

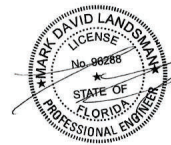


HALEY WARD®

DRAINAGE REPORT – 5125 PETERSON RD

TO: FORT PIERCE
FOR: 5125 Peterson Rd PD Submittal
Fort Pierce, FL

APPLICANT:
Redtail DG
100 S 2nd St | Ft Pierce, FL 34950



Digitally signed
by Mark
Landsman
Date: 2025.07.14
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Mark Landsman, P.E. #96288 **Date**
10250 SW Village Parkway, Suite 201
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July 15, 2025
JN: 25-157

REPORT PREPARED BY:
Haley Ward, Inc.
10250 VILLAGE PKWY, STE 201, PORT ST. LUCIE, FL 34987



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1.0 Executive Summary

The project known as 5125 Peterson Rd proposes 163 dwelling units on approximately 19.36 acres. The site has a single-family home, unimproved gravel road and furrows for agricultural purposes. The project will be developed with a stormwater management system consisting of dry retention and wet detention (ponds) areas to provide water quality treatment and attenuation. Stormwater effluent discharges will be directed to the North St Lucie River Water Control District (NSLRWCD) Canal No. 35. The contents of this report state the assumptions used in the preliminary design of the stormwater management system.

2.0 History and Existing Storm Water Management System

The subject parcel has never been permitted by the South Florida Water Management District (SFWMD) for an Environmental Resource Permit (ERP). A search of the Florida Department of Environmental Protection (FDEP) was completed and the results indicate that the site has never been permitted through FDEP either.

The existing conditions of the site indicate that the historical use was for agricultural purposes as noted in the existing furrows. Stormwater is currently captured in the existing furrows where it is infiltrated into the native soil. A boundary and topographic survey of the property will indicate the flow of stormwater offsite and if any existing drainage structures are present.

3.0 Drainage Calculation Summary

3.1 Project Description

The following Table 1 provides data on the subject parcel.



Table 1-Site Details

Parcel ID	Size	Sec/Town/Range	Jurisdiction	Zone
2418-212-0001-000-7	19.39	02/35S/39E	Ft Pierce	E-3

3.2 Datum

All elevations included on the project's plans are in reference to the North American Vertical Datum 1988. The vertical datum conversion has been determined to be approximately 1.50 feet in the project area. This is used to convert NGVD to NAVD, in other words NGVD elevation minus 1.50 feet = NAVD elevation.

3.3 Proposed Stormwater Management System

The proposed stormwater management system for the site consists of a wet detention system (lakes) that will provide water quality treatment and attenuation prior to discharging off site to the NSLRWCD Canal No. 35. Water quality will meet current SFWMD standards as described in Applicants Handbook Volume II. Discharges to the NSLRWCD canal will meet the volumetric equivalent of 2-inches across the site in a 24-hour period.

3.4 Land Use Tables

The following Table 2 outlines the pre-development land use breakdown for the project. Table 3 outlines the post development land use breakdown.

Table 2-Pre-Development Land Use

Land Use	Area (ac)	Percentage
Building	0.07	0.4%
Pervious	19.32	99.6%
Pre-Development Basin Area	19.39	100



Table 3-Post Development Land Use

Land Use	Area (ac)	Percentage of Site (%)
Buildings	3.78	19.5%
Impervious (Concrete and Sidewalk)	4.20	21.7%
Lakes	3.42	17.6%
Pervious Area	7.99	41.2%
Post Development Area	19.39	100

3.5 Control Elevation

The control elevation for the project is assumed at 12.00 NGVD/10.50 NAVD, based on the ERP for the adjacent Celebration Pointe. Additional geotechnical borings will be required to confirm the depth of the water table for this project.

3.6 Tailwater

The tailwater condition for the stormwater management system is controlled by the elevations of NSLRWCD Canal No. 35. The water level elevations of the canal are subject to change based on the dry and wet season, therefore, a conservative approach to the tailwater condition is to use the tailwater elevation during the dry season when the canals are controlled at a higher elevation. The dry season control elevation of the NSLRWCD Canal No. 35 is 10.50 NAVD. Based on the St Lucie County Stormwater Master Plan, the peak elevation of Canal 35 is 13.50 NAVD. A copy of the SLC Stormwater Master Plan is attached in Appendix A.

3.7 Water Quality Treatment

The project proposes to treat 150% of the required water quality treatment for an Outstanding Florida Waterbody (OFW) based on the two conditions of 1-inch over the project area or 2.5-inches times the percent impervious. The higher of the two calculated values is then increased by 150% to determine the required water quality treatment volume for an OFW.



The following Table 4 outlines the preliminary water quality requirements for the project. The water quality treatment volume is based on the South Florida Water Management District's criteria for an Outstanding Florida Waterbody (OFW). Since the stormwater system is a wet detention system, no reductions are permitted.

Table 4-Water Quality Treatment Volume

1-inch Over the Project Area (acre-feet)	2.5-inches Times Percent Impervious (acre-feet)	Outstanding Florida Waterbody Volume (150%) (acre-feet)
1.62	3.11	4.67

3.8 Discharge Rates – SFWMD Standard

A pre vs post discharge rate analysis will need to be conducted on the site using the 25-year/3-day storm event simulation in the Stormwise (ICPR) model. The results of this simulation will determine the maximum discharge rate allowed by the SFWMD. This simulation will be completed once construction plans have been developed.

