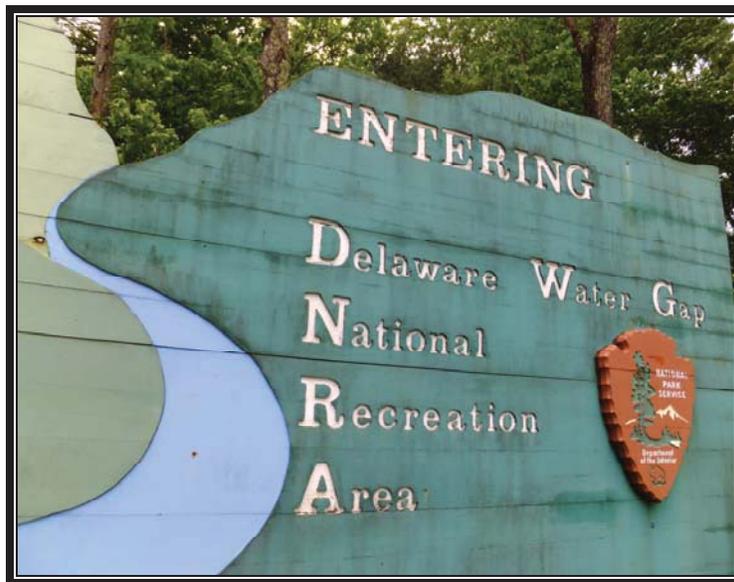




# Federal Lands Highway Road Inventory Program

Road Inventory and Condition Assessment



## Delaware Water Gap National Recreation Area DEWA

### Cycle 5 Report

Prepared By: Federal Highway Administration  
Road Inventory Program (RIP)  
Data Collected: 04/2013  
Report Date: 12/2013

# Delaware Water Gap National Recreation Area in New Jersey and Pennsylvania





DCV = Data Collection Vehicle

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# Section 1 Introduction



Delaware Water Gap National Recreation Area



Federal Lands Highway  
Road Inventory Program

## INTRODUCTION

The Federal Highway Administration, (FHWA), in the mid 1970s, was charged with the task of identifying surface condition deficiencies and corrective priorities on National Park Service (NPS) roads and parkways. Additionally, FHWA was tasked with establishing an integrated maintenance features inventory, locating features such as culverts, guardrails, and signs, among others, along NPS roads and parkways. As a result, in 1976 the NPS and FHWA entered into an MOA (Memorandum Of Agreement) which established the RIP (Road Inventory Program). This MOA was terminated and revised in 1980 to establish a new MOA aiming to update RIP data and develop a long-range program to improve and maintain NPS roads to designated condition standards and establish a maintenance management program.

The FHWA completed this initial phase of the RIP in the early 1980s. As a result of this effort, each NPS site included in the study received a RIP Report known as the “Brown Book” which included the information collected during this first RIP phase.

In the 1990s, the effort was again renewed to update and maintain the RIP data. By this time the computer age was upon us and a process was employed that relied heavily on electronic data collection and computer technology. A cyclical program was developed and the RIP completed two cycles of data collection from 1994 to 2001. Cycle 1, starting in 1994, was conducted in 44 “large parks” (parks containing 10 or more paved route miles). Cycle 2 began in 1997 and comprised 79 large parks and 5 small parks totaling 4,874 paved route miles. Each of these parks received a RIP Report known as the “Blue Book”. Cycle 3, from 2001 to 2004, was conducted in all parks, large and small, that contained any paved routes, including parking areas and, again, each park received a RIP Report and associated electronic files.

Cycle 4 was initiated in the spring of 2006 covering 86 large parks and several associated small parks consisting of 5,553 paved route miles and 6,232 paved parking areas. Data collection has been completed for Cycle 4 and all data has been delivered to the NPS.

In 2005, the FHWA began implementing the use of a Pavement Management System (PMS) to assist the NPS in prioritizing Pavement Maintenance and Rehabilitation activities. The PMS used by FHWA is the Highway Pavement Management Application (HPMA) and this software has the ability to store inventory and condition data from RIP and forecast future performance using prediction models. Outputs include performance and condition reports at the National, Regional, Park, or Route level. A regional prioritized list and optimization have been produced for most regions and the Federal Highway Deferred Maintenance is calculated via the HPMA.

In an effort to improve the accuracy of treatment recommendations and pavement condition descriptions, an extensive study was completed throughout 2010 that has resulted in changes to the RIP condition reporting method, specifically the distresses and indexes that comprise the Pavement Condition Rating (PCR). It was determined that a better representation of PCR could

be achieved by modifying the relative impact certain distresses would have on the overall rating. The changes that were implemented were endorsed by management at both the FHWA and NPS in October 2010. These changes will allow greater use of RIP and HPMA data for not simply condition data reporting, but also as a reliable tool for project identification and selection. Because of these changes, the PCR Condition ratings reported in Cycle 5 do not directly relate to the condition ratings reported in previous cycle RIP Reports. For more detailed information about the changes, see Section 3 and Section 10 in this RIP Report.

Cycle 5 has launched in the summer of 2010 and will again comprise all parks, large and small, that are served by paved roads and/or parking areas. For Cycle 5, the decision was made to collect condition data in large parks on Functional Class 1, 2, and 7 paved routes only, as well as any new routes that were previously not collected. In small parks, all paved routes and parking areas will be collected. As a result, this will include 81 large parks with 4,459 paved route miles and 231 small parks with 529 paved route miles and associated paved parking areas.

Since 1984, the Road Inventory Program has been funded through the Federal Lands Highway Park Roads and Parkways (PRP) Program. Currently, coordination of the RIP with FLH is under the NPS Washington Headquarters Park Facility Management Division. The FLH Washington office coordinates policy and prepares national reports and needs assessment studies for Congress.

In 1998, the Transportation Equity Act for the 21<sup>st</sup> Century (TEA-21) amended Title 23 U.S.C., and inserted Section 204(a)(6) requiring the FHWA and NPS, to develop by rule, a Pavement Management System (PMS) applied to park roads and parkways serving the National Park System.

FLH is responsible for the accuracy of all data presented in this report. Any questions or comments concerning the contents of this report should be directed to the national RIP Coordinator located in Sterling, Virginia.

Respectfully,

FHWA RIP Team

FHWA/Eastern Federal Lands  
21400 Ridgetop Circle  
Sterling, VA 20166  
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# Section 2 Park Route Inventory



Delaware Water Gap National Recreation Area



Federal Lands Highway  
Road Inventory Program

# Cycle 5 NPS/RIP Route ID Report

Road Inventory Program 12/18/2013

(Numerical By Route #)

Page 1 of 19

Shading Color Key:

White = Paved Routes, DCV Driven

Yellow = Unpaved Routes, DCV not Driven

Blue = All Paved Parking Areas

Green = All Unpaved Parking Areas

Red text denotes approx. mileage

Grey = Paved Routes, DCV not Driven

Black = State, Local or Private non-NPS Routes

■ = Concession Route Flag ON

\*Unpaved route data was obtained from NPS and was not inventoried by the Road Inventory Program (RIP).

\*\* DCV - Data Collection Vehicle

\*\*\* Only Functional Class 1, 2, & 7 routes, and previously uncollected routes were collected in Cycle 5

## DEWA

### DELAWARE WATER GAP NATIONAL RECREATION AREA

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description		Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
					From	To								
0010	5	29402		OLD MINE ROAD (SOUTH SECTION)	FROM NORTH WORTHINGTON STATE FOREST BOUNDARY (SOUTHERN DEWA BOUNDARY)	TO INTERSECTION OF ROUTE 0110 (POMPEY RIDGE ROAD) AND ROUTE 0101 (OLD MINE ROAD (UNPAVED SECTION))	N/A	13.47	0.00	13.47	1		AS	2,3,4
0011	5	29364		KUHN ROAD	FROM INTERSECTION OF ROUTE 0113 (NPS ROUTE 615), ROUTE 0012 (PETERS VALLEY - WAGONWHEEL ROAD), AND ROUTE 5009 (NJ 615 (BEVANS ROAD))	TO ROUTE 0101 (OLD MINE ROAD (UNPAVED SECTION))	N/A	0.79	0.00	0.79	2		AS	2
0012	5	54399		PETERS VALLEY - WAGONWHEEL ROAD	FROM INTERSECTION OF ROUTE 0113 (NPS ROUTE 615), ROUTE 0011 (KUHN ROAD), AN ROUTE 5009 (NJ 615 (BEVANS ROAD))	TO BEGINNING OF ROUTE 0015 (OLD MINE ROAD (NORTH SECTION) AND ROUTE 0101 (OLD MINE ROAD (UNPAVED SECTION)) ON LEFT	N/A	1.08	0.00	1.08	2		AS	2
0013	5	31274		NATIONAL PARK DRIVE	FROM ROUTE 5010 (PA 611) AT NORTH DELAWARE DRIVE	TO BEGINNING OF ROUTE 0213 (NATIONAL PARK DRIVE (DIRT SECTION)) AT GATE	N/A	0.83	0.00	0.83	1		AS	5
0014	5	31280		US ROUTE 209	FROM END OF ROUTE 5018 (U.S. HIGHWAY 209 SOUTH / NON NPS) AT SOUTH PARK BOUNDARY MARKER AT BUSHKILL	TO BEGINNING OF ROUTE 5019 (U.S. HIGHWAY 209 NORTH / NON NPS) AT SAWKILL CREEK BRIDGE	N/A	21.05	0.00	21.05	1		AS	1,2,4
0015	5	49270		OLD MINE ROAD (NORTH SECTION)	FROM INTERSECTION OF ROUTE 0101 (OLD MINE ROAD (UNPAVED SECTION)) AND ROUTE 0012 (PETERS VALLEY - WAGONWHEEL ROAD)	TO SR 206 (DISABLED AMERICAN VETERANS MEMORIAL HIGHWAY), BEGINNING OF ROUTE 5002 (DECKERTOWN TURNPIKE) AND BEGINNING OF ROUTE 5015 (RIVER ROAD NJ)	N/A	7.58	0.00	7.58	1		AS	1,2
0100	5	29479		BLUE MOUNTAIN LAKE ROAD	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) AT MP 7.49	TO PARK BOUNDARY AND SKYLINE DRIVE ON LEFT	N/A	2.88	0.00	2.88	2		AS	2

