



national park service

**The Road Inventory
of
Big South Fork National River
and Recreation Area
BISO – 5130
Cycle 4**



**Prepared By:
Federal Highway Administration
Road Inventory Program
Cycle 4**



Big South Fork National River and Recreation Area in Tennessee / Kentucky

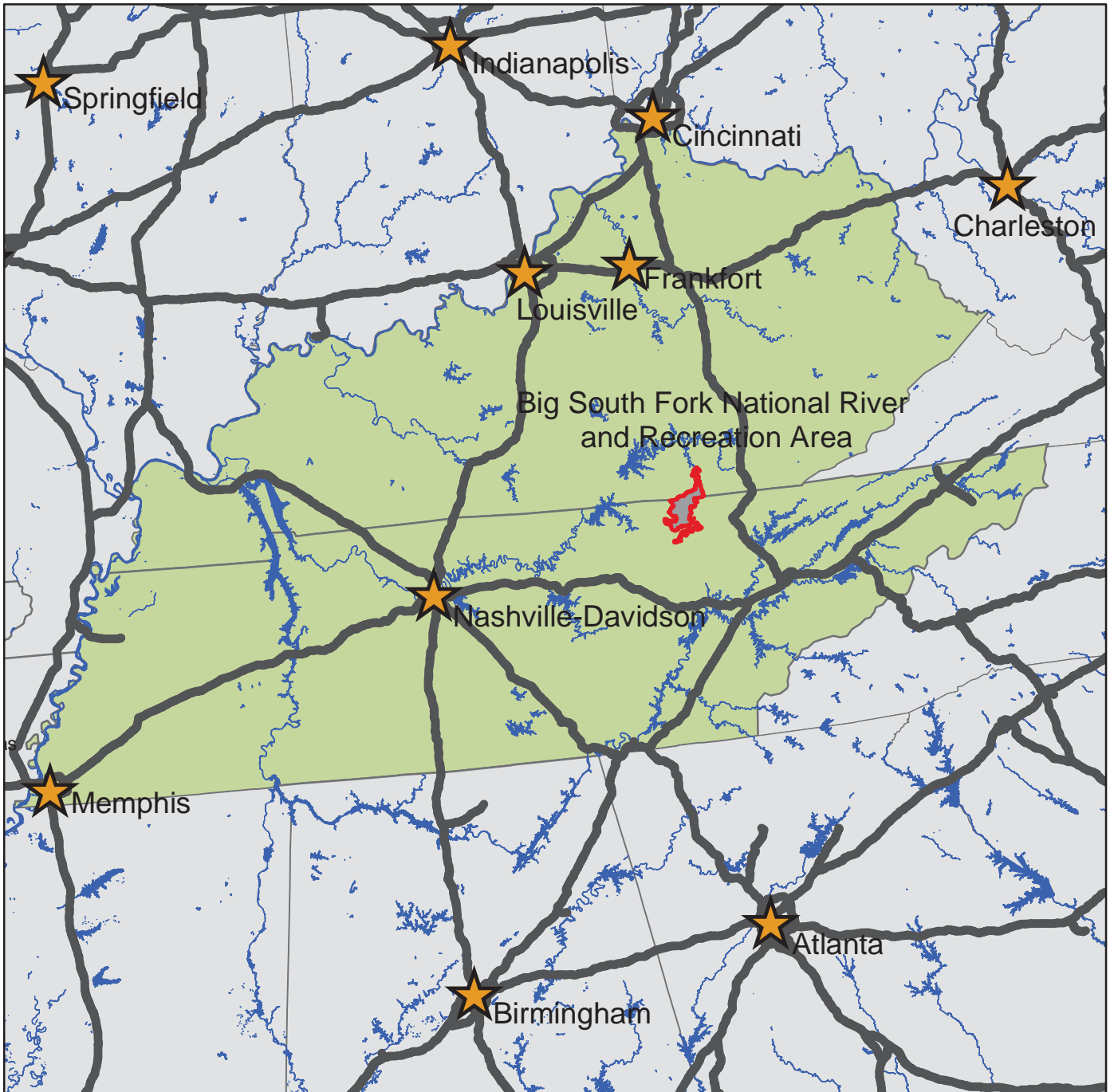




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Big South Fork National River and Recreation Area



Section 1 **Introduction**

INTRODUCTION

Background: In 1976, the National Park Service (NPS) and the Federal Highway Administration (FHWA) entered into a Memorandum of Agreement (MOA), establishing the Road Inventory Program (RIP). In 1980, the NPS and the FHWA terminated the 1976 MOA and entered into a new MOA that provided for the completion of the initial phase of the RIP. The purpose of the RIP, per the 1980 MOA was to maintain and update RIP data in order to develop long-range costs and programs to bring National Park Service (NPS) roads up to, or to maintain, designated standards, and establish a maintenance management program.

The FHWA's Federal Lands Highway (FLH) was assigned the task of identifying condition deficiencies and corrective priorities along with associated corrective costs, inventorying maintenance features (e.g., culverts, signs, guardrail, etc.), summarizing the data and findings in a report and providing a photographic record of the road system.

The FLH completed the initial phase of the RIP in the early 1980's. As a result of this effort, each park received a RIP book, also known as the "Brown Book," that included the information collected during this initial RIP phase.

In an effort to maintain and update the RIP data, a cyclical data collection and reporting process was reestablished in the 1990's. The FLH completed two cycles of RIP data collection between 1994 and 2001. Cycle 1 was collected in 44 large parks from 1994 to 1996. This data was found to be unusable for comparison to future cycles. Cycle 2 data was collected from March 1997 to January 2001 in 79 large parks and 5 small parks containing 4,874 route miles. Each park received a copy of a Cycle 2 RIP Report, also known as the "Blue Book". Cycle 3 was completed from 2001 through 2004, and included data collection in all parks that contain pavement.

Since 1984, the RIP program has been funded through the Federal Lands Highway Program's Park Roads and Parkways (PRP) Program. Currently, the NPS Washington Headquarters' Park Facility Management Division is responsible for coordinating the RIP program with the FLH. The FLH Washington office coordinates policy and prepares national reports and needs assessment studies for congress.

In 1998, the Transportation Equity Act for the 21st Century (TEA-21) amended Title 23 U.S.C., and inserted Section 204(a)(6) which requires the Federal Highway Administration and the National Park Service, to develop, by rule, a Pavement Management System (PMS) for the park roads and parkways serving the National Park System. As a result of the requirements in TEA-21, the NPS and FHWA are in the process of developing a PMS. The PMS will assist the decision-makers in effectively spending limited PRP Program funds. The PMS

will provide information for planning and programming road maintenance, rehabilitation, and reconstruction activities. RIP data will provide the basic information for this system.

Key information included in the RIP is the mileage inventory and condition assessments accomplished by the RIP Program. The mileage and condition data are used in the current allocation formula of PRP Program funds.

RIP Cycle 4: Cycle 4 data collection was initiated in spring 2006, where 86 large parks, consisting of 5,553 route miles and 6,232 paved parking areas, were selected as a representative sample of the entire NPS paved road network. Cycle 4 is scheduled for completion in spring 2009 and will serve the PMS in further development of its pavement preservation techniques.

In the Cycle 4 Reports, a general condition rating of excellent, good, fair and poor is ascribed to each one-mile section of paved roadway, and to each paved parking area. This condition rating system provides a realistic means of assessing the general funding needs for road improvements. Along with these descriptive condition ratings, a numerical rating between 0 and 100 is ascribed to each mile of road and to each parking area. This numerical rating is called a Pavement Condition Rating (PCR). The PCR rating system is described in Section 10 of this report.

All of the fieldwork required for obtaining inventory, condition, and maintenance feature information is coordinated with each park and the regional offices to ensure that the information in the RIP reports is accurate.

The FLH is responsible for all the data presented in this report. Anyone having questions or comments regarding the contents of this report is encouraged to contact the FHWA RIP Coordinator. It is our aim to provide exceptional customer satisfaction in our delivery of the RIP program.

The FHWA RIP Team

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Big South Fork National River and Recreation Area



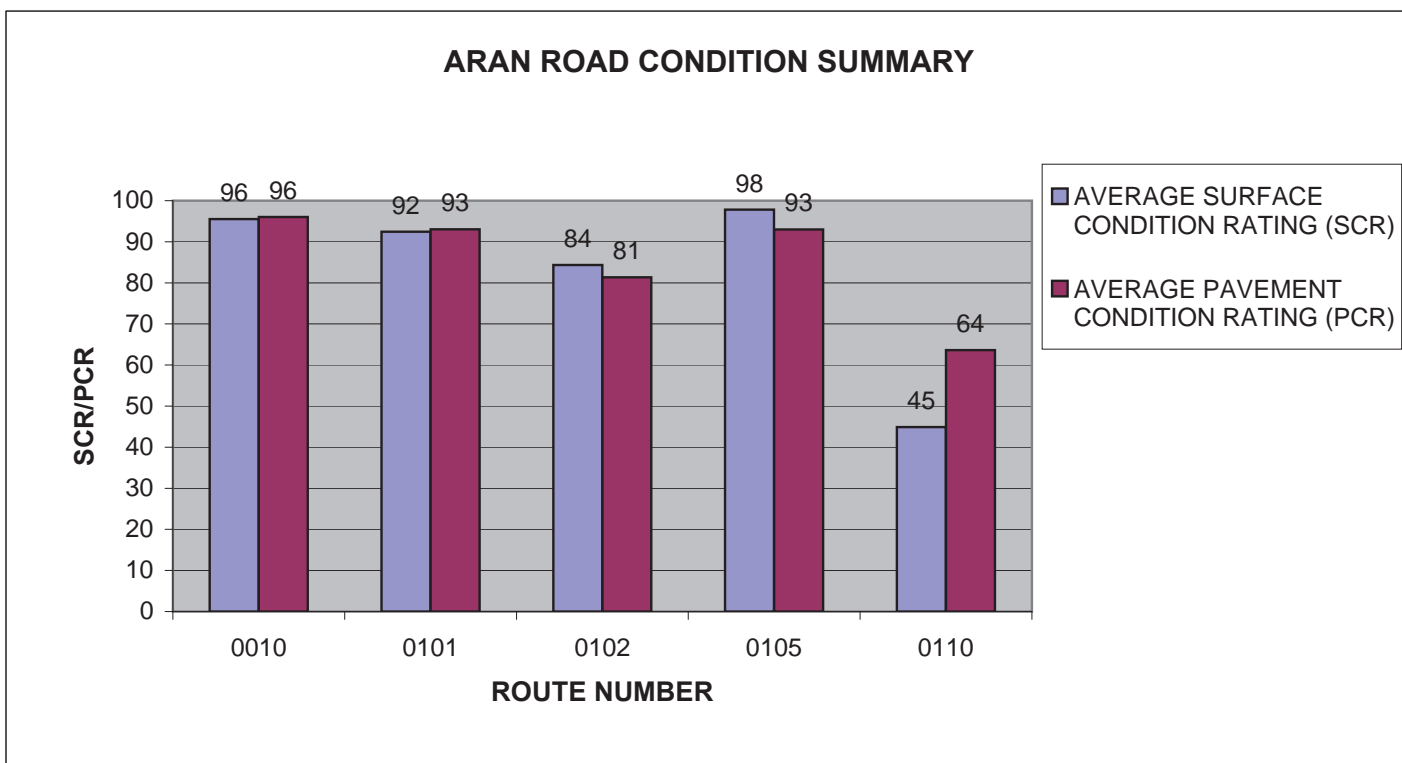
Section 2 **Park Summary Information**

**BISO: PAVED ROUTE MILES AND PERCENTAGES
BY FUNCTIONAL CLASS AND PCR**

F.C.	Pavement Condition Rating (PCR)								TOTAL MILES
	Poor (<=60)		Fair (61-84)		Good (85-94)		Excellent (95-100)		
	MILES	%	MILES	%	MILES	%	MILES	%	
1	0.13	0.69%	0.27	1.42%	1.60	8.44%	5.56	29.32%	7.56
2	0.34	1.79%	0.87	4.59%	2.19	11.55%	4.46	23.52%	7.86
3	0.12	0.63%	1.24	6.54%	0.99	5.22%	1.15	6.07%	3.50
4									
5			0.02	0.11%			0.02	0.11%	0.04
6									
7									
8									
Totals	0.59	3.11%	2.40	12.66%	4.78	25.21%	11.19	59.02%	18.96

