

OFFICE ESTIMATE
2 @ 10x8 RCBC

PREDESIGN-PRESURVEY REPORT

Project# 17BP.11.R.99

TIP# _____

Let Date _____

WBS# _____

County AVERY (DIV 11)

Bridge# 050052

Road# SR1132 (ROARING CRK. RD.)

Stream MARTIN CRK ✓

Type Of Request: POC Force Account TIP NCMA

Date 4/21/14 Name WSH

Assigned To RCH

Checked By MJY 4-22-14

BRN. BK. NO CO. FILE NO

Prior Survey Date NONE (attach copy of prior survey)

Study By Scout Section NONE

Flood Zone X Detail Study NONE Date 12/2/08 Panel# 1806

B.M. Info N/A

Quad Map CARVERS GAP Drainage Area 1.1 Sq. Mi. From STREAM STATS & ESM (1.1)

Q25 = 440 cfs Q50 = 500 cfs Q100 = 650 cfs Method REGION 2 / RURAL
REG. EQU.

82.03933
EXISTING BRIDGE INFORMATION

Location 200' S. JCT. SR 1134 (Long: 82° 02' 21.6" / Lat: 36° 08' 23.6")

Average Daily Traffic 620 (2012) 6% TRK.

Length L=23' Bed- To Crown 7' Water Depth 1'

Type Structure TIMBER & FLR. JOIST, w/ ABUTS YOUNG MASONRY w/ TIM. RISER

Type Spans 1 @ 22' 6"

Upstream Structure 050105

Location SR 1134 (15' W. JCT. SR 1132) TIMBER FLR ON I-BEAMS

Bed- To Crown 9' (H₂O=1' DEEP) Prior Survey TIMBER E. BT. CAP. POST, CONC. SILL.

Downstream Structure 050040 (AFTER CONVERGING W/ ROARING CRK.) 1 @ 18'-8"

Location SR 1132 (25' S. JCT SR 1135) 1 @ 42' 1 @ 40' 1 @ 54' 6"

