20/1981	48.45
9/20/1981	49.85	11/5/1981	49.07	12/21/1981	48.43
9/21/1981	49.86	11/6/1981	49.06	12/22/1981	48.42
9/22/1981	49.87	11/7/1981	49.04	12/23/1981	48.4
9/23/1981	49.88	11/8/1981	49.02	12/24/1981	48.39

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
12/25/1981	48.38	2/9/1982	49.96	3/27/1982	50.59
12/26/1981	48.48	2/10/1982	49.96	3/28/1982	50.63
12/27/1981	48.94	2/11/1982	49.96	3/29/1982	50.73
12/28/1981	49.11	2/12/1982	49.96	3/30/1982	50.75
12/29/1981	49.15	2/13/1982	50.04	3/31/1982	50.75
12/30/1981	49.17	2/14/1982	50.05	4/1/1982	50.75
12/31/1981	49.17	2/15/1982	50.06	4/2/1982	50.74
1/1/1982	49.21	2/16/1982	50.11	4/3/1982	50.72
1/2/1982	49.23	2/17/1982	50.18	4/4/1982	50.71
1/3/1982	49.26	2/18/1982	50.2	4/5/1982	50.68
1/4/1982	49.28	2/19/1982	50.19	4/6/1982	50.66
1/5/1982	49.31	2/20/1982	50.19	4/7/1982	50.65
1/6/1982	49.31	2/21/1982	50.17	4/8/1982	50.6
1/7/1982	49.3	2/22/1982	50.17	4/9/1982	50.61
1/8/1982	49.31	2/23/1982	50.16	4/10/1982	50.64
1/9/1982	49.29	2/24/1982	50.16	4/11/1982	50.71
1/10/1982	49.28	2/25/1982	50.15	4/12/1982	50.71
1/11/1982	49.27	2/26/1982	50.16	4/13/1982	50.69
1/12/1982	49.26	2/27/1982	50.14	4/14/1982	50.68
1/13/1982	49.3	2/28/1982	50.14	4/15/1982	50.66
1/14/1982	49.55	3/1/1982	50.14	4/16/1982	50.64
1/15/1982	49.7	3/2/1982	50.12	4/17/1982	50.62
1/16/1982	49.74	3/3/1982	50.11	4/18/1982	50.6
1/17/1982	49.76	3/4/1982	50.1	4/19/1982	50.57
1/18/1982	49.78	3/5/1982	50.09	4/20/1982	50.55
1/19/1982	49.79	3/6/1982	50.33	4/21/1982	50.52
1/20/1982	49.8	3/7/1982	50.46	4/22/1982	50.49
1/21/1982	49.82	3/8/1982	50.53	4/23/1982	50.48
1/22/1982	49.84	3/9/1982	50.55	4/24/1982	50.44
1/23/1982	49.85	3/10/1982	50.55	4/25/1982	50.42
1/24/1982	49.89	3/11/1982	50.56	4/26/1982	50.43
1/25/1982	49.89	3/12/1982	50.56	4/27/1982	50.41
1/26/1982	49.9	3/13/1982	50.56	4/28/1982	50.39
1/27/1982	49.91	3/14/1982	50.56	4/29/1982	50.38
1/28/1982	49.91	3/15/1982	50.56	4/30/1982	50.36
1/29/1982	49.91	3/16/1982	50.55	5/1/1982	50.33
1/30/1982	49.91	3/17/1982	50.54	5/2/1982	50.29
1/31/1982	49.91	3/18/1982	50.53	5/3/1982	50.26
2/1/1982	49.91	3/19/1982	50.52	5/4/1982	50.24
2/2/1982	49.91	3/20/1982	50.51	5/5/1982	50.21
2/3/1982	49.93	3/21/1982	50.49	5/6/1982	50.17
2/4/1982	49.96	3/22/1982	50.48	5/7/1982	50.14
2/5/1982	49.97	3/23/1982	50.47	5/8/1982	50.11
2/6/1982	49.97	3/24/1982	50.46	5/9/1982	50.08
2/7/1982	49.97	3/25/1982	50.58	5/10/1982	50.06
2/8/1982	49.97	3/26/1982	50.6	5/11/1982	50.03

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
5/12/1982	50	6/27/1982	51.5	8/12/1982	54.42
5/13/1982	49.97	6/28/1982	51.5	8/13/1982	54.49
5/14/1982	49.94	6/29/1982	51.55	8/14/1982	54.56
5/15/1982	49.91	6/30/1982	51.55	8/15/1982	54.69
5/16/1982	49.88	7/1/1982	51.6	8/16/1982	54.74
5/17/1982	49.85	7/2/1982	51.65	8/17/1982	54.73
5/18/1982	49.83	7/3/1982	51.69	8/18/1982	54.76
5/19/1982	49.8	7/4/1982	51.68	8/19/1982	54.88
5/20/1982	49.77	7/5/1982	51.77	8/20/1982	54.93
5/21/1982	49.74	7/6/1982	52.03	8/21/1982	54.91
5/22/1982	49.7	7/7/1982	52.15	8/22/1982	54.9
5/23/1982	49.74	7/8/1982	52.31	8/23/1982	54.88
5/24/1982	49.82	7/9/1982	52.38	8/24/1982	54.84
5/25/1982	49.84	7/10/1982	52.42	8/25/1982	54.79
5/26/1982	49.86	7/11/1982	52.45	8/26/1982	54.74
5/27/1982	49.9	7/12/1982	52.47	8/27/1982	54.69
5/28/1982	49.89	7/13/1982	52.48	8/28/1982	54.63
5/29/1982	49.86	7/14/1982	52.53	8/29/1982	54.55
5/30/1982	49.87	7/15/1982	52.75	8/30/1982	54.46
5/31/1982	50.02	7/16/1982	52.78	8/31/1982	54.37
6/1/1982	50.03	7/17/1982	52.83	9/1/1982	54.28
6/2/1982	50.03	7/18/1982	52.88	9/2/1982	54.19
6/3/1982	50.09	7/19/1982	52.93	9/3/1982	54.11
6/4/1982	50.1	7/20/1982	53.02	9/4/1982	54.01
6/5/1982	50.13	7/21/1982	53.12	9/5/1982	54.03
6/6/1982	50.12	7/22/1982	53.21	9/6/1982	54.02
6/7/1982	50.09	7/23/1982	53.25	9/7/1982	54.16
6/8/1982	50.07	7/24/1982	53.29	9/8/1982	54.41
6/9/1982	50.04	7/25/1982	53.37	9/9/1982	54.94
6/10/1982	50	7/26/1982	53.57	9/10/1982	55.1
6/11/1982	49.97	7/27/1982	53.69	9/11/1982	55.21
6/12/1982	49.97	7/28/1982	53.74	9/12/1982	55.26
6/13/1982	50	7/29/1982	53.81	9/13/1982	55.29
6/14/1982	49.97	7/30/1982	53.85	9/14/1982	55.31
6/15/1982	49.95	7/31/1982	53.87	9/15/1982	55.31
6/16/1982	49.95	8/1/1982	53.87	9/16/1982	55.3
6/17/1982	50.07	8/2/1982	53.89	9/17/1982	55.28
6/18/1982	50.72	8/3/1982	54	9/18/1982	55.25
6/19/1982	50.79	8/4/1982	53.99	9/19/1982	55.23
6/20/1982	50.83	8/5/1982	53.97	9/20/1982	55.19
6/21/1982	50.93	8/6/1982	53.94	9/21/1982	55.23
6/22/1982	50.98	8/7/1982	53.95	9/22/1982	55.35
6/23/1982	51.1	8/8/1982	54.01	9/23/1982	55.35
6/24/1982	51.32	8/9/1982	54.03	9/24/1982	55.32
6/25/1982	51.38	8/10/1982	54.17	9/25/1982	55.31
6/26/1982	51.4	8/11/1982	54.34	9/26/1982	55.69

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
9/27/1982	55.75	11/12/1982	53.85	12/28/1982	52.74
9/28/1982	55.72	11/13/1982	53.8	12/29/1982	52.73
9/29/1982	55.68	11/14/1982	53.74	12/30/1982	52.72
9/30/1982	55.64	11/15/1982	53.68	12/31/1982	52.71
10/1/1982	55.62	11/16/1982	53.62	1/1/1983	52.71
10/2/1982	55.59	11/17/1982	53.56	1/2/1983	52.7
10/3/1982	55.56	11/18/1982	53.5	1/3/1983	52.68
10/4/1982	55.53	11/19/1982	53.45	1/4/1983	52.64
10/5/1982	55.5	11/20/1982	53.4	1/5/1983	52.66
10/6/1982	55.48	11/21/1982	53.36	1/6/1983	52.65
10/7/1982	55.51	11/22/1982	53.3	1/7/1983	52.64
10/8/1982	55.48	11/23/1982	53.25	1/8/1983	52.63
10/9/1982	55.44	11/24/1982	53.21	1/9/1983	52.61
10/10/1982	55.4	11/25/1982	53.16	1/10/1983	52.6
10/11/1982	55.37	11/26/1982	53.11	1/11/1983	52.6
10/12/1982	55.37	11/27/1982	53.08	1/12/1983	52.58
10/13/1982	55.34	11/28/1982	53.04	1/13/1983	52.56
10/14/1982	55.32	11/29/1982	53	1/14/1983	52.55
10/15/1982	55.3	11/30/1982	52.96	1/15/1983	52.53
10/16/1982	55.27	12/1/1982	52.93	1/16/1983	52.51
10/17/1982	55.23	12/2/1982	52.9	1/17/1983	52.5
10/18/1982	55.18	12/3/1982	52.86	1/18/1983	52.49
10/19/1982	55.14	12/4/1982	52.84	1/19/1983	52.48
10/20/1982	55.1	12/5/1982	52.83	1/20/1983	52.53
10/21/1982	55.06	12/6/1982	52.82	1/21/1983	52.61
10/22/1982	55.01	12/7/1982	52.82	1/22/1983	52.65
10/23/1982	54.97	12/8/1982	52.81	1/23/1983	52.65
10/24/1982	54.94	12/9/1982	52.81	1/24/1983	52.65
10/25/1982	54.89	12/10/1982	52.8	1/25/1983	52.64
10/26/1982	54.83	12/11/1982	52.78	1/26/1983	52.63
10/27/1982	54.77	12/12/1982	52.82	1/27/1983	52.64
10/28/1982	54.71	12/13/1982	52.83	1/28/1983	52.67
10/29/1982	54.65	12/14/1982	52.81	1/29/1983	52.66
10/30/1982	54.59	12/15/1982	52.81	1/30/1983	52.65
10/31/1982	54.53	12/16/1982	52.82	1/31/1983	52.65
11/1/1982	54.47	12/17/1982	52.82	2/1/1983	52.65
11/2/1982	54.42	12/18/1982	52.81	2/2/1983	52.75
11/3/1982	54.36	12/19/1982	52.8	2/3/1983	52.78
11/4/1982	54.32	12/20/1982	52.79	2/4/1983	52.78
11/5/1982	54.29	12/21/1982	52.78	2/5/1983	52.77
11/6/1982	54.22	12/22/1982	52.78	2/6/1983	52.86
11/7/1982	54.16	12/23/1982	52.77	2/7/1983	52.98
11/8/1982	54.11	12/24/1982	52.77	2/8/1983	53
11/9/1982	54.05	12/25/1982	52.76	2/9/1983	53.01
11/10/1982	53.99	12/26/1982	52.75	2/10/1983	53.05
11/11/1982	53.92	12/27/1982	52.75	2/11/1983	53.12

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
2/12/1983	53.17	3/30/1983	53.91	5/15/1983	52.61
2/13/1983	53.38	3/31/1983	53.96	5/16/1983	52.56
2/14/1983	53.48	4/1/1983	53.97	5/17/1983	52.54
2/15/1983	53.53	4/2/1983	54.03	5/18/1983	52.51
2/16/1983	53.6	4/3/1983	54.04	5/19/1983	52.47
2/17/1983	53.7	4/4/1983	54.02	5/20/1983	52.44
2/18/1983	53.73	4/5/1983	53.98	5/21/1983	52.42
2/19/1983	53.76	4/6/1983	53.94	5/22/1983	52.39
2/20/1983	53.79	4/7/1983	54	5/23/1983	52.37
2/21/1983	53.76	4/8/1983	53.94	5/24/1983	52.34
2/22/1983	53.71	4/9/1983	53.88	5/25/1983	52.31
2/23/1983	53.66	4/10/1983	53.85	5/26/1983	52.27
2/24/1983	53.61	4/11/1983	53.8	5/27/1983	52.24
2/25/1983	53.56	4/12/1983	53.75	5/28/1983	52.21
2/26/1983	53.52	4/13/1983	53.7	5/29/1983	52.18
2/27/1983	53.47	4/14/1983	53.65	5/30/1983	52.22
2/28/1983	53.42	4/15/1983	53.6	5/31/1983	52.26
3/1/1983	53.38	4/16/1983	53.55	6/1/1983	52.24
3/2/1983	53.34	4/17/1983	53.5	6/2/1983	52.22
3/3/1983	53.31	4/18/1983	53.5	6/3/1983	52.2
3/4/1983	53.26	4/19/1983	53.45	6/4/1983	52.18
3/5/1983	53.21	4/20/1983	53.45	6/5/1983	52.15
3/6/1983	53.16	4/21/1983	53.4	6/6/1983	52.13
3/7/1983	53.25	4/22/1983	53.35	6/7/1983	52.12
3/8/1983	53.4	4/23/1983	53.3	6/8/1983	52.2
3/9/1983	53.39	4/24/1983	53.3	6/9/1983	52.2
3/10/1983	53.36	4/25/1983	53.25	6/10/1983	52.21
3/11/1983	53.31	4/26/1983	53.25	6/11/1983	52.19
3/12/1983	53.27	4/27/1983	53.2	6/12/1983	52.15
3/13/1983	53.23	4/28/1983	53.2	6/13/1983	52.13
3/14/1983	53.2	4/29/1983	53.15	6/14/1983	52.12
3/15/1983	53.25	4/30/1983	53.15	6/15/1983	52.11
3/16/1983	53.37	5/1/1983	53.1	6/16/1983	52.08
3/17/1983	53.54	5/2/1983	53.05	6/17/1983	52.06
3/18/1983	53.57	5/3/1983	53.08	6/18/1983	52.03
3/19/1983	53.58	5/4/1983	53.06	6/19/1983	52
3/20/1983	53.6	5/5/1983	53.03	6/20/1983	51.98
3/21/1983	53.64	5/6/1983	52.99	6/21/1983	51.98
3/22/1983	53.66	5/7/1983	52.94	6/22/1983	51.98
3/23/1983	53.67	5/8/1983	52.89	6/23/1983	51.98
3/24/1983	53.69	5/9/1983	52.85	6/24/1983	51.98
3/25/1983	53.72	5/10/1983	52.81	6/25/1983	52.01
3/26/1983	53.72	5/11/1983	52.78	6/26/1983	52
3/27/1983	53.76	5/12/1983	52.73	6/27/1983	52
3/28/1983	53.88	5/13/1983	52.69	6/28/1983	52.03
3/29/1983	53.91	5/14/1983	52.65	6/29/1983	52.07

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
6/30/1983	52.12	8/15/1983	52.8	9/30/1983	54.73
7/1/1983	52.14	8/16/1983	52.85	10/1/1983	54.57
7/2/1983	52.28	8/17/1983	52.9	10/2/1983	54.6
7/3/1983	52.56	8/18/1983	52.95	10/3/1983	54.53
7/4/1983	52.65	8/19/1983	53	10/4/1983	54.46
7/5/1983	52.68	8/20/1983	53.05	10/5/1983	54.39
7/6/1983	52.69	8/21/1983	53.1	10/6/1983	54.32
7/7/1983	52.69	8/22/1983	53.15	10/7/1983	54.26
7/8/1983	52.68	8/23/1983	53.2	10/8/1983	54.19
7/9/1983	52.67	8/24/1983	53.25	10/9/1983	54.15
7/10/1983	52.68	8/25/1983	53.3	10/10/1983	54.16
7/11/1983	52.66	8/26/1983	53.35	10/11/1983	54.13
7/12/1983	52.63	8/27/1983	53.4	10/12/1983	54.12
7/13/1983	52.61	8/28/1983	53.45	10/13/1983	54.1
7/14/1983	52.58	8/29/1983	53.5	10/14/1983	54.08
7/15/1983	52.55	8/30/1983	53.55	10/15/1983	54.11
7/16/1983	52.52	8/31/1983	53.6	10/16/1983	54.17
7/17/1983	52.49	9/1/1983	53.65	10/17/1983	54.16
7/18/1983	52.45	9/2/1983	53.7	10/18/1983	54.13
7/19/1983	52.42	9/3/1983	53.93	10/19/1983	54.09
7/20/1983	52.41	9/4/1983	54.16	10/20/1983	54.05
7/21/1983	52.43	9/5/1983	54.21	10/21/1983	54.01
7/22/1983	52.44	9/6/1983	54.22	10/22/1983	53.96
7/23/1983	52.48	9/7/1983	54.22	10/23/1983	53.92
7/24/1983	52.5	9/8/1983	54.2	10/24/1983	53.88
7/25/1983	52.51	9/9/1983	54.18	10/25/1983	53.83
7/26/1983	52.51	9/10/1983	54.15	10/26/1983	53.79
7/27/1983	52.53	9/11/1983	54.11	10/27/1983	53.75
7/28/1983	52.53	9/12/1983	54.1	10/28/1983	53.69
7/29/1983	52.54	9/13/1983	54.18	10/29/1983	53.65
7/30/1983	52.54	9/14/1983	54.25	10/30/1983	53.61
7/31/1983	52.55	9/15/1983	54.42	10/31/1983	53.57
8/1/1983	52.55	9/16/1983	54.56	11/1/1983	53.53
8/2/1983	52.6	9/17/1983	54.89	11/2/1983	53.47
8/3/1983	52.6	9/18/1983	55.01	11/3/1983	53.44
8/4/1983	52.65	9/19/1983	55.05	11/4/1983	53.4
8/5/1983	52.65	9/20/1983	55.07	11/5/1983	53.38
8/6/1983	52.6	9/21/1983	55.13	11/6/1983	53.37
8/7/1983	52.6	9/22/1983	55.2	11/7/1983	53.34
8/8/1983	52.55	9/23/1983	55.18	11/8/1983	53.34
8/9/1983	52.55	9/24/1983	55.13	11/9/1983	53.32
8/10/1983	52.6	9/25/1983	55.08	11/10/1983	53.3
8/11/1983	52.6	9/26/1983	55.01	11/11/1983	53.28
8/12/1983	52.65	9/27/1983	54.94	11/12/1983	53.25
8/13/1983	52.7	9/28/1983	54.87	11/13/1983	53.21
8/14/1983	52.75	9/29/1983	54.8	11/14/1983	53.18

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
11/15/1983	53.15	12/31/1983	53.49	2/15/1984	53.53
11/16/1983	53.14	1/1/1984	53.5	2/16/1984	53.52
11/17/1983	53.11	1/2/1984	53.51	2/17/1984	53.5
11/18/1983	53.09	1/3/1984	53.51	2/18/1984	53.48
11/19/1983	53.06	1/4/1984	53.51	2/19/1984	53.46
11/20/1983	53.08	1/5/1984	53.51	2/20/1984	53.44
11/21/1983	53.13	1/6/1984	53.51	2/21/1984	53.43
11/22/1983	53.12	1/7/1984	53.5	2/22/1984	53.45
11/23/1983	53.1	1/8/1984	53.5	2/23/1984	53.45
11/24/1983	53.09	1/9/1984	53.49	2/24/1984	53.44
11/25/1983	53.08	1/10/1984	53.55	2/25/1984	53.42
11/26/1983	53.06	1/11/1984	53.59	2/26/1984	53.4
11/27/1983	53.04	1/12/1984	53.61	2/27/1984	53.48
11/28/1983	53.02	1/13/1984	53.64	2/28/1984	53.7
11/29/1983	53.01	1/14/1984	53.66	2/29/1984	53.73
11/30/1983	53	1/15/1984	53.66	3/1/1984	53.74
12/1/1983	52.98	1/16/1984	53.66	3/2/1984	53.74
12/2/1983	52.96	1/17/1984	53.66	3/3/1984	53.73
12/3/1983	52.94	1/18/1984	53.68	3/4/1984	53.72
12/4/1983	52.92	1/19/1984	53.72	3/5/1984	53.7
12/5/1983	52.91	1/20/1984	53.75	3/6/1984	53.69
12/6/1983	52.91	1/21/1984	53.76	3/7/1984	53.68
12/7/1983	52.94	1/22/1984	53.76	3/8/1984	53.66
12/8/1983	52.91	1/23/1984	53.75	3/9/1984	53.63
12/9/1983	52.89	1/24/1984	53.74	3/10/1984	53.61
12/10/1983	52.88	1/25/1984	53.73	3/11/1984	53.58
12/11/1983	52.86	1/26/1984	53.73	3/12/1984	53.57
12/12/1983	53	1/27/1984	53.71	3/13/1984	53.65
12/13/1983	53.01	1/28/1984	53.7	3/14/1984	53.65
12/14/1983	53.01	1/29/1984	53.68	3/15/1984	53.63
12/15/1983	53.07	1/30/1984	53.65	3/16/1984	53.59
12/16/1983	53.08	1/31/1984	53.62	3/17/1984	53.56
12/17/1983	53.1	2/1/1984	53.59	3/18/1984	53.53
12/18/1983	53.12	2/2/1984	53.56	3/19/1984	53.5
12/19/1983	53.12	2/3/1984	53.53	3/20/1984	53.48
12/20/1983	53.13	2/4/1984	53.51	3/21/1984	53.48
12/21/1983	53.13	2/5/1984	53.49	3/22/1984	53.45
12/22/1983	53.12	2/6/1984	53.45	3/23/1984	53.44
12/23/1983	53.12	2/7/1984	53.42	3/24/1984	53.42
12/24/1983	53.1	2/8/1984	53.39	3/25/1984	53.38
12/25/1983	53.09	2/9/1984	53.35	3/26/1984	53.37
12/26/1983	53.06	2/10/1984	53.32	3/27/1984	53.4
12/27/1983	53.04	2/11/1984	53.29	3/28/1984	53.37
12/28/1983	53.04	2/12/1984	53.26	3/29/1984	53.33
12/29/1983	53.24	2/13/1984	53.38	3/30/1984	53.31
12/30/1983	53.46	2/14/1984	53.53	3/31/1984	53.28

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
4/1/1984	53.24	5/17/1984	52.19	7/2/1984	54.15
4/2/1984	53.21	5/18/1984	52.16	7/3/1984	54.2
4/3/1984	53.18	5/19/1984	52.13	7/4/1984	54.2
4/4/1984	53.23	5/20/1984	52.09	7/5/1984	54.2
4/5/1984	53.25	5/21/1984	52.08	7/6/1984	54.2
4/6/1984	53.23	5/22/1984	52.12	7/7/1984	54.2
4/7/1984	53.2	5/23/1984	52.23	7/8/1984	54.15
4/8/1984	53.17	5/24/1984	52.23	7/9/1984	54.15
4/9/1984	53.17	5/25/1984	52.23	7/10/1984	54.2
4/10/1984	53.18	5/26/1984	52.35	7/11/1984	54.15
4/11/1984	53.17	5/27/1984	52.4	7/12/1984	54.25
4/12/1984	53.14	5/28/1984	52.52	7/13/1984	54.47
4/13/1984	53.11	5/29/1984	52.51	7/14/1984	54.52
4/14/1984	53.09	5/30/1984	52.49	7/15/1984	54.53
4/15/1984	53.08	5/31/1984	52.47	7/16/1984	54.5
4/16/1984	53.08	6/1/1984	52.43	7/17/1984	54.45
4/17/1984	53.05	6/2/1984	52.4	7/18/1984	54.39
4/18/1984	53.02	6/3/1984	52.37	7/19/1984	54.35
4/19/1984	52.99	6/4/1984	52.35	7/20/1984	54.31
4/20/1984	52.96	6/5/1984	52.32	7/21/1984	54.28
4/21/1984	52.93	6/6/1984	52.28	7/22/1984	54.23
4/22/1984	52.9	6/7/1984	52.26	7/23/1984	54.19
4/23/1984	52.87	6/8/1984	52.23	7/24/1984	54.14
4/24/1984	52.84	6/9/1984	52.2	7/25/1984	54
4/25/1984	52.81	6/10/1984	52.16	7/26/1984	54
4/26/1984	52.78	6/11/1984	52.14	7/27/1984	54
4/27/1984	52.75	6/12/1984	52.16	7/28/1984	54
4/28/1984	52.72	6/13/1984	52.14	7/29/1984	53.95
4/29/1984	52.69	6/14/1984	52.12	7/30/1984	54.05
4/30/1984	52.65	6/15/1984	52.3	7/31/1984	54.1
5/1/1984	52.62	6/16/1984	52.3	8/1/1984	54.3
5/2/1984	52.59	6/17/1984	52.29	8/2/1984	54.35
5/3/1984	52.54	6/18/1984	52.3	8/3/1984	54.35
5/4/1984	52.51	6/19/1984	52.29	8/4/1984	54.35
5/5/1984	52.48	6/20/1984	52.27	8/5/1984	54.3
5/6/1984	52.46	6/21/1984	52.25	8/6/1984	54.3
5/7/1984	52.43	6/22/1984	52.23	8/7/1984	54.3
5/8/1984	52.4	6/23/1984	52.77	8/8/1984	54.25
5/9/1984	52.42	6/24/1984	53.75	8/9/1984	54.25
5/10/1984	52.4	6/25/1984	54.05	8/10/1984	54.2
5/11/1984	52.37	6/26/1984	54.1	8/11/1984	54.15
5/12/1984	52.34	6/27/1984	54.1	8/12/1984	54.15
5/13/1984	52.31	6/28/1984	54.05	8/13/1984	54.15
5/14/1984	52.28	6/29/1984	54.1	8/14/1984	54.1
5/15/1984	52.25	6/30/1984	54.1	8/15/1984	54.15
5/16/1984	52.23	7/1/1984	54.05	8/16/1984	54.15

