

OFFICE ESTIMATE

1 @ 45' Bridge

PREDESIGN-PRESURVEY REPORT

Project# 17 BP, 11, R. 100

TIP# _____

Let Date _____

WBS# _____

County WILKES. (DIV. 11)Bridge# 960153Road# SR 1728 (LUNG BOTTOM RD)Stream (DUNGEON CRK), MULBERRY CRK (JOSHUA CRK)
DWQ
DENR
ESM

Type Of Request: POC Force Account TIP NCMA

Date 4/15/14 Name MJYAssigned To RCHChecked By 4/21/14 wshPrior Survey Date NONE (attach copy of prior survey) BRN BK: NO CD. FILE NOStudy By Scour Section NONEFlood Zone X Detail Study NONE Date 3/2/09 Panel# 3944 ☐B.M. Info N/AQuad Map MCCGRADY Drainage Area 3.41 SQ. MI. From STREAM STATS ✓Q25 950 cfs ✓ Q50 1200 cfs ✓ Q100 1400 cfs Method REG. EQNS.
REGION 2/RURAL ✓

EXISTING BRIDGE INFORMATION

Location 0.8 MI. N. JCT. NC 18Average Daily Traffic 320 (2010) 6% TRK ✓Length 26' Bed- To Crown 6' Water Depth 1'Type Structure TIM. FLOOR ON SALVAGED I-BEAMS (LOW WATER TYPE), TIM. CAPS/ POST & SILLSType Spans 1 @ 25'-6"Upstream Structure 960290 (STEEL PLANK FLOOR ON I-BEAMS, REIN. CONCL. ABUT., 32' long; 1 @ 32')Location 1.1 MI. NE. JCT. NC 18Bed- To Crown 7' (D=1') Prior Survey _____Downstream Structure 960291 (TIM. FLOOR ON SALVAGED I-BEAMS, CONCL. ABUT.; 1 @ 30'-8")Location 0.5 MI. N. JCT. NC 18Bed- To Crown 7' (D=1') Prior Survey _____SCS Watershed N/A

(DENR TROUT - NO)

ENVIRONMENTAL

TVA NO ✓

Trout Stream

ESM

YES (WILD)Anadromous Fish NO ✓Primary Nursery Area NOHigh Quality Waters NO ✓Nutrient Sensitive Waters NONear Water Supply Intake NO ✓CAMA County NOStream Classification C ✓

#12-42-1-1 ✓

DENR River Basin Info.

YADKIN ✓

(FROM SOURCE TO JOSHUA CRK.)



