

# FLOOD INSURANCE STUDY

## FEDERAL EMERGENCY MANAGEMENT AGENCY

VOLUME 1 OF 10



## DUVAL COUNTY, FLORIDA

(ALL JURISDICTIONS)

COMMUNITY NAME	COMMUNITY NUMBER
ATLANTIC BEACH, CITY OF	120075
BALDWIN, TOWN OF*	120076
JACKSONVILLE, CITY OF	120077
JACKSONVILLE BEACH, CITY OF	120078
NEPTUNE BEACH, CITY OF	120079

\*No Special Flood Hazard Areas Identified



# FEMA

**PRELIMINARY**  
**7/29/2016**

**REVISED:**

**<DATE>**

FLOOD INSURANCE STUDY NUMBER  
12031CV001B

Version Number 2.3.3.2

# TABLE OF CONTENTS

## Volume 1

	<u>Page</u>
<b>SECTION 1.0 – INTRODUCTION</b>	<b>1</b>
1.1 The National Flood Insurance Program	1
1.2 Purpose of this Flood Insurance Study Report	2
1.3 Jurisdictions Included in the Flood Insurance Study Project	2
1.4 Considerations for using this Flood Insurance Study Report	6
<b>SECTION 2.0 – FLOODPLAIN MANAGEMENT APPLICATIONS</b>	<b>17</b>
2.1 Floodplain Boundaries	17
2.2 Floodways	62
2.3 Base Flood Elevations	63
2.4 Non-Encroachment Zones	63
2.5 Coastal Flood Hazard Areas	63
2.5.1 Water Elevations and the Effects of Waves	63
2.5.2 Floodplain Boundaries and BFEs for Coastal Areas	65
2.5.3 Coastal High Hazard Areas	66
2.5.4 Limit of Moderate Wave Action	67
<b>SECTION 3.0 – INSURANCE APPLICATIONS</b>	<b>68</b>
3.1 National Flood Insurance Program Insurance Zones	68
3.2 Coastal Barrier Resources System	68
<b>SECTION 4.0 – AREA STUDIED</b>	<b>69</b>
4.1 Basin Description	69
4.2 Principal Flood Problems	70
4.3 Non-Levee Flood Protection Measures	70
4.4 Levees	71

### Figures

	<u>Page</u>
Figure 1: FIRM Panel Index	9
Figure 2: FIRM Notes to Users	10
Figure 3: Map Legend for FIRM	13
Figure 4: Floodway Schematic	62
Figure 5: Wave Runup Transect Schematic	65
Figure 6: Coastal Transect Schematic	67

## Tables

	<u>Page</u>
Table 1: Listing of NFIP Jurisdictions	2
Table 2: Flooding Sources Included in this FIS Report	18
Table 3: Flood Zone Designations by Community	68
Table 4: Coastal Barrier Resources System Information	69
Table 5: Basin Characteristics	69
Table 6: Principal Flood Problems	70
Table 7: Historic Flooding Elevations	70
Table 8: Non-Levee Flood Protection Measures	71
Table 9: Levees	71

## **Volume 2**

	<u>Page</u>
<b>SECTION 5.0 – ENGINEERING METHODS</b>	<b>72</b>
5.1 Hydrologic Analyses	72

## Figures

	<u>Page</u>
Figure 7: Frequency Discharge-Drainage Area Curves	128

## Tables

	<u>Page</u>
Table 10: Summary of Discharges	73
Table 11: Summary of Non-Coastal Stillwater Elevations	129
Table 12: Stream Gage Information used to Determine Discharges	132

## **Volume 3**

	<u>Page</u>
<b>SECTION 5.0 – ENGINEERING METHODS (continued)</b>	
5.2 Hydraulic Analyses	133
5.3 Coastal Analyses	199
5.3.1 Total Stillwater Elevations	200
5.3.2 Waves	204
5.3.3 Coastal Erosion	204
5.3.4 Wave Hazard Analyses	204
5.4 Alluvial Fan Analyses	217

<b>SECTION 6.0 – MAPPING METHODS</b>	<b>218</b>
6.1 Vertical and Horizontal Control	218
6.2 Base Map	219
6.3 Floodplain and Floodway Delineation	219

Figures

	<u>Page</u>
Figure 8: 1% Annual Chance Total Stillwater Elevations for Coastal Areas	201
Figure 9: Transect Location Map	216

Tables

	<u>Page</u>
Table 13: Summary of Hydrologic and Hydraulic Analyses	134
Table 14: Roughness Coefficients	193
Table 15: Summary of Coastal Analyses	199
Table 16: Tide Gage Analysis Specifics	203
Table 17: Coastal Transect Parameters	206
Table 18: Summary of Alluvial Fan Analyses	217
Table 19: Results of Alluvial Fan Analyses	217
Table 20: Countywide Vertical Datum Conversion	218
Table 21: Stream-Based Vertical Datum Conversion	218
Table 22: Base Map Sources	219
Table 23: Summary of Topographic Elevation Data used in Mapping	220

**Volume 4**

Tables

	<u>Page</u>
Table 24: Floodway Data	221

**Volume 5**

Page

**SECTION 6.0 – MAPPING METHODS (continued)**

6.4 Coastal Flood Hazard Mapping	324
6.5 FIRM Revisions	329
6.5.1 Letters of Map Amendment	329
6.5.2 Letters of Map Revision Based on Fill	329
6.5.3 Letters of Map Revision	330
6.5.4 Physical Map Revisions	330
6.5.5 Contracted Restudies	331
6.5.6 Community Map History	331

<b>SECTION 7.0 – CONTRACTED STUDIES AND COMMUNITY COORDINATION</b>	<b>332</b>
7.1 Contracted Studies	332
7.2 Community Meetings	333
<b>SECTION 8.0 – ADDITIONAL INFORMATION</b>	<b>335</b>
<b>SECTION 9.0 – BIBLIOGRAPHY AND REFERENCES</b>	<b>336</b>

Tables

	<u>Page</u>
Table 24: Floodway Data (continued)	309
Table 25: Flood Hazard and Non-Encroachment Data for Selected Streams	324
Table 26: Summary of Coastal Transect Mapping Considerations	325
Table 27: Incorporated Letters of Map Change	330
Table 28: Community Map History	332
Table 29: Summary of Contracted Studies Included in this FIS Report	333
Table 30: Community Meetings	334
Table 31: Map Repositories	335
Table 32: Additional Information	335
Table 33: Bibliography and References	337

Exhibits

Flood Profiles	<u>Panel</u>
Big Davis Creek	01-02 P
Big Fishweir Creek	03 P
Big Fishweir Creek Tributary 1	04 P
Bigelow Branch	05 P
Blockhouse Creek	06-07 P
Bonett Branch	08 P
Box Branch	09-10 P
Box Branch Tributary 1	11 P
Butcher Pen Creek	12 P
Caldwell Branch	13-14 P
Caldwell Branch Tributary 1	15 P
Caldwell Branch Tributary 2	16 P
Caney Branch	17 P
Cedar Creek	18-21 P
Cedar Creek Tributary 2	22 P
Cedar Creek Tributary 6	23 P
Cedar Creek Tributary 7	24 P
Cedar Creek Tributary 8	25 P
Cedar River	26-28 P
Cedar River Tributary 1	29 P
Cedar River Tributary 12	30 P
Cedar River Tributary 13	31 P
Cedar River Tributary 14	32 P

Cedar River Tributary 15	33 P
Cedar River Tributary 16	34 P
Cedar River Tributary 17	35 P
Cedar River Tributary 19	36 P
Cedar Swamp Creek	37-39 P
Cedar Swamp Creek Tributary 1	40 P
Cedar Swamp Creek Tributary 2	41 P
Christopher Creek	42 P
Christopher Creek Tributary 1	43 P
Cormorant Branch	44-45 P
Craig Creek	46 P
Deep Bottom Creek	47 P
Deep Bottom Creek Tributary 1	48 P
Deer Creek	49 P
Dunn Creek	50-53 P
Dunn Creek Tributary 1	54 P
Dunn Creek Tributary 2	55 P
Dunn Creek Tributary 3	56 P

**Volume 6**  
Exhibits

Flood Profiles	<u>Panel</u>
Durbin Creek	57-58 P
Durbin Creek Tributary 1	59 P
East Branch	60 P
East Branch Tributary 1	61 P
Fishing Creek	62-63 P
Fishing Creek Tributary 1	64 P
Ginhouse Creek	65-66 P
Goodbys Creek	67-68 P
Goodbys Creek Tributary 1	69 P
Goodbys Creek Tributary 2	70 P
Goodbys Creek Tributary 3	71 P
Goodbys Creek Tributary 4	72 P
Goodbys Creek Tributary 5	73 P
Greenfield Creek	74 P
Gulley Branch	75 P
Half Creek	76-77 P
Half Creek Tributary 1	78 P
Half Creek Tributary 2	79 P
Hogan Creek	80-81 P
Hogpen Creek	82 P
Hogpen Creek Tributary 1	83 P
Hopkins Creek	84 P
Hopkins Creek Tributary 1	85 P
Hopkins Creek Tributary 2	86 P
Hopkins Creek Tributary 3	87 P
Jones Creek	88-89 P

Jones Creek Tributary 1	90 P
Jones Creek Tributary 2	91-92 P
Julington Creek	93-96 P
Julington Creek Tributary 1	97 P
Julington Creek Tributary 4	98 P
Julington Creek Tributary 5	99 P
Julington Creek Tributary 8	100 P
Little Cedar Creek	101-103 P
Little Cedar Creek Tributary 1	104 P
Little Cedar Creek Tributary 2	105 P
Little Fishweir Creek	106-107 P
Little Pottsburg Creek	108-109 P
Little Pottsburg Creek Tributary 1	110 P
Little Pottsburg Creek Tributary 2	111 P
Little Pottsburg Creek Tributary 3	112 P
Little Sixmile Creek	113-114 P
Little Sixmile Creek Tributary 1	115 P
Little Sixmile Creek Tributary 2	116 P
Little Sixmile Creek Tributary 3	117 P
Little Trout River	118-119 P
Little Trout River Tributary 4	120 P
Little Trout River Tributary 6	121 P
Little Trout River Tributary 10	122 P
Long Branch	123 P
Long Branch Tributary 1	124 P
Magnolia Gardens Creek	125-126 P
McCoy Creek	127-128 P
McCoy Creek North Branch	129 P
McCoy Creek Southwest Branch	130 P
McCoy Creek Tributary 5	131 P
McGirts Creek	132-133 P
McGirts Creek Tributary 11	134 P
McGirts Creek Tributary 12	135 P
McGirts Creek Tributary 14	136 P
Mill Dam Branch	137-139 P
Mill Dam Branch Canal	140 P
Mill Dam Branch Tributary 3	141 P
Mill Dam Branch Tributary 4	142 P
Mill Dam Branch Tributary 5	143 P
Miller Creek	144 P

**Volume 7**  
Exhibits

Flood Profiles	<u>Panel</u>
Miller Creek Tributary 1	145 P
Miramar Tributary	146 P
Moncrief Creek	147-148 P
Moncrief Creek Tributary 4	149 P
Mount Pleasant Creek	150-153 P
Mount Pleasant Creek Tributary 3	154 P
Mount Pleasant Creek Tributary 4	155 P
Mount Pleasant Creek Tributary 6	156 P
Nassau River/Thomas Creek	157 P
Thomas Creek	158-159 P
New Rose Creek	160 P
New Rose Creek Tributary 1	161 P
Newcastle Creek	162 P
Newcastle Creek Tributary 1	163 P
Ninemile Creek	164-165 P
Ninemile Creek Tributary 1	166 P
Ninemile Creek Tributary 2	167 P
Ninemile Creek Tributary 6	168 P
North Fork Sixmile Creek	169-170 P
North Fork Sixmile Creek Tributary 1	171 P
Oldfield Creek	172-173 P
Oldfield Creek Tributary 1	174 P
Oldfield Creek Tributary 2	175 P
Oldfield Creek Tributary 3	176 P
Oldfield Creek Tributary 4	177 P
Oldfield Creek Tributary 7	178 P
Open Creek	179-180 P
Open Creek Tributary 1	181 P
Open Creek Tributary 2	182 P
Open Creek Tributary 3	183 P
Open Creek Tributary 4	184 P
Ortega River	185-190 P
Ortega River Tributary 1	191 P
Ortega River Tributary 2	192 P
Ortega River Tributary 3	193-195 P
Ortega River Tributary 4	196-197 P
Ortega River Tributary 5	198 P
Ortega River Tributary 6	199 P
Ortega River Tributary 7	200 P
Ortega River Tributary 10	201 P
Ortega River Tributary 11	202 P
Pablo Creek	203-205 P
Pablo Creek Tributary 1	206 P
Pablo Creek Tributary 2	207-208 P
Pablo Creek Tributary 3	209-210 P
Pickett Branch	211-212 P

Pickett Branch Tributary 3	213 P
Pickett Branch Tributary 4	214 P
Pickett Branch Tributary 5	215 P
Pottsburg Creek	216-219 P
Pottsburg Creek Tributary 5	220 P
Puckett Creek	221 P
Red Bay Branch	222 P
Red Bay Branch Tributary 1	223 P
Ribault River	224-225 P
Ribault River Tributary 2	226 P
Ribault River Tributary 5	227 P
Ribault River Tributary 8	228 P
Ribault River Tributary 9	229 P
Rowell Creek	230-231 P
Rowell Creek Tributary 2	232 P

**Volume 8**  
Exhibits

Flood Profiles	<u>Panel</u>
Rushing Branch	233 P
Rushing Branch Tributary 1	234 P
Sal Taylor Creek	235-237 P
Sal Taylor Creek Tributary 2	238 P
Sal Taylor Creek Tributary 3	239 P
Sal Taylor Creek Tributary 4	240 P
Sandalwood Canal	241-242 P
Sawmill Slough/Buckhead Branch	243 P
Sawmill Slough/Buckhead Branch Tributary 1	244 P
Sawmill Slough/Buckhead Branch Tributary 2	245 P
Seaton Creek	246-247 P
Seaton Creek Tributary 1	248-250 P
Seaton Creek Tributary 2	251 P
Second Puncheon Branch	252-254 P
Second Puncheon Branch Tributary 1	255 P
Second Puncheon Branch Tributary 3	256-257 P
Second Puncheon Branch Tributary 4	258 P
Second Puncheon Branch Tributary 5	259 P
Second Puncheon Branch Tributary 6	260 P
Sherman Creek	261-262 P
Sherman Creek Canal	263 P
Silversmith Creek	264 P
Silversmith Creek Tributary 1	265 P
Sixmile Creek	266-269 P
Sixmile Creek Tributary 6	270 P
Sixmile Creek Tributary 9	271 P
St. Mary's River Tributary	272 P

Strawberry Creek	273-274 P
Sweetwater Creek	275-276 P
Tacito Creek	277 P
Tiger Hole Swamp	278 P
Tiger Pond Creek	279 P
Tiger Pond Creek Tributary 1	280 P
Tributary to Little Sixmile Creek Tributary 1	281 P
Tributary 1 to Miramar Tributary	282 P
Tributary to Ortega River Tributary 1	283 P
Trout River	284-287 P
Trout River Tributary 2	288-289 P
Trout River Tributary 3	290 P
Trout River Tributary 7	291 P
Trout River Tributary 8	292 P
West Branch	293 P
West Branch Tributary 1	294 P
West Branch Tributary 2	295 P
Williamson Creek	296 P
Williamson Creek Tributary 3	297 P
Williamson Creek Tributary 4	298 P
Wills Branch	299-300 P
Wills Branch Tributary 1	301-303 P
Wills Branch Tributary 2	304 P
Wills Branch Tributary 3	305-307 P
Wills Branch Tributary 4	308 P
Wills Branch Tributary 5	309 P
Wills Branch Tributary 6	310-311 P
Yellow Water Creek Tributary 1	312 P
Wetland 2	313 P
Wetland 3	314 P

Coastal Transect Profiles	<u>Panel</u>
Transect 1	1-6 P

**Volume 9**  
Exhibits

Coastal Transect Profiles	<u>Panel</u>
Transect 2	7-12 P
Transect 3	13-18 P
Transect 4	19-23 P
Transect 5	24-27 P
Transect 6	28-29 P
Transect 7	30-31 P
Transect 8	32-35 P
Transect 9	36-39 P
Transect 10	40-42 P
Transect 11	43-45 P

Transect 12	46-48 P
Transect 13	49-52 P
Transect 14	53-56 P
Transect 15	57-62 P
Transect 16	63-68 P
Transect 17	69-76 P
Transect 18	77-84 P
Transect 19	85-91 P

## Volume 10

### Exhibits

Coastal Transect Profiles	<u>Panel</u>
Transect 20	92-96 P
Transect 21	97-99 P
Transect 22	100-102 P
Transect 23	103-105 P
Transect 24	106-108 P
Transect 25	109-111 P
Transect 26	112-113 P
Transect 27	114-115 P
Transect 28	116-117 P
Transect 29	118-119 P
Transect 30	120-121 P
Transect 31	122-123 P
Transect 32	124-125 P
Transect 33	126-127 P
Transect 34	128-129 P
Transect 35	130-131 P
Transect 36	132-133 P
Transect 37	134-135 P
Transect 38	136 P
Transect 39	137-140 P
Transect 40	141 P
Transect 41	142-143 P
Transect 42	144 P
Transect 43	145-146 P
Transect 44	147 P
Transect 45	148 P
Transect 46	149 P
Transect 47	150 P
Transect 48	151 P
Transect 49	152-153 P
Transect 50	154 P
Transect 51	155 P
Transect 52	156 P
Transect 53	157 P
Transect 54	158 P
Transect 55	159 P

Transect 56	160 P
Transect 57	161 P
Transect 58	162 P
Transect 59	163 P
Transect 60	164 P
Transect 61	165 P
Transect 62	166 P
Transect 63	167 P
Transect 64	168 P
Transect 65	169 P
Transect 66	170 P
Transect 67	171 P
Transect 68	172 P

**Published Separately**

Flood Insurance Rate Map (FIRM)

# FLOOD INSURANCE STUDY REPORT DUVAL COUNTY, FLORIDA

## SECTION 1.0 – INTRODUCTION

### 1.1 The National Flood Insurance Program

The National Flood Insurance Program (NFIP) is a voluntary Federal program that enables property owners in participating communities to purchase insurance protection against losses from flooding. This insurance is designed to provide an alternative to disaster assistance to meet the escalating costs of repairing damage to buildings and their contents caused by floods.