# Cycle 5 NPS/RIP Route ID Report

Road Inventory Program 12/18/2013

(Numerical By Route #)

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## DEWA

### DELAWARE WATER GAP NATIONAL RECREATION AREA

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description		Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
					From	To								
0101	NC	29391		OLD MINE ROAD (UNPAVED SECTION)	FROM INTERSECTION OF ROUTE 0110 (POMPEY RIDGE ROAD) AND ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION))	TO INTERSECTION OF ROUTE 0012 (PETERS VALLEY - WAGONWHEEL ROAD) AND ROUTE 0015	N/A	0.00	5.48	5.48	3		GR	
0102	NC	30991		THUNDER MOUNTAIN ROAD	FROM ROUTE 0011 (KUHN ROAD)	TO CAMP LODGE	N/A	0.00	2.54	2.54	3		GR	
0103	4	29386		OLD DINGMANS BRIDGE ROAD	FROM ROUTE 0015 (OLD MINE ROAD (NORTH SECTION)) AT MP 0.67	TO PARK BOUNDARY	N/A	0.86	0.00	0.86	4	68,112	AS	2
0104	4	29421		UPPER RIDGE ROAD	FROM ROUTE 5007 (NJ 560 (DINGMANS ROAD))	TO END OF MAINTENANCE	N/A	0.72	0.00	0.72	3	68,239	AS	2
<b>0105</b>	<b>5</b>	<b>31277</b>		<b>RIVER ROAD</b>	<b>FROM STATE ROUTE 2028 (RIVER ROAD)</b>	<b>TO PARK BOUNDARY AT PAVEMENT CHANGE</b>	<b>N/A</b>	<b>5.89</b>	<b>0.00</b>	<b>5.89</b>	<b>2</b>		<b>AS</b>	<b>4</b>
<b>0106</b>	<b>5</b>	<b>29313</b>		<b>JAGER ROAD</b>	<b>FROM ROUTE 0015 (OLD MINE ROAD (NORTH SECTION)) AT MP 4.24</b>	<b>TO PARK BOUNDARY AT PAVEMENT CHANGE</b>	<b>N/A</b>	<b>0.68</b>	<b>0.00</b>	<b>0.68</b>	<b>2</b>		<b>AS</b>	<b>1</b>
0107	4	29312		FISHER SCHOOL HOUSE ROAD	FROM ROUTE 0015 (OLD MINE ROAD (NORTH SECTION)) AT MP 2.16	TO ROUTE 0104 (UPPER RIDGE ROAD)	N/A	0.54	0.00	0.54	3	34,024	AS	2
0108	NC	29368		MOUNTAIN ROAD	FROM INTERSECTION OF ROUTE 0600 (MAIN STREET (WALPACK)), ROUTE 0601 (STRUBLE ROAD) AND BROOK ROAD	TO OLD HANEYS MILL ROAD	N/A	0.00	3.34	3.34	2		GR	
<b>0109</b>	<b>5</b>	<b>29365</b>		<b>NPS 602</b>	<b>FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) AT MP 5.97</b>	<b>TO BEGINNING OF ROUTE 5008 (NJ 602 (MILLBROOK ROAD / NON NPS)) PARK BOUNDARY AT PAVEMENT CHANGE</b>	<b>N/A</b>	<b>1.73</b>	<b>0.00</b>	<b>1.73</b>	<b>1</b>		<b>AS</b>	<b>2,3</b>
0110	4	29404		POMPEY RIDGE ROAD	FROM ROUTE 0113 (NPS ROUTE 615) AT MP 5.23	TO END OF ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) AND ROUTE 0101 (OLD MINE ROAD (UNPAVED SECTION)) ON RIGHT	N/A	1.12	0.00	1.12	3		AS	2
0112ZZ	4	31264		JOHNNY BEE ROADS	FROM ROUTE 0014 (US ROUTE 209)	TO BEGINNING OF ROUTE 0218 (DINGMANS FALLS ROAD) WEST SIDE AND ROUTE 5011 (PA 739)	N/A	0.71	0.00	0.71	3		AS	2

# Cycle 5 NPS/RIP Route ID Report

Road Inventory Program 12/18/2013

(Numerical By Route #)

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## DEWA

### DELAWARE WATER GAP NATIONAL RECREATION AREA

Rte. No.	Cycle Collected	FMS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0113	5	29369		NPS ROUTE 615	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) AT MP 8.13 TO INTERSECTION OF ROUTE 0011 (KUHN ROAD), ROUTE 0012 (PETERS VALLEY - WAGONWHEEL ROAD), AND ROUTE 5009 (NJ 615 (BEVANS ROAD))	N/A	9.72	0.00	9.72	1		AS	2
0114	5	31890		SCHOOL HOUSE ROAD	FROM ROUTE 0014 (US ROUTE 209) AT MP 12.80 TO ROUTE 0958 (DINGMANS SCHOOL PARKING AREA)	N/A	0.12	0.00	0.12	2		AS	2
0115	4	55557		ICE HOUSE ROAD	FROM ROUTE 0231 (MILFORD BEACH ACCESS ROAD) TO FRONT STREET ON RIGHT	N/A	0.18	0.00	0.18	3		AS	1
0116	4	55559		MILFORD RIVER ROAD	FROM ROUTE 0115 (ICE HOUSE ROAD) TO PARK BOUNDARY	N/A	0.00	0.12	0.12	3		GR	
0117	4	55558		MAPLE LANE	FROM ROUTE 0115 (ICE HOUSE ROAD) TO ROUTE 0116 (MILFORD RIVER ROAD)	N/A	0.00	0.06	0.06	4		GR	
0118	NC	29305		CADOO ROAD	FROM ROUTE 5015 (RIVER ROAD NJ) APPROX. 1.6 MILES NORTH OF MILFORD BRIDGE TO END	N/A	0.00	1.21	1.21	2		GR	
0119	NC	29307		CHUDZIK TRACT ACCESS ROAD	FROM ROUTE 0015 (OLD MINE ROAD (NORTH SECTION)) BY ENNIS HOUSE TO RIVER	N/A	0.00	0.75	0.75	2		GR	
0120	NC	30090		BIG EGYPT ROAD	FROM TOMS CREEK PICNIC ACCESS ROAD AT NORTH END TO BOUNDARY	N/A	0.00	1.00	1.00	2		GR	
0121	NC	30094		ZIMMERMAN ROAD	FROM ROUTE 0014 (US ROUTE 209) AT MP 16 TO ROUTE 0014 (US ROUTE 209)	N/A	0.00	2.37	2.37	2		GR	
0122	NC	30944		THUNDER MOUNTAIN ACCESS ROAD	FROM ROUTE 0101 (OLD MINE ROAD (UNPAVED SECTION)) TO RIVER	N/A	0.00	0.34	0.34	2		GR	
0123	NC	31001		VAN CAMPEN GLEN ENTRANCE ROAD	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) TO PICNIC AREA	N/A	0.00	0.07	0.07	2		GR	
0124	NC	31262		HACKERS FALLS ROAD	FROM ROUTE 5005 (MILFORD ROAD / STATE ROUTE 2001) TO END	N/A	0.00	0.73	0.73	2		GR	
0125	NC	92433		LEE ROAD	FROM ROUTE 0014 (US ROUTE 209) TO END	N/A	0.00	0.43	0.43	2		GR	

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## DEWA

### DELAWARE WATER GAP NATIONAL RECREATION AREA

Rte. No.	Cycle Collected	FMS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0126	NC	31269		MOSIER KNOB ROAD	FROM ZION CHURCH / CHURCH HILL ROAD TO	N/A	0.00	0.40	0.40	2		GR	
0127	NC	31305		VALLEY VIEW ROAD	FROM ROUTE 0014 (US ROUTE 209) TO CAMPGROUND	N/A	0.00	0.37	0.37	2		GR	
0128	NC	32328		TOTTS GAP ROAD	FROM TO	N/A	0.00	1.10	1.10	2		GR	
0129	NC	32359		VENTURA TRACT ACCESS ROAD	FROM ROUTE 0014 (US ROUTE 209) TO RIVER	N/A	0.00	0.21	0.21	2		GR	
0200	NC	30017		CAMP DEPEW ACCESS ROAD	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) AT MP 3.55 TO END OF LOOP	N/A	0.00	0.86	0.86	3		GR	
0201	NC	101324		KITTATINNY POINT BOAT AND CANOE LAUNCH ACCESS ROAD	FROM ROUTE 5015 (RIVER ROAD NJ) ON RIGHT AFTER ROUTE 0911 (KITTATINNY POINT VISITOR CENTER) TO WATER	N/A	0.00	0.10	0.10	3		GR	
0209	3	29309		CUTOFF ROAD	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)), EAST TO ROUTE 0109 (NPS 602)	N/A	1.17	0.00	1.17	6	61,987	AS	2,3
0211	3	49262		BECK ROAD	FROM ROUTE 0014 (US ROUTE 209) AT MP 2.07 TO BROADHEAD ROAD	N/A	0.49	0.00	0.49	4	25,819	AS	4
0213	NC	49291		NATIONAL PARK DRIVE (DIRT SECTION)	FROM END OF ROUTE 0013 (NATIONAL PARK DRIVE) AT GATE TO PARKING	N/A	0.00	0.25	0.25	4		GR	
0218	4	31626		DINGMANS FALLS ROAD	FROM END OF ROUTE 0112ZZ (JOHNNY BEE ROADS) TO ROUTE 0952 (DINGMANS FALLS VISITOR CENTER)	N/A	0.63	0.00	0.63	3		AS	2
0226	NC	31896		ESHBACH BOAT LAUNCH ACCESS	FROM ROUTE 0014 (US ROUTE 209) TO BOAT LAUNCH	N/A	0.00	0.37	0.37	3		GR	
0227	NC	31897		ESHBACH BARN ACCESS	FROM ROUTE 0014 (US ROUTE 209) NORTH TO ROUTE 0014 (US ROUTE 209) SOUTH	N/A	0.00	0.45	0.45	4		GR	
0230	NC	49293		ENNIS HOUSE ACCESS	FROM ROUTE 0015 (OLD MINE ROAD (NORTH SECTION)) TO ENNIS HOUSE	N/A	0.00	0.15	0.15	3		GR	
0231	4	32006		MILFORD BEACH ACCESS ROAD	FROM MILFORD BEACH ACCESS ROAD (NON NPS) AT PAVEMENT CHANGE TO END OF LOOP AT CANOE LAUNCH	N/A	0.32	0.00	0.32	3		AS	1
0232ZZ	4	55241		PEEC CABIN ACCESS ROADS	FROM EMERY ROAD THROUGH CABIN AREAS	N/A	0.61	0.00	0.61	3	64,205	AS	2
0233ZZ	4	53799		SMITHFIELD BEACH ACCESS ROADS	FROM ROUTE 0105 (RIVER ROAD) THROUGH SITE AREA	N/A	0.59	0.00	0.59	3		AS	4