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
8/17/1984	54.15	10/2/1984	53.87	11/17/1984	52.36
8/18/1984	54.1	10/3/1984	53.82	11/18/1984	52.35
8/19/1984	54.1	10/4/1984	53.75	11/19/1984	52.34
8/20/1984	54.1	10/5/1984	53.68	11/20/1984	52.34
8/21/1984	54.15	10/6/1984	53.62	11/21/1984	52.33
8/22/1984	54.2	10/7/1984	53.56	11/22/1984	52.34
8/23/1984	54.25	10/8/1984	53.49	11/23/1984	52.33
8/24/1984	54.2	10/9/1984	53.43	11/24/1984	52.31
8/25/1984	54.2	10/10/1984	53.37	11/25/1984	52.29
8/26/1984	54.15	10/11/1984	53.34	11/26/1984	52.28
8/27/1984	54.15	10/12/1984	53.3	11/27/1984	52.27
8/28/1984	54.15	10/13/1984	53.25	11/28/1984	52.26
8/29/1984	54.15	10/14/1984	53.21	11/29/1984	52.25
8/30/1984	54.1	10/15/1984	53.17	11/30/1984	52.23
8/31/1984	54.8	10/16/1984	53.14	12/1/1984	52.22
9/1/1984	54.77	10/17/1984	53.11	12/2/1984	52.21
9/2/1984	54.72	10/18/1984	53.07	12/3/1984	52.2
9/3/1984	54.66	10/19/1984	53.04	12/4/1984	52.2
9/4/1984	54.61	10/20/1984	53	12/5/1984	52.18
9/5/1984	54.56	10/21/1984	52.97	12/6/1984	52.17
9/6/1984	54.54	10/22/1984	52.89	12/7/1984	52.16
9/7/1984	54.49	10/23/1984	52.91	12/8/1984	52.14
9/8/1984	54.44	10/24/1984	52.87	12/9/1984	52.13
9/9/1984	54.38	10/25/1984	52.84	12/10/1984	52.12
9/10/1984	54.32	10/26/1984	52.81	12/11/1984	52.12
9/11/1984	54.26	10/27/1984	52.78	12/12/1984	52.1
9/12/1984	54.2	10/28/1984	52.78	12/13/1984	52.1
9/13/1984	54.15	10/29/1984	52.76	12/14/1984	52.08
9/14/1984	54.09	10/30/1984	52.75	12/15/1984	52.08
9/15/1984	54.03	10/31/1984	52.72	12/16/1984	52.06
9/16/1984	53.98	11/1/1984	52.7	12/17/1984	51.96
9/17/1984	53.9	11/2/1984	52.68	12/18/1984	52.04
9/18/1984	53.9	11/3/1984	52.66	12/19/1984	52.04
9/19/1984	53.85	11/4/1984	52.64	12/20/1984	52.02
9/20/1984	53.95	11/5/1984	52.62	12/21/1984	52.02
9/21/1984	53.95	11/6/1984	52.6	12/22/1984	52
9/22/1984	53.95	11/7/1984	52.54	12/23/1984	52
9/23/1984	53.9	11/8/1984	52.52	12/24/1984	51.98
9/24/1984	53.9	11/9/1984	52.49	12/25/1984	51.98
9/25/1984	53.9	11/10/1984	52.47	12/26/1984	51.96
9/26/1984	53.85	11/11/1984	52.46	12/27/1984	51.96
9/27/1984	53.85	11/12/1984	52.45	12/28/1984	51.94
9/28/1984	53.9	11/13/1984	52.32	12/29/1984	51.94
9/29/1984	53.95	11/14/1984	52.41	12/30/1984	51.92
9/30/1984	54	11/15/1984	52.39	12/31/1984	51.92
10/1/1984	53.94	11/16/1984	52.38	1/1/1985	51.9

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
1/2/1985	51.88	2/17/1985	51.59	4/4/1985	51.05
1/3/1985	51.88	2/18/1985	51.48	4/5/1985	51.02
1/4/1985	51.86	2/19/1985	51.57	4/6/1985	51.02
1/5/1985	51.86	2/20/1985	51.56	4/7/1985	51.05
1/6/1985	51.84	2/21/1985	51.56	4/8/1985	51.04
1/7/1985	51.84	2/22/1985	51.54	4/9/1985	51.02
1/8/1985	51.82	2/23/1985	51.54	4/10/1985	50.98
1/9/1985	51.82	2/24/1985	51.52	4/11/1985	50.96
1/10/1985	51.8	2/25/1985	51.52	4/12/1985	50.95
1/11/1985	51.8	2/26/1985	51.5	4/13/1985	50.96
1/12/1985	51.78	2/27/1985	51.5	4/14/1985	50.94
1/13/1985	51.76	2/28/1985	51.48	4/15/1985	50.8
1/14/1985	51.77	3/1/1985	51.44	4/16/1985	50.9
1/15/1985	51.77	3/2/1985	51.42	4/17/1985	50.88
1/16/1985	51.76	3/3/1985	51.4	4/18/1985	50.85
1/17/1985	51.76	3/4/1985	51.36	4/19/1985	50.83
1/18/1985	51.79	3/5/1985	51.34	4/20/1985	50.8
1/19/1985	51.81	3/6/1985	51.34	4/21/1985	50.78
1/20/1985	51.8	3/7/1985	51.32	4/22/1985	50.75
1/21/1985	51.68	3/8/1985	51.28	4/23/1985	50.71
1/22/1985	51.78	3/9/1985	51.26	4/24/1985	50.68
1/23/1985	51.76	3/10/1985	51.24	4/25/1985	50.66
1/24/1985	51.75	3/11/1985	51.22	4/26/1985	50.63
1/25/1985	51.75	3/12/1985	51.2	4/27/1985	50.6
1/26/1985	51.75	3/13/1985	51.18	4/28/1985	50.57
1/27/1985	51.73	3/14/1985	51.16	4/29/1985	50.55
1/28/1985	51.72	3/15/1985	51.15	4/30/1985	50.53
1/29/1985	51.72	3/16/1985	51.13	5/1/1985	50.5
1/30/1985	51.7	3/17/1985	51.11	5/2/1985	50.46
1/31/1985	51.68	3/18/1985	51.04	5/3/1985	50.44
2/1/1985	51.67	3/19/1985	51.07	5/4/1985	50.42
2/2/1985	51.66	3/20/1985	51.05	5/5/1985	50.4
2/3/1985	51.66	3/21/1985	51.16	5/6/1985	50.26
2/4/1985	51.66	3/22/1985	51.3	5/7/1985	50.34
2/5/1985	51.63	3/23/1985	51.3	5/8/1985	50.28
2/6/1985	51.64	3/24/1985	51.28	5/9/1985	50.27
2/7/1985	51.67	3/25/1985	51.04	5/10/1985	50.24
2/8/1985	51.66	3/26/1985	51.25	5/11/1985	50.22
2/9/1985	51.64	3/27/1985	51.23	5/12/1985	50.19
2/10/1985	51.63	3/28/1985	51.2	5/13/1985	50.17
2/11/1985	51.62	3/29/1985	51.18	5/14/1985	50.14
2/12/1985	51.62	3/30/1985	51.16	5/15/1985	50.1
2/13/1985	51.62	3/31/1985	51.13	5/16/1985	50.07
2/14/1985	51.61	4/1/1985	51.12	5/17/1985	50.03
2/15/1985	51.61	4/2/1985	51.1	5/18/1985	49.99
2/16/1985	51.6	4/3/1985	51.07	5/19/1985	49.96

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
5/20/1985	49.93	7/5/1985	49.82	8/20/1985	52.62
5/21/1985	49.91	7/6/1985	49.94	8/21/1985	52.61
5/22/1985	49.88	7/7/1985	49.95	8/22/1985	52.63
5/23/1985	49.85	7/8/1985	49.91	8/23/1985	52.65
5/24/1985	49.86	7/9/1985	49.92	8/24/1985	52.65
5/25/1985	49.88	7/10/1985	49.9	8/25/1985	52.73
5/26/1985	49.85	7/11/1985	49.89	8/26/1985	52.74
5/27/1985	49.81	7/12/1985	49.92	8/27/1985	52.73
5/28/1985	49.78	7/13/1985	50.01	8/28/1985	52.72
5/29/1985	49.75	7/14/1985	50.1	8/29/1985	52.72
5/30/1985	49.72	7/15/1985	50.12	8/30/1985	52.74
5/31/1985	49.69	7/16/1985	50.11	8/31/1985	53.13
6/1/1985	49.65	7/17/1985	50.12	9/1/1985	53.76
6/2/1985	49.62	7/18/1985	50.12	9/2/1985	54.05
6/3/1985	49.59	7/19/1985	50.23	9/3/1985	54.2
6/4/1985	49.56	7/20/1985	50.5	9/4/1985	54.23
6/5/1985	49.5	7/21/1985	50.55	9/5/1985	54.31
6/6/1985	49.5	7/22/1985	50.55	9/6/1985	54.33
6/7/1985	49.47	7/23/1985	50.42	9/7/1985	54.3
6/8/1985	49.43	7/24/1985	50.52	9/8/1985	54.25
6/9/1985	49.41	7/25/1985	50.55	9/9/1985	54.22
6/10/1985	49.37	7/26/1985	50.6	9/10/1985	54.18
6/11/1985	49.35	7/27/1985	50.74	9/11/1985	54.13
6/12/1985	49.33	7/28/1985	50.76	9/12/1985	54.08
6/13/1985	49.41	7/29/1985	50.84	9/13/1985	54.21
6/14/1985	49.61	7/30/1985	51.07	9/14/1985	54.22
6/15/1985	49.88	7/31/1985	51.15	9/15/1985	54.18
6/16/1985	49.96	8/1/1985	51.19	9/16/1985	54.15
6/17/1985	49.97	8/2/1985	51.21	9/17/1985	54.1
6/18/1985	49.95	8/3/1985	51.28	9/18/1985	54.06
6/19/1985	49.82	8/4/1985	51.42	9/19/1985	54.02
6/20/1985	49.91	8/5/1985	51.46	9/20/1985	53.98
6/21/1985	49.9	8/6/1985	51.63	9/21/1985	53.93
6/22/1985	49.91	8/7/1985	51.84	9/22/1985	53.88
6/23/1985	49.89	8/8/1985	51.81	9/23/1985	53.82
6/24/1985	49.87	8/9/1985	51.97	9/24/1985	53.76
6/25/1985	49.84	8/10/1985	52.21	9/25/1985	53.71
6/26/1985	49.82	8/11/1985	52.34	9/26/1985	53.67
6/27/1985	49.79	8/12/1985	52.4	9/27/1985	53.6
6/28/1985	49.76	8/13/1985	52.45	9/28/1985	53.55
6/29/1985	49.74	8/14/1985	52.5	9/29/1985	53.49
6/30/1985	49.75	8/15/1985	52.55	9/30/1985	53.44
7/1/1985	49.81	8/16/1985	52.57	10/1/1985	53.4
7/2/1985	49.81	8/17/1985	52.59	10/2/1985	53.56
7/3/1985	49.8	8/18/1985	52.59	10/3/1985	53.57
7/4/1985	49.79	8/19/1985	52.58	10/4/1985	53.57

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
10/5/1985	53.58	11/20/1985	52.65	1/4/1986	52.38
10/6/1985	53.61	11/21/1985	52.64	1/5/1986	52.4
10/7/1985	53.59	11/22/1985	52.64	1/6/1986	52.4
10/8/1985	53.56	11/23/1985	52.63	1/7/1986	52.4
10/9/1985	53.53	11/24/1985	52.61	1/8/1986	52.43
10/10/1985	53.49	11/25/1985	52.58	1/9/1986	52.42
10/11/1985	53.45	11/26/1985	52.56	1/10/1986	52.57
10/12/1985	53.42	11/27/1985	52.54	1/11/1986	52.72
10/13/1985	53.38	11/28/1985	52.52	1/12/1986	52.74
10/14/1985	53.35	11/29/1985	52.5	1/13/1986	52.75
10/15/1985	53.31	11/30/1985	52.49	1/14/1986	52.75
10/16/1985	53.27	12/1/1985	52.47	1/15/1986	52.75
10/17/1985	53.22	12/2/1985	52.45	1/16/1986	52.75
10/18/1985	53.18	12/3/1985	52.43	1/17/1986	52.75
10/19/1985	53.13	12/4/1985	52.39	1/18/1986	52.75
10/20/1985	53.08	12/5/1985	52.38	1/19/1986	52.77
10/21/1985	53.05	12/6/1985	52.37	1/20/1986	52.77
10/22/1985	53.05	12/7/1985	52.35	1/21/1986	52.76
10/23/1985	53.02	12/8/1985	52.33	1/22/1986	52.74
10/24/1985	52.97	12/9/1985	52.32	1/23/1986	52.73
10/25/1985	52.93	12/10/1985	52.3	1/24/1986	52.72
10/26/1985	52.89	12/11/1985	52.28	1/25/1986	52.7
10/27/1985	52.87	12/12/1985	52.27	1/26/1986	52.74
10/28/1985	52.86	12/13/1985	52.21	1/27/1986	52.76
10/29/1985	52.83	12/13/1985	52.27	1/28/1986	52.75
10/30/1985	52.8	12/14/1985	52.36	1/29/1986	52.73
10/31/1985	52.81	12/15/1985	52.34	1/30/1986	52.72
11/1/1985	52.94	12/16/1985	52.32	1/31/1986	52.71
11/2/1985	52.95	12/17/1985	52.31	2/1/1986	52.7
11/3/1985	52.96	12/18/1985	52.29	2/2/1986	52.69
11/4/1985	52.98	12/19/1985	52.28	2/3/1986	52.67
11/5/1985	52.95	12/20/1985	52.26	2/4/1986	52.66
11/6/1985	52.93	12/21/1985	52.25	2/5/1986	52.61
11/7/1985	52.91	12/22/1985	52.23	2/6/1986	52.63
11/8/1985	52.89	12/23/1985	52.21	2/7/1986	52.61
11/9/1985	52.87	12/24/1985	52.21	2/8/1986	52.64
11/10/1985	52.85	12/25/1985	52.22	2/9/1986	52.68
11/11/1985	52.83	12/26/1985	52.21	2/10/1986	52.67
11/12/1985	52.81	12/27/1985	52.19	2/11/1986	52.7
11/13/1985	52.79	12/28/1985	52.17	2/12/1986	52.72
11/14/1985	52.77	12/29/1985	52.16	2/13/1986	52.71
11/15/1985	52.74	12/30/1985	52.16	2/14/1986	52.68
11/16/1985	52.72	12/31/1985	52.15	2/15/1986	52.67
11/17/1985	52.7	1/1/1986	52.34	2/16/1986	52.66
11/18/1985	52.68	1/2/1986	52.38	2/17/1986	52.64
11/19/1985	52.66	1/3/1986	52.38	2/18/1986	52.65

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
2/19/1986	52.64	4/6/1986	52.44	5/22/1986	51.35
2/20/1986	52.64	4/7/1986	52.41	5/23/1986	51.32
2/21/1986	52.62	4/8/1986	52.38	5/24/1986	51.3
2/22/1986	52.6	4/9/1986	52.35	5/25/1986	51.3
2/23/1986	52.64	4/10/1986	52.32	5/26/1986	51.28
2/24/1986	52.65	4/11/1986	52.29	5/27/1986	51.24
2/25/1986	52.64	4/12/1986	52.27	5/28/1986	51.2
2/26/1986	52.61	4/13/1986	52.33	5/29/1986	51.18
2/27/1986	52.57	4/14/1986	52.31	5/30/1986	51.14
2/28/1986	52.59	4/15/1986	52.28	5/31/1986	51.1
3/1/1986	52.6	4/16/1986	52.25	6/1/1986	51.12
3/2/1986	52.58	4/17/1986	52.21	6/2/1986	51.14
3/3/1986	52.56	4/18/1986	52.18	6/3/1986	51.18
3/4/1986	52.55	4/19/1986	52.16	6/4/1986	51.14
3/5/1986	52.56	4/20/1986	52.13	6/5/1986	51.1
3/6/1986	52.54	4/21/1986	52.1	6/6/1986	51.08
3/7/1986	52.52	4/22/1986	52.07	6/7/1986	51.04
3/8/1986	52.5	4/23/1986	52.04	6/8/1986	51
3/9/1986	52.48	4/24/1986	52.01	6/9/1986	51.04
3/10/1986	52.47	4/25/1986	51.98	6/10/1986	51.08
3/11/1986	52.49	4/26/1986	51.95	6/11/1986	51.12
3/12/1986	52.48	4/27/1986	51.93	6/12/1986	51.16
3/13/1986	52.46	4/28/1986	51.9	6/13/1986	51.18
3/14/1986	52.5	4/29/1986	51.87	6/14/1986	51.2
3/15/1986	52.64	4/30/1986	51.85	6/15/1986	51.2
3/16/1986	52.8	5/1/1986	51.82	6/16/1986	51.22
3/17/1986	52.84	5/2/1986	51.79	6/17/1986	51.24
3/18/1986	52.84	5/3/1986	51.77	6/18/1986	51.28
3/19/1986	52.83	5/4/1986	51.74	6/19/1986	51.32
3/20/1986	52.82	5/5/1986	51.7	6/20/1986	51.36
3/21/1986	52.83	5/6/1986	51.68	6/21/1986	51.34
3/22/1986	52.81	5/7/1986	51.69	6/22/1986	51.34
3/23/1986	52.79	5/8/1986	51.67	6/23/1986	51.32
3/24/1986	52.77	5/9/1986	51.65	6/24/1986	51.34
3/25/1986	52.75	5/10/1986	51.63	6/25/1986	51.36
3/26/1986	52.73	5/11/1986	51.57	6/26/1986	51.38
3/27/1986	52.72	5/12/1986	51.53	6/27/1986	51.4
3/28/1986	52.7	5/13/1986	51.54	6/28/1986	51.42
3/29/1986	52.68	5/14/1986	51.52	6/29/1986	51.48
3/30/1986	52.65	5/15/1986	51.51	6/30/1986	51.54
3/31/1986	52.62	5/16/1986	51.47	7/1/1986	51.64
4/1/1986	52.59	5/17/1986	51.43	7/2/1986	51.7
4/2/1986	52.56	5/18/1986	51.4	7/3/1986	51.8
4/3/1986	52.53	5/19/1986	51.37	7/4/1986	52.2
4/4/1986	52.5	5/20/1986	51.38	7/5/1986	52.3
4/5/1986	52.47	5/21/1986	51.38	7/6/1986	52.4

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
7/7/1986	52.44	8/22/1986	52.39	10/7/1986	52.7
7/8/1986	52.46	8/23/1986	52.37	10/8/1986	52.72
7/9/1986	52.5	8/24/1986	52.36	10/9/1986	52.74
7/10/1986	52.5	8/25/1986	52.36	10/10/1986	52.76
7/11/1986	52.5	8/26/1986	52.37	10/11/1986	52.74
7/12/1986	52.49	8/27/1986	52.47	10/12/1986	52.72
7/13/1986	52.5	8/28/1986	52.76	10/13/1986	52.7
7/14/1986	52.48	8/29/1986	52.79	10/14/1986	52.68
7/15/1986	52.46	8/30/1986	52.81	10/15/1986	52.7
7/16/1986	52.43	8/31/1986	52.86	10/16/1986	52.68
7/17/1986	52.41	9/1/1986	52.91	10/17/1986	52.66
7/18/1986	52.38	9/2/1986	52.98	10/18/1986	52.62
7/19/1986	52.36	9/3/1986	53.03	10/19/1986	52.6
7/20/1986	52.33	9/4/1986	53.08	10/20/1986	52.58
7/21/1986	52.31	9/5/1986	53.15	10/21/1986	52.56
7/22/1986	52.32	9/6/1986	53.22	10/22/1986	52.54
7/23/1986	52.34	9/7/1986	53.31	10/23/1986	52.52
7/24/1986	52.32	9/8/1986	53.31	10/24/1986	52.5
7/25/1986	52.3	9/9/1986	53.31	10/25/1986	52.48
7/26/1986	52.28	9/10/1986	53.35	10/26/1986	52.46
7/27/1986	52.29	9/11/1986	53.39	10/27/1986	52.42
7/28/1986	52.39	9/12/1986	53.44	10/28/1986	52.44
7/29/1986	52.41	9/13/1986	53.46	10/29/1986	52.42
7/30/1986	52.41	9/14/1986	53.46	10/30/1986	52.44
7/31/1986	52.39	9/15/1986	53.44	10/31/1986	52.46
8/1/1986	52.38	9/16/1986	53.4	11/1/1986	52.44
8/2/1986	52.35	9/17/1986	53.38	11/2/1986	52.42
8/3/1986	52.34	9/18/1986	53.35	11/3/1986	52.4
8/4/1986	52.36	9/19/1986	53.32	11/4/1986	52.38
8/5/1986	52.43	9/20/1986	53.3	11/5/1986	52.24
8/6/1986	52.48	9/21/1986	53.22	11/6/1986	52.23
8/7/1986	52.46	9/22/1986	53.18	11/7/1986	52.21
8/8/1986	52.44	9/23/1986	53.1	11/8/1986	52.19
8/9/1986	52.42	9/24/1986	53.04	11/9/1986	52.17
8/10/1986	52.39	9/25/1986	52.98	11/10/1986	52.16
8/11/1986	52.36	9/26/1986	52.96	11/11/1986	52.13
8/12/1986	52.34	9/27/1986	52.94	11/12/1986	52.11
8/13/1986	52.34	9/28/1986	52.92	11/13/1986	52.1
8/14/1986	52.34	9/29/1986	52.9	11/14/1986	52.08
8/15/1986	52.32	9/30/1986	52.86	11/15/1986	52.05
8/16/1986	52.33	10/1/1986	52.84	11/16/1986	52.03
8/17/1986	52.34	10/2/1986	52.82	11/17/1986	52.01
8/18/1986	52.33	10/3/1986	52.8	11/18/1986	51.99
8/19/1986	52.3	10/4/1986	52.78	11/19/1986	51.98
8/20/1986	52.29	10/5/1986	52.76	11/20/1986	51.96
8/21/1986	52.32	10/6/1986	52.74	11/21/1986	51.94

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
11/22/1986	51.92	1/7/1987	51.6	2/22/1987	51.31
11/23/1986	51.89	1/8/1987	51.59	2/23/1987	51.31
11/24/1986	51.87	1/9/1987	51.58	2/24/1987	51.3
11/25/1986	51.86	1/10/1987	51.56	2/25/1987	51.31
11/26/1986	51.84	1/11/1987	51.55	2/26/1987	51.3
11/27/1986	51.82	1/12/1987	51.54	2/27/1987	51.28
11/28/1986	51.81	1/13/1987	51.52	2/28/1987	51.26
11/29/1986	51.79	1/14/1987	51.5	3/1/1987	51.3
11/30/1986	51.8	1/15/1987	51.49	3/2/1987	51.34
12/1/1986	51.8	1/16/1987	51.47	3/3/1987	51.33
12/2/1986	51.8	1/17/1987	51.46	3/4/1987	51.32
12/3/1986	51.79	1/18/1987	51.45	3/5/1987	51.31
12/4/1986	51.78	1/19/1987	51.44	3/6/1987	51.29
12/5/1986	51.76	1/20/1987	51.44	3/7/1987	51.48
12/6/1986	51.74	1/21/1987	51.51	3/8/1987	51.56
12/7/1986	51.72	1/22/1987	51.56	3/9/1987	51.56
12/8/1986	51.7	1/23/1987	51.58	3/10/1987	51.56
12/9/1986	51.68	1/24/1987	51.57	3/11/1987	51.56
12/10/1986	51.67	1/25/1987	51.58	3/12/1987	51.55
12/11/1986	51.65	1/26/1987	51.58	3/13/1987	51.55
12/12/1986	51.65	1/27/1987	51.57	3/14/1987	51.53
12/13/1986	51.66	1/28/1987	51.56	3/15/1987	51.51
12/14/1986	51.64	1/29/1987	51.55	3/16/1987	51.5
12/15/1986	51.62	1/30/1987	51.53	3/17/1987	51.5
12/16/1986	51.6	1/31/1987	51.52	3/18/1987	51.49
12/17/1986	51.58	2/1/1987	51.51	3/19/1987	51.54
12/18/1986	51.56	2/2/1987	51.49	3/20/1987	51.54
12/19/1986	51.55	2/3/1987	51.48	3/21/1987	51.53
12/20/1986	51.54	2/4/1987	51.47	3/22/1987	51.51
12/21/1986	51.53	2/5/1987	51.47	3/23/1987	51.51
12/22/1986	51.51	2/6/1987	51.46	3/24/1987	51.48
12/23/1986	51.51	2/7/1987	51.45	3/25/1987	51.46
12/24/1986	51.53	2/8/1987	51.49	3/26/1987	51.74
12/25/1986	51.53	2/9/1987	51.47	3/27/1987	52.28
12/26/1986	51.52	2/10/1987	51.45	3/28/1987	52.47
12/27/1986	51.5	2/11/1987	51.43	3/29/1987	52.71
12/28/1986	51.48	2/12/1987	51.42	3/30/1987	53.18
12/29/1986	51.46	2/13/1987	51.4	3/31/1987	53.71
12/30/1986	51.45	2/14/1987	51.38	4/1/1987	53.88
12/31/1986	51.49	2/15/1987	51.37	4/2/1987	53.93
1/1/1987	51.54	2/16/1987	51.37	4/3/1987	53.94
1/2/1987	51.54	2/17/1987	51.38	4/4/1987	53.92
1/3/1987	51.53	2/18/1987	51.36	4/5/1987	53.88
1/4/1987	51.57	2/19/1987	51.35	4/6/1987	53.83
1/5/1987	51.63	2/20/1987	51.34	4/7/1987	53.78
1/6/1987	51.62	2/21/1987	51.32	4/8/1987	53.72

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
4/9/1987	53.67	5/25/1987	52.78	7/10/1987	52.49
4/10/1987	53.61	5/26/1987	52.76	7/11/1987	52.51
4/11/1987	53.55	5/27/1987	52.74	7/12/1987	52.5
4/12/1987	53.49	5/28/1987	52.72	7/13/1987	52.49
4/13/1987	53.43	5/29/1987	52.7	7/14/1987	52.49
4/14/1987	53.38	5/30/1987	52.68	7/15/1987	52.52
4/15/1987	53.35	5/31/1987	52.66	7/16/1987	52.57
4/16/1987	53.31	6/1/1987	52.64	7/17/1987	52.58
4/17/1987	53.25	6/2/1987	52.62	7/18/1987	52.6
4/18/1987	53.19	6/3/1987	52.6	7/19/1987	52.58
4/19/1987	53.13	6/4/1987	52.58	7/20/1987	52.66
4/20/1987	53.08	6/5/1987	52.56	7/21/1987	53.22
4/21/1987	53.02	6/6/1987	52.54	7/22/1987	53.3
4/22/1987	52.97	6/7/1987	52.52	7/23/1987	53.31
4/23/1987	52.93	6/8/1987	52.5	7/24/1987	53.3
4/24/1987	52.88	6/9/1987	52.52	7/25/1987	53.28
4/25/1987	52.83	6/10/1987	52.48	7/26/1987	53.25
4/26/1987	52.78	6/11/1987	52.46	7/27/1987	53.22
4/27/1987	52.73	6/12/1987	52.44	7/28/1987	53.18
4/28/1987	52.69	6/13/1987	52.42	7/29/1987	53.13
4/29/1987	52.65	6/14/1987	52.48	7/30/1987	53.08
4/30/1987	52.61	6/15/1987	52.56	7/31/1987	53.05
5/1/1987	52.56	6/16/1987	52.58	8/1/1987	53.01
5/2/1987	52.52	6/17/1987	52.6	8/2/1987	52.96
5/3/1987	52.49	6/18/1987	52.62	8/3/1987	52.93
5/4/1987	52.45	6/19/1987	52.68	8/4/1987	52.91
5/5/1987	52.42	6/20/1987	52.7	8/5/1987	52.88
5/6/1987	52.39	6/21/1987	52.72	8/6/1987	52.85
5/7/1987	52.35	6/22/1987	52.74	8/7/1987	52.82
5/8/1987	52.32	6/23/1987	52.8	8/8/1987	52.78
5/9/1987	52.32	6/24/1987	52.82	8/9/1987	52.73
5/10/1987	52.35	6/25/1987	52.84	8/10/1987	52.72
5/11/1987	52.35	6/26/1987	52.82	8/11/1987	52.73
5/12/1987	52.34	6/27/1987	52.8	8/12/1987	52.7
5/13/1987	52.34	6/28/1987	52.78	8/13/1987	52.79
5/14/1987	52.36	6/29/1987	52.76	8/14/1987	52.82
5/15/1987	52.54	6/30/1987	52.78	8/15/1987	52.89
5/16/1987	52.57	7/1/1987	52.8	8/16/1987	53
5/17/1987	52.74	7/2/1987	52.76	8/17/1987	53.01
5/18/1987	52.75	7/3/1987	52.74	8/18/1987	53.01
5/19/1987	52.78	7/4/1987	52.72	8/19/1987	53.01
5/20/1987	52.8	7/5/1987	52.7	8/20/1987	52.98
5/21/1987	52.8	7/6/1987	52.72	8/21/1987	52.96
5/22/1987	52.79	7/7/1987	52.74	8/22/1987	52.95
5/23/1987	52.8	7/8/1987	52.51	8/23/1987	52.92
5/24/1987	52.78	7/9/1987	52.5	8/24/1987	52.88

