

Hydraulics Unit Pre-Design Report (Pre-Scoping) for Structure #: 250043

Date: _____

County: Cumberland Stream: Sandy Creek
Road #: SR 2030 Road Name: Hollow Bridge Rd.
Division: 6 Location: 0.05 MI. N. JCT. SR 2028
Latitude: 34.98495 Longitude: -78.64391 Decimal degrees, a min of 5 decimal points

Assigned to: _____
Prepared By: E. Akpuogu
Hydro Reviewer: _____
Project Type: Brg. Replacement

Existing Structure

Structure Type: RC Deck/ Timber Joists Yr Built: 1969
Span Arrangement: 2@17.83' OAL (ft): 36.0 Skew: 90 Abutment Type: Vertical -Timber
Number of Barrels: @ Span (ft): x Rise (ft):
Bed to Crown (ft): 6.0 Clear Roadway (ft): 29.3 Water Depth (ft): 3.0 Superstructure Depth:
ADT: 720 Year ADT: 2010 Scour Code (item113): Prior Survey Completed: No Survey Date:
Drainage Area: 14.0 Sq. Mi. Drainage Area Source: USGS Stream Stats Roadway Overtops at Q100: Yes
Discharge Method: USGS Regression Equations USGS Region: 4- Coastal Stream Gage Number(if applicable):
Q10 (cfs): 890.0 Q25 (cfs): 1,215.0 Q50 (cfs): 1,505.0 Q100 (cfs): 1,825.0 QBFE (cfs):
Structure in Flood Hazard Zone: Yes Panel #: 1404 Panel Date: 01/05/2007 Type of FIS: LIMITED Date of FIS: 01/05/2007

Enviromental

Quad Map: AUTRYVILLE, 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

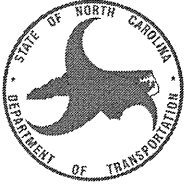
Up/Down Stream Features

Upstream Feature: Nothing
Location:
Structure #: Route:
Latitude: Longitude:
Prior Survey Completed: Survey Date: Bed to Crown (ft): Year Built:
Downstream Feature: Confluence w/ Stream(s)
Location: Confluence with south River.
Structure #: Route:
Latitude: Longitude:
Prior Survey Completed: Survey Date: Bed to Crown (ft): Year Built:

Preliminary Structure Estimate [Office Estimate]

Structure Type: Skew: 90Dimensions/Spans:
Office estimated min. brg. length= 75'
30' out To out

Notes



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
STRUCTURE MANAGEMENT UNIT

ATTENTION: PRIORITY MAINT; TEMP REPAIRS; SKETCHES
UPDATED

Structure Safety Report

Routine Element Inspection - Contract

COUNTY: CUMBERLAND STRUCTURE NUMBER: 250043 FREQUENCY: 24 MONTHS

FACILITY CARRIED: SR2030 MILE POST:

LOCATION: 0.05 MI.N.JCT.SR2028

FEATURE INTERSECTED: CREEK

LATITUDE: 34° 59' 5.68" 34.9849 LONGITUDE: 78° 38' 38.17" -78.644
34.98491111 78.64393611

SUPERSTRUCTURE: RC FLOOR ON TIMBR JOIST, STD BMD-10MR

SUBSTRUCTURE: E.BTS&BT:TIM CAPS/TIM.PILES

2@17.83'

SPANS: 2@17.833'

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

PRESENT CONDITION: Fair INSPECTION DATE: 02/24/2016

POSTED SV: 22 POSTED TTST: 31

OTHER SIGNS PRESENT: (4) DELINEATORS



SOUTH APPROACH

Sign noticed issued for		Number Required
<u>YES</u>	<u>WEIGHT LIMIT</u>	<u>1</u>
<u>NO</u>	<u>DELINEATORS</u>	<u>0</u>
<u>NO</u>	<u>NARROW BRIDGE</u>	<u>0</u>
<u>NO</u>	<u>ONE LANE BRIDGE</u>	<u>0</u>
<u>NO</u>	<u>LOW CLEARANCE</u>	<u>0</u>

INSPECTED BY ERIC A. PATTERSON	SIGNATURE <i>Eric A. Patterson</i>	ASSISTED BY KEITH PROCTOR
-----------------------------------	---------------------------------------	------------------------------