# Cycle 5 NPS/RIP Route ID Report

Road Inventory Program 12/18/2013

(Numerical By Route #)

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## DEWA

### DELAWARE WATER GAP NATIONAL RECREATION AREA

Rte. No.	Cycle Collected	FMS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0234	4	31941		HIDDEN LAKE ACCESS ROAD	FROM ROUTE 5004 (HIDDEN LAKE ROAD) TO ROUTE 0907 (HIDDEN LAKE PARKING AND ACCESS)	N/A	0.32	0.00	0.32	3		AS	4
0235	4	31610		DINGMAN'S CAMPGROUND ENTRY DRIVE	FROM ROUTE 0014 (US ROUTE 209) TO END OF PAVEMENT	N/A	0.08	0.00	0.08	3	4,277	AS	2
0236	NC	62711		SHOEMAKER, CAPTAIN JACOB HOUSE ACCESS ROAD	FROM STATE HIGHWAY 2028 / WINONA FALLS ROAD TO SHOEMAKER HOUSE	N/A	0.00	0.13	0.13	5		GR	
0237	5	88064		CLIFF PARK ENTRANCE ROAD	FROM ROUTE 5005 (MILFORD ROAD / STATE ROUTE 2001) APPROX. 1.1 MI NORTH OF RAYMONDSKILL ROAD TO CLIFF PARK INN	N/A	0.52	0.00	0.52	3		AS	1
0239	NC	98172		AMES JENNINGS ACCESS ROAD	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) APPROX. 1.9 MILES SOUTH OF POMPEY INTERSECTION TO TREE LINE	N/A	0.00	0.11	0.11	6		GR	
0240	NC	98174		RADCLIFF ACCESS ROAD	FROM TO	N/A	0.00	0.25	0.25	3		GR	
0242	NC	101749		TURTLE BEACH ADMINISTRATIVE ROAD	FROM ROUTE 0980 (TURTLE BEACH PARKING) TO END OF LOOP	N/A	0.00	0.25	0.25	3		GR	
0243	NC	29695		CAMP MOHICAN ACCESS ROAD AND PARKING	FROM ROUTE 5008 (NJ 602 (MILLBROOK ROAD / NON NPS)) APPROX. 4.5 MILES EAST OF MILLBROOK TO CAMP BUILDINGS	N/A	0.00	3.70	3.70	3		GR	
0244	NC	30091		CHESTNUT RIDGE ROAD	FROM ROUTE 0014 (US ROUTE 209) AT MP 11 TO BOUNDARY	N/A	0.00	1.00	1.00	4		GR	
0245	NC	30096		DOODLE HOLLOW ROAD	FROM TO	N/A	0.00	1.23	1.23	4		GR	
0246	NC	30748		NAMANOCK ACCESS ROAD	FROM ROUTE 0015 (OLD MINE ROAD (NORTH SECTION)) APPROX. 3 MILES NORTH OF 560 TO NAMANOCK PICNIC AREA	N/A	0.00	0.53	0.53	3		GR	

# Cycle 5 NPS/RIP Route ID Report

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(Numerical By Route #)

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## DEWA

### DELAWARE WATER GAP NATIONAL RECREATION AREA

Rte. No.	Cycle Collected	FMS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0247	NC	30907		SALAMOVKA ENTRANCE DRIVE	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) AT INTERSECTION WITH BLUE MT LAKE ROAD TO SALAMOVKA HOUSE	N/A	0.00	0.05	0.05	3		GR	
0248	NC	30921		SMITH-BIRCHENOUGH FARM LANE	FROM ROUTE 0101 (OLD MINE ROAD (UNPAVED SECTION)) TO ROUTE 0012 (PETERS VALLEY - WAGONWHEEL ROAD)	N/A	0.00	0.24	0.24	4		GR	
0249	NC	31032		VAN CAMPEN, BB ENTRY DRIVE #1	FROM TO DEAD END	N/A	0.00	0.04	0.04	3		GR	
0250	NC	31303		STUCKEY POND ACCESS ROAD	FROM ROUTE 5005 (MILFORD ROAD / STATE ROUTE 2001) TO END/POND	N/A	0.00	0.36	0.36	3		GR	
0251	NC	31507		CALLAHAN EARLY ROAD	FROM ROUTE 0014 (US ROUTE 209) TO CALLAHAN HOUSE	N/A	0.00	0.26	0.26	4		GR	
0252	NC	31541		CHILDS PARK ENTRY ROAD	FROM ROUTE 0011 (KUHN ROAD) TO END/PARKING	N/A	0.00	0.14	0.14	3		GR	
0253	NC	31614	■	DINGMANS CAMPGROUND ROADS	FROM CAMPGROUND STORE (END OF PAVED SECTION) TO LOOP THROUGH CAMPGROUND	N/A	0.00	2.80	2.80	3		GR	
0254	NC	59758		LOCH LOMOND ACCESS ROAD/PARKING	FROM WILSON HILL ROAD TO PICNIC AREA AND SST BUILDING	N/A	0.00	0.16	0.16	3		GR	
0400	NC	31106		WATERGATE SERVICE ROAD	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) TO ROUTE 0401 (MILLBROOK SERVICE ROAD)	N/A	0.00	0.54	0.54	4		GR	
0401	NC	30626		MILLBROOK SERVICE ROAD	FROM ROUTE 0400 (WATERGATE SERVICE ROAD) TO END OF MAINTENANCE	N/A	0.00	0.64	0.64	4		GR	
0403	NC	29422		SKYLINE DRIVE	FROM ROUTE 0100 (BLUE MOUNTAIN LAKE ROAD) AT MP 2.88 ON LEFT TO ROUTE 0962 (CRATER LAKE ACCESS PARKING)	N/A	0.00	2.11	2.11	4		GR	
0405	NC	32444		ZIMMERMAN FARM ACCESS ROAD	FROM ROUTE 0014 (US ROUTE 209) SOUTH TO ROUTE 0014 (US ROUTE 209) NORTH	N/A	0.00	1.03	1.03	4		GR	
0408	NC	32124		PEEC WATER SYSTEM ACCESS ROAD	FROM EMERY ROAD TO WATER SYSTEM	N/A	0.00	0.24	0.24	4		GR	
0409	NC	34838		RIDGE ROAD	FROM (ROUTE RIDGE ROAD / NON NPS) TO NORTH END	N/A	0.00	0.39	0.39	4		GR	
0410	NC	29303		REPEATER SITE ACCESS	FROM ROUTE 0409 (RIDGE ROAD) TO REPEATER SITE	N/A	0.00	0.17	0.17	4		GR	

# Cycle 5 NPS/RIP Route ID Report

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## DEWA

### DELAWARE WATER GAP NATIONAL RECREATION AREA

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0411	NC	32320		TOTTS GAP FARM ACCESS ROAD	FROM ROUTE 0013 (NATIONAL PARK DRIVE) TO BARN	N/A	0.00	0.19	0.19	4		GR	
0412	NC	31937		HIDDEN LAKE LODGE ACCESS ROAD	FROM HIDDEN LAKE DRY TO ZION CHURCH HILL	N/A	0.00	1.01	1.01	4		GR	
0413	NC	50107		HIDDEN LAKE CAMPING ACCESS	FROM ROUTE 0412 (HIDDEN LAKE LODGE ACCESS ROAD) TO PARKING	N/A	0.00	0.16	0.16	4		GR	
0416	NC	30899		RIVERS BEND ACCESS ROAD	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) TO PARKING	N/A	0.00	0.60	0.60	4		GR	
0418	NC	49340		TRAVIS HOUSE ACCESS ROAD	FROM ROUTE 0014 (US ROUTE 209) TO PARKING	N/A	0.00	0.08	0.08	4		GR	
0419	4	30130		BUSHKILL SCHOOL ACCESS ROAD	FROM CHURCH LANE TO END OF PAVEMENT	N/A	0.13	0.00	0.13	5		AS	4
0420	NC	49343		PETERS TRACT ACCESS ROAD	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)), SOUTH TO CANOE CAMPGROUND	N/A	0.00	1.32	1.32	6		GR	
0421	NC	30319		HAMILTON TRACT ACCESS ROAD	FROM DEPEW ACCESS ROAD TO CANOE CAMPGROUND	N/A	0.00	1.23	1.23	4		GR	
0423	4	31919		HEADQUARTER SERVICE ROAD	FROM ROUTE 0105 (RIVER ROAD) AT MP 5.65 TO END OF PAVEMENT	N/A	0.07	0.00	0.07	6	3,854	AS	4
0424	NC	29304		APPALACHIAN ROAD	FROM ROUTE 0100 (BLUE MOUNTAIN LAKE ROAD) AT LONG PINE POND WEATHERSTATION TO END	N/A	0.00	1.62	1.62	5		GR	
0425	NC	29366		MOUNT TAMMANY FIRE ROAD	FROM TO	N/A	0.00	6.00	6.00	6		GR	
0426	NC	29406		POOL COLONY ROAD	FROM ROUTE 0100 (BLUE MOUNTAIN LAKE ROAD) TO	N/A	0.00	5.30	5.30	6		GR	
0427	NC	29412		RATTLESNAKE TOWER ROAD	FROM TO	N/A	0.00	1.20	1.20	6		GR	
0428	NC	29439		BEVANS-FREUDENHEIM ENTRY DRIVE	FROM OLD DINGMANS BRIDGE ROAD - APPROX. 0.5 MILE FROM OLD MINE ROAD NORTH TO BEVANS FREUDENHEIM HOUSE	N/A	0.00	0.15	0.15	6		GR	
0429	NC	29804		CHADO FARM LANE	FROM ROUTE 0113 (NPS ROUTE 615) TO FARM BUILDINGS	N/A	0.00	0.30	0.30	5		GR	
0430	NC	29994		COPPERMINE INN ACCESS ROAD/PARKING AREA	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) TO COPPERMINE INN	N/A	0.00	0.18	0.18	5		GR	

