

Hydraulics Unit Pre-Design Report (Pre-Scoping) for Structure #: 080198

Date: _____

County: Bladen Stream: KELLY CANAL
 Road #: SR 1536 Road Name: JAMES PORTER RD
 Division: 6 Location: 1.0 MI. N. JCT. NC 53
 Latitude: 34.48577 Longitude: -78.32128 Decimal degrees, a min of 5 decimal points

Assigned to: _____
 Prepared By: E AKPUOGU
 Hydro Reviewer: _____
 Project Type: _____

Existing Structure

Structure Type: Timber Deck/ Timber Joists Yr Built: 1966
 Span Arrangement: 1@17'8, 1@17'1, 1@16'8 OAL (ft): 51.0 Skew: 90 Abutment Type: _____
 Number of Barrels: _____ @ Span (ft): _____ x Rise (ft): _____
 Bed to Crown (ft): 10.0 Clear Roadway (ft): 24.0 Water Depth (ft): 1.0 Superstructure Depth: _____
 ADT: 40 Year ADT: 2000 Scour Code (item113): _____ Prior Survey Completed: No Survey Date: _____
 Drainage Area: 3.5 Sq. Mi. Drainage Area Source: INDETERMINATE, BEST Roadway Overtops at Q100: _____
 Discharge Method: USGS Regression Equations USGS Region: 4- Coastal Stream Gage Number(if applicable): _____
 Q10 (cfs): 377.0 Q25 (cfs): 525.0 Q50 (cfs): 655.0 Q100 (cfs): 800.0 QBFE (cfs): _____
 Structure in Flood Hazard Zone: Yes Panel #: 2206 Panel Date: 01/05/2007 Type of FIS: NO STUDY Date of FIS: _____

Enviromental

DA = Indeterminate / Best Estimate.

Quad Map: KELLY, NC River Basin: Cape Fear Buffer Rule: N/A
Primary Stream Classification
☐ Class B ☒ Class C ☐ SA ☐ SB
☐ SC ☐ SWL ☐ WL ☐ WS I
☐ WS II ☐ WS III ☐ WS IV ☐ WS V
Supplemental Stream Classification
☐ FWS ☐ HQW ☐ NSW ☐ ORW
☒ Sw ☐ Tr ☐ UWL ☐ w/in 0.5mi. of CA
Other Stream Classification
☐ Anadromous Fish ☐ Area of Environmental Concern
☐ CAMA County ☐ Federal Wild & Scenic Rivers
☐ HSB Required ☐ NC Natural & Scenic Rivers
☐ Impaired [303d] ☐ Primary Nursery Area
☐ TVA ☐ Designated Shellfish Harvesting Area
☐ Designated Public Mountain Trout Waters

Up/Down Stream Features

Upstream Feature: Bridge
 Location: 0.5 MI N. JCT. SR 1533
 Structure #: 080197 Route: SR 1534
 Latitude: 34.49541 Longitude: -78.34345
 Prior Survey Completed: No Survey Date: _____ Bed to Crown (ft): 10.0 Year Built: 1967
Downstream Feature: No
 Location: _____
 Structure #: _____ Route: _____
 Latitude: _____ Longitude: _____
 Prior Survey Completed: No Survey Date: _____ Bed to Crown (ft): _____ Year Built: _____
 Structure Type: PRESTRESSED CONC. CHANNEL
 Span Arrangement: 2@30'6 OAL (ft): 61.0
 Number of Barrels: _____ @ Span (ft): _____ x Rise (ft): _____

Preliminary Structure Estimate [Office Estimate]

Structure Type: _____ Skew: _____
 Dimensions/Spans: OFFICE ESTIMATED MIN. BRG.=65'

Notes



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STRUCTURE MANAGEMENT UNIT

ATTENTION: REDRAWN SUPSTRUCTURE SKETCHES,
TEMPORARY SHORING REPAIR PILES.

Structure Safety Report

Routine Element Inspection - Contract

COUNTY: BLADEN STRUCTURE NUMBER: 080198 FREQUENCY: 24 MONTHS

FACILITY CARRIED: SR1536 James Porter Rd. MILE POST:

LOCATION: 1.0 MI N. OF JCT NC53

FEATURE INTERSECTED: KELLY CREEK

LATITUDE: 34° 29' 8.76" 34.48576667 LONGITUDE: 78° 19' 16.61" - 78.32128056

SUPERSTRUCTURE: TIMBER FLOOR ON TIMBER JOISTS

SUBSTRUCTURE: EBTS&IBTS:TIMBER CAP/TIMBER PILES @ VAR.CTS.