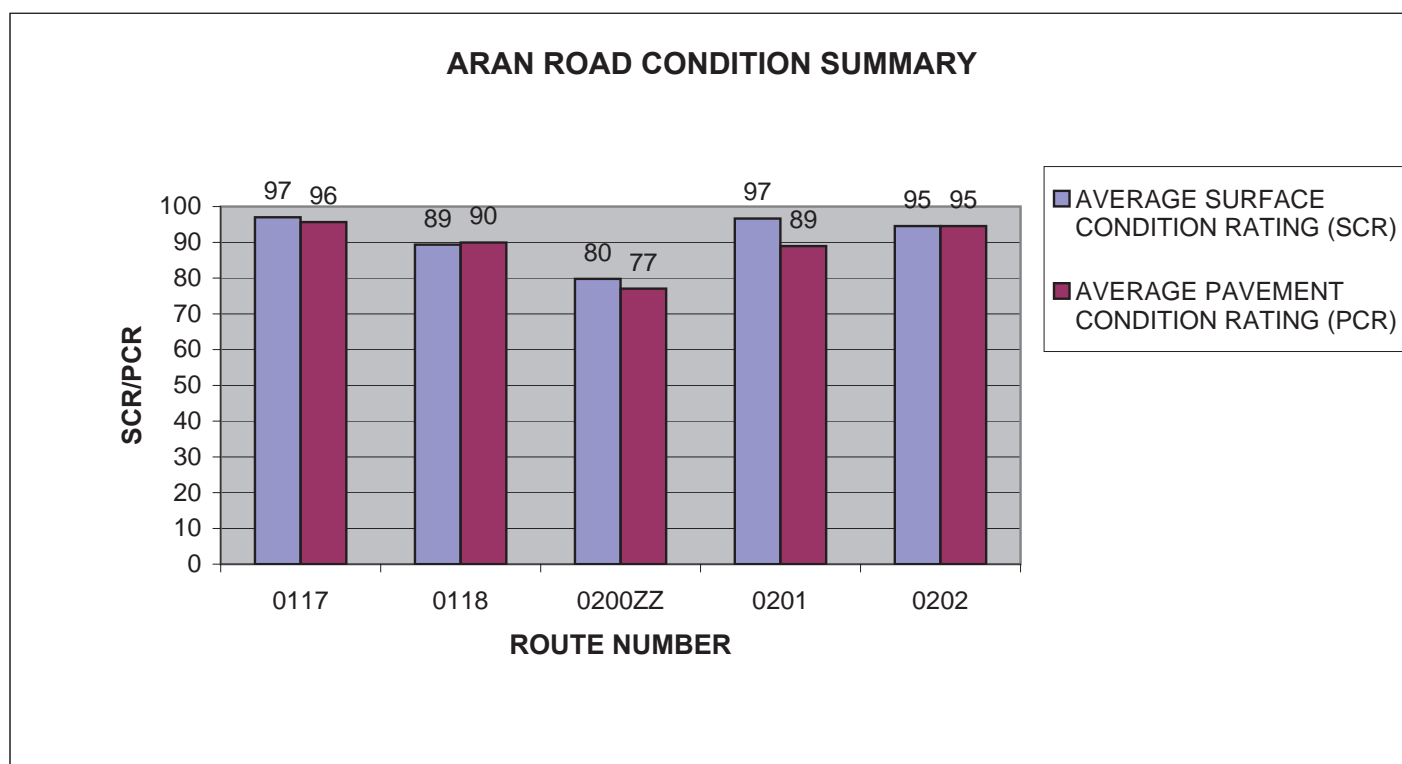
BISO: ARAN ROAD CONDITION SUMMARY

ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	ROUTE LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0010	LEATHERWOOD FORD ROAD (STATE HIGHWAY 297)	1	7.56	ASPHALT	96	96
0101	BANDY CREEK ROAD	2	1.94	ASPHALT	92	93
0102	STABLE ROAD	2	0.18	ASPHALT	84	81
0105	EAST RIM OVERLOOK ROAD	2	0.69	ASPHALT	98	93
0110	BREWSTER BRIDGE ROAD	2	0.58	ASPHALT	45	64



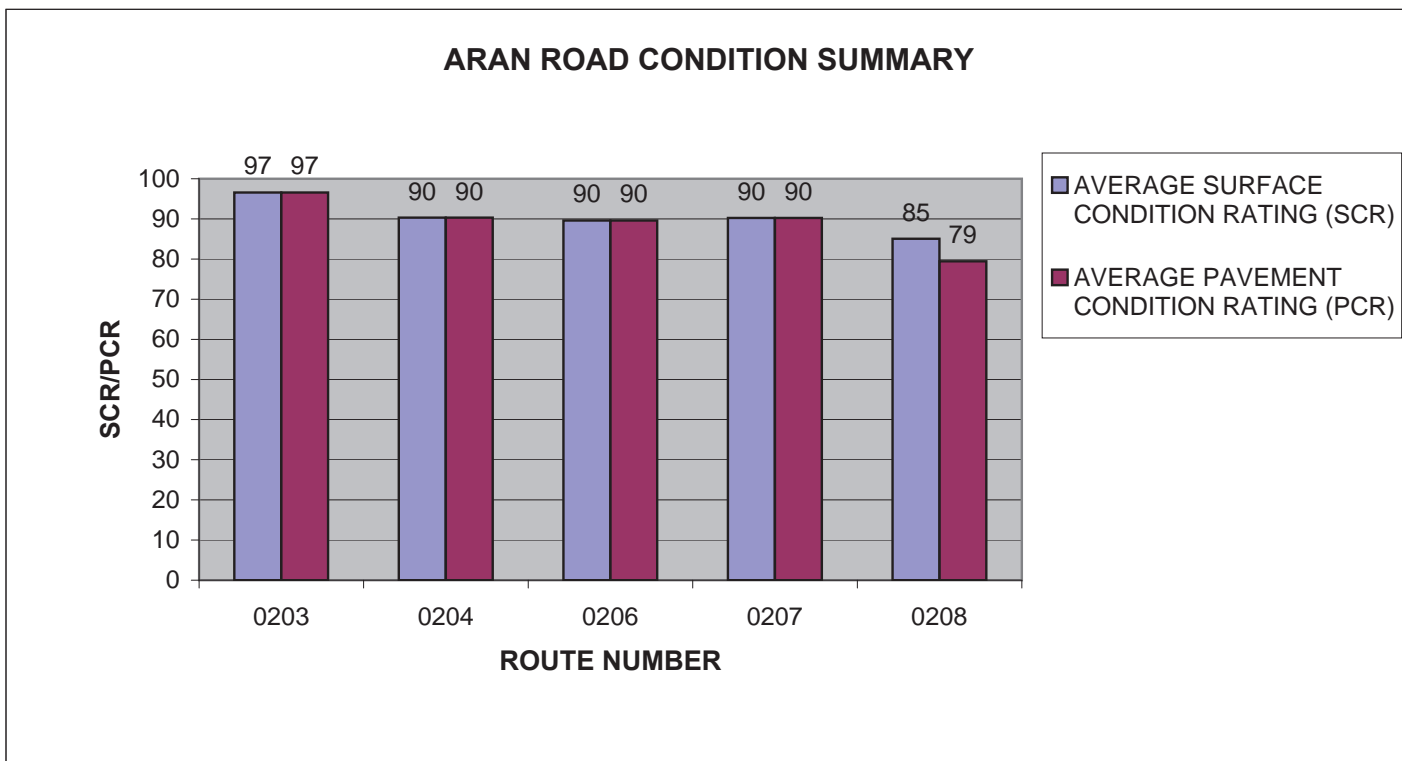
BISO: ARAN ROAD CONDITION SUMMARY

ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	ROUTE LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0117	BLUE HERON ROAD (HWY 742)	2	3.14	ASPHALT	97	96
0118	BLUE HERON OVERLOOK ROAD	2	1.33	ASPHALT	89	90
0200ZZ	BANDY CREEK CAMPGROUND AREA A ACCESS ROADS	3	0.77	ASPHALT	80	77
0201	BANDY CREEK CAMPGROUND AREAS B C AND D ACCESS ROAD	3	0.38	ASPHALT	97	89
0202	BANDY CREEK CAMPGROUND AREA B ACCESS ROAD 3	3	0.15	ASPHALT	95	95



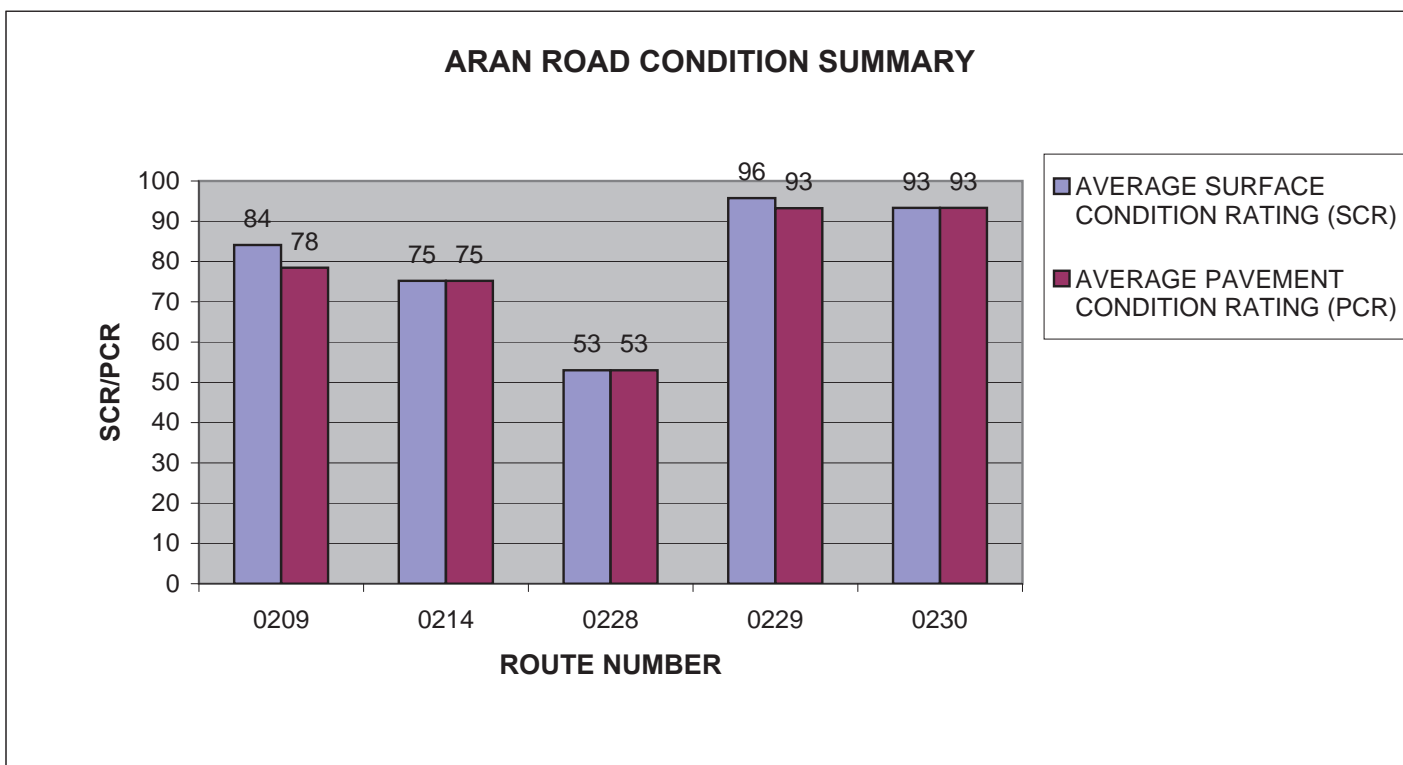
BISO: ARAN ROAD CONDITION SUMMARY

ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	ROUTE LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0203	BANDY CREEK CAMPGROUND AREA C ACCESS ROAD	3	0.28	ASPHALT	97	97
0204	BANDY CREEK CAMPGROUND AREA C LOOP ROAD	3	0.06	ASPHALT	90	90
0206	BANDY CREEK CAMPGROUND AREA D LOOP 1 ROAD	3	0.1	ASPHALT	90	90
0207	BANDY CREEK CAMPGROUND AREA D LOOP 2 ROAD	3	0.08	ASPHALT	90	90
0208	BANDY CREEK CAMPGROUND AREA E ACCESS ROAD	3	0.32	ASPHALT	85	79



