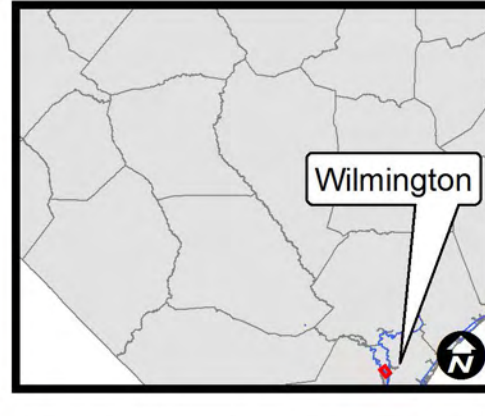
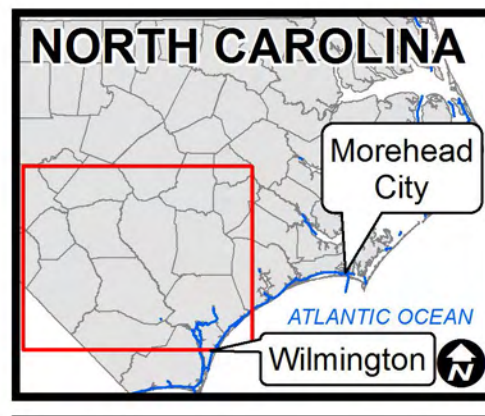


**US Army Corps  
of Engineers  
Wilmington District**



SURVEY DATE: 03 MAY 2016	SURVEYED BY: MAS, WWW
MAP DATE: 28 JULY 2016	MAPPED: K7PDPGSD
MAP SCALE: 1:4,000	
IMAGERY DATE: 29 JANUARY 2016	
© 2016 DIGITALGLOBE NEXTVIEW LICENSE	MAP FILE NAME: CFA_MILE_1-3_2016-05-03.MXD

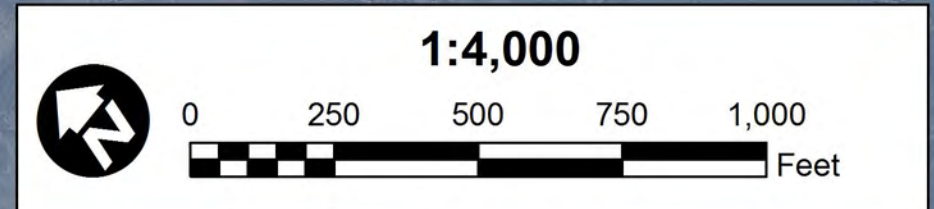
**LEGEND**

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
White with black border	Navigation Channel

**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: POINT PETER / NAVASSA BOAT WORKS  
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



77°58'0"W 77°57'45"W 77°57'30"W 77°57'15"W 77°57'0"W 34°15'45"N 34°15'30"N 34°15'15"N 34°15'0"N 34°14'45"N 34°14'30"N 34°14'15"N 34°14'0"N 34°13'45"N

**NEW HANOVER COUNTY**

**PETER POINT**

**32 FT TURNING BASIN**

**MILE 1**

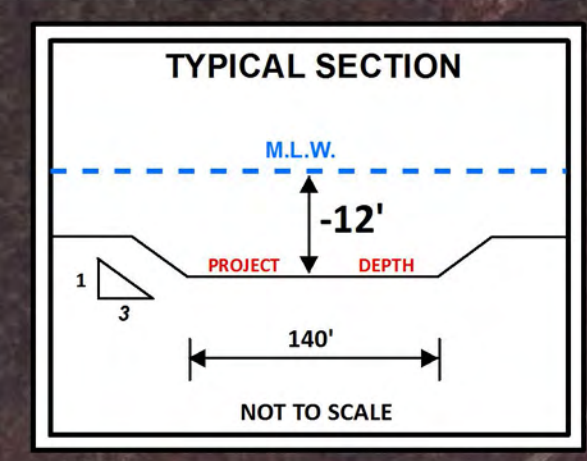
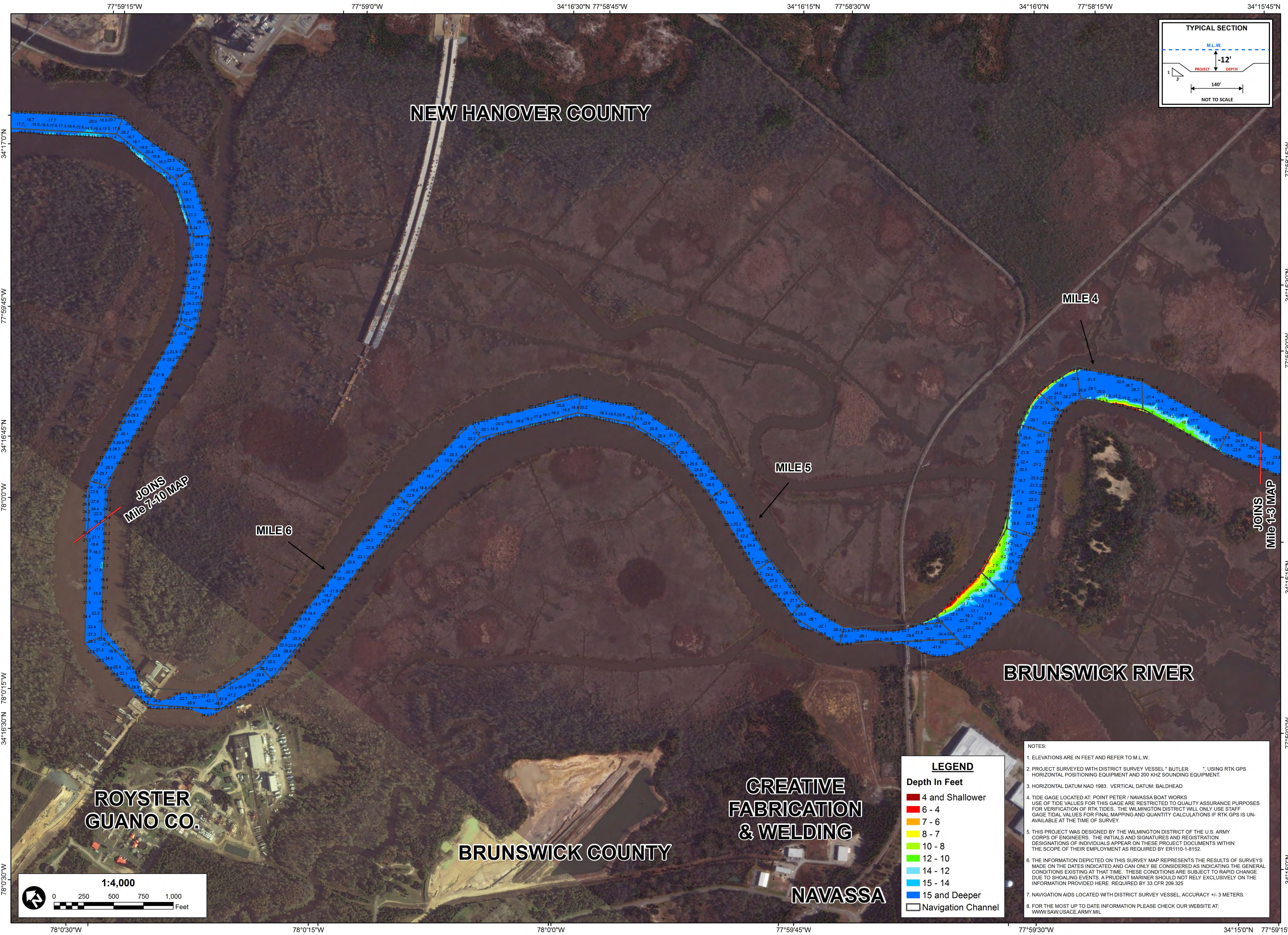
**HORSESHOE BEND**

**MILE 3**

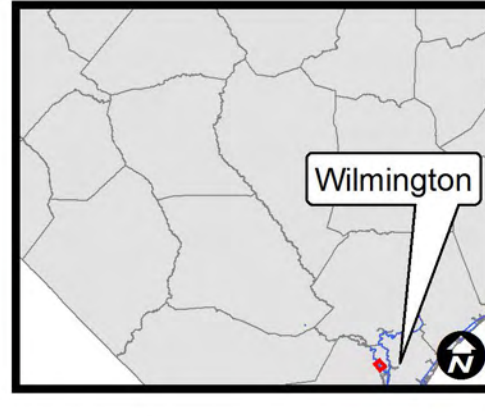
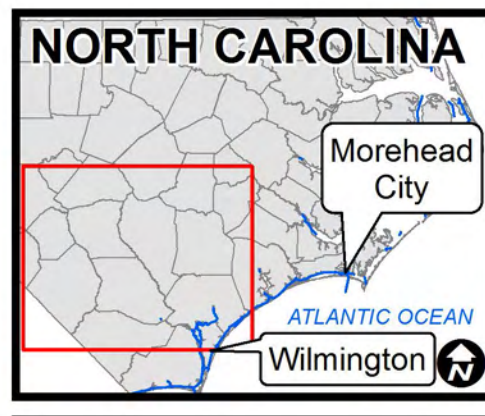
**MUDDY POINT**

**BRUNSWICK COUNTY**

**JOINS Mile 4-6 MAP**



**US Army Corps of Engineers**  
Wilmington District



SURVEY DATE: 03 & 06 MAY 2016	SURVEYED BY: MAS, WWW
MAP DATE: 28 JULY 2016	MAPPED: K7PDPDGD
MAP SCALE: 1:4,000	
IMAGERY DATE: JANUARY 29, 2016	
© 2016 DIGITAL GLOBE NEXTVIEW LICENSE	MAP FILE NAME: CFA_MILE_4-6_2016-05-03-06.MXD