3.9 Minimum Road and Parking

The minimum road and parking elevation for the site will be determined based on the results of the Stormwise simulation for the 10-year 1 day storm event. This simulation will be completed once construction plans have been developed.

3.10 Minimum Finished Floor

The minimum finished floor elevation for the project is determined by the results of the Stormwise simulation of the 100-year 3-day storm event. The project proposes a minimum finished floor elevation that is at least 1 foot above the 100-year/3-day storm event. This simulation will be completed once construction plans have been developed.



3.11 Minimum Perimeter Berm

The minimum perimeter berm elevation is determined by the results of the Stormwise simulation of the 25-year/3-day storm event. This simulation will be completed once construction plans have been developed.

3.12 Control Structure

The proposed control structure for the project will be a modified FDOT inlet that meets water quality and quantity standards. The control structure will be designed once construction plans are being developed.

3.13 North St Lucie River Water Control District Discharge Volume

The North St Lucie River Water Control District sets the discharge volume for stormwater entering their stormwater management system. The discharge volume is capped at 2 inches per day across the drainage basin within a 24-hour period based on the results of the 10-year/3-day storm event. The maximum discharge volume allowed for the project is 3.23 acre-feet.

3.14 Net Improvement

A net improvement analysis will be completed on the project once construction plans have been developed. Net improvement standards are set by the FDEP/SFWMD to reduce the total discharge load for nitrogen and phosphorus. These standards are set to change in December 2025 using HUC12 maps to determine the percentage of nutrient removal for the basin. The project is located in HUC12 030902060200, which has a discharge to the North Fork of the St Lucie River. Since the St Lucie River is an OFW, the nutrient reduction for TN and TP is 95%.

3.15 Back-to-Back Storm Analysis

A back-to-back storm analysis will be completed in Stormwise to demonstrate that the project has sufficient flood protection. In order to demonstrate a back-



to-back design storm analysis, the ending stage of the 25-year/3-day storm event is used as the beginning stage for the second storm. This simulation will be completed once construction plans have been developed.

3.15 Recovery Analysis

A recovery analysis to determine that the stormwater management system can recover the retained/detained volume within 72 hours of a storm event will be completed once geotechnical data and construction plans have been completed.

3.16 Floodplain Compensation

Since the project site lies within the FEMA floodplain, floodplain compensatory calculations will be required to meet the SFWMD standards. Floodplain compensatory calculations will be completed once geotechnical data and construction plans have been completed.

4.0 Conclusion

The project known as 5125 Peterson Rd will meet all of the stormwater management system regulations of the City of Ft Pierce, South Florida Water Management District, Florida Department of Environmental Protection and the North St Lucie River Water Control District. Further drainage calculations and flood routing will be completed once the construction plans have been developed.