Bed- To Crown 13' (H₂O=2' DEEP) Prior Survey PRESTRESSED CONC. CORED SLAB

SCS Watershed N/A

ESM = YES - UNDESIGNATED ENVIRONMENTAL

TVA: YES ✓

Trout Stream YES Anadromous Fish NO Primary Nursery Area NO

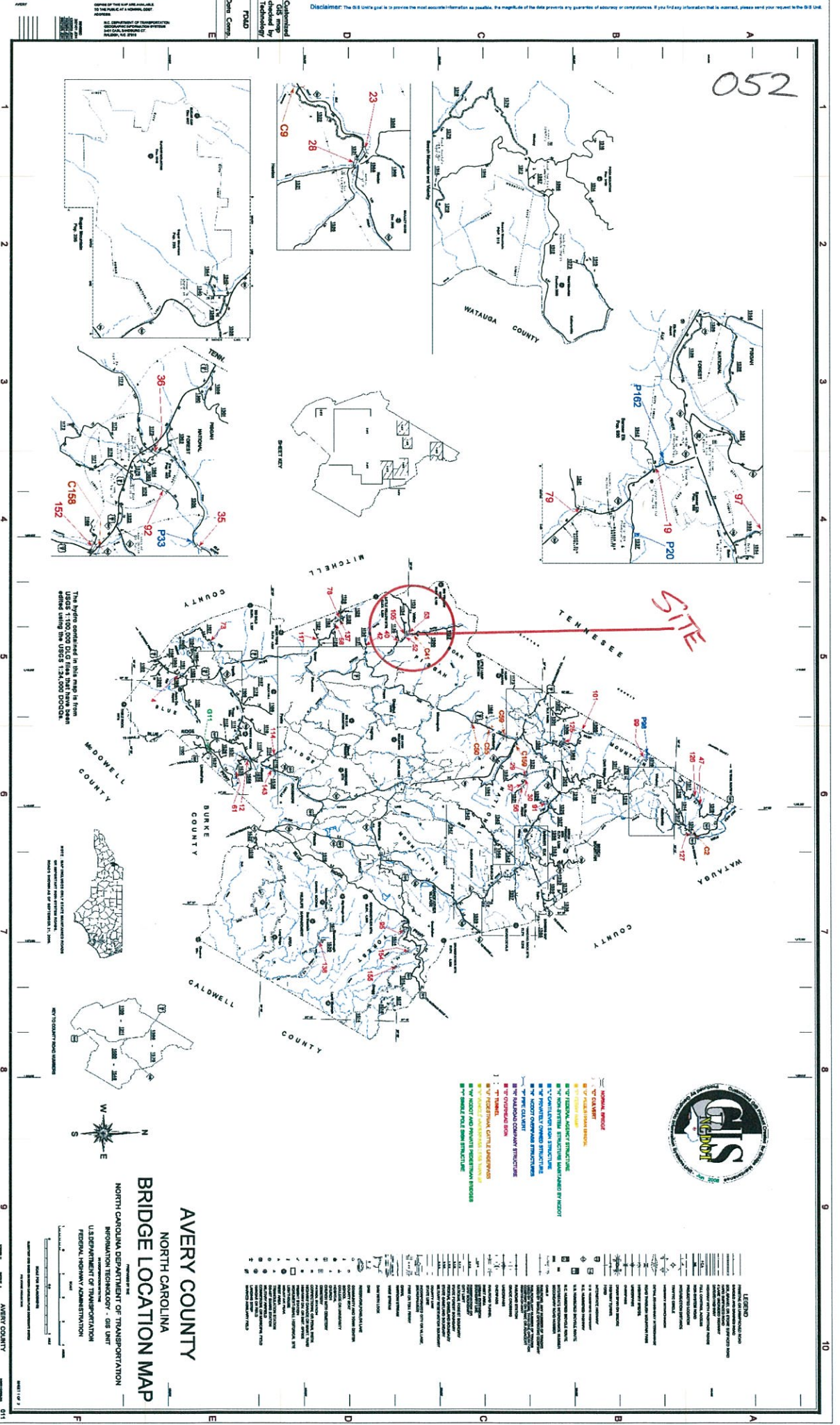
High Quality Waters NO Nutrient Sensitive Waters NO

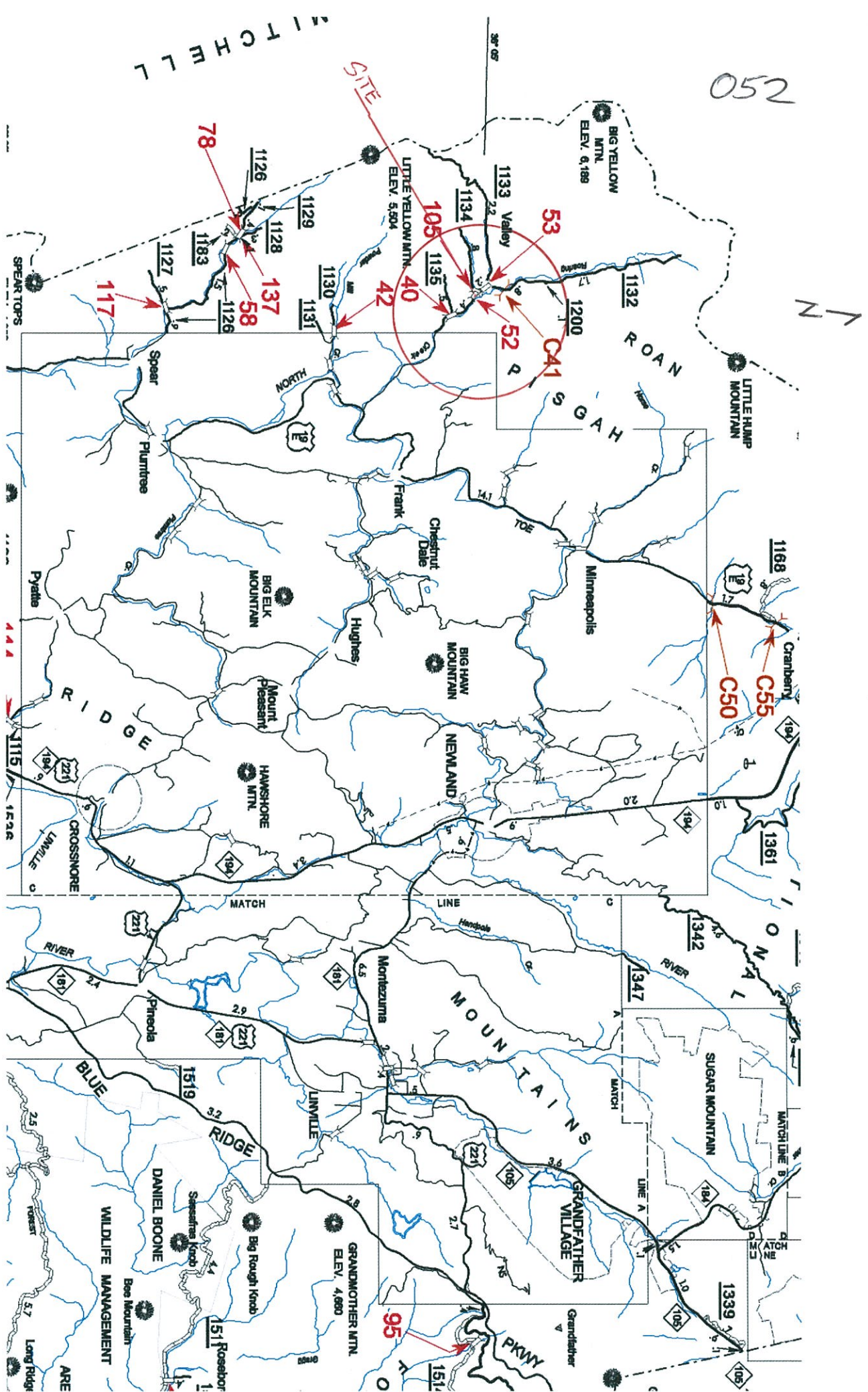
Near Water Supply Intake NO CAMA County NO ✓

