

OFFICE ESTIMATE

1 @ 40' Bridge

PREDESIGN-PRESURVEY REPORT

Project# _____
TIP# _____
Let Date _____
WBS# 17 BP. 14. R.

County JACKSON (DIV. 14)

Bridge# 490 337
Road# SR 1448 (UNITY RD)
Stream FISHER CRK.

Type Of Request: POC Force Account TIP NCMA

Date 8/13 Name MJY Assigned To RCH

Checked By _____ BRN. BK. NO CO FILE NO

Prior Survey Date _____ (attach copy of prior survey)

Study By Scour Section NO

Flood Zone AE Detail Study LIMITED Date 4/19/10 Panel# 7652

B.M. Info _____

Quad Map SYLVA N Drainage Area 3.9 SQ. MI. From USGS STREAM STATS
Q25 1100 cfs Q50 1300 cfs Q100 1500 cfs Method LINEAR REGR. ERNS/
REG. 2

EXISTING BRIDGE INFORMATION

Location 0.2 MI. E. JCT. SR 1446

Average Daily Traffic 140 6% TRK. (2000)

Length 19' Bed- To Crown 7' Water Depth 1'

Type Structure TIM. FLOOR ON TIM. JOISTS, TIM. CAPS, POST & SILLS

Type Spans 1 @ 18'-6"

Upstream Structure 490098, TIM. FLOOR ON TIM. JOISTS, TIM. CAPS, POST & SILLS, 1 @ 20'-6"

Location 0.2 MI. S. JCT. SR 1447

Bed- To Crown 7' (D=1') Prior Survey _____

Downstream Structure 490315, REIN. CONCL. DECK GIRDERS, REIN. CONCL. ABUTMENTS, 1 @ 31'-

Location 0.01 MI. E. JCT. SR 1446

Bed- To Crown 12' (D=1') Prior Survey _____

SCS Watershed _____

ENVIRONMENTAL

TVA: YES

Trout Stream YES Anadromous Fish NO Primary Nursery Area NO

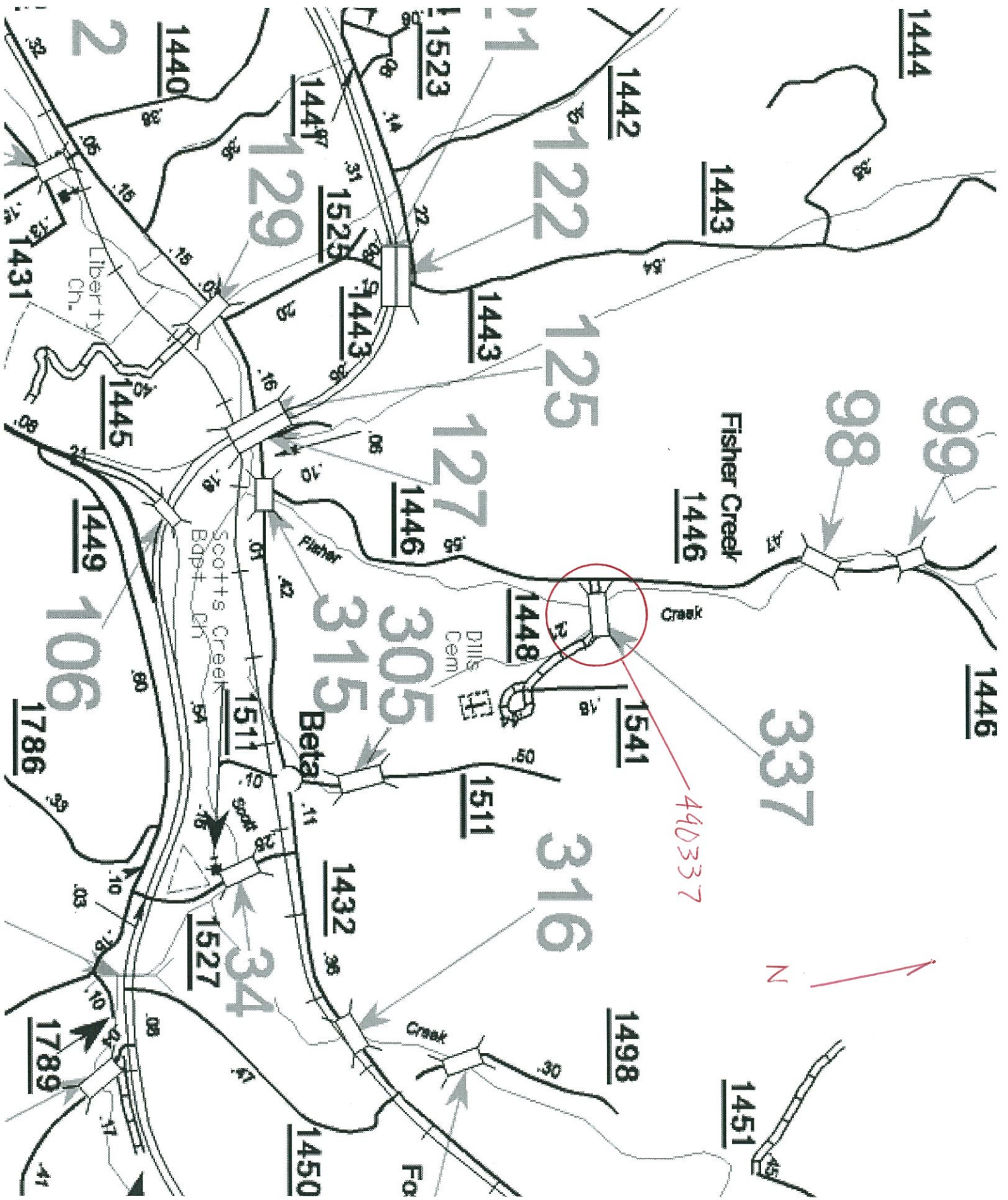
High Quality Waters NO Nutrient Sensitive Waters NO