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
8/25/1987	52.85	10/10/1987	53.1	11/25/1987	52.15
8/26/1987	52.81	10/11/1987	53.1	11/26/1987	52.15
8/27/1987	52.77	10/12/1987	53.15	11/27/1987	52.2
8/28/1987	52.75	10/13/1987	53.15	11/28/1987	52.25
8/29/1987	52.72	10/14/1987	53.1	11/29/1987	52.2
8/30/1987	52.68	10/15/1987	53.05	11/30/1987	52.15
8/31/1987	52.65	10/16/1987	53	12/1/1987	52.1
9/1/1987	52.73	10/17/1987	53	12/2/1987	52.1
9/2/1987	52.86	10/18/1987	52.95	12/3/1987	52.05
9/3/1987	52.91	10/19/1987	52.9	12/4/1987	52.05
9/4/1987	52.95	10/20/1987	52.9	12/5/1987	52
9/5/1987	52.94	10/21/1987	52.85	12/6/1987	52
9/6/1987	52.93	10/22/1987	52.8	12/7/1987	52
9/7/1987	52.91	10/23/1987	52.75	12/8/1987	51.95
9/8/1987	52.9	10/24/1987	52.75	12/9/1987	51.95
9/9/1987	52.89	10/25/1987	52.75	12/10/1987	51.95
9/10/1987	52.87	10/26/1987	52.7	12/11/1987	51.95
9/11/1987	52.93	10/27/1987	52.7	12/12/1987	51.95
9/12/1987	53.17	10/28/1987	52.65	12/13/1987	51.95
9/13/1987	53.29	10/29/1987	52.65	12/14/1987	51.9
9/14/1987	53.29	10/30/1987	52.6	12/15/1987	51.9
9/15/1987	53.28	10/31/1987	52.55	12/16/1987	51.95
9/16/1987	53.26	11/1/1987	52.55	12/17/1987	51.9
9/17/1987	53.24	11/2/1987	52.5	12/18/1987	51.9
9/18/1987	53.22	11/3/1987	52.5	12/19/1987	51.9
9/19/1987	53.2	11/4/1987	52.5	12/20/1987	51.85
9/20/1987	53.2	11/5/1987	52.45	12/21/1987	51.85
9/21/1987	53.22	11/6/1987	52.45	12/22/1987	51.85
9/22/1987	53.18	11/7/1987	52.4	12/23/1987	51.85
9/23/1987	53.16	11/8/1987	52.35	12/24/1987	51.85
9/24/1987	53.14	11/9/1987	52.3	12/25/1987	51.8
9/25/1987	53.12	11/10/1987	52.3	12/26/1987	51.8
9/26/1987	53.08	11/11/1987	52.3	12/27/1987	51.8
9/27/1987	53.06	11/12/1987	52.25	12/28/1987	51.8
9/28/1987	53.08	11/13/1987	52.25	12/29/1987	51.75
9/29/1987	53.12	11/14/1987	52.2	12/30/1987	51.7
9/30/1987	53.1	11/15/1987	52.15	12/31/1987	51.7
10/1/1987	53.3	11/16/1987	52.15	1/1/1988	51.7
10/2/1987	53.45	11/17/1987	52.15	1/2/1988	51.7
10/3/1987	53.45	11/18/1987	52.25	1/3/1988	51.7
10/4/1987	53.4	11/19/1987	52.25	1/4/1988	51.65
10/5/1987	53.35	11/20/1987	52.25	1/5/1988	51.65
10/6/1987	53.3	11/21/1987	52.25	1/6/1988	51.6
10/7/1987	53.25	11/22/1987	52.2	1/7/1988	51.55
10/8/1987	53.2	11/23/1987	52.2	1/8/1988	51.55
10/9/1987	53.15	11/24/1987	52.2	1/9/1988	51.55

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
1/10/1988	51.55	2/25/1988	51.62	4/11/1988	52.07
1/11/1988	51.55	2/26/1988	51.59	4/12/1988	52.04
1/12/1988	51.56	2/27/1988	51.57	4/13/1988	52.03
1/13/1988	51.54	2/28/1988	51.56	4/14/1988	52.01
1/14/1988	51.53	2/29/1988	51.54	4/15/1988	51.99
1/15/1988	51.51	3/1/1988	51.52	4/16/1988	51.97
1/16/1988	51.5	3/2/1988	51.5	4/17/1988	52
1/17/1988	51.48	3/3/1988	51.48	4/18/1988	51.95
1/18/1988	51.47	3/4/1988	51.47	4/19/1988	51.95
1/19/1988	51.46	3/5/1988	51.55	4/20/1988	51.95
1/20/1988	51.44	3/6/1988	51.7	4/21/1988	51.95
1/21/1988	51.48	3/7/1988	51.72	4/22/1988	51.95
1/22/1988	51.5	3/8/1988	51.72	4/23/1988	51.95
1/23/1988	51.49	3/9/1988	51.71	4/24/1988	51.95
1/24/1988	51.49	3/10/1988	51.84	4/25/1988	51.95
1/25/1988	51.74	3/11/1988	51.86	4/26/1988	51.9
1/26/1988	51.79	3/12/1988	51.85	4/27/1988	51.9
1/27/1988	51.79	3/13/1988	52.04	4/28/1988	51.85
1/28/1988	51.78	3/14/1988	52.18	4/29/1988	51.85
1/29/1988	51.76	3/15/1988	52.2	4/30/1988	51.85
1/30/1988	51.75	3/16/1988	52.21	5/1/1988	51.85
1/31/1988	51.74	3/17/1988	52.21	5/2/1988	51.85
2/1/1988	51.72	3/18/1988	52.25	5/3/1988	51.8
2/2/1988	51.71	3/19/1988	52.43	5/4/1988	51.75
2/3/1988	51.7	3/20/1988	52.48	5/5/1988	51.75
2/4/1988	51.69	3/21/1988	52.5	5/6/1988	51.7
2/5/1988	51.69	3/22/1988	52.51	5/7/1988	51.7
2/6/1988	51.68	3/23/1988	52.52	5/8/1988	51.65
2/7/1988	51.67	3/24/1988	52.52	5/9/1988	51.6
2/8/1988	51.68	3/25/1988	52.51	5/10/1988	51.6
2/9/1988	51.68	3/26/1988	52.49	5/11/1988	51.55
2/10/1988	51.67	3/27/1988	52.48	5/12/1988	51.55
2/11/1988	51.66	3/28/1988	52.47	5/13/1988	51.5
2/12/1988	51.64	3/29/1988	52.44	5/14/1988	51.45
2/13/1988	51.62	3/30/1988	52.42	5/15/1988	51.45
2/14/1988	51.61	3/31/1988	52.39	5/16/1988	51.4
2/15/1988	51.61	4/1/1988	52.36	5/17/1988	51.4
2/16/1988	51.64	4/2/1988	52.33	5/18/1988	51.35
2/17/1988	51.64	4/3/1988	52.31	5/19/1988	51.35
2/18/1988	51.63	4/4/1988	52.28	5/20/1988	51.3
2/19/1988	51.61	4/5/1988	52.26	5/21/1988	51.25
2/20/1988	51.6	4/6/1988	52.24	5/22/1988	51.25
2/21/1988	51.66	4/7/1988	52.18	5/23/1988	51.2
2/22/1988	51.66	4/8/1988	52.16	5/24/1988	51.15
2/23/1988	51.64	4/9/1988	52.12	5/25/1988	51.25
2/24/1988	51.63	4/10/1988	52.1	5/26/1988	51.25

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
5/27/1988	51.25	7/12/1988	50.6	8/27/1988	51.89
5/28/1988	51.2	7/13/1988	50.61	8/28/1988	52.03
5/29/1988	51.15	7/14/1988	50.61	8/29/1988	52.13
5/30/1988	51.15	7/15/1988	50.64	8/30/1988	52.3
5/31/1988	51.1	7/16/1988	50.62	8/31/1988	52.34
6/1/1988	51.05	7/17/1988	50.6	9/1/1988	52.43
6/2/1988	51	7/18/1988	50.59	9/2/1988	52.7
6/3/1988	51	7/19/1988	50.65	9/3/1988	52.77
6/4/1988	50.95	7/20/1988	50.65	9/4/1988	52.86
6/5/1988	50.95	7/21/1988	50.72	9/5/1988	53.23
6/6/1988	50.9	7/22/1988	50.87	9/6/1988	54.1
6/7/1988	50.85	7/23/1988	50.87	9/7/1988	54.57
6/8/1988	50.85	7/24/1988	50.9	9/8/1988	54.85
6/9/1988	50.8	7/25/1988	50.91	9/9/1988	55.54
6/10/1988	50.75	7/26/1988	50.89	9/10/1988	55.67
6/11/1988	50.75	7/27/1988	50.87	9/11/1988	55.71
6/12/1988	50.7	7/28/1988	50.85	9/12/1988	55.63
6/13/1988	50.65	7/29/1988	50.82	9/13/1988	55.52
6/14/1988	50.65	7/30/1988	50.79	9/14/1988	55.4
6/15/1988	50.6	7/31/1988	50.77	9/15/1988	55.28
6/16/1988	50.55	8/1/1988	50.74	9/16/1988	55.17
6/17/1988	50.55	8/2/1988	50.76	9/17/1988	55.05
6/18/1988	50.5	8/3/1988	50.8	9/18/1988	55.01
6/19/1988	50.45	8/4/1988	50.78	9/19/1988	54.94
6/20/1988	50.5	8/5/1988	50.76	9/20/1988	54.85
6/21/1988	50.6	8/6/1988	50.74	9/21/1988	54.77
6/22/1988	50.59	8/7/1988	50.74	9/22/1988	54.72
6/23/1988	50.58	8/8/1988	50.88	9/23/1988	54.64
6/24/1988	50.59	8/9/1988	51.13	9/24/1988	54.57
6/25/1988	50.58	8/10/1988	51.29	9/25/1988	54.49
6/26/1988	50.56	8/11/1988	51.34	9/26/1988	54.43
6/27/1988	50.53	8/12/1988	51.4	9/27/1988	54.39
6/28/1988	50.54	8/13/1988	51.41	9/28/1988	54.33
6/29/1988	50.54	8/14/1988	51.41	9/29/1988	54.27
6/30/1988	50.51	8/15/1988	51.43	9/30/1988	54.22
7/1/1988	50.48	8/16/1988	51.47	10/1/1988	54.17
7/2/1988	50.48	8/17/1988	51.5	10/2/1988	54.11
7/3/1988	50.45	8/18/1988	51.52	10/3/1988	54.1
7/4/1988	50.42	8/19/1988	51.53	10/4/1988	54.09
7/5/1988	50.39	8/20/1988	51.6	10/5/1988	54.05
7/6/1988	50.37	8/21/1988	51.6	10/6/1988	53.99
7/7/1988	50.35	8/22/1988	51.69	10/7/1988	53.94
7/8/1988	50.32	8/23/1988	51.71	10/8/1988	53.88
7/9/1988	50.29	8/24/1988	51.71	10/9/1988	53.83
7/10/1988	50.29	8/25/1988	51.69	10/10/1988	53.76
7/11/1988	50.41	8/26/1988	51.74	10/11/1988	53.7

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
10/12/1988	53.64	11/27/1988	53.42	1/12/1989	52.49
10/13/1988	53.59	11/28/1988	53.42	1/13/1989	52.48
10/14/1988	53.53	11/29/1988	53.39	1/14/1989	52.46
10/15/1988	53.48	11/30/1988	53.36	1/15/1989	52.44
10/16/1988	53.42	12/1/1988	53.33	1/16/1989	52.42
10/17/1988	53.37	12/2/1988	53.3	1/17/1989	52.41
10/18/1988	53.32	12/3/1988	53.26	1/18/1989	52.39
10/19/1988	53.28	12/4/1988	53.22	1/19/1989	52.36
10/20/1988	53.23	12/5/1988	53.18	1/20/1989	52.35
10/21/1988	53.19	12/6/1988	53.15	1/21/1989	52.47
10/22/1988	53.14	12/7/1988	53.11	1/22/1989	52.66
10/23/1988	53.09	12/8/1988	53.08	1/23/1989	52.7
10/24/1988	53.05	12/9/1988	53.05	1/24/1989	52.71
10/25/1988	53.01	12/10/1988	53.02	1/25/1989	52.71
10/26/1988	52.97	12/11/1988	53.07	1/26/1989	52.7
10/27/1988	52.93	12/12/1988	53.22	1/27/1989	52.68
10/28/1988	52.89	12/13/1988	53.22	1/28/1989	52.67
10/29/1988	52.85	12/14/1988	53.21	1/29/1989	52.66
10/30/1988	52.82	12/15/1988	53.19	1/30/1989	52.64
10/31/1988	52.79	12/16/1988	53.17	1/31/1989	52.63
11/1/1988	52.76	12/17/1988	53.13	2/1/1989	52.61
11/2/1988	52.73	12/18/1988	53.1	2/2/1989	52.59
11/3/1988	52.69	12/19/1988	53.07	2/3/1989	52.58
11/4/1988	52.7	12/20/1988	53.01	2/4/1989	52.56
11/5/1988	52.68	12/21/1988	52.99	2/5/1989	52.54
11/6/1988	52.68	12/22/1988	52.97	2/6/1989	52.53
11/7/1988	52.66	12/23/1988	52.95	2/7/1989	52.51
11/8/1988	52.63	12/24/1988	52.93	2/8/1989	52.48
11/9/1988	52.6	12/25/1988	52.9	2/9/1989	52.46
11/10/1988	52.58	12/26/1988	52.87	2/10/1989	52.43
11/11/1988	52.55	12/27/1988	52.85	2/11/1989	52.4
11/12/1988	52.53	12/28/1988	52.82	2/12/1989	52.38
11/13/1988	52.5	12/29/1988	52.8	2/13/1989	52.36
11/14/1988	52.48	12/30/1988	52.78	2/14/1989	52.34
11/15/1988	52.46	12/31/1988	52.75	2/15/1989	52.32
11/16/1988	52.43	1/1/1989	52.73	2/16/1989	52.31
11/17/1988	52.41	1/2/1989	52.71	2/17/1989	52.29
11/18/1988	52.39	1/3/1989	52.68	2/18/1989	52.27
11/19/1988	52.37	1/4/1989	52.66	2/19/1989	52.25
11/20/1988	52.35	1/5/1989	52.64	2/20/1989	52.23
11/21/1988	52.33	1/6/1989	52.61	2/21/1989	52.21
11/22/1988	52.41	1/7/1989	52.59	2/22/1989	52.26
11/23/1988	53.25	1/8/1989	52.57	2/23/1989	52.24
11/24/1988	53.4	1/9/1989	52.55	2/24/1989	52.22
11/25/1988	53.43	1/10/1989	52.53	2/25/1989	52.2
11/26/1988	53.43	1/11/1989	52.51	2/26/1989	52.18

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
2/27/1989	52.16	4/14/1989	51.53	5/31/1989	50.33
2/28/1989	52.14	4/15/1989	51.57	6/1/1989	50.3
3/1/1989	52.15	4/16/1989	51.59	6/2/1989	50.27
3/2/1989	52.23	4/17/1989	51.58	6/3/1989	50.24
3/3/1989	52.28	4/18/1989	51.56	6/4/1989	50.21
3/4/1989	52.28	4/19/1989	51.53	6/5/1989	50.18
3/5/1989	52.27	4/21/1989	51.48	6/6/1989	50.22
3/6/1989	52.25	4/22/1989	51.45	6/7/1989	50.28
3/7/1989	52.24	4/23/1989	51.42	6/8/1989	50.35
3/8/1989	52.22	4/24/1989	51.4	6/9/1989	50.33
3/9/1989	52.2	4/25/1989	51.37	6/10/1989	50.3
3/10/1989	52.18	4/26/1989	51.34	6/11/1989	50.28
3/11/1989	52.15	4/27/1989	51.32	6/12/1989	50.25
3/12/1989	52.13	4/28/1989	51.29	6/13/1989	50.22
3/13/1989	52.11	4/29/1989	51.26	6/14/1989	50.2
3/14/1989	52.1	4/30/1989	51.23	6/15/1989	50.16
3/15/1989	52.08	5/1/1989	51.2	6/16/1989	50.13
3/16/1989	52.06	5/2/1989	51.18	6/17/1989	50.15
3/17/1989	52.05	5/3/1989	51.15	6/18/1989	50.14
3/18/1989	52.03	5/4/1989	51.12	6/19/1989	50.18
3/19/1989	52.01	5/5/1989	51.09	6/20/1989	50.17
3/20/1989	51.99	5/6/1989	51.06	6/21/1989	50.23
3/21/1989	51.97	5/7/1989	51.02	6/22/1989	50.23
3/22/1989	51.95	5/8/1989	50.99	6/23/1989	50.23
3/23/1989	51.96	5/9/1989	50.95	6/24/1989	50.31
3/24/1989	51.97	5/10/1989	50.92	6/25/1989	50.5
3/25/1989	51.96	5/11/1989	50.93	6/26/1989	50.48
3/26/1989	51.94	5/12/1989	50.9	6/27/1989	50.46
3/27/1989	51.92	5/13/1989	50.87	6/28/1989	50.47
3/28/1989	51.9	5/14/1989	50.84	6/29/1989	50.55
3/29/1989	51.88	5/15/1989	50.81	6/30/1989	50.65
3/30/1989	51.86	5/16/1989	50.78	7/1/1989	50.67
3/31/1989	51.84	5/17/1989	50.75	7/2/1989	50.68
4/1/1989	51.82	5/18/1989	50.72	7/3/1989	50.69
4/2/1989	51.79	5/19/1989	50.69	7/4/1989	50.66
4/3/1989	51.77	5/20/1989	50.65	7/5/1989	50.63
4/4/1989	51.74	5/21/1989	50.63	7/6/1989	50.61
4/5/1989	51.73	5/22/1989	50.6	7/7/1989	50.58
4/6/1989	51.7	5/23/1989	50.56	7/8/1989	50.55
4/7/1989	51.67	5/24/1989	50.53	7/9/1989	50.52
4/8/1989	51.65	5/25/1989	50.51	7/10/1989	50.49
4/9/1989	51.62	5/26/1989	50.48	7/11/1989	50.48
4/10/1989	51.6	5/27/1989	50.45	7/12/1989	50.46
4/11/1989	51.59	5/28/1989	50.42	7/13/1989	50.44
4/12/1989	51.56	5/29/1989	50.39	6/8/1990	48.34
4/13/1989	51.54	5/30/1989	50.36	7/10/1990	48.92

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
7/24/1990	49.78	5/26/1991	48.47	11/6/1991	51.5
8/22/1990	49.64	5/28/1991	48.48	11/8/1991	51.46
9/14/1990	50.76	5/29/1991	48.42	11/10/1991	51.44
10/9/1990	50.4	6/2/1991	48.3	11/17/1991	51.3
10/23/1990	50.72	6/7/1991	48.2	11/25/1991	51.27
11/14/1990	50.3	6/9/1991	48.18	12/6/1991	51.26
11/27/1990	50.1	6/11/1991	48.12	12/9/1991	51.04
12/10/1990	49.9	6/12/1991	48.1	12/18/1991	50.9
1/5/1991	49.5	6/13/1991	48.08	12/22/1991	50.8
1/8/1991	49.47	6/14/1991	47.98	12/26/1991	50.78
1/12/1991	49.48	6/16/1991	47.96	12/30/1991	50.78
1/17/1991	49.42	6/18/1991	47.92	1/1/1992	50.74
1/19/1991	49.38	6/19/1991	48.08	1/6/1992	50.65
1/23/1991	49.32	6/20/1991	48.12	1/15/1992	50.48
1/27/1991	49.3	6/21/1991	48.09	1/17/1992	50.46
2/5/1991	49.28	6/22/1991	48.06	1/23/1992	50.48
2/7/1991	49.25	6/23/1991	48.08	1/27/1992	50.44
2/8/1991	49.28	6/24/1991	48	2/5/1992	50.64
2/10/1991	49.19	6/25/1991	48.22	2/6/1992	50.62
2/13/1991	49.12	6/26/1991	48.25	2/9/1992	50.56
2/17/1991	49.09	6/30/1991	48.17	2/14/1992	50.48
2/19/1991	49.05	7/29/1991	50.34	2/17/1992	50.52
2/24/1991	48.95	8/26/1991	52.1	2/21/1992	50.56
3/4/1991	48.93	9/1/1991	52.6	2/24/1992	50.4
3/6/1991	49	9/2/1991	52.6	2/28/1992	50.52
3/10/1991	48.95	9/3/1991	52.6	3/4/1992	50.46
3/17/1991	48.92	9/4/1991	52.58	3/7/1992	50.42
3/18/1991	49.1	9/5/1991	52.52	3/9/1992	50.39
3/19/1991	49.12	9/7/1991	52.5	3/14/1992	50.36
3/23/1991	49.05	9/15/1991	52.3	3/18/1992	50.25
3/26/1991	49	9/16/1991	52.28	3/20/1992	50.2
3/31/1991	48.98	9/18/1991	52.26	3/21/1992	50.18
4/3/1991	48.85	9/21/1991	52.2	3/23/1992	50.14
4/7/1991	49.08	9/23/1991	52.1	3/24/1992	50.15
4/10/1991	49.1	9/25/1991	52.06	3/28/1992	50.1
4/14/1991	48.9	9/26/1991	52.08	4/1/1992	49.9
4/16/1991	48.87	9/27/1991	52.06	4/4/1992	49.8
4/19/1991	48.8	9/29/1991	52	4/7/1992	49.8
4/21/1991	48.84	9/30/1991	51.98	4/17/1992	49.76
4/22/1991	48.7	10/2/1991	51.96	4/22/1992	49.7
4/24/1991	48.9	10/6/1991	52	4/24/1992	49.65
4/28/1991	49	10/13/1991	52	4/25/1992	49.6
5/6/1991	48.75	10/14/1991	52	4/27/1992	49.6
5/12/1991	48.5	10/22/1991	51.83	4/28/1992	49.56
5/14/1991	48.49	10/28/1991	51.7	5/26/1992	48.7
5/19/1991	48.38	11/2/1991	51.1	6/23/1992	48.44

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
7/27/1992	48.66	12/21/1995	50.54	1/12/1998	53.08
8/24/1992	50.08	1/29/1996	50.68	1/20/1998	53.32
9/28/1992	50.36	2/8/1996	50.77	1/26/1998	53.46
10/26/1992	50.6	2/26/1996	50.6	2/17/1998	54.14
11/20/1992	50.24	3/25/1996	50.78	2/18/1998	54.24
12/28/1992	49.92	4/24/1996	51.04	2/23/1998	54.18
1/25/1993	49.84	5/20/1996	50.48	2/25/1998	54.1
2/22/1993	49.62	6/17/1996	50.24	2/26/1998	54.04
3/29/1993	49.78	7/18/1996	50.06	3/16/1998	54.16
4/26/1993	49.78	8/8/1996	50	3/20/1998	54.76
5/24/1993	49.06	8/21/1996	50.44	3/23/1998	54.92
6/28/1993	48.34	9/17/1996	49.98	4/6/1998	54.22
7/26/1993	48.4	10/21/1996	49.74	4/20/1998	53.34
8/23/1993	48.28	10/22/1996	49.74	4/27/1998	52.9
9/28/1993	48.9	11/12/1996	49.38	5/5/1998	52.6
10/25/1993	48.46	11/20/1996	49.24	5/12/1998	52.36
11/18/1993	48.32	12/10/1996	49.1	5/18/1998	52.14
12/27/1993	47.78	12/18/1996	48.98	6/1/1998	51.88
1/24/1994	47.82	1/21/1997	48.52	6/15/1998	51.49
2/21/1994	47.88	1/30/1997	48.48	6/18/1998	51.39
3/29/1994	47.26	2/17/1997	48.2	6/22/1998	51.28
4/21/1994	46.52	2/27/1997	48.08	7/7/1998	51
5/26/1994	44.95	3/10/1997	47.82	7/20/1998	51.54
6/30/1994	44.37	3/17/1997	47.64	7/20/1998	51.52
7/25/1994	45.98	3/26/1997	47.68	7/27/1998	51.6
8/25/1994	48.17	4/7/1997	47.38	8/3/1998	51.7
8/30/1994	48.74	4/21/1997	47.1	8/10/1998	52
9/27/1994	49.74	4/24/1997	47.24	8/17/1998	51.88
10/24/1994	50.4	4/30/1997	47.5	8/18/1998	51.89
11/25/1994	50.18	5/12/1997	47.1	8/24/1998	52.08
11/28/1994	50.18	5/21/1997	46.9	9/8/1998	52.74
12/27/1994	50.08	6/16/1997	46.16	9/21/1998	53.58
1/17/1995	50.68	6/23/1997	45.86	9/22/1998	53.66
1/23/1995	50.64	7/21/1997	46.62	9/28/1998	53.86
2/20/1995	50.3	7/29/1997	46.58	10/5/1998	53.74
3/28/1995	49.84	8/18/1997	47.82	10/20/1998	52.94
4/24/1995	49.66	8/25/1997	47.88	10/26/1998	52.66
5/24/1995	48.92	9/15/1997	47.36	11/2/1998	52.46
6/28/1995	49.5	9/16/1997	47.36	11/9/1998	52.38
7/26/1995	49.38	9/22/1997	47.14	11/16/1998	52.24
8/30/1995	49.88	10/20/1997	47.52	11/23/1998	52.14
9/27/1995	49.98	10/28/1997	47.8	12/1/1998	52
10/25/1995	51.4	11/10/1997	48.24	12/7/1998	51.92
11/20/1995	52	11/17/1997	48.3	12/14/1998	51.84
11/29/1995	50.86	12/8/1997	48.6	12/21/1998	51.74
12/11/1995	50.68	12/15/1997	50	12/28/1998	51.64