**LEGEND**

Depth In Feet

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

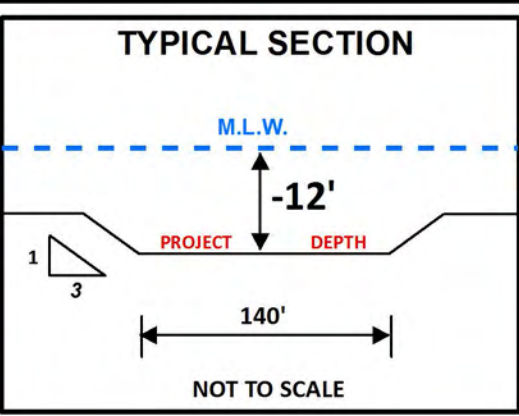
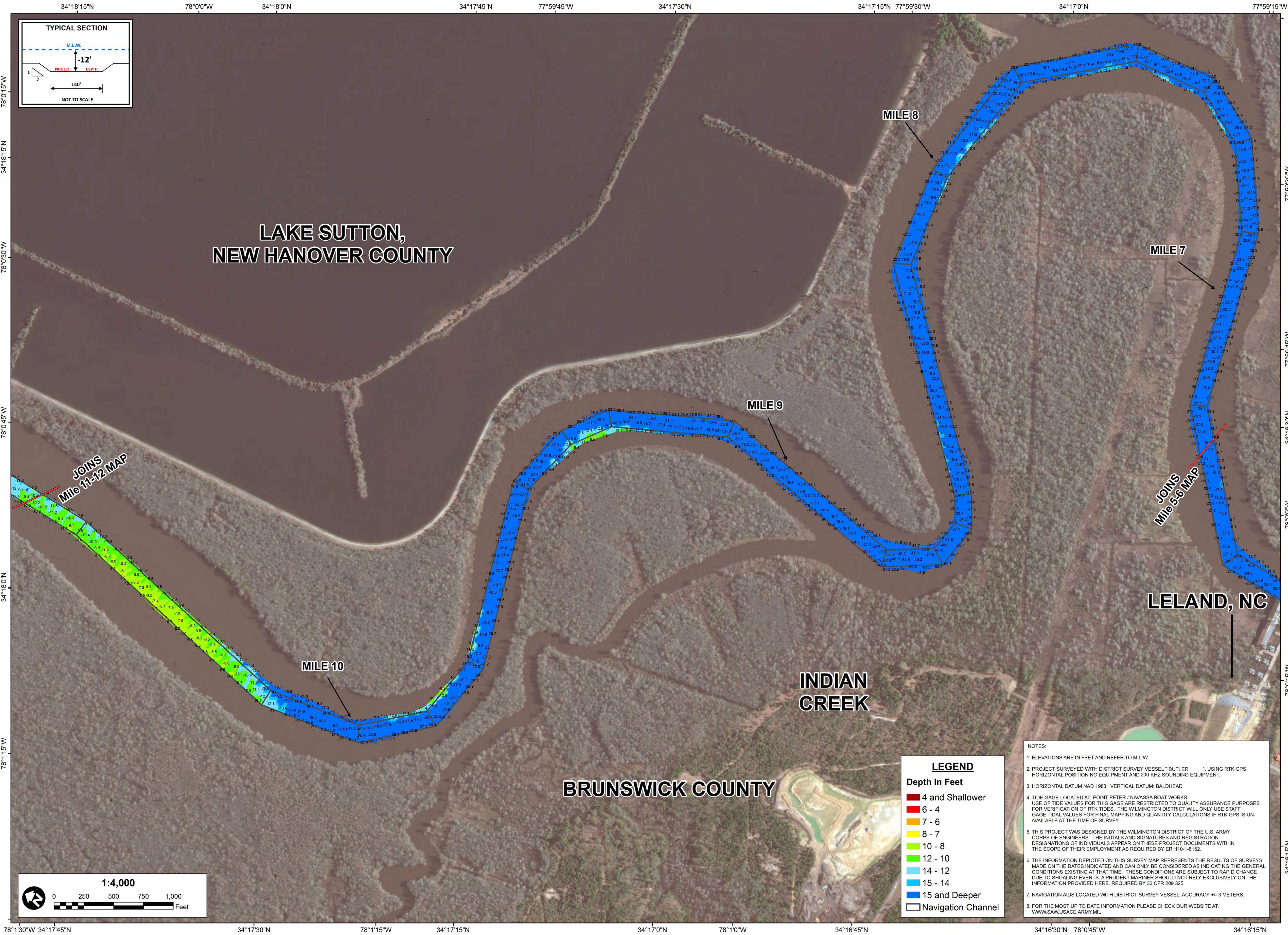
**NOTES:**

- 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: POINT PETER / NAVASSA BOAT WORKS  
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 FRUDENT 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

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

**Cape Fear Above  
Mile 4 to 6**

CAPE FEAR RIVER, NORTH CAROLINA



# LAKE SUTTON, NEW HANOVER COUNTY

# INDIAN CREEK

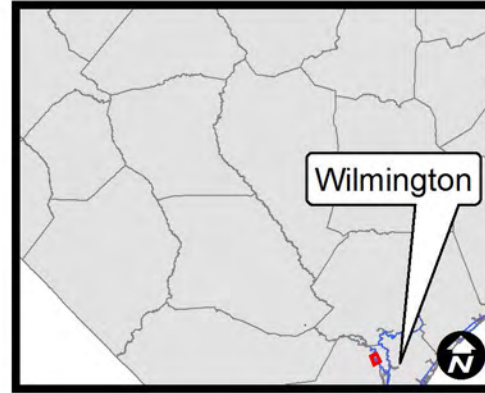
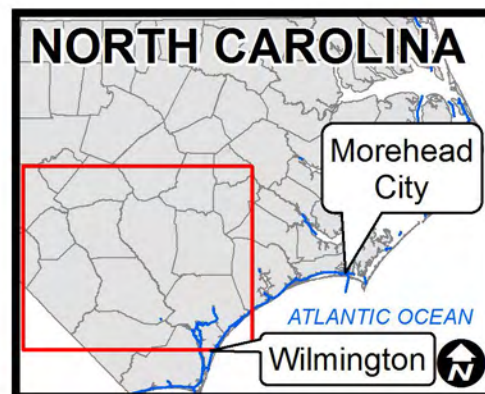
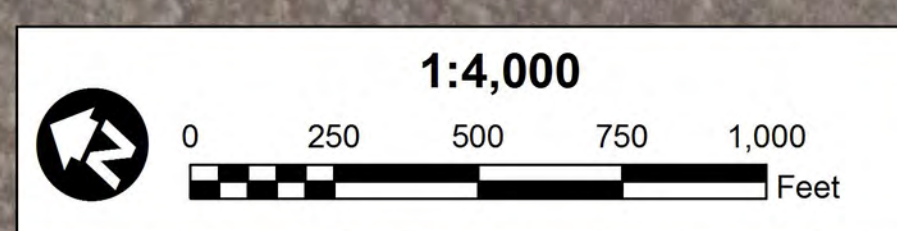
# BRUNSWICK COUNTY

# LELAND, NC

LEGEND	
Depth In Feet	
[Red]	4 and Shallower
[Dark Red]	6 - 4
[Orange]	7 - 6
[Yellow]	8 - 7
[Light Green]	10 - 8
[Green]	12 - 10
[Light Blue]	14 - 12
[Blue]	15 - 14
[Dark Blue]	15 and Deeper
[White with Blue Border]	Navigation Channel

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: POINT PETER / NAVASSA BOAT WORKS  
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 ER110-1-8152.
- 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 FRUDENT 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

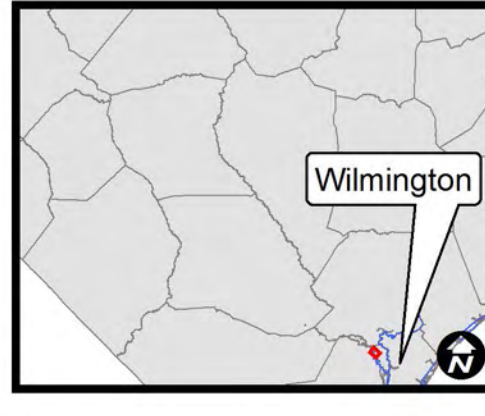
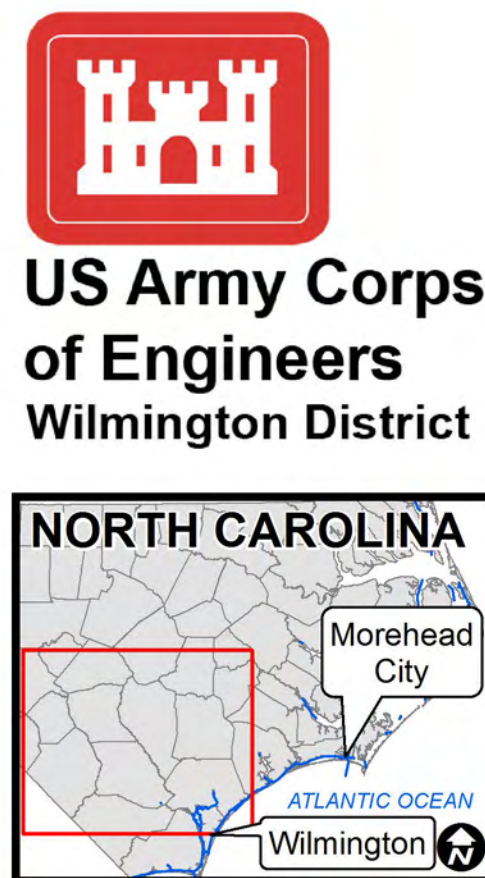
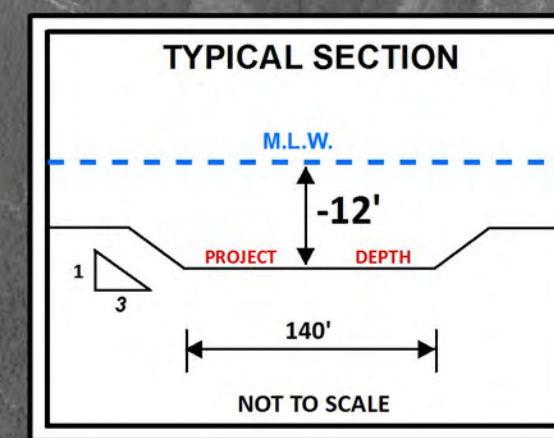


SURVEYED BY: MAS, WWW
MAPPED: K7PDPGSD
SURVEY DATE: 06 MAY 2016
MAP DATE: 28 JULY 2016
MAP SCALE: 1:4,000
IMAGERY DATE: 29 JANUARY 2016
© 2016 DIGITAL GLOBE NEXTVIEW LICENSE
MAP FILE NAME: CFA_MILE_07-10_2016-05-06.MXD

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

**Cape Fear Above  
 Mile 7 to 10**

CAPE FEAR RIVER, NORTH CAROLINA



SURVEY DATE: 06 MAY 2016	SURVEYED BY: MAS, WWW
MAP DATE: 29 JULY 2016	MAPPED: K7PDPSPGD
MAP SCALE: 1:4,000	
IMAGERY DATE: 12 JUNE 2016	
© 2016 DIGITAL GLOBE NEXTVIEW LICENSE	MAP FILE NAME: CFA_MILE_11-12_2016-05-06.MXD