# Cycle 5 NPS/RIP Route ID Report

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## DEWA

### DELAWARE WATER GAP NATIONAL RECREATION AREA

Rte. No.	Cycle Collected	FMS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0431	NC	30010		DECKER, DANIEL FERRY ROAD	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) APPROX. 0.7 MILES FROM FLATBROOKVILLE TO DECKER FERRY HOUSE	N/A	0.00	0.14	0.14	5		GR	
0432	NC	30314		FOSTER-ARMSTRONG FARM LANE	FROM ROUTE 5015 (RIVER ROAD NJ) APPROX. 0.5 MILES NORTH OF MILFORD BRIDGE TO END	N/A	0.00	0.41	0.41	6		GR	
0433	NC	30326		HERONS NEST ENTRANCE LANE	FROM METTLER ROAD (0.3 MILES FROM OLD MINE ROAD NORTH) TO HERONS NEST HOUSE	N/A	0.00	0.09	0.09	6		GR	
0434	NC	30503		HILL, DOROTHY ENTRANCE DRIVE	FROM ROUTE 0101 (OLD MINE ROAD (UNPAVED SECTION)) 0.2 MILES SOUTH OF KUHN ROAD INTERSECTION TO DOROTHY HILL HOUSE	N/A	0.00	0.06	0.06	6		GR	
0435	NC	30519		SHOEMAKER/HOUCK (SILVER SPRAY) ENTRY DRIVE	FROM ROUTE 0108 (MOUNTAIN ROAD) APPROX. 1.4 MILES FROM MAIN STREET WALPACK TO SHOEMAKER HOUCK FARM HOUSE	N/A	0.00	0.36	0.36	5		GR	
0436	NC	30621		LAYTON-GUNN ACCESS ROAD	FROM TO	N/A	0.00	0.44	0.44	6		GR	
0437	NC	30733		MILLER ENTRANCE DRIVE	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) TO MILLER FARM HOUSE	N/A	0.00	0.09	0.09	5		GR	
0438	NC	30753		NAMANOCK ROAD EXTENSION	FROM ROUTE (NAMANOCK ACCESS ROAD) AT GATE NAMANOCK PICNIC AREA TO SANDYSTON CANOE SITES	N/A	0.00	0.82	0.82	6		GR	
0439	NC	30763		NELDEN-HORNBECK (ROBERTS) ENTRANCE DRIVE	FROM U.S. HIGHWAY 206 TO FARM BUILDINGS	N/A	0.00	0.09	0.09	6		GR	
0440	NC	30764		NELDEN-HORNBECK (ROBERTS) FARM LANE	FROM HOUSE AND BARN TO FIELDS	N/A	0.00	0.60	0.60	6		GR	
0441	NC	30831		CONGLETON LANE	FROM ROUTE 0011 (KUHN ROAD) TO CONGELTON HOUSE	N/A	0.00	0.16	0.16	5		GR	
0442	NC	30864		MUNSON HOUSE ENTRANCE ROAD	FROM ROUTE 0011 (KUHN ROAD) TO MUNSON HOUSE	N/A	0.00	0.09	0.09	5		GR	
0443	NC	30891		VALLEY BROOK FARM ENTRY DRIVE	FROM ROUTE 0113 (NPS ROUTE 615) TO VALLEY BROOK FARM BUILDINGS	N/A	0.00	0.15	0.15	5		GR	

# Cycle 5 NPS/RIP Route ID Report

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## DEWA

### DELAWARE WATER GAP NATIONAL RECREATION AREA

Rte. No.	Cycle Collected	FMS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0444	NC	31021		VAN CAMPEN, ABRAHAM DRIVEWAY	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) TO VANCAMPEN (ZIPSER) HOUSE	N/A	0.00	0.44	0.44	6		GR	
0445	NC	31033		VAN CAMPEN, BB ENTRY DRIVE #2	FROM BB VAN CAMPEN HOUSE TO ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) AT GATE	N/A	0.00	0.21	0.21	5		GR	
0446	NC	31145		WESTBROOK-BELL ENTRANCE DRIVE	FROM ROUTE 0015 (OLD MINE ROAD (NORTH SECTION)) TO WESTBROOK BELL HOUSE	N/A	0.00	0.12	0.12	5		GR	
0447	NC	31263		HOGBACK ROAD	FROM TO	N/A	0.00	2.50	2.50	6		GR	
0448	NC	31272		MOUNT MINSI REPEATER ROAD	FROM TO	N/A	0.00	2.05	2.05	6		GR	
0449	NC	31567		CRANE-GOLDHART ENTRY DRIVE	FROM ROUTE 5012 (PARK ROAD) TO CRANE GOLDHART HOUSE	N/A	0.00	0.13	0.13	5		GR	
0450	NC	31625		DINGMANS FALLS DRIVEWAY	FROM REAR OF DINGMANS FALLS HOUSE TO INTERSECTION WITH TRAIL AT TOP OF THE HILL	N/A	0.00	0.03	0.03	5		GR	
0451	NC	31883		DINGMANS MAINTENANCE ACCESS ROAD	FROM ROUTE 0114 (SCHOOL HOUSE ROAD) ACROSS FROM FENCED AREA TO REAR OF DINGMANS MAINTENANCE BUILDING / PARKING AREA	N/A	0.00	0.17	0.17	6		GR	
0452	NC	31946		LOCH LOMOND ENTRANCE ROAD	FROM WILSON HILL ROAD TO LOCH LOMOND HOUSE	N/A	0.00	0.16	0.16	5		GR	
0453	NC	31947		LOCH LOMOND FIRE ROAD	FROM REAR OF LOCH LOMOND HOUSE TO	N/A	0.00	0.33	0.33	5		GR	
0454	NC	31970		MCCARTY, CHRISTINA REAR ROAD	FROM REAR OF MCCARTY HOUSE TO END	N/A	0.00	0.44	0.44	6		GR	
0455	NC	32134		RAMIREZ (NADLER) ENTRANCE ROAD	FROM ROUTE 5013 (RAYMONDSKILL ROAD) TO RAMIREZ SOLAR HOUSE	N/A	0.00	0.31	0.31	5		GR	
0456	NC	32143		RAMIREZ (NADLER) REAR ACCESS ROAD	FROM REAR OF RAMIREZ SOLAR HOUSE TO THROUGH WOODS	N/A	0.00	0.19	0.19	5		GR	
0457	NC	32168		GOLDEISEN (RAYMONDSKILL) ENTRANCE DRIVE	FROM ROUTE 5013 (RAYMONDSKILL ROAD) TO RAYMONDSKILL HOUSE	N/A	0.00	0.11	0.11	5		GR	
0458	NC	32178		SCHOONOVER LANE	FROM COMMUNITY DRIVE AT SCHOONOVER MOUNTAIN HOUSE TO	N/A	0.00	0.29	0.29	6		GR	
0459	NC	32234		SLATEFORD ROADWAYS	FROM TO	N/A	0.00	1.10	1.10	6		GR	

# Cycle 5 NPS/RIP Route ID Report

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## DEWA

### DELAWARE WATER GAP NATIONAL RECREATION AREA

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0460	NC	32288		SPROUL/ASPINALL ACCESS ROAD	FROM ROUTE 0461 (SPROUL/ASPINALL ENTRANCE LANE) AT GATE TO STREAM/MISSING BRIDGE	N/A	0.00	0.83	0.83	5		GR	
0461	NC	32291		SPROUL/ASPINALL ENTRANCE LANE	FROM ROUTE 0460 (SPROUL/ASPINALL ACCESS ROAD) TO SPROUL/ASPINALL CARETAKERS HOUSE	N/A	0.00	0.11	0.11	5		GR	
0462	NC	32381		WHEAT PLAINS FARM LANE	FROM ROUTE 0014 (US ROUTE 209) TO HOUSE AND FARM BUILDINGS	N/A	0.00	0.07	0.07	6		GR	
0463	NC	32389		WHEAT PLAINS FARM ROAD	FROM ROUTE 0014 (US ROUTE 209) TO FIELDS	N/A	0.00	0.34	0.34	6		GR	
0464	NC	32397		ZIMMERMAN, MARIE ENTRANCE DRIVE	FROM ROUTE 0405 (ZIMMERMAN FARM ACCESS ROAD) TO ZIMMERMAN HOUSE	N/A	0.00	0.14	0.14	6		GR	
0465	NC	32450		ZIMMERMAN, MARIE SIDE LANE	FROM ROUTE 0014 (US ROUTE 209) TO ZIMMERMAN HOUSE	N/A	0.00	0.13	0.13	6		GR	
0466	NC	57624		HILLTOP FARM HOUSE ENTRY ROAD	FROM ROUTE 0011 (KUHN ROAD) TO HILLTOP FARM HOUSE BUILDINGS	N/A	0.00	0.11	0.11	5		GR	
0467	NC	62656		SKYS EDGE ACCESS ROAD	FROM WILSON HILL ROAD TO SKYS EDGE RANGE	N/A	0.00	0.20	0.20	6		GR	
0468	NC	63150		WALPACK ENVIRON ED CENTER ACCESS ROAD AND PARKING	FROM TO	N/A	0.00	0.22	0.22	3		GR	
0600	5	31074		MAIN STREET (WALPACK)	FROM ROUTE 0113 (NPS ROUTE 615) TO INTERSECTION OF ROUTE 0108 (MOUNTAIN ROAD), ROUTE 0601 (STRUBLE ROAD) AND BROOK ROAD	N/A	0.58	0.00	0.58	2	60,720	AS	2
0601	5	29427		STRUBLE ROAD	FROM END OF ROUTE 5017 (STRUBLE ROAD / NON NPS) TO INTERSECTION OF ROUTE 0108 (MOUNTAIN ROAD), ROUTE 0600 (MAIN STREET (WALPACK)) AND BROOK ROAD	N/A	0.41	0.00	0.41	8		AS	2
0900ZZ	4	49365		POXONO BOAT LAUNCH PARKING AREAS	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) AT MP 1.88 (ON LEFT) TO BOAT RAMP	N/A	0.00	0.00	0.00		11,348	AS	4