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
1/4/1999	51.7	11/22/1999	49.58	10/23/2000	47.02
1/11/1999	51.66	11/23/1999	49.51	10/31/2000	46.86
1/19/1999	51.58	12/6/1999	49.36	11/7/2000	46.68
1/25/1999	51.7	12/13/1999	49.28	11/13/2000	46.52
2/2/1999	51.6	12/27/1999	49.09	11/21/2000	46.36
2/8/1999	51.49	1/3/2000	48.98	11/27/2000	46.32
2/16/1999	51.34	1/10/2000	48.88	12/5/2000	46.15
2/22/1999	51.22	1/19/2000	48.71	12/12/2000	46.05
3/1/1999	51.1	1/24/2000	48.64	12/18/2000	45.9
3/8/1999	50.98	1/31/2000	48.56	12/28/2000	45.64
3/15/1999	50.94	2/7/2000	48.42	1/3/2001	45.51
3/22/1999	50.79	2/14/2000	48.33	1/9/2001	45.2
3/29/1999	50.62	2/21/2000	48.26	1/18/2001	45.05
4/5/1999	50.48	2/28/2000	48.1	1/23/2001	44.93
4/12/1999	50.28	3/6/2000	47.9	1/29/2001	44.9
4/19/1999	50.12	3/13/2000	47.75	2/6/2001	44.67
4/26/1999	49.94	3/20/2000	47.59	2/13/2001	44.4
5/3/1999	49.82	3/27/2000	47.42	2/20/2001	43.75
5/10/1999	49.64	4/3/2000	47.22	2/26/2001	44.69
5/17/1999	49.44	4/10/2000	47	3/6/2001	44.08
5/24/1999	49.42	4/17/2000	46.85	3/12/2001	44.65
6/1/1999	49.24	4/24/2000	46.55	3/13/2001	44.26
6/7/1999	49.1	5/1/2000	46.28	3/19/2001	44.15
6/14/1999	49.06	5/8/2000	46.01	3/26/2001	43.92
6/21/1999	49.3	5/15/2000	45.69	4/2/2001	44.21
6/28/1999	49.36	5/22/2000	45.28	4/9/2001	43.97
7/6/1999	49.28	5/30/2000	44.63	4/16/2001	42.63
7/9/1999	49.26	6/6/2000	44.02	4/24/2001	43
7/12/1999	49.3	6/12/2000	43.62	7/30/2001	47.56
7/19/1999	49.36	6/20/2000	44.51	8/6/2001	47.5
7/26/1999	49.4	6/28/2000	44.44	8/13/2001	47.32
8/2/1999	49.3	7/10/2000	44.41	8/21/2001	47.11
8/16/1999	49.18	7/17/2000	45.23	8/27/2001	46.95
8/23/1999	49.51	7/24/2000	46.68	9/10/2001	47.18
8/30/1999	49.47	8/1/2000	47.22	9/17/2001	48.38
9/7/1999	49.34	8/8/2000	47.19	9/24/2001	48.26
9/13/1999	49.22	8/15/2000	47.58	10/1/2001	48.22
9/20/1999	49.16	8/22/2000	47.44	10/8/2001	48.06
9/27/1999	49.12	8/28/2000	47.3	10/15/2001	47.92
10/4/1999	49.9	9/6/2000	47.49	10/22/2001	47.8
10/11/1999	50.02	9/11/2000	47.48	10/29/2001	47.62
10/18/1999	49.9	9/18/2000	47.67	11/5/2001	47.48
10/25/1999	49.88	9/26/2000	47.74	11/13/2001	47.3
11/1/1999	49.74	10/3/2000	47.56	11/19/2001	47.2
11/8/1999	49.79	10/10/2000	47.38	11/26/2001	47.06
11/15/1999	49.68	10/17/2000	47.19	12/3/2001	46.91

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]	Date	Stage [ft, NGVD]
12/11/2001	46.8	11/12/2002	49.45	10/6/2003	52.68
12/17/2001	46.77	11/18/2002	49.5	10/13/2003	52.65
12/31/2001	46.38	11/25/2002	49.38	10/20/2003	52.47
1/7/2002	46.62	12/2/2002	49.26	10/27/2003	52.32
1/14/2002	46.52	12/9/2002	49.26	11/4/2003	52.2
1/22/2002	46.4	12/16/2002	50.46	11/10/2003	52.18
1/28/2002	46.27	12/30/2002	50.54	11/17/2003	52.04
2/5/2002	46.07	1/6/2003	50.86	11/24/2003	52.02
2/11/2002	45.98	1/13/2003	50.8	12/1/2003	51.91
2/18/2002	45.78	1/21/2003	50.75	12/8/2003	51.8
2/25/2002	45.86	1/27/2003	50.68	12/15/2003	51.88
3/4/2002	45.98	2/3/2003	50.59	12/22/2003	51.77
3/11/2002	45.84	2/10/2003	50.66	12/29/2003	51.68
3/18/2002	45.58	2/18/2003	50.72	1/21/2004	51.52
3/26/2002	45.18	2/25/2003	50.78	1/26/2004	51.44
4/1/2002	45.02	3/3/2003	50.87	2/16/2004	51.86
4/8/2002	44.4	3/10/2003	50.94	2/23/2004	51.76
4/16/2002	44	3/17/2003	50.9	2/26/2004	52.32
4/22/2002	43.42	3/24/2003	51.06	3/22/2004	52.17
4/29/2002	44.61	4/1/2003	51.2	3/29/2004	52
5/7/2002	44.17	4/7/2003	51.12	4/19/2004	51.8
5/14/2002	43.87	4/14/2003	51	4/27/2004	51.62
5/21/2002	43.98	4/21/2003	50.84	5/17/2004	51.22
5/28/2002	43.53	4/28/2003	50.84	5/25/2004	51.05
6/3/2002	43.19	5/5/2003	50.66	6/14/2004	50.88
6/19/2002	43.63	5/12/2003	50.48	6/22/2004	50.76
6/27/2002	46.8	5/21/2003	50.3	6/28/2004	50.7
7/1/2002	47.63	5/27/2003	50.18	7/20/2004	51.7
7/9/2002	47.53	6/2/2003	49.99	7/27/2004	52.22
7/15/2002	47.73	6/9/2003	50.02	8/16/2004	53.05
7/23/2002	48.38	6/16/2003	49.83	8/30/2004	52.61
7/29/2002	48.57	6/23/2003	51.38	9/20/2004	53.57
8/5/2002	48.66	7/1/2003	51.66	9/29/2004	54.12
8/12/2002	48.5	7/7/2003	51.64	10/18/2004	53.15
8/19/2002	48.61	7/14/2003	51.76	10/25/2004	52.94
8/26/2002	48.47	7/21/2003	51.66	11/8/2004	52.47
9/3/2002	49.41	7/28/2003	51.59	11/22/2004	52.17
9/9/2002	49.52	8/4/2003	51.64	12/7/2004	52.08
9/16/2002	49.47	8/11/2003	52.4	12/27/2004	51.9
9/23/2002	49.4	8/18/2003	52.48	1/18/2005	51.8
9/30/2002	49.37	8/25/2003	52.94	1/25/2005	51.74
10/7/2002	49.18	9/2/2003	53.2	2/14/2005	51.46
10/14/2002	49.52	9/8/2003	53.74	2/22/2005	51.3
10/22/2002	49.54	9/15/2003	53.42	3/21/2005	51.38
10/28/2002	49.7	9/22/2003	53.1	3/29/2005	51.46
11/4/2002	49.58	9/29/2003	52.9	4/18/2005	51.1

Crews Lake - SWFWMD Universal Identification Number STA 120 120

Date	Stage [ft, NGVD]
4/25/2005	50.95
5/18/2005	50.8
5/23/2005	50.64
6/21/2005	50.47
6/27/2005	50.58
7/18/2005	51.22
7/25/2005	51.12
8/15/2005	51.36
8/22/2005	51.36
8/29/2005	51.25
9/19/2005	50.8
9/27/2005	50.64
10/17/2005	50.53
10/31/2005	50.44
11/14/2005	50.18
12/13/2005	50.02

Appendix E

Survey Reports, Field Notes, and Historical Photographs.

SURVEYOR'S REPORT

Lake Level Data for the Establishment of Minimum Flows and Levels – Crews Lake – Pasco County, Florida

Type of Survey: TOPOGRAPHIC

Date of Survey: April 17, 2006

This report is to certify the information transmitted digitally within the following file named: Crews Lake 06-111.xls dated May 4, 2006, 10:03:37 a.m., 19,968 bytes.

Vertical Accuracy, Datum, and Origin: Elevations meet the accuracy requirements stated in Chapter 61G17-6.003, Florida Administrative Code. Elevation units are U.S. survey feet and refer to the National Geodetic Vertical Datum of 1929 (NGVD 29). These elevations originate from National Geodetic Survey benchmarks B 258 (AL6352), published elevation 68.59 feet and C 261 (AL6185), published elevation 72.13 feet.

Horizontal Accuracy and Datum: Positions of the Universal Transverse Mercator (UTM) grid coordinates are accurate to within 30 feet and refer to the North American Datum of 1983 (NAD 83).

Ron Samek

5-4-06

Ron Samek, PSM

Date of Signature

Florida Professional Surveyor and Mapper No. 5286

Southwest Florida Water Management District

2379 Broad Street (U.S. 41 South)

Brooksville, Florida 34604-6899

(352) 796-7211 (800) 423-1476

This survey map, data and/or report or the copies thereof are not valid without the signature and the original raised seal of a Florida licensed Surveyor and Mapper. Additions or deletions to these survey maps, data or reports by other than the signing party or parties is prohibited by law without the written consent of the signing party or parties. When data is delivered in digital form only, a report is required by law, neither the data or report is full and complete without the other.

"Lake Level Data for the Establishment of Minimum Flows and Levels - Crews Lake - Pasco County, Florida"

Work Order #06-111		Sections 20, 21 and 29, Township 24 South, Range 18 East Field Book: 15/92 pages 2-13			Date of Survey: April 17, 2006		
Ref. No.	Field Book Page	Item	Description/Comments	Elevation	X UTM Meters	Y UTM Meters	Address/Location
1	15/92, 2	Pier	Boardwalk - west end	54.9'	349898	3139934	
2	15/92, 2	Pier	Boardwalk - middle (approximately)	55.2'	349939	3139926	
3	15/92, 2	Pier	Boardwalk - east end	55.4'	350007	3139906	
4	15/92, 2	Floor	Concrete - Pavilion #1	58.45'	349855	3139920	
5	15/92, 3	Floor	Concrete - Restrooms	57.45'	349840	3139868	Between Pavilions #1 and #2
6	15/92, 3	Floor	Concrete - Pavilion #2	57.62'	349814	3139810	
7	15/92, 3	Water level	Gauge reading 48.80' (04/10/2006, 3:00 p.m.)	48.78'	350007	3139906	Crews Lake
8	15/92, 3	Floor	Observation Tower	56.9'	349975	3139975	
9	15/92, 5	Floor	1 story green wood house	59.50'	350242	3140122	West side of lake, North of park and East of yellow house
10	15/92, 5	Floor	2 story yellow wood house	62.20'	350110	3140144	West side of lake just North of park
11	15/92, 13	Ground	3' North of North invert on concrete spillway	50.1'			Water control structure at North end of Crews Lake
12	15/92, 13	Invert	North invert of 60" corrugated metal, 48' long	51.64'			Water control structure at North end of Crews Lake
13	15/92, 13	Culvert	North top of 60" corrugated metal pipe, 48' long	56.6'			Water control structure at North end of Crews Lake
14	15/92, 13	Ground	Centerline 60" corrugated metal pipe and berm	57.6'	351795	3141145	Water control structure at North end of Crews Lake
15	15/92, 13	Culvert	South top of 60" corrugated metal pipe, 48' long	56.8'			Water control structure at North end of Crews Lake
16	15/92, 13	Invert	South invert of 60" corrugated metal pipe, 48' long	51.78'			Water control structure at North end of Crews Lake
17	15/92, 13	Ground	5' South of South invert of 60" corrugated metal pipe, 48' long	51.4'			Water control structure at North end of Crews Lake

Legend:

BM-benchmark
SWFWMD-Southwest Florida Water Management District
UTM-universal transverse mercator

"Lake Level Data for the Establishment of Minimum Flows and Levels - Crews Lake - Pasco County, Florida"

Work Order #06-111		Sections 20, 21 and 29, Township 24 South, Range 18 East Field Book: 15/92 pages 2-13				Date of Survey: April 17, 2006	
Ref. No.	Field Book Page	Item	Description/Comments	Elevation	X UTM Meters	Y UTM Meters	Address/Location
18	15/92, 2, 3, 10	Benchmark	2418S20-BM-06-111-01	54.95'	349898	3139939	Cut square in sidewalk 1'± West of start of wood boardwalk, West side of Crews Lake at County park, near West end of Boardwalk, North of Pavilion #1
19	15/92, 10	Benchmark	2418S20-BM-06-111-02	57.39'	349869	3139943	Cut square in sidewalk 1'± East of asphalt walkway, West side of Crews Lake at County park, near West end of Boardwalk, North of Pavilion #1
20	15/92, 11	Benchmark	2418S21-BM-06-111-01	67.90'	352628	3140754	Set bridge spike and SWFWMD disk in South face of East gate post, 0.2'± below ground at intersection of Main Ranch Road (paved) at two field roads 25'± West of SWFWMD Well Site
21	15/92, 12, 13	Reference Mark	Cut "V" at North end of 60" corrugated metal pipe on high spot of V cut	56.44'	351795	3141145	Water control structure at North end of Crews Lake
This survey map, data and/or report or the copies thereof are not valid without the signature and the original raised seal of a Florida licensed surveyor and mapper. Additions or deletions to these survey maps, data or reports by other than the signing party or parties is prohibited by law without written consent of the signing party or parties. When data is delivered in digital form only, a report is required by law, neither the data or report are full and complete without the other.							

Legend:

BM-benchmark
SWFWMD-Southwest Florida Water Management District
UTM-universal transverse mercator

PLEASE RETURN FOR FILING

BASIN: COASTAL RIVERS COUNTY: PASCO QUAD: PORT RICHEY LAKE: CREWS
 WORK ORDER NO: 83163 SEC: 20 TWP: 24 RGE: 18
 FIELD PARTY: BUNTING DATE: 1/5/89 OFFICE: RAH DATE: 1/12/84 FB: 15/4 PG: 39

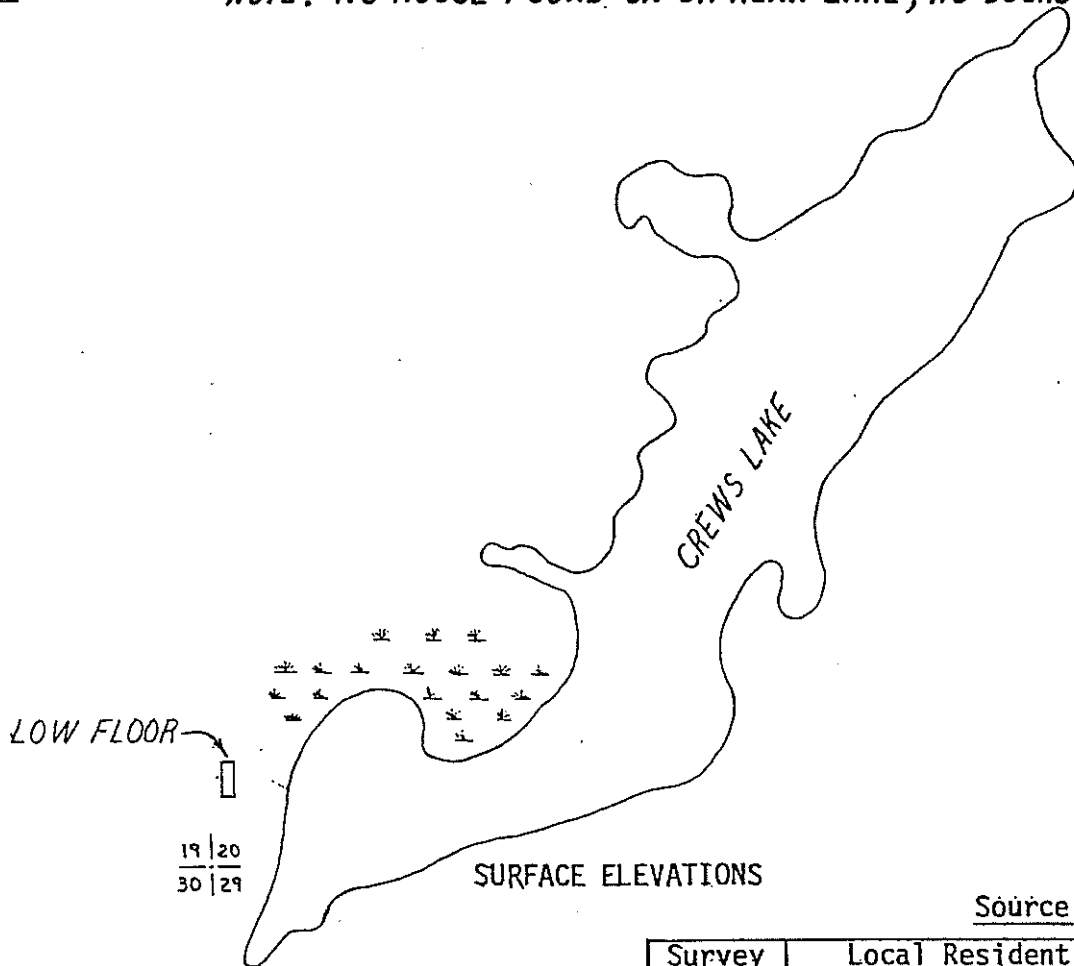
SKETCH:

Elevations NGVD	Location on Lake	Remarks
60.78	1,000' WEST OF LAKE	HOUSE TRAILER

SCALED COORDINATES: ZONE: WEST

Y: 1,470,200[±] X: 328,000[±]

NOTE: NO HOUSE FOUND ON OR NEAR LAKE, NO DOCKS



Present: 53.50' Date: 11/5/84
Normal High: _____
Normal Low: _____
Highest Known: _____ Date: / /

Survey	Local Resident - Name Address - Phone No.	Water Mark



MAY • 56

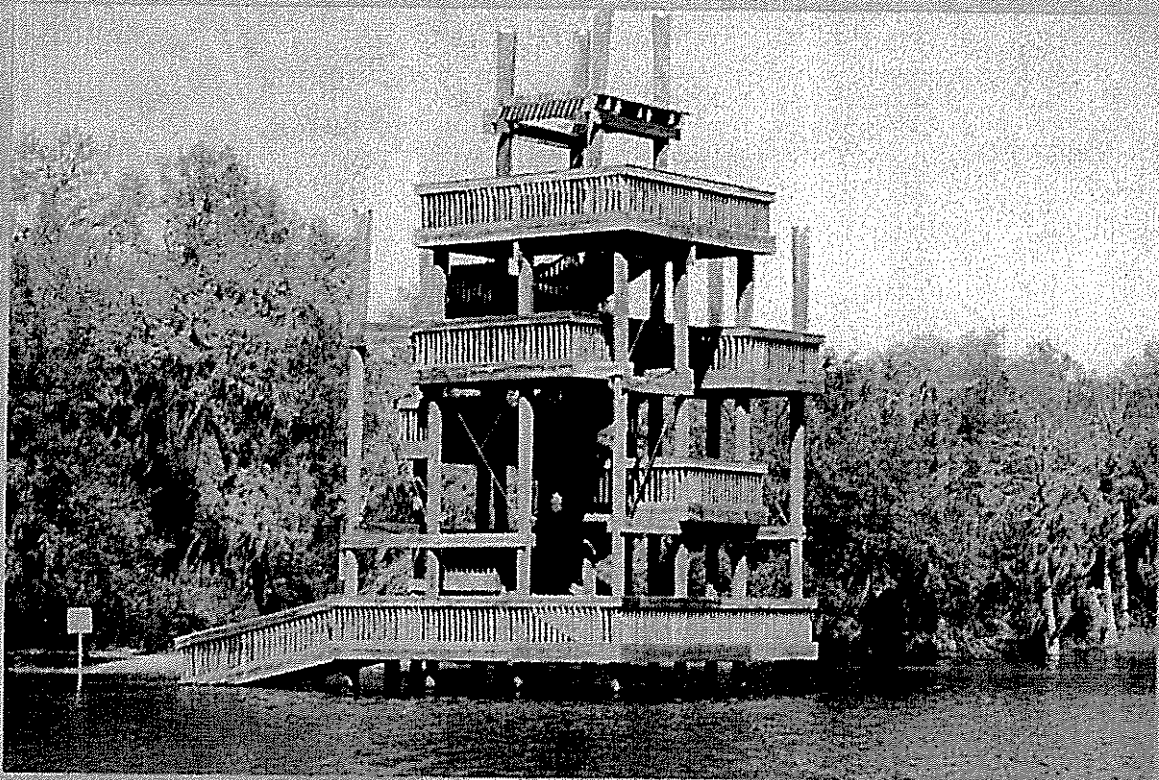
Crews Lake - Pasco County 1956



Crews Lake Sinkhole
Pasco County - 1983



Crews Lake - Pasco Co.
1997



Crews Lake - Pasco Co.
1997



Crews Lake - Pasco County
July, 1994

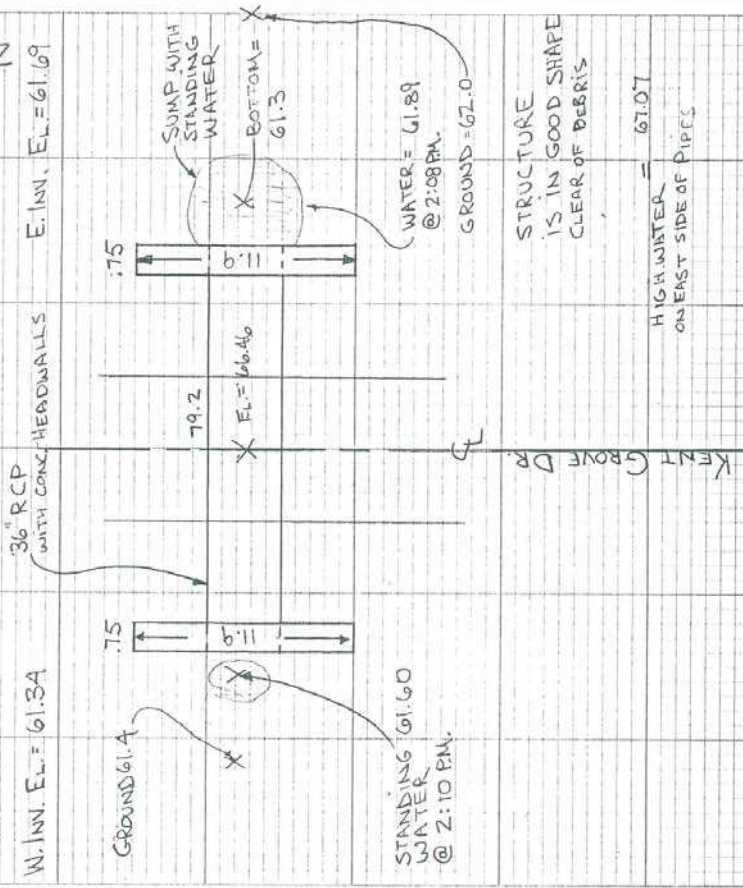


Masaryktown Canal looking west to
Crews Lake -- Pasco County Oct. 1982

930366
12-14-93
LAPHAM
FIELDS

COTEE RIVER BASIN STUDY
SECT. 5, 25, 18
SCR-180

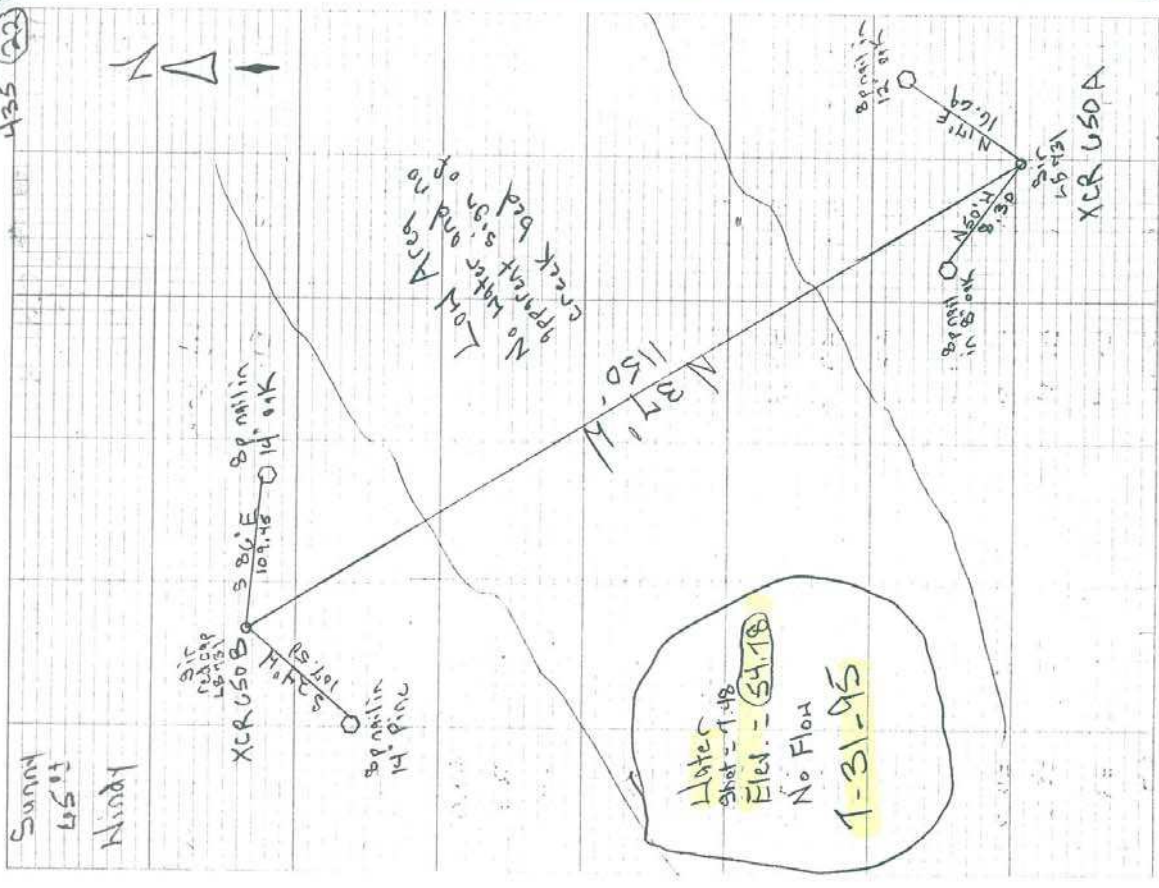
70°±
RAINY



STRUCTURE
IS IN GOOD SHAPE
CLEAR OF DEBRIS

HIGH WATER = 67.07
ON EAST SIDE OF PIPES

Don R. ✓



Cotee River Basin Study			
Section 5-25-18			
X Sect XCR 650			
Station	FS	HI	BM
Cont. on next page (23)			
8+00	7.8	54.6	0.95
7+50	8.0	54.4	0.95
7+00	8.1	54.3	0.95
6+50	7.9	54.5	0.95
6+00	8.1	54.3	0.95
5+50	8.1	54.3	0.95
5+00	8.0	54.4	0.95
4+50	8.0	54.4	0.95
4+00	8.3	54.1	0.95
3+50	8.0	54.4	0.95
3+00	7.9	54.5	0.95
2+65	7.7	54.7	0.95
2+50	7.0	55.4	0.95
2+10	5.5	56.9	0.95
2+00	5.2	57.2	0.95
1+50	3.0	58.8	0.95
1+00	2.7	59.7	0.95
0+50	1.7	60.7	0.95
0+00	0.95	61.43	0.95
S.D. 8-1-95			
Iron bar at XCR 650A			
BM 0729-047			

930366
12-15-95
Smith
Schultz
Erickson

BM
0729-047
El 61.431

Rechecked
7.31.95

HI (62.26)