BRIDGE LOCATION MAP

PREPARED BY TMC
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

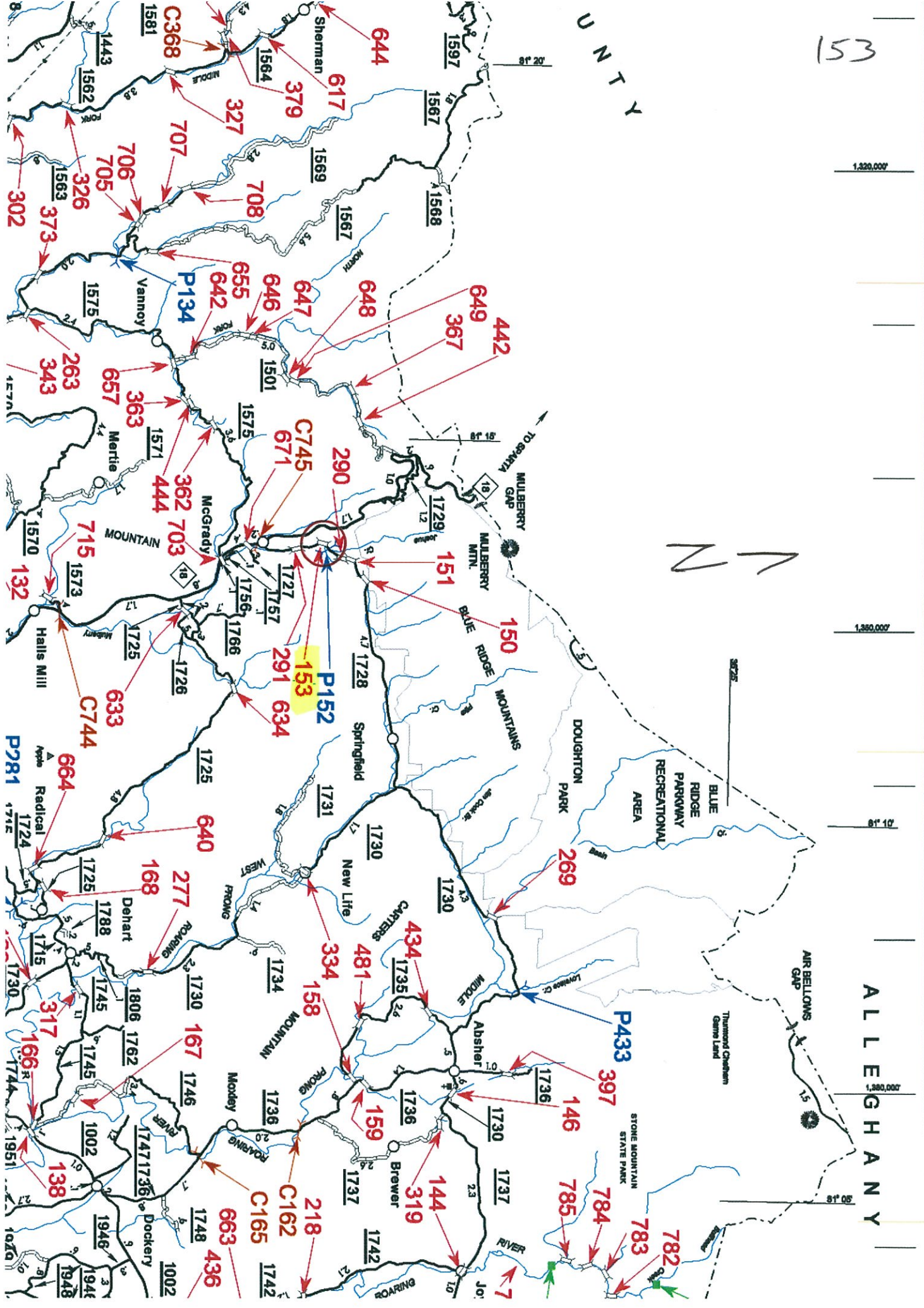
FOR CIRCULATION INFORMATION, SEND ONE
OF COPIES TO: DOT
U.S. DEPARTMENT OF TRANSPORTATION