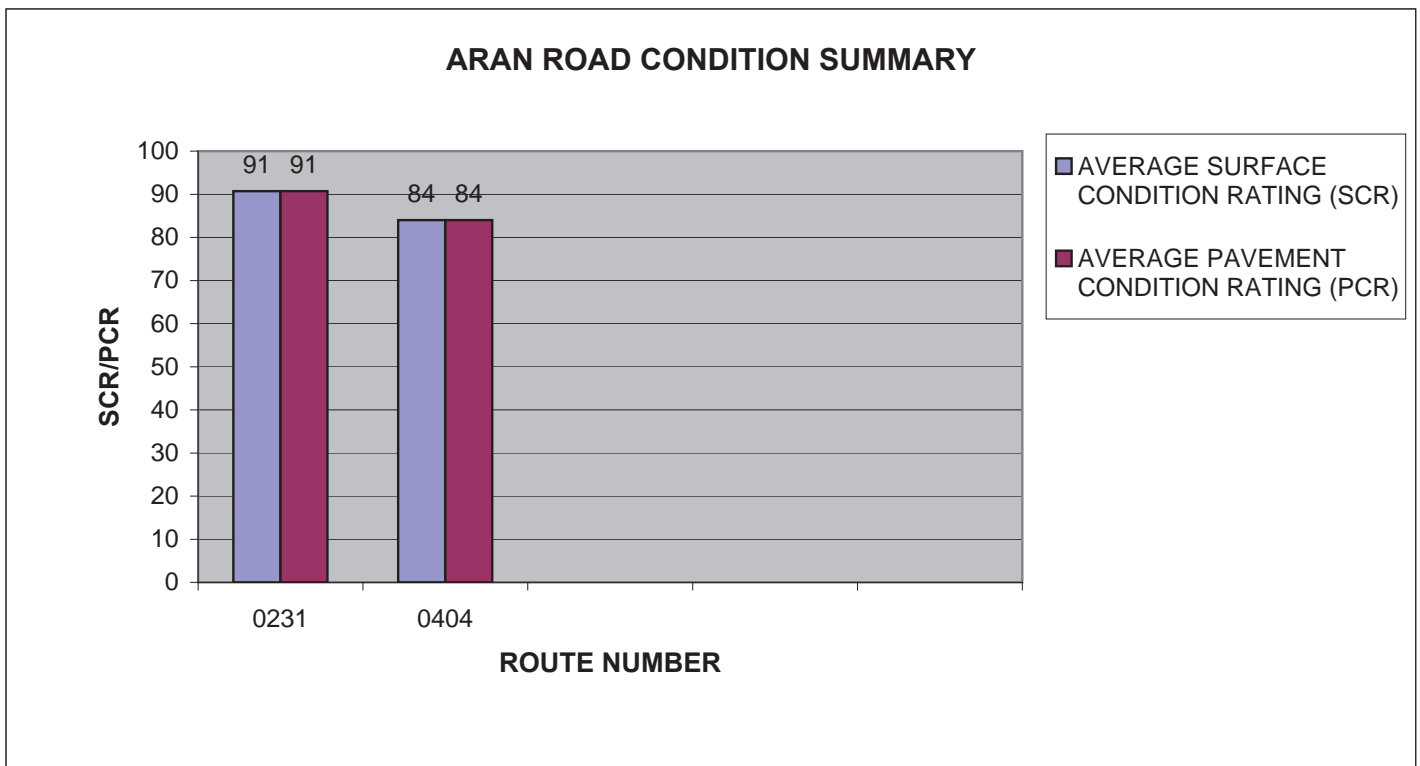
BISO: ARAN ROAD CONDITION SUMMARY

ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	ROUTE LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0209	BANDY CREEK CAMPGROUND AREA E LOOP ROAD	3	0.17	ASPHALT	84	78
0214	BANDY CREEK AREA F ACCESS ROAD	3	0.09	ASPHALT	75	75
0228	BANDY CREEK CAMPGROUND AREA A LOOP ROAD	3	0.06	ASPHALT	53	53
0229	BLUE HERON CAMPGROUND ROAD	3	0.83	ASPHALT	96	93
0230	BLUE HERON CAMPGROUND LOOP 1	3	0.06	ASPHALT	93	93



BISO: ARAN ROAD CONDITION SUMMARY

ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	ROUTE LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0231	BLUE HERON CAMPGROUND LOOP 2	3	0.15	ASPHALT	91	91
0404	BLUE HERON MAINTENANCE ROAD	5	0.04	ASPHALT	84	84

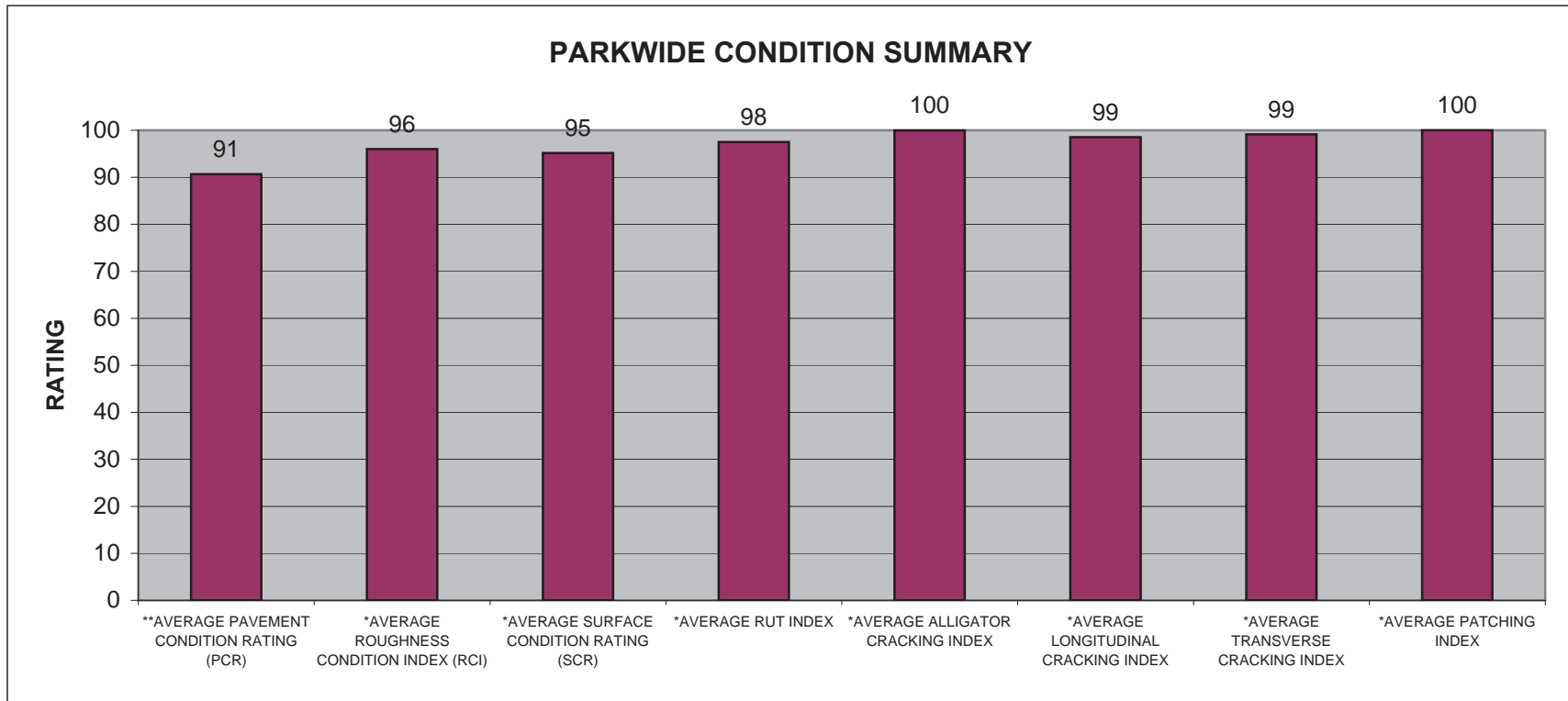


BISO: PARKWIDE CONDITION SUMMARY

**AVERAGE PAVEMENT CONDITION RATING (PCR)	*AVERAGE ROUGHNESS CONDITION INDEX (RCI)	*AVERAGE SURFACE CONDITION RATING (SCR)	*AVERAGE RUT INDEX	*AVERAGE ALLIGATOR CRACKING INDEX	*AVERAGE LONGITUDINAL CRACKING INDEX	*AVERAGE TRANSVERSE CRACKING INDEX	*AVERAGE PATCHING INDEX
91	96	95	98	100	99	99	100

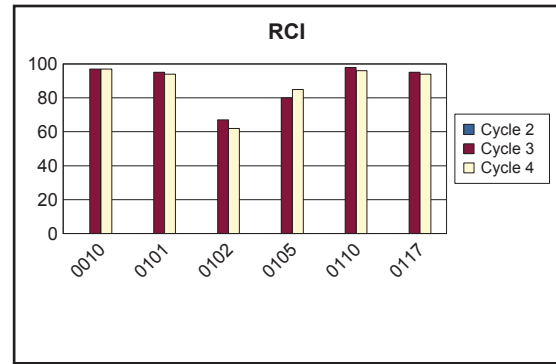
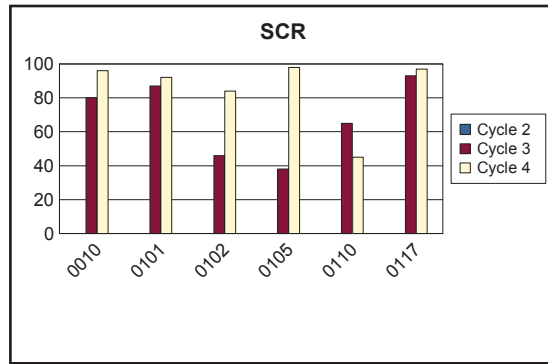
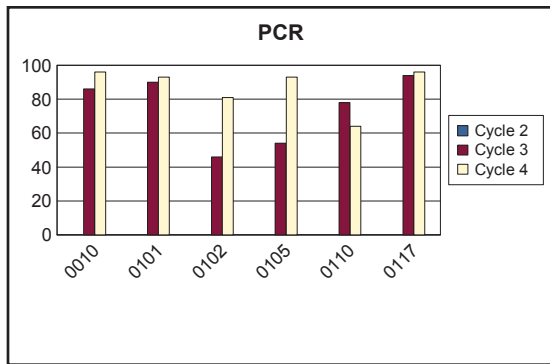
** PCR Index is based on all ARAN-driven roads, parking areas, and manually rated routes.

* Index values are based on ARAN-driven roads only.



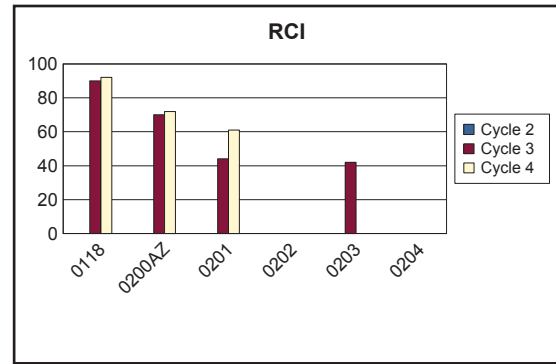
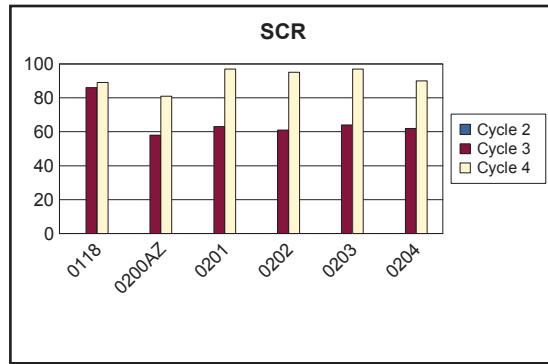
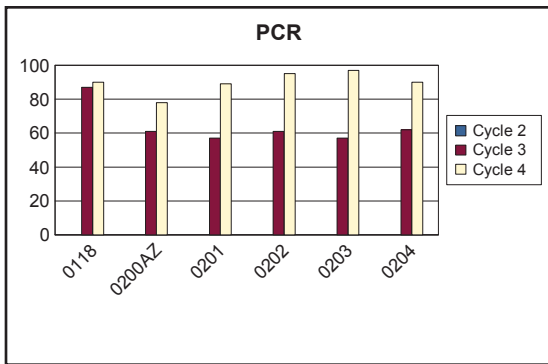
BISO CYCLE 2 vs CYCLE 3 vs CYCLE 4 CONDITION COMPARISONS