Toc

Tog

1.43

Station	F.S.	Elev.	Description
930.366 12-13-93 Smith Schallie Erickson		Cater River Basin Study Sect. E-25-18 X Section XCR 050	
H1 62138			
			Reduced 7-31-95
			H1 62.26
11+50	2.80	59.42	Iron Bar at XCR 050 B
11+00	3.1	59.3	2.7 59.6
10+50	4.2	58.2	2.7 59.6 4.3 58.0
10+30	4.3	58.1	Top 4.1 58.2
10+00	4.9	57.5	4.9 51.4
9+50	6.1	56.3	6.0 56.3
9+30	7.0	55.4	7.0 55.3
9+00	7.6	54.8	7.5 54.8
8+50	7.0	54.8	7.5 54.8

Rechecked
7-21-95

HI 62.26

[illegible]

930366
12-13-93
Smith
Schallio
Erickson

Cotee River Basin Study

Sub: 25-18

X Section XCR 050

H1 62.38

Station	FS	El	Description
---------	----	----	-------------

11750	2.90	59.42	Iron Bar at XCR 050 B
-------	------	-------	-----------------------

11500	3.1	59.3
-------	-----	------

10+50	4.2	58.2
-------	-----	------

10+30	4.3	58.1	T08
-------	-----	------	-----

10+00	4.9	57.5
-------	-----	------

9560	6.1	56.3
------	-----	------

9+30	7.0	55.4	Toe
------	-----	------	-----

9400	7.6	54.9
------	-----	------

9+50	1.0	54.8
------	-----	------

1505
Runs



930306

12-14-93

Smith
Schellus
Erickson

Coter River Basin Study

Sept. 5-25-18

Structure SCR 100

Jan 18 ✓

Cloudy

0502

Windy

Homemade Steel I Beam
Bridge over creek
used to get to residence on
North side of Creek

(60.8)

Top of Bridge $El = 61.35$
Bottom of I Beam $El = 60.22$

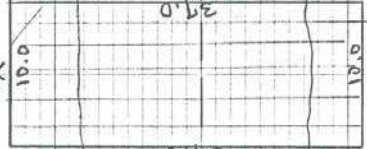
Water $El = 56.87$
sidewalk 12-14-93

651

X

37.0

37.0

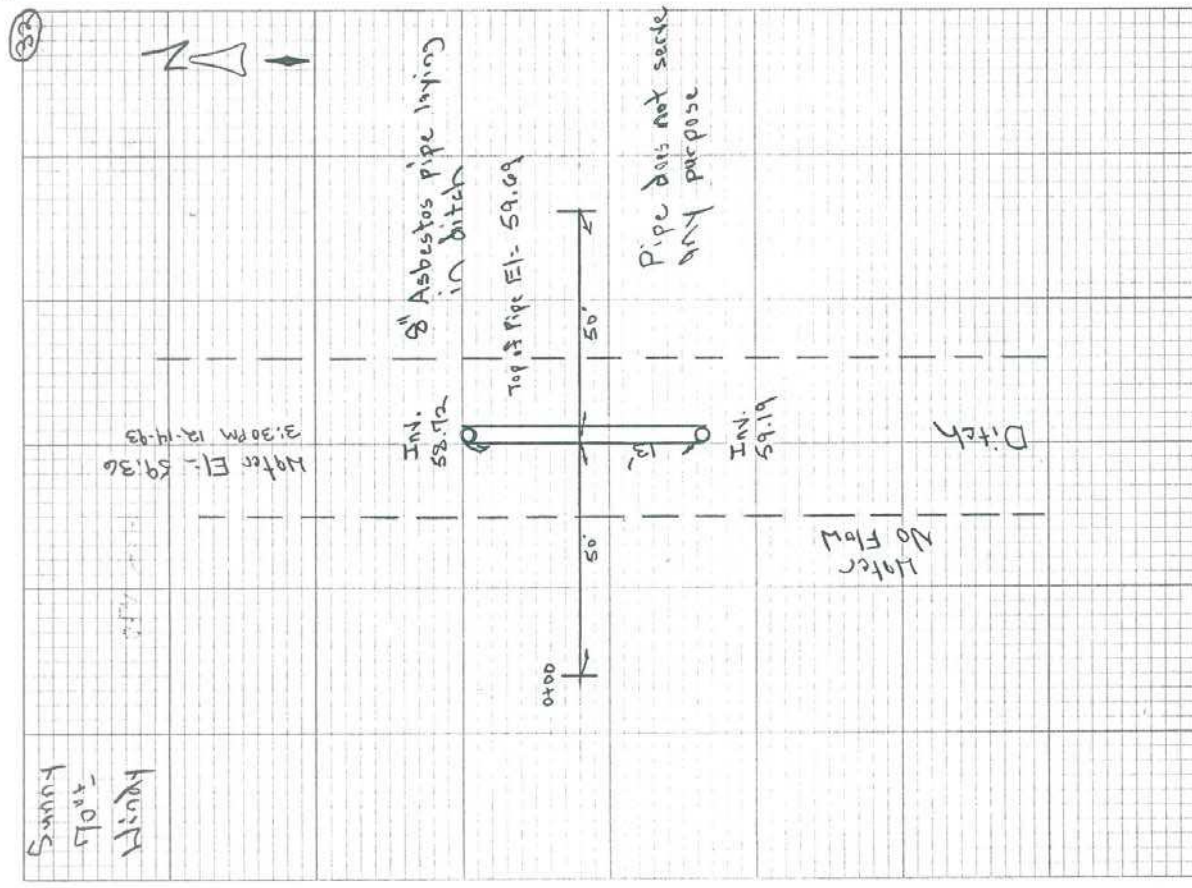


(60.4)

4 Satsun Dr.

930366	Cote River Basin Study	
12-14-93	Section 5-25-18	
Smith Schallis Erickson	Structure SER 170	
		64.85 65.60
Station	Elev.	Desc.
1+00	63.8	
0+64	63.5	TOB
0+52	59.2	TOC
0+50	58.8	± ditch and pipe
0+49	59.0	TOC
0+42	63.0	TOB
0+00	63.9	

Jon R. ✓

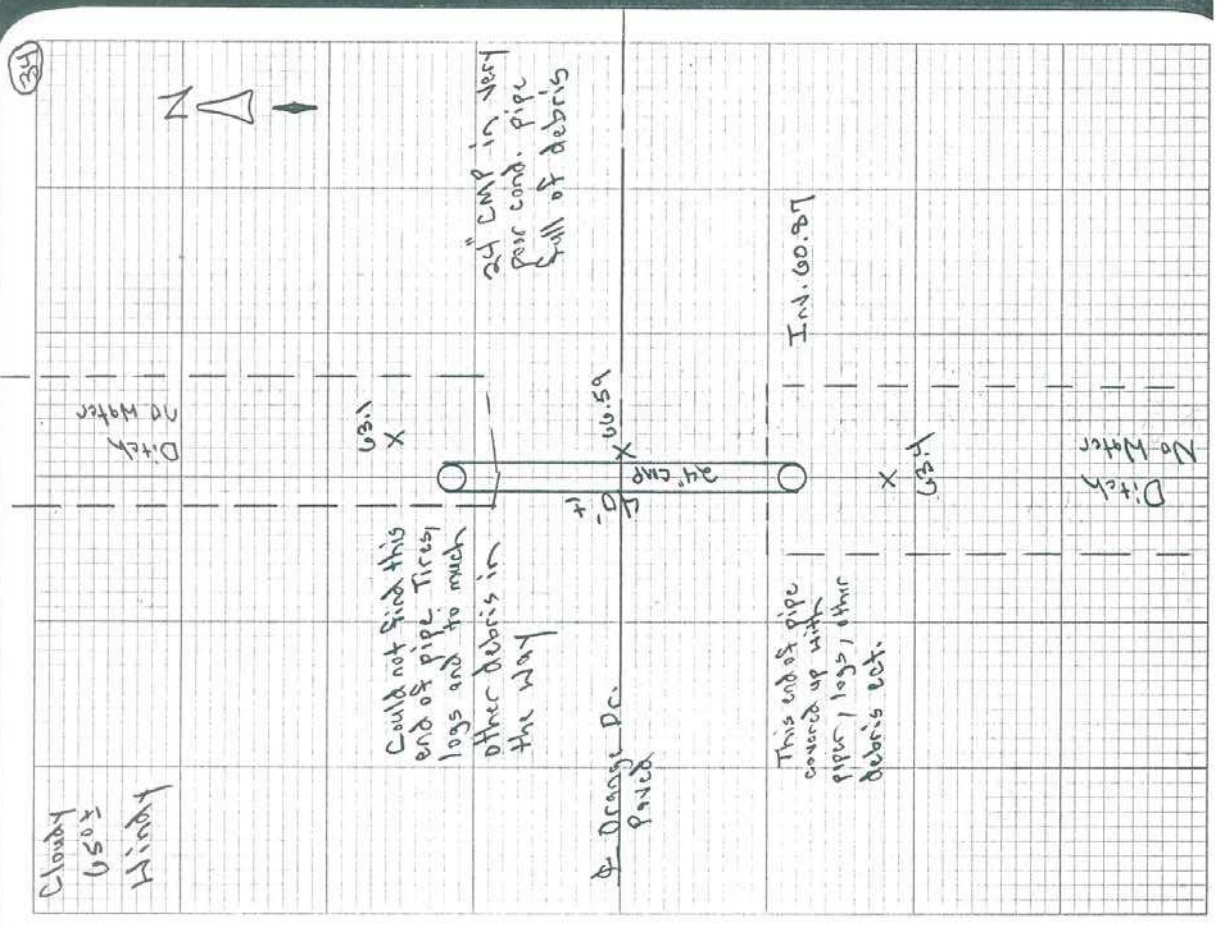


Sunny
70°
Windy

930306
12-15-93
Smith
Schalles
Erickson

Clotac River Basin Study
Section S-25-18
Structure # SCR 175

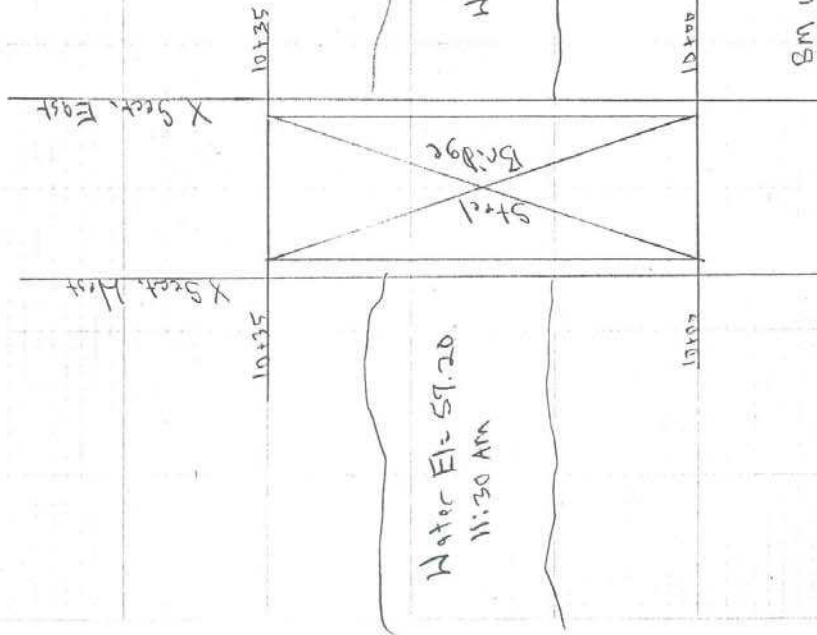
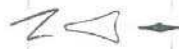
Cloudy
6505
Hindry



Jon R. V

Sunny
82°F

443-78



BM used 0729-063
El = 61.37

Water River Basin Study

Section 5-25-18

Structure SCR 160

930366

10-22-94

Smith
Schellie
Abrams

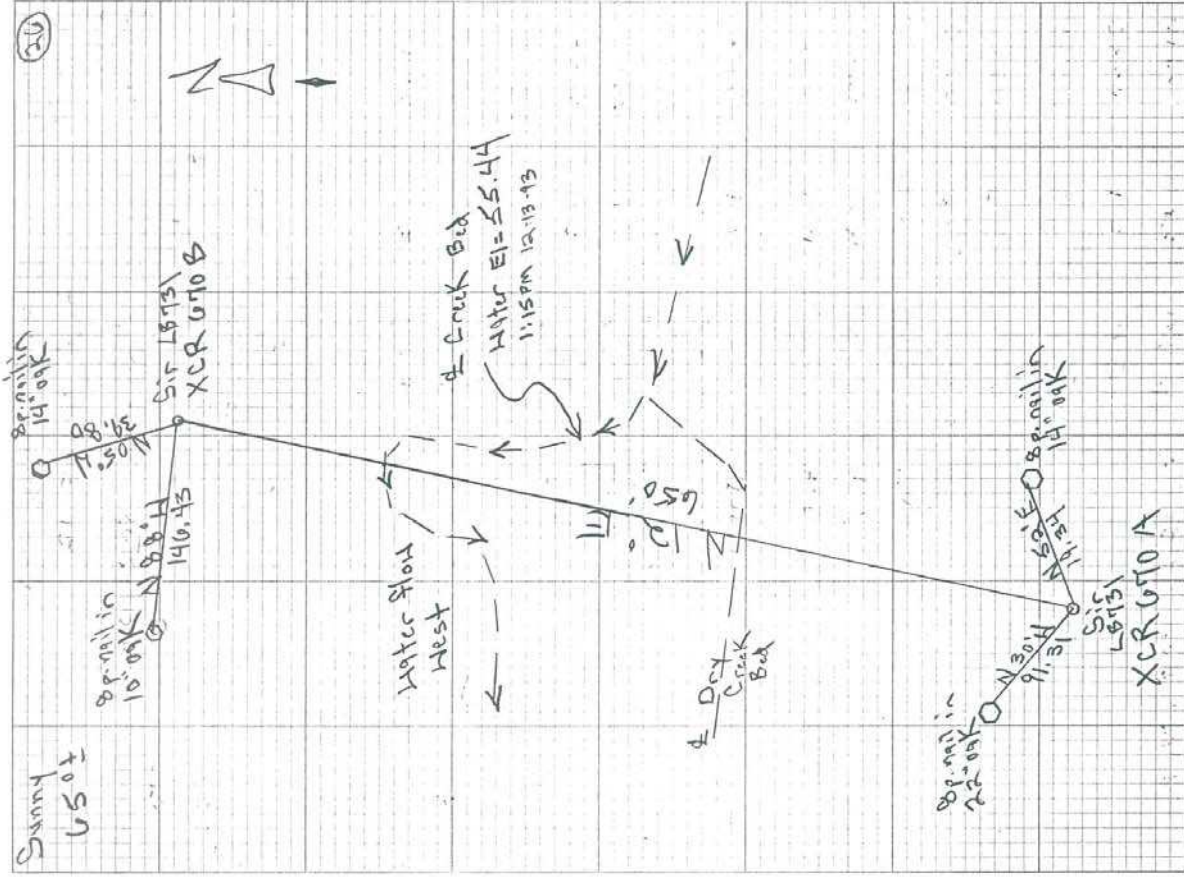
West Station Elw. East Station Elw.

10+85	61.2	10+85	61.7
10+35	61.4	10+35	61.6
10+30	57.0	10+27	57.8
10+24	55.7	10+24	55.7
10+20	55.9	10+20	56.5
10+16	55.9	10+15	56.2
10+12	57.8	10+10	57.5
10+07	59.5	10+06	59.6
10+00	60.3	10+00	60.3
9+50	60.7	9+50	60.7

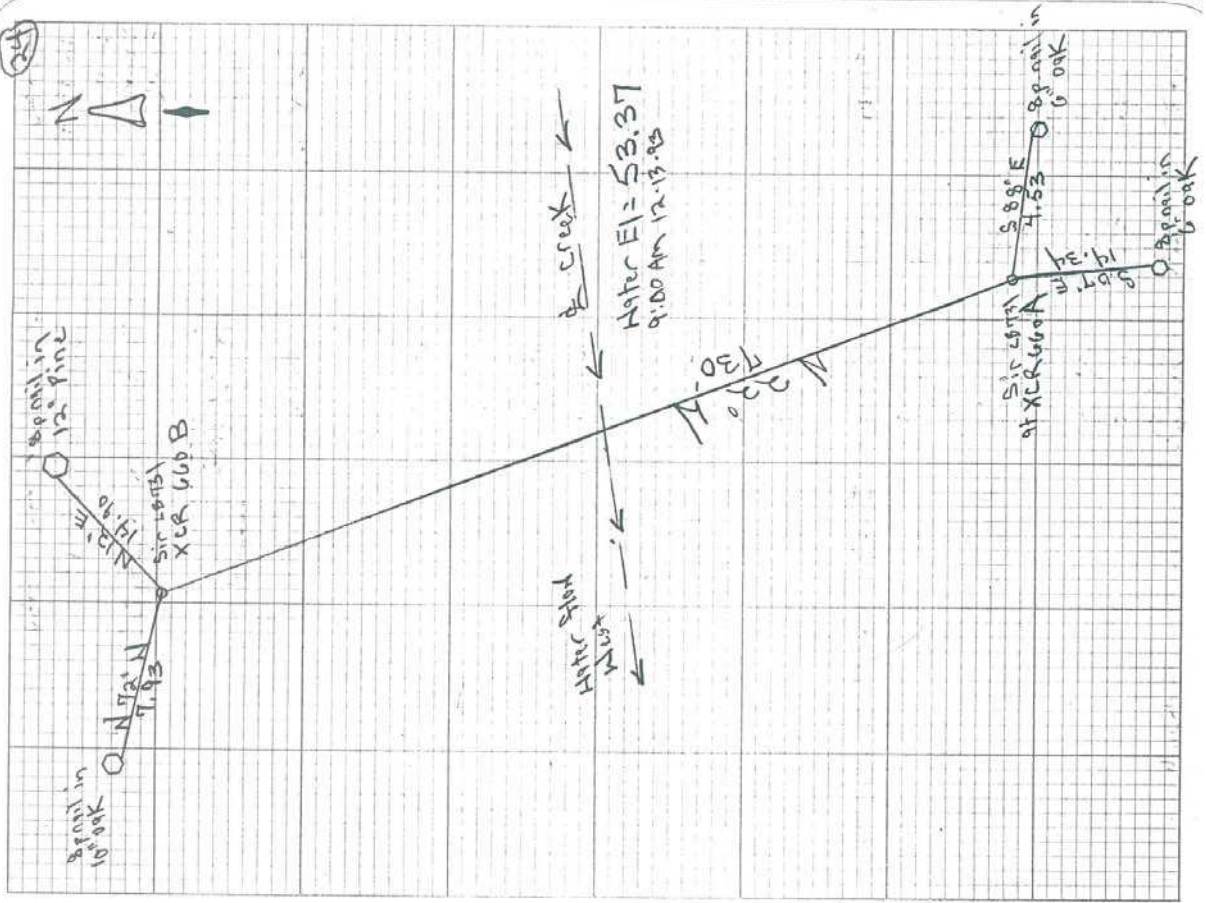
10-24-94 Jan R.

930366 12-13-93 Smith Schalles Erickson	Coteau River Basin Study Sect. 5-25-18 X Section XCR 670			BM 0729 0.45 El = 64.831
BS 0.51	FS	El.	Description	
5+32	0.57	BM 0729-045 64.831	Iron Bar at XCR 670 B	
5+00	1.3	64.1		
4+50	2.3	63.1		
4+00	3.5	61.9		
3+50	5.1	59.7		
3+10	6.7	58.7		
3+03	10.4	55.0	TOB	Water 9.90 1:15 PM
2+99	11.0	54.4	TOE	
2+94	9.9	55.5	± Creek TOE	
2+91	8.4	57.0	TOB	
2+50	8.1	57.3		
1+99	8.4	57.0	TOB	
1+94	9.8	55.6	TOE	
1+89	10.0	55.4	TOE	
1+86	8.4	57.0	TOB	
1+75	8.5	56.9		
1+50	6.5	58.9		
1+00	4.1	61.3		
0+50	3.7	61.7		
0+00	1.67	63.73	Iron Bar at XCR 670 A	

Jon R. ✓



930366	Coter River Basin Study			Sunny
12-13-13	Sect. 5-25-18			6502
Smith Schallus Emerson	X Section XCR 660			BM 0129-049 El. 63.235
Station	BS	HI	El.	Description
	2.04	(45.28)		
cont. on next page (25)				
4+30	7.7	57.6		
3+80	9.5	55.8		
3+57	11.1	54.2		GR Bank
3+30	11.2	54.1		TOB
3+22	12.5	52.8		TOC
				Water 11.91 9:00 AM
3+19	13.4	51.9		GR Bank
3+00	12.0	53.3		TOC
2+92	11.1	54.2		TOB
2+80	10.9	54.4		GR Bank
2+30	7.6	57.7		
1+80	4.8	60.5		
1+50	3.4	61.9		
1+30	3.0	62.3		
0+80	2.2	63.1		
0+30	1.5	63.8		
0+00	2.04	63.235		Iron bar at XCR 660 A BM 0129



930366
12-13-93
Smith
Schaller
Erickson

Cotee River Basin Study

Sect. 5-25-18

X Section XCR 660

14 (5.28)

Station	FS	Elm.	Description
---------	----	------	-------------

BM	0729-048	63.338	From bar at XCR 660 B
T+30	1.94		
6+80	2.0	63.3	
6+30	2.0	63.3	Gr. Bank
5+80	3.1	62.2	
5+30	4.3	61.0	
4+80	5.9	59.4	

930366	COTEE RIVER BASIN STUDY			
12-27-93	SECT 29-24-18			
FIELDS MERILLO BARKER	XCR-760			
		BM	ELEV	
		0729	55.191	
		107		
STA	ELEV	DESC		
5+94	47.0	±		
5+89	47.0	TOS		
5+84	48.4	TOB		
5+50	49.3			
5+00	48.8			
4+50	49.1			
4+00	50.0			
3+50	51.3			
3+00	52.5			
2+50	53.5			
2+00	54.4			
1+50	54.7			
1+00	54.8			
0+50	55.1			
0+00	55.19			
			XCR 760-A	

Jon R. ✓

436-37

SUNNY
60±

207-41X

XCR 760 B SET IRON ROD w/CAP 28731

SET 8 P NAIL
IN 7" OAK

N 32 W
18.81

S 42 E
18.90

SET 8 P NAIL IN 7" CYPRESS

48.0 WATER ELEV
WATER IS STANDING
NO FLOW NO WATER
STANDS ON TREES

N 33 W
1100.00

SET 8 P NAIL
IN 4" HOLLY TR.

N 12 W
38.39

SET 8 P NAIL
IN 4" OAK

N 46 E
92.97

XCR 760-A
SET IRON w/CAP
28731

436-38

Sunny
60±

COTEE RIVER BASIN STUDY

SECT 29-24-18

XCR-760

930366
12-27-93
FIELDS
MCKILLO
BARBER

STA ELEV DESC

XCR 760-B

11+00 53.95

10+50 54.2

10+00 54.3

9+50 53.3

9+00 54.5

8+50 54.2

8+00 53.3

7+50 52.6

7+00 50.9

6+50 49.0

6+01 48.8

6+00 47.0

TOB

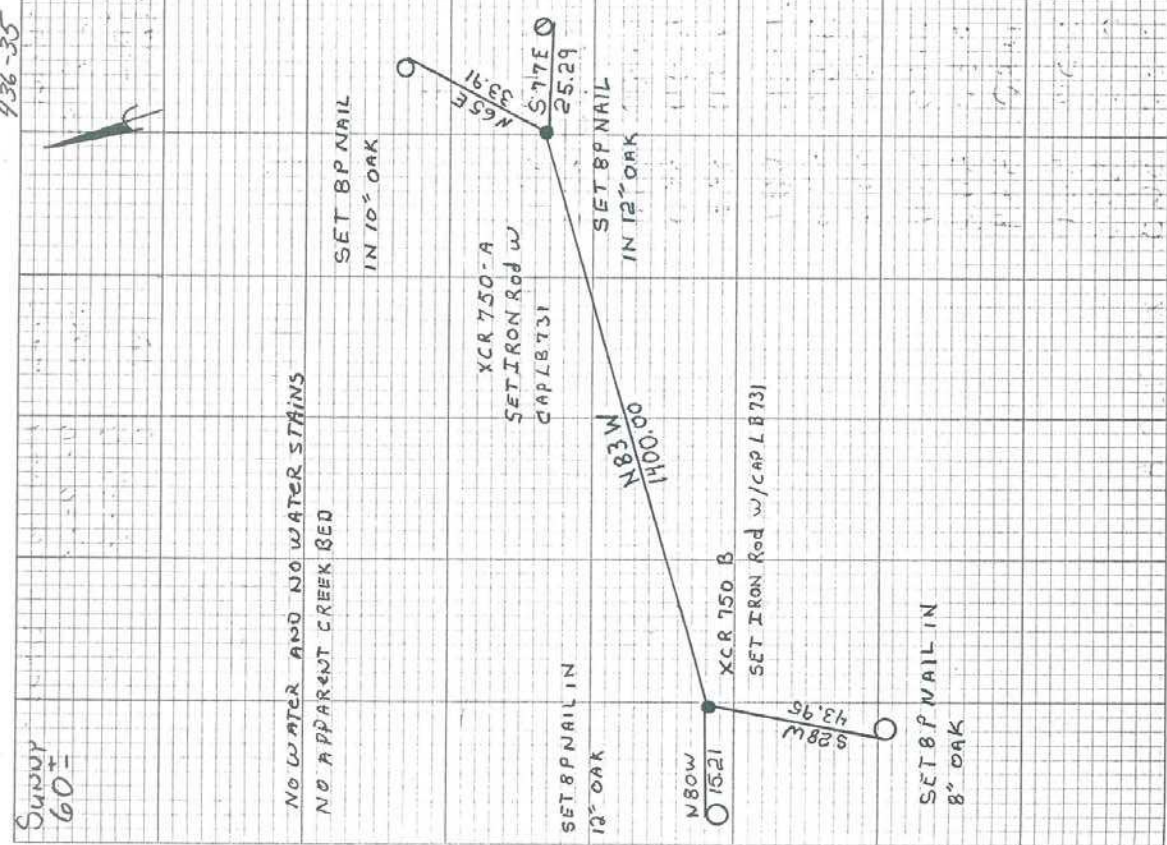
TOS

Jon R.

930366	COTEE RIVER BASIN STUDY		
12-27-93	SECT 29-24-18		
FIELDS meadow barrier	30-24-18		
	XCR-750		
		BM	ELEV
		0729	56.070
		106	
STA	ELEV	DESC	
7+00	50.2		
6+50	50.2		
6+00	50.2		
5+50	51.0		
5+00	50.5		
4+50	50.6		
4+00	50.5		
3+50	50.9		
3+00	51.2		
2+50	53.1		
2+00	54.2		
1+50	53.7		
1+00	54.7		
0+50	55.2		
0+00	56.07	XCR 750-A	

Jon R. ✓

436-35



436-36

COTEE RIVER BASIN STUDY

SECT 29-24-18

30-24-18

XCR 750

930366

12-27-93

Field's
Mar 11/20

BARKER

BARKER

STA

A773

DESC

 $14+00$

604

$$13 + 50$$

3

 $13+00$

59.5

 $12 + 50$

593

 $12+00$

50

 $11 \div 50$

576

 $11+00$

557

 $10+50$

5
6
7

 $0+00$

508

 $9+00$

1

○

50.0

$$0 + 0 = 0$$

25

$$\begin{array}{r} 0 \\ 5 \\ + \\ 7 \end{array}$$

240

Jon R.