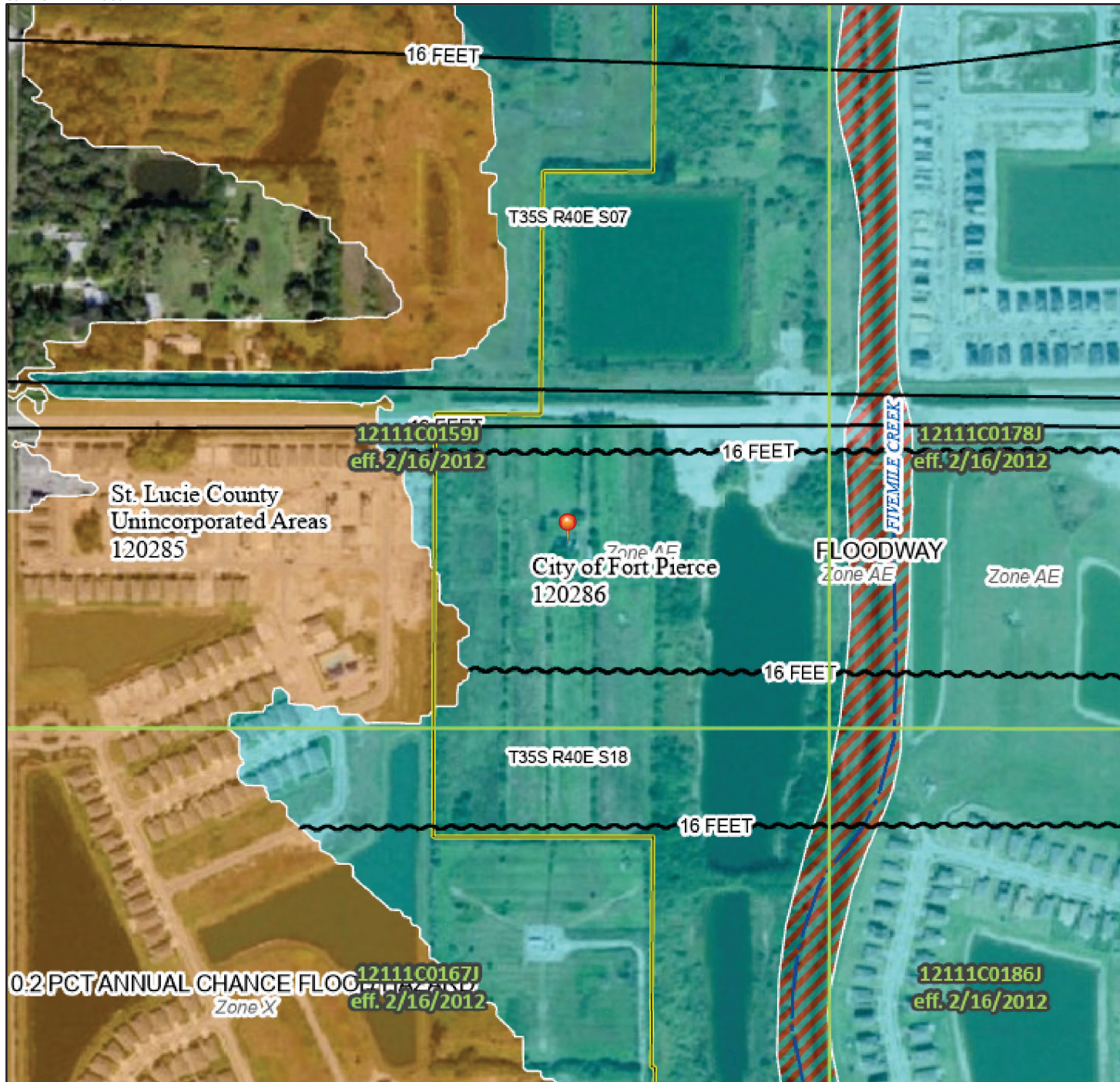


APPENDIX A: Maps and Exhibits

National Flood Hazard Layer FIRMette



80°22'57"W 27°26'36"N



1:6,000

80°22'20"W 27°26'5"N

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D

OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs

GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline

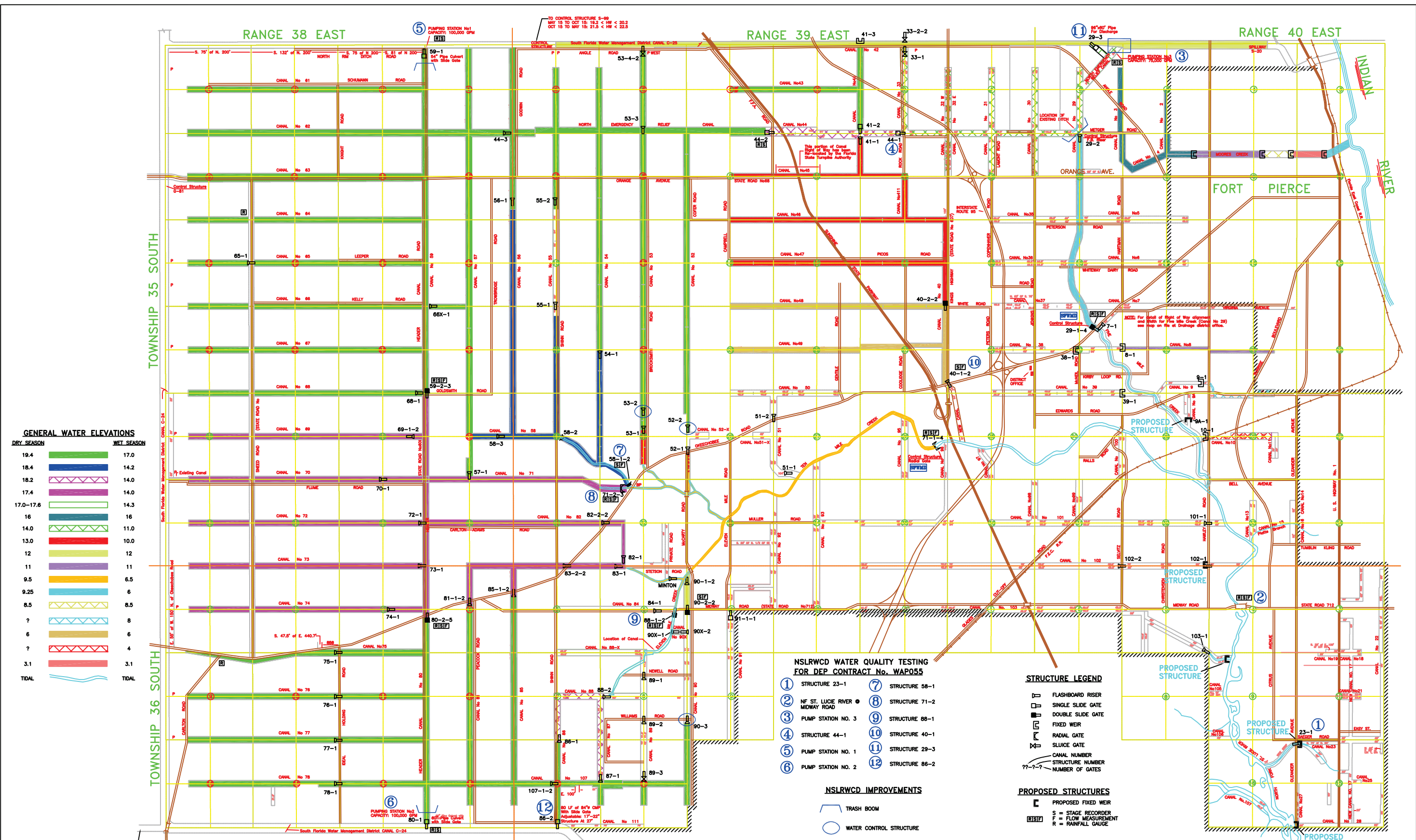
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 7/11/2025 at 3:29 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