ROUTE NUMBER	PAVED MILES	FROM MILEPOST	TO MILEPOST	PAVEMENT CONDITION RATING (PCR)			PERCENT CHANGE	SURFACE CONDITION RATING (SCR)			PERCENT CHANGE	ROUGHNESS CONDITION INDEX (RCI)			PERCENT CHANGE	COMMENT
				CYCLE 2	CYCLE 3	CYCLE 4		CYCLE 2	CYCLE 3	CYCLE 4		CYCLE 2	CYCLE 3	CYCLE 4		
0010	7.56	0.00	7.56	N/A	86	96	+12%	N/A	80	96	+20%	N/A	97	97	0%	
0101	1.95	0.00	1.95	N/A	90	93	+3%	N/A	87	92	+6%	N/A	95	94	-1%	
0102	0.18	0.00	0.18	N/A	46	81	+76%	N/A	46	84	+83%	N/A	67	62	-7%	
0105	0.69	0.00	0.69	N/A	54	93	+72%	N/A	38	98	+158%	N/A	80	85	+6%	
0110	0.58	0.00	0.58	N/A	78	64	-18%	N/A	65	45	-31%	N/A	98	96	-2%	
0117	3.15	0.00	3.15	N/A	94	96	+2%	N/A	93	97	+4%	N/A	95	94	-1%	



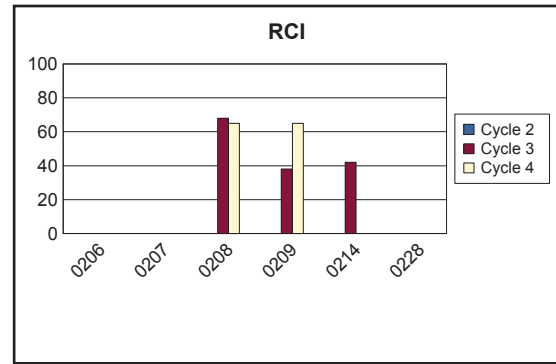
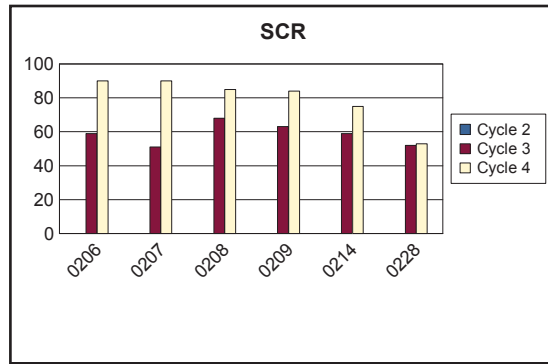
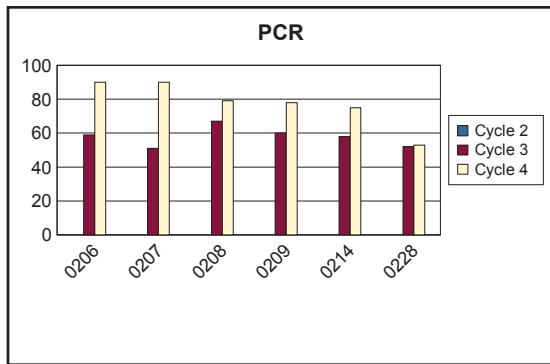
BISO CYCLE 2 vs CYCLE 3 vs CYCLE 4 CONDITION COMPARISONS

ROUTE NUMBER	PAVED MILES	FROM MILEPOST	TO MILEPOST	PAVEMENT CONDITION RATING (PCR)			PERCENT CHANGE	SURFACE CONDITION RATING (SCR)			PERCENT CHANGE	ROUGHNESS CONDITION INDEX (RCI)			COMMENT	
				CYCLE 2	CYCLE 3	CYCLE 4		CYCLE 2	CYCLE 3	CYCLE 4		CYCLE 2	CYCLE 3	CYCLE 4		
0118	1.34	0.00	1.34	N/A	87	90	+3%	N/A	86	89	+3%	N/A	90	92	+2%	
0200AZ	0.69	0.00	0.69	N/A	61	78	+28%	N/A	58	81	+40%	N/A	70	72	+3%	Collected as Route 0200 in Cycle 3.
0201	0.38	0.00	0.38	N/A	57	89	+56%	N/A	63	97	+54%	N/A	44	61	+39%	
0202	0.15	0.00	0.15	N/A	61	95	+56%	N/A	61	95	+56%	N/A	N/A	N/A	N/A	No RCI collected in Cycles 3 and 4.
0203	0.28	0.00	0.28	N/A	57	97	+70%	N/A	64	97	+52%	N/A	42	N/A	N/A	No RCI collected in Cycle 4.
0204	0.06	0.00	0.06	N/A	62	90	+45%	N/A	62	90	+45%	N/A	N/A	N/A	N/A	No RCI collected in Cycles 3 and 4.



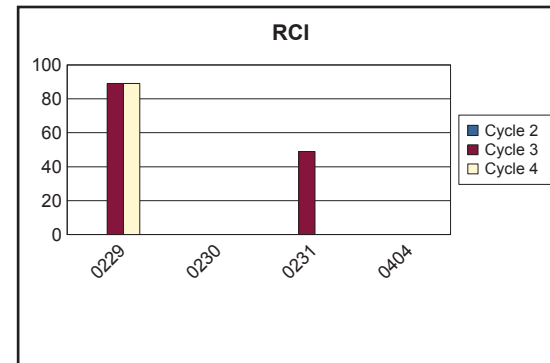
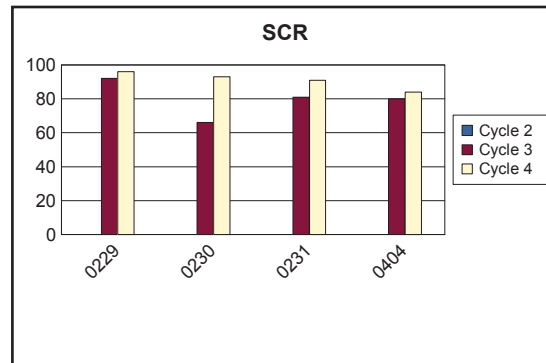
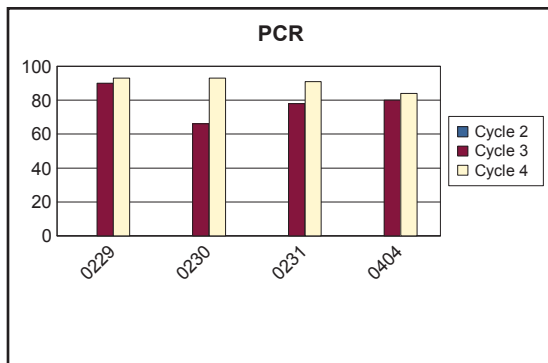
BISO CYCLE 2 vs CYCLE 3 vs CYCLE 4 CONDITION COMPARISONS

ROUTE NUMBER	PAVED MILES	FROM MILEPOST	TO MILEPOST	PAVEMENT CONDITION RATING (PCR)			PERCENT CHANGE	SURFACE CONDITION RATING (SCR)			PERCENT CHANGE	ROUGHNESS CONDITION INDEX (RCI)			COMMENT	
				CYCLE 2	CYCLE 3	CYCLE 4		CYCLE 2	CYCLE 3	CYCLE 4		CYCLE 2	CYCLE 3	CYCLE 4		
0206	0.11	0.00	0.11	N/A	59	90	+53%	N/A	59	90	+53%	N/A	N/A	N/A	N/A	No RCI collected in Cycles 3 and 4.
0207	0.08	0.00	0.08	N/A	51	90	+76%	N/A	51	90	+76%	N/A	N/A	N/A	N/A	No RCI collected in Cycles 3 and 4.
0208	0.32	0.00	0.32	N/A	67	79	+18%	N/A	68	85	+25%	N/A	68	65	-4%	
0209	0.17	0.00	0.17	N/A	60	78	+30%	N/A	63	84	+33%	N/A	38	65	+71%	
0214	0.10	0.00	0.10	N/A	58	75	+29%	N/A	59	75	+27%	N/A	42	N/A	N/A	No RCI collected in Cycle 4.
0228	0.06	0.00	0.06	N/A	52	53	+2%	N/A	52	53	+2%	N/A	N/A	N/A	N/A	No RCI collected in Cycles 3 and 4.



BISO CYCLE 2 vs CYCLE 3 vs CYCLE 4 CONDITION COMPARISONS

ROUTE NUMBER	PAVED MILES	FROM MILEPOST	TO MILEPOST	PAVEMENT CONDITION RATING (PCR)			PERCENT CHANGE	SURFACE CONDITION RATING (SCR)			PERCENT CHANGE	ROUGHNESS CONDITION INDEX (RCI)			COMMENT	
				CYCLE 2	CYCLE 3	CYCLE 4		CYCLE 2	CYCLE 3	CYCLE 4		CYCLE 2	CYCLE 3	CYCLE 4		
0229	0.83	0.00	0.83	N/A	90	93	+3%	N/A	92	96	+4%	N/A	89	89	0%	
0230	0.06	0.00	0.06	N/A	66	93	+41%	N/A	66	93	+41%	N/A	N/A	N/A	N/A	No RCI collected in Cycles 3 and 4.
0231	0.15	0.00	0.15	N/A	78	91	+17%	N/A	81	91	+12%	N/A	49	N/A	N/A	No RCI collected in Cycle 4.
0404	0.04	0.00	0.04	N/A	80	84	+5%	N/A	80	84	+5%	N/A	N/A	N/A	N/A	No RCI collected in Cycles 3 and 4.