10

Jon R. ✓

Summary

60+1

3 hrs

cloudy
60±

STA ELEV DESC

15+30 60.86 XCR 715-B

Study

COTEE RIVER BASIN
Sect 31-24-18
XCR 715930366
12-31-93
Fields
Lapham
Barker

STA ELEV DESC

15+00 60.8

14+50 60.2

14+00 59.5

13+50 58.7

13+00 58.2

12+50 57.3

12+00 56.4

11+50 55.5

11+00 55.2

10+50 54.6

10+00 54.3

9+50 54.1

9+00 54.5

8+50 53.9

8+00 54.5

7+50 54.3

7+00 54.3

6+50 54.7

Jon R. ✓

930366	COTEE RIVER BASIN STUDY	
12-21-93	Sect 31-24-18	
FIELDS LACHAM BARKER	XCR 740	
	BM	ELEV
	0729	57.545
	079	
STA	ELEV	DESC
5+00	51.3	
4+50	51.5	
4+00	51.3	
3+50	51.6	
3+00	52.3	
2+50	54.0	
2+29	55.0	
2+16	55.4	
2+00	55.8	
1+75	57.4	
1+50	57.4	
1+46	57.5	
1+00	59.4	
0+50	60.7	
0+00	61.32	XCR 740-A

Jon R. ✓

3 hr

Cloudy
60 F

436-29



SET 8" P NAIL IN 10" PINE

N 12 E
35.36

XCR 740-B
SET IRON Rod w/cap
18.731

S 42 W
60.31

SET 8" P NAIL IN 12" PINE

SET 8" P NAIL IN 3" PINE

N 12 E
30.37

S 88 E
1170.00

XCR 740-A
IRON Rod w/cap 18.731

SET 8" P NAIL IN
3" PINE

NO WATER OR WATER STAINS
NO APPARENT Creek Bed

436-30

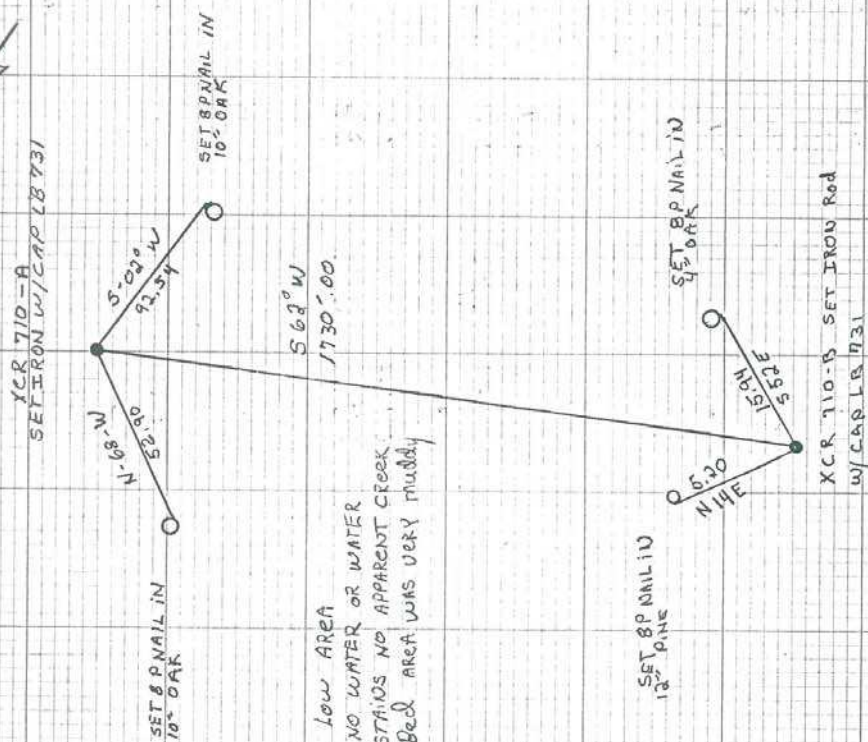
Cloudy
60±

930366 12-21-93 Fielos Lapham Barker	COTEE RIVER BASIN STUDY Sect 31-24-18 XCR 740		
STA	ELEV	DESC	
11+70	57.54	XCR 740-B	
11+50	57.5		
11+00	57.5		
10+50	57.6		
10+00	57.2		
9+50	56.6		
9+43	56.7		
9+00	55.9		
8+50	54.7		
8+00	53.6		
7+50	52.9		
7+00	52.0		
6+50	51.5		
6+00	51.6		
5+50	51.4		

Jon R. ✓

BK 436-24

Sunny
60+-



COTE[®] RIVER BASIN STUDY

SECT 32 24 18

XCR-710

930366

12-20-93

F. 11178

6-19 Pham

BARKER

+

5

$$\frac{2}{29}$$

151

20

47

120
115

23

2

517

4

T P # 1

3-1

05

6.5

55

20

YCB 710-B

14

0
0

20

292

50
52

CR 650 B

59 450

5942

DECLASSIFIED

0.170

435-P-

TON RV

930366
12-20-93
FIELDS
LAPHAM
BARKER

COTEE RIVER BASIN STUDY
SECT 32-24-18
XCR-710

BM	BS	HI	ELEV
0729	2.29	62.120	59.830
068	7.91		
	10.20		

STA	FS	ELEV	DESC
6+11.5	9.1	53.0	T.O.S
6+00	7.3	54.8	T.O.B BEGIN MUCK HOLE
5+52.3	7.6	54.5	
5+50	6.8	55.3	
5+00	6.7	55.4	
4+50	5.5	56.6	
4+00	4.2	57.9	
3+50	3.9	58.2	
3+00	3.3	58.8	
2+50	3.0	59.1	
2+00	2.3	59.8	
1+50	2.1	60.0	
1+00	2.0	60.1	
0+50	2.3	59.8	
0+00	2.29	59.83	XCR 710-A

Jon R.

BK 436-25

Sunday
60±

STA FS ELEV DESC

CONTINUED ON Page 31

9+00 7.8 54.3

8+95 7.5 54.6

8+89.5 6.3 55.8

8+50 7.1 55.0

8+29 7.6 54.5

8+15 8.9 53.2

8+00 8.7 53.4

7+94 8.9 53.2

7+81 10.4 51.7

7+50 10.1 52.0

7+25 10.6 51.5

7+18 7.3 54.8

7+00 7.7 54.4

6+50 7.4 54.7

6+38 7.3 54.8

6+32.7 9.5 52.6

6+26 11.9 51.0

T.O.B END MUCK HOLE

T.O.S

T.O.S

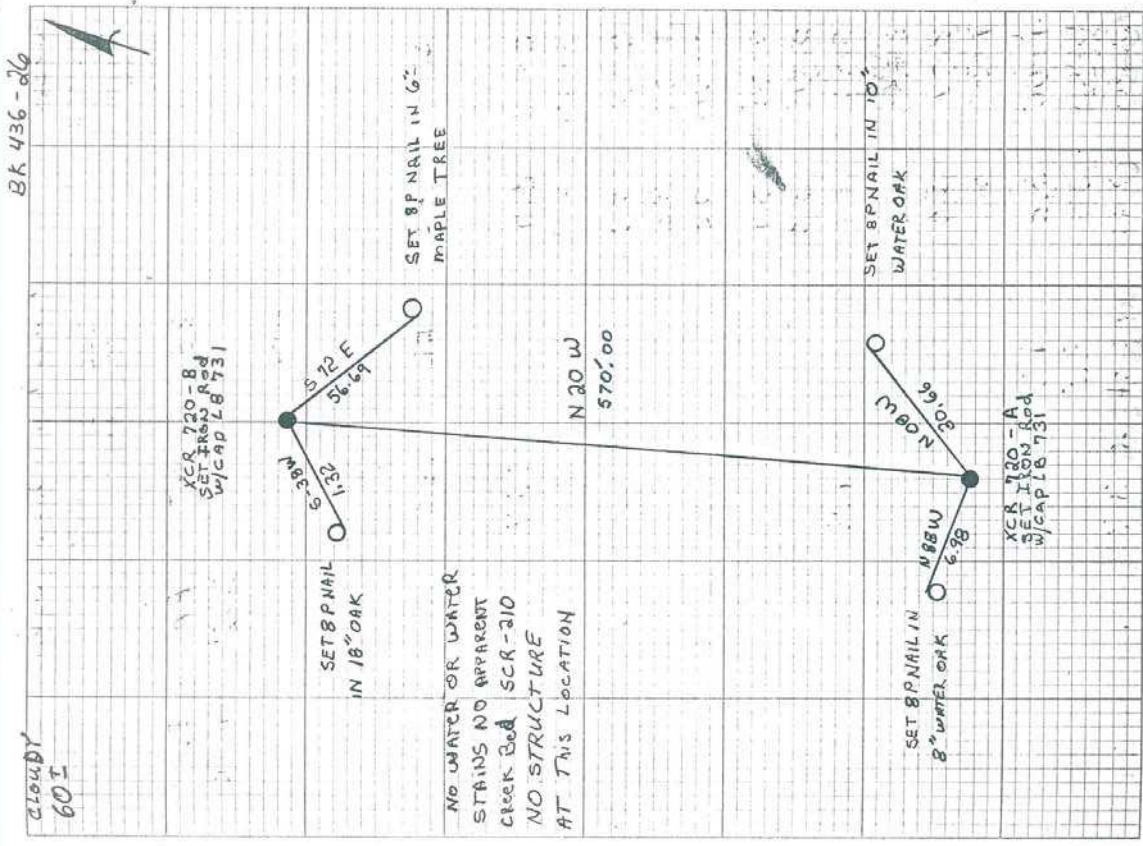
930366	COTEE RIVER BASIN STUDY				
12-20-93	SECT 32-24-18				
Fielos	XCR-710				
Lapham					
BARKER					
	BM	BS	HI	ELEV	
	TP 1	4.89 5.31 10.20	62.360	57.470	
STA	FS	ELEV	DESC		
12+00	7.8	54.6			
11+66	7.6	54.8			
11+57	9.3	53.1			
STA	FS	ELEV	DESC	HI	
11+56	9.0	53.1		62.120	
11+52	9.4	52.7		CONTINUED ON PAGE	
11+50	7.6	54.5		25	
11+45	7.0	55.1			
11+00	7.6	54.5			
10+50	6.8	55.3			
10+41	10.1	52.0			
10+00	7.2	54.9			
9+50	7.8	54.3			

502 R. ✓

Sunny	STA	FS	ELEV	DESC	
60±	17+30	4.38	57.98	XCR 710-B	
	17+00	4.8	57.6		
	16+50	4.8	57.6		
	16+40.7	4.8	57.6		
	16+26.6	3.4	59.0		
	16+00	3.5	58.9		
	15+84.5	3.6	58.8		
	15+64	6.0	56.4		
	15+50	5.7	56.7		
	15+39.5	6.0	56.4		
	15+16.8	5.2	57.2		
	15+00	5.2	57.2		
	14+50	5.0	57.4		
	14+00	5.2	57.2		
	13+50	5.7	56.7		
	13+00	6.2	56.2		
	12+50	7.3	55.1		

BK 436-26

cloudy
60°



COTEE RIVER BASIN Study			
SECT: 32-24-18			
XCR-720			
STA	FS	EL	Desc
5+70	3.50	62.66	XCR 720-B
5+50	3.9	62.3	
5+00	4.3	61.9	
4+50	4.2	62.0	
4+00	4.3	61.9	
3+50	5.4	60.8	
3+00	6.8	59.4	
2+91	7.1	59.1	Low Point
2+50	6.5	59.7	
2+00	5.3	60.9	
1+50	4.4	61.8	
1+00	5.2	61.0	
0+50	5.9	60.3	
0+00	4.75	61.41	XCR 720-A

Jon R. ✓

BS
4.75
5.45
10.20

HI
66.168

BM
0729
072

ELEV
61.418

930.366
12-18-93
FIELDS
LAPHAM
BARKER

COTEE RIVER BASIN Study

Sect 33-24-18

XCR 730

BS
2405
1800
10205

HI
67.721
0789
093

ELEV
66.316

STA FS EL Desc

6+50	3.26	64.46	XCR 730-B
6+00	3.7	64.0	
5+50	4.2	63.5	
5+00	4.9	62.8	
4+50	5.4	62.3	
4+00	5.9	61.8	
3+68	6.5	61.2	
3+50	6.5	61.2	
3+43	6.5	61.2	
3+14	6.2	61.5	
3+00	5.1	62.0	
2+50	4.9	62.8	
2+00	4.1	63.6	
1+50	3.7	64.0	
1+00	3.2	64.5	
0+50	2.8	64.9	
0+00	2.405	65.316	XCR 730-A

Jan R.V

BK 436-22

SUNNY
70±

XCR 730-B SET IRON ROD w/cap LB731

SET 8" NAIL IN 3" OAK
S-20° E
DIST 39.33

SET 8" NAIL IN 5"
OAK S-25° W
DIST 24.82

ALL ELEVATIONS ARE ON
MEANDERING C of TRAIL

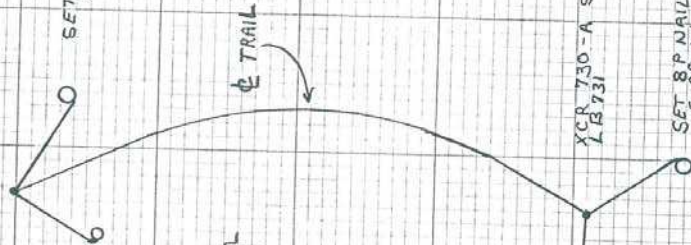
NOTE

SCR-220 IS GOUVE
ALSO NO HIGH WATER
STAIN AND NO STANDING
WATER

SET 8" NAIL IN 12" OAK
N-28° W
DIST 25.62

XCR 730-A SET IRON ROD w/cap
LB731

SET 8" NAIL IN 6" OAK
S-29° W
DIST 49.27



Appendix F

CHAN Model Input.

Bear Creek/Cotee Model

Basin Element Data

H0093	Runoff :	SCS Unit Hydrograph	Gamma U.H.
	Area (ac) 19.95	Tc (min) 55.55	U.H. PRF 256
	<u>Destination</u>	<u>Hydrograph Lag (hr)</u>	<u>Comput Increment (min)</u>
	NH0093	0.	auto
	Rainfall :		
	Vol (in) 12.	Dur (hr) 24.	Dist TII-FLM.RAI
	Excess :	SCS Curve Number	
	Initial Abs 0.2	% NDCIA 0.	% DCIA 0.
	CN Perv 83.69	CN NDCIA 100.	CN DCIA 100.
	Runoff :	SCS Unit Hydrograph	Gamma U.H.
	Area (ac) 14.58	Tc (min) 15.	U.H. PRF 256
	<u>Destination</u>	<u>Hydrograph Lag (hr)</u>	<u>Comput Increment (min)</u>
H0095	NH0095	0.	auto
	Rainfall :		
	Vol (in) 12.	Dur (hr) 24.	Dist TII-FLM.RAI
	Excess :	SCS Curve Number	
	Initial Abs 0.2	% NDCIA 0.	% DCIA 0.
	CN Perv 81.86	CN NDCIA 100.	CN DCIA 100.
	Runoff :	SCS Unit Hydrograph	Gamma U.H.
	Area (ac) 39.52	Tc (min) 23.74	U.H. PRF 256
	<u>Destination</u>	<u>Hydrograph Lag (hr)</u>	<u>Comput Increment (min)</u>
	NH0096	0.	auto
	Rainfall :		
	Vol (in) 12.	Dur (hr) 24.	Dist TII-FLM.RAI
	Excess :	SCS Curve Number	
	Initial Abs 0.2	% NDCIA 0.	% DCIA 0.
	CN Perv 83.16	CN NDCIA 100.	CN DCIA 100.
	Runoff :	SCS Unit Hydrograph	Gamma U.H.
	Area (ac) 167.16	Tc (min) 24.36	U.H. PRF 256
	<u>Destination</u>	<u>Hydrograph Lag (hr)</u>	<u>Comput Increment (min)</u>
	NH0100	0.	auto

Bear Creek/Cotee Model

Basin Element Data

H0210	Rainfall :			
	Vol (in)	12.	Dur (hr)	24.
	Dist		TII-FLM.RAI	
	Excess :			
	Initial Abs	0.2	SCS Curve Number	
	CN Perv	81.11	% NDCIA	0.
			CN NDCIA	100.
	% DCIA		0.	
	CN DCIA		100.	
	Runoff :			
Area (ac)	1028.9	SCS Unit Hydrograph		
		Tc (min)	63.79	
Gamma U.H.		256		
U.H. PRF		256		
<u>Destination</u>		<u>Hydrograph Lag (hr)</u>	<u>Comput Increment (min)</u>	
NH0210		0.	auto	
H0220	Rainfall :			
	Vol (in)	12.	Dur (hr)	24.
	Dist		TII-FLM.RAI	
	Excess :			
	Initial Abs	0.2	SCS Curve Number	
	CN Perv	80.78	% NDCIA	0.
			CN NDCIA	100.
	% DCIA		0.	
	CN DCIA		100.	
	Runoff :			
Area (ac)	26.82	SCS Unit Hydrograph		
		Tc (min)	37.16	
Gamma U.H.		256		
U.H. PRF		256		
<u>Destination</u>		<u>Hydrograph Lag (hr)</u>	<u>Comput Increment (min)</u>	
NH0220		0.	auto	
H0230	Rainfall :			
	Vol (in)	12.	Dur (hr)	24.
	Dist		TII-FLM.RAI	
	Excess :			
	Initial Abs	0.2	SCS Curve Number	
	CN Perv	95.	% NDCIA	0.
			CN NDCIA	100.
	% DCIA		0.	
	CN DCIA		100.	
	Runoff :			
Area (ac)	0.47	SCS Unit Hydrograph		
		Tc (min)	15.	
Gamma U.H.		256		
U.H. PRF		256		
<u>Destination</u>		<u>Hydrograph Lag (hr)</u>	<u>Comput Increment (min)</u>	
NH0230		0.	auto	
H0230	Rainfall :			
	Vol (in)	12.	Dur (hr)	24.
	Dist		TII-FLM.RAI	
	Excess :			
	Initial Abs	0.2	SCS Curve Number	
			% NDCIA	0.
	% DCIA		0.	

Bear Creek/Cotee Model

Node Element Data

	Elev	47	48	49	50	51	53
	Area	6.29	9.88	14.54	21.32	30.27	51
	Elev	55	59	62.93	999		
	Area	54.85	62.17	65.14	65.14		
NC1170	<u>Node Type</u>	<u>Bottom Elev</u>		<u>Initial Elev</u>		<u>Flood Elev</u>	
	Lake	43.43		46.9		43.43	
	Elev	43.43	44	45	46	47	48
	Area	0.1	0.1	0.1	0.11	0.32	1.55
	Elev	49	50	51	53	55	59
	Area	5.39	14.67	25.7	39.96	45.07	54.02
	Elev	62.41	999				
	Area	60.82	60.82				
NH0100	<u>Node Type</u>	<u>Bottom Elev</u>		<u>Initial Elev</u>		<u>Flood Elev</u>	
	Lake	44.45		52.16		44.45	
	Elev	44.45	45	46	47	48	49
	Area	0.1	0.1	0.1	0.1	0.15	144.8
	Elev	50	51	52	53	54	56
	Area	151.18	168.67	193.68	234.28	297.09	410.12
	Elev	58	62	65.86	999		
	Area	535.49	752.6	820.66	820.66		
ND0020	<u>Node Type</u>	<u>Bottom Elev</u>		<u>Initial Elev</u>		<u>Flood Elev</u>	
	Lake	71.66		75.84		71.66	
	Elev	71.66	74.63	75	77	81	84.28
	Area	0.1	0.1	21.89	33.7	54.93	55.39
	Elev	999					
	Area	55.39					
ND0030	<u>Node Type</u>	<u>Bottom Elev</u>		<u>Initial Elev</u>		<u>Flood Elev</u>	
	Lake	71.66		75.32		71.66	

Bear Creek/Cotee Model

Reach Element Data

	Crest El (ft)	45	Cd	2.6	Number Weirs	1
RC1170A	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>		
	NC1170	NH0100	0	1		
	Element #1 :	Circular Culvert				
	Length (ft)	48.7	Rise (in)	60	Flap gate	NO
	US Inv (ft)	50.86	DS Inv (ft)	50.96	Manning's n	0.024
	Velocity Coef	1	Ent Loss Coef	0.5	Number Barrels	1
RC1170B	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>		
	NC1170	NH0100	0	1		
	Element #1 :	Rectangular Broad Crested Weir				
	Length (ft)	100	Height (ft)	999	Exponent	1.5
	Crest El (f	55.16	Cd	2.6	Number Weirs	1
RC1170C	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>		
	NC1170	NH0100	0	1		
	Element #1 :	Rectangular Broad Crested Weir				
	Length (ft)	100	Height (ft)	999	Exponent	1.5
	Crest El (f	55.36	Cd	2.6	Number Weirs	1
RC1170D	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>		
	NC1170	NH0100	0	1		
	Element #1 :	Rectangular Broad Crested Weir				
	Length (ft)	100	Height (ft)	999	Exponent	1.5
	Crest El (f	55.56	Cd	2.6	Number Weirs	1
RC1170E	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>		
	NC1170	NH0100	0	1		
	Element #1 :	Rectangular Broad Crested Weir				
	Length (ft)	200	Height (ft)	999	Exponent	1.5
	Crest El (f	55.76	Cd	2.6	Number Weirs	1
	From Node	To Node	Initial Flow	# Elements		

Bear Creek/Cotee Model

Reach Element Data

	Velocity Coef	1	Ent Loss Coef	0.5	Number Barrels	1
RH0082	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>		
	NH0082	NH0083	0	1		
	Element #1 :	Culvert Riser				
	Subelement #1-1 :	H. Elliptical RCP Culvert				
	Length (ft)	93	Rise (in)	14	Flap gate	NO
	US Inv (ft)	52.1	DS Inv (ft)	52	Manning's n	0.012
	Velocity Coef	1	Ent Loss Coef	0.5	Number Barrels	1
	Subelement #1-2 :	Rectangular Sharp Crested Weir				
	Length (ft)	1	Height (ft)	999	Exponent	1.5
	Crest EI (ft)	53.51	Cd	3	Number Weirs	1
	Subelement #1-3 :	Rectangular Sharp Crested Weir				
	Length (ft)	3.083333	Height (ft)	999	Exponent	1.5
Crest EI (ft)	56.2	Cd	3	Number Weirs	1	
RH0088	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>		
	NH0088	NH0089	0	1		
	Element #1 :	H. Elliptical RCP Culvert				
	Length (ft)	288	Rise (in)	33.5	Flap gate	NO
	US Inv (ft)	56.36	DS Inv (ft)	55.97	Manning's n	0.012
	Velocity Coef	1	Ent Loss Coef	0.5	Number Barrels	1
RH0092	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>		
	NH0092	NH0093	0	1		
	Element #1 :	Unsteady Open Channel Section C720_020				
	Length (ft)	1300	Velocity Coef	1		
RH0093	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>		
	NH0093	NH0100	0	2		
	Element #1 :	Rectangular Broad Crested Weir				
	Length (ft)	130	Height (ft)	999	Exponent	1.5
	Crest EI (ft)	54.16	Cd	2.6	Number Weirs	1

Bear Creek/Cotee Model

Reach Element Data

	Element #2 :	Rectangular Broad Crested Weir			
	Length (ft) 200	Height (ft) 999	Exponent 1.5		
	Crest El (ft) 55	Cd 2.6	Number Weirs 1		
RH0100	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>	
	NH0100	NH0300	0	1	
	Element #1 : Length (ft) 1200	Unsteady Open Channel Velocity Coef 1	Section 1	XCR-760	
RH0210	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>	
	NH0210	NH0220	0	1	
	Element #1 :	Culvert Riser			
	Subelement #1-1 :	Circular Culvert			
	Length (ft) 71	Rise (in) 24	Flap gate	NO	
	US Inv (ft)54.01	DS Inv (ft) 52.96	Manning's n	0.012	
	Velocity Coef 1	Ent Loss Coef 0.5	Number Barrels	1	
	Subelement #1-2 :	V-Notched Sharp Crested Weir			
	Length (ft) 1.28	Height (ft) 0.75	Exponent	1.5	
	Crest El (ft) 56	Cd 3	Number Weirs	1	
	Subelement #1-3 :	Rectangular Sharp Crested Weir			
	Length (f1.3333	Height (ft) 999	Exponent	1.5	
	Crest El (f56.76	Cd 3	Number Weirs	1	
	Subelement #1-4 :	Rectangular Sharp Crested Weir			
	Length (ft)14.33	Height (ft) 999	Exponent	1.5	
	Crest El (f60.03	Cd 3	Number Weirs	1	
RH0220	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>	
	NH0220	NH0240	0	1	
	Element #1 :	H. Elliptical RCP Culvert			
	Length (ft) 316	Rise (in) 23.75	Flap gate	NO	
	US Inv (ft)52.77	DS Inv (ft) 52.15	Manning's n	0.012	
	Velocity Coef 1	Ent Loss Coef 0.5	Number Barrels	1	
	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>	

Bear Creek/Cotee Model

Reach Element Data

Subelement #1-2 : Rectangular Broad Crested Weir
 Length (ft) 25 Height (ft) 999 Exponent 1.5
 Crest El (f62.96 Cd 2.6 Number Weirs 1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RI1100	NI1100	NH0100	0	1

Element #1 : Culvert Riser

Subelement #1-1 : Circular Culvert
 Length (ft) 70 Rise (in) 36 Flap gate NO
 US Inv (ft)56.16 DS Inv (ft) 56.16 Manning's n 0.024
 Velocity Coef 1 Ent Loss Coef 0.5 Number Barrels 1

Subelement #1-2 : Rectangular Broad Crested Weir
 Length (ft) 50 Height (ft) 999 Exponent 1.5
 Crest El (f59.66 Cd 2.6 Number Weirs 1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RJ0100A	NJ0100	NJ0200	0	1

Element #1 : Circular Culvert
 Length (ft) 20 Rise (in) 18 Flap gate NO
 US Inv (ft)35.16 DS Inv (ft) 35.16 Manning's n 0.024
 Velocity Coef 1 Ent Loss Coef 0.5 Number Barrels 1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RJ0100B	NJ0100	NJ0200	0	1

Element #1 : Circular Culvert
 Length (ft) 20 Rise (in) 24 Flap gate NO
 US Inv (ft)35.16 DS Inv (ft) 35.16 Manning's n 0.024
 Velocity Coef 1 Ent Loss Coef 0.5 Number Barrels 1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RJ0145	NJ0145	NJ0140	0	1

Element #1 : Circular Culvert
 Length (ft) 330 Rise (in) 18 Flap gate NO
 US Inv (ft)33.16 DS Inv (ft) 33.16 Manning's n 0.012