Stream Classification WS-V; Tr # 7-2-15-6 ✓ (FROM SOURCE

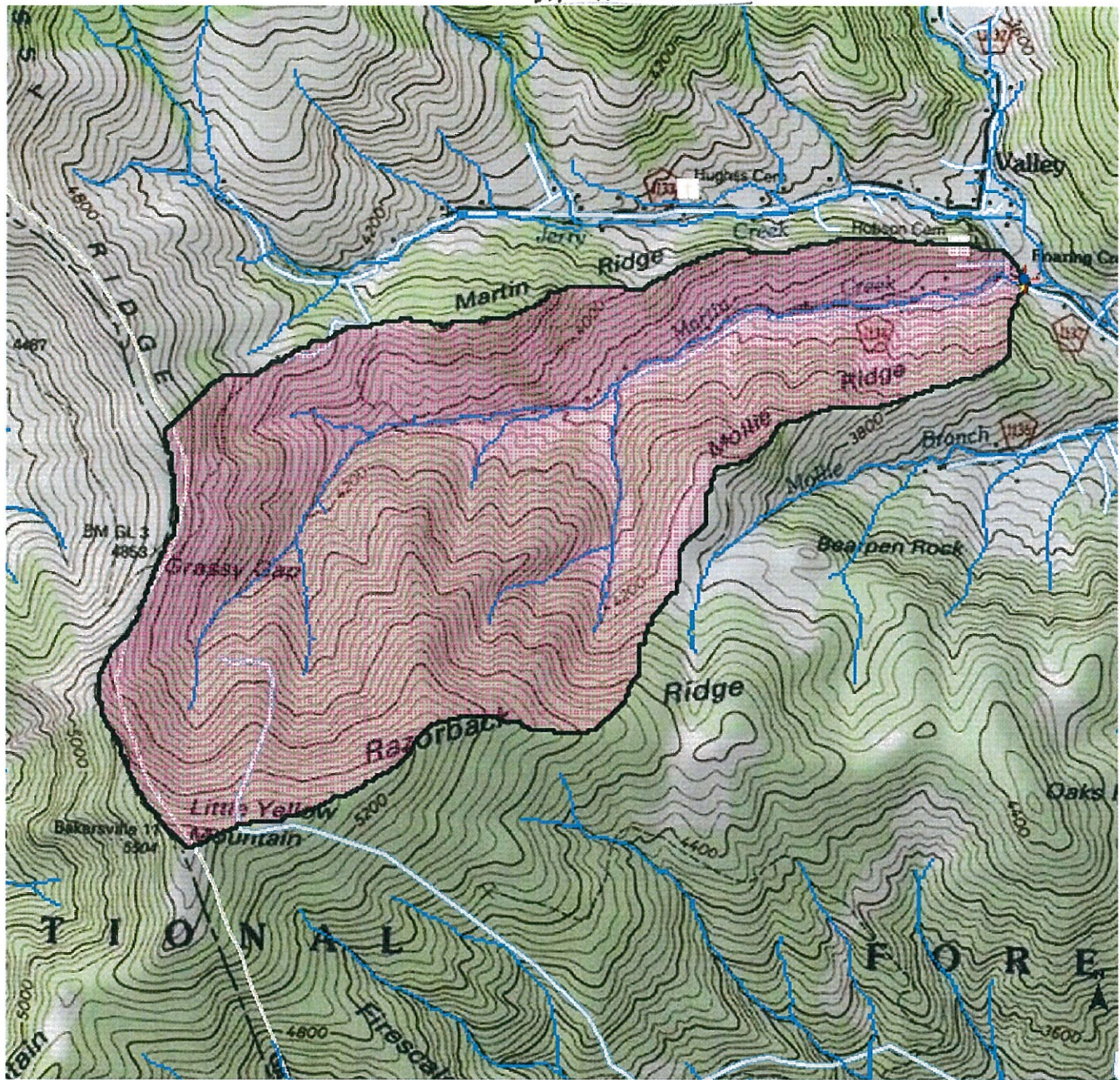
DENR River Basin Info. FRENCH BROAD TO ROARING CRK)