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0901	NC	49676		COPPER MINE PARKING	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) AT MP 1.63 (ON LEFT) TO PARKING	N/A	0.00	0.00	0.00		12,978	GR	
0902	4	31298		RESORT POINT OVERLOOK	FROM ROUTE 5010 (PA 611) WEST TO ROUTE 5010 (PA 611) WEST EAST	N/A	0.00	0.00	0.00		13,025	AS	5
0903	4	31297		POINT OF GAP OVERLOOK	FROM ROUTE 5010 (PA 611) TO PARKING	N/A	0.00	0.00	0.00		42,220	AS	5
0904ZZ	4	31296		ARROW ISLAND OVERLOOK PARKING AREAS	FROM ROUTE 5010 (PA 611) ON LEFT AND RIGHT TO ROUTE 5010 (PA 611)	N/A	0.00	0.00	0.00		25,427	AS	5
0905	4	31918		HEADQUARTERS PARKING	FROM ROUTE 0105 (RIVER ROAD) AT MP 5.61 (ON RIGHT) TO PARKING	N/A	0.00	0.00	0.00		28,208	AS	4
0906ZZ	4	32276		SMITHFIELD BEACH PARKING AREAS	FROM ROUTE 0233ZZ (SMITHFIELD BEACH ACCESS ROADS) TO PARKING	N/A	0.00	0.00	0.00		166,875	AS	4
0907	4	31939		HIDDEN LAKE PARKING	FROM ROUTE 0234 (HIDDEN LAKE ACCESS ROAD) AT MP 0.26 (ON LEFT) TO END OF ROUTE 0234 (HIDDEN LAKE ACCESS ROAD)	N/A	0.00	0.00	0.00		16,113	AS	4
0908	4	31870		DINGMAN'S FERRY ACCESS PARKING AREA	FROM ROUTE 5011 (PA 739) TO PARKING	N/A	0.00	0.00	0.00		105,835	AS	2
0909ZZ	4	53862		MILFORD BEACH PARKING AREAS	FROM ROUTE 0231 (MILFORD BEACH ACCESS ROAD) AT MP 0.09 (ON LEFT) TO ROUTE 0231 (MILFORD BEACH ACCESS ROAD) AT END	N/A	0.00	0.00	0.00		125,750	AS	1
0910	4	49422		BUSHKILL ACCESS PARKING AREA	FROM ROUTE 0014 (US ROUTE 209) AT MP 2.74 (ON RIGHT) TO PARKING	N/A	0.00	0.00	0.00		68,563	AS	2
0911	4	30588		KITTATINNY POINT VISITOR CENTER	FROM RIVER ROAD TO RIVER ROAD	N/A	0.00	0.00	0.00		45,238	AS	5
0912	NC	30584		KITTATINNY POINT BOARD RAMP	FROM ROUTE 0201 (KITTATINNY POINT BOAT AND CANOE LAUNCH ACCESS ROAD) AT MP 0.05 (ON LEFT) TO PARKING	N/A	0.00	0.00	0.00		11,600	GR	
0913	4	30585		KITTATINNY POINT PARKING AREA	FROM RIVER ROAD TO PARKING	N/A	0.00	0.00	0.00		8,853	AS	5

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### DELAWARE WATER GAP NATIONAL RECREATION AREA

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0914	NC	29506		CAMP KEN-ETA-WA-PEC PARKING	FROM ROUTE 0100 (BLUE MOUNTAIN LAKE ROAD) AT MP 2.82 TO PARKING	N/A	0.00	0.00	0.00			GR	
0915	5	30112		BUSHKILL MAINTENANCE AREA	FROM ROUTE 0105 (RIVER ROAD) AT MP 5.67 (ON LEFT) TO PARKING	N/A	0.00	0.00	0.00		30,412	AS	4
0916	4	41633		DINGMAN'S MAINTENANCE FACILITY PARKING	FROM ROUTE 0014 (US ROUTE 209) AT MP 12.63 (ON RIGHT) TO PARKING	N/A	0.00	0.00	0.00		27,696	AS	2
0917	NC	31265		LAKE LENAPE ACCESS & PARKING	FROM ROUTE 0108 (MOUNTAIN ROAD) AT MP 0.1 ON LEFT TO GRAVEL PARKING AREA	N/A	0.00	0.00	0.00		18,225	GR	
0918	NC	29490		CAINO SCHOOL PARKING	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) TO PARKING	N/A	0.00	0.00	0.00		6,939	GR	
0919	NC	30995		LOWER GLEN PARKING	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) TO PARKING	N/A	0.00	0.00	0.00		8,100	GR	
0920	NC	30996		UPPER GLEN PARKING	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) TO PARKING	N/A	0.00	0.00	0.00		4,365	GR	
0921	NC	31611	■	DINGMAN'S CAMPGROUND	FROM ROUTE 0235 (DINGMAN'S CAMPGROUND ENTRY DRIVE) TO PARKING	N/A	0.00	0.00	0.00		3,130	GR	
0923	NC	31548		LOWER PARKING FOR CHILDSPARK	FROM ROUTE 5016 (SILVER LAKE ROAD) TO PARKING	N/A	0.00	0.00	0.00		45,000	GR	
0924	NC	40225		UPPER PARKING FOR CHILDSPARK	FROM ROUTE 5016 (SILVER LAKE ROAD) TO END OF LOOP	N/A	0.00	0.00	0.00		13,176	GR	
0925	NC	32161		RAYMONDS KILL FALLS PARKING	FROM ROUTE 5013 (RAYMONDSKILL ROAD) TO PARKING	N/A	0.00	0.00	0.00		7,590	GR	
0925B	NC	106548		RAYMONDS KILL FALLS PARKING LOT - LOWER LOT	FROM TO	N/A	0.00	0.00	0.00		3,900	GR	
0926	NC	49522		TOM'S CREEK PICNIC AREA	FROM ROUTE 0014 (US ROUTE 209) TO PARKING	N/A	0.00	0.00	0.00		16,486	GR	
0927	NC	31930		HIALEAH PICNIC AREA	FROM ROUTE 0105 (RIVER ROAD) TO PARKING	N/A	0.00	0.00	0.00		50,992	GR	

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## DEWA

### DELAWARE WATER GAP NATIONAL RECREATION AREA

Rte. No.	Cycle Collected	FMS No.	Concess Route	Route Name	Route Description		Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
					From	To								
0928	NC	29310		FAIRVIEW PARKING AREA	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) IN NJ	TO PARKING	N/A	0.00	0.00	0.00		23,004	GR	
0929	NC	29362		KARARMAC PARKING AREA	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION))	TO PARKING	N/A	0.00	0.00	0.00		10,800	GR	
0930	NC	53921		CHILDSPARK MAINTENANCE AREA PARKING	FROM ROUTE 5016 (SILVER LAKE ROAD)	TO END OF LOOP	N/A	0.00	0.00	0.00		5,112	GR	
<b>0931ZZ</b>	<b>5</b>	<b>55243</b>		<b>PEEC COMPLEX PARKING AREAS</b>	<b>FROM ROUTE 0232ZZ (PEEC CABIN ACCESS ROADS)</b>	<b>TO PARKING</b>	<b>N/A</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>		<b>23,907</b>	<b>AS</b>	<b>2</b>
0932	4	49443		CAMP WEYGADT COMPLEX PARKING AREA	FROM RAMP OFF I-80W U-TURN RAMP (WEIGHT STATION ON RIGHT)	THROUGH NPS COLUMBIA MAINTENANCE AREA	N/A	0.00	0.00	0.00		25,146	AS	5
0951	4	31261		DUCK POND PARKING AREA	FROM ROUTE 0013 (NATIONAL PARK DRIVE) AT MP 0.56	TO ROUTE 0013 (NATIONAL PARK DRIVE) AT MP 0.61	N/A	0.00	0.00	0.00		12,677	AS	5
0952	4	31630		DINGMANS FALLS VISITOR CENTER	FROM END OF ROUTE 0218 (DINGMANS FALLS ROAD)	TO PARKING	N/A	0.00	0.00	0.00		23,146	AS	2
0953	4	49462		NORTH CONTACT STATION	FROM ROUTE 0014 (US ROUTE 209) AT MP 20.31	TO ROUTE 0014 (US ROUTE 209) AT MP 20.39	N/A	0.00	0.00	0.00		24,316	AS	1
0954	4	30905		ROE JACOB HOUSE PARKING	FROM ROUTE 0113 (NPS ROUTE 615) AT MP 6.22	TO PARKING	N/A	0.00	0.00	0.00		6,355	AS	2
0955	4	49488		MILLBROOK VILLAGE PARKING	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) AT MP 5.99	TO ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) AT MP 6.06	N/A	0.00	0.00	0.00		13,177	AS	2
0956	4	31138		WATERGATE PARKING & ENTRANCE ROAD	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) AT MP 5.51 (ON RIGHT)	TO PARKING	N/A	0.00	0.00	0.00		54,363	AS	2
0957	4	49498		SOUTH CONTACT STATION	FROM ROUTE 0014 (US ROUTE 209) AT MP 0.26 (ON RIGHT)	TO ROUTE 0014 (US ROUTE 209) AT MP 0.27 (ON RIGHT)	N/A	0.00	0.00	0.00		23,297	AS	4
0958	4	41656		DINGMANS SCHOOL PARKING AREA	FROM END OF ROUTE 0114 (SCHOOL HOUSE ROAD)	TO PARKING	N/A	0.00	0.00	0.00		17,412	AS	2
0960	NC	31502		VISITOR CENTER PARKING	FROM ROUTE 0014 (US ROUTE 209) AT MP 1.11 (ON RIGHT)	TO ROUTE 0014 (US ROUTE 209) AT MP 1.17 (ON RIGHT)	N/A	0.00	0.00	0.00		26,970	GR	