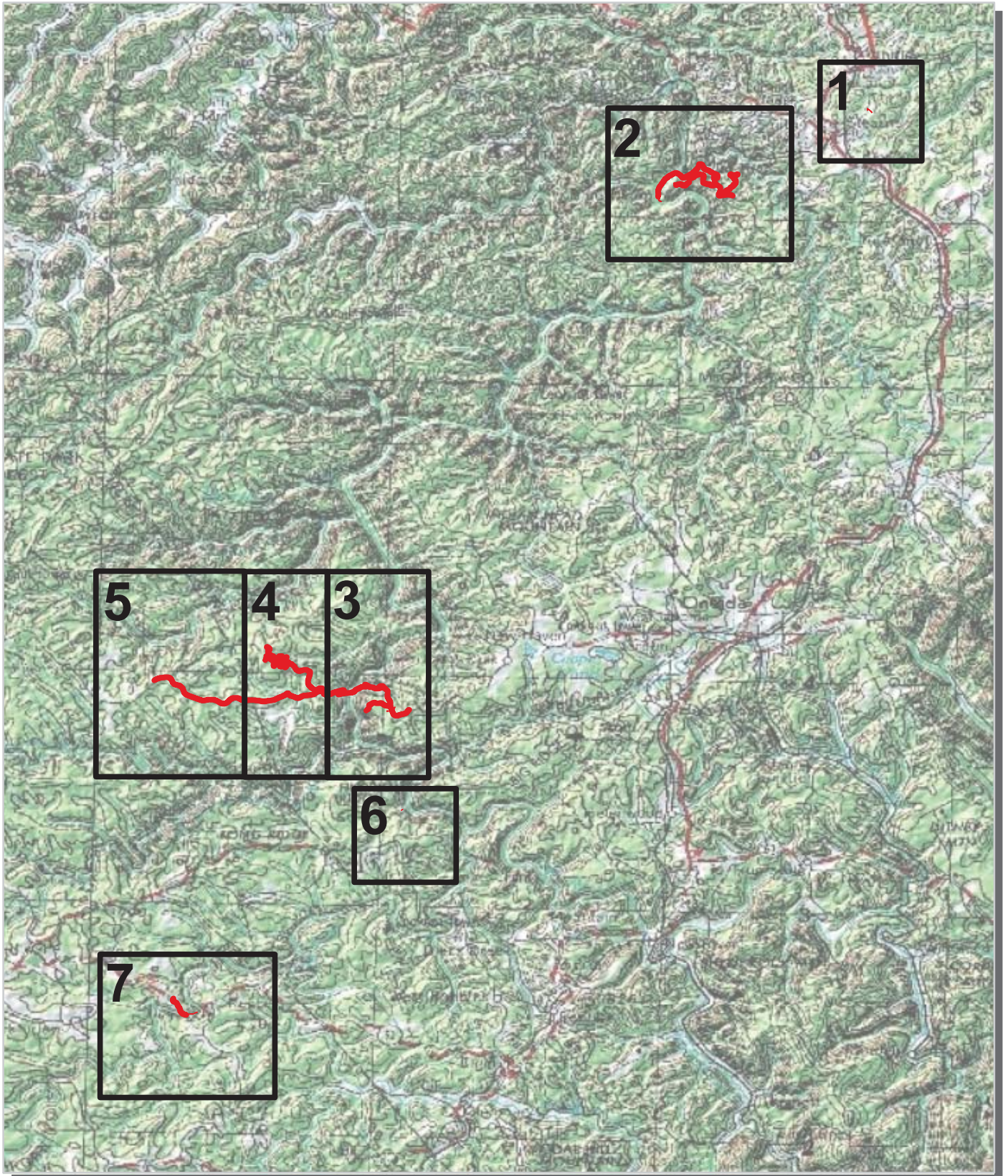


Big South Fork National River and Recreation Area

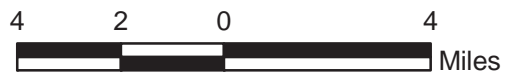


Section 3 **Park Route Location / Condition** **Maps**

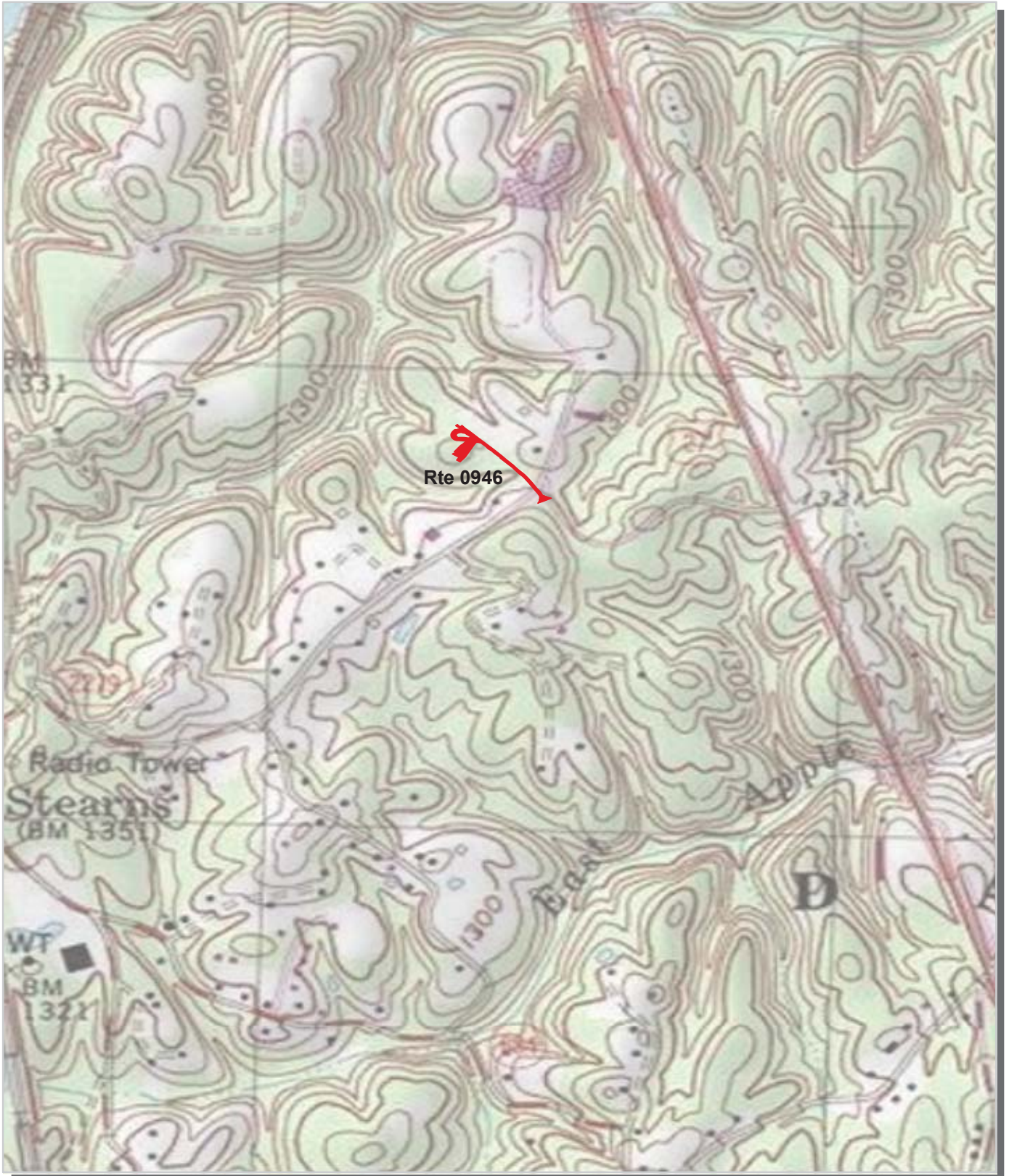
**Big South Fork National River and Recreation Area
Route Location Map
Key Map**



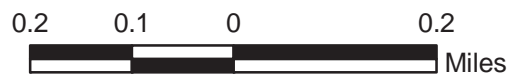
 Park Owned Routes



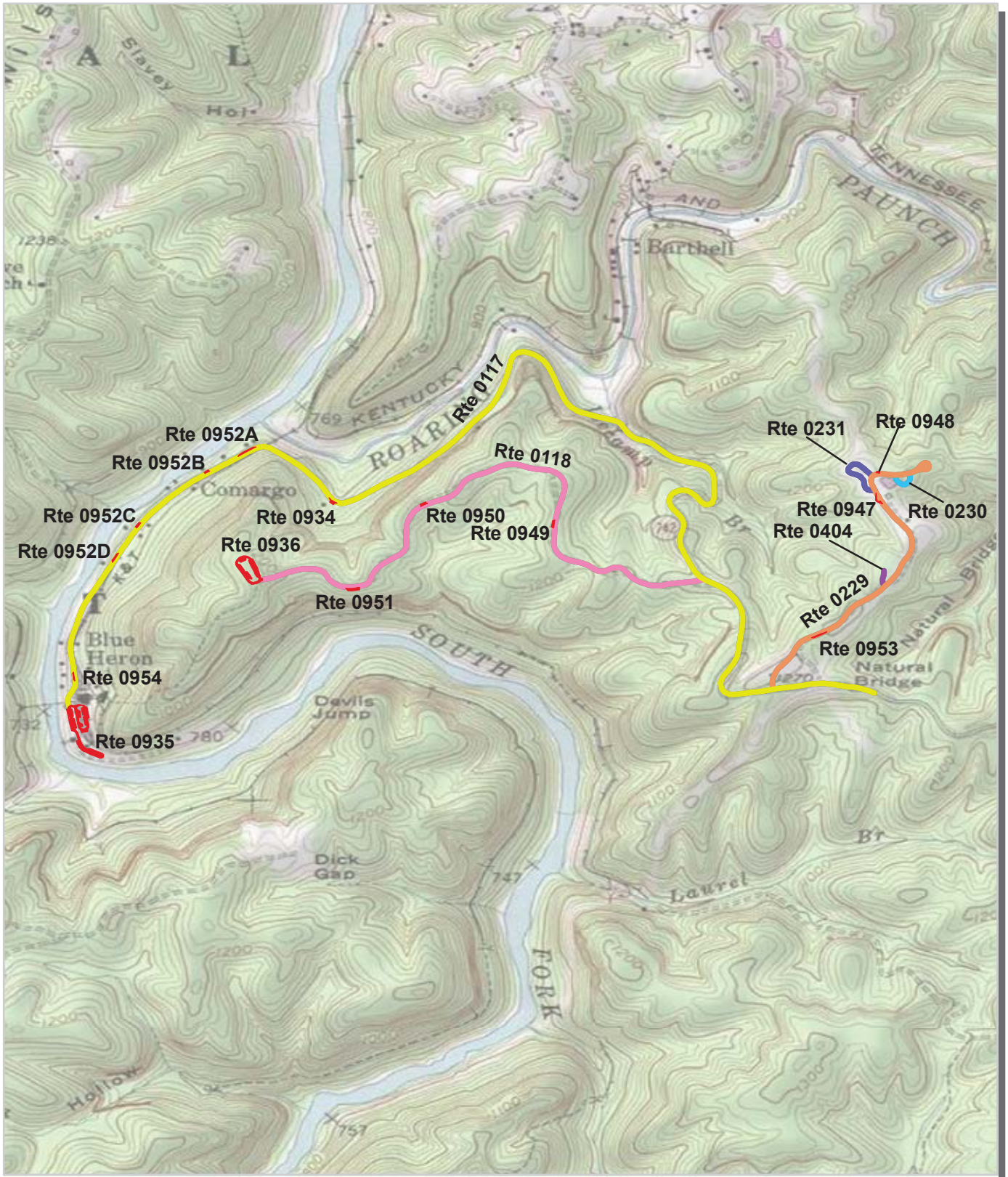
**Big South Fork National River and Recreation Area
Route Location Map
Area 1**



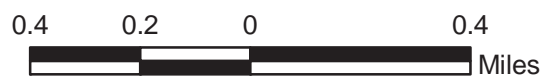
Unique colors used to differentiate routes



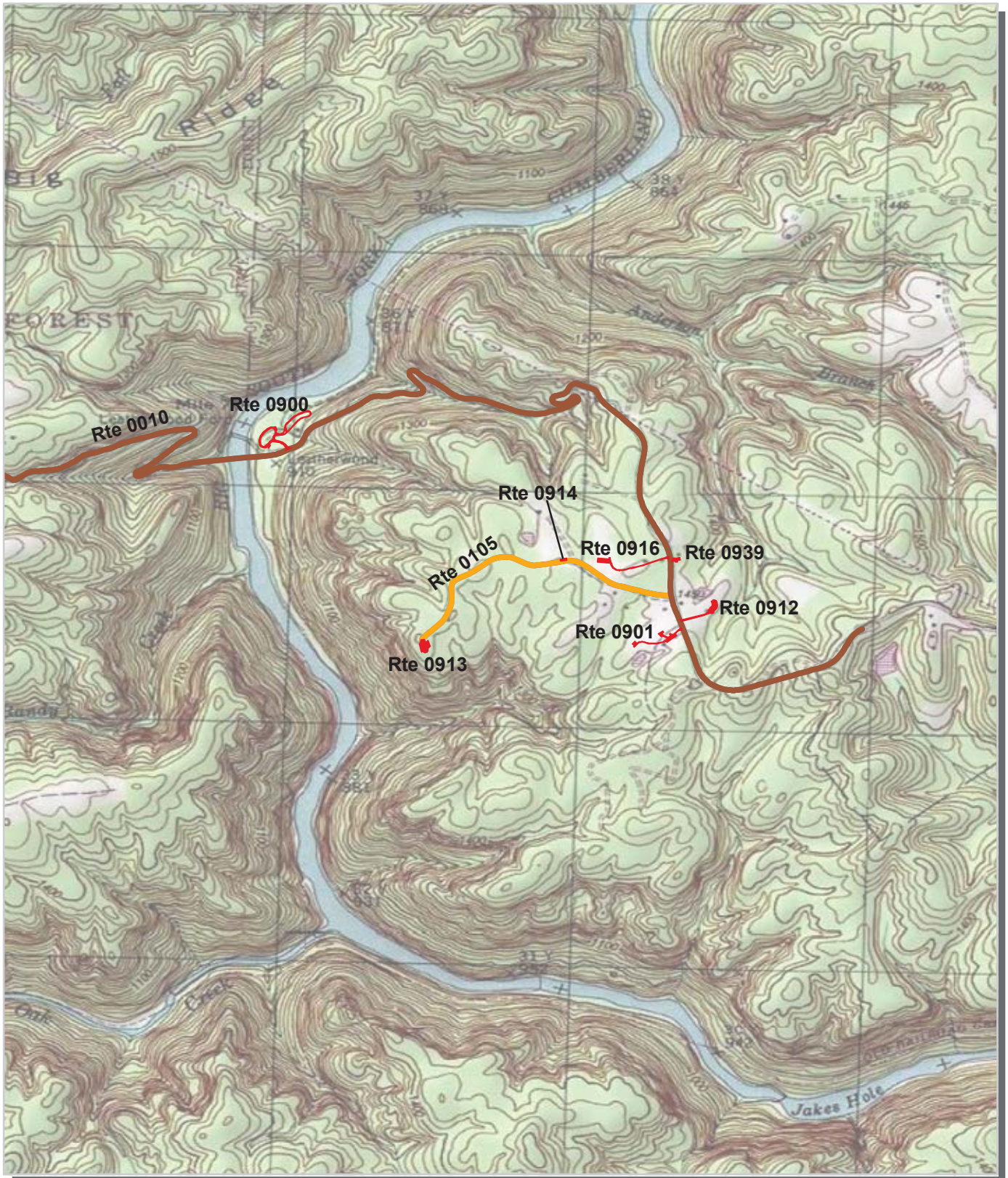
Big South Fork National River and Recreation Area Route Location Map Area 2