1, 4, 18, 24,
ESM DA = 1.1 Sq. Mi.





AVERY CO. 050052
DA = 1.1 SQ. MI.



0.3 0.15 0 0.3 Miles

050052



North Carolina StreamStats

Streamstats Ungaged Site Report

Date: Tue Apr 22 2014 06:09:09 Mountain Daylight Time

Site Location: North_Carolina

NAD27 Latitude: 36.0822 (36 04 56)

NAD27 Longitude: -82.0397 (-82 02 23)

NAD83 Latitude: 36.0823 (36 04 56)

NAD83 Longitude: -82.0396 (-82 02 22)

Drainage Area: 1.13 mi²

Percent Urban: 1.4 %

Percent Impervious: 0.1 %

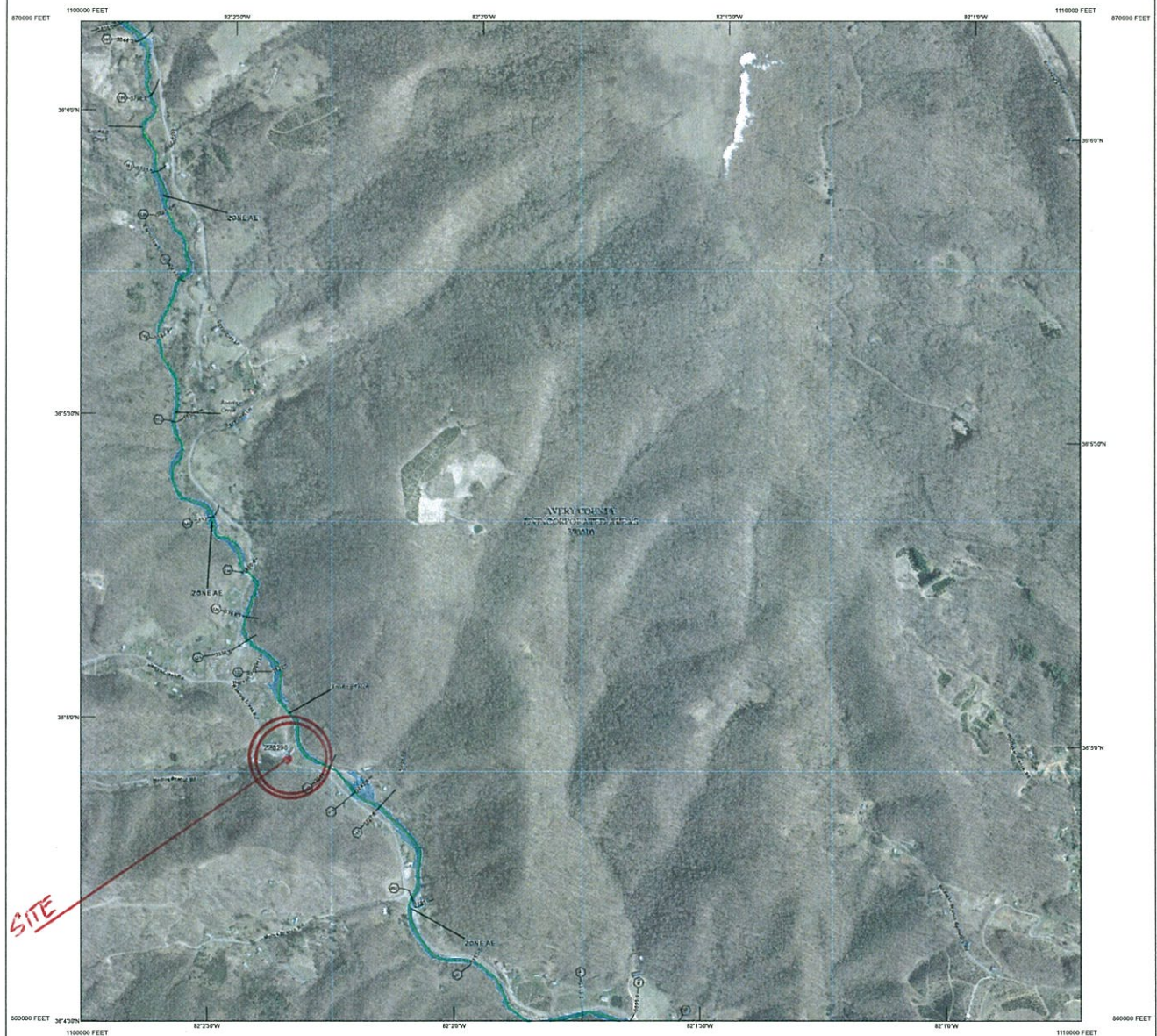
Peak Flows Region Grid Basin Characteristics			
100% Peak Southeast US 2009 5158 (1.13 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	1.13	1	9000
Percent Area in Region 1 (percent)	0.000	0	100
Percent Area in Region 2 (percent)	100.000	0	100
Percent Area in Region 3 (percent)	0.000	0	100
Percent Area in Region 4 (percent)	0.000	0	100
Percent Area in Region 5 (percent)	0.000	0	100

Urban Flows Region Grid Basin Characteristics			
100% Peak urban Blue Ridge-Piedmont FS007-00 (1.13 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	1.13	0.04	41
Area of Impervious Surfaces (percent)	0.08 (below min value 2)	2	54.6

Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

Peak Flows Region Grid Streamflow Statistics					
Statistic	Flow (ft ³ /s)	Prediction Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
PK2	121	35		68.2	213
PK5	229	34		130	403
PK10	316	35		176	565
PK25	435	38		234	810
PK50	523	40		271	1010
PK100	628	42		315	1250
PK200	720	44		348	1490
PK500	866	48		397	1890

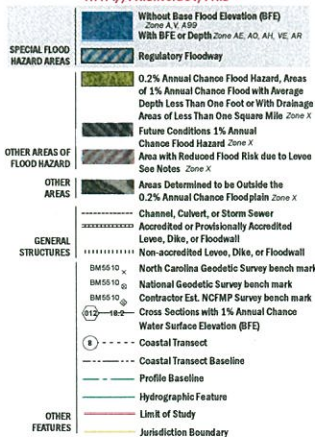
Urban Flows Region Grid Streamflow Statistics					
Statistic	Flow (ft ³ /s)	Standard Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
PK2U	6.44				
PK5U	20.2				
PK10U	36				
PK25U	81.7				
PK50U	117				
PK100U	163				



This digital Flood Insurance Rate Map (FIRM) was produced through a unique cooperative partnership between the State of North Carolina and the Federal Emergency Management Agency (FEMA). The State of North Carolina has implemented a long-term approach to floodable management to ensure the state's compliance with the National Flood Insurance Act. As a part of this effort, the State of North Carolina has entered into a long-term partnership with FEMA to produce and maintain this digital FIRM.