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## DEWA

### DELAWARE WATER GAP NATIONAL RECREATION AREA

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description		Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
					From	To								
0961	4	29477		BLUE MOUNTAIN LAKE RECREATION SITE PARKING	FROM ROUTE 0100 (BLUE MOUNTAIN LAKE ROAD) AT MP 1.29 (ON LEFT)	TO ROUTE 0100 (BLUE MOUNTAIN LAKE ROAD) AT MP 1.37 (ON LEFT)	N/A	0.00	0.00	0.00		16,791	AS	2
0962	NC	30005		CRATER LAKE ACCESS PARKING	FROM CRATER LAKE ACCESS ROAD	TO PARKING	N/A	0.00	0.00	0.00		11,628	GR	
0963	4	41635		DINGMAN'S MAINTENANCE POLE BARN PARKING	FROM ROUTE 0114 (SCHOOL HOUSE ROAD) AT MP 0.10 (ON LEFT)	TO PARKING	N/A	0.00	0.00	0.00		78,239	AS	2
0964	NC	65515		PEIRCE, CHARLES S. PARKING AND ACCESS	FROM ROUTE 0014 (US ROUTE 209)	TO PARKING	N/A	0.00	0.00	0.00		11,648	GR	
0965	NC	61006		BUSHKILL FIREHOUSE PARKING AREA	FROM ROUTE 5000 (BUSHKILL FALLS ROAD)	TO PARKING	N/A	0.00	0.00	0.00		9,999	GR	
0966	NC	30121		BUSHKILL REFORMED CHURCH PARKING AREA	FROM ROUTE 0014 (US ROUTE 209)	TO PARKING	N/A	0.00	0.00	0.00		6,000	GR	
0967	NC	30128		BUSHKILL SCHOOL PARKING AREA	FROM ROUTE 0419 (BUSHKILL SCHOOL ACCESS ROAD)	TO BUSHKILL SCHOOL BUILDINGS	N/A	0.00	0.00	0.00		23,400	GR	
0968	NC	29483		BUTTERMILK FALLS PARKING AREA	FROM ROUTE 0108 (MOUNTAIN ROAD)	TO PARKING	N/A	0.00	0.00	0.00		9,339	GR	
0969	NC	31925		HIALEAH AIRPARK PARKING	FROM ROUTE 0105 (RIVER ROAD)	TO PARKING	N/A	0.00	0.00	0.00		33,600	GR	
0970	NC	45783		HIDDEN LAKE DAM PARKING	FROM ROUTE 0234 (HIDDEN LAKE ACCESS ROAD)	TO PARKING	N/A	0.00	0.00	0.00		4,374	GR	
0971	NC	30875		PETERS VALLEY PARKING AREA	FROM ROUTE 0012 (PETERS VALLEY - WAGONWHEEL ROAD)	TO PARKING	N/A	0.00	0.00	0.00		17,199	GR	
0972	NC	31276		RIEDMILLER PARKING AREA	FROM CREEK ROAD	TO PARKING	N/A	0.00	0.00	0.00		4,000	GR	
0973	NC	110093		RIVERVIEW PARKING AREA (MCDADE TRAILHEAD)	FROM ROUTE 0105 (RIVER ROAD)	TO PARKING	N/A	0.00	0.00	0.00		5,625	GR	
0974	NC	29425		SKYLINE DRIVE OVERLOOK PARKING AREA	FROM ROUTE 0403 (SKYLINE DRIVE)	TO PARKING	N/A	0.00	0.00	0.00		2,898	GR	
0975	NC	32215		SLATEFORD ACCESS PARKING AREA	FROM	TO	N/A	0.00	0.00	0.00		8,397	GR	
0976	NC	51454		STOCKPILE 8 ACCESS/PARKING	FROM ROUTE 0014 (US ROUTE 209)	TO SALT STORAGE SHED	N/A	0.00	0.00	0.00		31,850	GR	

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## DEWA

### DELAWARE WATER GAP NATIONAL RECREATION AREA

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0977	NC	30988		THUNDER MOUNTAIN PARKING AREA	FROM END OF ROUTE 0102 (THUNDER MOUNTAIN ROAD) TO PARKING	N/A	0.00	0.00	0.00		5,625	GR	
0978	NC	100156		TURN FARM PARKING AREA (MCDADE TRAILHEAD)	FROM ROUTE 0105 (RIVER ROAD) TO PARKING	N/A	0.00	0.00	0.00		7,500	GR	
0979	NC	31291		TURN STORE PARKING AREA	FROM ROUTE 0014 (US ROUTE 209) TO PARKING	N/A	0.00	0.00	0.00		20,997	GR	
0980	5	101750		TURTLE BEACH PARKING	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) TO PARKING	N/A	0.00	0.00	0.00		63,193	AS	4
5000	5			BUSHKILL FALLS ROAD	FROM ROUTE 0014 (US ROUTE 209) TO BUSHKILL FALLS ROAD AT LITTERING SIGN ON RIGHT	N/A	5.18	0.00	5.18			AS	4
5001	5			BUSINESS 209	FROM ROUTE 5018 (U.S. HIGHWAY 209 SOUTH / NON NPS) TO MYRTLE STREET ON RIGHT	N/A	7.74	0.00	7.74			AS	4,5
5002	5			DECKERTOWN TURNPIKE	FROM SR 206 (DISABLED AMERICAN VETERANS MEMORIAL HIGHWAY), END OF ROUTE 0015 (OLD MINE ROAD (NORTH SECTION)) AND ROUTE 5015 (RIVER ROAD NJ) TO DECKERTOWN TURNPIKE	N/A	4.44	0.00	4.44			AS	1
5003	5			GAISLER ROAD	FROM ROUTE 5008 (NJ 602 (MILLBROOK ROAD / NON NPS)) TO INTERSECTION OF CAMP MOHICAN ROAD ON RIGHT, FOUR CORNERS ROAD ON LEFT, AND GAISLER ROAD	N/A	2.36	0.00	2.36			AS	2,3,4
5004	5			HIDDEN LAKE ROAD	FROM ROUTE 0105 (RIVER ROAD) TO HOLLOW ROAD	N/A	3.99	0.00	3.99			AS	4
5005	5			MILFORD ROAD / STATE ROUTE 2001	FROM W HARFORD STREET IN MILFORD TO ROUTE 5000 (BUSHKILL FALLS ROAD)	N/A	19.73	0.00	19.73			AS	1,2,4
5006	5			MOSIERS KNOB ROAD	FROM MICHAELS ROAD TO HOLLOW ROAD	N/A	2.71	0.00	2.71			AS	4
5007	5			NJ 560 (DINGMANS ROAD)	FROM U.S. HIGHWAY 206 TO BEGINNING OF ROUTE 5011 (PA 739) AT BRIDGE	N/A	5.06	0.00	5.06			AS	2

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## DEWA

### DELAWARE WATER GAP NATIONAL RECREATION AREA

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
5008	5			NJ 602 (MILLBROOK ROAD / NON NPS)	FROM END OF ROUTE 0109 (NPS 602) TO CEDARVILLE ROAD	N/A	4.57	0.00	4.57			AS	2,3
5009	5			NJ 615 (BEVANS ROAD)	FROM INTERSECTION OF ROUTE 0012 (PETERS VALLEY - WAGONWHEEL ROAD), ROUTE 0113 (NPS ROUTE 615) AND ROUTE 0011 (KUHN ROAD) TO ROUTE 5007 (NJ 560 (DINGMANS ROAD))	N/A	2.04	0.00	2.04			AS	2
5010	5			PA 611	FROM EHLER STREET TO PORTLAND TOLL BRIDGE ON LEFT AND RIVER ROAD	N/A	10.24	0.00	10.24			AS	5
5011	5			PA 739	FROM END OF ROUTE 5007 (NJ 560 (DINGMANS ROAD)) AT BRIDGE TO PA 739	N/A	6.36	0.00	6.36			AS	1,2
5012	5			PARK ROAD	FROM ROUTE 5016 (SILVER LAKE ROAD) TO ROUTE 5005 (MILFORD ROAD / STATE ROUTE 2001)	N/A	3.46	0.00	3.46			AS	2
5013	5			RAYMONDSKILL ROAD	FROM ROUTE 0014 (US ROUTE 209) TO ARBUTUS LANE	N/A	6.45	0.00	6.45			AS	1
5014	5			RIDGE ROAD / NON NPS	FROM ROUTE 5007 (NJ 560 (DINGMANS ROAD)) TO JAGER ROAD	N/A	2.44	0.00	2.44			AS	2
5015	5			RIVER ROAD NJ	FROM INTERSECTION OF SR 206 (DISABLED AMERICAN VETERANS MEMORIAL HIGHWAY), ROUTE 5002 (DECKERTOWN TURNPIKE) AND ROUTE 0015 (OLD MINE ROAD (NORTH SECTION)) TO BUTLER LANE ON LEFT	N/A	7.08	0.00	7.08			AS	1
5016	5			SILVER LAKE ROAD	FROM ROUTE 5011 (PA 739) TO DEWEY DRIVE	N/A	5.84	0.00	5.84			AS	2
5017	5			STRUBLE ROAD / NON NPS	FROM U.S. HIGHWAY 206 TO BEGINNING OF ROUTE 0601 (STRUBLE ROAD)	N/A	4.42	0.00	4.42			AS	2
5018	5			U.S. HIGHWAY 209 SOUTH / NON NPS	FROM INTERSTATE 80 TO BEGINNING OF ROUTE 0014 (US ROUTE 209)	N/A	9.89	0.00	9.89			AS	4,5

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## DEWA

DELAWARE WATER GAP NATIONAL RECREATION AREA

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name		Route Description		Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
				From	To	From	To								
5019	5			U.S. HIGHWAY 209 NORTH / NON NPS	FROM END OF ROUTE 0014 (US ROUTE 209)	TO 1ST STREET		N/A	6.99	0.00	6.99			AS	1

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## CYCLE 5 COLLECTED SUMMARY TOTALS FOR DELAWARE WATER GAP NATIONAL RECREATION AREA

### CYCLE 5 COLLECTED ROUTE TOTALS

DCV Driven Route Miles	66.75
Manually Rated Route Miles	0.58
<b>TOTAL PARK ROUTE MILES COLLECTED IN CYCLE 5</b>	<b>67.32</b>
Manually Rated Routes (SQFT)	0.00

### \* CYCLE 5 COLLECTED PARKING AREA TOTALS

Paved Parking (SQFT)	117,512
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### CYCLE 5 COLLECTED CONCESSION TOTALS

Concession Paved Route Miles	0.00
Concession Paved Parking Area SQFT	0
Concession Manually Rated Routes SQFT	0

### CYCLE 5 COLLECTED WEIGHTED AVERAGE PARK VALUES

DCV Driven PCR	78
**Manually Rated Routes PCR	90
**Parking PCR	78
***Total Equivalent Lane Miles	146.75

## TOTAL PARK SUMMARY FOR DELAWARE WATER GAP NATIONAL RECREATION AREA

### ROUTE TOTALS

TOTAL PAVED PARK ROUTE MILES	75.86
TOTAL PAVED PARKING (SQFT)	1,097,582

\* - The Parking Area Totals SQFT value represents all parking areas collected in Cycle 5, both park and concessionaire.