For decades, the national response to flood disasters was generally limited to constructing flood-control works such as dams, levees, sea-walls, and the like, and providing disaster relief to flood victims. This approach did not reduce losses nor did it discourage unwise development. In some instances, it may have actually encouraged additional development. To compound the problem, the public generally could not buy flood coverage from insurance companies, and building techniques to reduce flood damage were often overlooked.

In the face of mounting flood losses and escalating costs of disaster relief to the general taxpayers, the U.S. Congress created the NFIP. The intent was to reduce future flood damage through community floodplain management ordinances, and provide protection for property owners against potential losses through an insurance mechanism that requires a premium to be paid for the protection.

The U.S. Congress established the NFIP on August 1, 1968, with the passage of the National Flood Insurance Act of 1968. The NFIP was broadened and modified with the passage of the Flood Disaster Protection Act of 1973 and other legislative measures. It was further modified by the National Flood Insurance Reform Act of 1994 and the Flood Insurance Reform Act of 2004. The NFIP is administered by the Federal Emergency Management Agency (FEMA), which is a component of the Department of Homeland Security (DHS).

Participation in the NFIP is based on an agreement between local communities and the Federal Government. If a community adopts and enforces floodplain management regulations to reduce future flood risks to new construction and substantially improved structures in Special Flood Hazard Areas (SFHAs), the Federal Government will make flood insurance available within the community as a financial protection against flood losses. The community's floodplain management regulations must meet or exceed criteria established in accordance with Title 44 Code of Federal Regulations (CFR) Part 60.3, *Criteria for Land Management and Use*.

SFHAs are delineated on the community's Flood Insurance Rate Maps (FIRMs). Under the NFIP, buildings that were built before the flood hazard was identified on the community's FIRMs are generally referred to as "Pre-FIRM" buildings. When the NFIP was created, the U.S. Congress recognized that insurance for Pre-FIRM buildings would be prohibitively expensive if the premiums were not subsidized by the Federal Government. Congress also recognized that most of these floodprone buildings were built by individuals who did not have sufficient knowledge of the flood hazard to make informed decisions. The NFIP requires that full actuarial rates reflecting the complete flood risk be charged on all buildings constructed or substantially improved on or after

the effective date of the initial FIRM for the community or after December 31, 1974, whichever is later. These buildings are generally referred to as “Post-FIRM” buildings.

## 1.2 Purpose of this Flood Insurance Study Report

This Flood Insurance Study (FIS) Report revises and updates information on the existence and severity of flood hazards for the study area. The studies described in this report developed flood hazard data that will be used to establish actuarial flood insurance rates and to assist communities in efforts to implement sound floodplain management.

In some states or communities, floodplain management criteria or regulations may exist that are more restrictive than the minimum Federal requirements. Contact your State NFIP Coordinator to ensure that any higher State standards are included in the community’s regulations.

## 1.3 Jurisdictions Included in the Flood Insurance Study Project

This FIS Report covers the entire geographic area of Duval County, Florida.

The jurisdictions that are included in this project area, along with the Community Identification Number (CID) for each community and the 8-digit Hydrologic Unit Codes (HUC-8) sub-basins affecting each, are shown in Table 1. The Flood Insurance Rate Map (FIRM) panel numbers that affect each community are listed. If the flood hazard data for the community is not included in this FIS Report, the location of that data is identified.

Jurisdictions that have no identified SFHAs as of the effective date of this study are indicated in the table. Changed conditions in these communities (such as urbanization or annexation) or the availability of new scientific or technical data about flood hazards could make it necessary to determine SFHAs in these jurisdictions in the future.

**Table 1: Listing of NFIP Jurisdictions**

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Atlantic Beach, City of	120075	03080103	12031C0406J 12031C0407J 12031C0408J 12031C0409J 12031C0450J <sup>2</sup>	
Baldwin, Town of <sup>1</sup>	120076	03070204	12031C0305H 12031C0315H	
Jacksonville, City of	120077	03070204, 03070205, 03080103, 03080201	12031C0020H 12031C0030J 12031C0035J 12031C0040J 12031C0045J 12031C0055J 12031C0060J 12031C0065J 12031C0070J 12031C0090J	

**Table 1: Listing of NFIP Jurisdictions, continued**

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Jacksonville, City of (continued)	120077	03070204, 03070205, 03080103, 03080201	12031C0100J 12031C0125J <sup>2</sup> 12031C0145H 12031C0155H 12031C0160J 12031C0165H 12031C0166H 12031C0167J 12031C0168H 12031C0169H 12031C0176H 12031C0177H 12031C0178J 12031C0179H 12031C0181H 12031C0182H 12031C0183J 12031C0184J 12031C0186J 12031C0187J 12031C0188J 12031C0189J 12031C0191J 12031C0192J 12031C0193J 12031C0194J 12031C0201J 12031C0202J 12031C0203J 12031C0204J 12031C0210J 12031C0211J 12031C0212J 12031C0213J 12031C0214J 12031C0216J 12031C0217J 12031C0218J 12031C0219J 12031C0230J 12031C0231J 12031C0233J 12031C0235J <sup>2</sup> 12031C0236J 12031C0237J 12031C0238J 12031C0239J 12031C0241J	

**Table 1: Listing of NFIP Jurisdictions, continued**

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Jacksonville, City of (continued)	120077	03070204, 03070205, 03080103, 03080201	12031C0242J 12031C0243J 12031C0244J 12031C0275J <sup>2</sup> 12031C0295H 12031C0300H 12031C0305H 12031C0310H 12031C0315H 12031C0320H 12031C0330H 12031C0331H 12031C0332H 12031C0333H 12031C0334H 12031C0340H 12031C0341H 12031C0342J 12031C0343H 12031C0344H 12031C0351H 12031C0352H 12031C0353H 12031C0354H 12031C0356H 12031C0357J 12031C0358J 12031C0359J 12031C0361J 12031C0362J 12031C0363J 12031C0364J 12031C0366J 12031C0367J 12031C0368J 12031C0369J 12031C0376J 12031C0377J 12031C0378J 12031C0379J 12031C0381J 12031C0382J 12031C0383H 12031C0384H 12031C0386J 12031C0387J 12031C0388H 12031C0389J 12031C0391H	

**Table 1: Listing of NFIP Jurisdictions, continued**

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Jacksonville, City of (continued)	120077	03070204, 03070205, 03080103, 03080201	12031C0392H 12031C0393H 12031C0394H 12031C0401J 12031C0402J 12031C0403J 12031C0404J 12031C0406J 12031C0407J 12031C0408J 12031C0409J 12031C0411H 12031C0412J 12031C0413H 12031C0414J 12031C0416J 12031C0418J 12031C0450J <sup>2</sup> 12031C0460H 12031C0470H 12031C0480H 12031C0485H 12031C0500H 12031C0505H 12031C0506H 12031C0507H 12031C0508H 12031C0509H 12031C0526J 12031C0527J 12031C0528J 12031C0529J 12031C0531J 12031C0532J 12031C0533J 12031C0534J 12031C0540J <sup>2</sup> 12031C0541J 12031C0542J 12031C0543J 12031C0544J 12031C0551J 12031C0552H 12031C0553J 12031C0554H 12031C0556H 12031C0557H 12031C0558H 12031C0559H 12031C0561H	

**Table 1: Listing of NFIP Jurisdictions, continued**

Community	CID	HUC-8 Sub-Basin(s)	Located on FIRM Panel(s)	If Not Included, Location of Flood Hazard Data
Jacksonville, City of (continued)	120077	03070204, 03070205, 03080103, 03080201	12031C0562H 12031C0563J 12031C0564J 12031C0566H 12031C0567H 12031C0568J 12031C0569H 12031C0580J 12031C0585J 12031C0590H 12031C0595H 12031C0625J <sup>2</sup> 12031C0630J 12031C0635H 12031C0655H 12031C0675H	
Jacksonville Beach, City of	120078	03080103, 03080201	12031C0416J 12031C0417J 12031C0418J 12031C0419J 12031C0450J <sup>2</sup>	
Neptune Beach, City of	120079	03080103	12031C0404J 12031C0408J 12031C0409J 12031C0416J 12031C0417J 12031C0450J <sup>2</sup>	

<sup>1</sup> No Special Flood Hazard Areas Identified

<sup>2</sup> Panel Not Printed

#### 1.4 Considerations for using this Flood Insurance Study Report

The NFIP encourages State and local governments to implement sound floodplain management programs. To assist in this endeavor, each FIS Report provides floodplain data, which may include a combination of the following: 10-, 4-, 2-, 1-, and 0.2-percent annual chance flood elevations (the 1% annual chance flood elevation is also referred to as the Base Flood Elevation (BFE)); delineations of the 1% annual chance and 0.2% annual chance floodplains; and 1% annual chance floodway. This information is presented on the FIRM and/or in many components of the FIS Report, including Flood Profiles, Floodway Data tables, Summary of Non-Coastal Stillwater Elevations tables, and Coastal Transect Parameters tables (not all components may be provided for a specific FIS).

This section presents important considerations for using the information contained in this FIS Report and the FIRM, including changes in format and content. Figures 1, 2, and 3 present information that applies to using the FIRM with the FIS Report.

- Part or all of this FIS Report may be revised and republished at any time. In addition, part of this FIS Report may be revised by a Letter of Map Revision (LOMR), which does not involve republication or redistribution of the FIS Report. Refer to Section 6.5 of this FIS Report for information about the process to revise the FIS Report and/or FIRM.

It is, therefore, the responsibility of the user to consult with community officials by contacting the community repository to obtain the most current FIS Report components. Communities participating in the NFIP have established repositories of flood hazard data for floodplain management and flood insurance purposes. Community map repository addresses are provided in Table 31, “Map Repositories,” within this FIS Report.

- New FIS Reports are frequently developed for multiple communities, such as entire counties. A countywide FIS Report incorporates previous FIS Reports for individual communities and the unincorporated area of the county (if not jurisdictional) into a single document and supersedes those documents for the purposes of the NFIP.

The initial Countywide FIS Report for Duval County became effective on June 3, 2013. Refer to Table 28 for information about subsequent revisions to the FIRMs.

- Selected FIRM panels for the community may contain information (such as floodways and cross sections) that was previously shown separately on the corresponding Flood Boundary and Floodway Map panels. In addition, former flood hazard zone designations have been changed as follows:

<u>Old Zone</u>	<u>New Zone</u>
A1 through A30	AE
V1 through V30	VE
B	X (shaded)
C	X (unshaded)

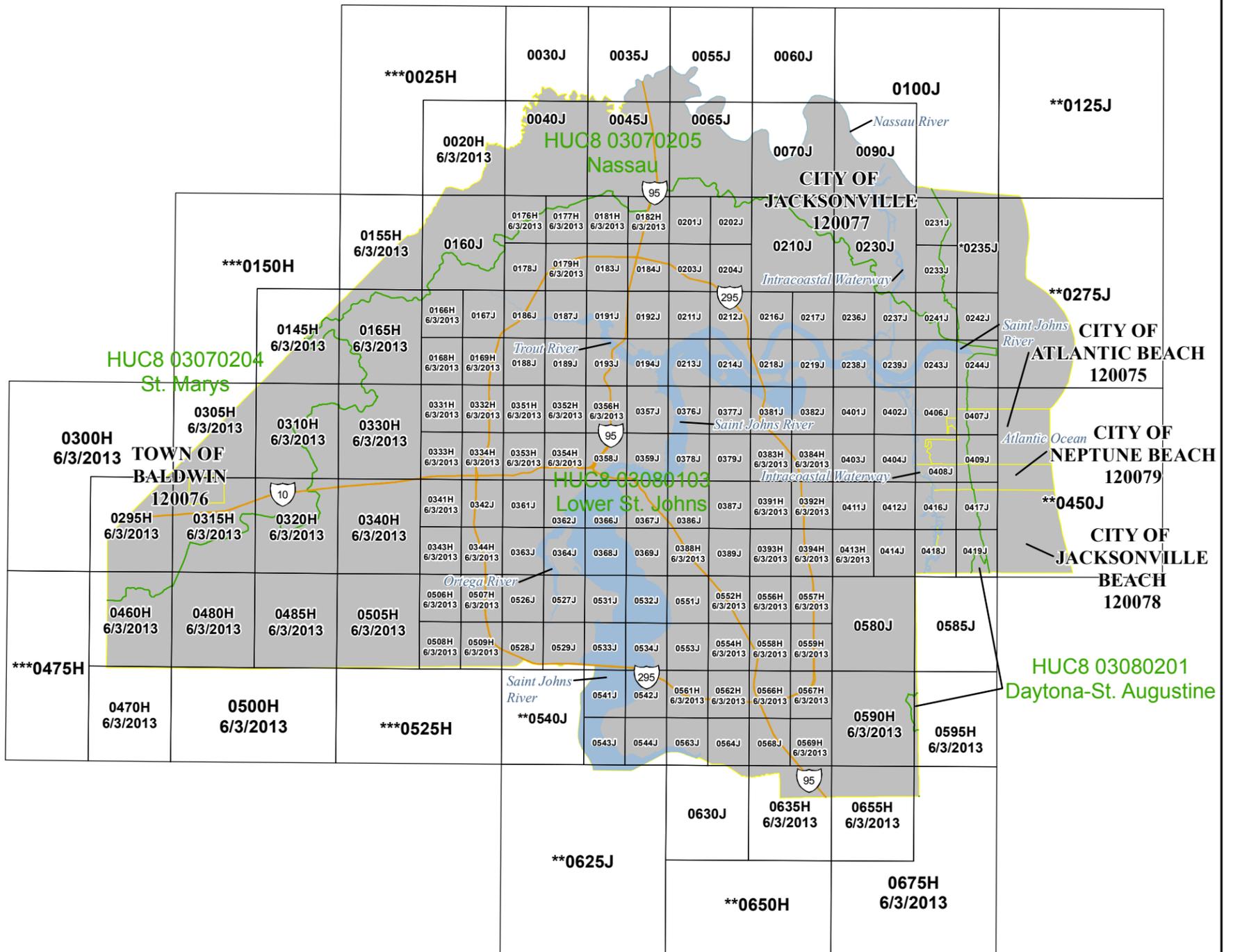
- FEMA does not impose floodplain management requirements or special insurance ratings based on Limit of Moderate Wave Action (LiMWA) delineations at this time. The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. If the LiMWA is shown on the FIRM, it is being provided by FEMA as information only. For communities that do adopt Zone VE building standards in the area defined by the LiMWA, additional Community Rating System (CRS) credits are available. Refer to Section 2.5.4 for additional information about the LiMWA.

The CRS is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. Visit the FEMA Web site at [www.fema.gov/national-flood-insurance-program-community-rating-system](http://www.fema.gov/national-flood-insurance-program-community-rating-system) or contact your appropriate FEMA Regional Office for more information about this program.

- FEMA has developed a *Guide to Flood Maps* (FEMA 258) and online tutorials to assist users in accessing the information contained on the FIRM. These include how to read panels and step-by-step instructions to obtain specific information. To obtain this guide and other assistance in using the FIRM, visit the FEMA Web site at [www.fema.gov/online-tutorials](http://www.fema.gov/online-tutorials).

The FIRM Index in Figure 1 shows the overall FIRM panel layout within Duval County, and also displays the panel number and effective date for each FIRM panel in the county. Other information shown on the FIRM Index includes community boundaries, watershed boundaries, and United States Geological Survey (USGS) Hydrologic Unit Code – 8 (HUC-8) codes.

Figure 1: FIRM Panel Index

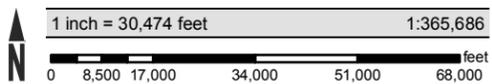


**ATTENTION:** The corporate limits shown on this FIRM Index are based on the best information available at the time of publication. As such, they may be more current than those shown on FIRM panels issued before **EFFECTIVE DATE**.

- NOTE -

Designated CBRS Areas are located on panels:  
0090, 0100, 0230, 0231, 0233, 0235<sup>1</sup>, 0241,  
0242, 0243, 0244, and 0275<sup>1</sup>

<sup>1</sup>Panel Not Printed



Map Projection:  
HARN State Plane Transverse Mercator, Florida East;  
North American Datum 1983 HARN

THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING  
DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT

[HTTP://MSC.FEMA.GOV](http://MSC.FEMA.GOV)

SEE FLOOD INSURANCE STUDY FOR ADDITIONAL INFORMATION

\* PANEL NOT PRINTED - AREA ALL WITHIN ZONE VE (EL 13)  
\*\* PANEL NOT PRINTED - OPEN WATER AREA  
\*\*\* PANEL NOT PRINTED - NO SPECIAL FLOOD HAZARD AREAS



**NATIONAL FLOOD INSURANCE PROGRAM**

FLOOD INSURANCE RATE MAP INDEX

DUVAL COUNTY, FLORIDA (All Jurisdictions)

PANELS PRINTED:

0020, 0030, 0035, 0040, 0045, 0055, 0060, 0065, 0070, 0090, 0100, 0145, 0155, 0160,  
0165, 0166, 0167, 0168, 0169, 0176, 0177, 0178, 0179, 0181, 0182, 0183, 0184, 0186,  
0187, 0188, 0189, 0191, 0192, 0193, 0194, 0201, 0202, 0203, 0204, 0210, 0211, 0212,  
0213, 0214, 0216, 0217, 0218, 0219, 0230, 0231, 0233, 0236, 0237, 0238, 0239, 0241,  
0242, 0243, 0244, 0295, 0300, 0305, 0310, 0315, 0320, 0330, 0331, 0332, 0333, 0334,  
0340, 0341, 0342, 0343, 0344, 0351, 0352, 0353, 0354, 0356, 0357, 0358, 0359, 0361,  
0362, 0363, 0364, 0366, 0367, 0368, 0369, 0376, 0377, 0378, 0379, 0381, 0382, 0383,  
0384, 0386, 0387, 0388, 0389, 0391, 0392, 0393, 0394, 0401, 0402, 0403, 0404, 0406,  
0407, 0408, 0409, 0411, 0412, 0413, 0414, 0416, 0417, 0418, 0419, 0460, 0470, 0480,  
0485, 0500, 0505, 0506, 0507, 0508, 0509, 0526, 0527, 0528, 0529, 0531, 0532, 0533,  
0534, 0541, 0542, 0543, 0544, 0551, 0552, 0553, 0554, 0556, 0557, 0558, 0559, 0561,  
0562, 0563, 0564, 0566, 0567, 0568, 0569, 0580, 0585, 0590, 0595, 0630, 0635, 0655,  
0675



**FEMA**

PRELIMINARY  
MAP NUMBER  
12031CIND0B

MAP REVISED

Each FIRM panel may contain specific notes to the user that provide additional information regarding the flood hazard data shown on that map. However, the FIRM panel does not contain enough space to show all the notes that may be relevant in helping to better understand the information on the panel. Figure 2 contains the full list of these notes.