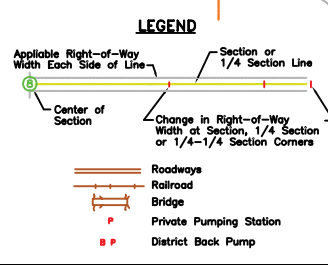
This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



GENERAL WATER ELEVATIONS

DRY SEASON	WET SEASON
19.4	17.0
18.4	14.2
18.2	14.0
17.4	14.0
17.0-17.6	14.3
16	16
14.0	11.0
13.0	10.0
12	12
11	11
9.5	6.5
9.25	6
8.5	8.5
8	8
6	6
?	4
3.1	3.1
TIDAL	TIDAL

- NOTES**
- The canal right-of-ways shown hereon are based on the Original Plan of Reclamation, Order of Taking and Deeds. Where discrepancies were found, the right-of-way width indicated in Order of Taking and Deeds were used.
 - The n-numbered canals are right-of-ways deeded to the District subsequent to the Adoption of the Plan of Reclamation.
 - Some portions of right-of-ways as shown hereon have been deeded to Federal, State, County and Local Agencies for road and drainage purposes.
 - The bench marks shown hereon (NO1 through NO48) were established in June 1975 and refer to elevations established by the F.C.E. for MON. 1442.
 - The elevations denoted thus were taken from the District Map prepared by Others, copies of which are on file in the District Office. Culvert and invert elevations or other structure may affect control elevations throughout the system. It is recommended that the District be consulted on Control.
 - Designer should not rely solely on this drawing



- NSLRWCD WATER QUALITY TESTING FOR DEP CONTRACT No. WAP055**
- | | | | |
|---|--------------------------------|---|----------------|
| ① | STRUCTURE 23-1 | ⑦ | STRUCTURE 58-1 |
| ② | NF ST. LUCIE RIVER MIDWAY ROAD | ⑧ | STRUCTURE 71-2 |
| ③ | PUMP STATION NO. 3 | ⑨ | STRUCTURE 88-1 |
| ④ | STRUCTURE 44-1 | ⑩ | STRUCTURE 40-1 |
| ⑤ | PUMP STATION NO. 1 | ⑪ | STRUCTURE 29-3 |
| ⑥ | PUMP STATION NO. 2 | ⑫ | STRUCTURE 86-2 |

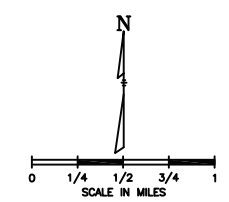
- NSLRWCD IMPROVEMENTS**
- TRASH BOOM
 - WATER CONTROL STRUCTURE
 - C-25 DIVERSION

- STRUCTURE LEGEND**
- FLASHBOARD RISER
 - SINGLE SLIDE GATE
 - DOUBLE SLIDE GATE
 - FIXED WEIR
 - RADIAL GATE
 - SLUICE GATE
 - CANAL NUMBER
 - STRUCTURE NUMBER
 - NUMBER OF GATES

