

US Army Corps of Engineers
Wilmington District

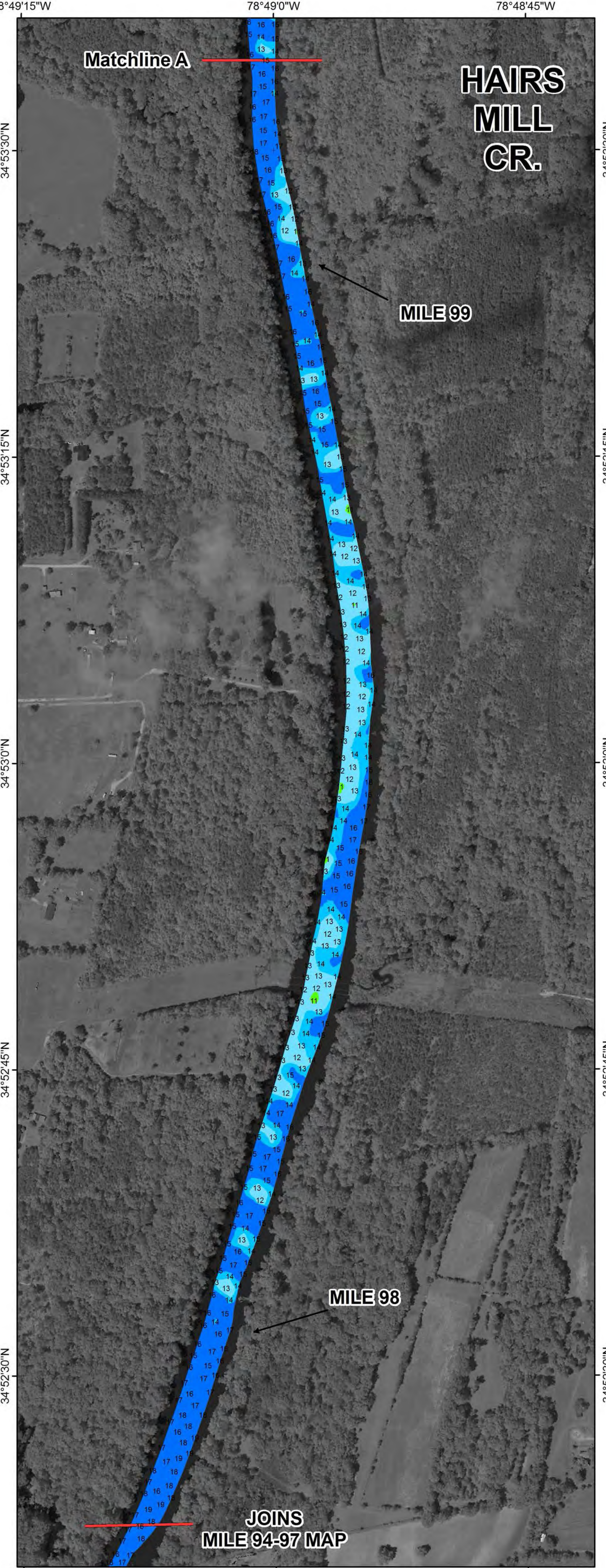