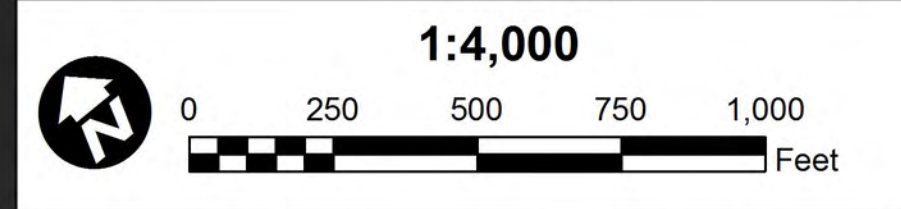
**NOTES:**

- 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: POINT PETER / NAVASSA BOAT WORKS  
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

**LEGEND**

**Depth In Feet**

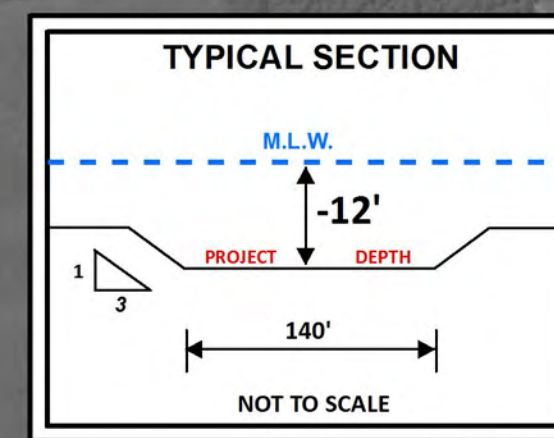
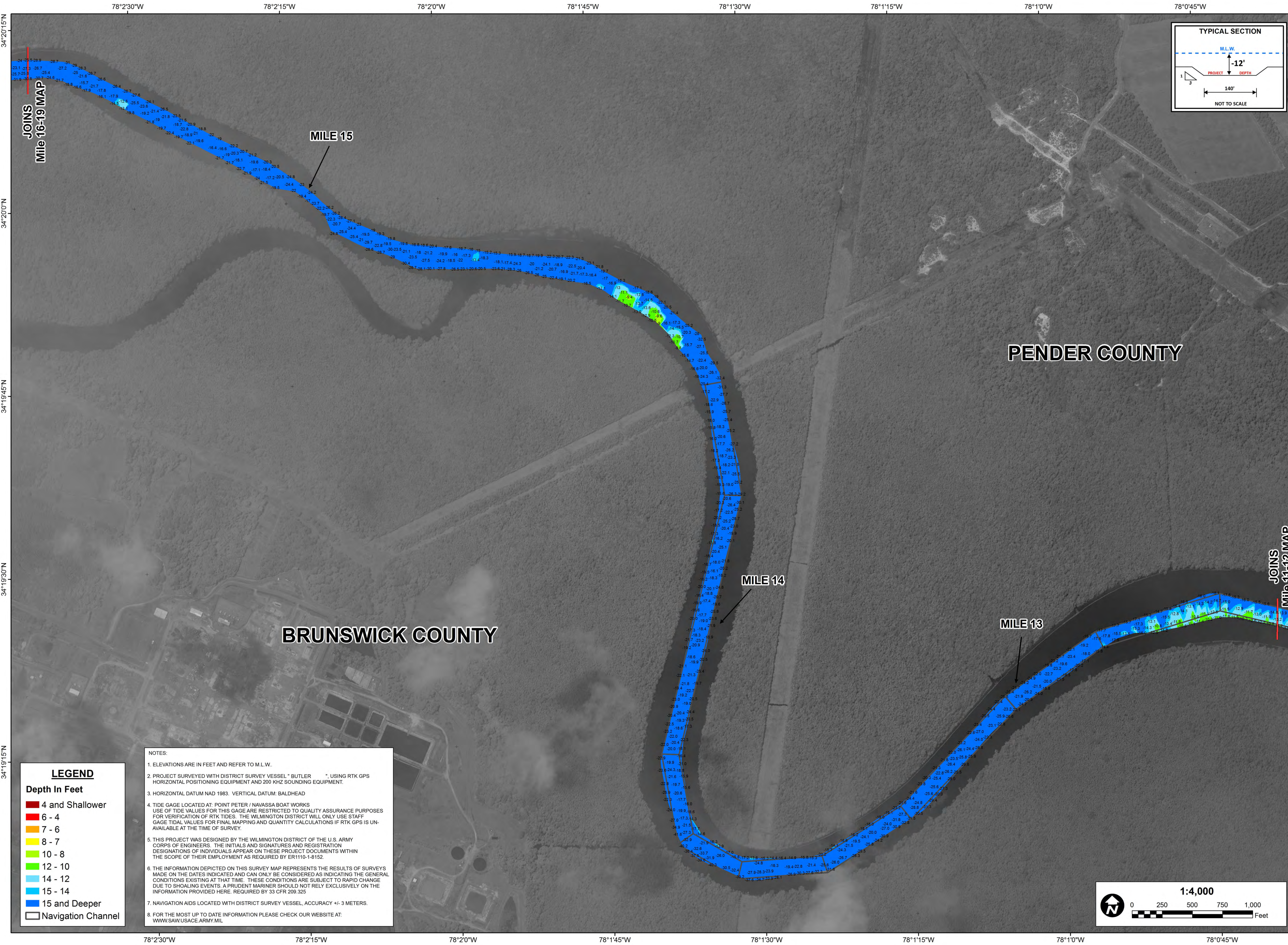
- 4 and Shallower
- 6 - 4
- 7 - 6
- 8 - 7
- 10 - 8
- 12 - 10
- 14 - 12
- 15 - 14
- 15 and Deeper
- Navigation Channel



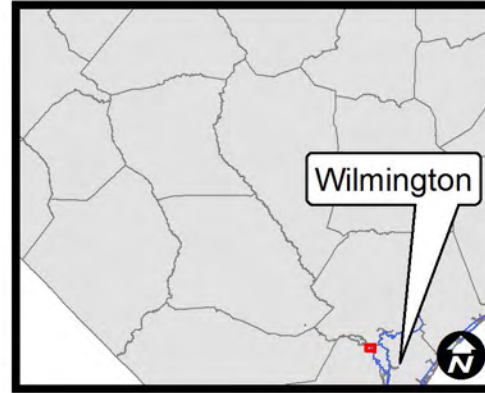
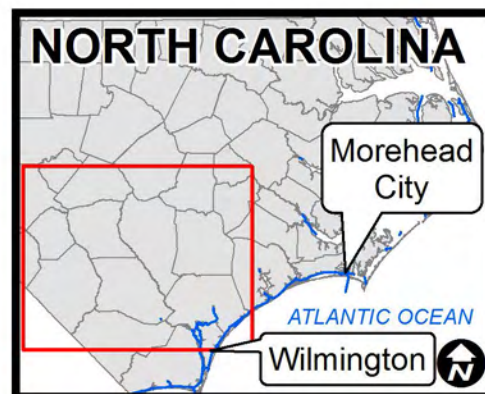
**HYDROGRAPHIC SURVEY**  
 U.S. ARMY ENGINEER DISTRICT  
 CORPS OF ENGINEERS  
 WILMINGTON, NORTH CAROLINA

**Cape Fear Above  
 Mile 11 to 12**

CAPE FEAR RIVER, NORTH CAROLINA



**US Army Corps  
of Engineers  
Wilmington District**



SURVEY DATE: 03 & 06 MAY 2016	SURVEYED BY: MAS, WWW
MAP DATE: 29 JULY 2016	MAPPED: K7PDPSPGD
MAP SCALE: 1:4,000	
IMAGERY DATE: 2 JUNE 2016	
© 2016 DIGITAL GLOBE NEXTVIEW LICENSE	
MAP FILE NAME: CFA_MILE_13-15_2016-05-03-06.MXD	

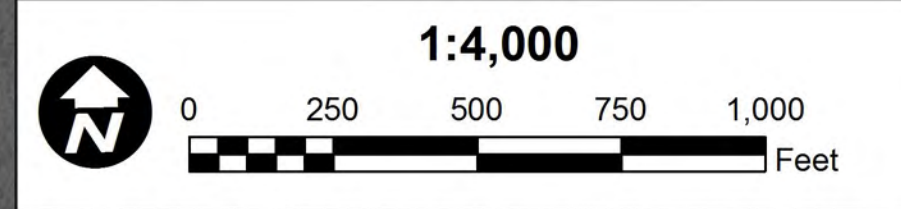
**NOTES:**

- 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: POINT PETER / NAVASSA BOAT WORKS. 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

**LEGEND**

**Depth In Feet**

- Red: 4 and Shallower
- Orange: 6 - 4
- Yellow: 7 - 6
- Light Green: 8 - 7
- Green: 10 - 8
- Dark Green: 12 - 10
- Light Blue: 14 - 12
- Blue: 15 - 14
- Dark Blue: 15 and Deeper
- White outline: Navigation Channel