- PROPOSED STRUCTURES**
- PROPOSED FIXED WEIR
 - S = STAGE RECORDER
 - F = FLOW MEASUREMENT
 - R = RAINFALL GAUGE

GENERALIZED CANAL ELEVATIONS MAP FOR THE NORTH ST. LUCIE RIVER WATER CONTROL DISTRICT
 ST. LUCIE COUNTY, FLORIDA

2721 S. JENKINS ROAD FORT PIERCE, FLORIDA 34981
 PHONE: (561) 461-5050 FAX: (561) 461-9446

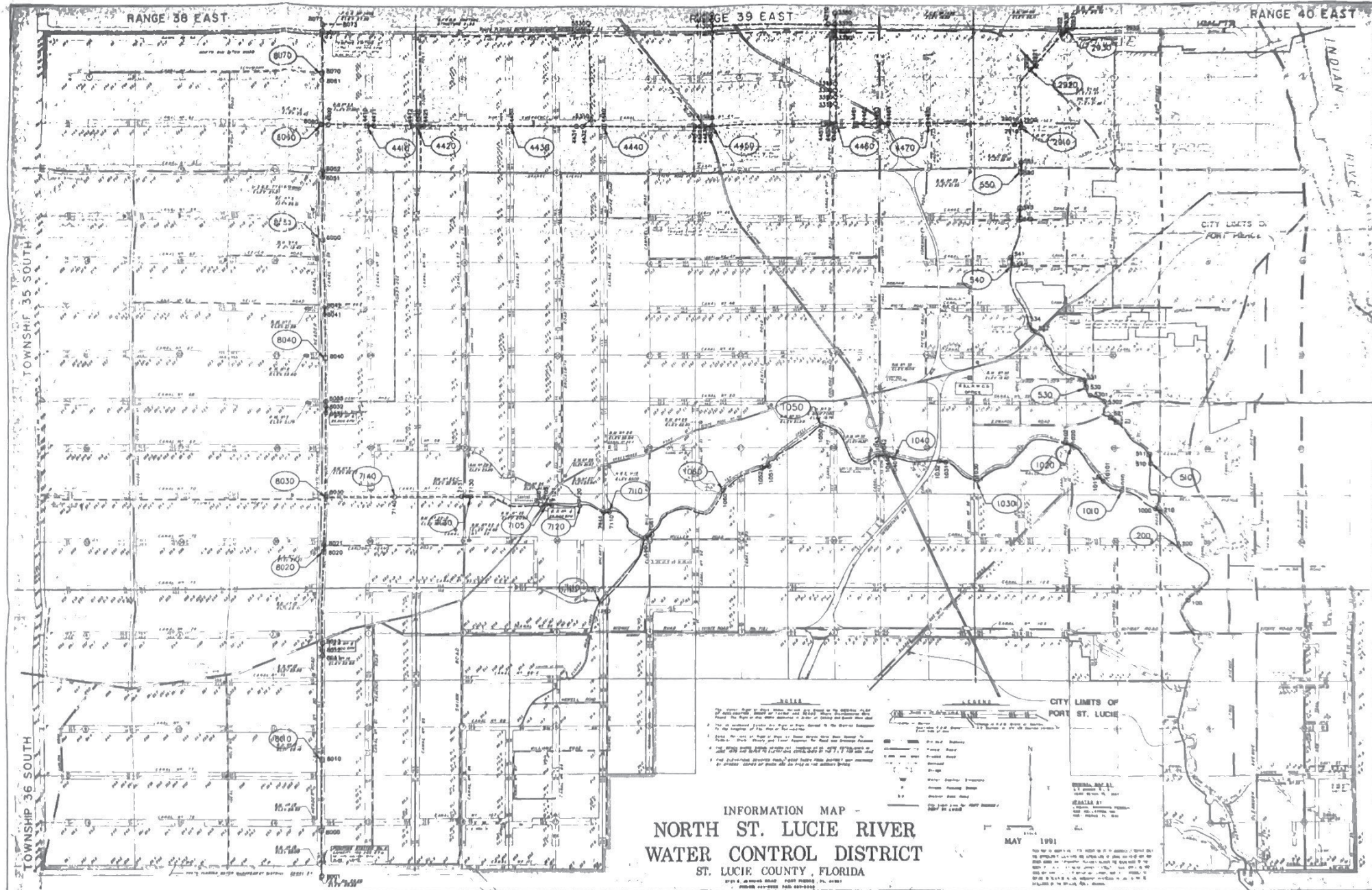


ORIGINAL MAP BY:
 S. P. Musick, P.L.S.
 Vero Beach, FL (1967)

UPDATED BY:
 LBFH, Inc., Ft. Pierce, FL
 (REVISED 01-23-02)



MODELING SCHEMATIC OF THE NORTH ST. LUCIE RIVER WATER CONTROL DISTRICT WATERSHED



INFORMATION MAP -
**NORTH ST. LUCIE RIVER
 WATER CONTROL DISTRICT**
 ST. LUCIE COUNTY, FLORIDA

- LEGEND**
- EXTRAN OPEN CHANNEL
 - EXTRAN CLOSED CONDUIT
 - EXTRAN LINKING JUNCTION
 - EXTRAN STORAGE JUNCTION
 - (40) RUNOFF HYDROGRAPH LOAD POINT



TABLE 4-1

FORT PIERCE FARMS WATER CONTROL DISTRICT CANAL NO. 1 Summary of Flood Stages and Problem Areas (1)