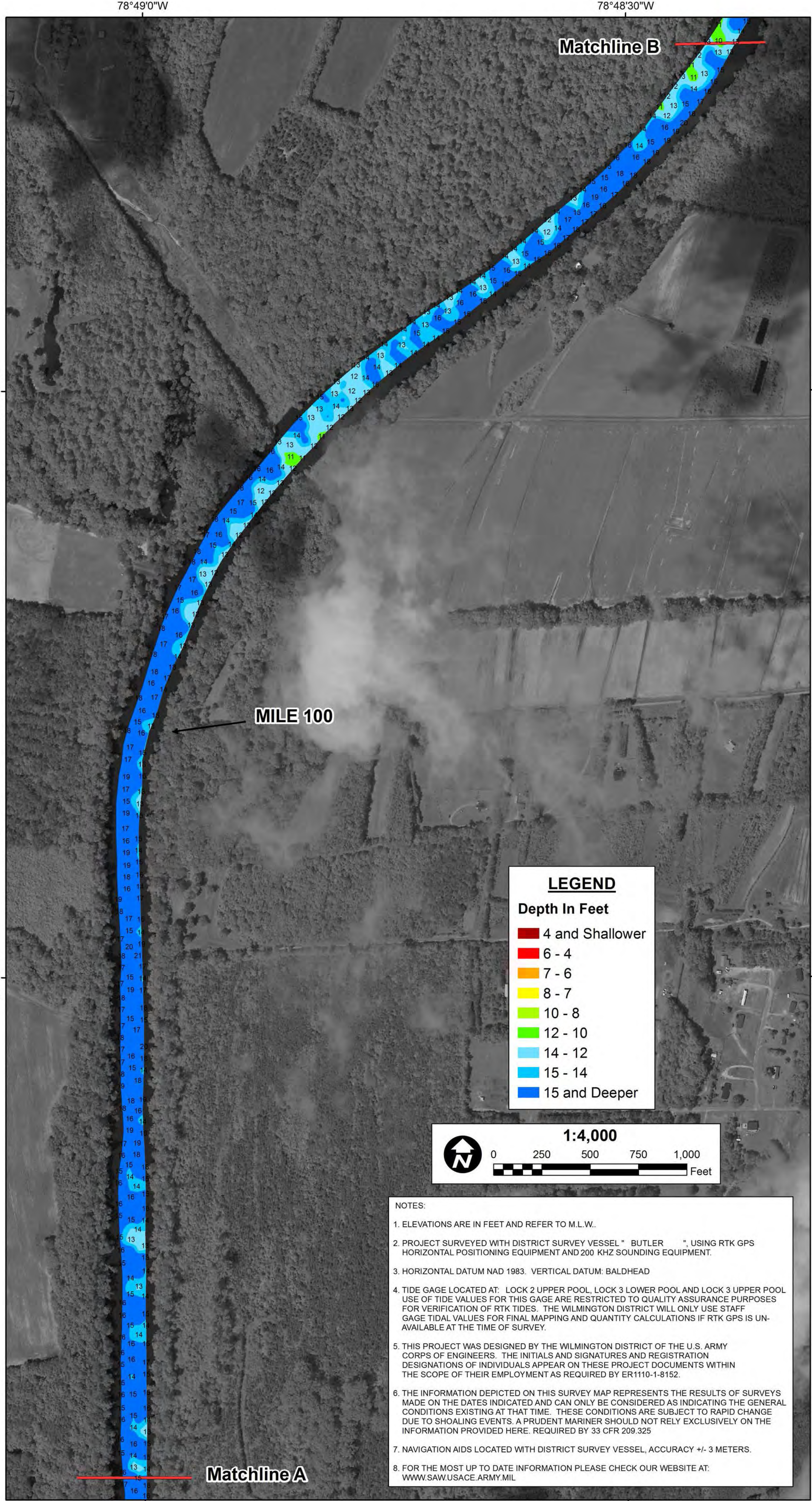
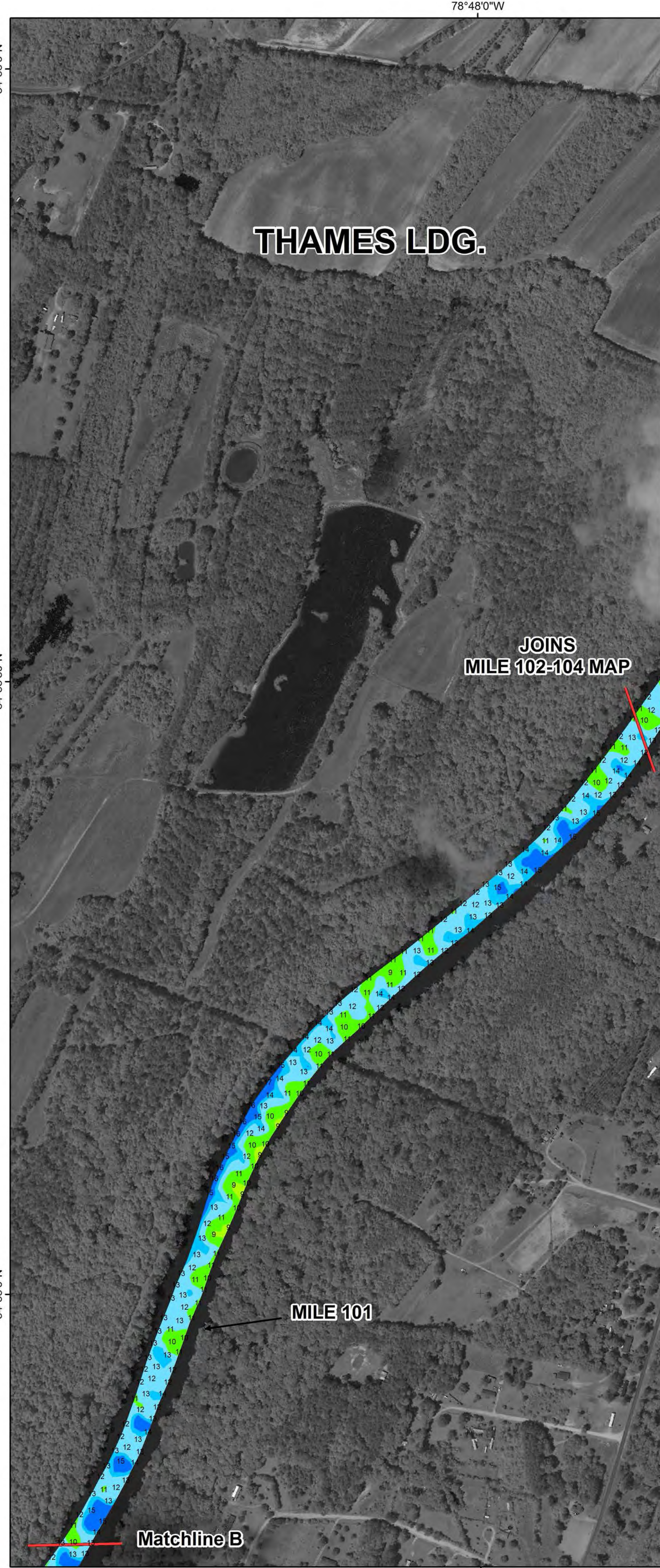