RESEARCH ASSISTANT

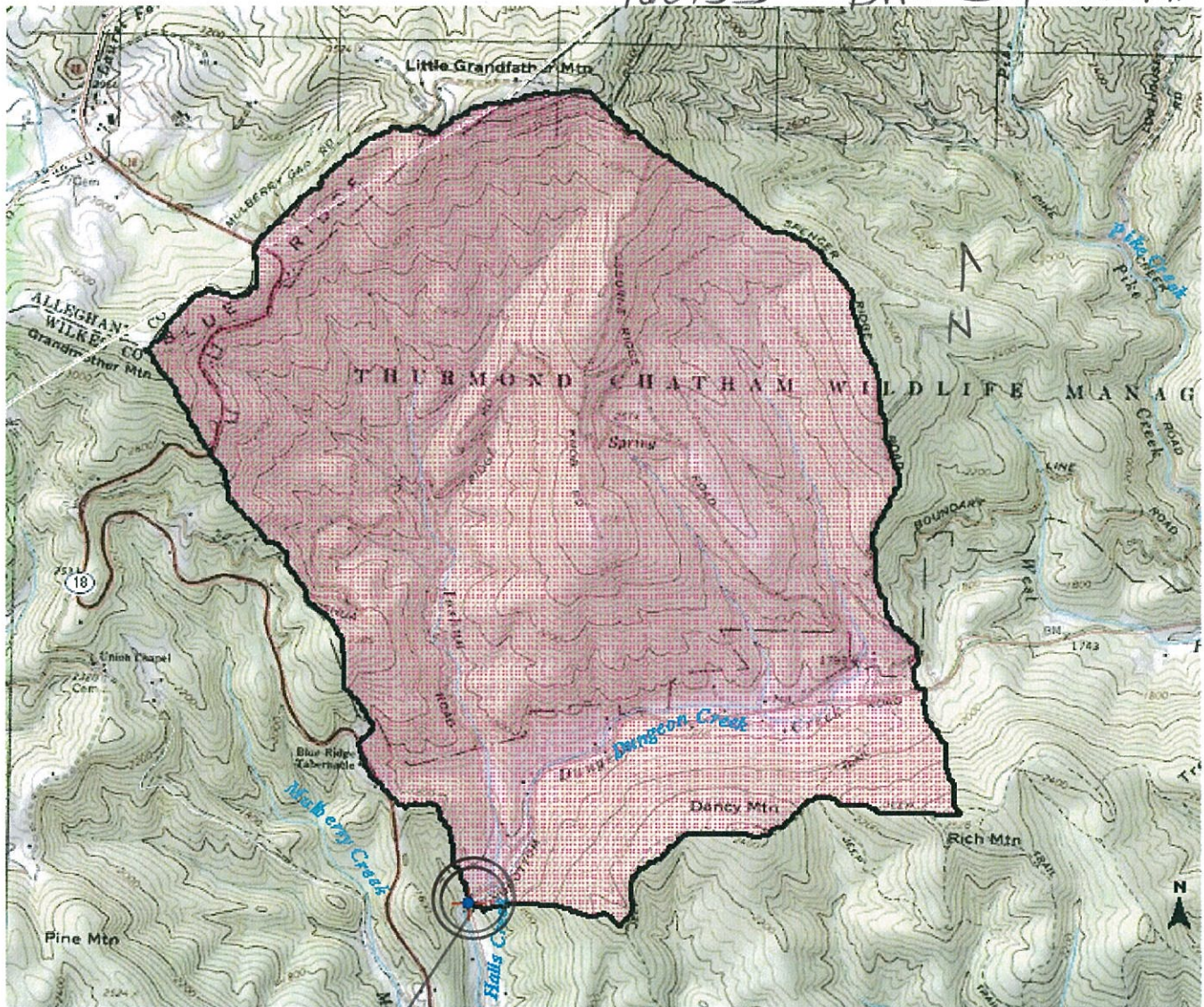
WILKES COUNTY

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960153 DA = 3.4 SQ. MI.



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North Carolina StreamStats

Streamstats Ungaged Site Report

960153

Date: Tue Apr 15 2014 09:00:00 Mountain Daylight Time

Site Location: North_Carolina

NAD27 Latitude: 36.3434 (36 20 36)

NAD27 Longitude: -81.2266 (-81 13 36)

NAD83 Latitude: 36.3435 (36 20 37)

NAD83 Longitude: -81.2264 (-81 13 35)

Drainage Area: 3.41 mi²

Percent Urban: 5.0 %

Percent Impervious: 0.2 %

Peak Flows Region Grid Basin Characteristics			
100% Peak Southeast US 2009 5158 (3.41 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	3.41	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 (3.41 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	3.41	0.04	41
Area of Impervious Surfaces (percent)	0.25 (below min value 2)	2	54.6