Present Land Use

Junction No.	Street Name	Top of Road Elev (ft)	Low Chord (ft)	Floor Elev. (ft)	Length (ft)	Total Length	Invert Elev (ft)	10-YEAR 24-HOUR				10YR/72HR Base Cond Max Flood Elev (ft)
								Base Cond Max Flood Elev (ft)	Alt 1 Max Flood Elev (ft)	Alt 2 Max Flood Elev (ft)	Alt 3 Max Flood Elev (ft)	
1					0	0	-10.0	2.7				2.7
2	CONTROL STRUCTURE				430	430	-3.7	16.5				17.8
1000					1,320	1,750	-1.6	16.5				17.9
1005	25TH STREET				450	2,200	-1.6	16.5				17.9
1010					5,280	7,480	-0.2	16.7				18.3
1015	@ Canal No. 2				5,280	12,760	0.4	16.7				18.5
1016	KEEN ROAD BRIDGE -				399	13,159	0.4	16.8				18.5
1017					1,900	15,059	2.5	16.8				18.6
1020	TAYLOR DAIRY RD BRIDGE - @ Canal 3				395	15,454	2.6	16.8				18.7
1030					2,640	18,094	3.4	16.9				18.8
1035	KINGS HWY - @ Canal 4				353	18,447	3.4	16.9				18.9
1040	@ Canal 5				2,640	21,087	0.6	16.9				19.0
1050	@ Canal 20				2,640	23,727	0.8	16.9				19.0
1060					2,640	26,367	1.5	16.9				19.0
1070					2,640	29,007	3.5	17.0				19.1
1080					2,640	31,647	5.5	17.0				19.2
1090					2,640	34,287	5.8	17.1				19.3
1100	@ Canal 6				2,640	36,927	7.1	17.1				19.4
1110					2,640	39,567	8.4	17.1				19.4
1115	@ Canal 7				1,320	40,887	8.8	17.1				19.5
1116	CONTROL STRUCTURE				150	41,037	6.5	17.2				19.7
1117					1,320	42,357	9.5	17.2				19.7
1120	JOHNSTON RD CROSSING				280	42,637	8.9	17.5				20.6
1130	@ Canal 8				2,640	45,277	8.0	17.5				20.7
1140					2,920	48,197	10.4	17.6				20.8
1145	INDRIO RD CROSSING				260	48,457	10.4	17.7				21.2
1150					2,640	51,097	9.1	17.7				21.3
1160					2,640	53,737	9.4	17.8				21.3
1170					2,640	56,377	9.7	17.8				21.4
1180					2,640	59,017	10.0	17.8				21.4
1190					2,640	61,657	10.3	17.8				21.4

(1) All stages and elevations referenced to National Geodetic Vertical Datum of 1929 (FT_NGVD) unless noted otherwise.

4-24

TABLE 4-2

From North St. Lucie Fork River to Pump Station No. 3 Summary of Flood Stages and Problem Areas (1)

Present Land Use

Junction No.	Street Name	Top of Road Elev (ft)	Low Chord ft)	Floor Elev. (ft)	Length (ft)	Total Length	Invert Elev (ft)	10-YEAR 24-HOUR				10YR/72HR Base Cond Max Flood Elev (ft)
								Base Cond Max Flood Elev (ft)	Alt 1 Max Flood Elev (ft)	Alt 2 Max Flood Elev (ft)	Alt 3 Max Flood Elev (ft)	
10							-11.0	2.7	2.7	2.7	2.7	2.7
1					0	0	-10.8	3.6	3.6	3.6	3.6	5.0
100					3,100	3,100	-6.5	4.0	4.0	4.0	4.0	5.5
200					5,000	8,100	-5.3	5.5	5.5	5.5	5.5	7.4
210					1,400	9,500	-7.4	5.7	5.7	5.7	5.7	7.6
1000	25TH ST SPAN BRIDGE				410	9,910	-7.4	5.7	5.7	5.8	5.7	7.7
510					2,200	12,110	-2.6	7.8	7.5	7.5	7.5	8.3
511	FEC RAR SPAN BRIDGE				395	12,505	-2.6	7.8	7.5	7.5	7.5	8.3
520					2,400	14,905	-2.4	8.5	8.3	8.3	8.3	9.0
521	EDWARDS RD SPAN BRIDGE				350	15,255	-2.4	8.6	8.3	8.3	8.3	9.0
5302					1,000	16,255	-1.8	8.6	8.3	8.3	8.3	9.0
5301					1,700	17,955	-0.6	8.9	8.8	8.8	8.8	9.3
530					800	18,755	-0.1	10.8	10.8	10.8	10.8	11.1
531	KIRBY LOOP RD SPAN BRIDGE				400	19,155	-0.1	10.8	10.8	10.8	10.8	11.1
532					4,200	23,355	1.6	13.0	12.9	12.9	12.9	14.3
534					5	23,360	2.1	13.2	13.1	13.1	13.1	14.6
540					3,700	27,060	4.0	13.5	13.4	13.4	13.4	14.8
541	WHITEWAY DAIRY RD	16.6			245	27,305	4.1	13.5	13.5	13.5	13.5	15.0
542					3,000	30,305	4.6	13.6	13.6	13.6	13.6	15.1
543	PETERSON RD SPAN BRIDGE				320	30,625	4.6	13.7	13.6	13.6	13.6	15.1
550					2,600	33,225	3.1	14.0	13.9	13.9	13.9	15.3
551	ORANGE AVE SPAN BRIDGE				360	33,585	3.1	14.0	14.0	14.0	14.0	15.3
2910					2,800	36,385	7.8	14.0	14.0	14.0	14.0	15.4
2901	METZGER RD CROSSING	19.8			245	36,630	7.6	14.0	14.0	14.0	14.0	16.4
2900					325	36,955	7.3	14.0	14.0	14.0	14.0	16.7
2920	ANGLE RD CROSSING	21.1			3,080	40,035	7.2	14.0	14.0	14.0	14.0	16.7
2921					210	40,245	7.4	13.9	13.9	13.9	13.9	16.5
2922	AVENUE Q CROSSING	20.1			1,400	41,645	7.7	13.9	13.9	13.9	13.9	16.5
2930					245	41,890	7.7	13.9	13.9	13.9	13.9	16.5
2931					5	41,895	7.7	13.6	13.6	13.6	13.6	13.6
2932					500	42,395	7.7	13.5	13.5	13.5	13.5	13.5

4-25

(1) All stages and elevations referenced to National Geodetic Vertical Datum of 1929 (FT_NGVD) unless noted otherwise.