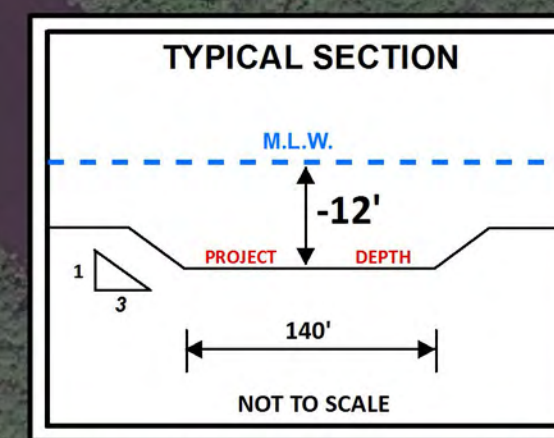
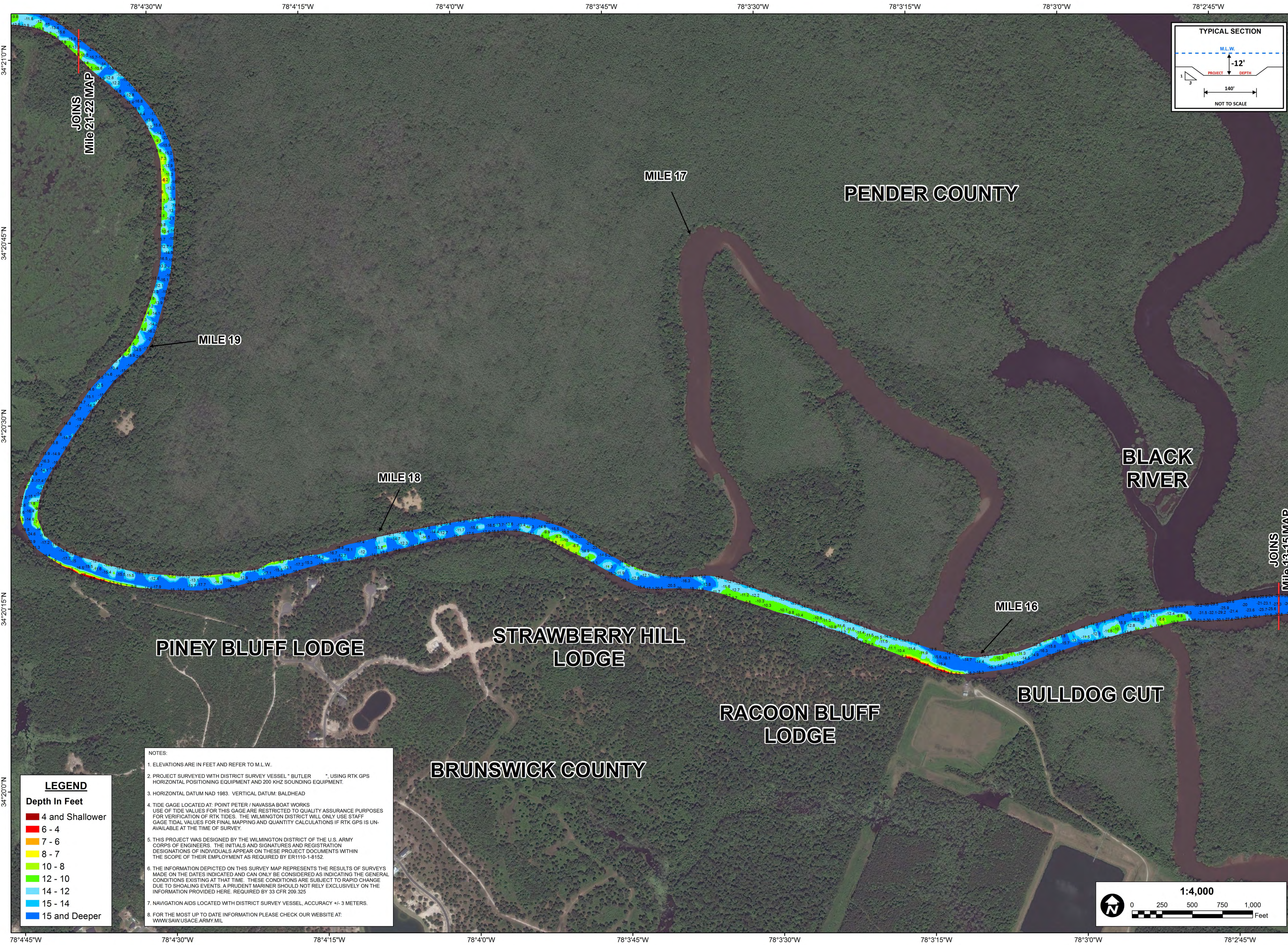


**HYDROGRAPHIC SURVEY**

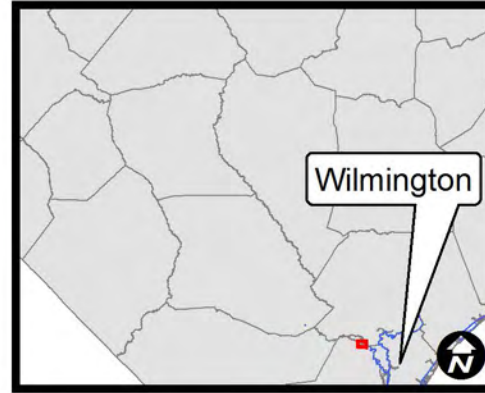
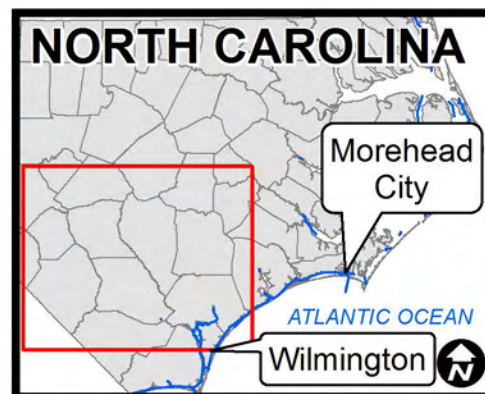
U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
WILMINGTON, NORTH CAROLINA

**Cape Fear Above  
Mile 13 to 15**

CAPE FEAR RIVER, NORTH CAROLINA



**US Army Corps  
of Engineers  
Wilmington District**



SURVEY DATE: 03 MAY 2016	SURVEYED BY: MAS, WWW
MAP DATE: 29 JULY 2016	MAPPED: K7PDPGSD
MAP SCALE: 1:4,000	
IMAGERY DATE: 15 MAY 2016	
© 2016 DIGITAL GLOBE NEXTVIEW LICENSE	
MAP FILE NAME: CFA_MILE_16-19_2016-05-03.MXD	

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

**Cape Fear Above  
 Mile 16 to 19**

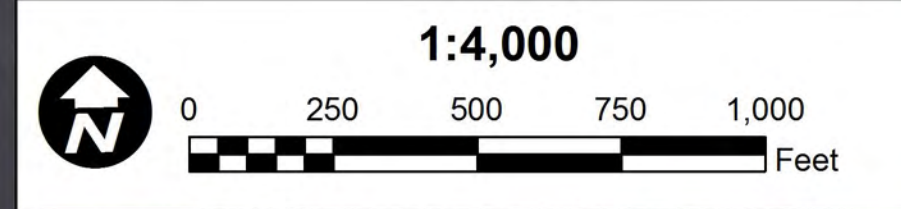
CAPE FEAR RIVER, NORTH CAROLINA

- 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: POINT PETER / NAVASSA BOAT WORKS. 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

**LEGEND**

**Depth In Feet**

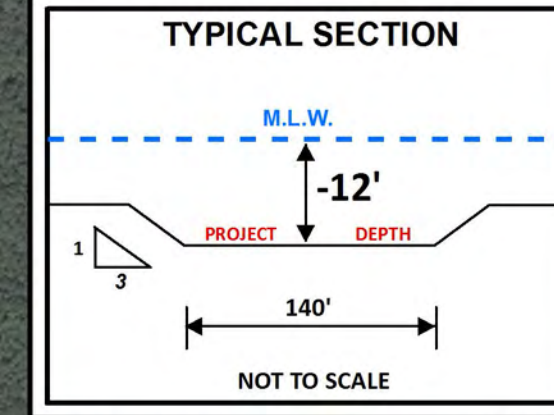
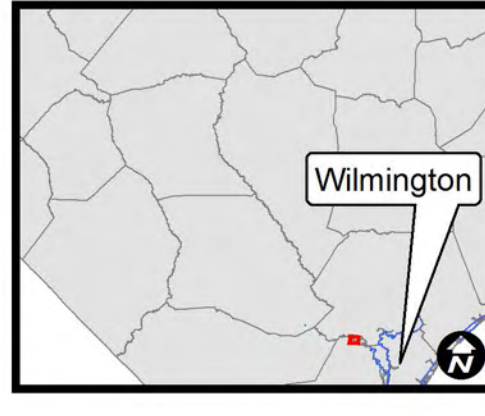
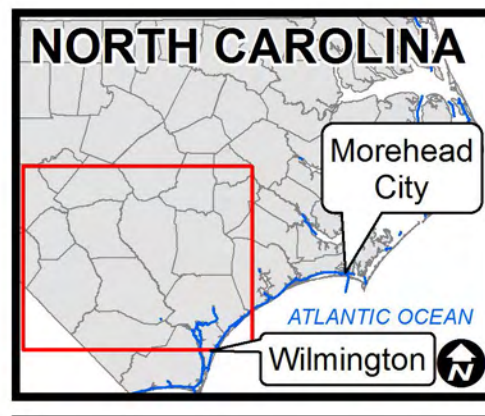
Red	4 and Shallower
Orange	6 - 4
Yellow	7 - 6
Light Green	8 - 7
Green	10 - 8
Dark Green	12 - 10
Light Blue	14 - 12
Blue	15 - 14
Dark Blue	15 and Deeper



78°6'30"W 78°6'15"W 78°6'0"W 78°5'45"W 78°5'30"W 78°5'15"W 78°5'0"W 78°4'45"W



**US Army Corps of Engineers**  
Wilmington District



**PENDER COUNTY**

**DEVILS ELBOW**

**TURKEY POINT**

**BRUNSWICK COUNTY**

34°21'45"N

34°21'30"N

34°21'15"N

34°21'0"N

34°20'45"N

34°21'45"N

34°21'30"N

34°21'15"N

34°21'0"N

34°20'45"N

JOINS  
Mile 23-24 MAP

JOINS  
Mile 16-19 MAP

MILE 22

MILE 21

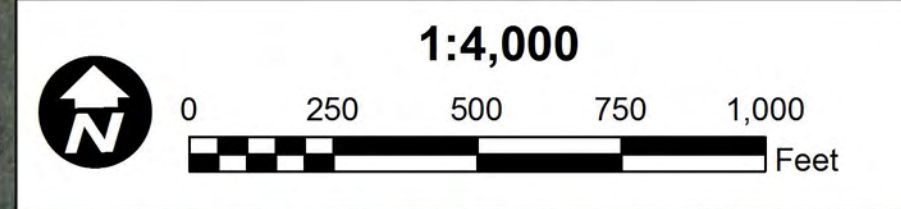
MILE 20

- 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: POINT PETER / NAVASSA BOAT WORKS  
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

**LEGEND**

**Depth In Feet**

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



SURVEY DATE: 03 MAY 2016	SURVEYED BY: MAS, WWW
MAP DATE: 29 JULY 2016	MAPPED: K7PDPSPGD
MAP SCALE: 1:4,000	
IMAGERY DATE: 15 MAY 2016	
© 2016 DIGITAL GLOBE NEXTVIEW LICENSE	
MAP FILE NAME: CFA_MILE_21-22_2016-05-03.MXD	