Near Water Supply Intake NO CAMA County NO

Stream Classification C; Tr 2-79-39-11-(2)

DENR River Basin Info. LITTLE TENN







North Carolina StreamStats

Streamstats Ungaged Site Report

Date: Tue Aug 27 2013 14:32:26 Mountain Daylight Time

Site Location: North_Carolina

NAD27 Latitude: 35.4010 (35 24 04)

NAD27 Longitude: -83.1957 (-83 11 44)

NAD83 Latitude: 35.4011 (35 24 04)

NAD83 Longitude: -83.1955 (-83 11 44)

Drainage Area: 3.91 mi²

Percent Urban: 2.4 %

Percent Impervious: 0.1 %

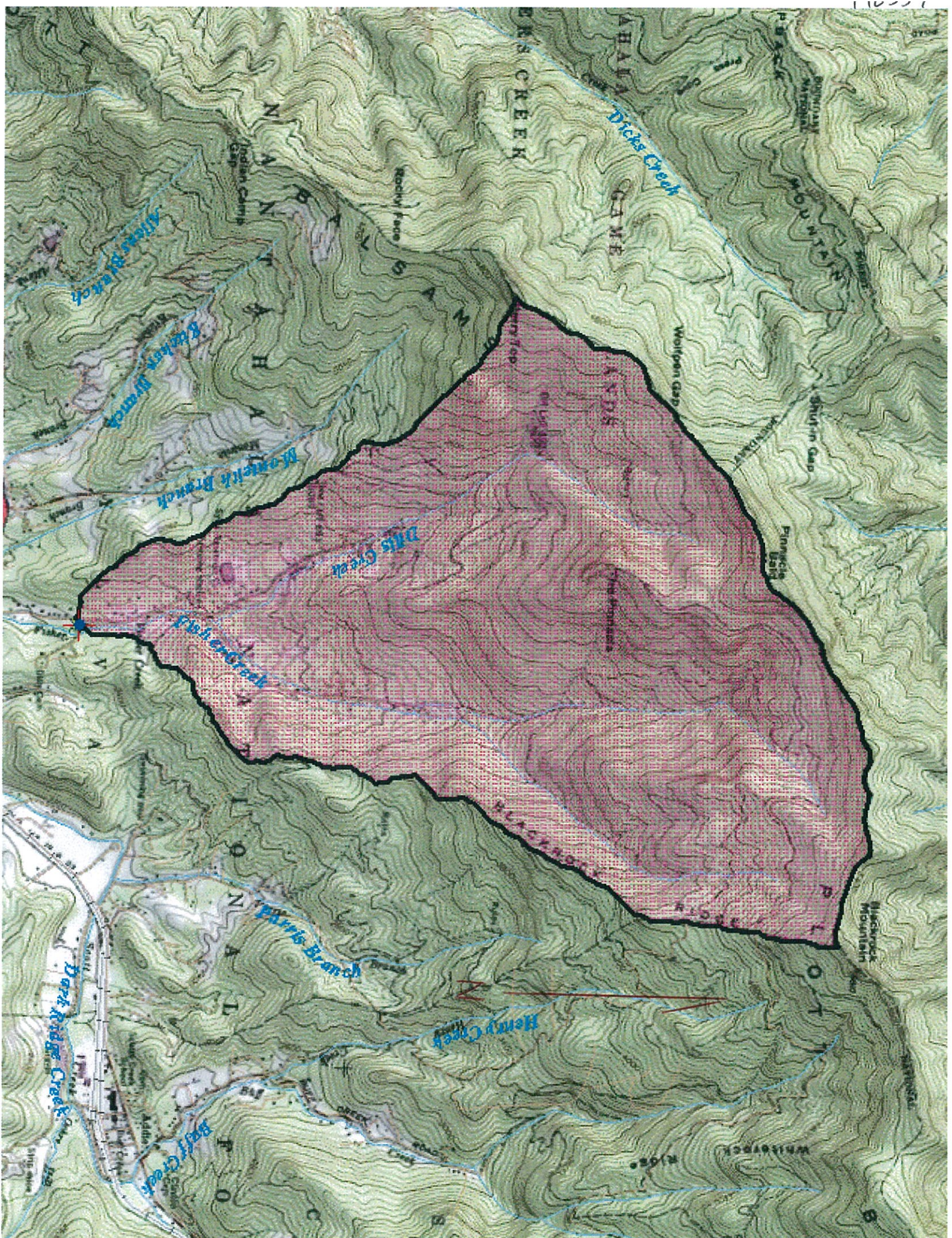
Peak Flows Region Grid Basin Characteristics			
100% Peak Southeast US 2009 5158 (3.91 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	3.91	1	9000
Percent Area in Region 1 (percent)	0.000	0	100
Percent Area in Region 2 (percent)	100.000	0	100
Percent Area 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 (3.91 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	3.91	0.04	41
Area of Impervious Surfaces (percent)	0.13 (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	317	35		181	556
PK5	580	34		333	1010
PK10	787	35		443	1400
PK25	1070	38		580	1970
PK50	1270	40		669	2420
PK100	1520	42		772	3000
PK200	1740	44		850	3550
PK500	2070	48		965	4460

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	22.5				
PK5U	62.2				
PK10U	104				
PK25U	215				
PK50U	300				
PK100U	404				



440331



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
BRIDGE MANAGEMENT UNIT

ATTENTION

POST 3 AT ABUTMENT 1 HAS BEEN SUPPLEMENTED
SOMETIME IN THE PAST. THIS IS CONSIDERED AT
TEMP. REPAIR.

BRIDGE INSPECTION REPORT

INSPECTION TYPE: Routine Inspection

COUNTY JACKSON BRIDGE NUMBER 490337 INSPECTION CYCLE 2 YRS

ROUTE SR1448 ACROSS FISHER CREEK M.P. 0

LOCATION .02 MI.E.JCT.SR1446

SUPERSTRUCTURE TIMBER FLOOR ON TIMBER JOISTS

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

SPANS 1 @ 18'-6

LONGITUDE 83° 11' 42.0"

LATITUDE 35° 24' 6.0"

PRESENT CONDITION FAIR

INVENTORY RATING

INSPECTION DATE 01/11/2012

OPERATING RATING

PRESENT POSTING SV 12 TTST 21 SV 12 TTST 21

PROPOSED POSTING

COMPUTER UPDATE

ANALYSIS DATE

POSTING LETTER DATE

SUFFICIENCY RATING

OTHER SIGNS PRESENT DELINEATORS [4]



LOOKING EAST

SIGN NOTICE
ISSUED FOR

NUMBERED
REQUIRED

<u>No</u>	WEIGHT LIMIT	<u></u>
<u>No</u>	DELINEATORS	<u></u>
<u>No</u>	NARROW BRIDGE	<u></u>
<u>No</u>	ONE LANE BRIDGE	<u></u>
<u>No</u>	LOW CLEARANCE	<u></u>

440337

BRIDGE MANAGEMENT UNIT

DATA ON EXISTING STRUCTURE

Run Date: 02/07/2012

COUNTY :
JACKSONDIVISION :
14DISTRICT :
2STRUCTURE NUMBER :
490337LENGTH :
19 FEETROUTE CARRIED :
SR1448FEATURE INTERSECTED :
FISHER CREEKLOCATED :
.02 M.I.E.JCT.SR1446