**Figure 2: FIRM Notes to Users**

## NOTES TO USERS

For information and questions about this map, available products associated with this FIRM including historic versions of this FIRM, how to order products, or the National Flood Insurance Program in general, please call the FEMA Map Information eXchange at 1-877-FEMA-MAP (1-877-336-2627) or visit the FEMA Flood Map Service Center website at [msc.fema.gov](http://msc.fema.gov). Available products may include previously issued Letters of Map Change, a Flood Insurance Study Report, and/or digital versions of this map. Many of these products can be ordered or obtained directly from the website. Users may determine the current map date for each FIRM panel by visiting the FEMA Flood Map Service Center website or by calling the FEMA Map Information eXchange.

Communities annexing land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM Index. These may be ordered directly from the Flood Map Service Center at the number listed above.

For community and countywide map dates, refer to Table 28 in this FIS Report.

To determine if flood insurance is available in the community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

**PRELIMINARY FIS REPORT:** FEMA maintains information about map features, such as street locations and names, in or near designated flood hazard areas. Requests to revise information in or near designated flood hazard areas may be provided to FEMA during the community review period, at the final Consultation Coordination Officer's meeting, or during the statutory 90-day appeal period. Approved requests for changes will be shown on the final printed FIRM.

The map is for use in administering the NFIP. It may not identify all areas subject to flooding, particularly from local drainage sources of small size. Consult the community map repository to find updated or additional flood hazard information.

**BASE FLOOD ELEVATIONS:** For more detailed information in areas where Base Flood Elevations (BFEs) and/or floodways have been determined, consult the Flood Profiles and Floodway Data and/or Summary of Non-Coastal Stillwater Elevations tables within this FIS Report. Use the flood elevation data within the FIS Report in conjunction with the FIRM for construction and/or floodplain management.

Coastal Base Flood Elevations shown on the map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD88). Coastal flood elevations are also provided in the Coastal Transect Parameters table in the FIS Report for this jurisdiction. Elevations shown in the Coastal Transect Parameters table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on the FIRM.

## Figure 2. FIRM Notes to Users

**FLOODWAY INFORMATION:** Boundaries of the floodways were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the FIS Report for this jurisdiction.

**FLOOD CONTROL STRUCTURE INFORMATION:** Certain areas not in Special Flood Hazard Areas may be protected by flood control structures. Refer to Section 4.3 "Non-Levee Flood Protection Measures" of this FIS Report for information on flood control structures for this jurisdiction.

**PROJECTION INFORMATION:** The projection used in the preparation of the map was HARN State Plane Transverse Mercator, Florida East Zone. The horizontal datum was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or State Plane zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of the FIRM.

**ELEVATION DATUM:** Flood elevations on the FIRM are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at [www.ngs.noaa.gov/](http://www.ngs.noaa.gov/) or contact the National Geodetic Survey at the following address:

*NGS Information Services  
NOAA, N/NGS12  
National Geodetic Survey  
SSMC-3, #9202  
1315 East-West Highway  
Silver Spring, Maryland 20910-3282  
(301) 713-3242*

Local vertical monuments may have been used to create the map. To obtain current monument information, please contact the appropriate local community listed in Table 31 of this FIS Report.

**BASE MAP INFORMATION:** Base map information shown on the FIRM was provided in digital format by the City of Jacksonville, U.S. Fish and Wildlife Service, U.S. Department of Agriculture Farm Service Agency, and FEMA. For information about base maps, refer to Section 6.2 "Base Map" in this FIS Report.

Corporate limits shown on the map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after the map was published, map users should contact appropriate community officials to verify current corporate limit locations.

**Figure 2. FIRM Notes to Users**

**NOTES FOR FIRM INDEX**

REVISIONS TO INDEX: As new studies are performed and FIRM panels are updated within Duval County, Florida, corresponding revisions to the FIRM Index will be incorporated within the FIS Report to reflect the effective dates of those panels. Please refer to Table 28 of this FIS Report to determine the most recent FIRM revision date for each community. The most recent FIRM panel effective date will correspond to the most recent index date.

ATTENTION: The corporate limits shown on this FIRM Index are based on the best information available at the time of publication. As such, they may be more current than those shown on FIRM panels issued before **<Date>**.

**SPECIAL NOTES FOR SPECIFIC FIRM PANELS**

This Notes to Users section was created specifically for Duval County, Florida, effective **<Date>**.

COASTAL BARRIER RESOURCES SYSTEM (CBRS): This map includes approximate boundaries of the CBRS for informational purposes only. Flood insurance is not available within CBRS areas for structures that are newly built or substantially improved on or after the date(s) indicated on the map. For more information see [www.fws.gov/cbra/](http://www.fws.gov/cbra/), the FIS Report, or call the U.S. Fish and Wildlife Service Customer Service Center at 1-800-344-WILD.

LIMIT OF MODERATE WAVE ACTION: Zone AE has been divided by a Limit of Moderate Wave Action (LiMWA). The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. The effects of wave hazards between Zone VE and the LiMWA (or between the shoreline and the LiMWA for areas where Zone VE is not identified) will be similar to, but less severe than, those in Zone VE.

FLOOD RISK REPORT: A Flood Risk Report (FRR) may be available for many of the flooding sources and communities referenced in this FIS Report. The FRR is provided to increase public awareness of flood risk by helping communities identify the areas within their jurisdictions that have the greatest risks. Although non-regulatory, the information provided within the FRR can assist communities in assessing and evaluating mitigation opportunities to reduce these risks. It can also be used by communities developing or updating flood risk mitigation plans. These plans allow communities to identify and evaluate opportunities to reduce potential loss of life and property. However, the FRR is not intended to be the final authoritative source of all flood risk data for a project area; rather, it should be used with other data sources to paint a comprehensive picture of flood risk.

Each FIRM panel contains an abbreviated legend for the features shown on the maps. However, the FIRM panel does not contain enough space to show the legend for all map features. Figure 3 shows the full legend of all map features. Note that not all of these features may appear on the FIRM panels in Duval County.

**Figure 3: Map Legend for FIRM**

<p><b>SPECIAL FLOOD HAZARD AREAS:</b> <i>The 1% annual chance flood, also known as the base flood or 100-year flood, has a 1% chance of happening or being exceeded each year. Special Flood Hazard Areas are subject to flooding by the 1% annual chance flood. The Base Flood Elevation is the water surface elevation of the 1% annual chance flood. The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights. See note for specific types. If the floodway is too narrow to be shown, a note is shown.</i></p>	
	<p>Special Flood Hazard Areas subject to inundation by the 1% annual chance flood (Zones A, AE, AH, AO, AR, A99, V and VE)</p>
<p>Zone A</p>	<p>The flood insurance rate zone that corresponds to the 1% annual chance floodplains. No base (1% annual chance) flood elevations (BFEs) or depths are shown within this zone.</p>
<p>Zone AE</p>	<p>The flood insurance rate zone that corresponds to the 1% annual chance floodplains. Base flood elevations derived from the hydraulic analyses are shown within this zone.</p>
<p>Zone AH</p>	<p>The flood insurance rate zone that corresponds to the areas of 1% annual chance shallow flooding (usually areas of ponding) where average depths are between 1 and 3 feet. Whole-foot BFEs derived from the hydraulic analyses are shown at selected intervals within this zone.</p>
<p>Zone AO</p>	<p>The flood insurance rate zone that corresponds to the areas of 1% annual chance shallow flooding (usually sheet flow on sloping terrain) where average depths are between 1 and 3 feet. Average whole-foot depths derived from the hydraulic analyses are shown within this zone.</p>
<p>Zone AR</p>	<p>The flood insurance rate zone that corresponds to areas that were formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.</p>
<p>Zone A99</p>	<p>The flood insurance rate zone that corresponds to areas of the 1% annual chance floodplain that will be protected by a Federal flood protection system where construction has reached specified statutory milestones. No base flood elevations or flood depths are shown within this zone.</p>
<p>Zone V</p>	<p>The flood insurance rate zone that corresponds to the 1% annual chance coastal floodplains that have additional hazards associated with storm waves. Base flood elevations are not shown within this zone.</p>
<p>Zone VE</p>	<p>Zone VE is the flood insurance rate zone that corresponds to the 1% annual chance coastal floodplains that have additional hazards associated with storm waves. Base flood elevations derived from the coastal analyses are shown within this zone as static whole-foot elevations that apply throughout the zone.</p>

**Figure 3: Map Legend for FIRM**

	<p>Regulatory Floodway determined in Zone AE.</p>
<p><b>OTHER AREAS OF FLOOD HAZARD</b></p>	
	<p>Shaded Zone X: Areas of 0.2% annual chance flood hazards and areas of 1% annual chance flood hazards with average depths of less than 1 foot or with drainage areas less than 1 square mile.</p>
	<p>Future Conditions 1% Annual Chance Flood Hazard – Zone X: The flood insurance rate zone that corresponds to the 1% annual chance floodplains that are determined based on future-conditions hydrology. No base flood elevations or flood depths are shown within this zone.</p>
	<p>Area with Reduced Flood Risk due to Levee: Areas where an accredited levee, dike, or other flood control structure has reduced the flood risk from the 1% annual chance flood.</p>
<p><b>OTHER AREAS</b></p>	
	<p>Zone D (Areas of Undetermined Flood Hazard): The flood insurance rate zone that corresponds to unstudied areas where flood hazards are undetermined, but possible.</p>
	<p>Unshaded Zone X: Areas of minimal flood hazard.</p>
<p><b>FLOOD HAZARD AND OTHER BOUNDARY LINES</b></p>	
	<p>Flood Zone Boundary (white line on ortho-photography-based mapping; gray line on vector-based mapping)</p>
	<p>Limit of Study</p>
	<p>Jurisdiction Boundary</p>
	<p>Limit of Moderate Wave Action (LiMWA): Indicates the inland limit of the area affected by waves greater than 1.5 feet</p>
<p><b>GENERAL STRUCTURES</b></p>	
<p><i>Aqueduct</i> <i>Channel</i> <i>Culvert</i> <i>Storm Sewer</i></p>	<p>Channel, Culvert, Aqueduct, or Storm Sewer</p>
<p><i>Dam</i> <i>Jetty</i> <i>Weir</i></p>	<p>Dam, Jetty, Weir</p>

**Figure 3: Map Legend for FIRM**

	Levee, Dike, or Floodwall
<p style="text-align: center;">Bridge</p>	Bridge
<p><b>COASTAL BARRIER RESOURCES SYSTEM (CBRS) AND OTHERWISE PROTECTED AREAS (OPA):</b> <i>CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas. See Notes to Users for important information.</i></p>	
<p style="text-align: center;"><b>CBRS AREA</b> 09/30/2009</p>	Coastal Barrier Resources System Area: Labels are shown to clarify where this area shares a boundary with an incorporated area or overlaps with the floodway.
<p style="text-align: center;"><b>OTHERWISE PROTECTED AREA</b> 09/30/2009</p>	Otherwise Protected Area
<b>REFERENCE MARKERS</b>	
	River mile Markers
<b>CROSS SECTION &amp; TRANSECT INFORMATION</b>	
	Lettered Cross Section with Regulatory Water Surface Elevation (BFE)
	Numbered Cross Section with Regulatory Water Surface Elevation (BFE)
	Unlettered Cross Section with Regulatory Water Surface Elevation (BFE)
	Coastal Transect
	Profile Baseline: Indicates the modeled flow path of a stream and is shown on FIRM panels for all valid studies with profiles or otherwise established base flood elevation.
	Coastal Transect Baseline: Used in the coastal flood hazard model to represent the 0.0-foot elevation contour and the starting point for the transect and the measuring point for the coastal mapping.
	Base Flood Elevation Line
<p><b>ZONE AE</b> (EL 16)</p>	Static Base Flood Elevation value (shown under zone label)

**Figure 3: Map Legend for FIRM**

<b>ZONE AO (DEPTH 2)</b>	Zone designation with Depth
<b>ZONE AO (DEPTH 2) (VEL 15 FPS)</b>	Zone designation with Depth and Velocity
<b>BASE MAP FEATURES</b>	
	River, Stream or Other Hydrographic Feature
	Interstate Highway
	U.S. Highway
	State Highway
	County Highway
<b>MAPLE LANE</b> 	Street, Road, Avenue Name, or Private Drive if shown on Flood Profile
 <i>RAILROAD</i>	Railroad
	Horizontal Reference Grid Line
	Horizontal Reference Grid Ticks
	Secondary Grid Crosshairs
<b>Land Grant</b>	Name of Land Grant
<b>7</b>	Section Number
<b>R. 43 W. T. 22 N.</b>	Range, Township Number
<b>42<sup>76</sup>000m E</b>	Horizontal Reference Grid Coordinates (UTM)
<b>365000 FT</b>	Horizontal Reference Grid Coordinates (State Plane)
<b>80° 16' 52.5"</b>	Corner Coordinates (Latitude, Longitude)

## SECTION 2.0 – FLOODPLAIN MANAGEMENT APPLICATIONS

### 2.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1% annual chance (100-year) flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2% annual chance (500-year) flood is employed to indicate additional areas of flood hazard in the community.

Each flooding source included in the project scope has been studied and mapped using professional engineering and mapping methodologies that were agreed upon by FEMA and Duval County as appropriate to the risk level. Flood risk is evaluated based on factors such as known flood hazards and projected impact on the built environment. Engineering analyses were performed for each studied flooding source to calculate its 1% annual chance flood elevations; elevations corresponding to other floods (e.g. 10-, 4-, 2-, 0.2-percent annual chance, etc.) may have also been computed for certain flooding sources. Engineering models and methods are described in detail in Section 5.0 of this FIS Report. The modeled elevations at cross sections were used to delineate the floodplain boundaries on the FIRM; between cross sections, the boundaries were interpolated using elevation data from various sources. More information on specific mapping methods is provided in Section 6.0 of this FIS Report.

Depending on the accuracy of available topographic data (Table 23), study methodologies employed (Section 5.0), and flood risk, certain flooding sources may be mapped to show both the 1% and 0.2% annual chance floodplain boundaries, regulatory water surface elevations (BFEs), and/or a regulatory floodway. Similarly, other flooding sources may be mapped to show only the 1% annual chance floodplain boundary on the FIRM, without published water surface elevations. In cases where the 1% and 0.2% annual chance floodplain boundaries are close together, only the 1% annual chance floodplain boundary is shown on the FIRM. Figure 3, “Map Legend for FIRM”, describes the flood zones that are used on the FIRMs to account for the varying levels of flood risk that exist along flooding sources within the project area. Table 2 and Table 3 indicate the flood zone designations for each flooding source and each community within Duval County, Florida, respectively.

Table 2, “Flooding Sources Included in this FIS Report,” lists each flooding source, including its study limits, affected communities, mapped zone on the FIRM, and the completion date of its engineering analysis from which the flood elevations on the FIRM and in the FIS Report were derived. Descriptions and dates for the latest hydrologic and hydraulic analyses of the flooding sources are shown in Table 13. Floodplain boundaries for these flooding sources are shown on the FIRM (published separately) using the symbology described in Figure 3. On the map, the 1% annual chance floodplain corresponds to the SFHAs. The 0.2% annual chance floodplain shows areas that, although out of the regulatory floodplain, are still subject to flood hazards.

Small areas within the floodplain boundaries may lie above the flood elevations but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data. The procedures to remove these areas from the SFHA are described in Section 6.5 of this FIS Report.