SPANS: 1@17'8,1@17'1;1@16'8

☐ FRACTURE CRITICAL ☒ TEMPORARY SHORING ☐ SCOUR CRITICAL ☐ SCOUR PLAN OF ACTION

PRESENT CONDITION: Fair INSPECTION DATE: 06/16/2016

POSTED SV: 15 POSTED TTST: 22

OTHER SIGNS PRESENT: 4 DELINEATORS



SOUTH APPROACH LOOKING NORTH

Sign noticed issued for		Number Required
<u>NO</u>	WEIGHT LIMIT	<u>0</u>
<u>NO</u>	DELINEATORS	<u>0</u>
<u>NO</u>	NARROW BRIDGE	<u>0</u>
<u>NO</u>	ONE LANE BRIDGE	<u>0</u>
<u>NO</u>	LOW CLEARANCE	<u>0</u>

INSPECTED BY
H.W. HICKS, JR.

SIGNATURE

ASSISTED BY T.L. GOINS

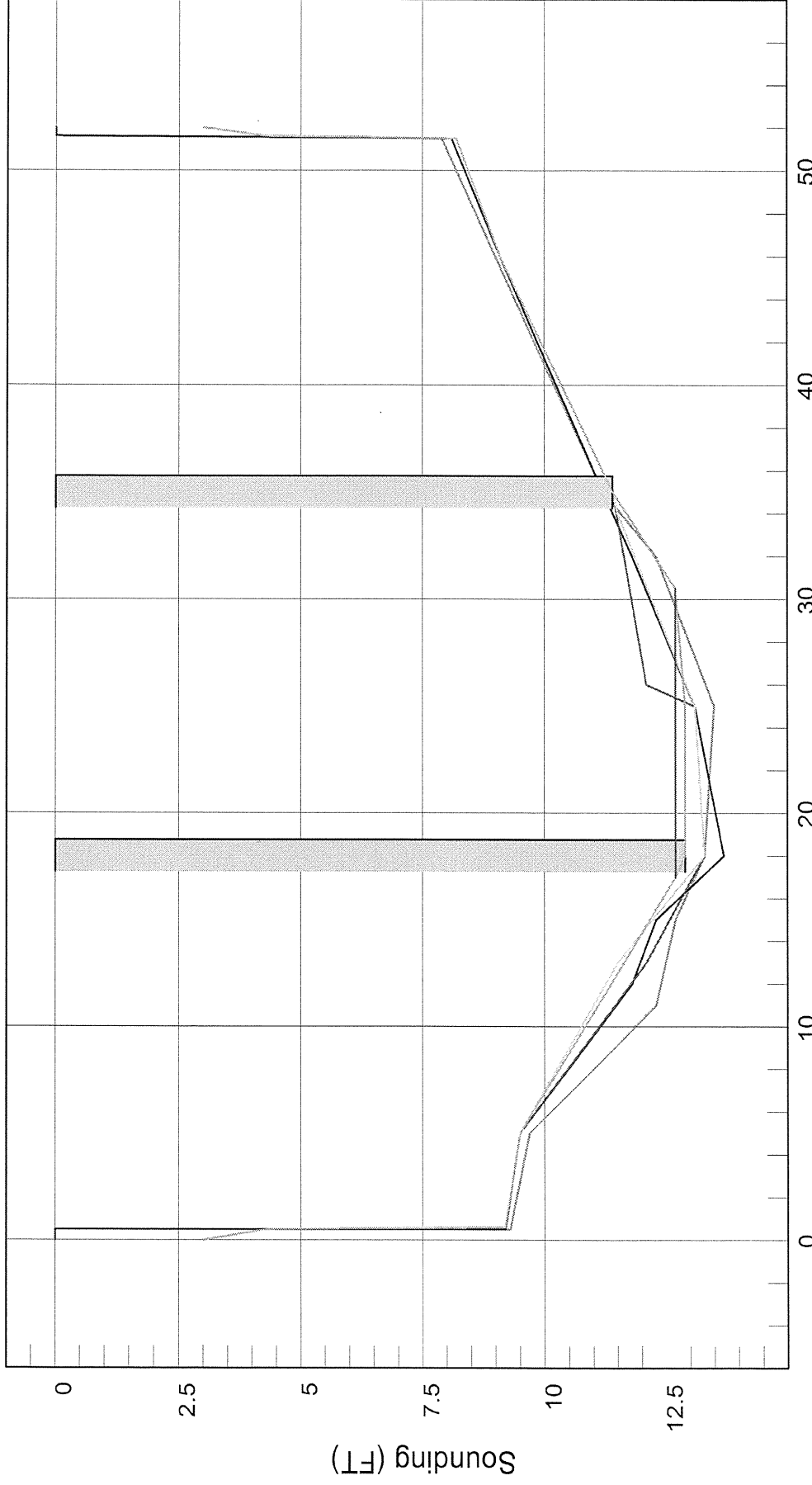
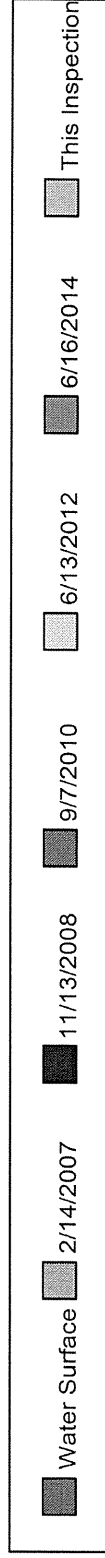
Bridge: 080198