Bear Creek/Cotee Model

Reach Element Data

	Length (ft)100.7	Height (ft)	999	Exponent	1.5
	Crest El (f62.37	Cd	2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (f217.06	Height (ft)	999	Exponent	1.5
	Crest El (f62.62	Cd	2.6	Number Weirs	1
RA2606	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>	
	NH0100	NA2606	0	3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (ft) 46.3	Height (ft)	999	Exponent	1.5
	Crest El (f51.16	Cd	2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (ft)26.69	Height (ft)	999	Exponent	1.5
	Crest El (f51.41	Cd	2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (ft)68.36	Height (ft)	999	Exponent	1.5
	Crest El (f51.66	Cd	2.6	Number Weirs	1
RA2606K	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>	
	NA2606	NC1140	0	3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (f160.94	Height (ft)	999	Exponent	1.5
	Crest El (f65.09	Cd	2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (ft)102.1	Height (ft)	999	Exponent	1.5
	Crest El (f65.34	Cd	2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (f139.81	Height (ft)	999	Exponent	1.5
	Crest El (f65.59	Cd	2.6	Number Weirs	1
RA2606L	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>	
	NA2606	NC1145	0	3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (ft)83.73	Height (ft)	999	Exponent	1.5

Bear Creek/Cotee Model

Reach Element Data

RA2860	Element #2 :		Rectangular Broad Crested Weir				
	Length (ft)	52.98	Height (ft)	999	Exponent	1.5	
	Crest El	(f64.29	Cd	2.6	Number Weirs	1	
	Element #3 :		Rectangular Broad Crested Weir				
	Length (f	277.81	Height (ft)	999	Exponent	1.5	
	Crest El	(f64.54	Cd	2.6	Number Weirs	1	
	From Node		To Node		Initial Flow		# Elements
	NA2860		NH0100		0		9
	Element #1 :		Rectangular Broad Crested Weir				
	Length (ft)	0.85	Height (ft)	999	Exponent	1.5	
	Crest El	(f49.62	Cd	2.6	Number Weirs	1	
	Element #2 :		Rectangular Broad Crested Weir				
	Length (ft)	1.07	Height (ft)	999	Exponent	1.5	
	Crest El	(f49.87	Cd	2.6	Number Weirs	1	
	Element #3 :		Rectangular Broad Crested Weir				
	Length (ft)	1.51	Height (ft)	999	Exponent	1.5	
	Crest El	(f50.12	Cd	2.6	Number Weirs	1	
	Element #4 :		Rectangular Broad Crested Weir				
	Length (ft)	1.5	Height (ft)	999	Exponent	1.5	
	Crest El (ft)	51	Cd	2.6	Number Weirs	1	
Element #5 :		Rectangular Broad Crested Weir					
Length (ft)	4	Height (ft)	999	Exponent	1.5		
Crest El (ft)	52	Cd	2.6	Number Weirs	1		
Element #6 :		Rectangular Broad Crested Weir					
Length (ft)	14	Height (ft)	999	Exponent	1.5		
Crest El (ft)	53	Cd	2.6	Number Weirs	1		
Element #7 :		Rectangular Broad Crested Weir					
Length (ft)	12	Height (ft)	999	Exponent	1.5		
Crest El (ft)	54	Cd	2.6	Number Weirs	1		
Element #8 :		Rectangular Broad Crested Weir					
Length (ft)	18	Height (ft)	999	Exponent	1.5		
Crest El (ft)	55	Cd	2.6	Number Weirs	1		

Bear Creek/Cotee Model

Reach Element Data

	Element #9 :		Rectangular Broad Crested Weir				
	Length (ft)	25	Height (ft)	999	Exponent	1.5	
	Crest El (ft)	56	Cd	2.6	Number Weirs	1	
RA2860K	<u>From Node</u>		<u>To Node</u>		<u>Initial Flow</u>	<u># Elements</u>	
	NA2860		NA2840		0	3	
	Element #1 :		Rectangular Broad Crested Weir				
	Length (ft)	57.59	Height (ft)	999	Exponent	1.5	
	Crest El (ft)	62.22	Cd	2.6	Number Weirs	1	
	Element #2 :		Rectangular Broad Crested Weir				
	Length (ft)	28.59	Height (ft)	999	Exponent	1.5	
	Crest El (ft)	62.47	Cd	2.6	Number Weirs	1	
	Element #3 :		Rectangular Broad Crested Weir				
	Length (ft)	134.46	Height (ft)	999	Exponent	1.5	
	Crest El (ft)	62.72	Cd	2.6	Number Weirs	1	
	RA2860L	<u>From Node</u>		<u>To Node</u>		<u>Initial Flow</u>	<u># Elements</u>
		NA2860		NA2850		0	3
Element #1 :		Rectangular Broad Crested Weir					
Length (ft)		16	Height (ft)	999	Exponent	1.5	
Crest El (ft)		61.17	Cd	2.6	Number Weirs	1	
Element #2 :		Rectangular Broad Crested Weir					
Length (ft)		30.74	Height (ft)	999	Exponent	1.5	
Crest El (ft)		61.42	Cd	2.6	Number Weirs	1	
Element #3 :		Rectangular Broad Crested Weir					
Length (ft)		290.83	Height (ft)	999	Exponent	1.5	
Crest El (ft)		61.67	Cd	2.6	Number Weirs	1	
RB0010		<u>From Node</u>		<u>To Node</u>		<u>Initial Flow</u>	<u># Elements</u>
		NB0010		NB0020		0	3
	Element #1 :		Rectangular Broad Crested Weir				
	Length (ft)	81.56	Height (ft)	999	Exponent	1.5	
	Crest El (ft)	71.96	Cd	2.6	Number Weirs	1	
	Element #2 :		Rectangular Broad Crested Weir				

Bear Creek/Cotee Model

Reach Element Data

Element #2 :	Rectangular Broad Crested Weir			
Length (ft)233.9	Height (ft)	999	Exponent	1.5
Crest El (f61.51	Cd	2.6	Number Weirs	1

Element #3 :	Rectangular Broad Crested Weir			
Length (f164.48	Height (ft)	999	Exponent	1.5
Crest El (f61.76	Cd	2.6	Number Weirs	1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RC0860M	NC0860	NC1170	0	3

Element #1 :	Rectangular Broad Crested Weir			
Length (f180.48	Height (ft)	999	Exponent	1.5
Crest El (f61.01	Cd	2.6	Number Weirs	1

Element #2 :	Rectangular Broad Crested Weir			
Length (f280.16	Height (ft)	999	Exponent	1.5
Crest El (f61.26	Cd	2.6	Number Weirs	1

Element #3 :	Rectangular Broad Crested Weir			
Length (f198.55	Height (ft)	999	Exponent	1.5
Crest El (f61.51	Cd	2.6	Number Weirs	1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RC0860N	NC0860	NH0015	0	3

Element #1 :	Rectangular Broad Crested Weir			
Length (ft)25.83	Height (ft)	999	Exponent	1.5
Crest El (ft)60.4	Cd	2.6	Number Weirs	1

Element #2 :	Rectangular Broad Crested Weir			
Length (ft)82.67	Height (ft)	999	Exponent	1.5
Crest El (f60.65	Cd	2.6	Number Weirs	1

Element #3 :	Rectangular Broad Crested Weir			
Length (f609.06	Height (ft)	999	Exponent	1.5
Crest El (ft)60.9	Cd	2.6	Number Weirs	1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RC0860O	NC0860	NH0100	0	3

Element #1 :	Rectangular Broad Crested Weir			
--------------	--------------------------------	--	--	--

Bear Creek/Cotee Model

Reach Element Data

	Length (f215.51 Crest EI (f60.35	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (f182.44 Crest EI (f60.6	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (f402.44 Crest EI (f60.85	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1
RC0870	<u>From Node</u> NC1160	<u>To Node</u> NC0870	<u>Initial Flow</u> 0	<u># Elements</u> 3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (ft)12.28 Crest EI (f51.45	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (ft)11.49 Crest EI (f51.7	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (f117.05 Crest EI (f51.95	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1
RC0870K	<u>From Node</u> NC0870	<u>To Node</u> NC0823	<u>Initial Flow</u> 0	<u># Elements</u> 3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (f122.47 Crest EI (f59.99	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (ft)121.9 Crest EI (f60.24	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (ft)97.25 Crest EI (f60.49	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1
	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>	

Bear Creek/Cotee Model

Reach Element Data

	Crest El (f50.75	Cd	2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (f196.44	Height (ft)	999	Exponent	1.5
	Crest El (ft) 51	Cd	2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (f544.45	Height (ft)	999	Exponent	1.5
	Crest El (f51.25	Cd	2.6	Number Weirs	1
RC1170K	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>	
	NC1170	NC0870	0	3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (ft)33.31	Height (ft)	999	Exponent	1.5
	Crest El (f58.37	Cd	2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (ft)65.99	Height (ft)	999	Exponent	1.5
	Crest El (f58.62	Cd	2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (f197.71	Height (ft)	999	Exponent	1.5
	Crest El (f58.87	Cd	2.6	Number Weirs	1
RC1170L	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>	
	NC1170	NC1140	0	3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (f131.27	Height (ft)	999	Exponent	1.5
	Crest El (f50.88	Cd	2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (ft)98.66	Height (ft)	999	Exponent	1.5
	Crest El (f51.13	Cd	2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (ft) 0	Height (ft)	999	Exponent	1.5
	Crest El (f51.38	Cd	2.6	Number Weirs	1
RC1170M	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>	
	NC1170	NH0100	0	3	

Bear Creek/Cotee Model

Reach Element Data

Element #1 :	Rectangular Broad Crested Weir		
Length (ft)18.59	Height (ft)	999	Exponent 1.5
Crest El (f54.16	Cd	2.6	Number Weirs 1

Element #2 :	Rectangular Broad Crested Weir		
Length (ft)34.39	Height (ft)	999	Exponent 1.5
Crest El (f54.41	Cd	2.6	Number Weirs 1

Element #3 :	Rectangular Broad Crested Weir		
Length (f171.84	Height (ft)	999	Exponent 1.5
Crest El (f54.66	Cd	2.6	Number Weirs 1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RD0010	ND0010	ND0020	0	3

Element #1 :	Rectangular Broad Crested Weir		
Length (ft)47.97	Height (ft)	999	Exponent 1.5
Crest El (ft) 77	Cd	2.6	Number Weirs 1

Element #2 :	Rectangular Broad Crested Weir		
Length (f212.46	Height (ft)	999	Exponent 1.5
Crest El (f77.25	Cd	2.6	Number Weirs 1

Element #3 :	Rectangular Broad Crested Weir		
Length (f504.85	Height (ft)	999	Exponent 1.5
Crest El (ft)77.5	Cd	2.6	Number Weirs 1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RD0010K	ND0010	NK1720P	0	3

Element #1 :	Rectangular Broad Crested Weir		
Length (ft) 22.2	Height (ft)	999	Exponent 1.5
Crest El (ft)78.6	Cd	2.6	Number Weirs 1

Element #2 :	Rectangular Broad Crested Weir		
Length (ft) 7	Height (ft)	999	Exponent 1.5
Crest El (f78.85	Cd	2.6	Number Weirs 1

Element #3 :	Rectangular Broad Crested Weir		
Length (ft)642.6	Height (ft)	999	Exponent 1.5
Crest El (ft)79.1	Cd	2.6	Number Weirs 1

Bear Creek/Cotee Model

Reach Element Data

	Crest El (f60.52	Cd	2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (f243.91	Height (ft)	999	Exponent	1.5
	Crest El (f60.77	Cd	2.6	Number Weirs	1
RH0025K	<u>From Node</u> NH0025	<u>To Node</u> NH0089	<u>Initial Flow</u> 0	<u># Elements</u> 3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (ft) 9.96	Height (ft)	999	Exponent	1.5
	Crest El (f55.76	Cd	2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (ft) 2.23	Height (ft)	999	Exponent	1.5
	Crest El (f56.01	Cd	2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (ft) 2.1	Height (ft)	999	Exponent	1.5
	Crest El (f56.26	Cd	2.6	Number Weirs	1
RH0030	<u>From Node</u> NH0100	<u>To Node</u> NH0030	<u>Initial Flow</u> 0	<u># Elements</u> 3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (ft)14.18	Height (ft)	999	Exponent	1.5
	Crest El (f)52.8	Cd	2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (ft)37.01	Height (ft)	999	Exponent	1.5
	Crest El (f53.05	Cd	2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (f)53.08	Height (ft)	999	Exponent	1.5
	Crest El (f)53.3	Cd	2.6	Number Weirs	1
RH0030K	<u>From Node</u> NH0030	<u>To Node</u> NH0015	<u>Initial Flow</u> 0	<u># Elements</u> 3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (ft)60.52	Height (ft)	999	Exponent	1.5
	Crest El (f61.14	Cd	2.6	Number Weirs	1

Bear Creek/Cotee Model

Reach Element Data

Element #2 :	Rectangular Broad Crested Weir			
Length (ft) 3.21	Height (ft)	999	Exponent	1.5
Crest EI (f56.83)	Cd	2.6	Number Weirs	1

Element #3 :	Rectangular Broad Crested Weir			
Length (ft) 6.77	Height (ft)	999	Exponent	1.5
Crest EI (f57.08)	Cd	2.6	Number Weirs	1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RH0086	NH0100	NH0086	0	3

Element #1 :	Rectangular Broad Crested Weir			
Length (ft)28.76	Height (ft)	999	Exponent	1.5
Crest EI (f54.09)	Cd	2.6	Number Weirs	1

Element #2 :	Rectangular Broad Crested Weir			
Length (ft)32.27	Height (ft)	999	Exponent	1.5
Crest EI (f54.34)	Cd	2.6	Number Weirs	1

Element #3 :	Rectangular Broad Crested Weir			
Length (f142.94)	Height (ft)	999	Exponent	1.5
Crest EI (f54.59)	Cd	2.6	Number Weirs	1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RH0086K	NH0086	NH0087	0	3

Element #1 :	Rectangular Broad Crested Weir			
Length (ft)81.18	Height (ft)	999	Exponent	1.5
Crest EI (f58.88)	Cd	2.6	Number Weirs	1

Element #2 :	Rectangular Broad Crested Weir			
Length (f173.05)	Height (ft)	999	Exponent	1.5
Crest EI (f59.13)	Cd	2.6	Number Weirs	1

Element #3 :	Rectangular Broad Crested Weir			
Length (f219.17)	Height (ft)	999	Exponent	1.5
Crest EI (f59.38)	Cd	2.6	Number Weirs	1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RH0087	NH0100	NH0087	0	3

Element #1 :	Rectangular Broad Crested Weir			
--------------	--------------------------------	--	--	--

Bear Creek/Cotee Model

Reach Element Data

	Length (ft)12.56	Height (ft)	999	Exponent	1.5
	Crest El (f55.07	Cd	2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (ft)35.43	Height (ft)	999	Exponent	1.5
	Crest El (f55.32	Cd	2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (ft) 16.4	Height (ft)	999	Exponent	1.5
	Crest El (f55.57	Cd	2.6	Number Weirs	1
RH0088K	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>	
	NH0088	NH0079	0	3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (ft)38.74	Height (ft)	999	Exponent	1.5
	Crest El (f60.64	Cd	2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (f188.19	Height (ft)	999	Exponent	1.5
	Crest El (f60.89	Cd	2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (f178.89	Height (ft)	999	Exponent	1.5
	Crest El (f61.14	Cd	2.6	Number Weirs	1
RH0088L	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>	
	NH0088	TH0088	0	3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (ft) 6.75	Height (ft)	999	Exponent	1.5
	Crest El (f63.07	Cd	2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (ft) 7.28	Height (ft)	999	Exponent	1.5
	Crest El (f63.32	Cd	2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (ft)19.88	Height (ft)	999	Exponent	1.5
	Crest El (f63.57	Cd	2.6	Number Weirs	1
	From Node	To Node	Initial Flow	# Elements	

Bear Creek/Cotee Model

Reach Element Data

RH0089M	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
	NH0089	NH0079	0	3
	Element #1 :			
	Length (ft)	10.43	Rectangular Broad Crested Weir	
	Height (ft)	999	Exponent	1.5
	Crest El (f)	56.93	Cd	2.6
			Number Weirs	1
	Element #2 :			
	Length (ft)	3.44	Rectangular Broad Crested Weir	
	Height (ft)	999	Exponent	1.5
	Crest El (f)	57.18	Cd	2.6
			Number Weirs	1
	Element #3 :			
	Length (ft)	4.24	Rectangular Broad Crested Weir	
	Height (ft)	999	Exponent	1.5
	Crest El (f)	57.43	Cd	2.6
			Number Weirs	1
RH0090	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
	NH0090	NH0091	0	3
	Element #1 :			
	Length (ft)	18.8	Rectangular Broad Crested Weir	
	Height (ft)	999	Exponent	1.5
	Crest El (f)	51.88	Cd	2.6
			Number Weirs	1
	Element #2 :			
	Length (ft)	7.42	Rectangular Broad Crested Weir	
	Height (ft)	999	Exponent	1.5
	Crest El (f)	52.13	Cd	2.6
			Number Weirs	1
	Element #3 :			
	Length (ft)	12.28	Rectangular Broad Crested Weir	
	Height (ft)	999	Exponent	1.5
	Crest El (f)	52.38	Cd	2.6
			Number Weirs	1
RH0091	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
	NH0100	NH0091	0	3
	Element #1 :			
	Length (ft)	7.77	Rectangular Broad Crested Weir	
	Height (ft)	999	Exponent	1.5
	Crest El (f)	54.86	Cd	2.6
			Number Weirs	1
	Element #2 :			
	Length (ft)	59.76	Rectangular Broad Crested Weir	
	Height (ft)	999	Exponent	1.5
	Crest El (f)	55.12	Cd	2.6
			Number Weirs	1

Bear Creek/Cotee Model

Reach Element Data

		Element #3 :	Rectangular Broad Crested Weir			
		Length (f)105.42	Height (ft)	999	Exponent	1.5
		Crest EI (f55.36	Cd	2.6	Number Weirs	1
RH0091K	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>		
	NH0091	NH0089	0	3		
			Element #1 :	Rectangular Broad Crested Weir		
			Length (f)87.26	Height (ft)	999	Exponent 1.5
		Crest EI (f57.06	Cd	2.6	Number Weirs	1
			Element #2 :	Rectangular Broad Crested Weir		
			Length (f)124.61	Height (ft)	999	Exponent 1.5
			Crest EI (f57.31	Cd	2.6	Number Weirs 1
			Element #3 :	Rectangular Broad Crested Weir		
		Length (f)227.54	Height (ft)	999	Exponent	1.5
		Crest EI (f57.56	Cd	2.6	Number Weirs	1
RH0093K	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>		
	NH0093	NH0092	0	3		
			Element #1 :	Rectangular Broad Crested Weir		
			Length (f)153.8	Height (ft)	999	Exponent 1.5
		Crest EI (f59.89	Cd	2.6	Number Weirs	1
			Element #2 :	Rectangular Broad Crested Weir		
			Length (f) 56.5	Height (ft)	999	Exponent 1.5
			Crest EI (f60.14	Cd	2.6	Number Weirs 1
			Element #3 :	Rectangular Broad Crested Weir		
		Length (f)91.75	Height (ft)	999	Exponent	1.5
		Crest EI (f60.39	Cd	2.6	Number Weirs	1
RH0095A	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>		
	NH0096	NH0095	0	3		
			Element #1 :	Rectangular Broad Crested Weir		
			Length (f) 35.6	Height (ft)	999	Exponent 1.5
		Crest EI (f60.67	Cd	2.6	Number Weirs	1
		Element #2 :	Rectangular Broad Crested Weir			

Bear Creek/Cotee Model

Reach Element Data

	Length (f208.29 Crest El (f60.92	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (f583.13 Crest El (f61.17	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1
RH0095B	<u>From Node</u> NH0265	<u>To Node</u> NH0095	<u>Initial Flow</u> 0	<u># Elements</u> 3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (f382.99 Crest El (f61.15	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (f397.36 Crest El (f61.4	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (f300.21 Crest El (f61.65	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1
RH0095K	<u>From Node</u> NH0095	<u>To Node</u> NT1800	<u>Initial Flow</u> 0	<u># Elements</u> 3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (f73.15 Crest El (f63.6	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (f212.92 Crest El (f63.85	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (f411.19 Crest El (f64.1	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1
RH0096	<u>From Node</u> NH0100	<u>To Node</u> NH0096	<u>Initial Flow</u> 0	<u># Elements</u> 3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (f24.32	Height (ft)	999	Exponent	1.5

Bear Creek/Cotee Model

Reach Element Data

	Crest El (f53.56	Cd	2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (f)65.89	Height (ft)	999	Exponent	1.5
	Crest El (f53.81	Cd	2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (f334.66	Height (ft)	999	Exponent	1.5
	Crest El (f54.06	Cd	2.6	Number Weirs	1
RH0096K	<u>From Node</u> NH0096	<u>To Node</u> NH0092	<u>Initial Flow</u> 0	<u># Elements</u> 3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (f310.78	Height (ft)	999	Exponent	1.5
	Crest El (f)61.6	Cd	2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (f184.65	Height (ft)	999	Exponent	1.5
	Crest El (f61.85	Cd	2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (f442.87	Height (ft)	999	Exponent	1.5
	Crest El (f)62.1	Cd	2.6	Number Weirs	1
RH0096L	<u>From Node</u> NH0096	<u>To Node</u> NI1050	<u>Initial Flow</u> 0	<u># Elements</u> 3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (f289.29	Height (ft)	999	Exponent	1.5
	Crest El (f) 62	Cd	2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (f506.76	Height (ft)	999	Exponent	1.5
	Crest El (f62.25	Cd	2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (f545.03	Height (ft)	999	Exponent	1.5
	Crest El (f)62.5	Cd	2.6	Number Weirs	1
RH0096M	<u>From Node</u> NH0096	<u>To Node</u> NI1060	<u>Initial Flow</u> 0	<u># Elements</u> 3	

Bear Creek/Cotee Model

Reach Element Data

Element #1 :	Rectangular Broad Crested Weir			
Length (f)191.95	Height (ft)	999	Exponent	1.5
Crest El (f63.08)	Cd	2.6	Number Weirs	1

Element #2 :	Rectangular Broad Crested Weir			
Length (f)90.02	Height (ft)	999	Exponent	1.5
Crest El (f63.34)	Cd	2.6	Number Weirs	1

Element #3 :	Rectangular Broad Crested Weir			
Length (f)155.44	Height (ft)	999	Exponent	1.5
Crest El (f63.58)	Cd	2.6	Number Weirs	1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RH0100K	NH0100	NA2810	0	3

Element #1 :	Rectangular Broad Crested Weir			
Length (f)179.76	Height (ft)	999	Exponent	1.5
Crest El (f62.97)	Cd	2.6	Number Weirs	1

Element #2 :	Rectangular Broad Crested Weir			
Length (f)104.47	Height (ft)	999	Exponent	1.5
Crest El (f63.22)	Cd	2.6	Number Weirs	1

Element #3 :	Rectangular Broad Crested Weir			
Length (f)596.39	Height (ft)	999	Exponent	1.5
Crest El (f63.47)	Cd	2.6	Number Weirs	1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RH0100L	NH0100	NA2820	0	3

Element #1 :	Rectangular Broad Crested Weir			
Length (f)98.77	Height (ft)	999	Exponent	1.5
Crest El (f62.01)	Cd	2.6	Number Weirs	1

Element #2 :	Rectangular Broad Crested Weir			
Length (f)285.85	Height (ft)	999	Exponent	1.5
Crest El (f62.26)	Cd	2.6	Number Weirs	1

Element #3 :	Rectangular Broad Crested Weir			
Length (f)108.89	Height (ft)	999	Exponent	1.5
Crest El (f62.51)	Cd	2.6	Number Weirs	1

Bear Creek/Cotee Model

Reach Element Data

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RH0100M	NH0100	NA2840	0	3
	Element #1 :	Rectangular Broad Crested Weir		
	Length (f)309.36	Height (ft) 999	Exponent	1.5
	Crest El (f)62.77	Cd 2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir		
	Length (f)270.54	Height (ft) 999	Exponent	1.5
	Crest El (f)63.02	Cd 2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir		
	Length (f)642.5	Height (ft) 999	Exponent	1.5
	Crest El (f)63.27	Cd 2.6	Number Weirs	1
RH0100N	NH0100	NA2850	0	3
	Element #1 :	Rectangular Broad Crested Weir		
	Length (f)395.72	Height (ft) 999	Exponent	1.5
	Crest El (f)61.98	Cd 2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir		
	Length (f)546.83	Height (ft) 999	Exponent	1.5
	Crest El (f)62.23	Cd 2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir		
	Length (f)16.57	Height (ft) 999	Exponent	1.5
	Crest El (f)62.48	Cd 2.6	Number Weirs	1
RH0100O	NH0100	NC1145	0	3
	Element #1 :	Rectangular Broad Crested Weir		
	Length (f)14.34	Height (ft) 999	Exponent	1.5
	Crest El (f)53.79	Cd 2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir		
	Length (f)19.21	Height (ft) 999	Exponent	1.5
	Crest El (f)54.04	Cd 2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir		

Bear Creek/Cotee Model

Reach Element Data

	Length (ft)44.29	Height (ft)	999	Exponent	1.5
	Crest El (f)54.29	Cd	2.6	Number Weirs	1
RH0100P	<u>From Node</u> NH0100	<u>To Node</u> NH0015	<u>Initial Flow</u> 0	<u># Elements</u> 3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (ft)56.24	Height (ft)	999	Exponent	1.5
	Crest El (ft)61.2	Cd	2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (ft)42.06	Height (ft)	999	Exponent	1.5
	Crest El (f)61.45	Cd	2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (f)544.48	Height (ft)	999	Exponent	1.5
	Crest El (ft)61.7	Cd	2.6	Number Weirs	1
RH0100Q	<u>From Node</u> NH0100	<u>To Node</u> NH0072	<u>Initial Flow</u> 0	<u># Elements</u> 3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (ft)40.13	Height (ft)	999	Exponent	1.5
	Crest El (f)60.32	Cd	2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (ft)38.13	Height (ft)	999	Exponent	1.5
	Crest El (f)60.57	Cd	2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (ft) 0	Height (ft)	999	Exponent	1.5
	Crest El (f)60.82	Cd	2.6	Number Weirs	1
RH0100R	<u>From Node</u> NH0100	<u>To Node</u> NH0081	<u>Initial Flow</u> 0	<u># Elements</u> 3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (ft)63.03	Height (ft)	999	Exponent	1.5
	Crest El (f)59.97	Cd	2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (ft)44.01	Height (ft)	999	Exponent	1.5

Bear Creek/Cotee Model

Reach Element Data

	Crest El (f60.22	Cd	2.6	Number Weirs	1	
	Element #3 :	Rectangular Broad Crested Weir				
	Length (ft) 9.12	Height (ft)	999	Exponent	1.5	
	Crest El (f60.47	Cd	2.6	Number Weirs	1	
RH0100S	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>		
	NH0100	NH0083	0	3		
	Element #1 :	Rectangular Broad Crested Weir				
	Length (ft) 65.2	Height (ft)	999	Exponent	1.5	
	Crest El (f59.56	Cd	2.6	Number Weirs	1	
	Element #2 :	Rectangular Broad Crested Weir				
	Length (f143.61	Height (ft)	999	Exponent	1.5	
	Crest El (f59.81	Cd	2.6	Number Weirs	1	
	Element #3 :	Rectangular Broad Crested Weir				
	Length (f800.46	Height (ft)	999	Exponent	1.5	
	Crest El (f60.06	Cd	2.6	Number Weirs	1	
	RH0100T	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>	
		NH0100	NH0085	0	3	
Element #1 :		Rectangular Broad Crested Weir				
Length (f111.11		Height (ft)	999	Exponent	1.5	
Crest El (f57.05		Cd	2.6	Number Weirs	1	
Element #2 :		Rectangular Broad Crested Weir				
Length (f132.98		Height (ft)	999	Exponent	1.5	
Crest El (ft)57.3		Cd	2.6	Number Weirs	1	
Element #3 :		Rectangular Broad Crested Weir				
Length (f189.68		Height (ft)	999	Exponent	1.5	
Crest El (f57.55		Cd	2.6	Number Weirs	1	
RH0100U		<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>	
		NH0100	NH0089	0	3	
	Element #1 :	Rectangular Broad Crested Weir				
	Length (f144.16	Height (ft)	999	Exponent	1.5	
	Crest El (f57.38	Cd	2.6	Number Weirs	1	