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 07/20/2016

COUNTY :	DIVISION :	DISTRICT :	STRUCTURE NUMBER :	LENGTH :	
CUMBERLAND	6	2	250043	36	FEET

ROUTE CARRIED :	FEATURE INTERSECTED :
SR2030	CREEK

LOCATED :	BRIDGE NAME :	CITY :
0.05 MI.N.JCT.SR2028		

FUNC. CLASS :	SYST.ON :	SYST.UNDER :	ADT & YR :	RAIL TYPE :
08	NFA	NFA	720 2010	LT 233 RT 233

BUILT :	BY :	PROJ :	FED.AID PROJ :	DESIGN LOAD :
1969	BMU	5.4451		Unknown

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

NAVIGATION :	HT. CRN. TO BED :	WATER DEPTH :
VC 0 FT HC 0 FT 6 FT		3 FT

SUPERSTRUCTURE : RC FLOOR ON TIMBR JOIST, STD BMD-10MR

SUBSTRUCTURE : E.BTS&BT:TIM CAPS/TIM.PILES

SPANS : 2@17.83'

BEAMS OR GIRDERS : 23 LINES 6X12TIMBER JOISTS @ VAR CTS

FLOOR :	ENCROACHMENT :	DECK (OUT TO OUT) :
5RC/NO AWS		29.3333 FT

CLEAR ROADWAY :	BETWEEN RAILS :	SIDEWALK OR CURB :
27.9167 FT	28.6667 FT	LT .3752 FT RT .3752 FT

VERT.CL.OVER :
999.9 FT

INV.RTG. :	OPE.RTG. :	CONTR.MEMBER :	POSTED :	TTST	DATE
HS-13	HS-19	Int Joist	SV 22	31	09/04/2008

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

UNDER ROUTES AND CLEARANCES

REMARKS :

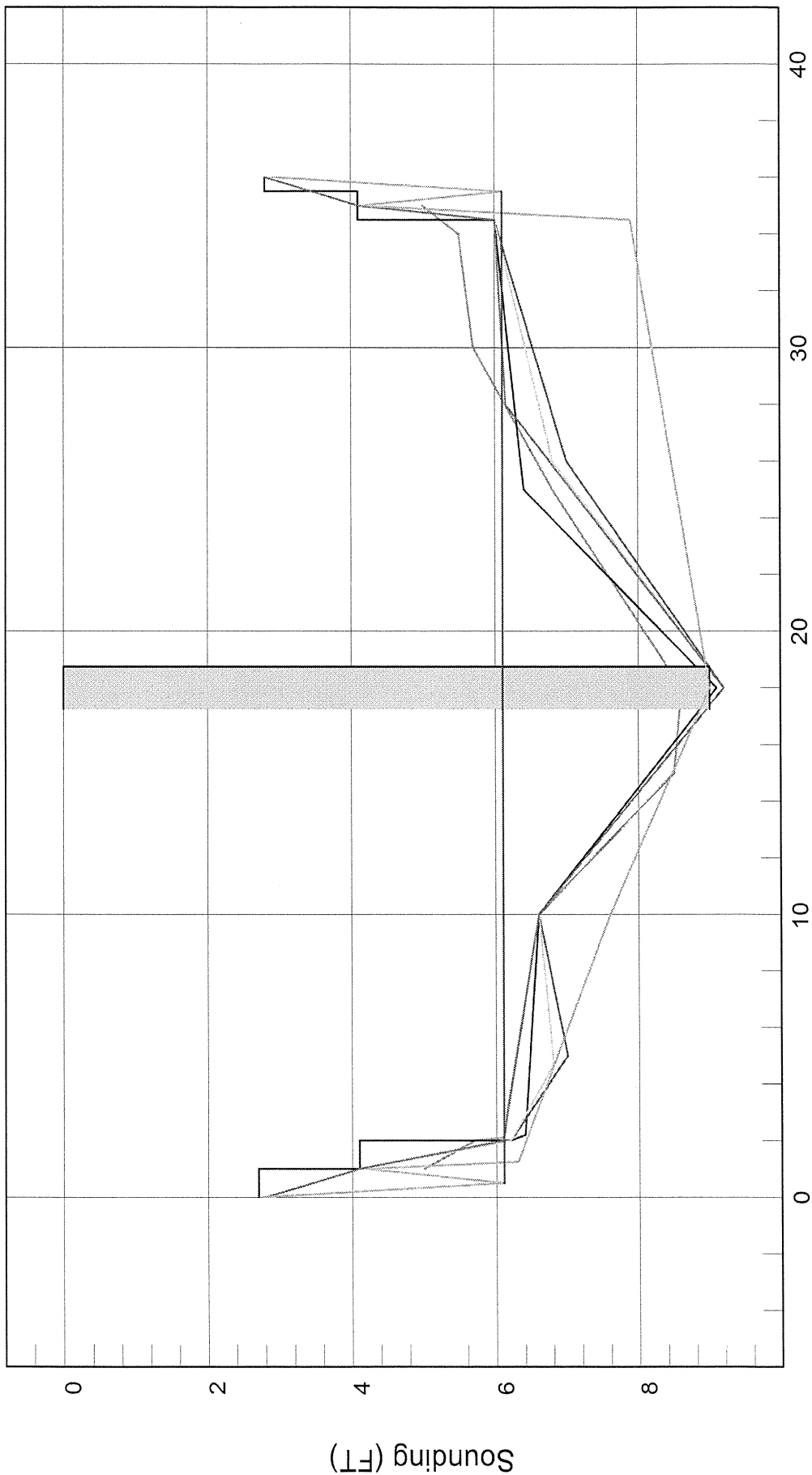
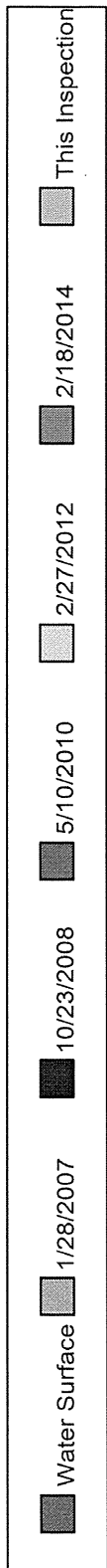
Date:

County: CUMBERLAND

Bridge: 200043

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)



$$6 \times 1.5 = 9 \times 2 = 18 + 20 + 35$$

Enter report title:

StreamStats Report

Enter comments:

Some comments here

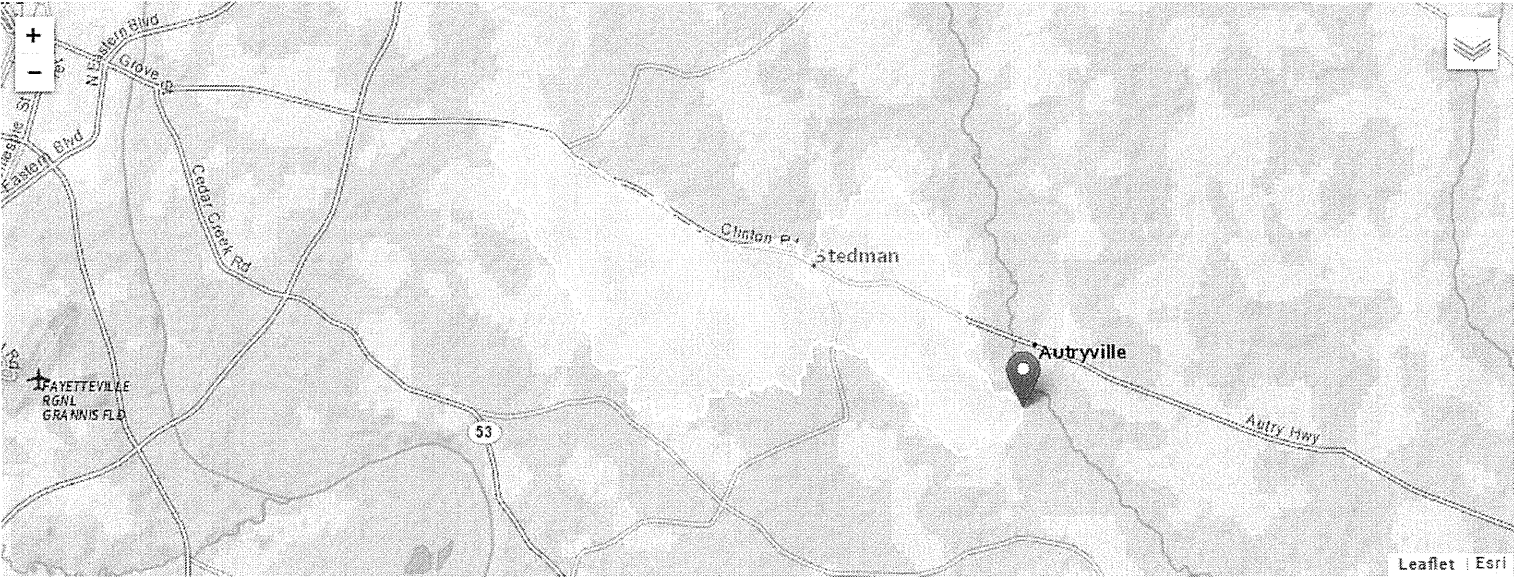
StreamStats Report

Region ID:NC

Workspace ID:NC20180612145425404000

Clicked Point (Latitude, Longitude):34.98534, -78.64383

Time:2018-06-12 10:54:43 -0400