\*\* - Parking and Manually Rated Routes are assigned the following PCR values based on their observed condition: Construction=-1, Excellent=97, Good=90, Fair=73, and Poor=45.

\*\*\* - Equivalent Lane Miles are calculated by route using the following equations : DCV and Manually Rated Lines Routes=(PAVE\_WIDTHxPAVED\_MI)/11 foot lane. Parking Areas=SQ\_FEET/5280/11. Manually Rated Polygons=SQ\_FEET/5280/11.

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## General Park Road Functional Classification Table

- Class 1** Principal Park Road/Rural Parkway (Public Roads) Roads which constitute the main access route, circulatory tour, or thoroughfare for park visitors. Route Numbers 1 - 99. Note: Rural parkways (e.g. Natchez Trace) are numbered 1 - 9. State Routes Inventoried for Park. Route Numbers 5000-5999
- Class 2** Connector Park Road (Public Roads) - Roads which provide access within a park to areas of scenic, scientific, recreational or cultural interest, such as overlooks, campgrounds, etc. Route Numbers 100-199.
- Class 3** Special Purpose Park Road (Public Roads) - Roads which provide circulation within public areas, such as campgrounds, picnic areas, visitor center complexes, concessionaire facilities, etc. These roads generally serve low-speed traffic and are often designed for one-way circulation. Route Numbers 200-299.
- Class 4** Primitive Park Roads (Public Roads) - Roads which provide circulation through remote areas and/or access to primitive campgrounds and undeveloped areas. These roads frequently have no minimum design standards and their use may be limited to specially equipped vehicles. Route Numbers 200-299. Note: Functional Classes 3 and 4 have the same route numbers because, historically, they were numbered similarly.
- Class 5** Administrative Access Road (Administrative Roads) - All public roads intended for access to administrative developments or structures such as park offices, employee quarters, or utility areas. Route Numbers 400-499.
- Class 6** Restricted Road (Administrative Roads) - All roads normally closed to the public, including patrol roads, truck trails, and other similar roads. Route Numbers 400-499. Note: Functional Classes 5 and 6 have the same route numbers because historically they were numbered similarly and often there is little distinction between these routes. For example, because utility areas and employee housing are often closed to the public, this restriction would result in classification of FC 6 rather than FC 5.
- Class 7** Urban Parkway (Urban Parkways and City Streets) - These facilities serve high volumes of park and non-park related traffic and are restricted, limited-access facilities in an urban area. This category of roads primarily encompasses the major parkways which serve as gateways to our nation's capital. Other major park roads or portions thereof, however, may be included in this category. Route Numbers 1-9.
- Class 8** City Streets (Urban Parkways and City Streets) - City streets are usually extensions of the adjoining street system that are owned and maintained by the National Park Service. The construction and/or reconstruction should conform with accepted local engineering practice and local conditions. Route Numbers 600-699.

\*\*\*\*\*

A park road system contains those roads within or giving access to a park or other unit of the NPS which are administered by the NPS, or by the Service in cooperation with other agencies. The assignment of a functional classification (FC) to a park road is not based on traffic volumes or design speed, but on the intended use or function of that road or route.

The historic route numbering system also included a 300 number series for interpretive roads, and a 500 series for one-way roads. There are approximately 250 roads nationwide which are designated by the 300 and 500 series. The numbers for these roads will be maintained for reporting consistency. However, since these interpretive and one-way routes are not as clearly tied to a specific functional class, the 300 and 500 series will be discontinued for future use.

5000 route numbers are assigned to Non-NPS Routes that are State, County or City owned which border, traverse, or provide access to Park Facilities or Locations. 5000 Routes are driven for GPS and Video Log only.

## Surface Type Abbreviations:

- AS - Asphaltic Concrete Pavement**
- CO - Portland Cement Concrete Pavement**
- BR - Brick or Pavers Road Bed**
- CB - Cobble Stone Road Bed**
- GR - Gravel Road Bed**
- SA - Sand Road Bed**
- NV - Native or Dirt Material Road Bed**
- OT - Other Materials Road Bed**



# NPS/RIP Subcomponent Details for DEWA

Road Inventory Program 12/18/2013

(Numerical By Subcomponent #)

Page 2 of 4

Shading Color Key:

White = Paved Routes, DCV Driven

Yellow = Unpaved Routes, DCV not Driven

Blue = All Paved Parking Areas

Green = All Unpaved Parking Areas

Red text denotes approx. mileage

Grey = Paved Routes, DCV not Driven

Black = State, Local or Private non-NPS Routes

■ = Concession Route Flag ON

\*Unpaved route data was obtained from NPS and was not inventoried by the Road Inventory Program (RIP).

## DEWA

### DELAWARE WATER GAP NATIONAL RECREATION AREA

#### DEWA-0232ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Description		Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
			Route Name	From						
0232AZ	55241	4	PEEC CABIN ACCESS LOOP A	FROM ROUTE 0232CZ (PEEC CABIN ACCESS)		3	0.12	0.00	0.12	12,144
0232BZ	55241	4	PEEC CABIN ACCESS LOOP B	FROM ROUTE 0232CZ (PEEC CABIN ACCESS)		3	0.19	0.00	0.19	20,170
0232CZ	55241	4	PEEC CABIN ACCESS	FROM EMERY ROAD		3	0.30	0.00	0.30	31,891

#### DEWA-0233ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Description		Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
			Route Name	From						
0233AZ	53799	4	SMITHFIELD BEACH CANOE LAUNCH ACCESS ROAD	FROM END OF ROUTE 0233CZ (SMITHFIELD BEACH ACCESS ROAD) AND END OF ROUTE 0233BZ (SMITHFIELD BEACH BOAT LAUNCH PARKING ACCESS)		3	0.25	0.00	0.25	
0233BZ	53799	4	SMITHFIELD BEACH BOAT LAUNCH PARKING ACCESS	FROM BEGINNING OF ROUTE 0233AZ (SMITHFIELD BEACH CANOE LAUNCH ACCESS ROAD) ON RIGHT AND END OF ROUTE 0233CZ (SMITHFIELD BEACH ACCESS ROAD)		3	0.18	0.00	0.18	
0233CZ	53799	4	SMITHFIELD BEACH ACCESS ROAD	FROM ROUTE 0105 (RIVER ROAD)		3	0.16	0.00	0.16	

# NPS/RIP Subcomponent Details for DEWA

Road Inventory Program 12/18/2013

(Numerical By Subcomponent #)

Page 3 of 4

Shading Color Key:

White = Paved Routes, DCV Driven

Yellow = Unpaved Routes, DCV not Driven

Blue = All Paved Parking Areas

Green = All Unpaved Parking Areas

Red text denotes approx. mileage

Grey = Paved Routes, DCV not Driven

Black = State, Local or Private non-NPS Routes

■ = Concession Route Flag ON

\*Unpaved route data was obtained from NPS and was not inventoried by the Road Inventory Program (RIP).

## DEWA

### DELAWARE WATER GAP NATIONAL RECREATION AREA

#### DEWA-0900ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0900AZ	49365	4	POXONO BOAT LAUNCH PARKING (LOWER LOT)	FROM ROUTE 0900BZ (POXONO BOAT LAUNCH PARKING (UPPER LOT))	TO BOAT RAMP	0		0.00	0.00	0.00	6,825
0900BZ	49365	4	POXONO BOAT LAUNCH PARKING (UPPER LOT)	FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION)) AT MP 1.92 (ON LEFT)	TO ROUTE 0900AZ (POXONO BOAT LAUNCH PARKING (LOWER LOT))	0		0.00	0.00	0.00	4,523

#### DEWA-0904ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0904AZ	31296	4	ARROW ISLAND OVERLOOK PARKING A	FROM ROUTE 5010 (PA 611) ON RIGHT	TO ROUTE 5010 (PA 611)	0		0.00	0.00	0.00	11,866
0904BZ	31296	4	ARROW ISLAND OVERLOOK PARKING B	FROM ROUTE 5010 (PA 611) ON LEFT	TO ROUTE 5010 (PA 611)	0		0.00	0.00	0.00	13,561

#### DEWA-0906ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0906AZ	32276	4	SMITHFIELD BEACH PARKING A	FROM ROUTE 0233BZ (SMITHFIELD BEACH PARKING ACCESS) AT MP 0.04 (ON LEFT)	TO ROUTE 0233AZ (SMITHFIELD BEACH CANOE LAUNCH ACCESS ROAD) AT MP 0.01 (ON LEFT)	0		0.00	0.00	0.00	96,465
0906BZ	32276	4	SMITHFIELD BEACH PARKING B	FROM END OF ROUTE 0233BZ (SMITHFIELD BEACH BOAT LAUNCH PARKING ACCESS)	TO PARKING	0		0.00	0.00	0.00	70,410

# NPS/RIP Subcomponent Details for DEWA

Road Inventory Program 12/18/2013

(Numerical By Subcomponent #)

Page 4 of 4

Shading Color Key:

Red text denotes approx. mileage

White = Paved Routes, DCV Driven

Yellow = Unpaved Routes, DCV not Driven

Blue = All Paved Parking Areas

Green = All Unpaved Parking Areas

Grey = Paved Routes, DCV not Driven

Black = State, Local or Private non-NPS Routes

■ = Concession Route Flag ON

\*Unpaved route data was obtained from NPS and was not inventoried by the Road Inventory Program (RIP).