Bear Creek/Cotee Model

Reach Element Data

Element #2 :	Rectangular Broad Crested Weir		
Length (f)325.53	Height (ft)	999	Exponent 1.5
Crest EI (f57.63)	Cd	2.6	Number Weirs 1

Element #3 :	Rectangular Broad Crested Weir		
Length (f)579.11	Height (ft)	999	Exponent 1.5
Crest EI (f57.88)	Cd	2.6	Number Weirs 1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RH0100V	NH0100	NH0090	0	3

Element #1 :	Rectangular Broad Crested Weir		
Length (ft)27.83	Height (ft)	999	Exponent 1.5
Crest EI (f56.96)	Cd	2.6	Number Weirs 1

Element #2 :	Rectangular Broad Crested Weir		
Length (f)123.52	Height (ft)	999	Exponent 1.5
Crest EI (f57.21)	Cd	2.6	Number Weirs 1

Element #3 :	Rectangular Broad Crested Weir		
Length (f)237.54	Height (ft)	999	Exponent 1.5
Crest EI (f57.46)	Cd	2.6	Number Weirs 1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RH0100W	NH0100	NH0092	0	3

Element #1 :	Rectangular Broad Crested Weir		
Length (ft)75.35	Height (ft)	999	Exponent 1.5
Crest EI (f59.39)	Cd	2.6	Number Weirs 1

Element #2 :	Rectangular Broad Crested Weir		
Length (ft) 76.1	Height (ft)	999	Exponent 1.5
Crest EI (f59.64)	Cd	2.6	Number Weirs 1

Element #3 :	Rectangular Broad Crested Weir		
Length (f)139.78	Height (ft)	999	Exponent 1.5
Crest EI (f59.89)	Cd	2.6	Number Weirs 1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RH0100X	NH0100	NH0093	0	3

Bear Creek/Cotee Model

Reach Element Data

Element #1 :	Rectangular Broad Crested Weir			
Length (f)217.51	Height (ft)	999	Exponent	1.5
Crest El (f)53.6	Cd	2.6	Number Weirs	1

Element #2 :	Rectangular Broad Crested Weir			
Length (f)40.11	Height (ft)	999	Exponent	1.5
Crest El (f)53.85	Cd	2.6	Number Weirs	1

Element #3 :	Rectangular Broad Crested Weir			
Length (f)26.23	Height (ft)	999	Exponent	1.5
Crest El (f)54.1	Cd	2.6	Number Weirs	1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RH0100Y	NH0100	NH0240	0	3

Element #1 :	Rectangular Broad Crested Weir			
Length (f)153.14	Height (ft)	999	Exponent	1.5
Crest El (f)58.96	Cd	2.6	Number Weirs	1

Element #2 :	Rectangular Broad Crested Weir			
Length (f)293.31	Height (ft)	999	Exponent	1.5
Crest El (f)59.21	Cd	2.6	Number Weirs	1

Element #3 :	Rectangular Broad Crested Weir			
Length (f)324.47	Height (ft)	999	Exponent	1.5
Crest El (f)59.46	Cd	2.6	Number Weirs	1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RH0100Z	NH0100	NH0250	0	3

Element #1 :	Rectangular Broad Crested Weir			
Length (f)23.53	Height (ft)	999	Exponent	1.5
Crest El (f)57.77	Cd	2.6	Number Weirs	1

Element #2 :	Rectangular Broad Crested Weir			
Length (f)74.15	Height (ft)	999	Exponent	1.5
Crest El (f)58.02	Cd	2.6	Number Weirs	1

Element #3 :	Rectangular Broad Crested Weir			
Length (f)393.86	Height (ft)	999	Exponent	1.5
Crest El (f)58.27	Cd	2.6	Number Weirs	1

Bear Creek/Cotee Model

Reach Element Data

Element #2 :	Rectangular Broad Crested Weir			
Length (ft) 73.1	Height (ft)	999	Exponent	1.5
Crest El (f59.38)	Cd	2.6	Number Weirs	1

Element #3 :	Rectangular Broad Crested Weir			
Length (f103.58)	Height (ft)	999	Exponent	1.5
Crest El (f59.63)	Cd	2.6	Number Weirs	1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RH0260L	NH0100	NH0260	0	3

Element #1 :	Rectangular Broad Crested Weir			
Length (f116.43)	Height (ft)	999	Exponent	1.5
Crest El (f58.27)	Cd	2.6	Number Weirs	1

Element #2 :	Rectangular Broad Crested Weir			
Length (f267.29)	Height (ft)	999	Exponent	1.5
Crest El (f58.52)	Cd	2.6	Number Weirs	1

Element #3 :	Rectangular Broad Crested Weir			
Length (f335.01)	Height (ft)	999	Exponent	1.5
Crest El (f58.77)	Cd	2.6	Number Weirs	1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RH0265A	NH0290	NH0265	0	3

Element #1 :	Rectangular Broad Crested Weir			
Length (ft)33.26	Height (ft)	999	Exponent	1.5
Crest El (f60.45)	Cd	2.6	Number Weirs	1

Element #2 :	Rectangular Broad Crested Weir			
Length (ft)158.9	Height (ft)	999	Exponent	1.5
Crest El (ft)60.7	Cd	2.6	Number Weirs	1

Element #3 :	Rectangular Broad Crested Weir			
Length (f368.09)	Height (ft)	999	Exponent	1.5
Crest El (f60.95)	Cd	2.6	Number Weirs	1

	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
RH0265B	NH0265	NT1800	0	3

Element #1 :	Rectangular Broad Crested Weir			
--------------	--------------------------------	--	--	--

Bear Creek/Cotee Model

Reach Element Data

RH0280M	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
	NH0280	NH0100	0	3
	Element #1 :	Rectangular Broad Crested Weir		
	Length (f)305.05	Height (ft)	999	Exponent 1.5
	Crest EI (f58.98)	Cd	2.6	Number Weirs 1
	Element #2 :	Rectangular Broad Crested Weir		
	Length (f)364.69	Height (ft)	999	Exponent 1.5
	Crest EI (f59.24)	Cd	2.6	Number Weirs 1
	Element #3 :	Rectangular Broad Crested Weir		
	Length (f)322.58	Height (ft)	999	Exponent 1.5
	Crest EI (f59.48)	Cd	2.6	Number Weirs 1
RH0280N	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
	NH0280	NH0265	0	3
	Element #1 :	Rectangular Broad Crested Weir		
	Length (f)348.62	Height (ft)	999	Exponent 1.5
	Crest EI (f61.97)	Cd	2.6	Number Weirs 1
	Element #2 :	Rectangular Broad Crested Weir		
	Length (f)82.01	Height (ft)	999	Exponent 1.5
	Crest EI (f62.22)	Cd	2.6	Number Weirs 1
	Element #3 :	Rectangular Broad Crested Weir		
	Length (ft) 0	Height (ft)	999	Exponent 1.5
	Crest EI (f62.47)	Cd	2.6	Number Weirs 1
RH0290	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
	NH0300	NH0290	0	3
	Element #1 :	Rectangular Broad Crested Weir		
	Length (f)252.88	Height (ft)	999	Exponent 1.5
	Crest EI (f57.58)	Cd	2.6	Number Weirs 1
	Element #2 :	Rectangular Broad Crested Weir		
	Length (f)236.44	Height (ft)	999	Exponent 1.5
	Crest EI (f57.82)	Cd	2.6	Number Weirs 1

Bear Creek/Cotee Model

Reach Element Data

		Element #3 :	Rectangular Broad Crested Weir			
		Length (f)108.16	Height (ft)	999	Exponent	1.5
		Crest EI (f58.08)	Cd	2.6	Number Weirs	1
RH0290K	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>		
	NH0100	NH0290	0	3		
			Element #1 :	Rectangular Broad Crested Weir		
			Length (f)104.83	Height (ft)	999	Exponent 1.5
			Crest EI (f59.42)	Cd	2.6	Number Weirs 1
			Element #2 :	Rectangular Broad Crested Weir		
			Length (f)38.47	Height (ft)	999	Exponent 1.5
			Crest EI (f59.67)	Cd	2.6	Number Weirs 1
			Element #3 :	Rectangular Broad Crested Weir		
			Length (ft) 0	Height (ft)	999	Exponent 1.5
			Crest EI (f59.92)	Cd	2.6	Number Weirs 1
RH0300K	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>		
	NH0300	NH0100	0	3		
			Element #1 :	Rectangular Broad Crested Weir		
			Length (f)71.35	Height (ft)	999	Exponent 1.5
			Crest EI (f55.24)	Cd	2.6	Number Weirs 1
			Element #2 :	Rectangular Broad Crested Weir		
			Length (f)28.27	Height (ft)	999	Exponent 1.5
			Crest EI (f55.49)	Cd	2.6	Number Weirs 1
			Element #3 :	Rectangular Broad Crested Weir		
			Length (ft) 37.8	Height (ft)	999	Exponent 1.5
			Crest EI (f55.74)	Cd	2.6	Number Weirs 1
RH0300L	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>		
	NH0300	NH0265	0	3		
			Element #1 :	Rectangular Broad Crested Weir		
			Length (f)81.41	Height (ft)	999	Exponent 1.5
			Crest EI (f61.15)	Cd	2.6	Number Weirs 1
			Element #2 :	Rectangular Broad Crested Weir		

Bear Creek/Cotee Model

Reach Element Data

	Crest El (f64.62	Cd	2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (ft) 1.25	Height (ft)	999	Exponent	1.5
	Crest El (f64.87	Cd	2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (ft) 1.36	Height (ft)	999	Exponent	1.5
	Crest El (f65.12	Cd	2.6	Number Weirs	1
RI0100N	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>	
	NH0100	NI1000	0	3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (ft)44.23	Height (ft)	999	Exponent	1.5
	Crest El (f63.17	Cd	2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (ft)270.1	Height (ft)	999	Exponent	1.5
	Crest El (f63.42	Cd	2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (ft)880.5	Height (ft)	999	Exponent	1.5
	Crest El (f63.67	Cd	2.6	Number Weirs	1
RI0110	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>	
	NI0120	NI0110	0	3	
	Element #1 :	Rectangular Broad Crested Weir			
	Length (ft)30.48	Height (ft)	999	Exponent	1.5
	Crest El (f67.65	Cd	2.6	Number Weirs	1
	Element #2 :	Rectangular Broad Crested Weir			
	Length (ft)68.13	Height (ft)	999	Exponent	1.5
	Crest El (ft)67.9	Cd	2.6	Number Weirs	1
	Element #3 :	Rectangular Broad Crested Weir			
	Length (ft)109.6	Height (ft)	999	Exponent	1.5
	Crest El (f68.15	Cd	2.6	Number Weirs	1
RI0110K	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>	
	NI0110	NI0300	0	3	

Bear Creek/Cotee Model

Reach Element Data

RI0130	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
	NI0130	NI0200	0	3
	Element #1 :	Rectangular Broad Crested Weir		
	Length (f)108.26	Height (ft)	999	Exponent 1.5
	Crest El (f)72.02	Cd	2.6	Number Weirs 1
	Element #2 :	Rectangular Broad Crested Weir		
	Length (f)75.94	Height (ft)	999	Exponent 1.5
	Crest El (f)72.27	Cd	2.6	Number Weirs 1
	Element #3 :	Rectangular Broad Crested Weir		
	Length (f)228.94	Height (ft)	999	Exponent 1.5
	Crest El (f)72.52	Cd	2.6	Number Weirs 1
RI0130K	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
	NI0130	NF0270	0	3
	Element #1 :	Rectangular Broad Crested Weir		
	Length (f)93.76	Height (ft)	999	Exponent 1.5
	Crest El (f)70.95	Cd	2.6	Number Weirs 1
	Element #2 :	Rectangular Broad Crested Weir		
	Length (f)155.42	Height (ft)	999	Exponent 1.5
	Crest El (f)71.2	Cd	2.6	Number Weirs 1
	Element #3 :	Rectangular Broad Crested Weir		
	Length (f)64.23	Height (ft)	999	Exponent 1.5
	Crest El (f)71.45	Cd	2.6	Number Weirs 1
RI0160K	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
	NH0100	NI1060	0	3
	Element #1 :	Rectangular Broad Crested Weir		
	Length (f)68.45	Height (ft)	999	Exponent 1.5
	Crest El (f)62.53	Cd	2.6	Number Weirs 1
	Element #2 :	Rectangular Broad Crested Weir		
	Length (f)50.49	Height (ft)	999	Exponent 1.5
	Crest El (f)62.78	Cd	2.6	Number Weirs 1
	Element #3 :	Rectangular Broad Crested Weir		

Bear Creek/Cotee Model

Reach Element Data

	Length (f)132.78 Crest El (f63.03	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1	
RI0200	<u>From Node</u> NI0200	<u>To Node</u> NI0300	<u>Initial Flow</u> 0	<u># Elements</u> 3		
	Element #1 :	Rectangular Broad Crested Weir				
	Length (ft)18.73 Crest El (f67.15	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1	
	Element #2 :	Rectangular Broad Crested Weir				
	Length (ft) 8.34 Crest El (f)67.4	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1	
	Element #3 :	Rectangular Broad Crested Weir				
	Length (ft)13.02 Crest El (f67.65	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1	
	RI0200K	<u>From Node</u> NI0200	<u>To Node</u> NI0210	<u>Initial Flow</u> 0	<u># Elements</u> 3	
		Element #1 :	Rectangular Broad Crested Weir			
		Length (ft)25.72 Crest El (f71.17	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1
Element #2 :		Rectangular Broad Crested Weir				
Length (f)161.58 Crest El (f71.42		Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1	
Element #3 :		Rectangular Broad Crested Weir				
Length (ft)219.4 Crest El (f71.67		Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1	
RI0210		<u>From Node</u> NI0210	<u>To Node</u> NI0300	<u>Initial Flow</u> 0	<u># Elements</u> 3	
		Element #1 :	Rectangular Broad Crested Weir			
		Length (ft)76.79 Crest El (f67.87	Height (ft) Cd	999 2.6	Exponent Number Weirs	1.5 1
	Element #2 :	Rectangular Broad Crested Weir				
	Length (ft)58.19	Height (ft)	999	Exponent	1.5	

Bear Creek/Cotee Model

Reach Element Data

RI1060K	NI1060	NH0092	0	3
Element #1 :		Rectangular Broad Crested Weir		
Length (ft)39.79		Height (ft)	999	Exponent 1.5
Crest El (f63.44		Cd	2.6	Number Weirs 1
Element #2 :		Rectangular Broad Crested Weir		
Length (ft) 0		Height (ft)	999	Exponent 1.5
Crest El (f63.69		Cd	2.6	Number Weirs 1
Element #3 :		Rectangular Broad Crested Weir		
Length (ft) 0		Height (ft)	999	Exponent 1.5
Crest El (f63.94		Cd	2.6	Number Weirs 1
RI1100K	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
	NI1100	NH0100	0	3
	Element #1 :		Rectangular Broad Crested Weir	
	Length (ft)79.47		Height (ft)	999 Exponent 1.5
Crest El (f60.49		Cd	2.6	Number Weirs 1
	Element #2 :		Rectangular Broad Crested Weir	
	Length (ft)74.29		Height (ft)	999 Exponent 1.5
	Crest El (f60.74		Cd	2.6 Number Weirs 1
	Element #3 :		Rectangular Broad Crested Weir	
	Length (ft)90.69		Height (ft)	999 Exponent 1.5
Crest El (f60.99		Cd	2.6	Number Weirs 1
RJ0010	<u>From Node</u>	<u>To Node</u>	<u>Initial Flow</u>	<u># Elements</u>
	NJ0020	NJ0010	0	3
	Element #1 :		Rectangular Broad Crested Weir	
	Length (ft) 16.5		Height (ft)	999 Exponent 1.5
Crest El (f46.87		Cd	2.6	Number Weirs 1
	Element #2 :		Rectangular Broad Crested Weir	
	Length (ft)13.03		Height (ft)	999 Exponent 1.5
	Crest El (f47.12		Cd	2.6 Number Weirs 1
	Element #3 :		Rectangular Broad Crested Weir	
	Length (ft)23.68		Height (ft)	999 Exponent 1.5
Crest El (f47.37		Cd	2.6	Number Weirs 1

Appendix G

CHAN Model Output (1D10Y and 5D10Y).

10 Yr, 1 Day **Maximum Stages Report**

Node ID	Time of Max Stage hours	Maximum Stage feet	Flood Elevation feet	Flood Depth feet
NC0820	28.86	55.33	51.11	4.22
NC0830	28.38	58.05	54.40	3.65
NC0870	144.00	54.36	48.23	6.13
NC0857	33.10	56.64	52.27	4.37
NC0855	33.11	56.64	52.64	4.00
NC0922	13.41	62.02	60.37	1.65
NC0923	13.14	59.93	55.74	4.19
NC0928	14.10	59.12	54.58	4.54
NC0925	23.97	58.10	53.95	4.15
NC0927	14.16	59.12	52.52	6.60
NC0930	24.34	58.64	48.43	10.21
NC1100	144.00	54.36	41.60	12.76
NC1170	144.00	54.36	43.43	10.93
NH0100	26.35	54.61	44.45	10.16
ND0020	14.13	75.94	71.66	4.28
ND0030	12.72	75.54	71.66	3.88
ND0100	13.05	76.10	72.36	3.74
ND0110	13.11	75.70	72.02	3.68
ND0320	24.38	75.00	71.36	3.64
ND0400	22.31	74.93	70.46	4.47
ND0340	21.49	74.94	71.40	3.54
ND0350	21.96	74.93	71.42	3.51
ND0360	21.96	74.93	69.16	5.77
ND0390	21.96	74.94	70.66	4.28
ND0410	24.19	74.48	70.25	4.23
ND0415	25.13	74.33	71.66	2.67
ND0420	25.66	73.68	70.96	2.72
ND0810	67.49	70.57	65.14	5.43
ND0460	13.59	76.52	72.81	3.71
NK1360P	24.00	75.37	-10.00	85.37
ND0745	24.38	74.53	69.36	5.17
ND0750	24.29	74.51	69.36	5.15
ND0970	91.97	70.36	64.13	6.23
ND0980	108.40	68.47	62.49	5.98
ND1000	108.42	68.45	62.47	5.98
ND1010	24.70	68.05	60.16	7.89
ND1030	24.99	65.62	59.81	5.81
ND1050	24.46	64.66	58.66	6.00
NE0020	27.03	75.82	71.91	3.91
NE0090	25.68	74.25	70.90	3.35
NE0060	25.49	74.25	71.61	2.64
NE0130	144.00	72.57	68.12	4.45
NE0160	144.00	72.57	65.61	6.96
NE0150	24.23	73.63	67.38	6.25
NE0280	24.91	68.12	60.42	7.70
NF0020	17.21	76.41	72.53	3.88
NF0010	144.00	73.63	69.22	4.41

10 Yr, 5 Day Maximum Stages Report

Node ID	Time of Max Stage hours	Maximum Stage feet	Flood Elevation feet	Flood Depth feet
NC0820	124.19	56.35	51.11	5.24
NC0830	118.75	58.92	54.40	4.52
NC0870	182.05	57.87	48.23	9.64
NC0857	118.75	58.92	52.27	6.65
NC0855	118.75	58.92	52.64	6.28
NC0922	61.09	62.10	60.37	1.73
NC0923	61.30	60.04	55.74	4.30
NC0928	61.89	59.38	54.58	4.80
NC0925	118.75	58.92	53.95	4.97
NC0927	62.03	59.40	52.52	6.88
NC0930	62.83	58.84	48.43	10.41
NC1100	181.85	57.88	41.60	16.28
NC1170	182.44	57.86	43.43	14.43
NH0100	182.67	57.85	44.45	13.40
ND0020	62.86	75.92	71.66	4.26
ND0030	96.43	75.92	71.66	4.26
ND0100	61.17	75.99	72.36	3.63
ND0110	60.75	75.69	72.02	3.67
ND0320	69.55	75.32	71.36	3.96
ND0400	65.94	75.32	70.46	4.86
ND0340	65.37	75.37	71.40	3.97
ND0350	65.80	75.34	71.42	3.92
ND0360	65.79	75.33	69.16	6.17
ND0390	65.79	75.34	70.66	4.68
ND0410	70.57	74.78	70.25	4.53
ND0415	70.72	74.77	71.66	3.11
ND0420	149.07	74.33	70.96	3.37
ND0810	159.64	72.44	65.14	7.30
ND0460	61.79	76.52	72.81	3.71
NK1360P	60.67	75.63	-10.00	85.63
ND0745	138.69	75.60	69.36	6.24
ND0750	140.47	75.51	69.36	6.15
ND0970	160.57	72.15	64.13	8.02
ND0980	160.98	71.92	62.49	9.43
ND1000	162.24	71.61	62.47	9.14
ND1010	163.29	70.99	60.16	10.83
ND1030	174.15	67.75	59.81	7.94
ND1050	175.02	67.72	58.66	9.06
NE0020	97.08	76.60	71.91	4.69
NE0090	66.97	74.56	70.90	3.66
NE0060	66.83	74.56	71.61	2.95
NE0130	96.23	73.07	68.12	4.95
NE0160	96.23	73.07	65.61	7.46
NE0150	67.45	73.87	67.38	6.49
NE0280	163.17	70.99	60.42	10.57
NF0020	64.17	76.48	72.53	3.95
NF0010	119.60	74.18	69.22	4.96

Appendix H

References.

References

- Ardaman and Associates, Inc. (2006). Bear Creek/Pithlachascotee River WMP, Watershed Management Plan Report (In Preparation). Prepared for the Southwest Florida Water Management District, Brooksville, Florida.
- Dierberg, F.E. and Wagner, K.J. (2001). A Review of "A Multiple-Parameter Approach for Establishing Minimum Levels for Category 3 Lakes of the Southwest Florida Water Management District" June 2001 draft by D. Leeper, M. Kelly, A. Munson, and R. Gant. Prepared for the Southwest Florida Water Management District, Brooksville, Florida.
- Ghioto and Associates (1997). The Pithlachascotee River Watershed Flood Plain Analysis. Prepared for the Board of County Commissioners Pasco County, Florida and the Southwest Florida Water Management District.
- Institute of Museum and Library Services, Florida Department of State Library Services and Technology Act (2006). Historical 1941 Aerial Photograph of Crews Lake. <http://web.uflib.ufl.edu/digital/collections/FLAP/>
- Institute of Museum and Library Services, Florida Department of State Library Services and Technology Act (2006). Historical 1951 Aerial Photograph of Crews Lake. <http://web.uflib.ufl.edu/digital/collections/FLAP/>
- Institute of Museum and Library Services, Florida Department of State Library Services and Technology Act (2006). Historical 1952 Aerial Photograph of Crews Lake. <http://web.uflib.ufl.edu/digital/collections/FLAP/>
- Institute of Museum and Library Services, Florida Department of State Library Services and Technology Act (2006). Historical 1957 Aerial Photograph of Crews Lake. <http://web.uflib.ufl.edu/digital/collections/FLAP/>
- Leeper, D., Kelly, M., Munson, A., and Grant, R. (2001). A Multiple-Parameter Approach for Establishing Minimum Levels for Category 3 Lakes of the Southwest Florida Water Management District. June 14, 2001 draft, Southwest Florida Water Management District, Brooksville, Florida.
- Southwest Florida Water Management District (1987). Pithlachascotee River Basin Aerial Photography with Contours, Sheet No. 5-25-18. Brooksville, Florida.
- Southwest Florida Water Management District (1987). Pithlachascotee River Basin Aerial Photography with Contours, Sheet No. 6-25-18. Brooksville, Florida.

Southwest Florida Water Management District (1987). Pithlachascotee River Basin Aerial Photography with Contours, Sheet No. 7-25-18. Brooksville, Florida.

Southwest Florida Water Management District (1987). Pithlachascotee River Basin Aerial Photography with Contours, Sheet No. 8-25-18. Brooksville, Florida.

Southwest Florida Water Management District (1987). Pithlachascotee River Basin Aerial Photography with Contours, Sheet No. 10a-25-18. Brooksville, Florida.

Southwest Florida Water Management District (1987). Pithlachascotee River Basin Aerial Photography with Contours, Sheet No. 10b-25-18. Brooksville, Florida.

Southwest Florida Water Management District (1987). Pithlachascotee River Basin Aerial Photography with Contours, Sheet No. 15-25-18. Brooksville, Florida.

Southwest Florida Water Management District (1987). Pithlachascotee River Basin Aerial Photography with Contours, Sheet No. 16-25-18. Brooksville, Florida.

Southwest Florida Water Management District (1987). Pithlachascotee River Basin Aerial Photography with Contours, Sheet No. 18-25-18. Brooksville, Florida.

Southwest Florida Water Management District (1987). Pithlachascotee River Basin Aerial Photography with Contours, Sheet No. 20a-25-18. Brooksville, Florida.

Southwest Florida Water Management District (1987). Pithlachascotee River Basin Aerial Photography with Contours, Sheet No. 20b-25-18. Brooksville, Florida.

Southwest Florida Water Management District (1987). Pithlachascotee River Basin Aerial Photography with Contours, Sheet No. 21-25-18. Brooksville, Florida.

Southwest Florida Water Management District (1987). Pithlachascotee River Basin Aerial Photography with Contours, Sheet No. 22a-25-18. Brooksville, Florida.

Southwest Florida Water Management District (1987). Pithlachascotee River Basin Aerial Photography with Contours, Sheet No. 22b-25-18. Brooksville, Florida.

Southwest Florida Water Management District (1987). Pithlachascotee River Basin Aerial Photography with Contours, Sheet No. 27a-25-18. Brooksville, Florida.

Southwest Florida Water Management District (1984). Crews Lake Hydrologic and Hydraulic Simulation Results and Analysis. Brooksville, Florida.

Southwest Florida Water Management District (1996). Lake Levels Program Lake Data Sheets / 1977 - 1996, Coastal Rivers Basin - 15. Brooksville, Florida.

Southwest Florida Water Management District (2006). Lake Level Data for the Establishment of Minimum Flows and Levels – Crews Lake – Pasco County, FL. Brooksville, Florida.

Southwest Florida Water Management District (2006). Personal Communication – Project Meeting September 7, 2006. Brooksville, Florida.

Southwest Florida Water Management District (2006). Personal Communication – Project Meeting November 14, 2006. Brooksville, Florida.

Southwest Florida Water Management District (2006). Proposed Minimum and Guidance Levels for Crews Lake in Pasco County, Florida. November 17, 2006, Draft. Brooksville, Florida.