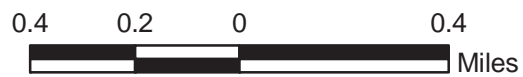
Unique colors used to differentiate routes



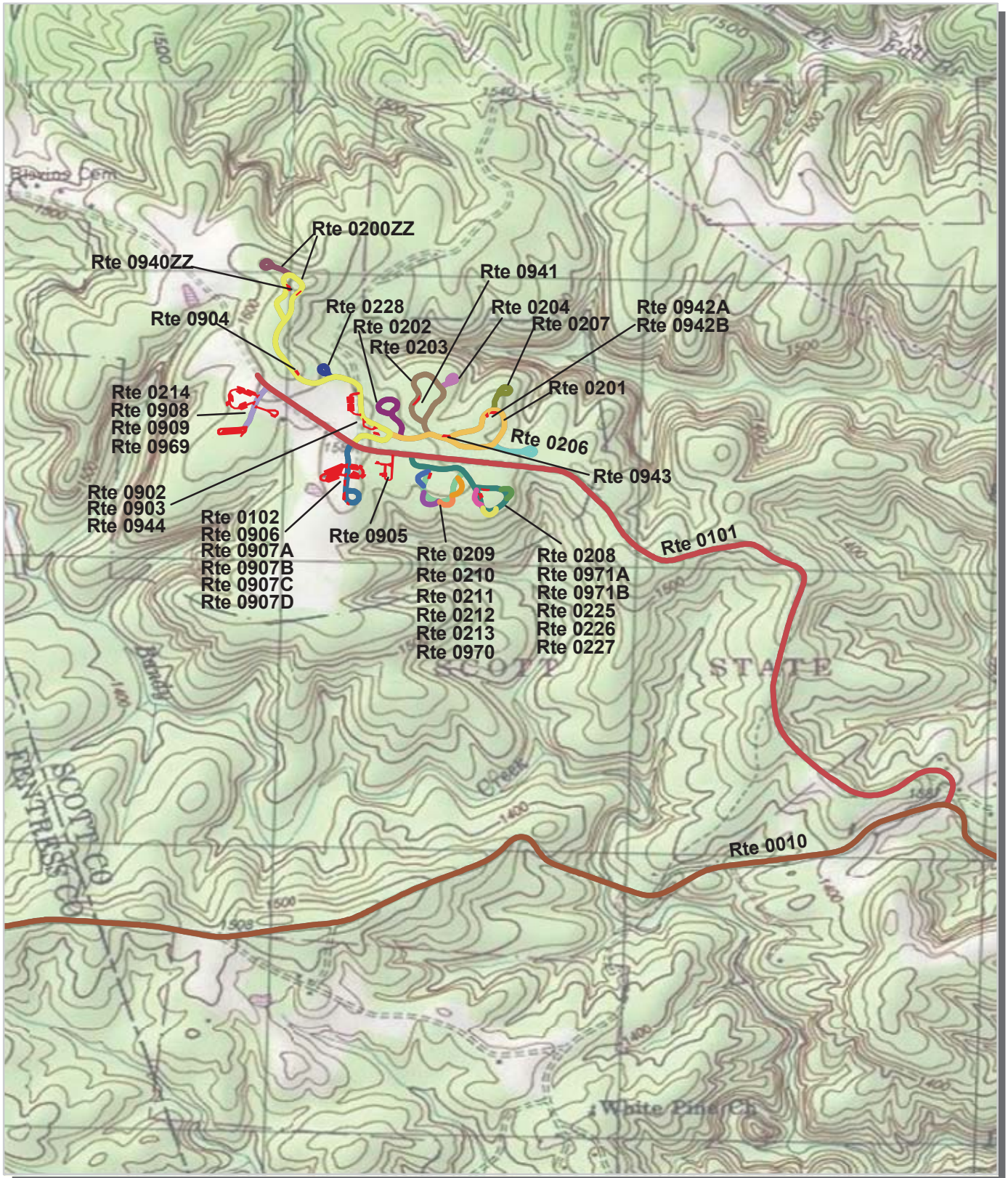
Big South Fork National River and Recreation Area Route Location Map Area 3



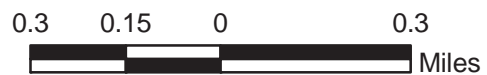
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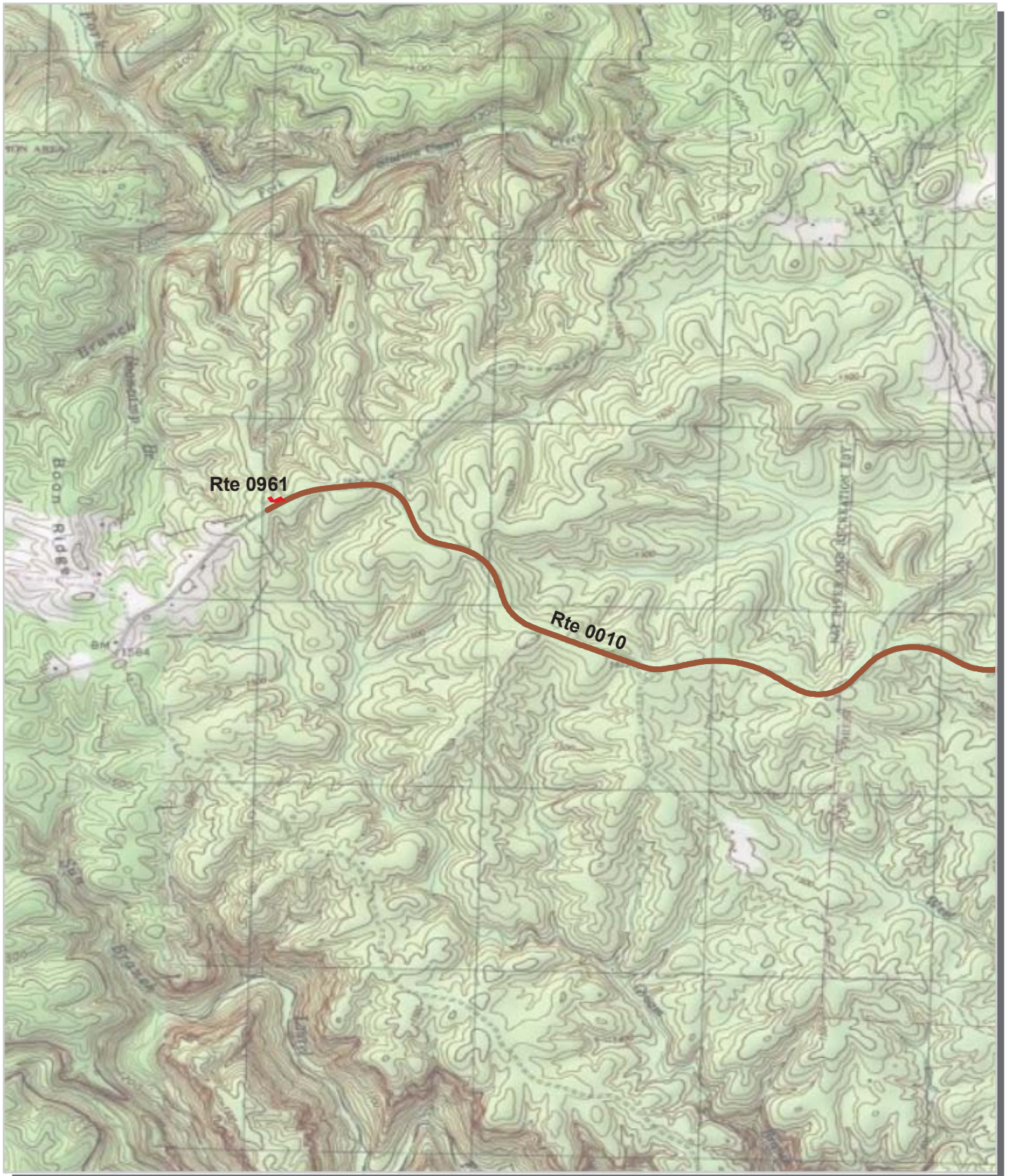
Big South Fork National River and Recreation Area Route Location Map Area 4



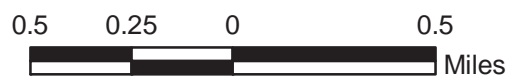
Unique colors used to differentiate routes



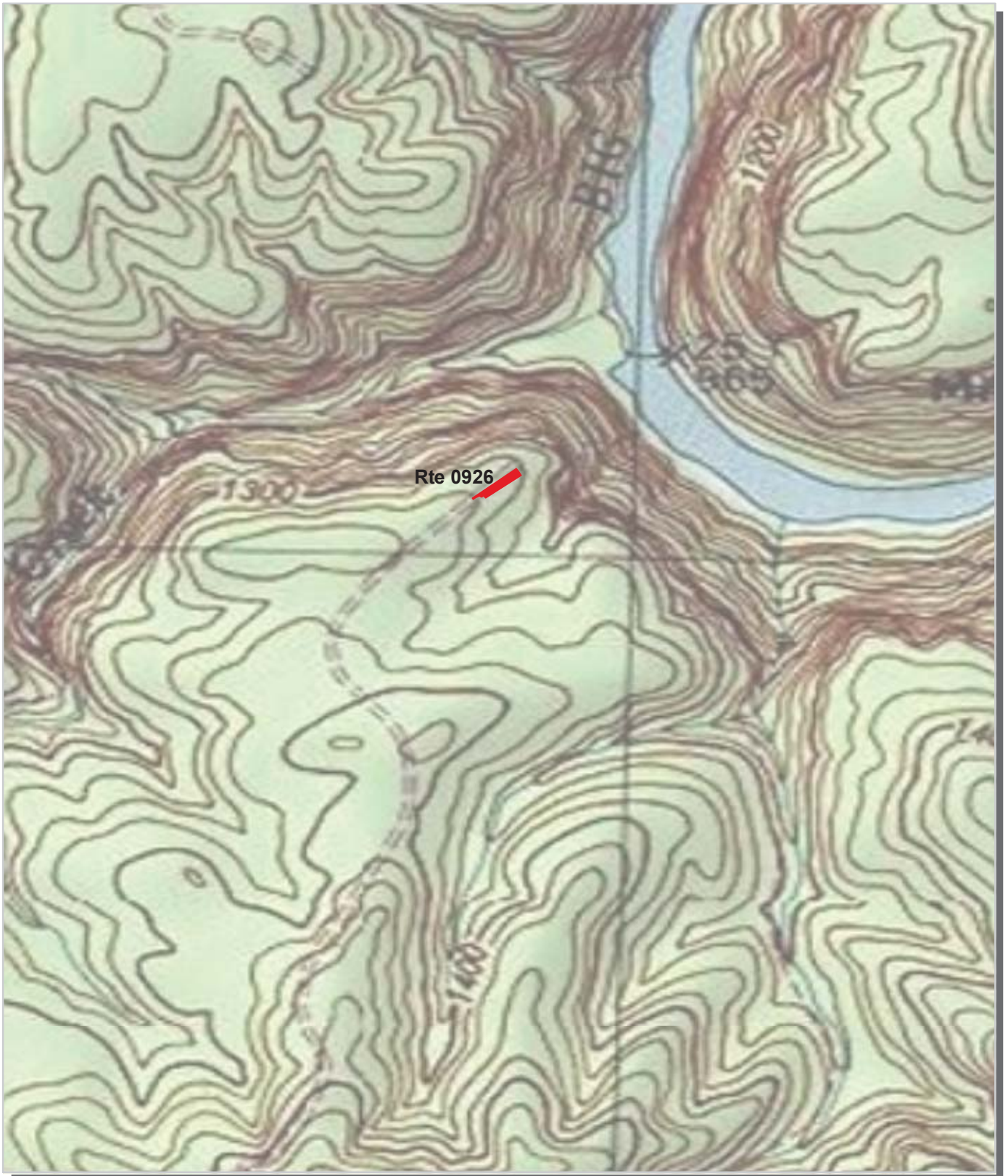
Big South Fork National River and Recreation Area Route Location Map Area 5