SURVEY DATE: 30 AUGUST; 13-15 SEPTEMBER 2016	SURVEYED BY: LMT, SRV
MAP DATE: 05 OCTOBER 2016	MAPPED: K7OPNDJM
MAP SCALE: 1:4,000	
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HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
WILMINGTON, NORTH CAROLINA

**Cape Fear Above
Mile 94-97**

CAPE FEAR RIVER, NORTH CAROLINA



US Army Corps of Engineers
Wilmington District



SURVEY DATE: 30 AUGUST; 13-15 SEPTEMBER 2016	SURVEYED BY: LMT, SRV
MAP DATE: 07 OCTOBER 2016	MAPPED: K7OPNDJM
MAP SCALE: 1:4,000	
IMAGERY DATE: 02 JUNE 2016	
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MAP FILE NAME: CFA_MILE98-101_2016-08-30_09-13-14-15.MXD	

HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
WILMINGTON, NORTH CAROLINA

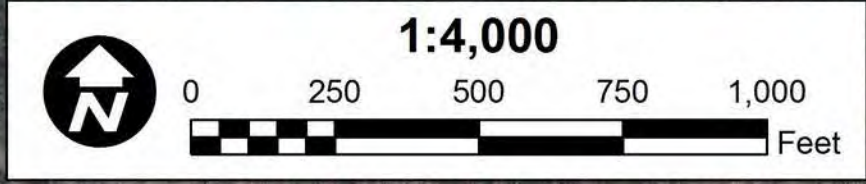
**Cape Fear Above
Mile 98-101**
CAPE FEAR RIVER, NORTH CAROLINA

78°47'45"W 78°47'30"W 78°47'15"W 78°47'0"W 78°46'45"W 78°46'30"W 78°46'15"W 78°46'0"W 78°45'45"W

LEGEND

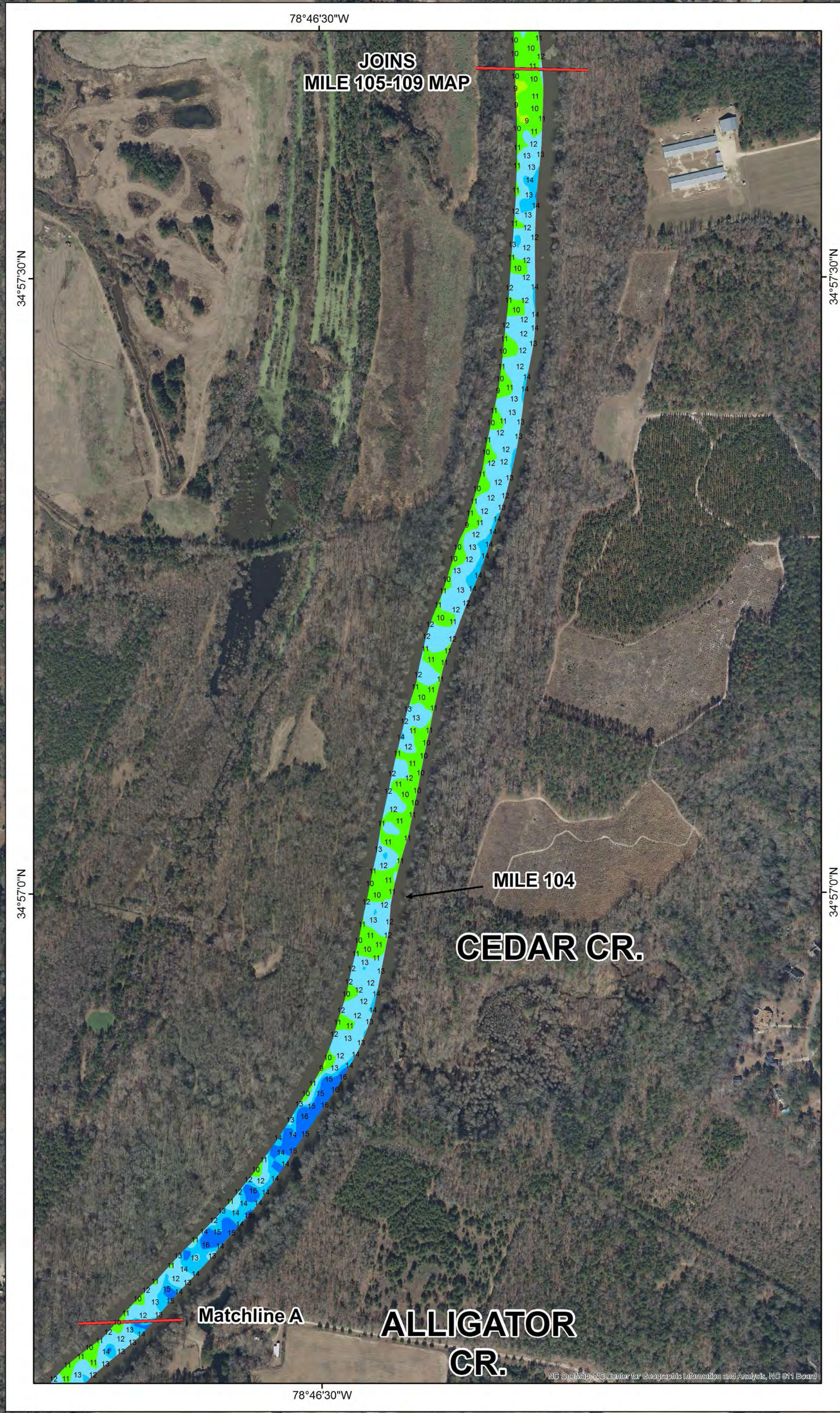
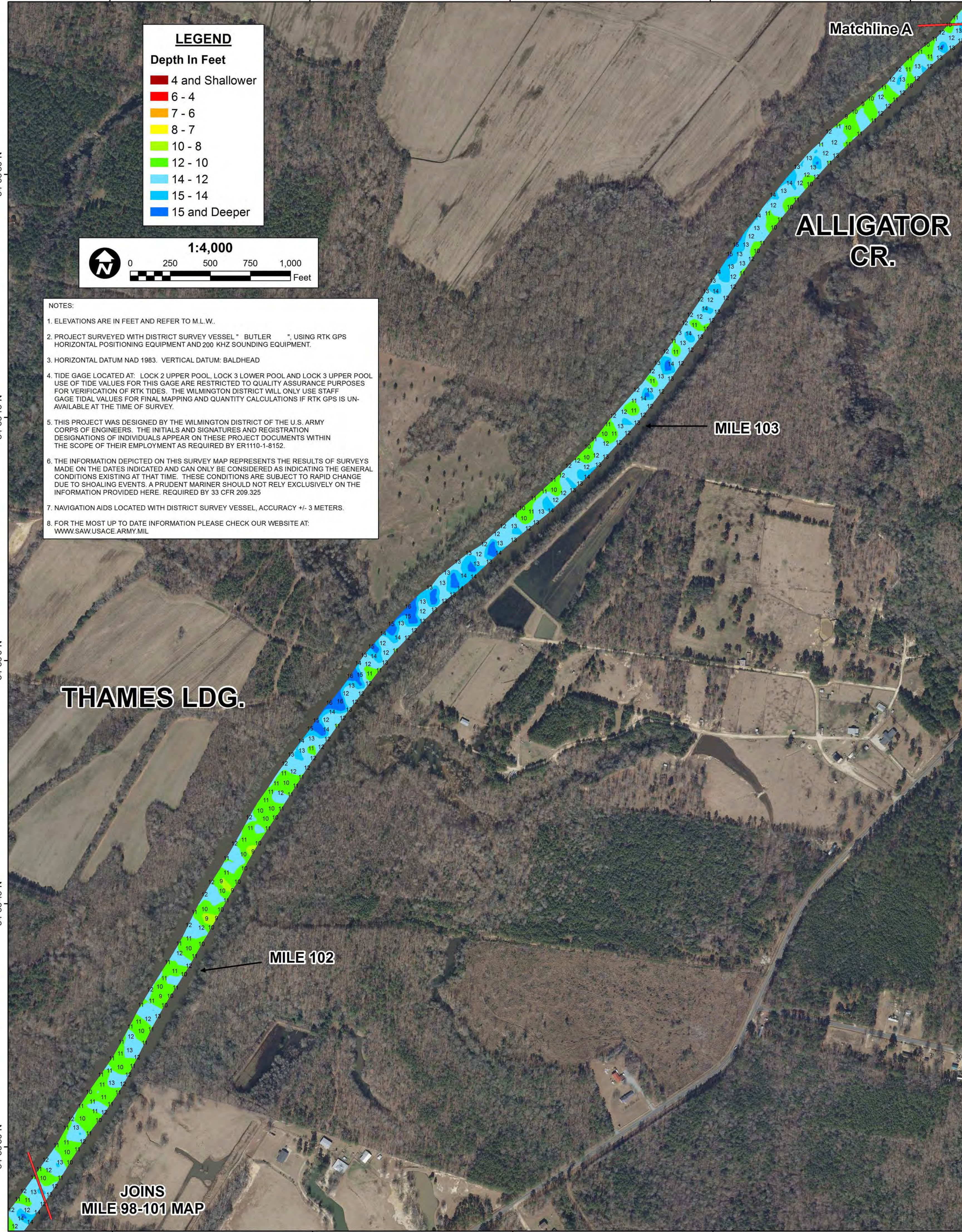
Depth In Feet