FLOOD HAZARD INFORMATION

SEE FIS REPORT FOR ZONE DESCRIPTIONS AND INDEX MAP
THE INFORMATION DEPICTED ON THIS MAP AND SUPPORTING
DOCUMENTATION ARE ALSO AVAILABLE IN DIGITAL FORMAT AT
[HTTP://FRIS.NC.GOV/FIS](http://fris.nc.gov/FIS)



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 visit the FEMA Map Information eXchange at <http://www.fema.gov/mie> or visit the FEMA Map Service Center website at <http://www.fema.gov>. An accompanying Flood Insurance Study report, Letter of Map Revision (LOR), or Letter of Map Amendment (LOMA) relating portions of this panel, and digital versions of this FIRM may be available. Visit the North Carolina Floodplain Mapping Program website at <http://www.ncfloodmaps.com> or contact the FEMA Map Service Center.

Communities receiving land on adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM to this. These maps are ordered directly from the Map Service Center at the number listed above.

For community and countywide map data refer to the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in the community, contact your insurance agent or call the National Flood Insurance Program at 1-800-438-6633.

Base map information shown on this FIRM was provided in digital format by the North Carolina Floodplain Mapping Program (NCFPMP). The source of this information can be determined from the metadata available in the digital FIRM metadata and the National Flood Insurance Program (NFIP) metadata.

ACCREDITED LEVEE NOTES TO USERS: If an accredited levee note appears on this panel along with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent annual chance level and Emergency Action Plan, or the levee system) shown as providing protection. To mitigate flood risk in individual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at <http://www.fema.gov/floodinsurance/index.cfm>.

PROVISIONALLY ACCREDITED LEVEE NOTES TO USERS: If a Provisionally Accredited Levee (PAL) note appears on this panel, click with your local community to obtain more information, such as the estimated level of protection provided (which may exceed the 1-percent annual chance level and Emergency Action Plan, or the levee system) shown as providing protection. To maintain accreditation, the levee owner or community in the area must provide the necessary data and documentation of the levee system. If the community or owner does not provide the necessary data and documentation of the levee system, FEMA will remove the flood hazard and risk information for this area to reflect de-accreditation of the levee system. To mitigate flood risk in individual risk areas, property owners and residents are encouraged to consider flood insurance and floodproofing or other protective measures. For more information on flood insurance, interested parties should visit the FEMA Website at <http://www.fema.gov/floodinsurance/index.cfm>.

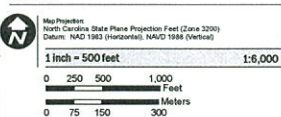
LIMIT OF MODERATE WAVE ACTION NOTES TO USERS: For some coastal flooding zones the AE Zone boundary has been determined by a Limit of Moderate Wave Action (LMWA). The LMWA represents the approximate landward limit of a 1.5-foot breaking wave. The effects of waves hazards between the VE Zone and the LMWA (or between the VE Zone and the LMWA for areas where VE zones are not identified) will be shown, but not shown in the VE Zone.

Limit of Moderate Wave Action (LMWA)

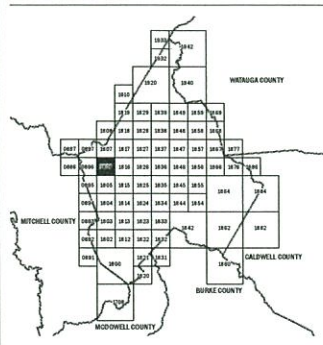
COASTAL BARRIER RESOURCES SYSTEM (CBRS) NOTE
This map may include approximate boundaries of the CBRS for informational purposes only. Flood insurance is not available within CBRS areas for structures that are not built or substantially improved on or after the date(s) indicated on the map. For more information see http://www.fema.gov/development/developmental_barriers.html, the FIS Report, or call the U.S. Fish and Wildlife Service Customer Service Center at 1-800-368-5870.