Unique colors used to differentiate routes



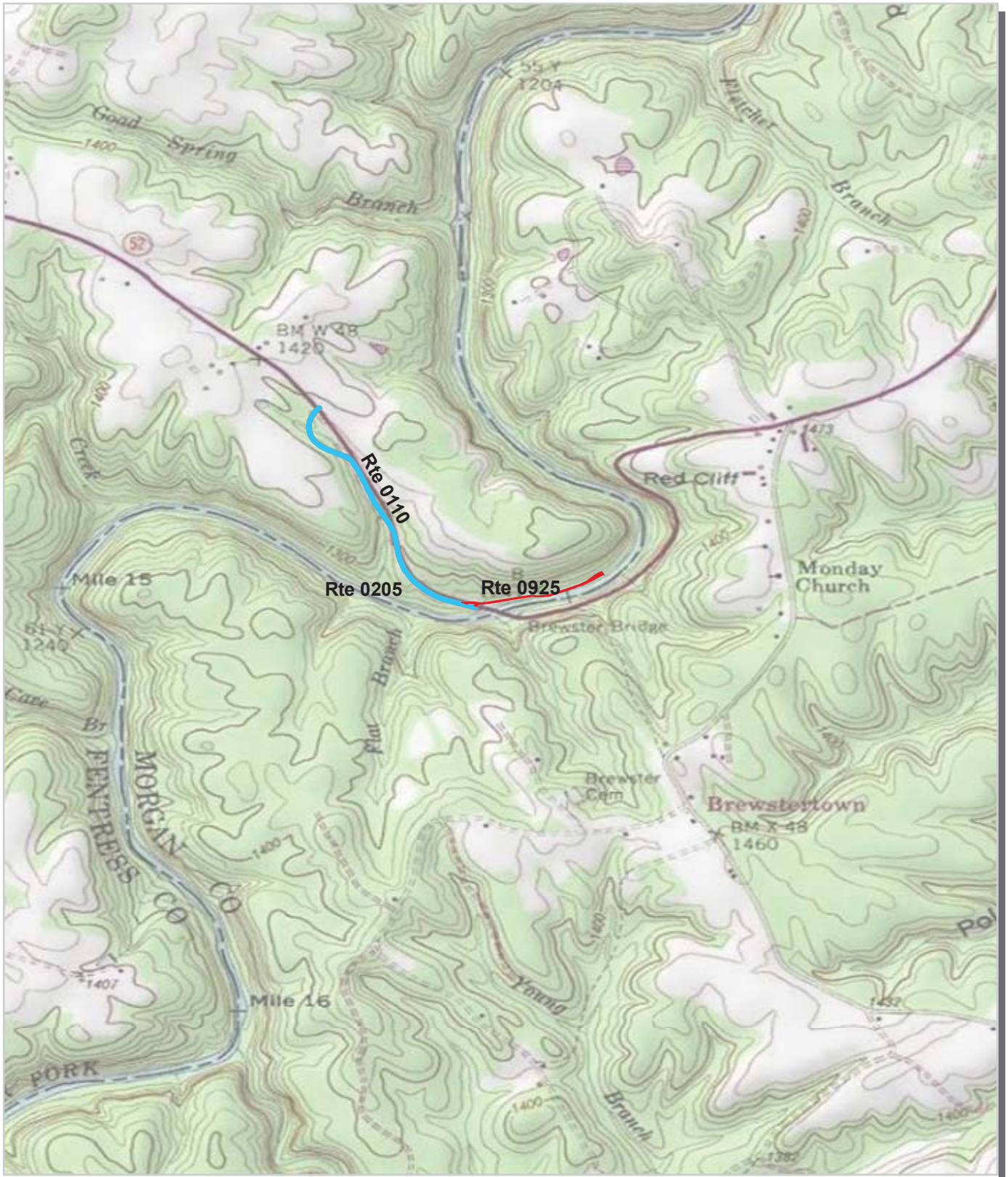
**Big South Fork National River and Recreation Area
Route Location Map
Area 6**



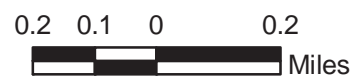
Unique colors used to differentiate routes



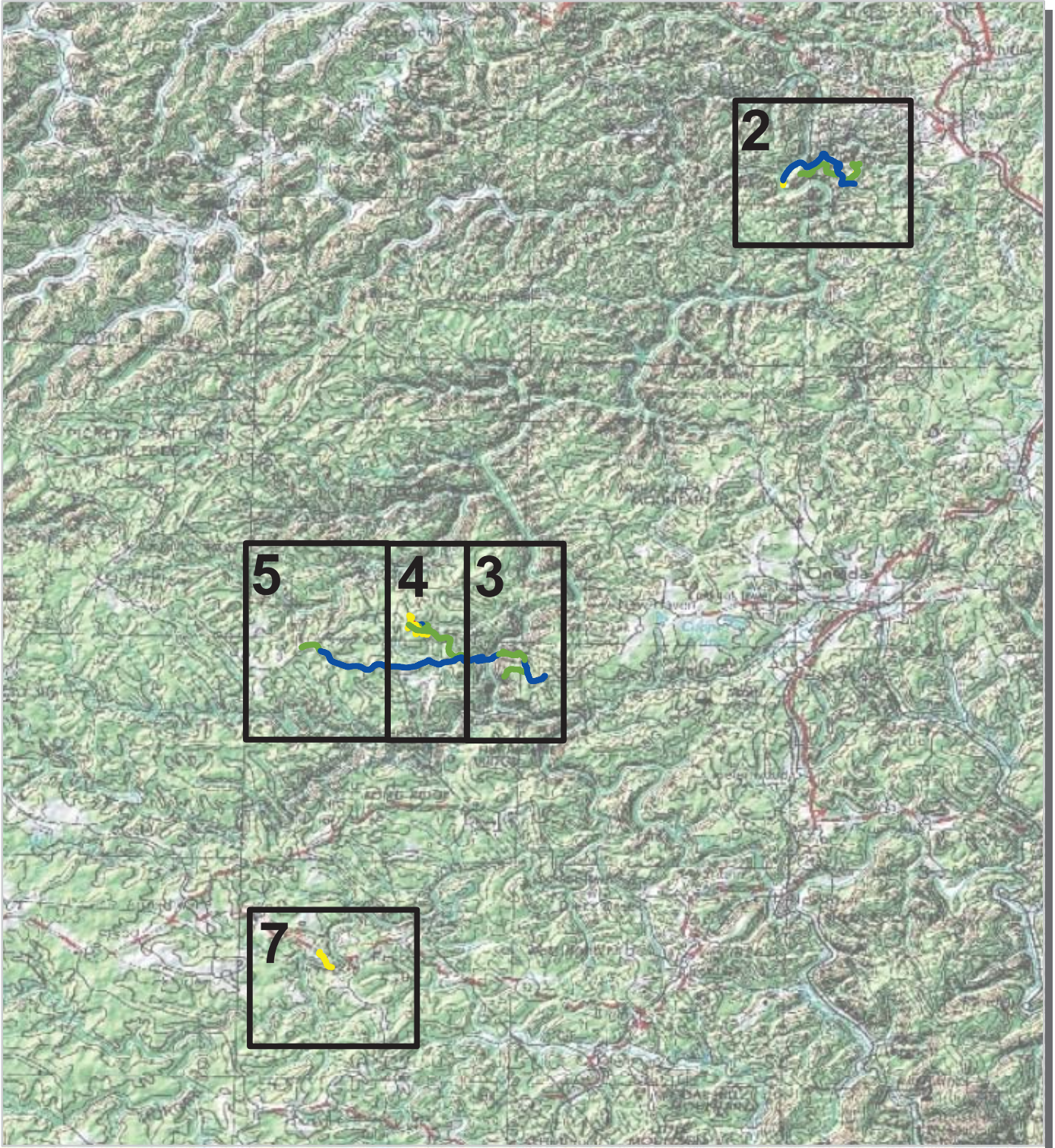
Big South Fork National River and Recreation Area Route Location Map Area 7



Unique colors used to differentiate routes



**Big South Fork National River and Recreation Area
Route Condition Map
PCR - Mile by Mile
Key Map**



PCR	Poor	Fair	Good	Excellent	No Data
	(≤60)	(61 - 84)	(85 - 94)	(95 - 100)	

* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

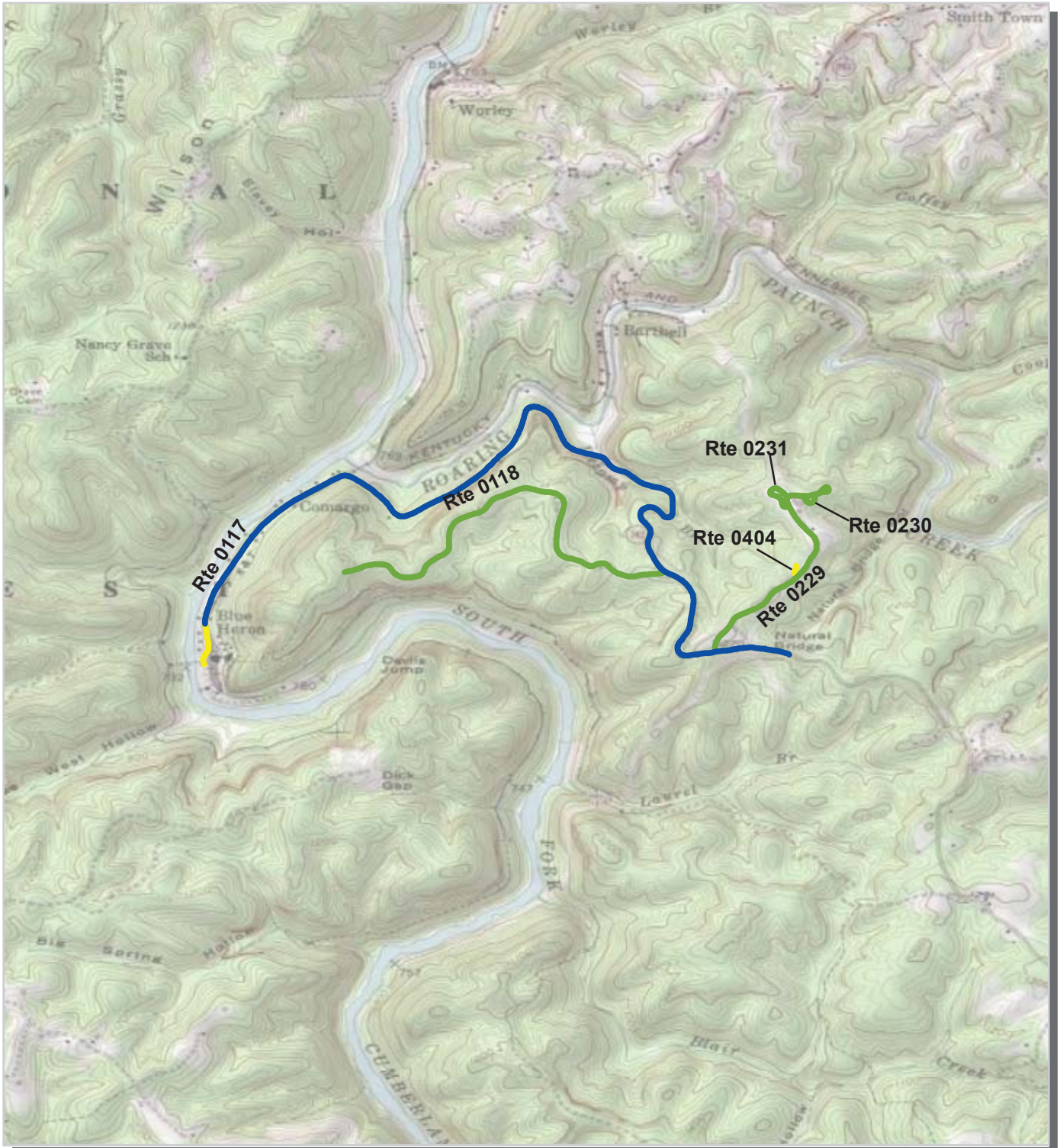


Big South Fork National River and Recreation Area

Route Condition Map

PCR - Mile by Mile

Area 2



PCR	Poor (≤60)	Fair (61 - 84)	Good (85 - 94)	Excellent (95 - 100)	No Data
					

* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

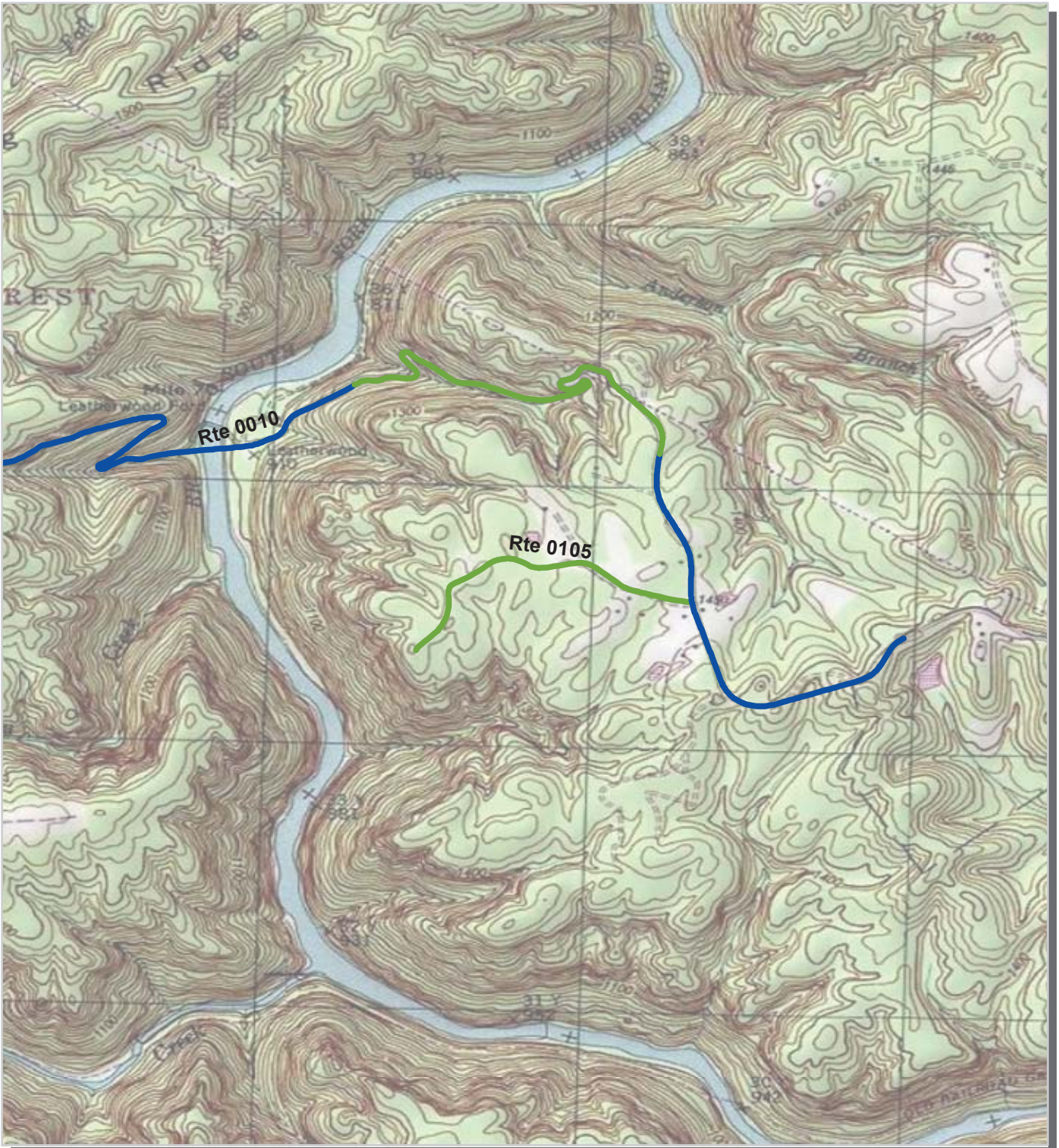


Big South Fork National River and Recreation Area

Route Condition Map

PCR - Mile by Mile

Area 3



PCR	Poor		Fair		Good		Excellent		No Data	
	(<=60)		(61 - 84)		(85 - 94)		(95 - 100)			

* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

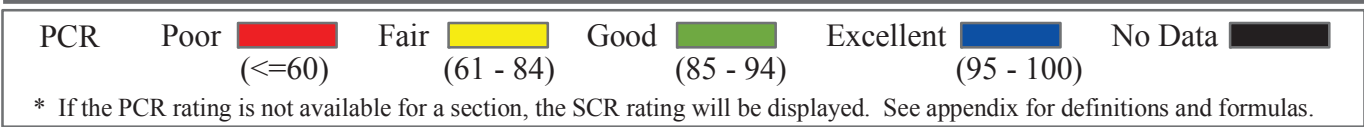
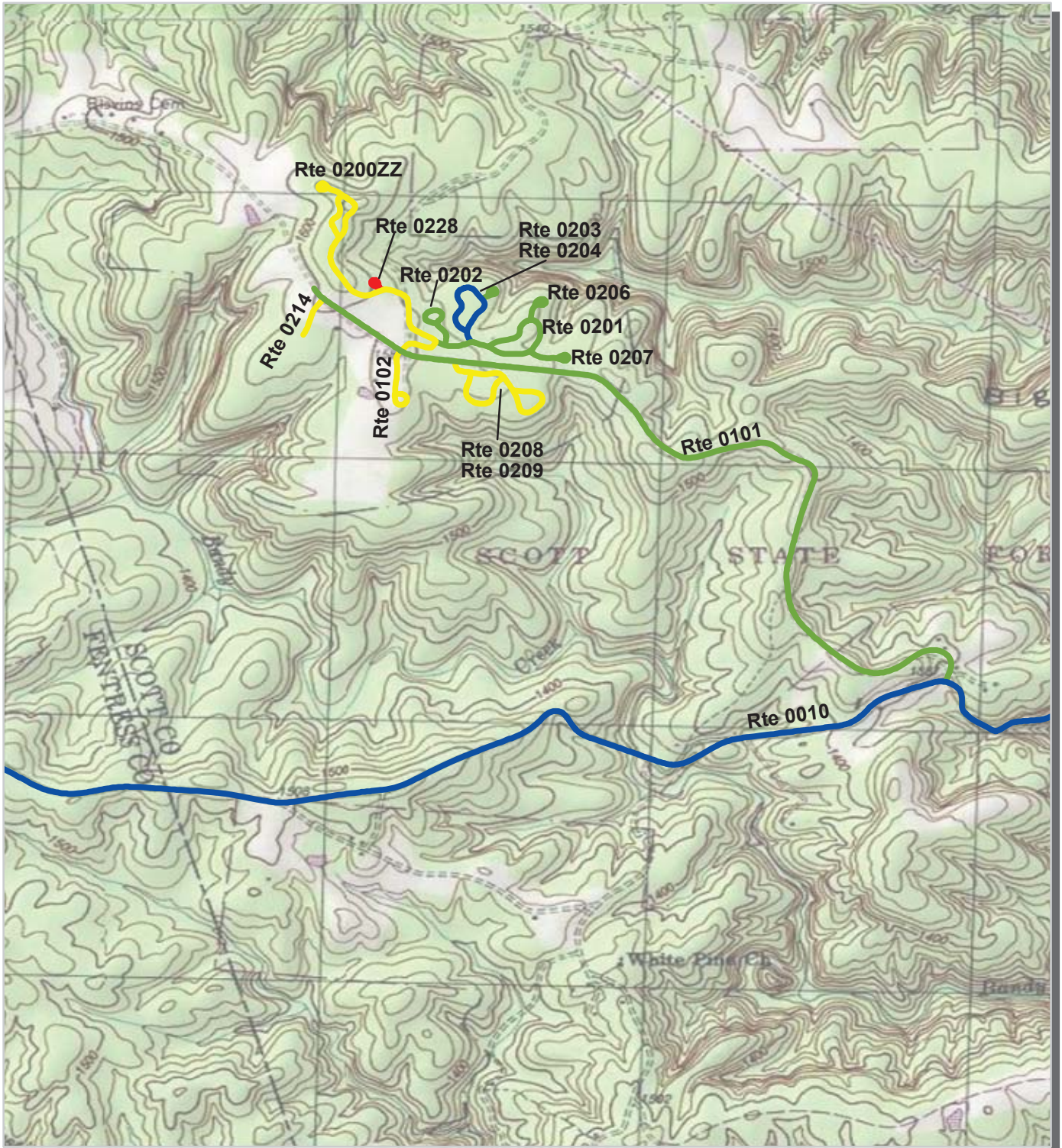


Big South Fork National River and Recreation Area

Route Condition Map

PCR - Mile by Mile

Area 4



**Big South Fork National River and Recreation Area
Route Condition Map
PCR - Mile by Mile
Area 5**

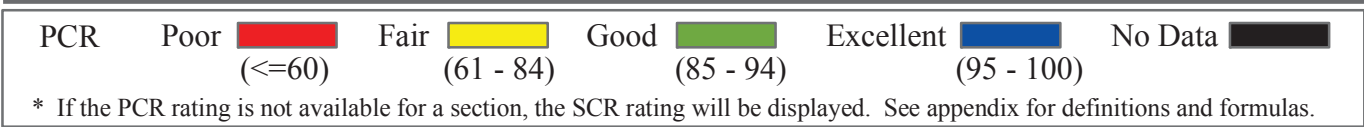
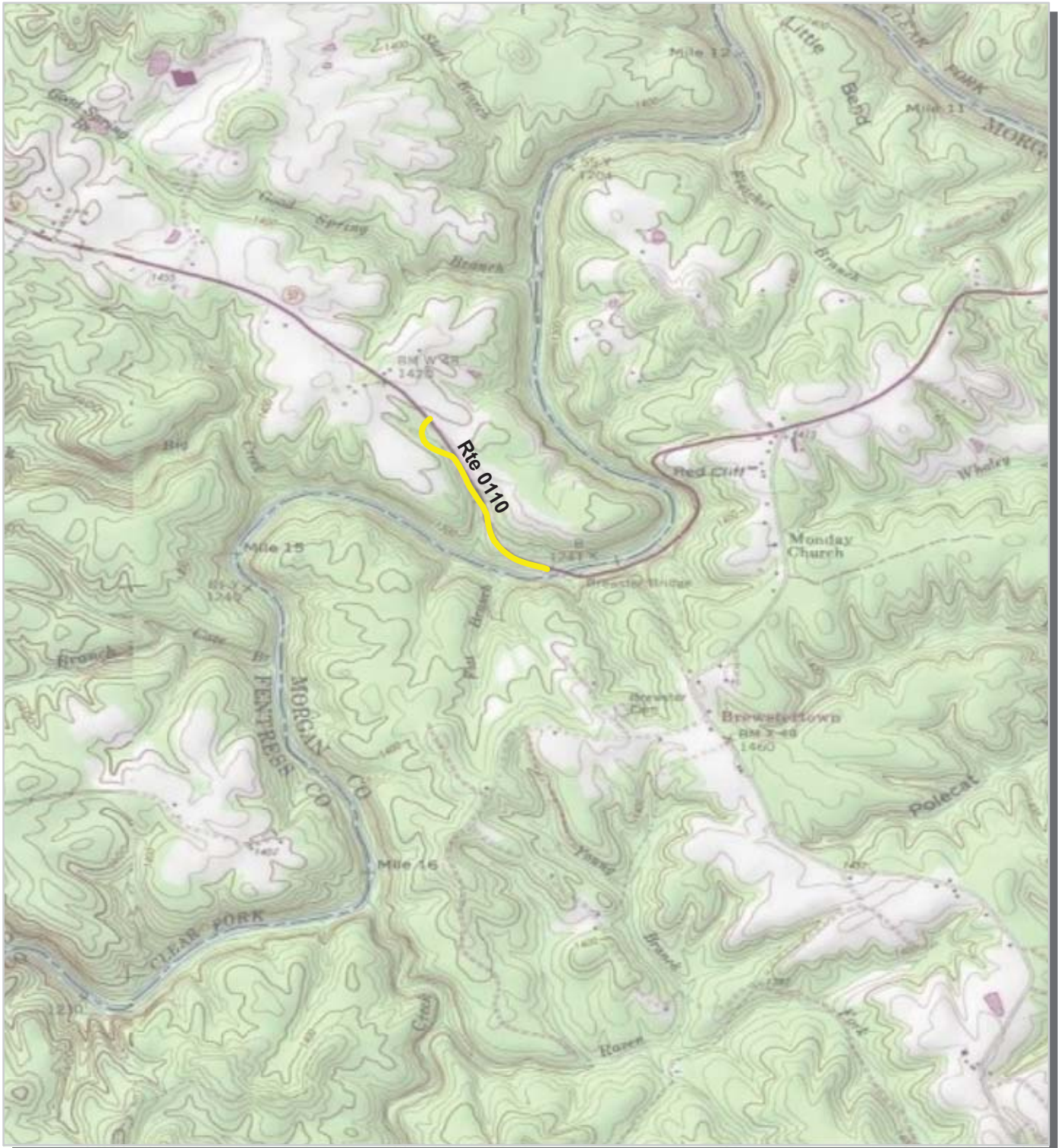


PCR	Poor	Fair	Good	Excellent	No Data
	(≤60)	(61 - 84)	(85 - 94)	(95 - 100)	

* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.



**Big South Fork National River and Recreation Area
Route Condition Map
PCR - Mile by Mile
Area 7**



Big South Fork National River and Recreation Area



Section 4 **Park Route Inventory**