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

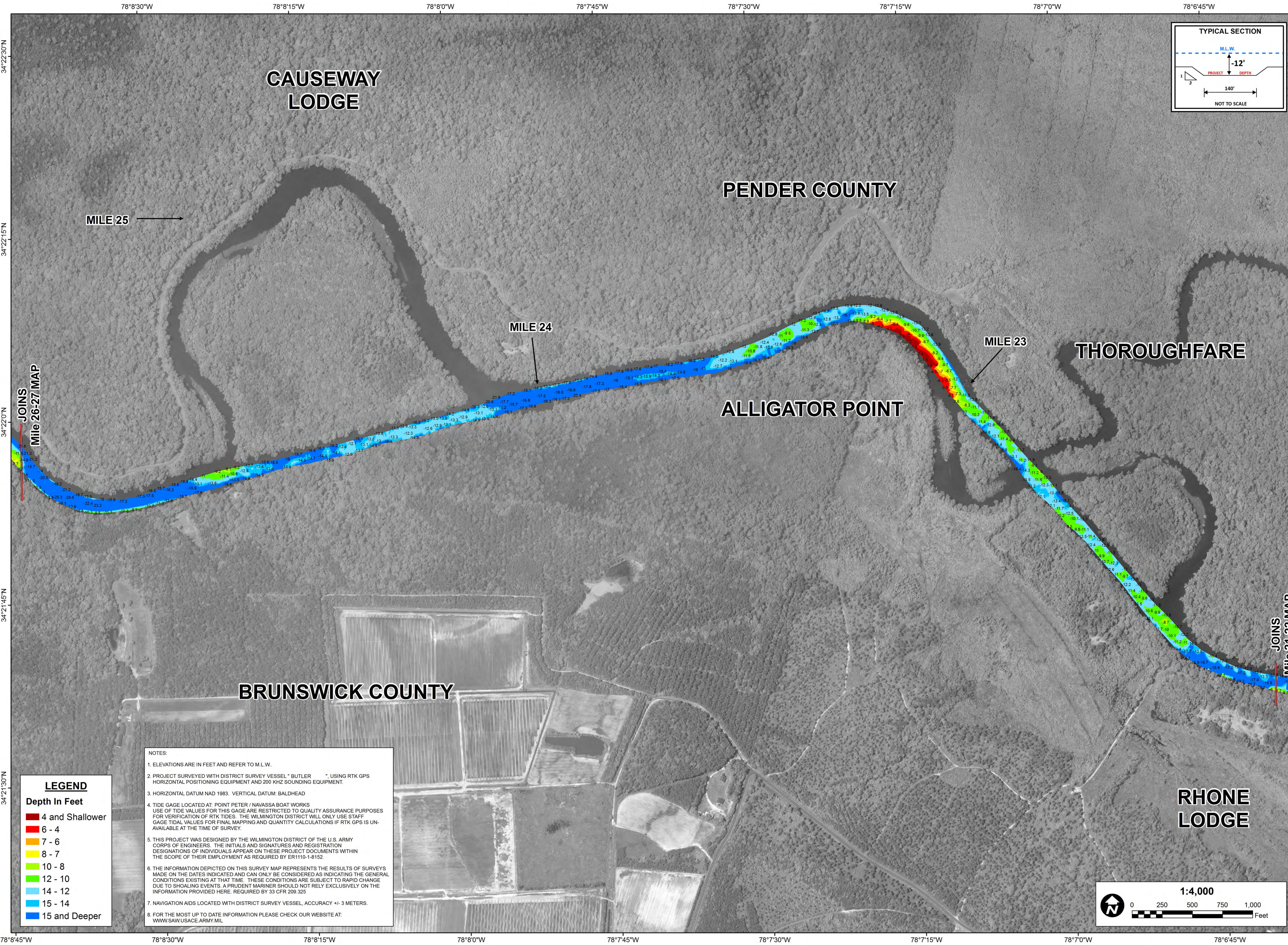
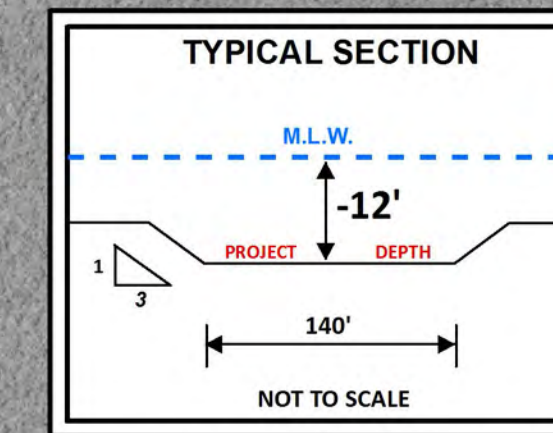
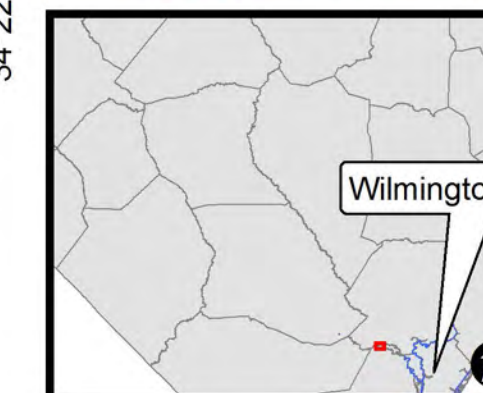
**Cape Fear Above  
Mile 21 to 22**

CAPE FEAR RIVER, NORTH CAROLINA

78°6'30"W 78°6'15"W 78°6'0"W 78°5'45"W 78°5'30"W 78°5'15"W 78°5'0"W 78°4'45"W



**US Army Corps  
of Engineers  
Wilmington District**

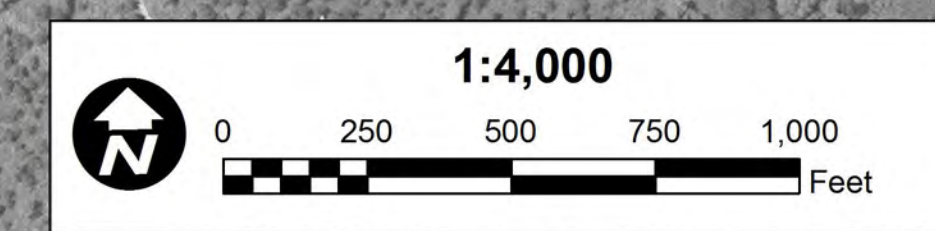


**LEGEND**  
Depth In Feet

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: POINT PETER / NAVASSA BOAT WORKS  
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



SURVEY DATE: 03 MAY 2016	SURVEYED BY: MAS, WWW
MAP DATE: 28 JULY 2016	MAPPED: K7PDPDGD
MAP SCALE: 1:4,000	
IMAGERY DATE: 16 MAY 2016	
© 2016 DIGITAL GLOBE NEXTVIEW LICENSE	MAP FILE NAME: CFA_MILE_23-24_2016-05-03.MXD

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

**Cape Fear Above  
Mile 23 to 24**  
CAPE FEAR RIVER, NORTH CAROLINA

78°8'30"W 78°8'15"W 78°8'0"W 78°7'45"W 78°7'30"W 78°7'15"W 78°7'0"W 78°6'45"W

34°22'30"N 34°22'15"N 34°22'0"N 34°21'45"N 34°21'30"N

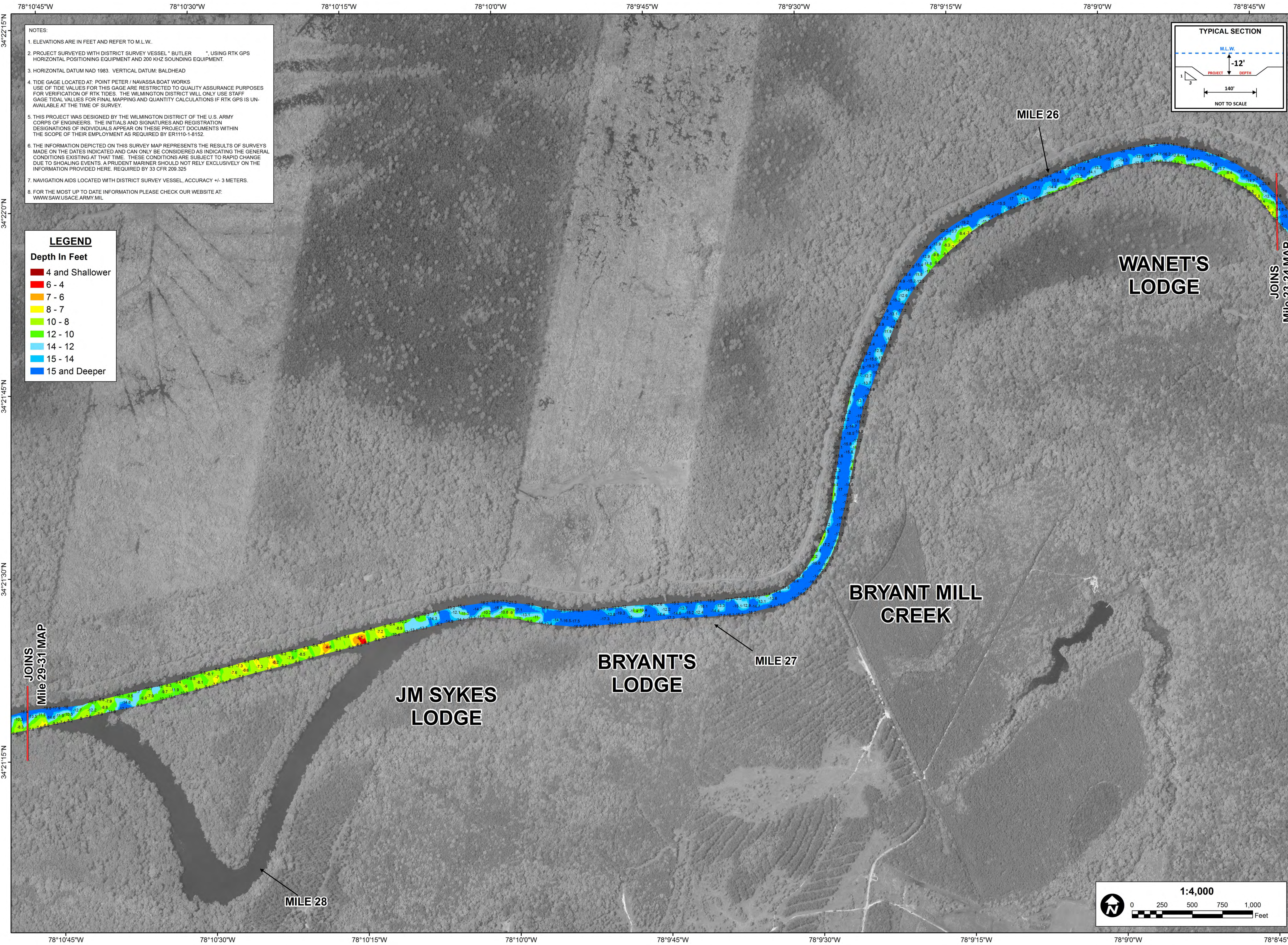
78°8'45"W 78°8'30"W 78°8'15"W 78°8'0"W 78°7'45"W 78°7'30"W 78°7'15"W 78°7'0"W 78°6'45"W