BRIDGE NAME :

CITY :

FUNC. CLASS :
09SYST.ON :
NFASYST.UNDER :
NFAADT & YR :
190 2000RAIL TYPE :
LT 227 RT 227BUILT :
1963BY :
BMU

PROJ :

FED.AID PROJ :

DESIGN LOAD :
Other or
Unknown

REHAB :

BY :
BMU

PROJ :

ALIGNMENT :
TANSKEW :
90LANES :
ON 2 UNDERNAVIGATION :
VC 0 FT

HC 0 FT

HT. CRN. TO BED :
7 FTWATER DEPTH :
1 FTSUPERSTRUCTURE :
TIMBER FLOOR ON TIMBER JOISTSSUBSTRUCTURE :
E.BTS:TIMBER CAPS/TIMBER POST&SILLS @ VAR.CTS.SPANS :
1 @ 18'-6BEAMS OR GIRDERS :
11 LINES 6X12 TIMBER JOISTS @ 1'-9.625 CENTERS

FLOOR :

ENCROACHMENT :

2 PVC
PIPE

DECK (OUT TO OUT) :

20 FT

CLEAR ROADWAY :

19 FT

BETWEEN RAILS :

19.7 FT

SIDEWALK OR CURB :

LT

.3 FT

RT

.3 FT

VERT.CLOVER :
999.9 FTINV.RTG. :
HS-1OPE.RTG. :
HS-1CONTR.MEMBER :
Int JoistPOSTED :
SV 12

TTST 21

DATE 05/12/2006

SYSTEM :
Secondary S.R. Route

GREEN LINE ROUTE :

N

UNDER ROUTES AND CLEARANCES

REMARKS :