- 4 and Shallower
- 6 - 4
- 7 - 6
- 8 - 7
- 10 - 8
- 12 - 10
- 14 - 12
- 15 - 14
- 15 and Deeper



NOTES:

- ELEVATIONS ARE IN FEET AND REFER TO M.L.W.
- PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL " BUTLER " USING RTK GPS HORIZONTAL POSITIONING EQUIPMENT AND 200 KHZ SOUNDING EQUIPMENT.
- HORIZONTAL DATUM NAD 1983. VERTICAL DATUM: BALDHEAD
- TIDE GAGE LOCATED AT: LOCK 2 UPPER POOL, LOCK 3 LOWER POOL AND LOCK 3 UPPER POOL. USE OF TIDE VALUES FOR THIS GAGE ARE RESTRICTED TO QUALITY ASSURANCE PURPOSES FOR VERIFICATION OF RTK TIDES. THE WILMINGTON DISTRICT WILL ONLY USE STAFF GAGE TIDAL VALUES FOR FINAL MAPPING AND QUANTITY CALCULATIONS IF RTK GPS IS UNAVAILABLE AT THE TIME OF SURVEY.
- THIS PROJECT WAS DESIGNED BY THE WILMINGTON DISTRICT OF THE U.S. ARMY CORPS OF ENGINEERS. THE INITIALS AND SIGNATURES AND REGISTRATION DESIGNATIONS OF INDIVIDUALS APPEAR ON THESE PROJECT DOCUMENTS WITHIN THE SCOPE OF THEIR EMPLOYMENT AS REQUIRED BY ER1110-1-8152.
- THE INFORMATION DEPICTED ON THIS SURVEY MAP REPRESENTS THE RESULTS OF SURVEYS MADE ON THE DATES INDICATED AND CAN ONLY BE CONSIDERED AS INDICATING THE GENERAL CONDITIONS EXISTING AT THAT TIME. THESE CONDITIONS ARE SUBJECT TO RAPID CHANGE DUE TO SHOALING EVENTS. A PRUDENT MARINER SHOULD NOT RELY EXCLUSIVELY ON THE INFORMATION PROVIDED HERE. REQUIRED BY 33 CFR 209.325
- NAVIGATION AIDS LOCATED WITH DISTRICT SURVEY VESSEL, ACCURACY +/- 3 METERS.
- FOR THE MOST UP TO DATE INFORMATION PLEASE CHECK OUR WEBSITE AT: WWW.SAW.USACE.ARMY.MIL



US Army Corps of Engineers
Wilmington District



SURVEY DATE: 30 AUGUST; 13-15 SEPTEMBER 2016	SURVEYED BY: LMT, SRV
MAP DATE: 11 OCTOBER 2016	MAPPED: K7OPNDJM
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HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
WILMINGTON, NORTH CAROLINA