CBRS Area **Otherwise Protected Area**

SCALE



PANEL LOCATOR



National Flood Insurance Program

NORTH CAROLINA FLOODPLAIN MAPPING PROGRAM
NATIONAL FLOOD INSURANCE PROGRAM
FLOOD INSURANCE RATE MAP
NORTH CAROLINA
Panel 1806

Panel Contains:
COMMUNITY
AVERY COUNTY

CID PANEL SUFFIX
37010 1806 J

MAP NUMBER
3710180600J
MAP REVISED
12/2/2008



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

TEMPORARY REPAIR
SCOUR CRITICAL
PRIORITY MAINTENANCE

052

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection - Contract

COUNTY AVERY BRIDGE NUMBER 050052 INSPECTION CYCLE 0 YRS
ROUTE SR1132 ACROSS ROARING CREEK M.P. 0

200 FEET SOUTH OF JUNCTION WITH SR1134

LOCATION 200 FT.S.JCT.SR1134

SUPERSTRUCTURE TIMBER FLOOR ON TIMBER JOISTS

SUBSTRUCTURE ABUTMENTS:EXISTING YOUNT MASONRY W/TIM.RISER (WIDENED)

1 @ 22'-6"

SPANS 1 @ 21'-6"

LONGITUDE 82° 2' 21.25" 82° 2' 21.60" LATITUDE 36° 4' 56.51" 36° 4' 56.40"

INSPECTION DATE 06/12/2013 PRESENT CONDITION POOR

PRESENT POSTING SV 18 TTST 26 PROPOSED POSTING _____

OTHER SIGNS PRESENT (4) DELINEATORS



LOOKING NORTH

Fracture Critical	<u>No</u>
Temporary Shoring	<u>Yes</u>
Scour Critical	<u>Yes</u>
Scour POA	<u>Yes</u>

SIGN NOTICE ISSUED FOR	NUMBERED REQUIRED
<u>No</u> WEIGHT LIMIT	_____
<u>No</u> DELINEATORS	_____
<u>No</u> NARROW BRIDGE	_____
<u>No</u> ONE LANE BRIDGE	_____
<u>No</u> LOW CLEARANCE	_____

052

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 08/07/2013

COUNTY : AVERY DIVISION : 11 DISTRICT : 2 STRUCTURE NUMBER : 050052 LENGTH : 23 FEET

ROUTE CARRIED : SR1132 FEATURE INTERSECTED : ROARING CREEK

LOCATED : 200 FT.S.JCT.SR1134 BRIDGE NAME : CITY :

FUNC. CLASS : 09 SYST.ON : NFA SYST.UNDER : NFA ADT & YR : 620 2012 RAIL TYPE : LT 227 RT 227

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

REHAB : BY : PROJ : ALIGNMENT : TAN SKEW : 135 LANES : ON 2 UNDER 0

NAVIGATION : VC 0 FT HC 0 FT HT. CRN. TO BED : 7 FT WATER DEPTH : 1 FT

SUPERSTRUCTURE : TIMBER FLOOR ON TIMBER JOISTS

SUBSTRUCTURE : ABUTMENTS:EXISTING YOUNT MASONRY W/TIM.RISER (WIDENED)

SPANS : 1 @ 22'-6

BEAMS OR GIRDERS : 16 LINES 6X14 TIMBER JOISTS & 1 DBL.LINE TIMBER JOISTS

FLOOR : 4X8 TIM/3 AWS ENCROACHMENT : DECK (OUT TO OUT) : 24.67 FT

CLEAR ROADWAY : 23.667 FT BETWEEN RAILS : 24.333 FT SIDEWALK OR CURB : LT .3 FT RT .3 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS-1 OPE.RTG. : HS-1 CONTR.MEMBER : IntJoist (Decay) POSTED : SV 18 TTST 26 DATE : 07/12/2011

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

UNDER ROUTES AND CLEARANCES

REMARKS :