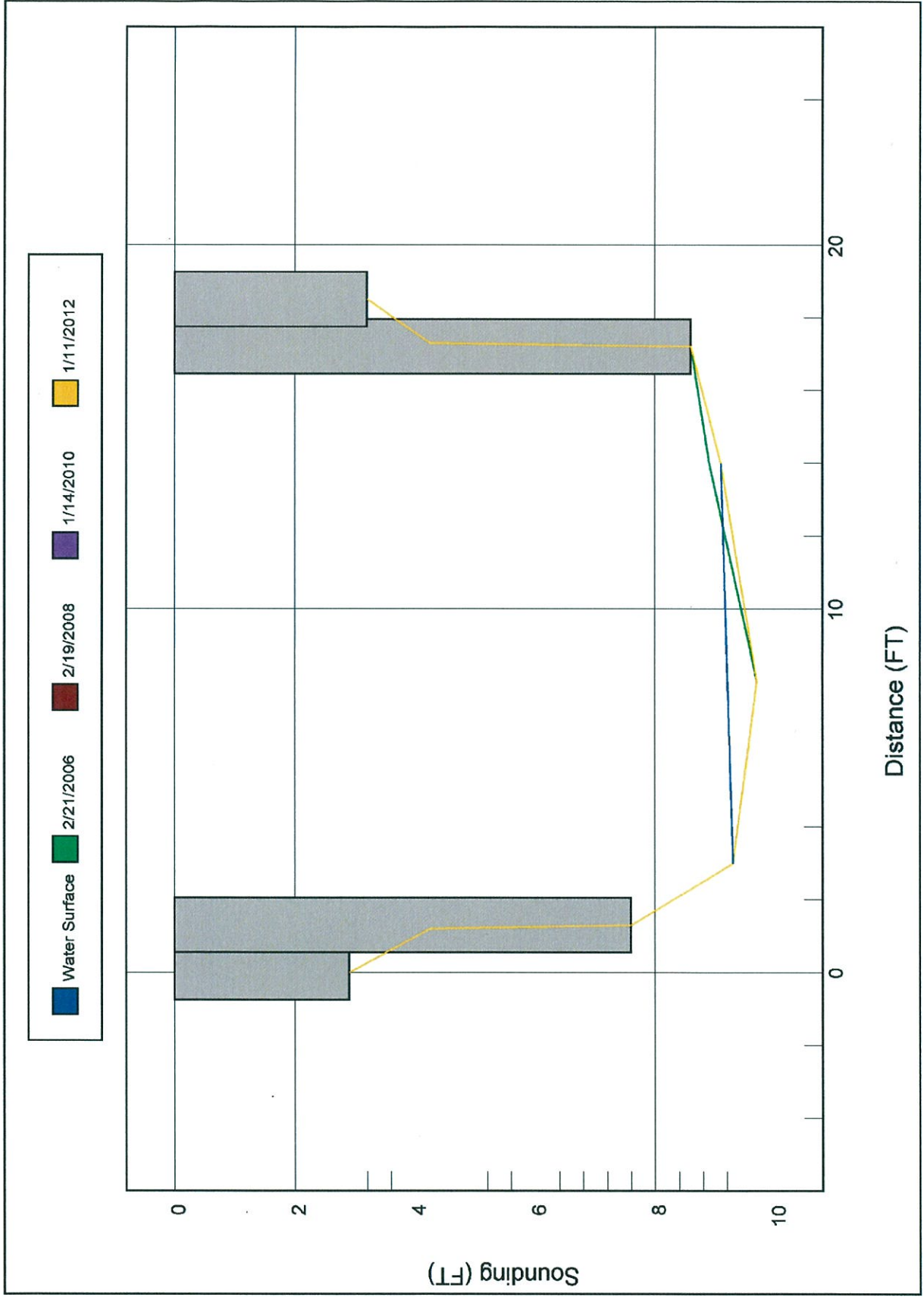
Bridge: 490337

County JACKSON

Date: 01/11/2012

STREAMBED PROFILE (Downstream)

Top of Rail = 0 FT (Sounding)