**Cape Fear Above
Mile 102-104**
CAPE FEAR RIVER, NORTH CAROLINA

78°47'45"W 78°47'30"W 78°47'15"W 78°47'0"W 78°46'45"W 78°46'30"W 78°46'15"W 78°46'0"W 78°45'45"W



**US Army Corps of Engineers
Wilmington District**



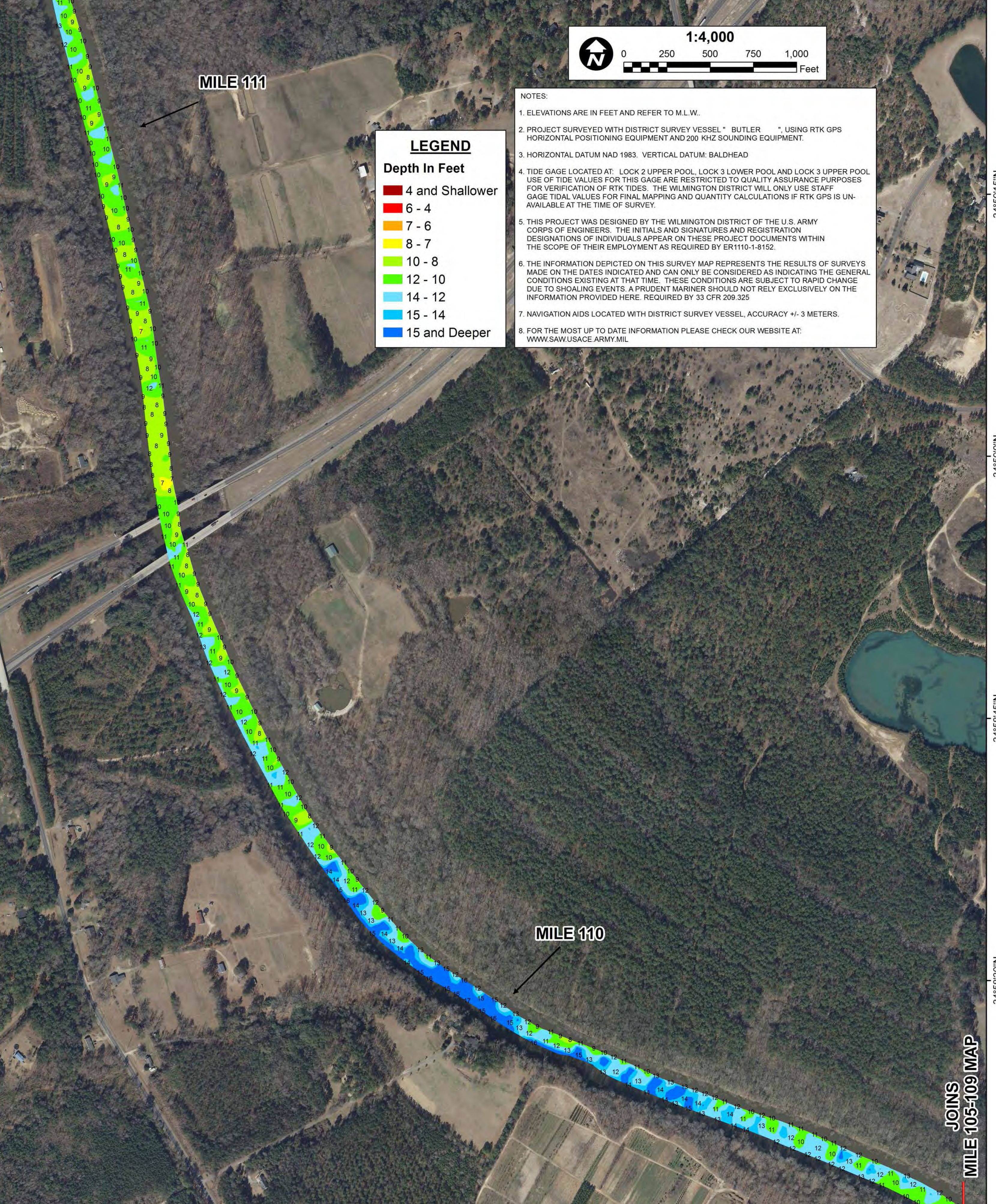