County BLADEN

Date:

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



$16 \times 1.5 = 15 \times 2 = 30 + 20 + 15 = 65$
Distance (FT)

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 11/01/2016

COUNTY :	DIVISION :	DISTRICT :	STRUCTURE NUMBER :	LENGTH :	
BLADEN	6	3	080198	51	FEET

ROUTE CARRIED :	FEATURE INTERSECTED :
SR1536	KELLY CREEK

LOCATED :	BRIDGE NAME :	CITY :
1.0 MI N. JCT NC53		

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :
09	NFA	NFA	40 2000	LT 227 RT 227

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1966	BMU			Unknown

REHAB :	BY :	PROJ :	ALIGNMENT :	SKEW :	LANES :
	DBM		TAN.	90	ON 2 UNDER 0

NAVIGATION :			HT. CRN. TO BED :		WATER DEPTH :
VC 0 FT	HC 0 FT		10 FT		1 FT

SUPERSTRUCTURE : TIMBER FLOOR ON TIMBER JOISTS

SUBSTRUCTURE : EBTS&IBTS:TIMBER CAP/TIMBER PILES @ VAR.CTS.

SPANS : 1@17'8,1@17'1;1@16'8

BEAMS OR GIRDERS : 18 LINES 6X12 TIMBER JOISTS@1'5 CENTERS

FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
4X8 TIM/1.5" AWS		25.417 FT

CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :
24 FT	25 FT	LT .5 FT RT .5 FT

VERT.CL.OVER :
999.9 FT

INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :				
HS-1	HS-1	Timber Joist	SV 15	TTST 22	DATE	09/02/2008	

SYSTEM :	GREEN LINE ROUTE :
Secondary S.R. Route	N

UNDER ROUTES AND CLEARANCES

REMARKS :

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 12/13/2016

COUNTY : BLADEN DIVISION : 6 DISTRICT : 3 STRUCTURE NUMBER : 080197 LENGTH : 61 FEET

ROUTE CARRIED : SR1534 FEATURE INTERSECTED : KELLY CANAL

LOCATED : 0.5 MI.N. OF JCT.SR1533 BRIDGE NAME : CITY :

FUNC. CLASS : 09 SYST.ON : NFA SYST.UNDER : NFA ADT & YR : 170 2012 RAIL TYPE : LT 233 RT 233

BUILT : 1967 BY : BMU PROJ : 5.4251 FED.AID PROJ : DESIGN LOAD : H 10

REHAB : BY : DBM PROJ : ALIGNMENT : TAN. SKEW : 90 LANES : ON 2 UNDER 0

NAVIGATION : VC 0 FT HC 0 FT HT. CRN. TO BED : 10 FT WATER DEPTH : 2 FT

SUPERSTRUCTURE : PRESTRESSED CONCRETE CHANNELS

SUBSTRUCTURE : E.BTS&INT.BTS:PPC CAPS/TIMBER PILES @ 5'8 CTS.