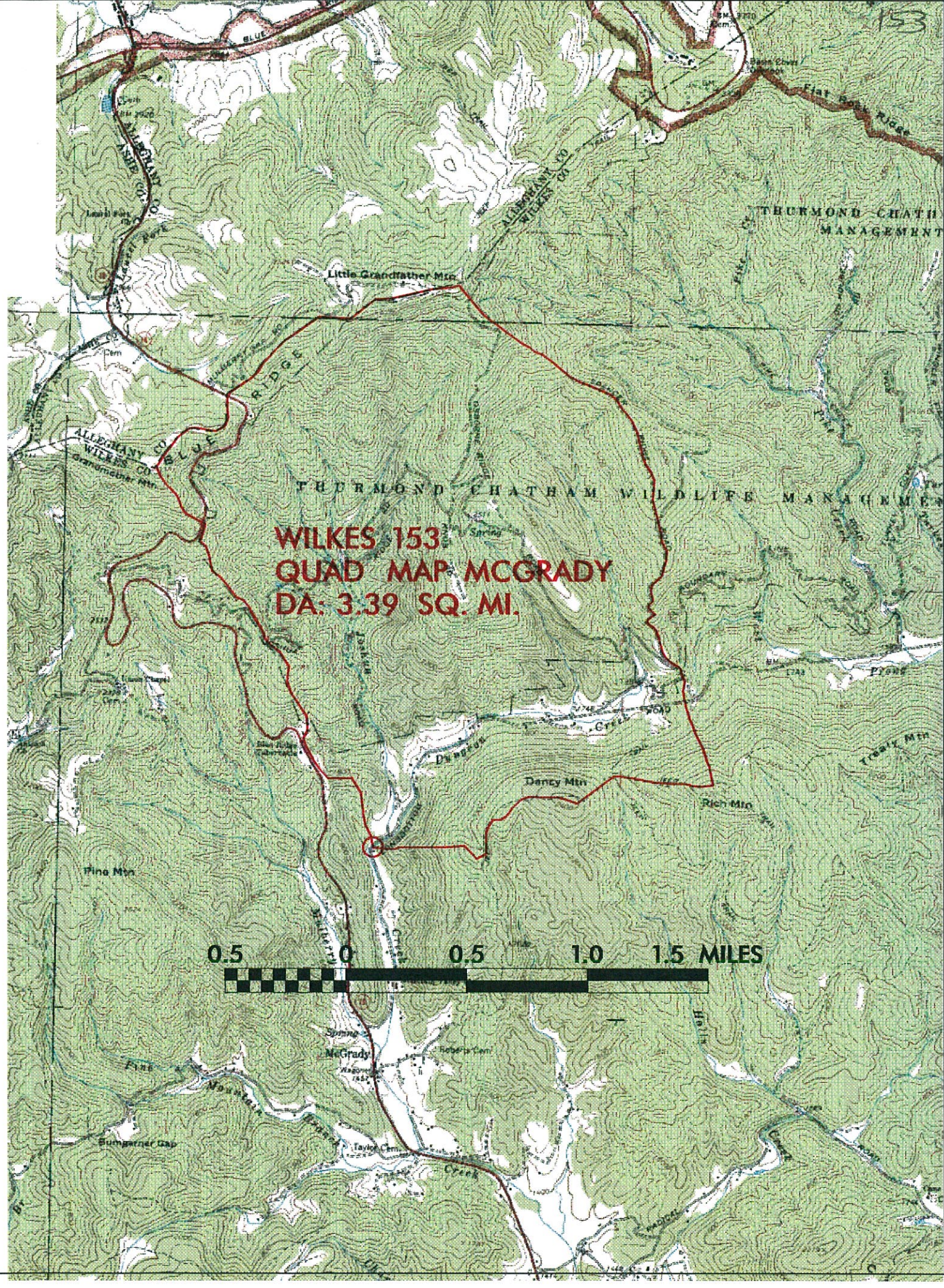
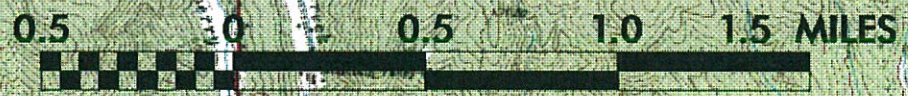
Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

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	285	35		163	500
PK5	524	34		300	913
PK10	711	35		401	1260
PK25	968	38		525	1780
PK50	1150	40		606	2200
PK100	1380	42		699	2720
PK200	1580	44		770	3230
PK500	1880	48		875	4050

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	31.9				
PK5U	82.3				
PK10U	133				
PK25U	264				
PK50U	358				
PK100U	471				