TABLE 4-3

From Ten Mile Creek to Header Canal
Summary of Flood Stages and Problem Areas (1)

Present Land Use

Junction No.	Street Name	Top of Road Elev (ft)	Low Chord (ft)	Floor Elev. (ft)	Length (ft)	Total Length (ft)	Invert Elev (ft)	10-YEAR 24-HOUR				10YR/72HR
								Base Cond Max Flood Elev (ft)	Alt 1 Max Flood Elev (ft)	Alt 2 Max Flood Elev (ft)	Alt 3 Max Flood Elev (ft)	Base Cond Max Flood Elev (ft)
1000					0	0	-7.4	5.7	5.7	5.8	5.7	7.7
1010					2,500	2,500	-6.3	6.2	6.2	6.2	6.2	8.4
10101					1,400	3,900	-5.2	6.4	6.4	6.4	6.4	8.7
1011	FEC RR SPAN BRIDGE				415	4,315	-5.2	6.4	6.4	6.4	6.4	8.7
1020					2,800	7,115	-4.2	7.3	7.1	7.2	7.1	9.9
1021	SELVITZ RD SPAN BRIDGE				380	7,495	-4.2	7.3	7.2	7.2	7.2	10.0
1030					5,320	12,815	-1.5	9.2	8.9	9.0	8.9	12.0
1031					2,800	15,615	-0.8	9.7	9.3	9.4	9.4	12.5
1032	I-95 SPAN BRIDGE				500	16,115	-0.8	9.7	9.4	9.5	9.5	12.6
1040	<i>C-40</i>				3,080	19,195	-0.2	10.6	10.5	10.5	10.5	13.7
1041					445	19,640	-0.2	10.6	10.5	10.6	10.5	13.7
1042	GORDY RD STRUCTURE	14			200	19,840	-1.8	10.8	10.6	10.7	10.7	14.3
1043	GORDY RD SPAN BRIDGE				400	20,240	-1.8	10.8	10.6	10.7	10.7	14.3
1050					2,800	23,040	-0.3	10.9	10.8	10.9	10.9	14.4
1051					4,200	27,240	-1.3	11.2	11.1	11.2	11.2	14.8
1052	PRIVATE CROSSING				395	27,635	-1.3	11.2	11.1	11.2	11.2	14.8
1060					3,640	31,275	3.2	11.4	11.3	11.4	11.4	14.9
1061					5,600	36,875	1.0	11.7	11.7	11.8	11.7	15.1
1100	ELEVEN MILE RD BRIDGE				395	37,270	1.0	11.7	11.7	11.8	11.8	15.2
7110					2,800	40,070	2.5	11.9	11.8	11.9	11.9	15.3
7111	McCARTY RD SPAN BRIDGE				390	40,460	2.5	11.9	11.8	12.0	11.9	15.4
7120					1,400	41,860	6.1	12.0	11.9	12.1	12.0	15.4
7121					4,900	46,760	6.2	12.8	12.9	13.0	13.0	16.2
7105	SR 70 SPAN BRIDGE				405	47,165	6.2	12.9	12.9	13.1	13.0	16.2
7101					300	47,465	6.3	14.8	14.8	14.9	14.8	16.2
7130					5,040	52,505	6.4	15.2	15.2	15.3	15.2	17.1
7131	SHIN RD SPAN BRIDGE				375	52,880	6.4	15.2	15.2	15.3	15.2	17.1
7140					3,640	56,520	9.6	15.3	15.4	15.5	15.4	17.5
8030					3,920	60,440	9.6	15.7	15.8	15.9	15.9	18.2

TABLE 4-4

Header Canal from Pump St. No 1 to Pump St. No 2 Summary of Flood Stages and Problem Areas (1)