CAUSEWAY LODGE  
PENDER COUNTY  
THOROUGHFARE  
ALLIGATOR POINT  
BRUNSWICK COUNTY  
RHONE LODGE

MILE 25  
MILE 24  
MILE 23

JOINS Mile 26-27 MAP  
JOINS Mile 21-22 MAP



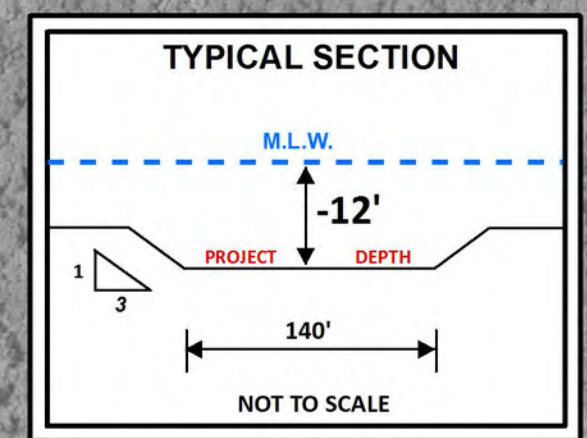


- NOTES:**
- ELEVATIONS ARE IN FEET AND REFER TO M.L.W.
  - PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL " BUTLER " USING RTK GPS HORIZONTAL POSITIONING EQUIPMENT AND 200 KHZ SOUNDING EQUIPMENT.
  - HORIZONTAL DATUM NAD 1983. VERTICAL DATUM: BALDHEAD
  - TIDE GAGE LOCATED AT: POINT PETER / MANASSA BOAT WORKS. 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

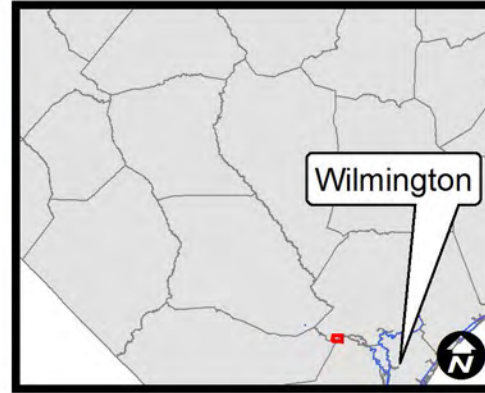
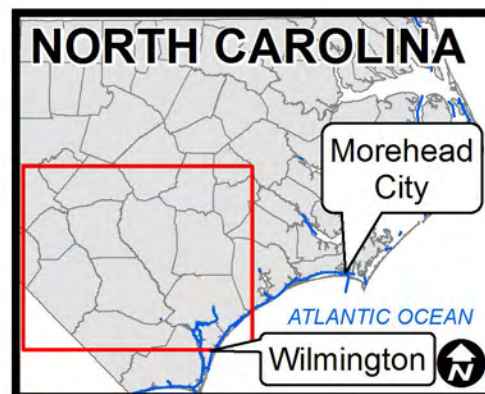
**LEGEND**

**Depth In Feet**

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



**US Army Corps of Engineers  
Wilmington District**

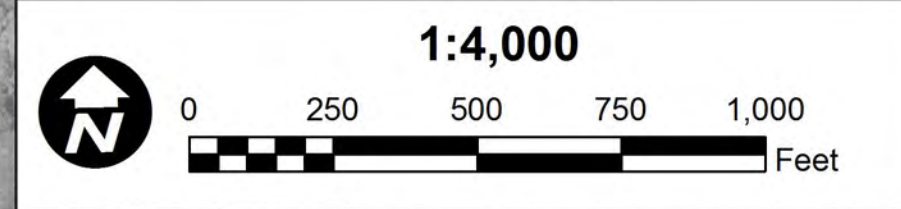


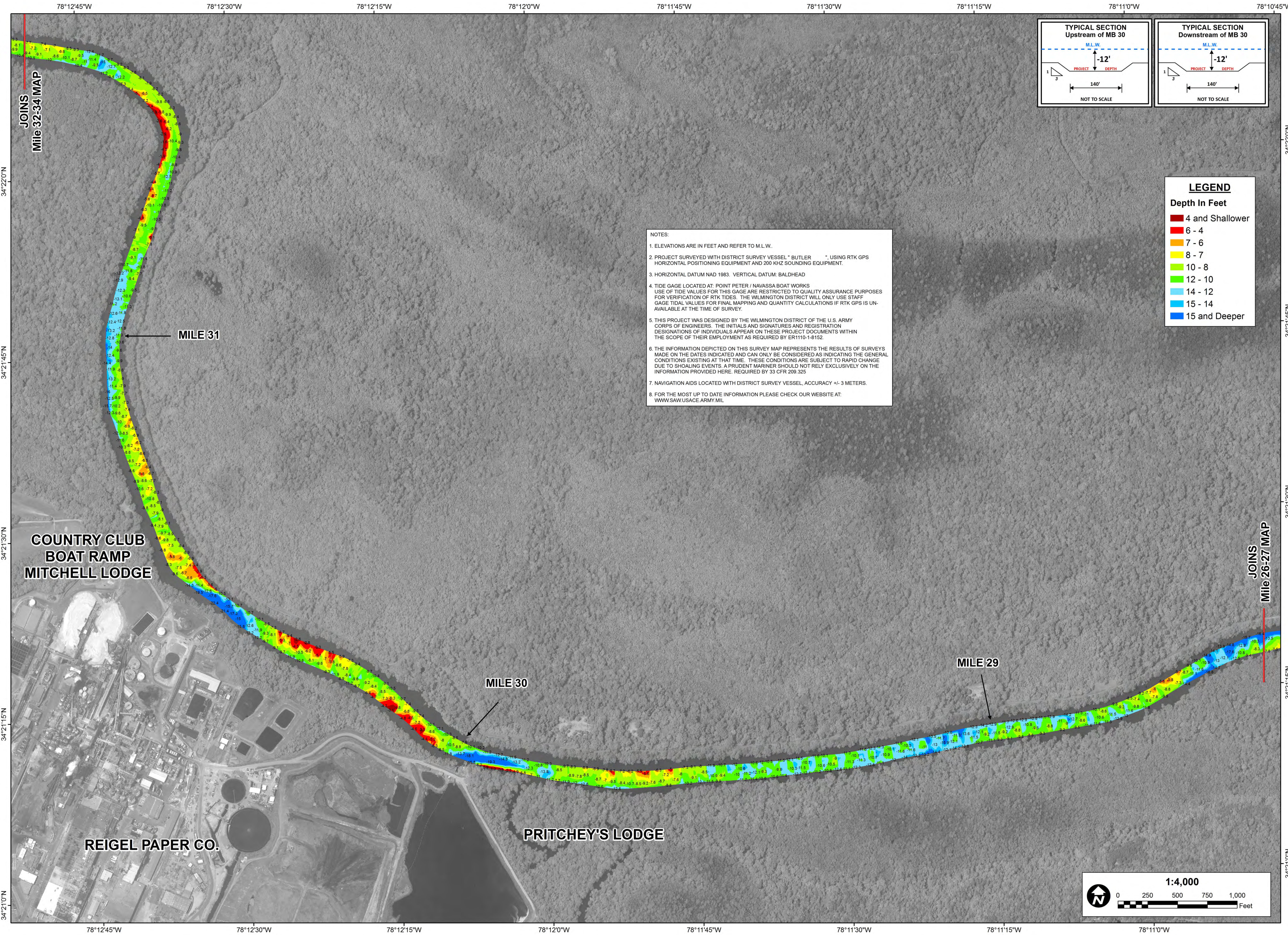
SURVEY DATE: 03 MAY 2016	SURVEYED BY: MAS, WWW
MAP DATE: 28 JULY 2016	MAPPED: K7PDPSPGD
MAP SCALE: 1:4,000	
IMAGERY DATE: 16 MAY 2016	
© 2016 DIGITAL GLOBE NEXTVIEW LICENSE	
MAP FILE NAME: CFA_MILE_26-27_2016-05-03.MXD	

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

**Cape Fear Above  
 Mile 26 to 27**

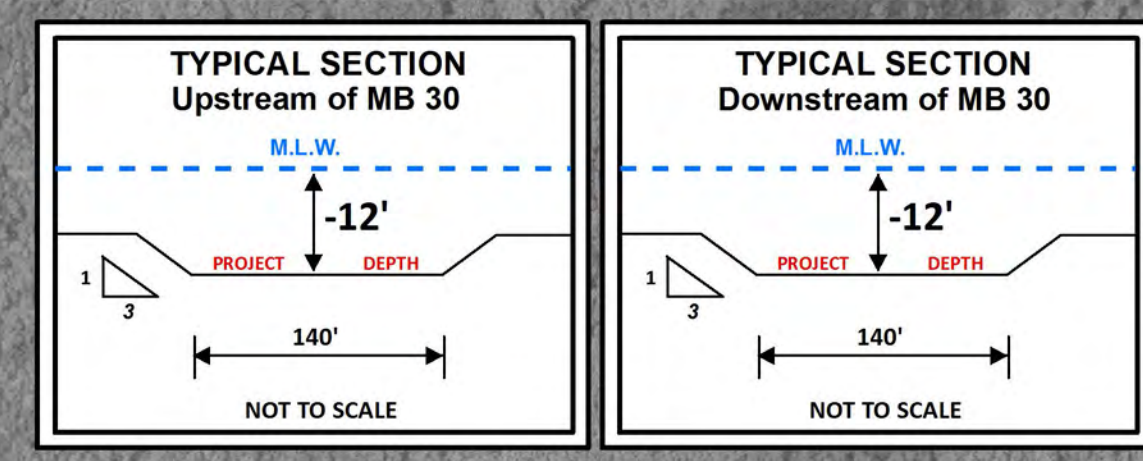
CAPE FEAR RIVER, NORTH CAROLINA





**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: POINT PETER / NAVASSA BOAT WORKS  
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