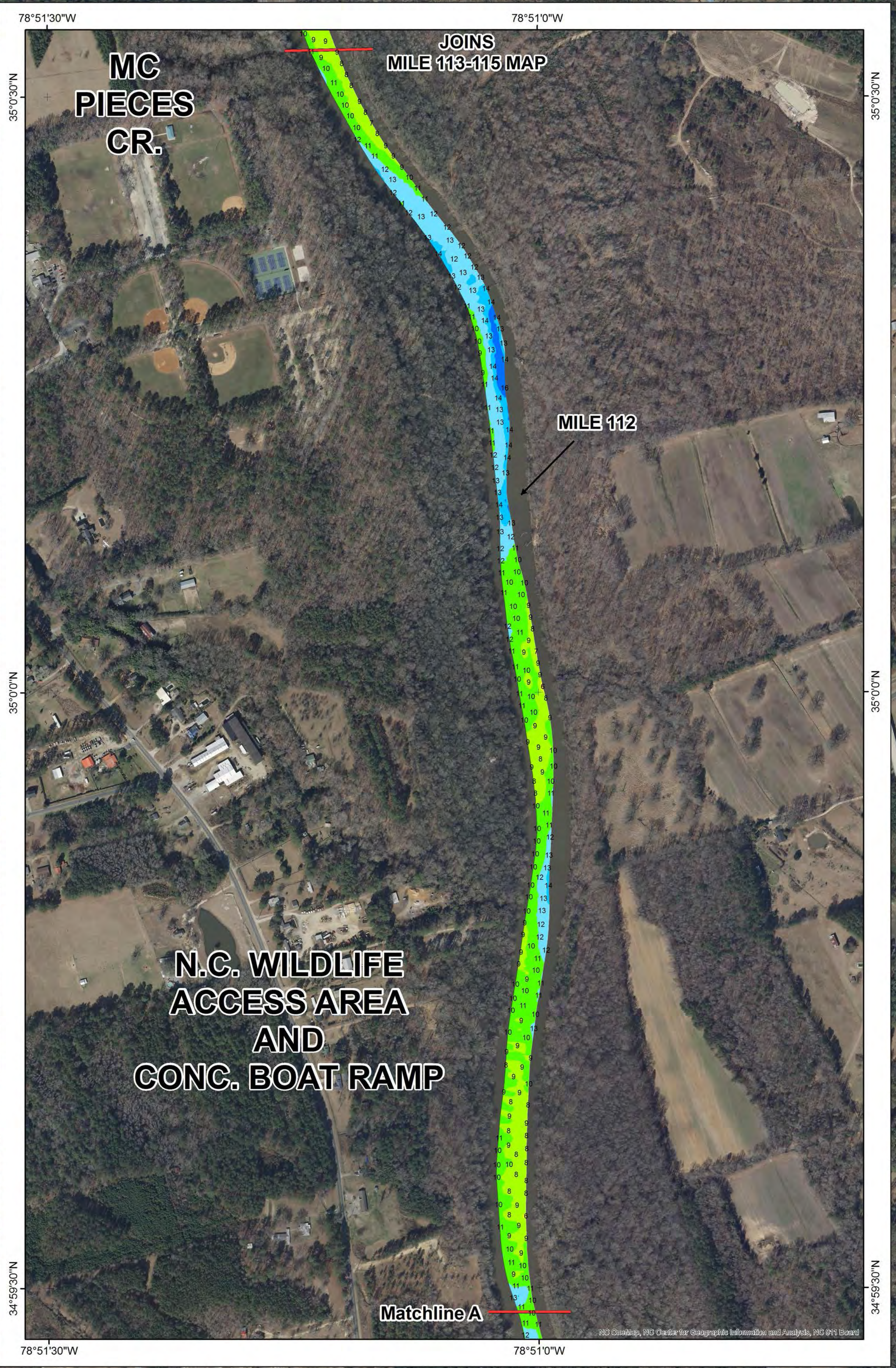
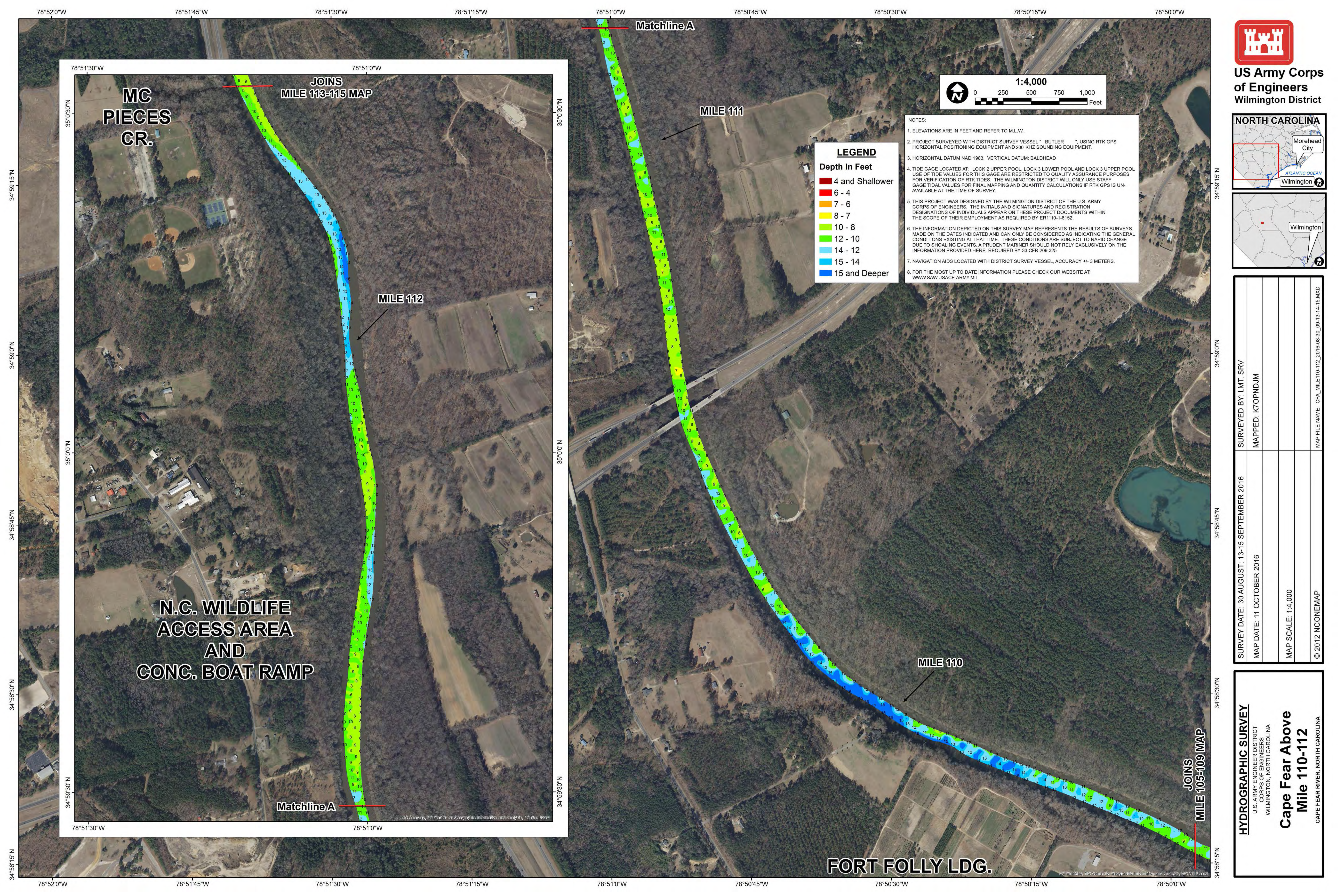
SURVEY DATE: 30 AUGUST, 13-15 SEPTEMBER 2016	SURVEYED BY: LMT, SRV
MAP DATE: 11 OCTOBER 2016	MAPPED: K7OPNDJM
MAP SCALE: 1:4,000	
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HYDROGRAPHIC SURVEY