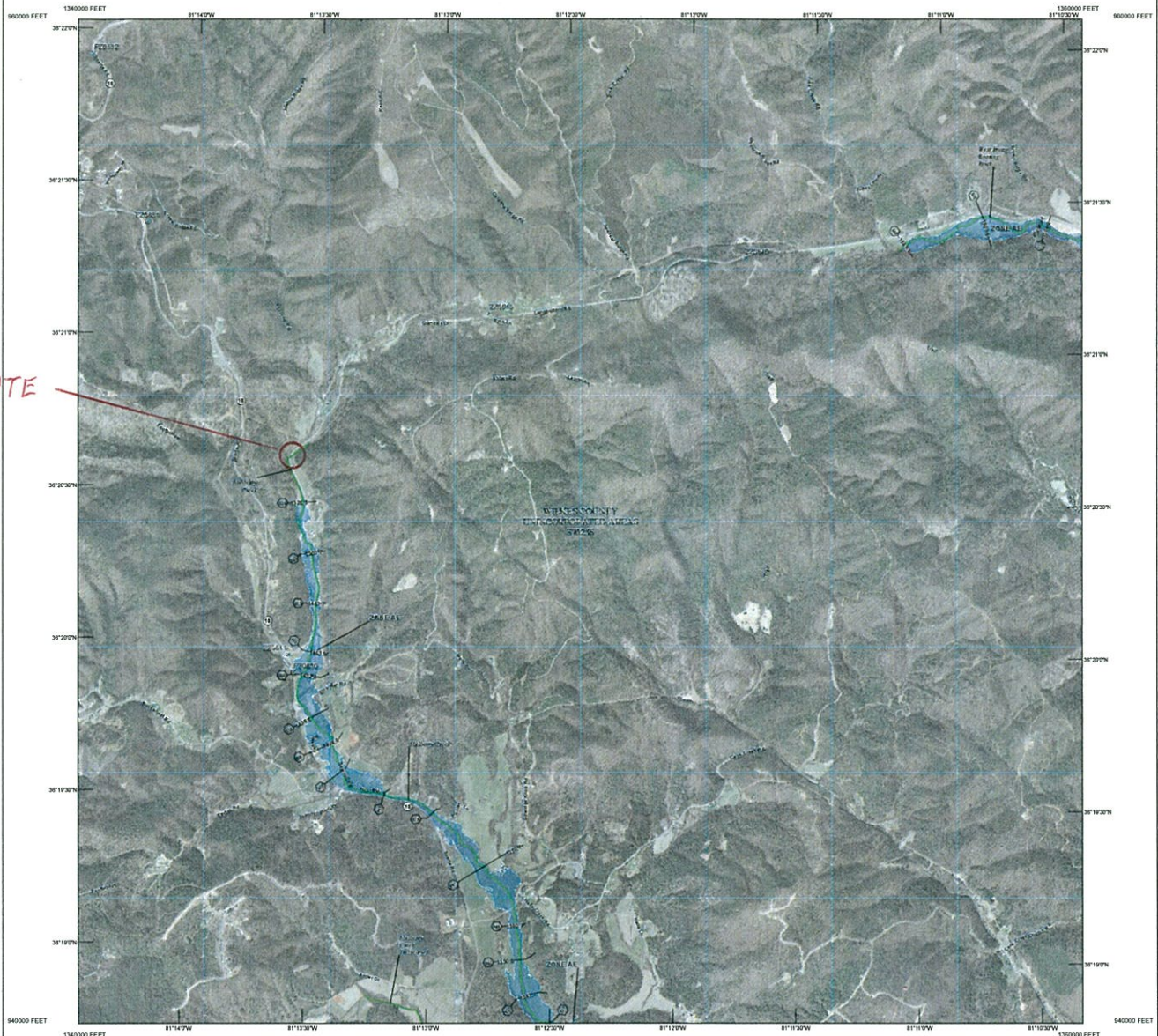
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WILKES 153
QUAD MAP MCGRADY
DA: 3.39 SQ. MI.



960153

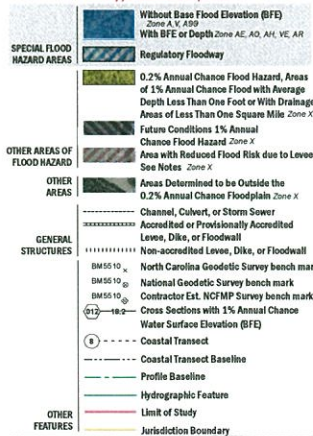
SITE



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 program to manage management to increase the state's resilience to risk. This is demonstrated by the State's commitment to use flood hazard areas as the basis for the State's Flood Insurance Rate Map (FIRM) to produce and maintain the digital FIRM.

FLOOD HAZARD INFORMATION

SEE ITS 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/FRIS](http://FRIS.NC.GOV/FRIS)



NOTES TO USERS

For information and questions about this map, available products associated with this FIRM including future versions of this FIRM, how to order products or the National Flood Insurance Program in general, please call the FEMA Map Information Exchange at 1-877-FEMA-MAP (1-877-362-6277) or visit the FEMA Map Service Center website at <http://www.fema.gov>. An accompanying Flood Insurance Study report, Letter of Map Amendment (LOMA), or Letter of Map Amendment (LOMA) is available for this panel, and digital versions of the FIRM may be available. Visit the North Carolina Floodplain Mapping Program website at <http://www.ncfmp.com> for more information.

Communities seeking to use adjacent FIRM panels must obtain a current copy of the adjacent panel as well as the current FIRM rules. These may be ordered directly from the Map Service Center of 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 this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-368-6622.

Base map information shown on this FIRM was provided in digital format by the North Carolina Floodplain Mapping Program (NCFMP). The source of the information can be determined from the metadata available in the digital FLOOD database and in the Technical Support Data Network (TSDB).

ACCREDITED LEVEE NOTES TO USERS: If an accredited levee note appears on this panel, it indicates that your local community has been determined to be a 1 percent annual chance level and Emergency Action Plan, on the levee system(s) shown as providing protection to mitigate flood risk in residential 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 FIRM website at <http://www.fema.gov> or <http://www.ncfmp.com>.