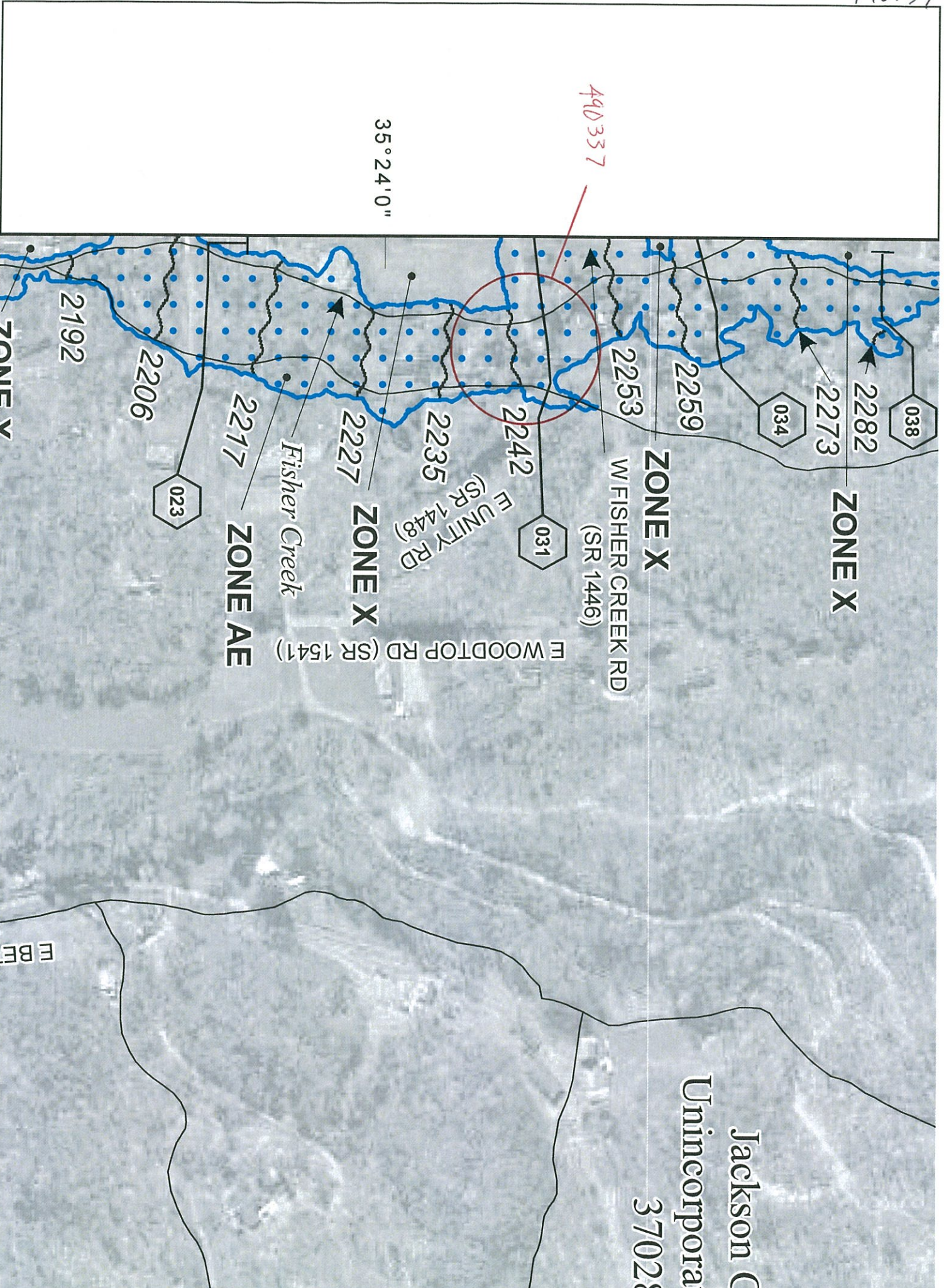




UPSTREAM



DOWNSTREAM



490337

35° 24' 0"

ZONE X

ZONE X

ZONE X

ZONE AE

Fisher Creek

E FISHER CREEK RD
(SR 1446)

E UNITY RD
(SR 1448)

E WOODTOP RD (SR 1541)

Jackson C
Unincorporat
37028

Section 5.0 – Engineering Methods

Table 10—Limited Detailed Flood Hazard Data

Cross Section ¹	Stream Station	Flood Discharge (cfs)	1% Annual Chance Water-Surface Elevation (feet NAVD 88)	Non-Encroachment Width ³ (feet)
EAST FORK SAVANNAH CREEK				
005	535 ²	1,920	2,179.3	39 / 22
007	709 ²	1,920	2,190.9	34 / 30
010	992 ²	1,920	2,191.8	27 / 20
011	1,085 ²	1,920	2,193.3	41 / 24
016	1,554 ²	1,920	2,199.9	12 / 114
019	1,923 ²	1,920	2,209.2	10 / 47
020	1,960 ²	1,920	2,211.6	31 / 67
023	2,263 ²	1,920	2,216.5	44 / 21
025	2,540 ²	1,870	2,221.3	16 / 42
031	3,123 ²	1,870	2,237.0	19 / 36
036	3,620 ²	1,870	2,249.6	47 / 43
039	3,916 ²	1,870	2,259.4	37 / 35
042	4,179 ²	1,870	2,265.0	16 / 25
043	4,340 ²	1,870	2,271.7	25 / 48
045	4,538 ²	1,870	2,274.5	15 / 43
047	4,731 ²	1,870	2,284.0	24 / 25