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
WILMINGTON, NORTH CAROLINA

**Cape Fear Above
Mile 105-109**

CAPE FEAR RIVER, NORTH CAROLINA



LEGEND

Depth In Feet

- 4 and Shallower
- 6 - 4
- 7 - 6
- 8 - 7
- 10 - 8
- 12 - 10
- 14 - 12
- 15 - 14
- 15 and Deeper

- NOTES:**
- ELEVATIONS ARE IN FEET AND REFER TO M.L.W.
 - PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL " BUTLER " USING RTK GPS HORIZONTAL POSITIONING EQUIPMENT AND 200 KHZ SOUNDING EQUIPMENT.
 - HORIZONTAL DATUM NAD 1983. VERTICAL DATUM: BALDHEAD
 - TIDE GAGE LOCATED AT: LOCK 2 UPPER POOL, LOCK 3 LOWER POOL AND LOCK 3 UPPER POOL. USE OF TIDE VALUES FOR THIS GAGE ARE RESTRICTED TO QUALITY ASSURANCE PURPOSES FOR VERIFICATION OF RTK TIDES. THE WILMINGTON DISTRICT WILL ONLY USE STAFF GAGE TIDAL VALUES FOR FINAL MAPPING AND QUANTITY CALCULATIONS IF RTK GPS IS UNAVAILABLE AT THE TIME OF SURVEY.
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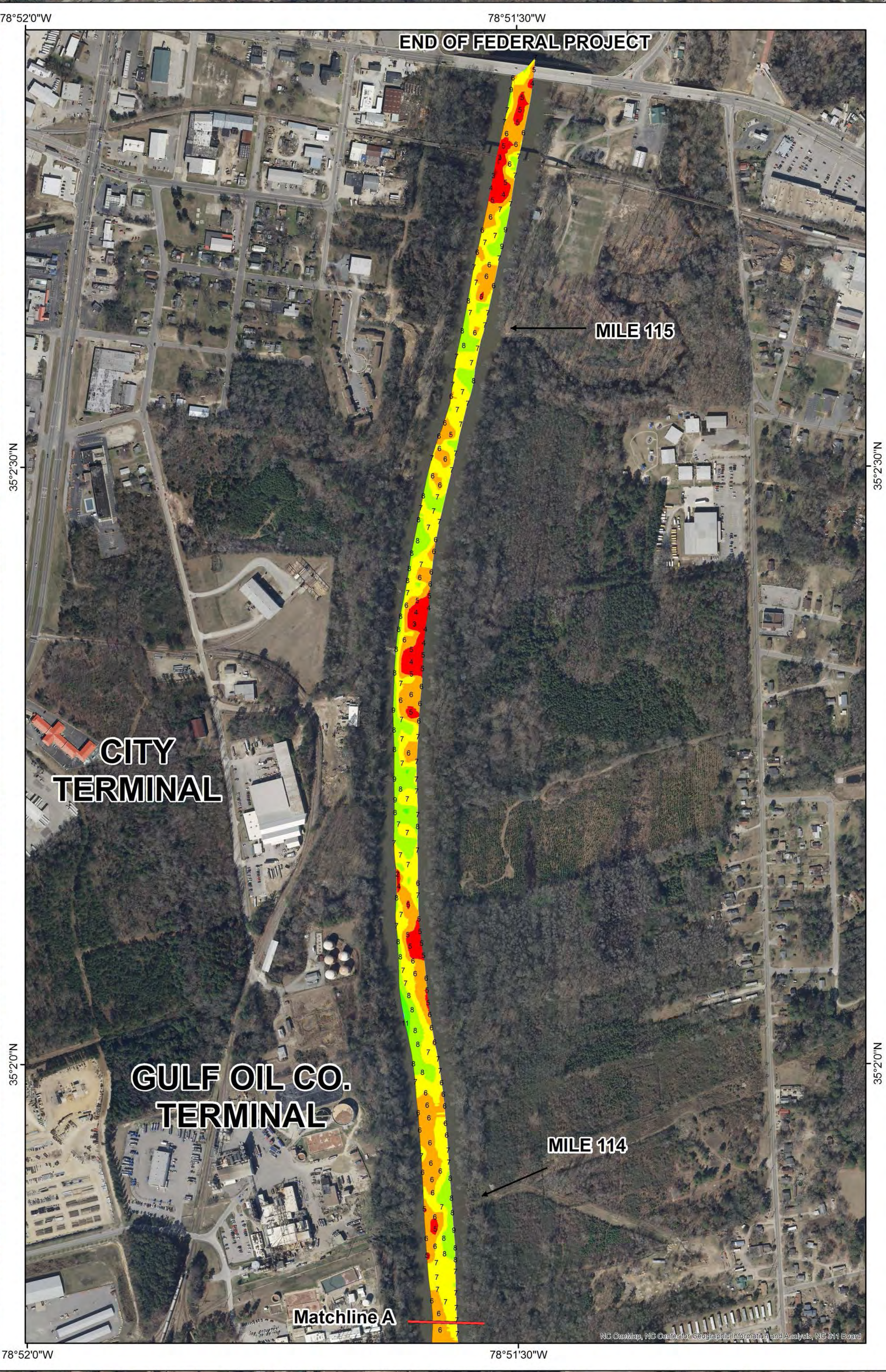