**Table 2: Flooding Sources Included in this FIS Report**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Atlantic Ocean	Atlantic Beach, City of; Jacksonville, City of; Jacksonville Beach, City of; Neptune Beach, City of	Entire Coastline	Entire Coastline	N/A	22.7		N	A, AE, AO, VE	2015
Big Davis Creek	Jacksonville, City of	Confluence with Julington Creek	Approximately 3.6 miles upstream of confluence with Julington Creek	03080103	3.3		Y	AE	2009
Big Davis Creek Tributary 1	Jacksonville, City of	Confluence with Big Davis Creek	Approximately 0.6 miles upstream of confluence with Big Davis Creek	03080103	0.6		N	AE	*
Big Davis Creek Tributary 1	Jacksonville, City of	Approximately 0.6 miles upstream of confluence with Big Davis Creek	Approximately 0.6 miles upstream of Davis Creek Road	03080103	0.6		N	AO	*
Big Fishweir Creek	Jacksonville, City of	At Hershel Street	At Roosevelt Boulevard	03080103	0.5		N	AE	2015
Big Fishweir Creek	Jacksonville, City of	At Roosevelt Boulevard	At Lake Shore Boulevard	03080103	1.4		N	AE	2009
Big Fishweir Creek Tributary 1	Jacksonville, City of	Confluence with Big Fishweir Creek	At Cassat Avenue	03080103	1.3		N	AE	2009
Big Fishweir Creek Tributary 2	Jacksonville, City of	Confluence with Big Fishweir Creek	At Yerkes Street	03080103	0.1		N	AE	*
Bigelow Branch	Jacksonville, City of	Confluence with Saint Johns River	Approximately 700 feet upstream of 12 <sup>th</sup> Street	03080103	0.6		N	AE	2015
Bigelow Branch	Jacksonville, City of	Approximately 700 feet upstream of 12 <sup>th</sup> Street	Approximately 1,500 feet upstream of Buckman Street	03080103	0.6		N	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Blockhouse Creek	Jacksonville, City of	Confluence with Trout River	Approximately 0.7 miles upstream of Leonid Road	03080103	1.4		N	AE	2015
Blockhouse Creek	Jacksonville, City of	Approximately 0.7 miles upstream of Leonid Road	Duval Road	03080103	1.4		N	AE	2009
Bonett Branch	Jacksonville, City of	Confluence with Pottsburg Creek	At Interstate-95	03080103	1.2		N	AE	2009
Box Branch	Jacksonville, City of	Confluence with Pablo Creek	Approximately 1 mile upstream of confluence with Pablo Creek	03080103	1.2		Y	AE	2015
Box Branch	Jacksonville, City of	Approximately 1 mile upstream of confluence with Pablo Creek	Confluence of Box Branch Tributary 1	03080103	1.7		Y	AE	2009
Box Branch	Jacksonville, City of	Approximately 1,370 feet upstream of confluence of Box Branch Tributary 1	Approximately 2,930 feet upstream of confluence of Box Branch Tributary 1	03080103	0.3		N	A	*
Box Branch	Jacksonville, City of	Approximately 2,930 feet upstream of confluence of Box Branch Tributary 1	Approximately 3.7 miles upstream of confluence of Box Branch Tributary 1	03080103	3.2		N	AO	*
Box Branch Tributary 1	Jacksonville, City of	Confluence with Box Branch	Approximately 3,350 feet upstream of confluence with Box Branch	03080103	0.6		N	AE	2009
Butcher Pen Creek	Jacksonville, City of	Confluence with Cedar River	At Wesconnett Boulevard	03080103	0.8		N	AE	2015

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Butcher Pen Creek	Jacksonville, City of	At Wesconnett Boulevard	Approximately 600 feet upstream of Randia Road	03080103	0.7		N	AE	2009
Caldwell Branch	Jacksonville, City of	Confluence with Yellow Water Creek	Approximately 1,300 feet upstream of the confluence with Yellow Water Creek	03080103	0.2		N	A	*
Caldwell Branch	Jacksonville, City of	Approximately 1,300 feet upstream of the confluence with Yellow Water Creek	Approximately 4,100 feet upstream of confluence with Caldwell Branch Tributary 2	03080103	2.2		Y	AE	2009
Caldwell Branch Tributary 1	Jacksonville, City of	Confluence with Caldwell Branch	Approximately 6,700 feet upstream of confluence with Caldwell Branch	03080103	1.3		Y	AE	2009
Caldwell Branch Tributary 2	Jacksonville, City of	Confluence with Caldwell Branch	Approximately 4,000 feet upstream of confluence with Caldwell Branch	03080103	0.7		Y	AE	2009
Caney Branch	Jacksonville, City of	Confluence with Rushing Branch	At New Berlin Road	03080103	1.1		Y	AE	2015
Caney Branch	Jacksonville, City of	At New Berlin Road	Approximately 1.4 miles upstream of New Berlin Road	03080103	1.4		Y	AE	2009
Cedar Creek	Jacksonville, City of	Confluence with Broward River	Approximately 1,050 feet upstream of Harts Road	03080103	1.7		Y	AE	2015
Cedar Creek	Jacksonville, City of	Approximately 1,050 feet upstream of Harts Road	At Lem Turner Road	03080103	7.8		Y	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Cedar Creek Tributary 2	Jacksonville, City of	Confluence with Cedar Creek	At Terrell Road	03080103	0.6		N	AE	2009
Cedar Creek Tributary 6	Jacksonville, City of	Confluence with Cedar Creek	Approximately 700 feet upstream of Secretariat Lane	03080103	0.7		N	AE	2009
Cedar Creek Tributary 7	Jacksonville, City of	Confluence with Cedar Creek	At Lem Turner Road	03080103	0.7		N	AE	2009
Cedar Creek Tributary 8	Jacksonville, City of	Confluence with Cedar Creek	At Lem Turner Road	03080103	0.7		N	AE	2009
Cedar River	Jacksonville, City of	Confluence with Williamson Creek	Approximately 100 feet upstream of Lane Avenue	03080103	2.0		Y	AE	2015
Cedar River	Jacksonville, City of	Approximately 100 feet upstream of Lane Avenue	Approximately 1,800 feet upstream of confluence with Cedar River Tributary 16	03080103	5.0		Y	AE	2009
Cedar River Tributary 1	Jacksonville, City of	Confluence with Cedar River	Approximately 30 feet upstream of Lake Shore Boulevard	03080103	0.1		N	AE	2015
Cedar River Tributary 12	Jacksonville, City of	Confluence with Cedar River	Approximately 150 feet upstream of Lane Avenue	03080103	0.3		N	AE	2009
Cedar River Tributary 12	Jacksonville, City of	Approximately 150 feet upstream of Lane Avenue	Approximately 445 feet upstream of Lane Avenue	03080103	0.05		N	A	*
Cedar River Tributary 13	Jacksonville, City of	Confluence with Cedar River	Approximately 100 feet upstream of Normandy Boulevard	03080103	0.6		N	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Cedar River Tributary 14	Jacksonville, City of	Confluence with Cedar River	Approximately 900 feet upstream of confluence with Cedar River Tributary 18	03080103	1.2		N	AE	2009
Cedar River Tributary 15	Jacksonville, City of	Confluence with Cedar River Tributary 14	Approximately 1,300 feet upstream of confluence with Cedar River Tributary 14	03080103	0.2		N	AE	2009
Cedar River Tributary 16	Jacksonville, City of	Confluence with Cedar River	Approximately 2,150 feet upstream of confluence with Cedar River	03080103	0.4		N	AE	2009
Cedar River Tributary 17	Jacksonville, City of	Confluence with Cedar River	Approximately 350 feet upstream of Beaver Street	03080103	0.7		N	AE	2009
Cedar River Tributary 18	Jacksonville, City of	Confluence with Cedar River Tributary 14	Approximately 1,860 feet upstream of confluence with Cedar River Tributary 14	03080103	0.3		N	AE	2009
Cedar River Tributary 19	Jacksonville, City of	Confluence with Cedar River	Approximately 680 feet upstream of confluence with Cedar River	03080103	0.1		N	AE	2009
Cedar Swamp Creek	Jacksonville, City of	Confluence with Pablo Creek	Approximately 3,400 feet upstream of Huffman Boulevard	03080103	5.8		Y	AE	2009
Cedar Swamp Creek Tributary 1	Jacksonville, City of	Confluence with Cedar Swamp Creek	At Beach Boulevard	03080103	0.7		N	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Cedar Swamp Creek Tributary 2	Jacksonville, City of	Confluence with Cedar Swamp Creek	Confluence with Pablo Creek Tributary 3	03080103	0.7		N	AE	2009
Christopher Creek	Jacksonville, City of	Confluence with Saint Johns River	At Christopher Creek Court	03080103	0.8		N	AE	2015
Christopher Creek	Jacksonville, City of	At Christopher Creek Court	Approximately 50 feet upstream of St. Augustine Road	03080103	0.5		N	AE	2009
Christopher Creek Tributary 1	Jacksonville, City of	Confluence with Christopher Creek	Approximately 630 feet upstream of confluence with Christopher Creek	03080103	0.1		N	AE	2015
Christopher Creek Tributary 1	Jacksonville, City of	Approximately 630 feet upstream of confluence with Christopher Creek	Approximately 30 feet upstream of Dupont Avenue	03080103	0.2		N	AE	2009
Christopher Creek Tributary 1	Jacksonville, City of	Approximately 30 feet upstream of Dupont Avenue	Approximately 360 feet upstream of Dupont Avenue	03080103	0.1		N	A	*
Colorado Creek	Jacksonville, City of	Confluence with Saint Johns River	Approximately 4,440 feet upstream of confluence with Saint Johns River	03080103	0.8		N	VE, AE	2015
Cormorant Branch	Jacksonville, City of	Confluence with Saint Johns River	At Marbon Road	03080103	1.2		Y	AE	2015
Cormorant Branch	Jacksonville, City of	At Marbon Road	At Ricky Drive	03080103	1.6		Y	AE	2009
Cradle Creek	Jacksonville, City of	Confluence with Intracoastal Waterway	Approximately 0.9 miles upstream of confluence with Intracoastal Waterway	03080103	0.9		N	AE	2015

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Craig Creek	Jacksonville, City of	Mouth at Saint Johns River	At Railroad	03080103	0.9		N	AE	2015
Craig Creek	Jacksonville, City of	At Railroad	At Interstate-95	03080103	0.5		N	AE	2009
Deep Bottom Creek	Jacksonville, City of	Confluence with Saint Johns River	Approximately 2,260 feet upstream of Scott Mill Road	03080103	0.7		N	AE	2015
Deep Bottom Creek	Jacksonville, City of	Approximately 2,260 feet upstream of Scott Mill Road	Approximately 800 feet upstream of confluence with Deep Bottom Creek Tributary 1	03080103	0.8		N	AE	2009
Deep Bottom Creek	Jacksonville, City of	Approximately 800 feet upstream of confluence with Deep Bottom Creek Tributary 1	Approximately 1,990 feet upstream of Hampton Road	03080103	0.4		N	A	*
Deep Bottom Creek Tributary 1	Jacksonville, City of	Confluence with Deep Bottom Creek	Approximately 1,750 feet upstream of confluence with Deep Bottom Creek	03080103	0.3		N	AE	2009
Deep Bottom Creek Tributary 2	Jacksonville, City of	Confluence with Deep Bottom Creek	Approximately 360 feet upstream of confluence with Deep Bottom Creek	03080103	0.07		N	A	*
Deer Creek	Jacksonville, City of	Confluence with Saint Johns River	Approximately 800 feet upstream of Talleyrand Avenue	03080103	0.5		N	AE	2015
Deer Creek	Jacksonville, City of	Approximately 800 feet upstream of Talleyrand Avenue	Approximately 2,800 feet upstream of Talleyrand Avenue	03080103	0.3		N	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Deese Creek	Jacksonville, City of	Confluence with Nassau River	Approximately 3.2 miles upstream of confluence with Nassau River	03070205	3.2		N	AE	2015
Dunn Creek	Jacksonville, City of	At railroad	Approximately 1,500 feet upstream of New Berlin Road	03080103	5.1		Y	AE	2015
Dunn Creek	Jacksonville, City of	Approximately 1,500 feet upstream of New Berlin Road	Approximately 1.7 miles upstream of confluence with Dunn Creek Tributary 2	03080103	1.9		Y	AE	2009
Dunn Creek Tributary 1	Jacksonville, City of	Confluence with Dunn Creek	Approximately 3,550 feet upstream of confluence with Dunn Creek	03080103	0.7		Y	AE	2015
Dunn Creek Tributary 1	Jacksonville, City of	Approximately 3,550 feet upstream of confluence with Dunn Creek	Approximately 5,000 feet upstream of Starratt Road	03080103	1.6		Y	AE	2009
Dunn Creek Tributary 2	Jacksonville, City of	Confluence with Dunn Creek	Approximately 4,850 feet upstream of confluence with Dunn Creek	03080103	0.9		Y	AE	2009
Dunn Creek Tributary 2	Jacksonville, City of	Approximately 4,850 feet upstream of confluence with Dunn Creek	Approximately 1.4 miles upstream of confluence with Dunn Creek	03080103	0.5		N	A	*
Dunn Creek Tributary 3	Jacksonville, City of	Confluence with Dunn Creek Tributary 1	At Starratt Road	03080103	0.1		N	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Durbin Creek	Jacksonville, City of	County boundary of Saint Johns County/Duval County	Approximately 1.2 miles upstream of county boundary of Saint Johns County/Duval County	03080103	1.2		Y	AE	2015
Durbin Creek	Jacksonville, City of	Approximately 1.2 miles upstream of county boundary of Saint Johns County/Duval County	Approximately 6,800 feet upstream of confluence with Durbin Creek Tributary 1	03080103	3.6		Y	AE	2009
Durbin Creek Tributary 1	Jacksonville, City of	Confluence with Durbin Creek	Approximately 1,500 feet upstream of Flagler Center Boulevard	03080103	2.1		N	AE	2009
Durbin Creek Tributary 2	Jacksonville, City of	Confluence with Durbin Creek Tributary 1	Approximately 1,800 feet upstream of confluence with Durbin Creek Tributary 1	03080103	0.3		N	AE	2009
Durbin Creek Tributary 3	Jacksonville, City of	Confluence with Durbin Creek	County boundary of Saint Johns County/Duval County	03080103	0.02		N	AE	2009
East Branch	Jacksonville, City of	Confluence with Trout River	At Capper Road	03080103	0.8		N	AE	2015
East Branch	Jacksonville, City of	At Capper Road	Approximately 100 feet upstream of confluence with East Branch Tributary 1	03080103	0.6		N	AE	2009
East Branch	Jacksonville, City of	Approximately 100 feet upstream of confluence with East Branch Tributary 1	Approximately 590 feet upstream of Natalie Drive	03080103	0.4		N	AO	*

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
East Branch Tributary 1	Jacksonville, City of	Confluence with East Branch	Approximately 60 feet upstream of Lem Turner Road	03080103	0.3		N	AE	2009
Fishing Creek	Jacksonville, City of	Confluence with Ortega River	Approximately 4,350 feet upstream of confluence with Ortega River	03080103	0.8		N	AE	2015
Fishing Creek	Jacksonville, City of	Approximately 4,350 feet upstream of confluence with Ortega River	Approximately 1,500 feet upstream of Jammes Road	03080103	2.9		N	AE	2009
Fishing Creek	Jacksonville, City of	Approximately 1,500 feet upstream of Jammes Road	Approximately 2,940 feet upstream of Jammes Road	03080103	0.3		N	A	*
Fishing Creek Tributary 1	Jacksonville, City of	Confluence with Fishing Creek	Approximately 300 feet upstream of 103 <sup>rd</sup> Street	03080103	2.2		N	AE	2009
Ginhouse Creek	Jacksonville, City of	Confluence with Saint Johns River	At Monument Road	03080103	1.0		Y	AE	2015
Ginhouse Creek	Jacksonville, City of	At Monument Road	Approximately 1,200 feet upstream of Agave Road	03080103	2.3		Y	AE	2009
Goodbys Creek	Jacksonville, City of	Mouth at Saint Johns River	Approximately 200 feet upstream of confluence of Goodbys Creek Tributary 5	03080103	1.6		Y	AE	2015

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Goodbys Creek	Jacksonville, City of	Approximately 200 feet upstream of confluence of Goodbys Creek Tributary 5	Approximately 3 miles upstream of mouth at Praver Drive	03080103	1.4		Y	AE	2009
Goodbys Creek	Jacksonville, City of	Approximately 3 miles upstream of mouth at Praver Drive	County boundary	03080103	0.7		N	A	*
Goodbys Creek Tributary 1	Jacksonville, City of	Confluence with Goodbys Creek	Approximately 2,650 feet upstream of confluence with Goodbys Creek	03080103	0.5		Y	AE	2015
Goodbys Creek Tributary 1	Jacksonville, City of	Approximately 2,650 feet upstream of confluence with Goodbys Creek	Approximately 9,300 feet upstream of confluence with Goodbys Creek	03080103	1.2		Y	AE	2009
Goodbys Creek Tributary 2	Jacksonville, City of	Confluence with Goodbys Creek	Approximately 2,500 feet upstream of confluence with Goodbys Creek	03080103	0.5		Y	AE	2015
Goodbys Creek Tributary 2	Jacksonville, City of	Approximately 2,500 feet upstream of confluence with Goodbys Creek	Approximately 1,750 feet upstream of Runnymede Road	03080103	0.9		Y	AE	2009
Goodbys Creek Tributary 3	Jacksonville, City of	Confluence with Goodbys Creek	Approximately 100 feet upstream of Philips Highway	03080103	0.6		Y	AE	2009
Goodbys Creek Tributary 4	Jacksonville, City of	Confluence with Goodbys Creek Tributary 2	Approximately 3,200 feet upstream of confluence with Goodbys Creek Tributary 2	03080103	0.6		N	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Goodbys Creek Tributary 5	Jacksonville, City of	Confluence with Goodbys Creek	Approximately 2,200 feet upstream of confluence with Goodbys Creek	03080103	0.4		Y	AE	2015
Greenfield Creek	Jacksonville, City of	Approximately 1,000 feet downstream of Queens Harbor Boulevard	At Atlantic Boulevard	03080103	0.8		Y	AE	2015
Greenfield Creek	Jacksonville, City of	At Atlantic Boulevard	Approximately 1,500 feet upstream of Hodges Boulevard	03080103	0.5		Y	AE	2009
Gulley Branch	Jacksonville, City of	Confluence with Trout River	Approximately 3,200 feet upstream of confluence with Trout River	03080103	0.6		N	AE	2015
Gulley Branch	Jacksonville, City of	Approximately 3,200 feet upstream of confluence with Trout River	Approximately 1,650 feet upstream of Dunn Avenue	03080103	0.4		N	AE	2009
Half Creek	Jacksonville, City of	Confluence with Trout River	At Dunn Avenue	03080103	1.4		N	AE	2015
Half Creek	Jacksonville, City of	At Dunn Avenue	Approximately 400 feet upstream of V C Johnson Road	03080103	2.0		N	AE	2009
Half Creek Tributary 1	Jacksonville, City of	Confluence with Half Creek	Approximately 1,000 feet upstream of V C Johnson Road	03080103	0.7		N	AE	2009
Half Creek Tributary 2	Jacksonville, City of	Confluence with Half Creek	Approximately 580 feet upstream of confluence with Half Creek	03080103	0.1		N	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Hogan Creek	Jacksonville, City of	Confluence with Saint Johns River	Approximately 350 feet upstream of Hart Expressway	03080103	0.5		N	AE	2015
Hogan Creek	Jacksonville, City of	Approximately 350 feet upstream of Hart Expressway	Approximately 1,050 feet upstream of 111 <sup>th</sup> Street	03080103	2.0		N	AE	2009
Hogpen Creek	Jacksonville, City of	A point 5,000 feet upstream of confluence with Pablo Creek	Confluence with Hogpen Creek Tributary 1 and Sandalwood Canal	03080103	0.6		N	AE	2015
Hogpen Creek Tributary 1	Jacksonville, City of	Confluence with Hogpen Creek	Approximately 1,250 feet upstream of confluence with Hogpen Creek	03080103	0.4		N	AE	2015
Hogpen Creek Tributary 1	Jacksonville, City of	Approximately 1,250 feet upstream of confluence with Hogpen Creek	Approximately 1,350 feet upstream of Canyon Falls Drive	03080103	0.8		N	AE	2009
Hopkins Creek	Atlantic Beach, City of; Neptune Beach, City of	Confluence with Pablo Creek/Intracoastal Waterway	Approximately 1,050 feet upstream of Cutlass Drive	03080103	2.5		N	AE	2015
Hopkins Creek Tributary 1	Jacksonville Beach, City of; Neptune Beach, City of	Confluence with Hopkins Creek	Approximately 1,750 feet upstream of confluence with Hopkins Creek	03080103	0.3		N	AE	2015
Hopkins Creek Tributary 2	Neptune Beach, City of	Confluence with Hopkins Creek	Approximately 1,300 feet upstream of 5 <sup>th</sup> Street/Florida Boulevard	03080103	1.2		N	AE	2015