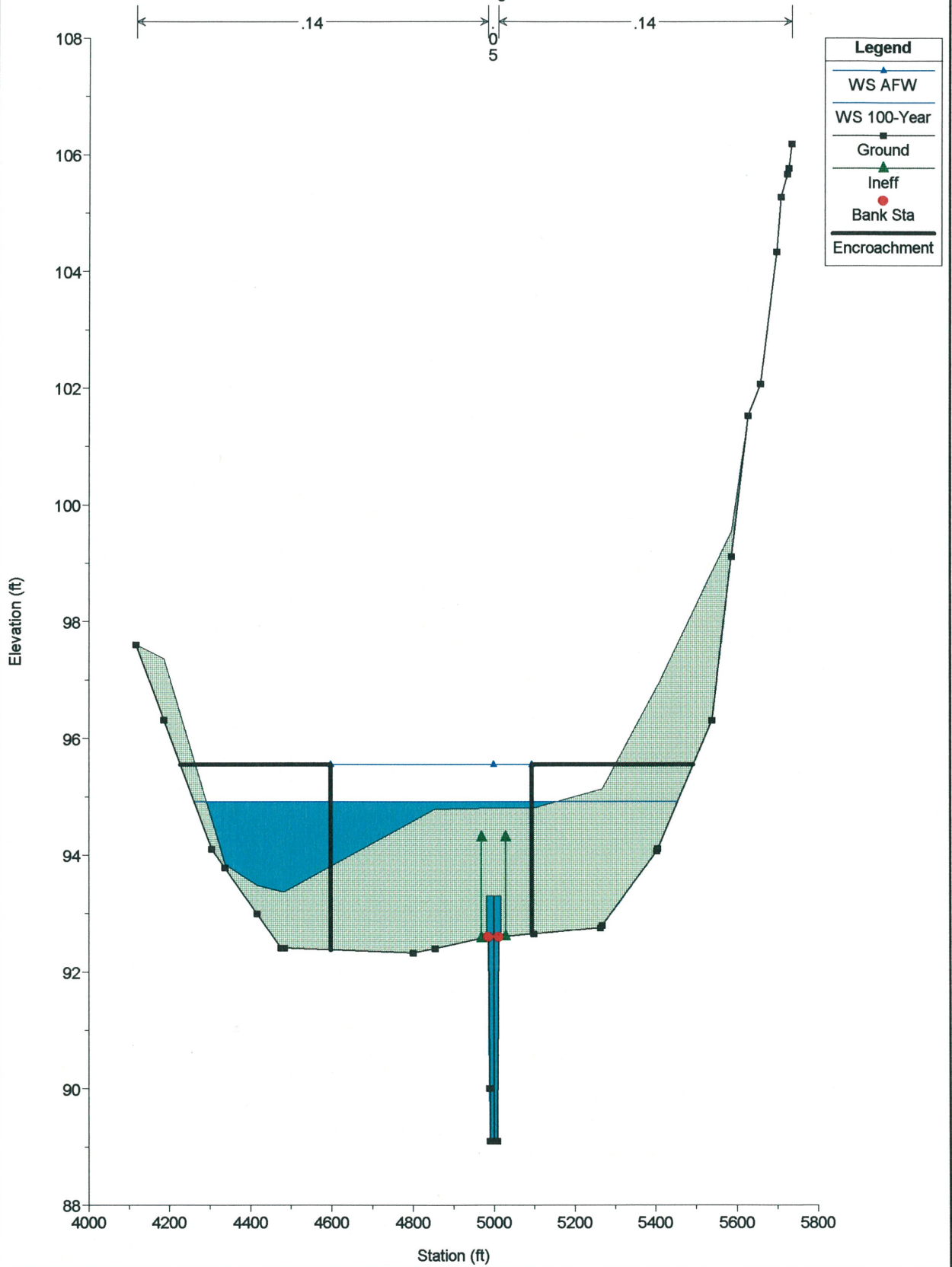


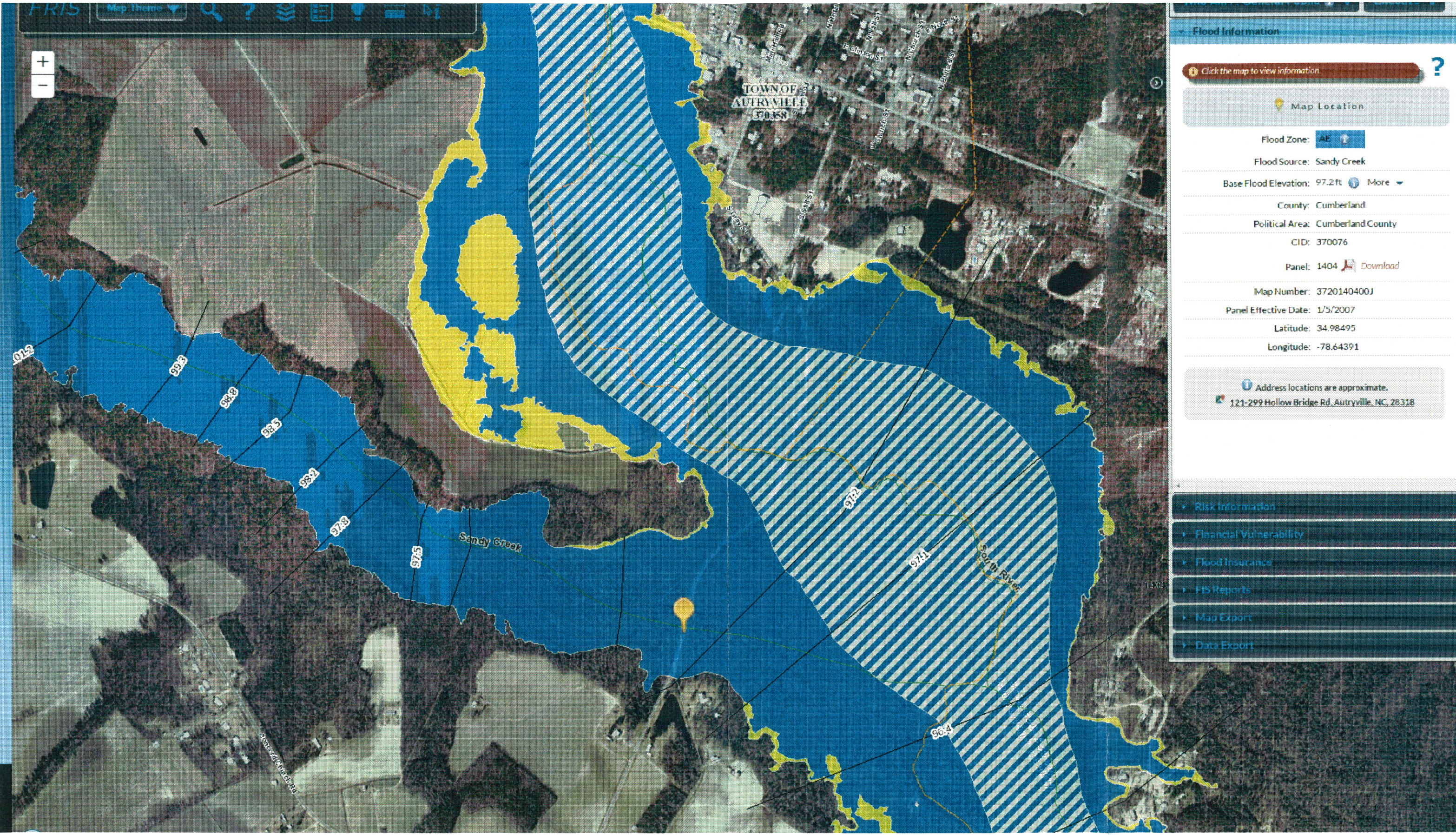
Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	14.2	square miles
I24H50Y	Maximum 24-hour precipitation that occurs on average once in 50 years	7.92	inches
LC11IMP	Average percentage of impervious area determined from NLCD 2011 impervious dataset	1.44	percent

Sandy CreekADJ

Plan: Approximate Floodway 6/12/2018
Hollow Bridge Rd





Flood Information

Click the map to view information.

Map Location

Flood Zone: AE

Flood Source: Sandy Creek

Base Flood Elevation: 97.2 ft

County: Cumberland

Political Area: Cumberland County

CID: 370076

Panel: 1404

Map Number: 3720140400J

Panel Effective Date: 1/5/2007

Latitude: 34.98495

Longitude: -78.64391

Address locations are approximate.
121-299 Hollow Bridge Rd, Autryville, NC, 28318

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