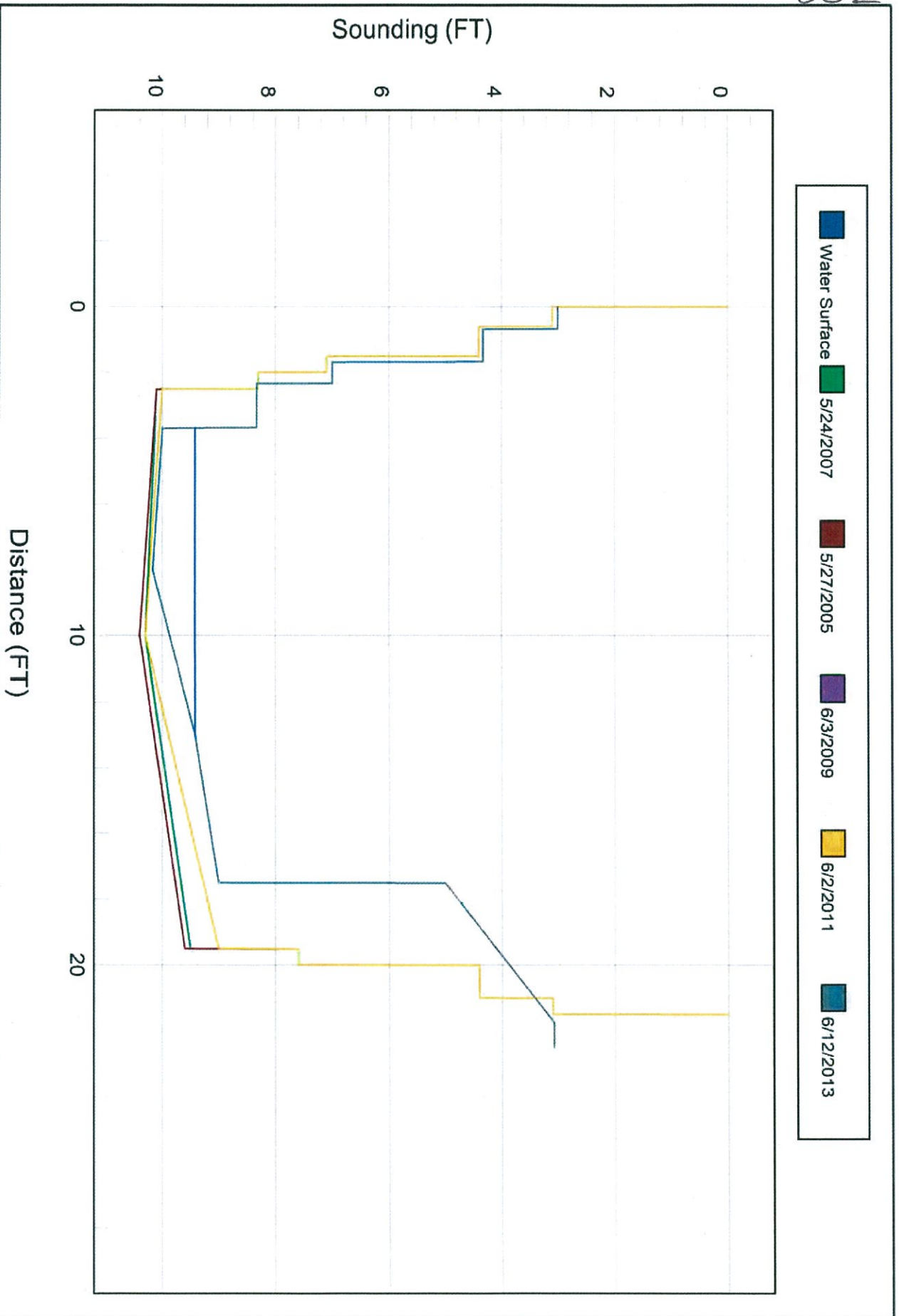
Bridge: 050052

County AVERY

Date: 06/12/2013

Top of Rail = 0 FT (Sounding)

STREAMBED PROFILE (Downstream)





UPSTREAM PROFILE, LOOKING EAST



DOWNSTREAM PROFILE, LOOKING WEST