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Hopkins Creek Tributary 3	Jacksonville Beach, City of; Neptune Beach, City of	Confluence with Hopkins Creek Tributary 2	At 15 <sup>th</sup> Avenue North	03080103	0.6		N	AE	2015
Jones Creek	Jacksonville, City of	Confluence with Saint Johns River	Approximately 2,850 feet upstream of confluence with Jones Creek Tributary 2	03080103	1.1		Y	AE	2015
Jones Creek	Jacksonville, City of	Approximately 2,850 feet upstream of confluence with Jones Creek Tributary 2	Confluence with Jones Creek Tributary 1	03080103	3.1		Y	AE	2009
Jones Creek Tributary 1	Jacksonville, City of	Confluence with Jones Creek	Approximately 2,200 feet upstream of Brookview Drive	03080103	1.8		Y	AE	2009
Jones Creek Tributary 2	Jacksonville, City of	Confluence with Jones Creek	Approximately 150 feet upstream of State Highway 9A	03080103	0.7		N	AE	2009
Julington Creek	Jacksonville, City of	Confluence with Saint Johns River	Approximately 4,900 feet upstream of confluence with Julington Creek Tributary 8	03080103	2.3		Y	AE	2015
Julington Creek	Jacksonville, City of	Approximately 4,900 feet upstream of confluence with Julington Creek Tributary 8	At Hood Road	03080103	6.5		Y	AE	2009
Julington Creek Tributary 1	Jacksonville, City of	Confluence with Julington Creek	At Deercreek Club Road	03080103	1.1		N	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Julington Creek Tributary 4	Jacksonville, City of	Confluence with Julington Creek	Approximately 2,400 feet upstream of Derby Forest Drive	03080103	1.3		N	AE	2009
Julington Creek Tributary 5	Jacksonville, City of	Confluence with Julington Creek	Approximately 500 feet upstream of Greenland Oaks Drive	03080103	0.5		N	AE	2009
Julington Creek Tributary 6	Jacksonville, City of	Confluence with Julington Creek	Approximately 1,300 feet upstream of confluence with Julington Creek	03080103	0.2		N	AE	2009
Julington Creek Tributary 6	Jacksonville, City of	Approximately 1,300 feet upstream of confluence with Julington Creek	Approximately 1 mile upstream of confluence with Julington Creek	03080103	0.7		N	A	*
Julington Creek Tributary 8	Jacksonville, City of	Confluence with Julington Creek	At Caron Drive	03080103	0.5		N	AE	2015
Julington Creek Tributary 8	Jacksonville, City of	At Caron Drive	Approximately 850 feet upstream of Julington Creek Road	03080103	0.4		N	AE	2009
Little Cedar Creek	Jacksonville, City of	Confluence with Broward River	Approximately 900 feet downstream of Duval Road	03080103	2.3		Y	AE	2015
Little Cedar Creek	Jacksonville, City of	Approximately 900 feet downstream of Duval Road	At Owens Road	03080103	2.8		Y	AE	2009
Little Cedar Creek Tributary 1	Jacksonville, City of	Confluence with Little Cedar Creek and Little Cedar Creek Tributary 3	Approximately 1.25 miles upstream of Interstate-95	03080103	1.8		N	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Little Cedar Creek Tributary 1	Jacksonville, City of	Approximately 1.25 miles upstream of Interstate-95	Approximately 3,900 feet upstream of Airport Center Drive	03080103	0.8		N	A	*
Little Cedar Creek Tributary 2	Jacksonville, City of	Confluence with Little Cedar Creek	Approximately 285 feet upstream of confluence with Little Cedar Creek	03080103	0.05		N	AE	2015
Little Cedar Creek Tributary 2	Jacksonville, City of	Approximately 285 feet upstream of confluence with Little Cedar Creek	Approximately 150 feet upstream of Interstate-95	03080103	0.05		N	AE	2009
Little Cedar Creek Tributary 3	Jacksonville, City of	Duval Lake Road	Approximately 923 feet upstream of Duval Lake Road	03080103	0.2		N	A	*
Little Fishweir Creek	Jacksonville, City of	Confluence with Big Fishweir Creek	Approximately 60 feet upstream of Oak Street	03080103	0.5		N	AE	2015
Little Fishweir Creek	Jacksonville, City of	Approximately 60 feet upstream of Oak Street	Approximately 50 feet upstream of Roosevelt Boulevard	03080103	0.8		N	AE	2009
Little Fishweir Creek Tributary 1	Jacksonville, City of	Confluence with Little Fishweir Creek	Approximately 700 feet upstream of confluence with Little Fishweir Creek	03080103	0.1		N	AE	2009
Little Pottsburg Creek	Jacksonville, City of	At Atlantic Boulevard	At Beach Boulevard	03080103	1.6		Y	AE	2015
Little Pottsburg Creek	Jacksonville, City of	At Beach Boulevard	Approximately 600 feet upstream of Interstate-95	03080103	1.8		Y	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Little Pottsburg Creek Tributary 1	Jacksonville, City of	Confluence with Little Pottsburg Creek	Approximately 600 feet upstream of Hickman Road	03080103	1.3		N	AE	2009
Little Pottsburg Creek Tributary 2	Jacksonville, City of	Confluence with Little Pottsburg Creek	Approximately 1,220 feet upstream of confluence with Little Pottsburg Creek	03080103	0.2		N	AE	2009
Little Pottsburg Creek Tributary 3	Jacksonville, City of	Confluence with Little Pottsburg Creek	Approximately 1,240 feet upstream of confluence with Little Pottsburg Creek	03080103	0.2		N	AE	2009
Little Pottsburg Creek Tributary 4	Jacksonville, City of	Confluence with Little Pottsburg Creek	Approximately 1,430 feet upstream of confluence with Little Pottsburg Creek	03080103	0.2		N	A	*
Little Sixmile Creek	Jacksonville, City of	Confluence with Sixmile Creek and Ribault River	Approximately 2,700 feet upstream of 5 <sup>th</sup> Street	03080103	3.0		N	AE	2009
Little Sixmile Creek Tributary 1	Jacksonville, City of	Confluence with Little Sixmile Creek	At Shawland Road	03080103	1.3		N	AE	2009
Little Sixmile Creek Tributary 2	Jacksonville, City of	Confluence with Little Sixmile Creek Tributary 1	Approximately 750 feet upstream of Dahlia Road	03080103	0.3		N	AE	2009
Little Sixmile Creek Tributary 3	Jacksonville, City of	Confluence with Little Sixmile Creek	Approximately 1,700 feet upstream of confluence with Little Sixmile Creek	03080103	0.3		N	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Little Trout River	Jacksonville, City of	Confluence with Trout River	Approximately 1,500 feet upstream of confluence of Little Trout River Tributary 6	03080103	2.0		N	AE	2015
Little Trout River	Jacksonville, City of	Approximately 1,500 feet upstream of confluence of Little Trout River Tributary 6	Approximately 1,000 feet upstream of confluence with Little Trout River Tributary 4	03080103	1.1		N	AE	2009
Little Trout River	Jacksonville, City of	Approximately 1,000 feet upstream of confluence with Little Trout River Tributary 4	Approximately 1.6 miles upstream of confluence with Little Trout River Tributary 4	03080103	1.4		N	A	*
Little Trout River Tributary 4	Jacksonville, City of	Confluence with Little Trout River	Approximately 1,200 feet upstream of confluence with Little Trout River	03080103	0.2		N	AE	2009
Little Trout River Tributary 5	Jacksonville, City of	Confluence with Little Trout River	Approximately 1.1 miles upstream of confluence with Little Trout River	03080103	1.1		N	A	*
Little Trout River Tributary 6	Jacksonville, City of	Confluence with Little Trout River	Approximately 850 feet upstream of confluence with Little Trout River	03080103	0.2		N	AE	2015
Little Trout River Tributary 6	Jacksonville, City of	Approximately 850 feet upstream of confluence with Little Trout River	Approximately 2,150 feet upstream of confluence with Little Trout River	03080103	0.2		N	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Little Trout River Tributary 6	Jacksonville, City of	Approximately 2,150 feet upstream of confluence with Little Trout River	Approximately 3,620 feet upstream of confluence with Little Trout River	03080103	0.3		N	A	*
Little Trout River Tributary 10	Jacksonville, City of	Confluence with Little Trout River	Approximately 2,500 feet upstream of confluence with Little Trout River	03080103	0.5		N	AE	2015
Little Trout River Tributary 10	Jacksonville, City of	Approximately 2,500 feet upstream of confluence with Little Trout River	Approximately 2,600 feet upstream of confluence with Little Trout River	03080103	0.02		N	AE	2009
Long Branch	Jacksonville, City of	Confluence with Saint Johns River	At Evergreen Avenue	03080103	0.9		N	AE	2015
Long Branch	Jacksonville, City of	At Evergreen Avenue	Confluence with Long Branch Tributary 1	03080103	0.5		N	AE	2009
Long Branch Tributary 1	Jacksonville, City of	Confluence with Long Branch	Approximately 840 feet upstream of confluence with Long Branch	03080103	0.2		N	AE	2009
Magnolia Gardens Creek	Jacksonville, City of	Confluence with Ribault River	At Palmdale Street	03080103	0.7		N	AE	2015
Magnolia Gardens Creek	Jacksonville, City of	At Palmdale Street	Approximately 300 feet upstream of Cleveland Road	03080103	2.0		N	AE	2009
McCoy Creek	Jacksonville, City of	Confluence with Saint Johns River	Approximately 500 feet upstream of Riverside Avenue	03080103	0.2		N	AE	2015

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
McCoy Creek	Jacksonville, City of	Approximately 500 feet upstream of Riverside Avenue	Approximately 200 feet upstream of Commonwealth Avenue	03080103	3.1		N	AE	2009
McCoy Creek North Branch	Jacksonville, City of	Confluence with McCoy Creek	At 3 <sup>rd</sup> Street	03080103	0.4		N	AE	2009
McCoy Creek North Branch	Jacksonville, City of	At 3 <sup>rd</sup> Street	Approximately 2,120 feet upstream of 3 <sup>rd</sup> Street	03080103	0.4		N	A	*
McCoy Creek Southwest Branch	Jacksonville, City of	Confluence with McCoy Creek	At College Street	03080103	1.2		N	AE	2009
McCoy Creek Tributary 4	Jacksonville, City of	Confluence with McCoy Creek	Approximately 370 feet upstream of confluence with McCoy Creek	03080103	0.07		N	AE	2009
McCoy Creek Tributary 4	Jacksonville, City of	Approximately 370 feet upstream of confluence with McCoy Creek	Approximately 1,225 feet upstream of confluence with McCoy Creek	03080103	0.2		N	A	*
McCoy Creek Tributary 5	Jacksonville, City of	Confluence with McCoy Creek Southwest Branch	Approximately 40 feet upstream of Gilmore Street	03080103	0.08		N	AE	2009
McGirts Creek	Jacksonville, City of	Confluence with Ortega River	Approximately 1,100 feet upstream of Halsema Road	03080103	4.4		N	AE	2009
McGirts Creek	Jacksonville, City of	Approximately 1,100 feet upstream of Halsema Road	Approximately 4,090 feet upstream of Halsema Road	03080103	0.6		N	A	*

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
McGirts Creek Tributary 11	Jacksonville, City of	Confluence with McGirts Creek	Approximately 2,100 feet upstream of confluence with McGirts Creek Tributary 13	03080103	1.3		N	AE	2009
McGirts Creek Tributary 11	Jacksonville, City of	Approximately 2,100 feet upstream of confluence with McGirts Creek Tributary 13	Approximately 4,630 feet upstream of confluence with McGirts Creek Tributary 13	03080103	0.5		N	AO	*
McGirts Creek Tributary 12	Jacksonville, City of	Confluence with McGirts Creek	Approximately 1,200 feet upstream of Williamson Avenue	03080103	1.1		N	AE	2009
McGirts Creek Tributary 12	Jacksonville, City of	Approximately 1,200 feet upstream of Williamson Avenue	Approximately 1 mile upstream of Williamson Avenue	03080103	0.7		N	AO	*
McGirts Creek Tributary 13	Jacksonville, City of	Confluence with McGirts Creek Tributary 11	Approximately 1,020 feet upstream of confluence with McGirts Creek Tributary 11	03080103	0.2		N	AE	2009
McGirts Creek Tributary 13	Jacksonville, City of	Approximately 1,020 feet upstream of confluence with McGirts Creek Tributary 11	Approximately 4,890 feet upstream of confluence with McGirts Creek Tributary 11	03080103	0.9		N	A	*
McGirts Creek Tributary 14	Jacksonville, City of	Confluence with McGirts Creek	Approximately 1,750 feet upstream of Joes Road	03080103	1.4		N	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
McGirts Creek Tributary 15	Jacksonville, City of	Approximately 570 feet upstream of confluence with Ortega River	Approximately 3,580 feet upstream of confluence with Ortega River	03080103	0.6		N	A	*
McGirts Creek Tributary 16	Jacksonville, City of	Confluence with McGirts Creek	Approximately 1.7 miles upstream of confluence with McGirts Creek	03080103	1.7		N	A	*
Mill Dam Branch	Jacksonville, City of	Confluence with Pablo Creek	Approximately 3,750 feet upstream of Leahy Road	03080103	5.9		Y	AE	2009
Mill Dam Branch Canal	Jacksonville, City of	Confluence with Mill Dam Branch	Approximately 100 feet upstream of Gate Parkway	03080103	1.0		N	AE	2009
Mill Dam Branch Tributary 2	Jacksonville, City of	Confluence with Mill Dam Branch	At Beach Boulevard	03080103	0.7		N	A	*
Mill Dam Branch Tributary 3	Jacksonville, City of	Confluence with Mill Dam Branch	Approximately 80 feet upstream of Beach Boulevard	03080103	0.1		N	AE	2009
Mill Dam Branch Tributary 4	Jacksonville, City of	Confluence with Mill Dam Branch	Approximately 30 feet upstream of Anniston Road	03080103	0.1		N	AE	2009
Mill Dam Branch Tributary 5	Jacksonville, City of	Confluence with Mill Dam Branch	At Forest Boulevard	03080103	0.1		N	AE	2009
Miller Creek	Jacksonville, City of	Confluence with Saint Johns River	Approximately 150 feet upstream of confluence with Miller Creek Tributary 2	03080103	0.4		N	AE	2015

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Miller Creek	Jacksonville, City of	Approximately 150 feet upstream of confluence with Miller Creek Tributary 2	Approximately 400 feet upstream of Camden Avenue	03080103	0.5		N	AE	2009
Miller Creek Tributary 1	Jacksonville, City of	Confluence with Miller Creek	Approximately 700 feet upstream of confluence with Miller Creek	03080103	0.1		N	AE	2009
Miramar Tributary	Jacksonville, City of	Confluence with Saint Johns River	At Gadsden Road	03080103	0.6		N	AE	2015
Miramar Tributary	Jacksonville, City of	At Gadsden Road	Approximately 1,200 feet upstream of Orlando Circle	03080103	0.4		N	AE	2009
Moncrief Creek	Jacksonville, City of	Confluence with Trout River	Approximately 1.5 miles upstream of confluence with Trout River	03080103	1.5		Y	AE	2015
Moncrief Creek	Jacksonville, City of	Approximately 1.5 miles upstream of confluence with Trout River	Approximately 250 feet upstream of 9 <sup>th</sup> Street	03080103	2.9		Y	AE	2009
Moncrief Creek Tributary 2	Jacksonville, City of	Confluence with Moncrief Creek	Approximately 2,100 feet upstream of confluence with Moncrief Creek	03080103	0.4		N	A	*
Moncrief Creek Tributary 3	Jacksonville, City of	Confluence with Moncrief Creek	At railroad	03080103	0.4		N	A	*
Moncrief Creek Tributary 4	Jacksonville, City of	Confluence with Moncrief Creek	Approximately 440 feet upstream of Spring Grove Avenue	03080103	0.3		N	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Moore Branch	Jacksonville, City of	Confluence with Yellow Water Creek	Approximately 2,360 feet upstream of confluence with Yellow Water Creek	03080103	0.4		N	A	*
Mount Pleasant Creek	Jacksonville, City of	Confluence with Greenfield Creek	Approximately 3,125 feet upstream of confluence with Tiger Pond Creek	03080103	0.8		Y	AE	2015
Mount Pleasant Creek	Jacksonville, City of	Approximately 3,125 feet upstream of confluence with Tiger Pond Creek	Approximately 25 feet upstream of General Doolittle Drive	03080103	5.2		Y	AE	2009
Mount Pleasant Creek Tributary 3	Jacksonville, City of	Confluence with Tiger Pond Creek	Approximately 500 feet upstream of confluence with Tiger Pond Creek	03080103	0.1		N	AE	2015
Mount Pleasant Creek Tributary 3	Jacksonville, City of	Approximately 500 feet upstream of confluence with Tiger Pond Creek	Approximately 2,050 feet upstream of Ashley Melisse Boulevard	03080103	0.9		N	AE	2009
Mount Pleasant Creek Tributary 4	Jacksonville, City of	Confluence with Mount Pleasant Creek Tributary 3	Approximately 500 feet upstream of Matthew Ungar Drive	03080103	0.6		N	AE	2009
Mount Pleasant Creek Tributary 6	Jacksonville, City of	Confluence with Mount Pleasant Creek	At Running River Road	03080103	1.4		N	AE	2009
Mount Pleasant Creek Tributary 7	Jacksonville, City of	Confluence with Mount Pleasant Creek	Approximately 1,110 feet upstream of confluence with Mount Pleasant Creek	03080103	0.2		N	A	*