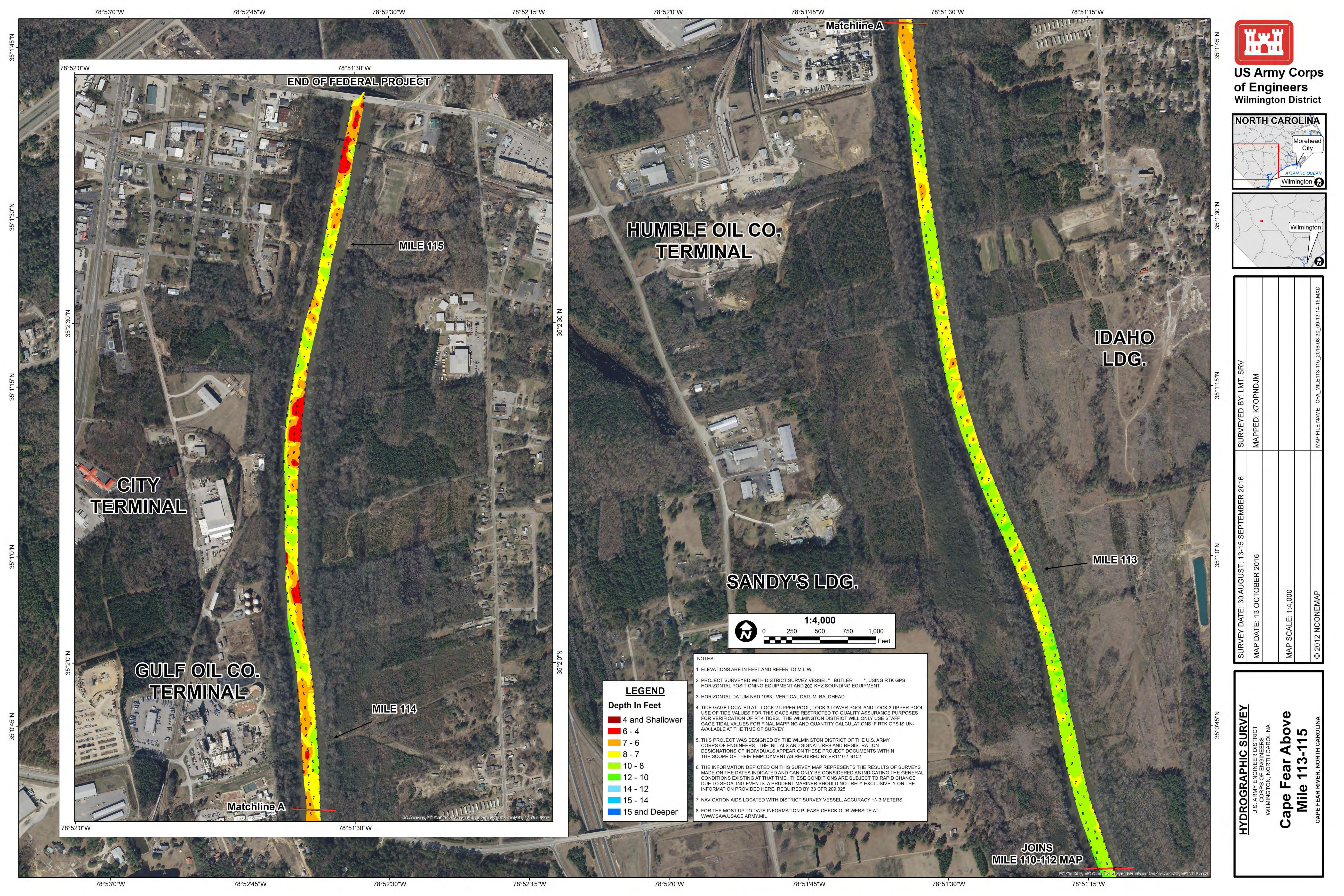


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MAP DATE: 11 OCTOBER 2016	MAPPED: K7OPNDJM
MAP SCALE: 1:4,000	
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HYDROGRAPHIC SURVEY
 U.S. ARMY ENGINEER DISTRICT
 CORPS OF ENGINEERS
 WILMINGTON, NORTH CAROLINA

**Cape Fear Above
 Mile 110-112**

CAPE FEAR RIVER, NORTH CAROLINA



LEGEND

Depth In Feet

Red	4 and Shallower
Orange	6 - 4
Yellow	7 - 6
Light Green	8 - 7
Green	10 - 8
Light Blue	12 - 10
Blue	14 - 12
Dark Blue	15 - 14
Very Dark Blue	15 and Deeper

- NOTES:**
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MAP DATE: 13 OCTOBER 2016	MAPPED: K7OPNDJM
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HYDROGRAPHIC SURVEY
U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
WILMINGTON, NORTH CAROLINA

**Cape Fear Above
Mile 113-115**
CAPE FEAR RIVER, NORTH CAROLINA