PROVISIONALLY ACCREDITED LEVEE NOTES TO USERS: If a Provisionally Accredited Levee (PAL) note appears on this panel, it indicates that your local community is currently in the process of being accredited. If the community or owner does not provide the necessary data and documentation or if the data and documentation provided indicates the levee system does not comply with Section 55.10 of the NFIP regulations, FEMA will remove the flood hazard and the information for this area to reflect declassification of the levee system. To mitigate flood risk in residential 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 FIRM website at <http://www.fema.gov> or <http://www.ncfmp.com>.

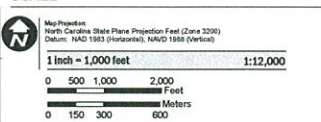
LIMIT OF MODERATE WAVE ACTION NOTES TO USERS: For some coastal flooding panels the AE Zone category has been divided by a Limit of Moderate Wave Action (LMWA). The LMWA represents the approximate landward limit of the 1.5 foot breaking wave. The effects of waves hazards between the VE Zone and the LMWA (or between the shoreline and the LMWA for areas where VE Zones are not identified) will be similar to, but less severe than those in the VE Zone.

Limit of Moderate Wave Action (LMWA)

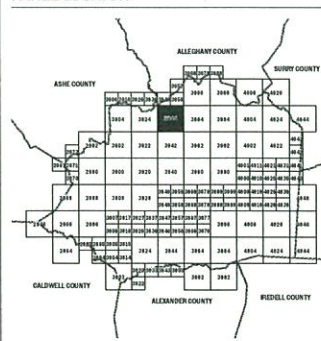
COASTAL BARRIER RESOURCES SYSTEM (CBRS) NOTE
This map may include approximate boundaries of the CBRS for informational purposes only. Flood insurance is not available within CBRS areas for structures that are newly built or substantially improved or after the date(s) indicated on the map. For more information visit <http://www.fema.gov> or <http://www.ncfmp.com>. See the FIRM Report, or visit the U.S. Fish and Wildlife Service Customer Service Center at 1-800-344-6902.