Present Land Use

Junction No.	Street Name	Top of Road Elev (ft)	Low Chord (ft)	Floor Elev. (ft)	Length (ft)	Total Length (ft)	Invert Elev (ft)	10-YEAR 24-HOUR				10YR/72HR
								Base Cond Max Flood Elev (ft)	Alt 1 Max Flood Elev (ft)	Alt 2 Max Flood Elev (ft)	Alt 3 Max Flood Elev (ft)	Base Cond Max Flood Elev (ft)
8003					0	0	13.8	14.5	14.5	14.5	14.5	14.5
8002					500	500	13.8	15.6	15.6	15.6	15.6	16.0
8001					5	505	13.8	17.8	17.8	17.8	17.8	18.8
8000					1,960	2,465	10.4	17.8	17.8	17.8	17.8	18.8
8010					4,200	6,665	11.7	17.8	17.8	17.8	17.8	18.8
8011					5,600	12,265	10.8	17.8	17.8	17.8	17.8	18.8
8012	SR 70 SPAN BRIDGE				5	12,270	7.5	15.9	15.9	16.0	16.0	18.5
8013					370	12,640	7.5	15.9	15.9	16.0	16.0	18.5
8020	CARLTON ADAMS CROSSING				4,200	16,840	10.6	15.8	15.9	16.0	16.0	18.5
8021					275	17,115	10.2	15.8	15.9	16.0	15.9	18.3
8030					4,200	21,315	9.6	15.7	15.8	15.9	15.9	18.2
8031					6,440	27,755	10.3	16.1	16.2	16.4	16.3	18.5
8032	GOLDSMITH RD CROSSING				240	27,995	10.4	16.1	16.2	16.5	16.4	18.7
8033					2,800	30,795	10.4	18.8	18.8	19.0	19.0	19.5
8040					340	31,135	13.1	19.2	18.9	19.1	19.5	20.5
8041					2,800	33,935	11.9	19.2	19.0	19.2	19.2	20.5
8042	KELLY RD CROSSING	25			150	34,085	11.9	19.6	19.5	19.3	19.3	22.2
8050					2,240	36,325	13.4	19.6	19.5	19.3	19.4	22.2
8051					3,920	40,245	13.4	19.6	19.5	19.3	19.4	22.2
8052	ORANGE AVE SPAN BRIDGE				335	40,580	13.4	19.6	19.5	19.3	19.4	22.2
8060					2,800	43,380	14.5	19.6	19.5	19.3	19.4	22.2
8061	SCHUMANN RD CROSSING				2,520	45,900	12.8	19.5	19.4	19.3	19.3	22.1
8070					210	46,110	12.6	19.3	19.3	19.2	19.3	22.0
8071					2,240	48,350	14.2	19.3	19.3	19.2	19.2	21.9
8072					5	48,355	14.2	16.5	16.4	16.2	16.2	16.8
8073					500	48,855	14.2	14.9	14.9	14.7	14.7	15.1

TABLE 4-5

North Emergency Relief Canal from Header Canal to Five Mile Creek Summary of Flood Stages and Problem Areas (1)

Present Land Use

Junction No.	Street Name	Top of Road Elev (ft)	Low Chord (ft)	Floor Elev. (ft)	Length (ft)	Total Length (ft)	Invert Elev (ft)	10-YEAR 24 HOUR				10YR/72HR
								Base Cond Max Flood Elev (ft)	Alt 1 Max Flood Elev (ft)	Alt 2 Max Flood Elev (ft)	Alt 3 Max Flood Elev (ft)	Base Cond Max Flood Elev (ft)
8060					0	0	14.5	19.6	19.5	19.3	19.3	22.2
4409					210	210	15.4	19.8	19.8	19.6	19.5	22.5
4410					2,800	3,010	16.2	20.5	20.4	20.4	20.2	22.6
4411					210	3,220	15.5	20.6	20.5	20.5	20.3	22.7
4412					2,800	6,020	14.8	20.6	20.6	20.6	20.4	22.7
4420	GODWIN RD CROSSING	24.9			210	6,230	13.9	20.7	20.7	20.6	20.4	22.8
4421					210	6,440	15.4	20.7	20.7	20.6	20.4	22.8
4430					3,920	10,360	13.7	20.7	20.7	20.7	20.4	22.8
4431					3,920	14,280	13.9	20.7	20.7	20.6	20.4	22.7
4432					210	14,490	14.0	20.6	20.6	20.5	20.3	22.7
4440					1,400	15,890	13.0	20.6	20.6	20.5	20.3	22.7
4441	FFA RD CROSSING				4,760	20,650	13.9	20.4	20.4	20.4	20.1	22.6
4442					210	20,860	14.4	20.1	20.1	20.1	19.9	22.4
4443					2,520	23,380	14.3	19.8	19.8	19.7	19.6	22.3
4450					5	23,385	14.1	19.7	19.7	19.6	19.5	22.1
4451					4,730	28,115	11.6	18.0	18.0	17.4	17.2	21.4
4452	ROCK RD CROSSING	22.6			330	28,445	11.6	17.8	17.8	17.2	17.0	21.2
4460					245	28,690	11.4	16.7	16.7	16.7	16.5	19.2
4461	PRIVATE CROSSING				1,400	30,090	10.0	16.4	16.4	16.4	16.2	19.0
4462					245	30,335	10.0	15.9	15.9	15.9	15.8	18.1
4463	KINGS HWY/I-95				1,400	31,735	10.0	15.5	15.5	15.5	15.4	17.8
4464					450	32,185	10.0	15.3	15.3	15.3	15.2	17.7
4470	Canal 31				2,800	34,985	8.1	15.1	15.1	15.1	15.0	17.6
2920	2-27/44 Junction				2,800	37,785	7.2	14.0	14.0	14.0	14.0	16.7

Soil Map—St. Lucie County, Florida
(5125 Peterson Rd)




Map Scale: 1:2,210 if printed on A portrait (8.5" x 11") sheet.



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: St. Lucie County, Florida

Survey Area Data: Version 18, Aug 23, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 18, 2022—Jan 30, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
16	Hilolo loamy sand, 0 to 2 percent slopes	14.9	78.9%
55	Winder loamy sand	4.0	21.1%
Totals for Area of Interest		18.9	100.0%