SPANS : 2 @ 30'6

BEAMS OR GIRDERS : 10 LINES PRESTRESSED CONCRETE CHANNEL SECTIONS

FLOOR : PPCCH/2 AWS ENCROACHMENT : DECK (OUT TO OUT) : 25.583 FT

CLEAR ROADWAY : 24.083 FT BETWEEN RAILS : 25.042 FT SIDEWALK OR CURB : LT .4795 FT RT .4795 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS-1 OPE.RTG. : HS-1 CONTR.MEMBER : Timber Pile POSTED : SV 24 TTST 32 DATE 09/02/2008

SYSTEM : Secondary S.R. Route GREEN LINE ROUTE : N

UNDER ROUTES AND CLEARANCES

Upstream structure.

REMARKS :

Enter report title:

StreamStats Report

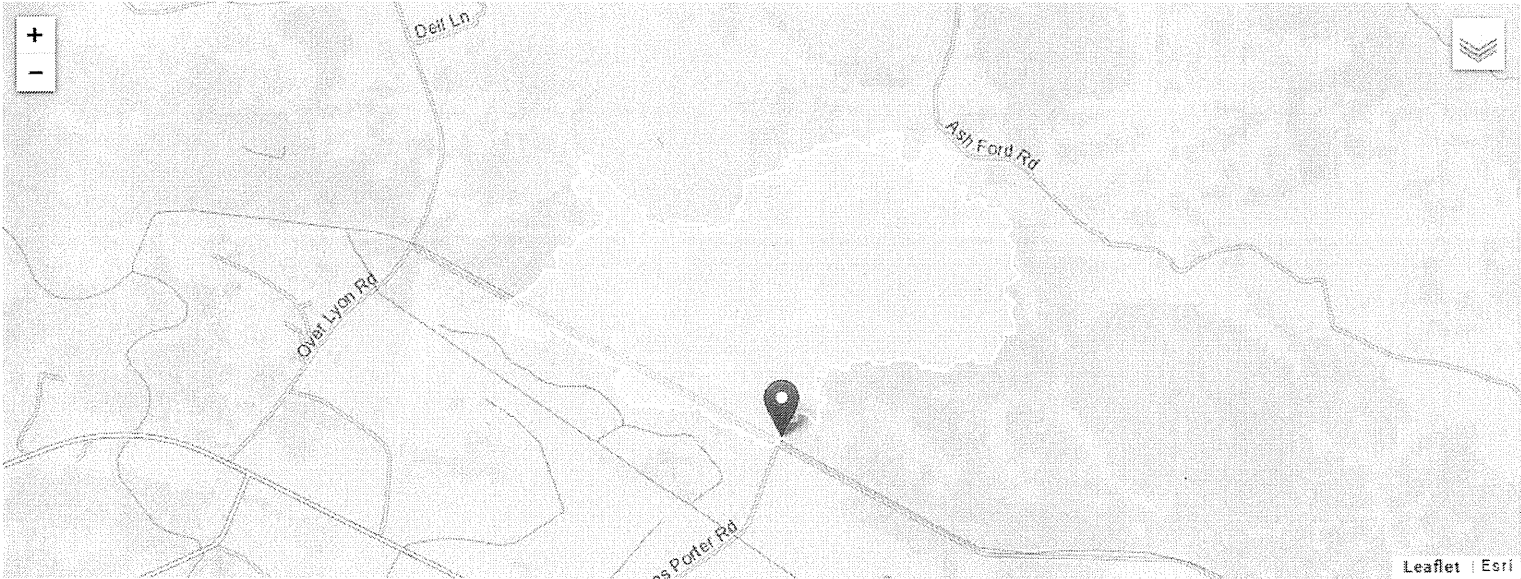
Enter comments:

Some comments here

StreamStats Report

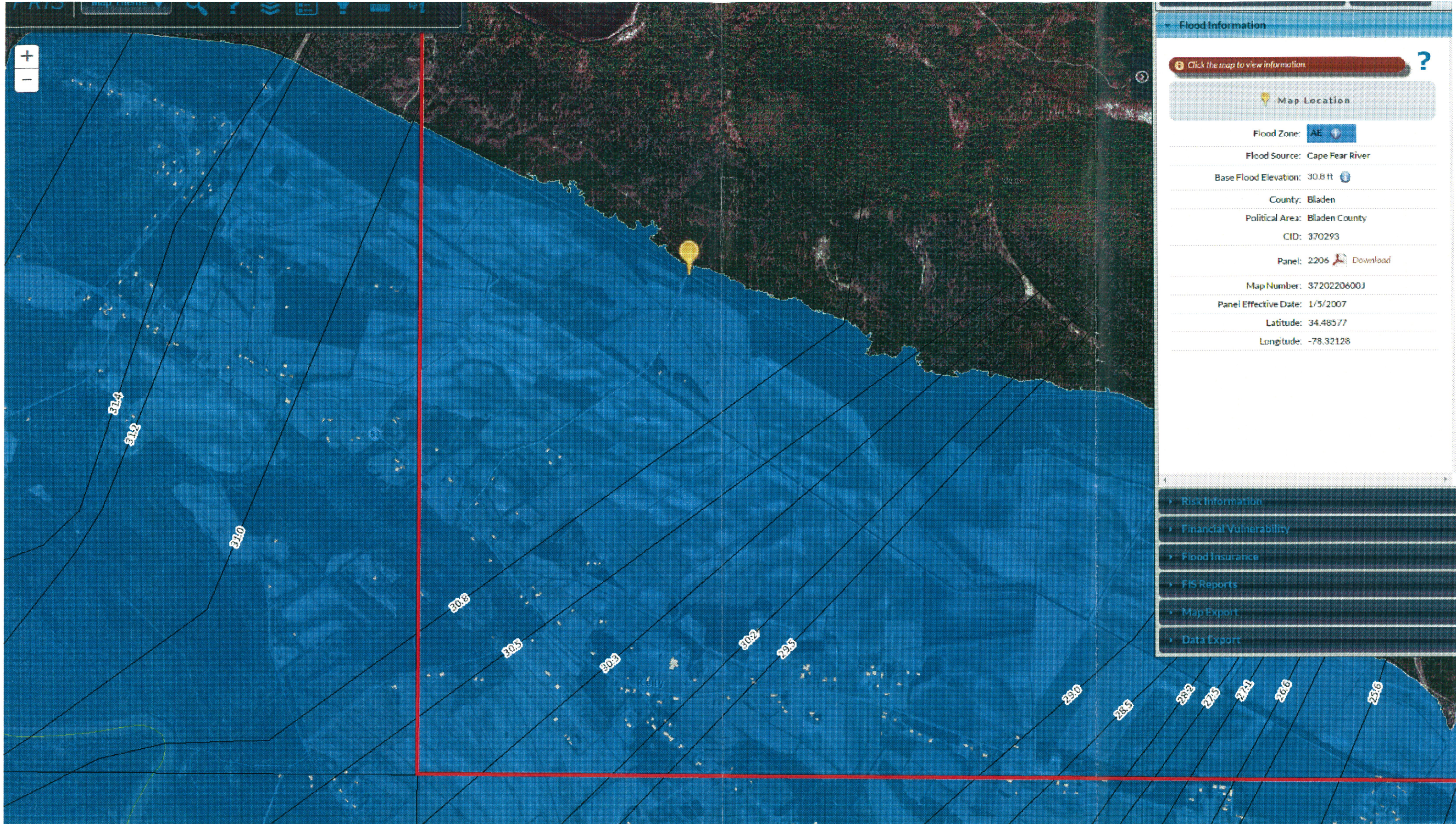
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Workspace ID:
Clicked Point (Latitude, Longitude):
Time:

NC
NC20180613194237533000
34.48585, -78.32121
2018-06-13 15:43:00 -0400



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	1.08	square miles
I24H50Y	Maximum 24-hour precipitation that occurs on average once in 50 years	8.96	inches
LC11IMP	Average percentage of impervious area determined from NLCD 2011 impervious dataset	0.0794	percent



Flood Information

Click the map to view information.

Map Location

Flood Zone: AE

Flood Source: Cape Fear River

Base Flood Elevation: 30.8 ft

County: Bladen

Political Area: Bladen County

CID: 370293

Panel: 2206 Download

Map Number: 3720220600J

Panel Effective Date: 1/5/2007

Latitude: 34.48577

Longitude: -78.32128

- Risk Information
- Financial Vulnerability
- Flood Insurance
- FIS Reports
- Map Export
- Data Export