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 3944

Panel Contains:
COMMUNITY
WILKES COUNTY

CID PANEL SUFFIX
370256 344 J

MAP NUMBER
3710394400J
MAP REVISION
3/2/2009

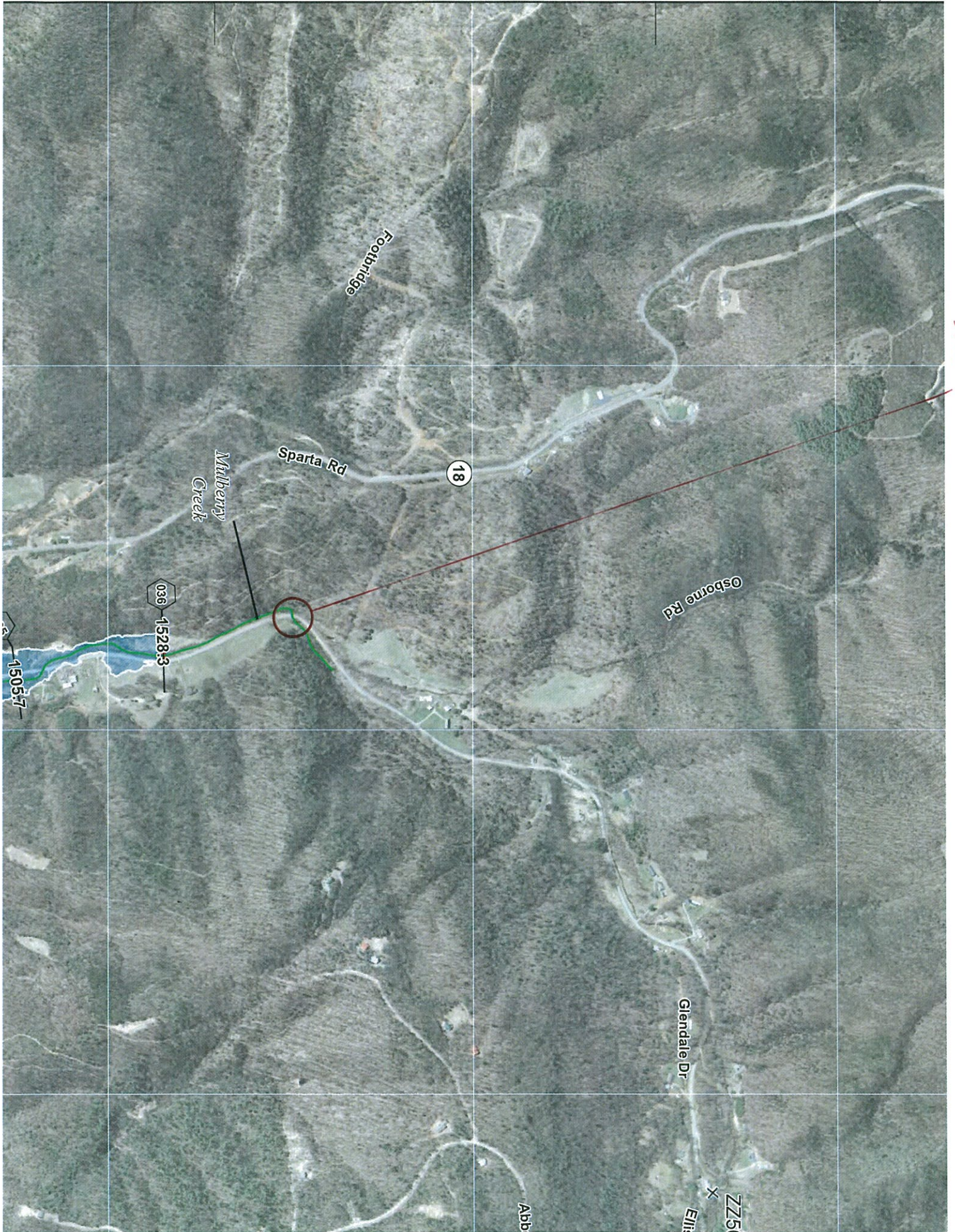
960153

N

3°21'0"N

20°30'N

SITE





NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

TEMPORARY REPAIR

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BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection - Contract

COUNTY WILKES

BRIDGE NUMBER 960153

INSPECTION CYCLE 0 YRS

ROUTE SR1728

ACROSS MULBERRY CREEK

M.P. 0

LOCATION .8 MI.N.JCT.NC18

SUPERSTRUCTURE TIMBER FLOOR ON SALVAGED I-BEAMS(LOW WATER TYPE)

SUBSTRUCTURE E.BTS:TIMBER CAPS/TIMBER POST&SILLS @ VAR. CENTERS

SPANS 1 @ 25'-6

LONGITUDE 81° 13' 35.80"

LATITUDE 36° 20' 36.44"

INSPECTION DATE 12/12/2012

PRESENT CONDITION FAIR

PRESENT POSTING Y

SV 25 TTST 38

PROPOSED POSTING

OTHER SIGNS PRESENT (4) DELINEATORS



WEST APPROACH LOOKING EAST

Fracture Critical	No
Temporary Shoring	No
Scour Critical	No
Scour POA	No

SIGN NOTICE ISSUED FOR	NUMBERED REQUIRED
No WEIGHT LIMIT	
No DELINEATORS	
No NARROW BRIDGE	
No ONE LANE BRIDGE	
No LOW CLEARANCE	

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BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 01/31/2013

COUNTY : WILKES DIVISION : 11 DISTRICT : 3 STRUCTURE NUMBER : 960153 LENGTH : 26 FEET

ROUTE CARRIED : SR1728 FEATURE INTERSECTED : MULBERRY CREEK

LOCATED : .8 MI.N.JCT.NC18 BRIDGE NAME : CITY :

FUNC. CLASS : 09 SYST.ON : NFA SYST.UNDER : NFA ADT & YR : 320 2010 RAIL TYPE : LT 0 RT 0

BUILT : 1965 BY : BMU PROJ : FED.AID PROJ : DESIGN LOAD : Unknown

REHAB : BY : BMU PROJ : ALIGNMENT : TAN SKEW : 55 LANES : ON 2 UNDER 0

NAVIGATION : VC 0 FT HC 0 FT HT. CRN. TO BED : 6 FT WATER DEPTH : 1 FT

SUPERSTRUCTURE : TIMBER FLOOR ON SALVAGED I-BEAMS(LOW WATER TYPE)

SUBSTRUCTURE : E.BTS:TIMBER CAPS/TIMBER POST&SILLS @ VAR. CENTERS

SPANS : 1 @ 25'-6

BEAMS OR GIRDERS : 12 LINES 14 I-BEAMS @ 1'-11.875 CENTERS

FLOOR : 4X8 TIM/3 AWS ENCROACHMENT : DECK (OUT TO OUT) : 24 FT

CLEAR ROADWAY : 22.667 FT BETWEEN RAILS : 0 FT SIDEWALK OR CURB : LT .6 FT RT .6 FT

VERT.CL.OVER : 999.9 FT

INV.RTG. : HS-1 OPE.RTG. : HS-1 CONTR.MEMBER : InBm (Sec.Loss) POSTED : SV 25 TTST 38 DATE 02/08/2011

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

UNDER ROUTES AND CLEARANCES

REMARKS :