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Mount Pleasant Creek Tributary 8	Jacksonville, City of	Confluence with Mount Pleasant Creek	Approximately 1,330 feet upstream of confluence with Mount Pleasant Creek	03080103	0.3		N	AE	2009
Mount Pleasant Creek Tributary 8	Jacksonville, City of	Approximately 1,330 feet upstream of confluence with Mount Pleasant Creek	Approximately 1,770 feet upstream of confluence with Mount Pleasant Creek	03080103	0.1		N	A	*
Nassau River	Jacksonville, City of	Mouth with Atlantic Ocean	At Main Street	03070205	20.4		N	AE, VE	2015
Nassau River	Jacksonville, City of	At Main Street	Confluence of Thomas Creek	03070205	0.6		Y	AE	2015
New Rose Creek	Jacksonville, City of	Confluence with Saint Johns River	At Cornell Road	03080103	0.4		N	AE	2015
New Rose Creek	Jacksonville, City of	At Cornell Road	At St. Augustine Road	03080103	0.8		N	AE	2009
New Rose Creek Tributary 1	Jacksonville, City of	Confluence with New Rose Creek	Approximately 1,900 feet upstream of Cornell Road	03080103	0.5		N	AE	2015
New Rose Creek Tributary 1	Jacksonville, City of	Approximately 1,900 feet upstream of Cornell Road	Approximately 100 feet upstream of Grant Road	03080103	1.1		N	AE	2009
New Rose Creek Tributary 1	Jacksonville, City of	Approximately 100 feet upstream of Grant Road	Approximately 1,730 feet upstream of Grant Road	03080103	0.3		N	A	*

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
New Rose Creek Tributary 2	Jacksonville, City of	Confluence with New Rose Creek Tributary 1	Approximately 470 feet upstream of confluence with New Rose Creek Tributary 1	03080103	0.1		N	AE	2009
Newcastle Creek	Jacksonville, City of	Confluence with Saint Johns River	Approximately 50 feet upstream of Fort Caroline Road	03080103	0.5		N	AE	2015
Newcastle Creek	Jacksonville, City of	Approximately 50 feet upstream of Fort Caroline Road	Approximately 100 feet upstream of Greenfern Lane	03080103	0.8		N	AE	2009
Newcastle Creek Tributary 1	Jacksonville, City of	Confluence with Newcastle Creek	Approximately 720 feet upstream of confluence with Newcastle Creek	03080103	0.1		N	AE	2009
Ninemile Creek	Jacksonville, City of	Confluence with Trout River	Approximately 1,500 feet upstream of New Kings Road	03080103	1.9		N	AE	2015
Ninemile Creek	Jacksonville, City of	Approximately 1,500 feet upstream of New Kings Road	Approximately 1,250 feet upstream of Smalley Road	03080103	2.0		N	AE	2009
Ninemile Creek Tributary 1	Jacksonville, City of	Confluence with Ninemile Creek	Approximately 1,600 feet upstream of Old Kings Road	03080103	0.5		N	AE	2009
Ninemile Creek Tributary 2	Jacksonville, City of	Confluence with Ninemile Creek	Approximately 1,500 feet upstream of railroad	03080103	0.8		N	AE	2009
Ninemile Creek Tributary 6	Jacksonville, City of	Confluence with Ninemile Creek	Approximately 2,100 feet upstream of Old Kings Road	03080103	0.7		N	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
North Fork Sixmile Creek	Jacksonville, City of	Confluence with Sixmile Creek	Approximately 3,300 feet upstream of Fish Road	03080103	4.3		N	AE	2009
North Fork Sixmile Creek Tributary 1	Jacksonville, City of	Confluence with Sixmile Creek	Approximately 3,600 feet upstream of Bulls Bay Highway	03080103	1.1		N	AE	2009
Oldfield Creek	Jacksonville, City of	Mouth at Julington Creek	Approximately 1,500 feet upstream of confluence with Oldfield Creek Tributary 4	03080103	1.2		Y	AE	2015
Oldfield Creek	Jacksonville, City of	Approximately 1,500 feet upstream of confluence with Oldfield Creek Tributary 4	Confluence with Oldfield Creek Tributary 7	03080103	2.7		Y	AE	2009
Oldfield Creek Tributary 1	Jacksonville, City of	Confluence with Oldfield Creek	Approximately 6,250 feet upstream of Greenland Road	03080103	1.9		Y	AE	2009
Oldfield Creek Tributary 2	Jacksonville, City of	Confluence with Oldfield Creek	Approximately 60 feet upstream of St. Augustine Road	03080103	0.2		N	AE	2009
Oldfield Creek Tributary 3	Jacksonville, City of	Confluence with Oldfield Creek	Approximately 2,250 feet upstream of confluence with Oldfield Creek	03080103	0.4		N	AE	2009
Oldfield Creek Tributary 4	Jacksonville, City of	Confluence with Oldfield Creek	At Shady Creek Drive	03080103	0.1		N	AE	2015
Oldfield Creek Tributary 4	Jacksonville, City of	At Shady Creek Drive	Approximately 250 feet upstream of Hood Landing Road	03080103	1.0		N	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Oldfield Creek Tributary 5	Jacksonville, City of	Confluence with Oldfield Creek	Approximately 1,640 feet upstream of Ambrosia Court	03080103	0.3		N	A	*
Oldfield Creek Tributary 7	Jacksonville, City of	Confluence with Oldfield Creek	Approximately 430 feet upstream of Knottingby Drive	03080103	0.2		N	AE	2009
Open Creek	Jacksonville, City of	2,000 feet downstream of San Pablo Parkway	Approximately 2,300 feet upstream of confluence with Open Creek Tributary 1	03080103	1.5		Y	AE	2015
Open Creek	Jacksonville, City of	Approximately 2,300 feet upstream of confluence with Open Creek Tributary 1	Approximately 1,900 feet upstream of confluence with Open Creek Tributary 4	03080103	1.2		Y	AE	2009
Open Creek Tributary 1	Jacksonville, City of	Confluence with Open Creek	Approximately 1,950 feet upstream of confluence with Open Creek	03080103	0.4		Y	AE	2015
Open Creek Tributary 1	Jacksonville, City of	Approximately 1,950 feet upstream of confluence with Open Creek	Approximately 5,700 feet upstream of confluence with Open Creek	03080103	0.7		Y	AE	2009
Open Creek Tributary 2	Jacksonville, City of	Confluence with Open Creek	Approximately 200 feet upstream of WM Davis Parkway	03080103	0.9		Y	AE	2009
Open Creek Tributary 3	Jacksonville, City of	Confluence with Open Creek	Approximately 1,300 feet upstream of confluence with Open Creek	03080103	0.2		N	AE	2015

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Open Creek Tributary 3	Jacksonville, City of	Approximately 1,300 feet upstream of confluence with Open Creek	Approximately 1,450 feet upstream of San Pablo Parkway	03080103	1.0		N	AE	2009
Open Creek Tributary 4	Jacksonville, City of	Confluence with Open Creek	Approximately 1,300 feet upstream of Highland Glen Way	03080103	0.7		N	AE	2009
Ortega River	Jacksonville, City of	6 miles upstream of the mouth at Saint Johns River	At Interstate-295	03080103	1.7		N	AE	2015
Ortega River	Jacksonville, City of	At Interstate-295	Confluence with McGirts Creek	03080103	11.2		N	AE	2009
Ortega River Tributary 1	Jacksonville, City of	Confluence with Ortega River	Approximately 100 feet upstream of confluence with Tributary to Ortega River Tributary 1	03080103	0.3		N	AE	2015
Ortega River Tributary 1	Jacksonville, City of	Approximately 100 feet upstream of confluence with Tributary to Ortega River Tributary 1	At Jubal Lane	03080103	1.1		N	AE	2009
Ortega River Tributary 2	Jacksonville, City of	Confluence with Ortega River	Approximately 900 feet upstream of Old Middleburg Road	03080103	0.5		N	AE	2009
Ortega River Tributary 2	Jacksonville, City of	Approximately 900 feet upstream of Old Middleburg Road	Approximately 2,200 feet upstream of Old Middleburg Road	03080103	0.2		N	AO	*

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Ortega River Tributary 3	Jacksonville, City of	Confluence with Ortega River	Approximately 225 feet upstream of Steamboat Springs Drive	03080103	2.0		N	AE	2009
Ortega River Tributary 4	Jacksonville, City of	Confluence with Ortega River	Approximately 100 feet upstream of Connie Jean Road	03080103	2.5		N	AE	2009
Ortega River Tributary 4	Jacksonville, City of	Approximately 100 feet upstream of Connie Jean Road	Approximately 2,000 feet upstream of Connie Jean Road	03080103	0.4		N	A	*
Ortega River Tributary 5	Jacksonville, City of	Confluence with Ortega River	Approximately 75 feet upstream of Interstate-295	03080103	1.1		N	AE	2009
Ortega River Tributary 6	Jacksonville, City of	Confluence with Ortega River	At Interstate-295	03080103	1.3		N	AE	2009
Ortega River Tributary 7	Jacksonville, City of	Confluence with Ortega River	At Interstate-295	03080103	1.0		N	AE	2009
Ortega River Tributary 10	Jacksonville, City of	Confluence with Ortega River	Approximately 1,000 feet upstream of Brett Forest Drive	03080103	1.8		N	AE	2009
Ortega River Tributary 11	Jacksonville, City of	Confluence with Ortega River	Approximately 2,600 feet upstream of Invermere Boulevard	03080103	0.7		N	AE	2009
Pablo Creek	Jacksonville, City of	Saint Johns/Duval County boundary	Approximately 1.7 miles upstream of Saint Johns/Duval County boundary	03080103	1.7		Y	AE	2015
Pablo Creek	Jacksonville, City of	Approximately 1.7 miles upstream of Saint Johns/Duval County boundary	Confluence with Sawmill Slough/ Buckhead Branch	03080103	5.1		Y	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Pablo Creek Tributary 1	Jacksonville, City of	Confluence with Pablo Creek	Approximately 5,350 feet upstream of confluence with Pablo Creek	03080103	1.0		N	AE	2009
Pablo Creek Tributary 2	Jacksonville, City of	Confluence with Pablo Creek	Approximately 1.2 miles upstream of Kernan Boulevard	03080103	3.3		N	AE, AO	2009
Pablo Creek Tributary 3	Jacksonville, City of	Confluence with Pablo Creek Tributary 2	Approximately 6,000 feet upstream of confluence with Cedar Swamp Creek Tributary 2	03080103	2.9		N	AE	2009
Pickett Branch	Jacksonville, City of	Confluence with Cedar Creek	Approximately 500 feet upstream of confluence with Pickett Branch Tributary 5	03080103	3.6		N	AE	2009
Pickett Branch Tributary 3	Jacksonville, City of	Confluence with Pickett Branch	Approximately 20 feet upstream of Pecan Park Road	03080103	0.1		N	AE	2009
Pickett Branch Tributary 4	Jacksonville, City of	Confluence with Pickett Branch	Approximately 40 feet upstream of Pecan Park Road	03080103	0.2		N	AE	2009
Pickett Branch Tributary 5	Jacksonville, City of	Confluence with Pickett Branch	Approximately 320 feet upstream of confluence with Pickett Branch	03080103	0.1		N	AE	2009
Pottsburg Creek	Jacksonville, City of	At Atlantic Boulevard	Approximately 2,700 feet upstream of Hogan Road	03080103	4.0		Y	AE	2015

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Pottsburg Creek	Jacksonville, City of	Approximately 2,700 feet upstream of Hogan Road	At Baymeadows Road	03080103	5.3		Y	AE	2009
Pottsburg Creek	Jacksonville, City of	At Baymeadows Road	Confluence with Julington Creek	03080103	1.6		N	A	*
Pottsburg Creek Tributary 2	Jacksonville, City of	Confluence with Pottsburg Creek	Approximately 2,040 feet upstream of Grove Park Boulevard	03080103	0.6		N	A	*
Pottsburg Creek Tributary 3	Jacksonville, City of	Confluence with Pottsburg Creek	Approximately 1,520 feet upstream of confluence with Pottsburg Creek	03080103	0.3		N	A	*
Pottsburg Creek Tributary 4	Jacksonville, City of	Confluence with Pottsburg Creek	Approximately 950 feet upstream of East Road	03080103	0.9		N	A	*
Pottsburg Creek Tributary 5	Jacksonville, City of	Confluence with Pottsburg Creek	Approximately 300 feet upstream of Spring Park Road	03080103	1.9		N	AE	2009
Pottsburg Creek Tributary 7	Jacksonville, City of	Confluence with Pottsburg Creek	Approximately 2,165 feet upstream of confluence with Pottsburg Creek	03080103	0.4		N	AE	2009
Pottsburg Creek Tributary 7	Jacksonville, City of	Approximately 2,165 feet upstream of confluence with Pottsburg Creek	Approximately 2,770 feet upstream of confluence with Pottsburg Creek	03080103	0.1		N	A	*
Puckett Creek	Jacksonville, City of	1,000 feet downstream of Wonderwood Drive	Approximately 950 feet upstream of Fairway Villas Drive	03080103	1.8		N	AE	2015

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Puckett Creek	Jacksonville, City of	Approximately 950 feet upstream of Fairway Villas Drive	Approximately 1,050 feet upstream of Fairway Villas Drive	03080103	0.02		N	AE	2009
Puckett Creek	Jacksonville, City of	Approximately 1,050 feet upstream of Fairway Villas Drive	Dutton Island Road	03080103	0.4		N	A	*
Red Bay Branch	Jacksonville, City of	Confluence with Strawberry Creek	Approximately 4,100 feet upstream of Lone Star Road	03080103	1.7		Y	AE	2009
Red Bay Branch Tributary 1	Jacksonville, City of	Confluence with Red Bay Branch	Approximately 100 feet upstream of Lone Star Road	03080103	0.4		N	AE	2009
Ribault River	Jacksonville, City of	From 3,000 feet downstream of Howell Drive	Approximately 2,300 feet upstream of Howell Drive	03080103	1.0		N	AE	2015
Ribault River	Jacksonville, City of	Approximately 2,300 feet upstream of Howell Drive	Confluence with Sixmile Creek and Little Sixmile Creek	03080103	1.8		N	AE	2009
Ribault River Tributary 2	Jacksonville, City of	Confluence with Ribault River	Approximately 1,175 feet upstream of New Kings Road	03080103	0.4		N	AE	2009
Ribault River Tributary 5	Jacksonville, City of	Confluence with Ribault River	Approximately 2,200 feet upstream of confluence with Ribault River	03080103	0.4		N	AE	2009
Ribault River Tributary 8	Jacksonville, City of	Confluence with Ribault River	Approximately 1,600 feet upstream of Clyde Drive	03080103	0.8		N	AE	2009
Ribault River Tributary 9	Jacksonville, City of	Confluence with Ribault River	Approximately 300 feet upstream of West Virginia Avenue	03080103	0.5		N	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Ribault River Tributary 9	Jacksonville, City of	Approximately 300 feet upstream of West Virginia Avenue	Approximately 880 feet upstream of New Kings Road	03080103	0.8		N	A	*
Rowell Creek	Jacksonville, City of	Confluence with Sal Taylor Creek	Approximately 650 feet upstream of Secluded Avenue	03080103	4.5		Y	AE	2009
Rowell Creek Tributary 1	Jacksonville, City of	Confluence with Rowell Creek	Confluence with Sal Taylor Creek	03080103	1.9		*	A	*
Rowell Creek Tributary 2	Jacksonville, City of	Confluence with Rowell Creek	Approximately 3,700 feet upstream of New World Avenue	03080103	1.9		N	AE	2009
Rushing Branch	Jacksonville, City of	Confluence with Dunn Creek	Approximately 2,500 feet upstream of Yellow Bluff Road	03080103	1.3		Y	AE	2015
Rushing Branch	Jacksonville, City of	Approximately 2,500 feet upstream of Yellow Bluff Road	Approximately 40 feet upstream of Cedar Point Road	03080103	0.9		Y	AE	2009
Rushing Branch Tributary 1	Jacksonville, City of	Confluence with Rushing Branch	At New Berlin Road	03080103	0.4		N	AE	2009
Sal Taylor Creek	Jacksonville, City of	Confluence with Yellow Water Creek	Approximately 3,900 feet upstream of confluence with Yellow Water Creek	03080103	0.7		N	A	*
Sal Taylor Creek	Jacksonville, City of	Approximately 3,900 feet upstream of confluence with Yellow Water Creek	Confluence with Rowell Creek Tributary 1 at Alcoy Road	03080103	7.2		Y	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Sal Taylor Creek Tributary 2	Jacksonville, City of	Confluence with Sal Taylor Creek	Approximately 1,500 feet upstream of confluence with Sal Taylor Creek Tributary 3	03080103	1.1		Y	AE	2009
Sal Taylor Creek Tributary 3	Jacksonville, City of	Confluence with Sal Taylor Creek Tributary 2	Approximately 3,400 feet upstream of confluence with Sal Taylor Creek Tributary 2	03080103	0.6		N	AE	2009
Sal Taylor Creek Tributary 4	Jacksonville, City of	Confluence with Sal Taylor Creek	Approximately 800 feet upstream of 103 <sup>rd</sup> Street	03080103	0.9		N	AE	2009
Sal Taylor Creek Tributary 5	Jacksonville, City of	Confluence with Sal Taylor Creek Tributary 4	Approximately 1,760 feet upstream of confluence with Sal Taylor Creek Tributary 4	03080103	0.3		N	A	*
Sandalwood Canal	Jacksonville, City of	Confluence with Hogpen Creek	Approximately 1,150 feet upstream of confluence with Hogpen Creek	03080103	0.2		N	AE	2015
Sandalwood Canal	Jacksonville, City of	Approximately 1,150 feet upstream of confluence with Hogpen Creek	Approximately 2.1 miles upstream of Kernan Boulevard	03080103	4.3		N	AE	2009
Sawmill Slough/ Buckhead Branch	Jacksonville, City of	Confluence with Pablo Creek	Approximately 400 feet upstream of confluence with Sawmill Slough/ Buckhead Branch Tributary 2	03080103	2.4		Y	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Sawmill Slough/ Buckhead Branch Tributary 1	Jacksonville, City of	Confluence with Sawmill Slough/ Buckhead Branch	Approximately 1,200 feet upstream of J. Turner Butler Boulevard	03080103	0.5		Y	AE	2009
Sawmill Slough/ Buckhead Branch Tributary 2	Jacksonville, City of	Confluence with Sawmill Slough/ Buckhead Branch	Approximately 530 feet upstream of confluence with Sawmill Slough/ Buckhead Branch	03080103	0.1		N	AE	2009
Sawmill Slough/ Buckhead Branch Tributary 3	Jacksonville, City of	Confluence with Sawmill Slough/ Buckhead Branch	Divergence from Sawmill Slough/ Buckhead Branch	03080103	1.0		N	AE	2009
Seaton Creek	Jacksonville, City of	Confluence with Thomas Creek	Confluence with Seaton Creek Tributary 2	03070205	3.1		Y	AE	2009
Seaton Creek	Jacksonville, City of	Confluence with Seaton Creek Tributary 2	At Pecan Park Road	03070205	0.7		N	A	*
Seaton Creek Tributary 1	Jacksonville, City of	Confluence with Seaton Creek	Approximately 2.1 miles upstream of Arnold Road	03070205	5.2		Y	AE	2009
Seaton Creek Tributary 2	Jacksonville, City of	Confluence with Seaton Creek	At Arnold Road	03070205	1.2		N	AE	2009
Seaton Creek Tributary 2	Jacksonville, City of	At Arnold Road	Approximately 1.0 mile upstream of Arnold Road	03070205	1.0		N	A	*
Second Puncheon Branch	Jacksonville, City of	Confluence with Pablo Creek	At Beach Boulevard	03080103	7.0		Y	AE	2009
Second Puncheon Branch Tributary 1	Jacksonville, City of	Confluence with Second Puncheon Branch	Approximately 300 feet upstream of Baymeadows Road	03080103	1.4		N	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Second Puncheon Branch Tributary 2	Jacksonville, City of	Confluence with Second Puncheon Branch Tributary 1	Approximately 860 feet upstream of confluence with Second Puncheon Branch Tributary 1	03080103	0.2		N	AE	2009
Second Puncheon Branch Tributary 3	Jacksonville, City of	Confluence with Second Puncheon Branch	Approximately 1.3 miles upstream of Baymeadows Road	03080103	2.6		N	AE	2009
Second Puncheon Branch Tributary 4	Jacksonville, City of	Confluence with Second Puncheon Branch	Approximately 2,000 feet upstream of confluence with Second Puncheon Branch	03080103	0.4		N	AE	2009
Second Puncheon Branch Tributary 5	Jacksonville, City of	Confluence with Second Puncheon Branch	At Gate Parkway	03080103	1.1		N	AE	2009
Second Puncheon Branch Tributary 6	Jacksonville, City of	Confluence with Second Puncheon Branch	Unnamed Road at a point approximately 1,440 feet upstream of confluence with Second Puncheon Branch	03080103	0.3		N	AE	2009
Sherman Creek	Atlantic Beach, City of; Jacksonville, City of	Approximately 1,000 feet downstream of Wonderwood Drive	At Seminole Road	03080103	3.0		Y	AE	2015
Sherman Creek	Atlantic Beach, City of; Jacksonville, City of	At Seminole Road	Approximately 100 feet upstream of Seminole Road	03080103	0.02		Y	AE	2009
Sherman Creek Canal	Atlantic Beach, City of; Jacksonville, City of	Confluence with Puckett Creek	Divergence from Sherman Creek	03080103	1.5		Y	AE	2015