050	4,954 ²	1,870	2,284.3	68 / 19
053	5,312 ²	1,870	2,293.3	62 / 14
054	5,382 ²	1,870	2,296.7	66 / 31
055	5,535 ²	1,870	2,296.8	67 / 15
058	5,798 ²	1,870	2,305.7	73 / 47
062	6,153 ²	1,870	2,312.5	58 / 16
063	6,321 ²	1,870	2,316.4	40 / 25
064	6,380 ²	1,870	2,319.6	60 / 19
070	6,969 ²	1,870	2,332.1	21 / 84
074	7,367 ²	1,650	2,342.4	69 / 74
FISHER CREEK				
000	18 ²	1,810	2,117.8 ⁴	30 / 25
001	133 ²	1,810	2,122.4	22 / 17
002	189 ²	1,810	2,125.8	25 / 20
005	530 ²	1,810	2,136.0	39 / 36
008	831 ²	1,810	2,147.8	26 / 54
012	1,222 ²	1,810	2,165.0	17 / 75
015	1,515 ²	1,810	2,174.6	38 / 19
017	1,703 ²	1,810	2,183.5	23 / 60
020	1,992 ²	1,810	2,192.0	30 / 29
022	2,215 ²	1,810	2,205.2	115 / 68
023	2,297 ²	1,810	2,210.7	177 / 12
027	2,684 ²	1,810	2,227.4	77 / 14
030	2,982 ²	1,810	2,241.5	87 / 32
031	3,058 ²	1,810	2,245.5	16 / 39
033	3,265 ²	1,810	2,254.3	62 / 39
033	3,328 ²	1,810	2,257.8	86 / 42

RIVER STA.: 3019 BR U

Fisher Creek Limited Detail Study Plan: Floodway Run 3/17/2008
 XS 18 TOR Structure ID: XS 18 Approximate Survey Structure