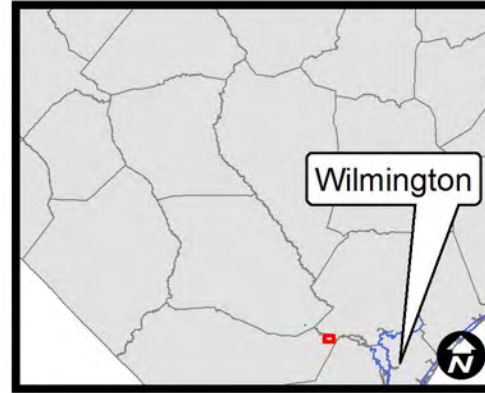
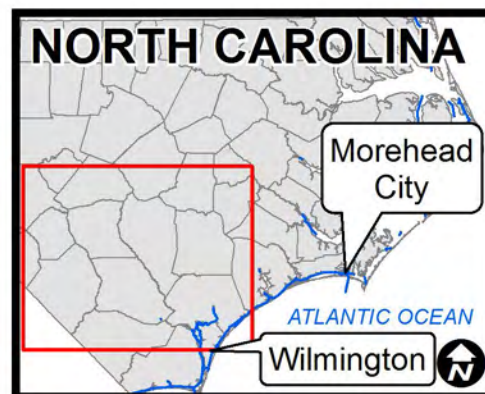
**LEGEND**

**Depth In Feet**

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



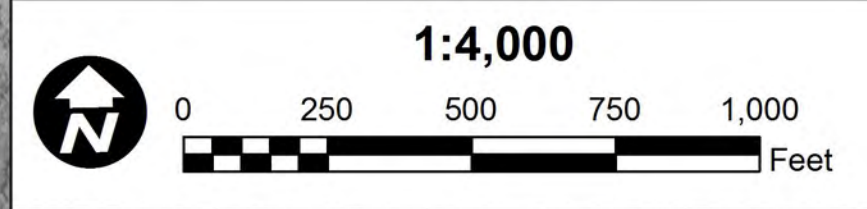
**US Army Corps of Engineers**  
Wilmington District

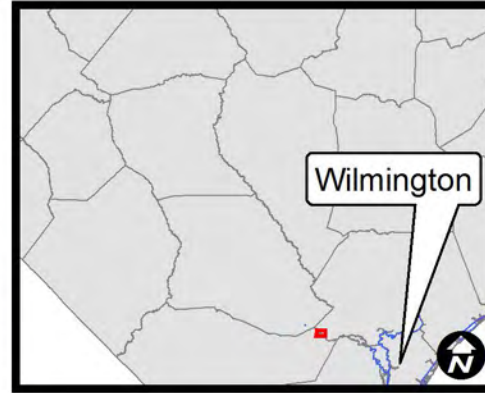
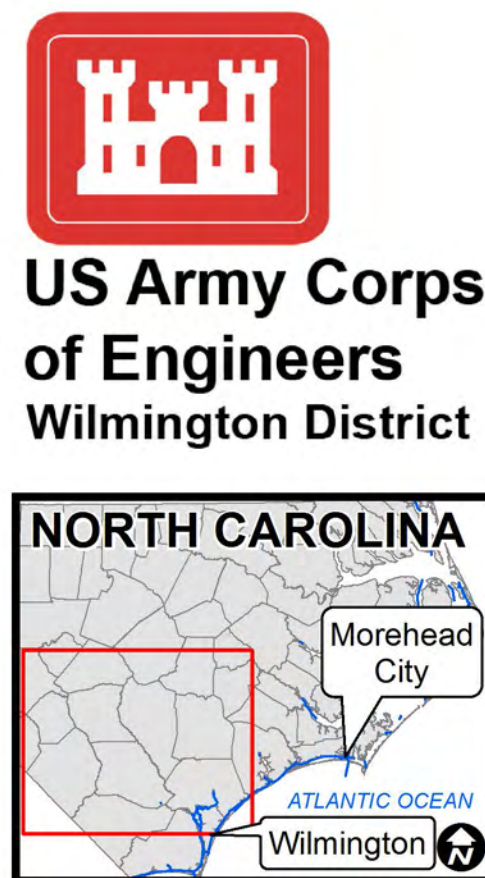
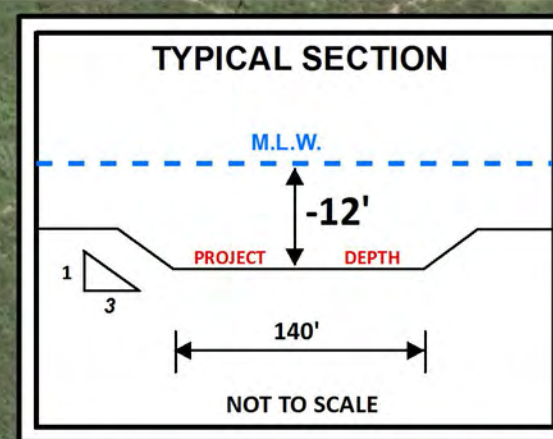
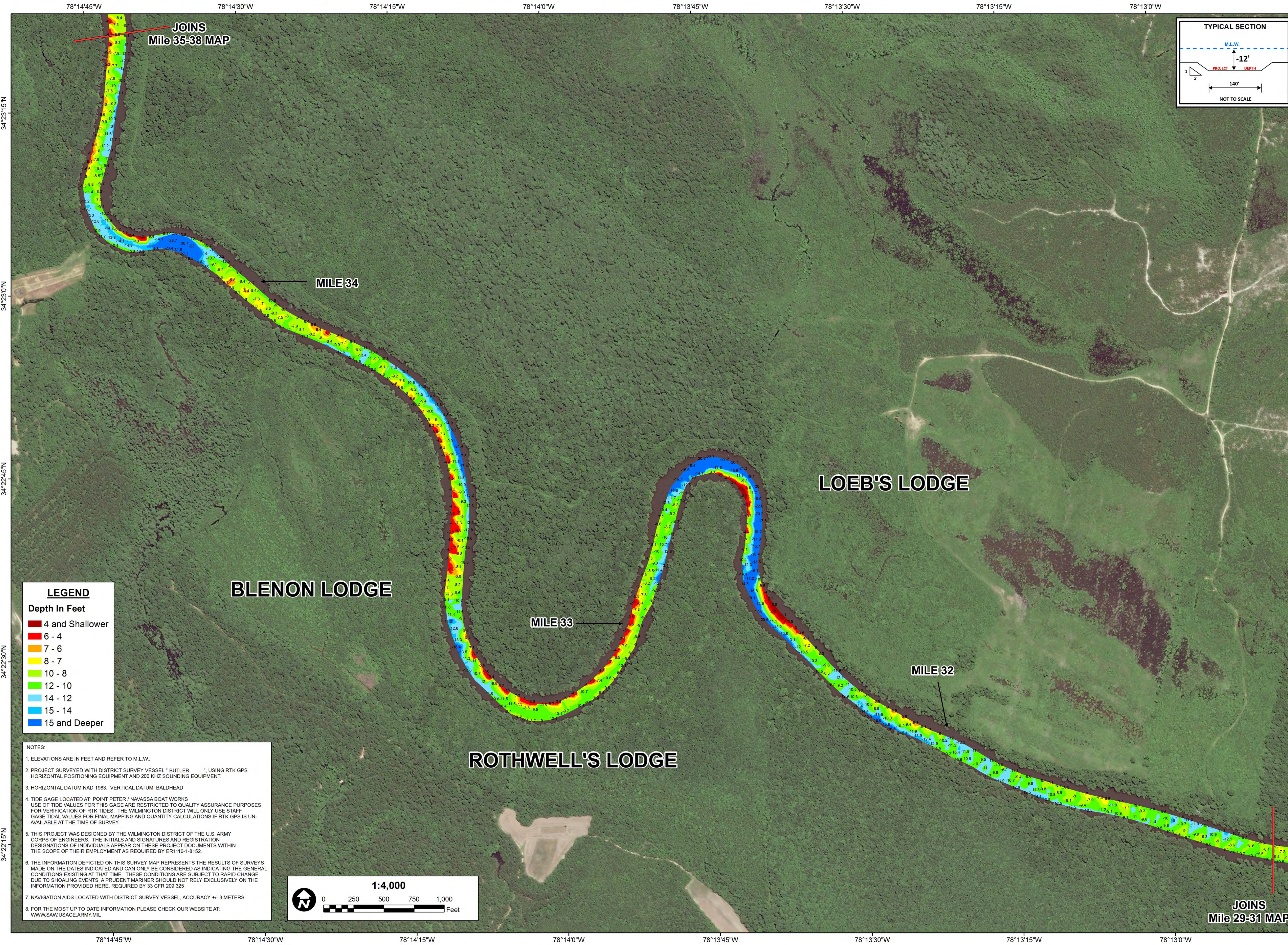


SURVEY DATE: 03 MAY 2016	SURVEYED BY: MAS, WWW
MAP DATE: 29 JULY 2016	MAPPED: K7PDPSPGD
MAP SCALE: 1:4,000	
IMAGERY DATE: 16 MAY 2016	
© 2016 DIGITAL GLOBE NEXTVIEW LICENSE	MAP FILE NAME: CFA_MILE_29-31_2016-05-03.MXD

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

**Cape Fear Above  
Mile 29 to 31**  
CAPE FEAR RIVER, NORTH CAROLINA





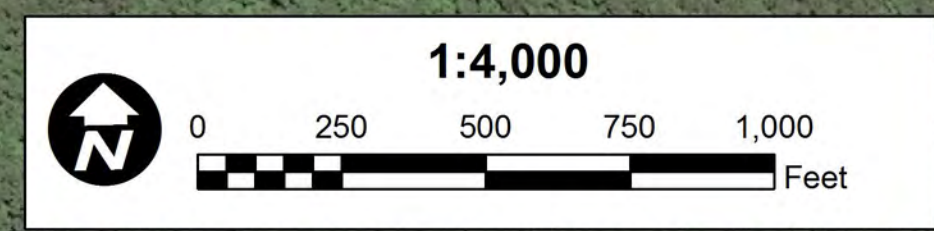
SURVEY DATE: 03 MAY 2016	SURVEYED BY: MAS, WWW
MAP DATE: 29 JULY 2016	MAPPED: K7PDPSSGD
MAP SCALE: 1:4,000	
IMAGERY DATE: 3 JUNE 2016	
© 2016 DIGITALGLOBE NEXTVIEW LICENSE	MAP FILE NAME: CFA_MILE_32-34_2016-05-06.MXD