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Silversmith Creek	Jacksonville, City of	Confluence with Pottsburg Creek	At Arlington Road South	03080103	1.3		Y	AE	2015
Silversmith Creek	Jacksonville, City of	At Arlington Road South	Approximately 2,250 feet upstream of Silversmith Creek Tributary 1	03080103	0.9		N	AE	2009
Silversmith Creek Tributary 1	Jacksonville, City of	Confluence with Silversmith Creek	Approximately 40 feet upstream of Century 21 Drive	03080103	0.3		N	AE	2009
Sixmile Creek	Jacksonville, City of	Confluence with Ribault River	Approximately 3,100 feet upstream of Commonwealth Avenue	03080103	7.8		N	AE	2009
Sixmile Creek Tributary 6	Jacksonville, City of	Confluence with Sixmile Creek	Approximately 3,000 feet upstream of railroad	03080103	1.2		N	AE	2009
Sixmile Creek Tributary 9	Jacksonville, City of	Confluence with Sixmile Creek	At Pritchard Road	03080103	0.6		N	AE	2009
St. Johns River	Jacksonville, City of	At mouth	County boundary	03080103	38.8		N	AE, VE	2015
St. Mary's River Tributary	Jacksonville, City of	Beaver Street	Approximately 3,700 feet upstream of Interstate-10	03070204	1.0		Y	AE	2009
Strawberry Creek	Jacksonville, City of	Confluence with Pottsburg Creek	Approximately 1,900 feet upstream of confluence with Pottsburg Creek	03080103	0.4		Y	AE	2015
Strawberry Creek	Jacksonville, City of	Approximately 1,900 feet upstream of confluence with Pottsburg Creek	Approximately 2.1 miles upstream of Mill Creek Road	03080103	3.8		Y	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Sweetwater Creek	Jacksonville, City of	Confluence with Julington Creek	Approximately 2,300 feet upstream of Vineyard Lake Road	03080103	4.1		Y	AE	2009
Sweetwater Creek	Jacksonville, City of	Approximately 2,300 feet upstream of Vineyard Lake Road	Approximately 3,215 feet upstream of Vineyard Lake Road	03080103	0.2		N	AO	*
Tacito Creek	Jacksonville, City of	Confluence with Saint Johns River	Approximately 2,000 feet upstream of Scott Mill Road	03080103	0.7		N	AE	2015
Tacito Creek	Jacksonville, City of	Approximately 2,000 feet upstream of Scott Mill Road	Approximately 3,000 feet upstream of Scott Mill Road	03080103	0.2		N	AE	2009
Thomas Creek	Jacksonville, City of	Confluence with Nassau River	Approximately 6.7 miles upstream of confluence with Nassau River	03070205	6.7		Y	AE	2015
Thomas Creek	Jacksonville, City of	Approximately 6.7 miles upstream of confluence with Nassau River	At Acree Road	03070205	18.6		Y	AE	*
Tiger Hole Swamp	Jacksonville, City of	Confluence with Pottsburg Creek	Approximately 1,650 feet upstream of J. Turner Butler Boulevard	03080103	1.2		Y	AE	2009
Tiger Pond Creek	Jacksonville, City of	Confluence with Mount Pleasant Creek	Approximately 575 feet upstream of confluence with Mount Pleasant Creek Tributary 3	03080103	0.6		Y	AE	2015

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Tiger Pond Creek	Jacksonville, City of	Approximately 575 feet upstream of confluence with Mount Pleasant Creek Tributary 3	Approximately 1,600 feet upstream of McCormick Road	03080103	0.9		Y	AE	2009
Tiger Pond Creek Tributary 1	Jacksonville, City of	Confluence with Tiger Pond Creek	Approximately 620 feet upstream of confluence with Tiger Pond Creek	03080103	0.1		N	AE	2009
Tributary to Little Sixmile Creek Tributary 1	Jacksonville, City of	Confluence with Little Sixmile Creek Tributary 1	At Edgewood Avenue	03080103	0.4		N	AE	2009
Tributary 1 to Miramar Tributary	Jacksonville, City of	Confluence with Miramar Tributary	Approximately 1,025 feet upstream of Greenridge Road	03080103	0.3		N	AE	2009
Tributary to Ortega River Tributary 1	Jacksonville, City of	Confluence with Ortega River Tributary 1	At Ortega Park Boulevard	03080103	0.4		N	AE	2015
Tributary to Ortega River Tributary 1	Jacksonville, City of	At Ortega Park Boulevard	Approximately 1,800 feet upstream of Ortega Park Boulevard	03080103	0.3		N	AE	2009
Tributary to Ribault River Tributary 9	Jacksonville, City of	Confluence with Ribault River Tributary 9	At Moncrief Road W 9	03080103	0.4		N	A	*
Trout River	Jacksonville, City of	From 1,000 feet downstream of New Kings Road	At Old Kings Road	03080103	1.0		Y	AE	2015
Trout River	Jacksonville, City of	At Old Kings Road	Approximately 40 feet upstream of Cisco Gardens Road	03080103	7.9		Y	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Trout River	Jacksonville, City of	Approximately 40 feet upstream of Cisco Gardens Road	Approximately 1,790 feet upstream of Cisco Gardens Road	03080103	0.3		N	A	*
Trout River Tributary 2	Jacksonville, City of	Confluence with Trout River	Approximately 1,200 feet upstream of Jones Road	03080103	3.5		N	AE	2009
Trout River Tributary 3	Jacksonville, City of	Confluence with Trout River	Approximately 100 feet upstream of Norfolk Southern Railway	03080103	0.9		N	AE	2009
Trout River Tributary 7	Jacksonville, City of	Confluence with Trout River Tributary 2	Approximately 2,750 feet upstream of confluence with Trout River Tributary 2	03080103	0.5		N	AE	2009
Trout River Tributary 8	Jacksonville, City of	Confluence with Trout River	Approximately 4,300 feet upstream of confluence with Trout River	03080103	0.8		N	AE	2009
Unnamed Ditch to Open Creek	Jacksonville, City of	Confluence with Open Creek	Approximately 1,965 feet upstream of confluence with Open Creek	03080103	0.4		N	AE	2009
Unnamed Tributary to Pottsburg Creek	Jacksonville, City of	Approximately 620 feet upstream of confluence with Pottsburg Creek	Approximately 2,800 feet upstream of confluence with Pottsburg Creek	03080103	0.4		N	AE	2009
West Branch	Jacksonville, City of	Confluence with Trout River	Approximately 2,750 feet upstream of Capper Road	03080103	1.4		N	AE	2015

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
West Branch	Jacksonville, City of	Approximately 2,750 feet upstream of Capper Road	Approximately 1,200 feet upstream of Dunn Avenue	03080103	0.7		N	AE	2009
West Branch Tributary 1	Jacksonville, City of	Confluence with West Branch	Approximately 500 feet upstream of North Campus Boulevard	03080103	2.1		N	AE	2009
West Branch Tributary 2	Jacksonville, City of	Confluence with West Branch	Approximately 60 feet upstream of Dunn Avenue	03080103	0.1		N	AE	2009
West Branch Tributary 2	Jacksonville, City of	Approximately 60 feet upstream of Dunn Avenue	Approximately 950 feet upstream of Dunne Avenue	03080103	0.2		N	A	*
Wetland 2	Jacksonville, City of	Confluence with Wetland 3	Approximately 2,800 feet upstream of confluence with Wetland 3	03070205	0.5		N	AE	*
Wetland 3	Jacksonville, City of	Confluence with Wetland 2	Approximately 2,800 feet upstream of confluence with Wetland 2	03070205	0.5		N	AE	*
Williamson Creek	Jacksonville, City of	Confluence with Cedar River	At Jammes Road	03080103	0.7		N	AE	2015
Williamson Creek	Jacksonville, City of	At Jammes Road	Approximately 50 feet upstream of Wilson Boulevard	03080103	0.4		N	AE	2009
Williamson Creek Tributary 3	Jacksonville, City of	Confluence with Williamson Creek	Approximately 50 feet upstream of Wilson Boulevard	03080103	0.4		N	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Williamson Creek Tributary 4	Jacksonville, City of	Confluence with Williamson Creek	Approximately 1,440 feet upstream of confluence with Williamson Creek	03080103	0.3		N	AE	2009
Wills Branch	Jacksonville, City of	Confluence with Cedar River	Approximately 1,200 feet upstream of confluence with Cedar River	03080103	0.2		N	AE	2015
Wills Branch	Jacksonville, City of	Approximately 1,200 feet upstream of confluence with Cedar River	Approximately 400 feet upstream of Ramona Boulevard	03080103	4.1		N	AE	2009
Wills Branch Tributary 1	Jacksonville, City of	Confluence with Wills Branch	Approximately 50 feet upstream of Frank H Peterson Academy Road	03080103	2.5		N	AE	2009
Wills Branch Tributary 1	Jacksonville, City of	Approximately 50 feet upstream of Frank H Peterson Academy Road	Approximately 775 feet upstream of Frank H Peterson Academy Road	03080103	0.7		N	A	*
Wills Branch Tributary 2	Jacksonville, City of	Confluence with Wills Branch Tributary 1	Approximately 1,625 feet upstream of Fouraker Road	03080103	0.7		N	AE	2009
Wills Branch Tributary 3	Jacksonville, City of	Confluence with Wills Branch	Approximately 100 feet upstream of I-10 Expressway	03080103	3.6		N	AE	2009
Wills Branch Tributary 4	Jacksonville, City of	Confluence with Wills Branch Tributary 3	Approximately 1,600 feet upstream of Herlong Road	03080103	1.1		N	AE	2009

**Table 2: Flooding Sources Included in this FIS Report, continued**

Flooding Source	Community	Downstream Limit	Upstream Limit	HUC-8 Sub-Basin(s)	Length (mi) (streams or coastlines)	Area (mi <sup>2</sup> ) (estuaries or ponding)	Floodway (Y/N)	Zone shown on FIRM	Date of Analysis
Wills Branch Tributary 5	Jacksonville, City of	Confluence with Wills Branch Tributary 1	Approximately 1,550 feet upstream of Hyde Grove Avenue	03080103	0.4		N	AE	2009
Wills Branch Tributary 6	Jacksonville, City of	Confluence with Wills Branch Tributary 1	Approximately 60 feet upstream of Spring Branch Drive	03080103	0.5		N	AE	2009
Yellow Water Creek	Jacksonville, City of	Saint Johns/Duval County boundary	Approximately 2,620 feet upstream of confluence with Caldwell Branch	03080103	4.4		N	A	*
Yellow Water Creek Tributary 1	Jacksonville, City of	Approximately 100 feet downstream of Bicentennial Drive	Approximately 5,200 feet upstream of Bicentennial Drive	03080103	1.0		Y	AE	2009

\*Data not available

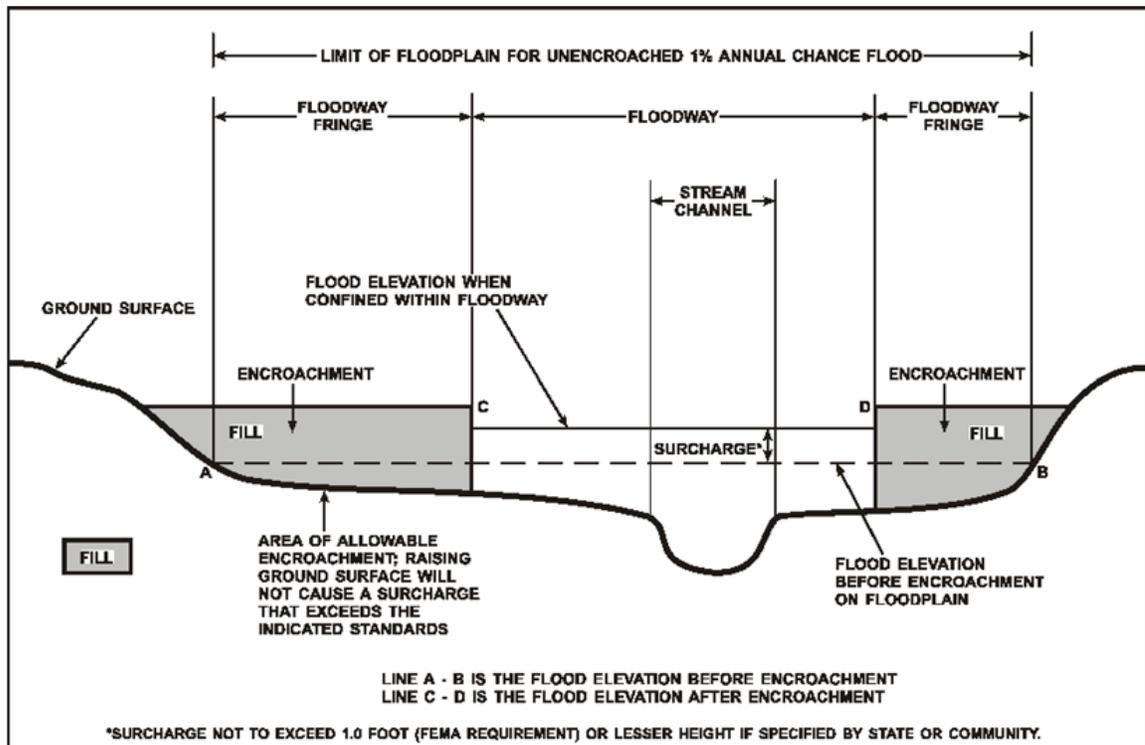
## 2.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces flood-carrying capacity, increases flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard.

For purposes of the NFIP, a floodway is used as a tool to assist local communities in balancing floodplain development against increasing flood hazard. With this approach, the area of the 1% annual chance floodplain on a river is divided into a floodway and a floodway fringe based on hydraulic modeling. The floodway is the channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment in order to carry the 1% annual chance flood. The floodway fringe is the area between the floodway and the 1% annual chance floodplain boundaries where encroachment is permitted. The floodway must be wide enough so that the floodway fringe could be completely obstructed without increasing the water surface elevation of the 1% annual chance flood more than 1 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 4.

To participate in the NFIP, Federal regulations require communities to limit increases caused by encroachment to 1.0 foot, provided that hazardous velocities are not produced. The floodways in this project are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway projects.

**Figure 4: Floodway Schematic**



Floodway widths presented in this FIS Report and on the FIRM were computed at cross sections. Between cross sections, the floodway boundaries were interpolated. For certain stream segments, floodways were adjusted so that the amount of floodwaters conveyed on each side of the floodplain would be reduced equally. The results of the floodway computations have been tabulated for selected cross sections and are shown in Table 24, "Floodway Data."

All floodways that were developed for this Flood Risk Project are shown on the FIRM using the symbology described in Figure 3. In cases where the floodway and 1% annual chance floodplain boundaries are either close together or collinear, only the floodway boundary has been shown on the FIRM. For information about the delineation of floodways on the FIRM, refer to Section 6.3.

## **2.3 Base Flood Elevations**

The hydraulic characteristics of flooding sources were analyzed to provide estimates of the elevations of floods of the selected recurrence intervals. The Base Flood Elevation (BFE) is the elevation of the 1% annual chance flood. These BFEs are most commonly rounded to the whole foot, as shown on the FIRM, but in certain circumstances or locations they may be rounded to 0.1 foot. Cross section lines shown on the FIRM may also be labeled with the BFE rounded to 0.1 foot. Whole-foot BFEs derived from engineering analyses that apply to coastal areas, areas of ponding, or other static areas with little elevation change may also be shown at selected intervals on the FIRM.

Cross sections with BFEs shown on the FIRM correspond to the cross sections shown in the Floodway Data table and Flood Profiles in this FIS Report. BFEs are primarily intended for flood insurance rating purposes. For construction and/or floodplain management purposes, users are cautioned to use the flood elevation data presented in this FIS Report in conjunction with the data shown on the FIRM.