Bridge: 960153

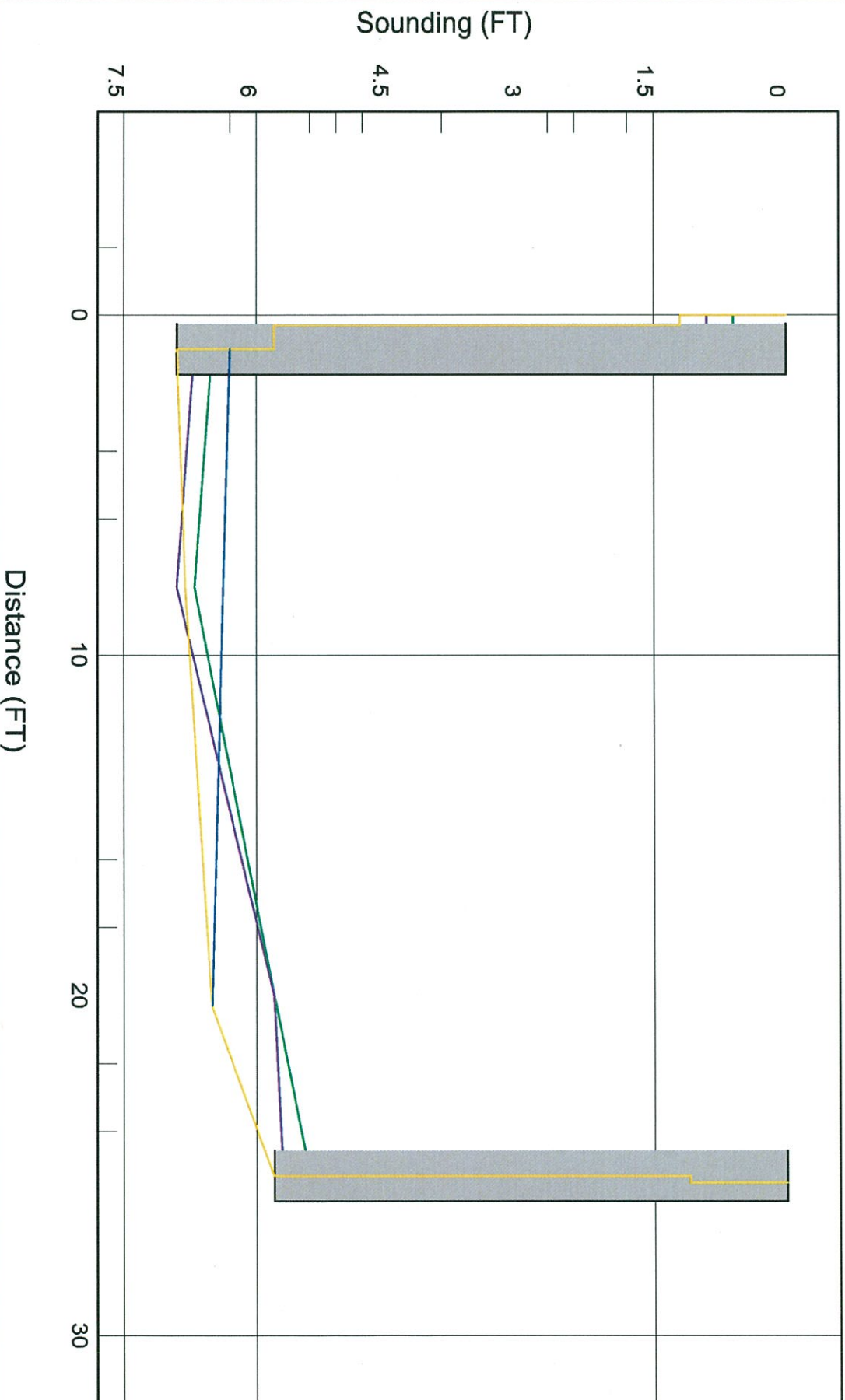
County WILKES

Date: 12/12/2012

Top of Rail = 0 FT (Sounding)

STREAMBED PROFILE (Downstream)

Water Surface 12/14/2006 12/15/2008 12/14/2010 12/12/2012





LOOKING DOWNSTREAM (NORTH) FROM BELOW



LOOKING UPSTREAM (SOUTH) FROM BELOW