**LEGEND**

Depth In Feet

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

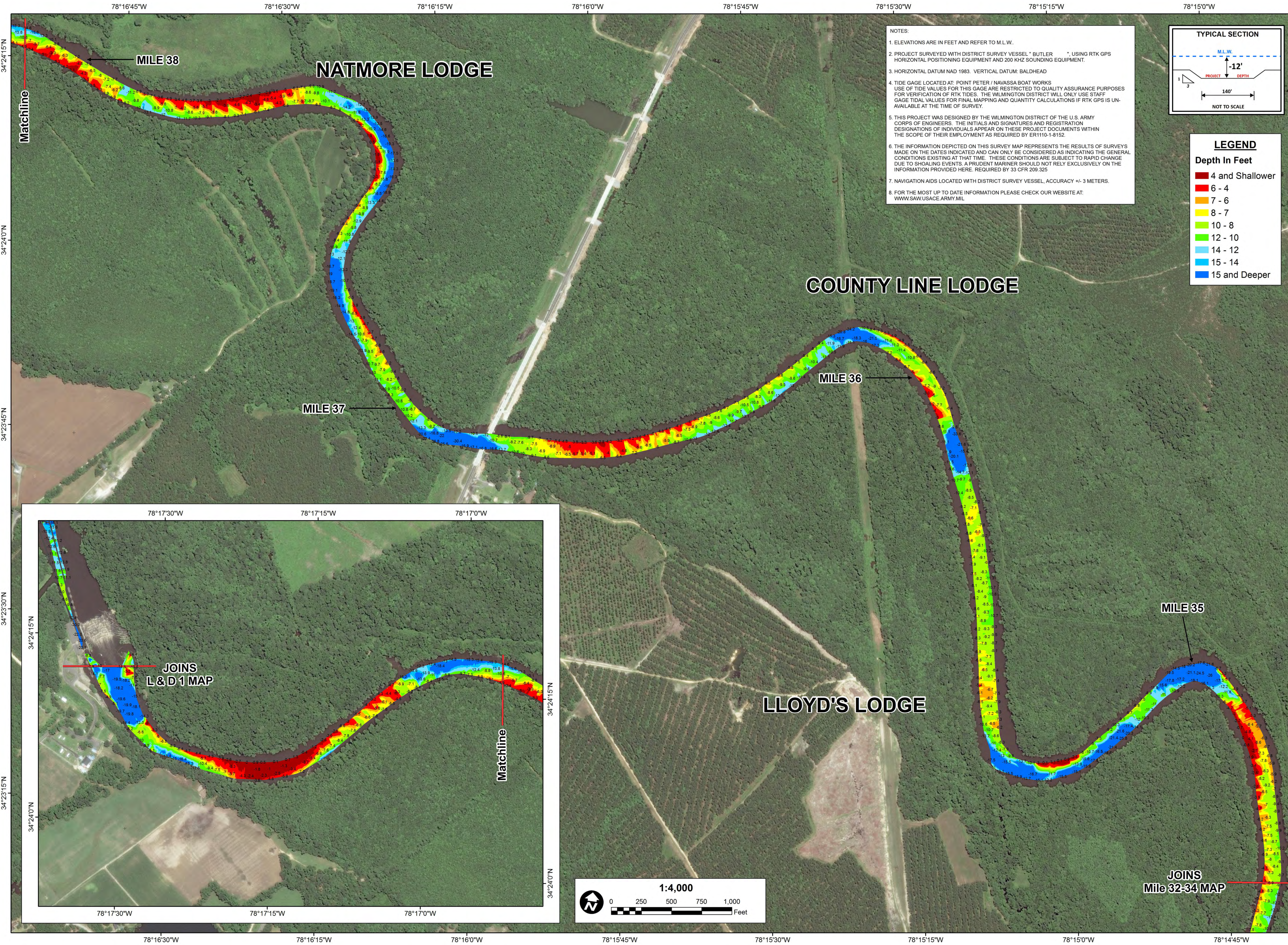
- NOTES:**
- ELEVATIONS ARE IN FEET AND REFER TO M.L.W.
  - PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL " BUTLER " USING RTK GPS HORIZONTAL POSITIONING EQUIPMENT AND 200 KHZ SOUNDING EQUIPMENT.
  - HORIZONTAL DATUM NAD 1983. VERTICAL DATUM: BALDHEAD
  - TIDE GAGE LOCATED AT: POINT PETER / NAVASSA BOAT WORKS  
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



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

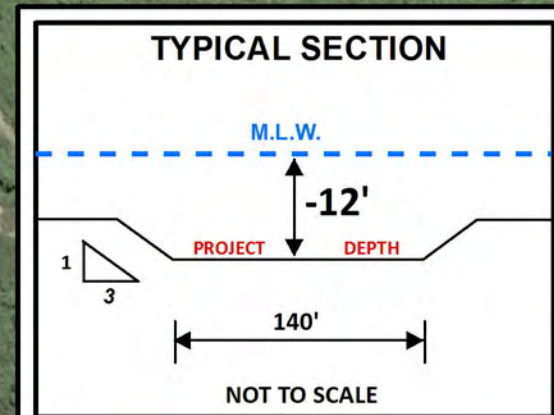
**Cape Fear Above  
 Mile 32 to 34**

CAPE FEAR RIVER, NORTH CAROLINA



NOTES:

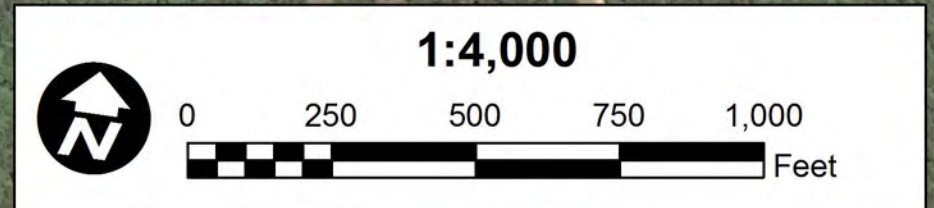
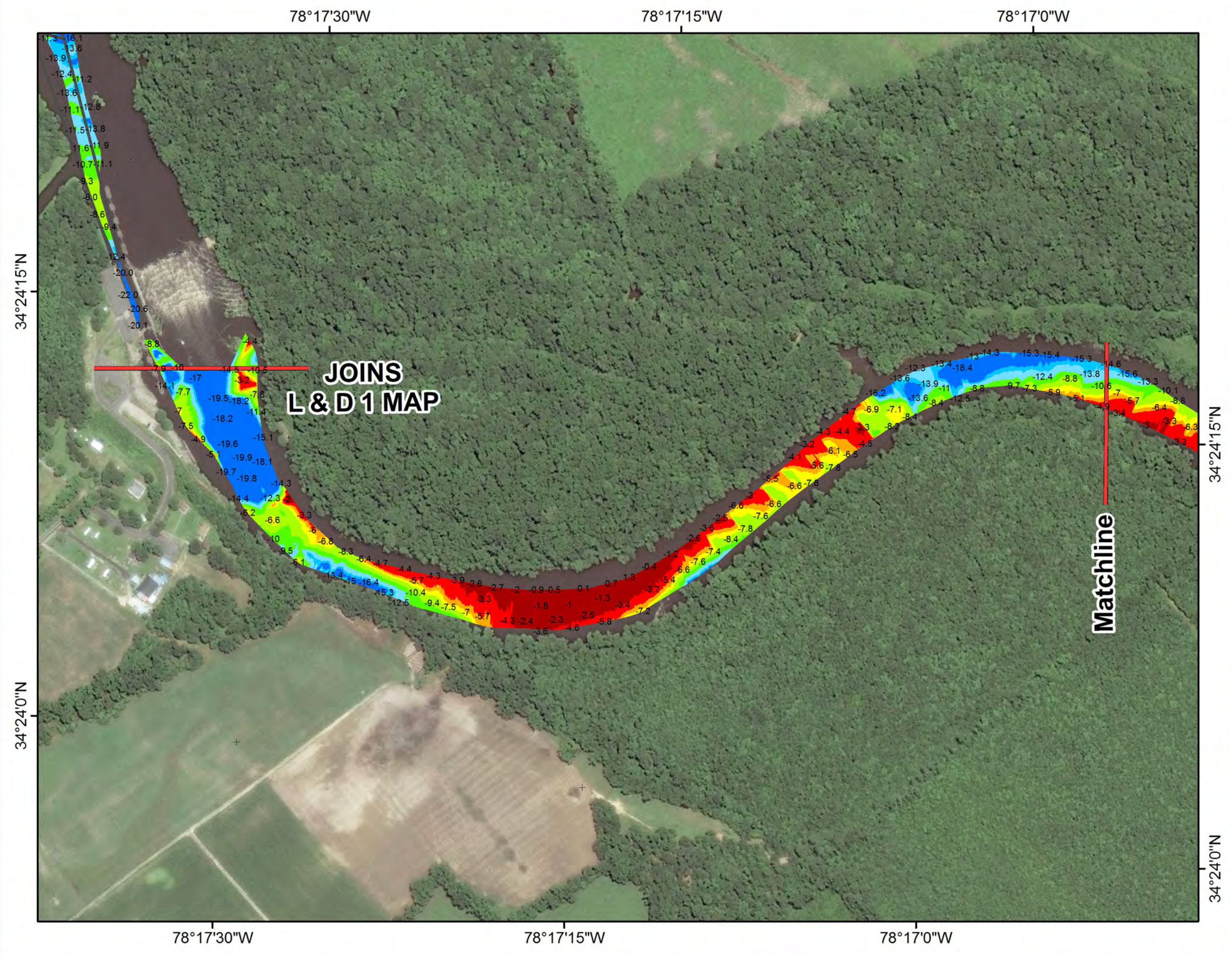
- ELEVATIONS ARE IN FEET AND REFER TO M.L.W.
- PROJECT SURVEYED WITH DISTRICT SURVEY VESSEL "BUTLER", USING RTK GPS HORIZONTAL POSITIONING EQUIPMENT AND 200 KHZ SOUNDING EQUIPMENT.
- HORIZONTAL DATUM NAD 1983, VERTICAL DATUM: BALDHEAD
- TIDE GAGE LOCATED AT: POINT PETER / NAVASSA BOAT WORKS. USE OF TIDE 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



**LEGEND**

Depth In Feet

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



**US Army Corps of Engineers**  
Wilmington District



SURVEY DATE: 03 MAY 2016	SURVEYED BY: MAS, WWW
MAP DATE: 02 AUGUST 2016	MAPPED: K7PDPSPGD
MAP SCALE: 1:4,000	
IMAGERY DATE: 3 JUNE 2016	
© 2016 DIGITALGLOBE NEXTVIEW LICENSE	MAP FILE NAME: CFA_MILE_35-38_2016-05-03.MXD

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

**Cape Fear Above  
Mile 35 to 38**  
CAPE FEAR RIVER, NORTH CAROLINA