## **2.4 Non-Encroachment Zones**

This section is not applicable to this Flood Risk Project.

## **2.5 Coastal Flood Hazard Areas**

For most areas along rivers, streams, and small lakes, BFEs and floodplain boundaries are based on the amount of water expected to enter the area during a 1% annual chance flood and the geometry of the floodplain. Floods in these areas are typically caused by storm events. However, for areas on or near ocean coasts, large rivers, or large bodies of water, BFE and floodplain boundaries may need to be based on additional components, including storm surges and waves. Communities on or near ocean coasts face flood hazards caused by offshore seismic events as well as storm events.

Coastal flooding sources that are included in this Flood Risk Project are shown in Table 2.

### **2.5.1 Water Elevations and the Effects of Waves**

Specific terminology is used in coastal analyses to indicate which components have been included in evaluating flood hazards.

The stillwater elevation (SWEL or still water level) is the surface of the water resulting from astronomical tides, storm surge, and freshwater inputs, but excluding wave setup contribution or the effects of waves.

- *Astronomical tides* are periodic rises and falls in large bodies of water caused by the rotation of the earth and by the gravitational forces exerted by the earth, moon and sun.
- *Storm surge* is the additional water depth that occurs during large storm events. These events can bring air pressure changes and strong winds that force water up against the shore.
- *Freshwater inputs* include rainfall that falls directly on the body of water, runoff from surfaces and overland flow, and inputs from rivers.

The 1% annual chance stillwater elevation is the stillwater elevation that has been calculated for a storm surge from a 1% annual chance storm. The 1% annual chance storm surge can be determined from analyses of tidal gage records, statistical study of regional historical storms, or other modeling approaches. Stillwater elevations for storms of other frequencies can be developed using similar approaches.

The total stillwater elevation (also referred to as the mean water level) is the stillwater elevation plus wave setup contribution but excluding the effects of waves.

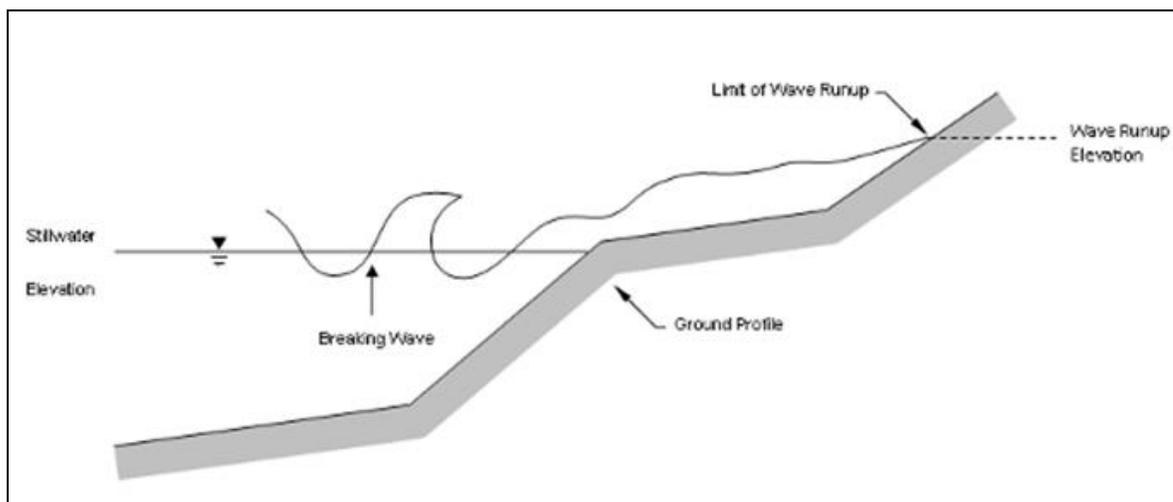
- *Wave setup* is the increase in stillwater elevation at the shoreline caused by the reduction of waves in shallow water. It occurs as breaking wave momentum is transferred to the water column.

Like the stillwater elevation, the total stillwater elevation is based on a storm of a particular frequency, such as the 1% annual chance storm. Wave setup is typically estimated using standard engineering practices or calculated using models, since tidal gages are often sited in areas sheltered from wave action and do not capture this information.

Coastal analyses may examine the effects of overland waves by analyzing storm-induced erosion, overland wave propagation, wave runup, and/or wave overtopping.

- *Storm-induced erosion* is the modification of existing topography by erosion caused by a specific storm event, as opposed to general erosion that occurs at a more constant rate.
- *Overland wave propagation* describes the combined effects of variation in ground elevation, vegetation, and physical features on wave characteristics as waves move onshore.
- *Wave runup* is the uprush of water from wave action on a shore barrier. It is a function of the roughness and geometry of the shoreline at the point where the stillwater elevation intersects the land.
- *Wave overtopping* refers to wave runup that occurs when waves pass over the crest of a barrier.

**Figure 5: Wave Runup Transect Schematic**



## 2.5.2 Floodplain Boundaries and BFEs for Coastal Areas

For coastal communities along the Atlantic and Pacific Oceans, the Gulf of Mexico, the Great Lakes, and the Caribbean Sea, flood hazards must take into account how storm surges, waves, and extreme tides interact with factors such as topography and vegetation. Storm surge and waves must also be considered in assessing flood risk for certain communities on rivers or large inland bodies of water.

Beyond areas that are affected by waves and tides, coastal communities can also have riverine floodplains with designated floodways, as described in previous sections.

### Floodplain Boundaries

In many coastal areas, storm surge is the principle component of flooding. The extent of the 1% annual chance floodplain in these areas is derived from the total stillwater elevation (stillwater elevation including storm surge plus wave setup) for the 1% annual chance storm. The methods that were used for calculation of total stillwater elevations for coastal areas are described in Section 5.3 of this FIS Report. Location of total stillwater elevations for coastal areas are shown in Figure 8, “1% Annual Chance Total Stillwater Levels for Coastal Areas.”

In some areas, the 1% annual chance floodplain is determined based on the limit of wave runup or wave overtopping for the 1% annual chance storm surge. The methods that were used for calculation of wave hazards are described in Section 5.3 of this FIS Report.

Table 26 presents the types of coastal analyses that were used in mapping the 1% annual chance floodplain in coastal areas.

### Coastal BFEs

Coastal BFEs are calculated as the total stillwater elevation (stillwater elevation including storm surge plus wave setup) for the 1% annual chance storm plus the additional flood hazard from overland wave effects (storm-induced erosion, overland wave propagation, wave runup and wave overtopping).

Where they apply, coastal BFEs are calculated along transects extending from offshore to the limit of coastal flooding onshore. Results of these analyses are accurate until local topography, vegetation, or development type and density within the community undergoes major changes.

Parameters that were included in calculating coastal BFEs for each transect included in this FIS Report are presented in Table 17, “Coastal Transect Parameters.” The locations of transects are shown in Figure 9, “Transect Location Map.” More detailed information about the methods used in coastal analyses and the results of intermediate steps in the coastal analyses are presented in Section 5.3 of this FIS Report. Additional information on specific mapping methods is provided in Section 6.4 of this FIS Report.

### **2.5.3 Coastal High Hazard Areas**

Certain areas along the open coast and other areas may have higher risk of experiencing structural damage caused by wave action and/or high-velocity water during the 1% annual chance flood. These areas will be identified on the FIRM as Coastal High Hazard Areas.

- *Coastal High Hazard Area (CHHA)* is a SFHA extending from offshore to the inland limit of the primary frontal dune (PFD) or any other area subject to damages caused by wave action and/or high-velocity water during the 1% annual chance flood.
- *Primary Frontal Dune (PFD)* is a continuous or nearly continuous mound or ridge of sand with relatively steep slopes immediately landward and adjacent to the beach. The PFD is subject to erosion and overtopping from high tides and waves during major coastal storms.

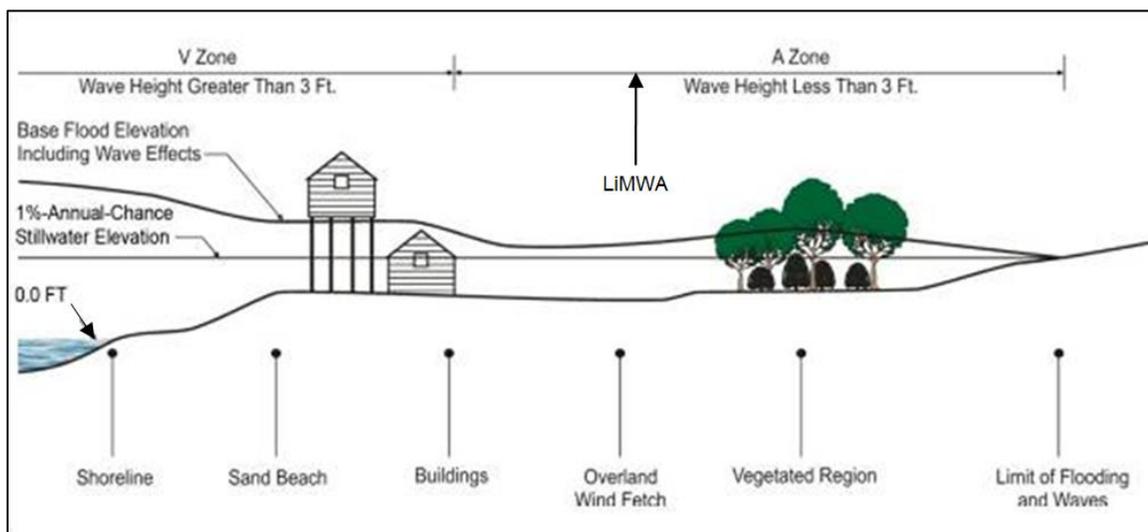
CHHAs are designated as “V” zones (for “velocity wave zones”) and are subject to more stringent regulatory requirements and a different flood insurance rate structure. The areas of greatest risk are shown as VE on the FIRM. Zone VE is further subdivided into elevation zones and shown with BFEs on the FIRM.

The landward limit of the PFD occurs at a point where there is a distinct change from a relatively steep slope to a relatively mild slope; this point represents the landward extension of Zone VE. Areas of lower risk in the CHHA are designated with Zone V on the FIRM. More detailed information about the identification and designation of Zone VE is presented in Section 6.4 of this FIS Report.

Areas that are not within the CHHA but are SFHAs may still be impacted by coastal flooding and damaging waves; these areas are shown as “A” zones on the FIRM.

Figure 6, “Coastal Transect Schematic,” illustrates the relationship between the base flood elevation, the 1% annual chance stillwater elevation, and the ground profile as well as the location of the Zone VE and Zone AE areas in an area without a PFD subject to overland wave propagation. This figure also illustrates energy dissipation and regeneration of a wave as it moves inland.

**Figure 6: Coastal Transect Schematic**



Methods used in coastal analyses in this Flood Risk Project are presented in Section 5.3 and mapping methods are provided in Section 6.4 of this FIS Report.

Coastal floodplains are shown on the FIRM using the symbology described in Figure 3, “Map Legend for FIRM.” In many cases, the BFE on the FIRM is higher than the stillwater elevations shown in Table 17 due to the presence of wave effects. The higher elevation should be used for construction and/or floodplain management purposes.

#### **2.5.4 Limit of Moderate Wave Action**

Laboratory tests and field investigations have shown that wave heights as little as 1.5 feet can cause damage to and failure of typical Zone AE building construction. Wood-frame, light gage steel, or masonry walls on shallow footings or slabs are subject to damage when exposed to waves less than 3 feet in height. Other flood hazards associated with coastal waves (floating debris, high velocity flow, erosion, and scour) can also damage Zone AE construction.

Therefore, a LiMWA boundary may be shown on the FIRM as an informational layer to assist coastal communities in safe rebuilding practices. The LiMWA represents the approximate landward limit of the 1.5-foot breaking wave. The location of the LiMWA relative to Zone VE and Zone AE is shown in Figure 6.

The effects of wave hazards in Zone AE between Zone VE (or the shoreline where Zone VE is not identified) and the limit of the LiMWA boundary are similar to, but less severe than, those in Zone VE where 3-foot or greater breaking waves are projected to occur during the 1% annual chance flooding event. Communities are therefore encouraged to adopt and enforce more stringent floodplain management requirements than the minimum NFIP requirements in the LiMWA. The NFIP Community Rating System provides credits for these actions.

Where wave runup elevations dominate over wave heights, there is no evidence to date of significant damage to residential structures by runup depths less than 3 feet. Examples of these areas include areas with steeply sloped beaches, bluffs, or flood protection structures that lie parallel to the shore. In these areas, the FIRM shows the LiMWA immediately landward of the

VE/AE boundary. Similarly, in areas where the zone VE designation is based on the presence of a primary frontal dune or wave overtopping, the LiMWA is delineated immediately landward of the Zone VE/AE boundary.

## SECTION 3.0 – INSURANCE APPLICATIONS

### 3.1 National Flood Insurance Program Insurance Zones

For flood insurance applications, the FIRM designates flood insurance rate zones as described in Figure 3, “Map Legend for FIRM.” Flood insurance zone designations are assigned to flooding sources based on the results of the hydraulic or coastal analyses. Insurance agents use the zones shown on the FIRM and depths and base flood elevations in this FIS Report in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

The 1% annual chance floodplain boundary corresponds to the boundary of the areas of special flood hazards (e.g. Zones A, AE, V, VE, etc.), and the 0.2% annual chance floodplain boundary corresponds to the boundary of areas of additional flood hazards.

Table 3 lists the flood insurance zones in Duval County.

**Table 3: Flood Zone Designations by Community**

Community	Flood Zone(s)
Atlantic Beach, City of	A, AE, VE, X
Baldwin, Town of <sup>1</sup>	X
Jacksonville, City of	A, AE, AH, AO, VE, X
Jacksonville Beach, City of	A, AE, AO, VE, X
Neptune Beach, City of	AE, AO, VE, X

<sup>1</sup>No Special Flood Hazard Areas Identified

### 3.2 Coastal Barrier Resources System

The Coastal Barrier Resources Act (CBRA) of 1982 was established by Congress to create areas along the Atlantic and Gulf coasts and the Great Lakes, where restrictions for Federal financial assistance including flood insurance are prohibited. In 1990, Congress passed the Coastal Barrier Improvement Act (CBIA), which increased the extent of areas established by the CBRA and added “Otherwise Protected Areas” (OPA) to the system. These areas are collectively referred to as the John. H Chafee Coastal Barrier Resources System (CBRS). The CBRS boundaries that have been identified in the project area are in Table 4, “Coastal Barrier Resource System Information.”

**Table 4: Coastal Barrier Resources System Information**

Primary Flooding Source	CBRS/OPA Type	Date CBRS Area Established	FIRM Panel Number(s)
Atlantic Ocean	CBRS	10/1/1983	12031C0090J 12031C0100J 12031C0230J 12031C0231J 12031C0233J 12031C0235J <sup>1</sup>
Atlantic Ocean	CBRS	10/1/1983	12031C0241J 12031C0242J 12031C0243J 12031C0244J 12031C0275J <sup>1</sup>
Atlantic Ocean	OPA	11/16/1991	12031C0230J 12031C0231J 12031C0233J 12031C0235J <sup>1</sup> 12031C0241J 12031C0242J 12031C0244J 12031C0275J <sup>1</sup>

<sup>1</sup>Panel Not Printed

## SECTION 4.0 – AREA STUDIED

### 4.1 Basin Description

Table 5 contains a description of the characteristics of the HUC-8 sub-basins within which each community falls. The table includes the main flooding sources within each basin, a brief description of the basin, and its drainage area.

**Table 5: Basin Characteristics**

HUC-8 Sub-Basin Name	HUC-8 Sub-Basin Number	Primary Flooding Source	Description of Affected Area	Drainage Area (square miles)
St. Mary's	03070204	*	*	56
Nassau	03070205	Nassau River	*	116
Lower St. Johns	03080103	St. Johns River	*	676
Daytona-St. Augustine	03080201	*	*	0.5

\*Data not available

## 4.2 Principal Flood Problems

Table 6 contains a description of the principal flood problems that have been noted for Duval County by flooding source.

**Table 6: Principal Flood Problems**

Flooding Source	Description of Flood Problems
All Sources within Duval County	Flooding in Duval County results from two major sources: rainfall runoff causing overflow of streams, ponding and sheet flow; and hurricane storm surge causing extreme water levels in coastal and tidal regions. Wave action that accompanies nor'easters can also cause flooding and serious erosion, although extreme 1-percent-annual-chance flooding levels are not to be expected from such storms. Heavy rainfall can occur with hurricanes, tropical storms, nor'easters, or localized thunderstorms. Because of flat terrain, many inland areas experience shallow flooding and ponding after heavy rainfall.

Table 7 contains information about historic flood elevations in the communities within Duval County.

**Table 7: Historic Flooding Elevations**

Flooding Source	Location	Historic Peak (Feet NAVD88)	Event Date	Approximate Recurrence Interval (years)	Source of Data
Atlantic Ocean	Northeast Florida coastline	4.7	2004	*	NOAA Tide Records, 8720211
Atlantic Ocean	Northeast Florida coastline	4.4	2004	*	NOAA Tide Records, 8720218
Atlantic Ocean	Northeast Florida coastline	4.1	2004	*	NOAA Tide Records, 8720226
Atlantic Ocean	Northeast Florida coastline	3.8	2001	*	NOAA Tide Records, 8720219
Atlantic Ocean	Northeast Florida coastline	3.8	2004	*	NOAA Tide Records, 8720357

\*Data not available

## 4.3 Non-Levee Flood Protection Measures

Table 8 contains information about non-levee flood protection measures within Duval County such as dams, jetties, and or dikes. Levees are addressed in Section 4.4 of this FIS Report.

**Table 8: Non-Levee Flood Protection Measures**

Flooding Source	Structure Name	Type of Measure	Location	Description of Measure
Atlantic Ocean	N/A	Seawall	Atlantic Beach, Jacksonville Beach and Neptune Beach, along the coast of the Atlantic Ocean	Sections where the seawall is concrete were designed to withstand the 1-percent-annual-chance event. Timber sections of the seawall are susceptible to failure during the 1-percent-annual-chance event.

**4.4 Levees**

This section is not applicable to this Flood Risk Project.

**Table 9: Levees**

**[Not Applicable to this Flood Risk Project]**