## DEWA

### DELAWARE WATER GAP NATIONAL RECREATION AREA

#### DEWA-0909ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	Route Description		Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
				From	To						
0909AZ	53862	4	MILFORD BEACH CANOE LAUNCH PARKING	ADJACENT TO ROUTE 0231 (MILFORD BEACH ACCESS ROAD) AT END				0.00	0.00	0.00	2,342
0909BZ	53862	4	MILFORD BEACH BOAT LAUNCH PARKING	FROM ROUTE 0231 (MILFORD BEACH ACCESS ROAD) AT MP 0.22 (ON LEFT)	TO PARKING			0.00	0.00	0.00	40,310
0909CZ	53862	4	MILFORD BEACH ACCESS PARKING	FROM ROUTE 0231 (MILFORD BEACH ACCESS ROAD) AT MP 0.10 (ON LEFT)	TO ROUTE 0231 (MILFORD BEACH ACCESS ROAD) AT MP 0.19 (ON LEFT)			0.00	0.00	0.00	83,098

#### DEWA-0931ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	Route Description		Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
				From	To						
0931AZ	55243	5	PEEC COMPLEX REGISTRATION PARKING	FROM EMERY ROAD ON RIGHT	TO ROUTE 0232CZ (PEEC CABIN ACCESS)			0.00	0.00	0.00	14,702
0931BZ	55243	5	PEEC COMPLEX DINING HALL PARKING	FROM ROUTE 0232CZ (PEEC CABIN ACCESS)	TO PARKING			0.00	0.00	0.00	9,205

**ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - DEWA**

ROUTES ADDED FROM PREVIOUS INVENTORY:			
Route #	Route Name	Reason for Addition	Comments
0237	CLIFF PARK ENTRANCE ROAD	OTHER	PAVED ROUTE ADDED IN CYCLE 5.
0980	TURTLE BEACH PARKING	OTHER	PAVED PARKING AREA ADDED IN CYCLE 5.
5000	BUSHKILL FALLS ROAD	OTHER	PAVED 5000 ROUTE ADDED IN CYCLE 5.
5001	BUSINESS 209	OTHER	PAVED 5000 ROUTE ADDED IN CYCLE 5.
5002	DECKERTOWN TURNPIKE	OTHER	PAVED 5000 ROUTE ADDED IN CYCLE 5.
5003	GAISLER ROAD	OTHER	PAVED 5000 ROUTE ADDED IN CYCLE 5.
5004	HIDDEN LAKE ROAD	OTHER	PAVED 5000 ROUTE ADDED IN CYCLE 5.
5005	MILFORD ROAD / STATE ROUTE 2001	OTHER	PAVED 5000 ROUTE ADDED IN CYCLE 5.
5006	MOSIERS KNOB ROAD	OTHER	PAVED 5000 ROUTE ADDED IN CYCLE 5.
5007	NJ 560 (DINGMANS ROAD)	OTHER	PAVED 5000 ROUTE ADDED IN CYCLE 5.
5008	NJ 602 (MILLBROOK ROAD / NON NPS)	OTHER	PAVED 5000 ROUTE ADDED IN CYCLE 5.

**ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - DEWA**

ROUTES ADDED FROM PREVIOUS INVENTORY:			
Route #	Route Name	Reason for Addition	Comments
5009	NJ 615 (BEVANS ROAD)	OTHER	PAVED 5000 ROUTE ADDED IN CYCLE 5.
5010	PA 611	OTHER	PAVED 5000 ROUTE ADDED IN CYCLE 5.
5011	PA 739	OTHER	PAVED 5000 ROUTE ADDED IN CYCLE 5.
5012	PARK ROAD	OTHER	PAVED 5000 ROUTE ADDED IN CYCLE 5.
5013	RAYMONDSKILL ROAD	OTHER	PAVED 5000 ROUTE ADDED IN CYCLE 5.
5014	RIDGE ROAD / NON NPS	OTHER	PAVED 5000 ROUTE ADDED IN CYCLE 5.
5015	RIVER ROAD NJ	OTHER	PAVED 5000 ROUTE ADDED IN CYCLE 5.
5016	SILVER LAKE ROAD	OTHER	PAVED 5000 ROUTE ADDED IN CYCLE 5.
5017	STRUBLE ROAD / NON NPS	OTHER	PAVED 5000 ROUTE ADDED IN CYCLE 5.
5018	U.S. HIGHWAY 209 SOUTH / NON NPS	OTHER	PAVED 5000 ROUTE ADDED IN CYCLE 5.
5019	U.S. HIGHWAY 209 NORTH / NON NPS	OTHER	PAVED 5000 ROUTE ADDED IN CYCLE 5.

**ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - DEWA**

OTHER CHANGES FROM PREVIOUS INVENTORY:			
Route #	Route Name	Type of Change	Comments
0010	OLD MINE ROAD (SOUTH SECTION)	FUNCTIONAL CLASS CHANGE	FUNCTIONAL CLASS CHANGED FROM 2 TO 1 IN CYCLE 5.
0013	NATIONAL PARK DRIVE	FUNCTIONAL CLASS CHANGE	FUNCTIONAL CLASS CHANGED FROM 2 TO 1 IN CYCLE 5.
0015	OLD MINE ROAD (NORTH SECTION)	FUNCTIONAL CLASS CHANGE	FUNCTIONAL CLASS CHANGED FROM 2 TO 1 IN CYCLE 5.
0103	OLD DINGMANS BRIDGE ROAD	FUNCTIONAL CLASS CHANGE	FUNCTIONAL CLASS CHANGED FROM 2 TO 4 IN CYCLE 5.
0109	NPS 602	FUNCTIONAL CLASS CHANGE	FUNCTIONAL CLASS CHANGED FROM 2 TO 1 IN CYCLE 5.
0112ZZ	JOHNNY BEE ROADS	ROUTES COMBINED	CYCLE 4 ROUTES 0112 AND 0422 COMBINED IN CYCLE 5.
0113	NPS ROUTE 615	FUNCTIONAL CLASS CHANGE	FUNCTIONAL CLASS CHANGED FROM 2 TO 1 IN CYCLE 5.
0209	CUTOFF ROAD	OTHER	NO DATA COLLECTED IN CYCLE 5 BECAUSE THE PARK HAS ABANDONED THIS ROAD.
0211	BECK ROAD	OTHER	FUNCTIONAL CLASS CHANGED FROM 6 TO 4 IN CYCLE 5. NO DATA COLLECTED IN CYCLE 5 BECAUSE THE PARK HAS ABANDONED THIS ROAD.
0419	BUSHKILL SCHOOL ACCESS ROAD	FUNCTIONAL CLASS CHANGE	FUNCTIONAL CLASS CHANGED FROM 6 TO 5 IN CYCLE 5.
0423	HEADQUARTER SERVICE ROAD	ROUTE NAME	NAME CHANGED FROM "DINGMAN'S MAINTENANCE ACCESS" TO "HEADQUARTER SERVICE ROAD" IN CYCLE 5.

**ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - DEWA**

OTHER CHANGES FROM PREVIOUS INVENTORY:			
Route #	Route Name	Type of Change	Comments
0600	MAIN STREET (WALPACK)	FUNCTIONAL CLASS CHANGE	FUNCTIONAL CLASS CHANGED FROM 8 TO 2 IN CYCLE 5.
0601	STRUBLE ROAD	OTHER	CONDITION DATA COLLECTED WITH THE DATA COLLECTION VEHICLE (DCV) FOR THE FIRST TIME IN CYCLE 5
0908	DINGMAN'S FERRY ACCESS PARKING AREA	ROUTE NAME	NAME CHANGED FROM "DINGMAN'S LAUNCH PARKING" TO "DINGMAN'S FERRY ACCESS PARKING AREA" IN CYCLE 5.
0910	BUSHKILL ACCESS PARKING AREA	ROUTE NAME	NAME CHANGED FROM "BUSHKILL BOAT LAUNCH AND PARKING" TO "BUSHKILL ACCESS PARKING AREA"
0915	BUSHKILL MAINTENANCE AREA	SQ FEET CHANGE	GPS RECOLLECTED TO SHOW PARKING LOT SHAPE ACCURATELY.
0931ZZ	PEEC COMPLEX PARKING AREAS	RECONSTRUCTED	PARKING AREA WAS RECOLLECTED TO REFLECT THE MODIFICATIONS TO THE SHAPE.
0954	ROE JACOB HOUSE PARKING	ROUTE NAME	NAME CHANGED FROM "NEW JERSEY DISTRICT OFFICE" TO "ROE JACOB HOUSE PARKING" IN CYCLE 5.
0958	DINGMANS SCHOOL PARKING AREA	OTHER	MINOR ADJUSTMENT MADE TO SHAPE TO REFLECT PARKING LOT GEOMETRY ACCURATELY. NAME CHANGED FROM "NORTH ZONE RANGER STATION" TO "DINGMANS SCHOOL PARKING AREA" IN CYCLE 5.
0963	DINGMAN'S MAINTENANCE POLE BARN PARKING	SQ FEET CHANGE	MINOR ADJUSTMENT MADE TO SHAPE TO REFLECT PARKING LOT GEOMETRY ACCURATELY.

# Section 3

## Park Summary Information



Delaware Water Gap National Recreation Area



Federal Lands Highway  
Road Inventory Program

## DEWA: PAVED ROUTE MILES AND PERCENTAGES BY FUNCTIONAL CLASS AND PCR

F.C.	Pavement Condition Rating (PCR)								TOTAL MILES
	Poor (0-60)		Fair (61-84)		Good (85-94)		Excellent (95-100)		
	MILES	%	MILES	%	MILES	%	MILES	%	
1	8.61	12.90%	21.71	32.52%	14.98	22.44%	9.08	13.60%	54.38
2	1.78	2.67%	6.28	9.41%	2.48	3.72%	0.90	1.35%	11.44
3	0.08	0.12%	0.06	0.09%	0.16	0.24%	0.22	0.33%	0.52
4									
5									
6									
7									
8	0.02	0.03%	0.29	0.43%	0.10	0.15%			0.41
<b>Totals</b>	<b>10.49</b>	<b>15.71%</b>	<b>28.34</b>	<b>42.46%</b>	<b>17.72</b>	<b>26.54%</b>	<b>10.20</b>	<b>15.28%</b>	<b>66.75</b>

**Note:** The information in this table is derived from the PMS\_20 table in the Park database, which only contains processed data from routes collected with the Data Collection Vehicle (DCV). Information for Manually Rated Routes (MRR) and Parking Areas is not reported in this table. Only Functional Class 1, 2, & 7 routes, and any new routes not previously collected by RIP, are collected in Large Parks.

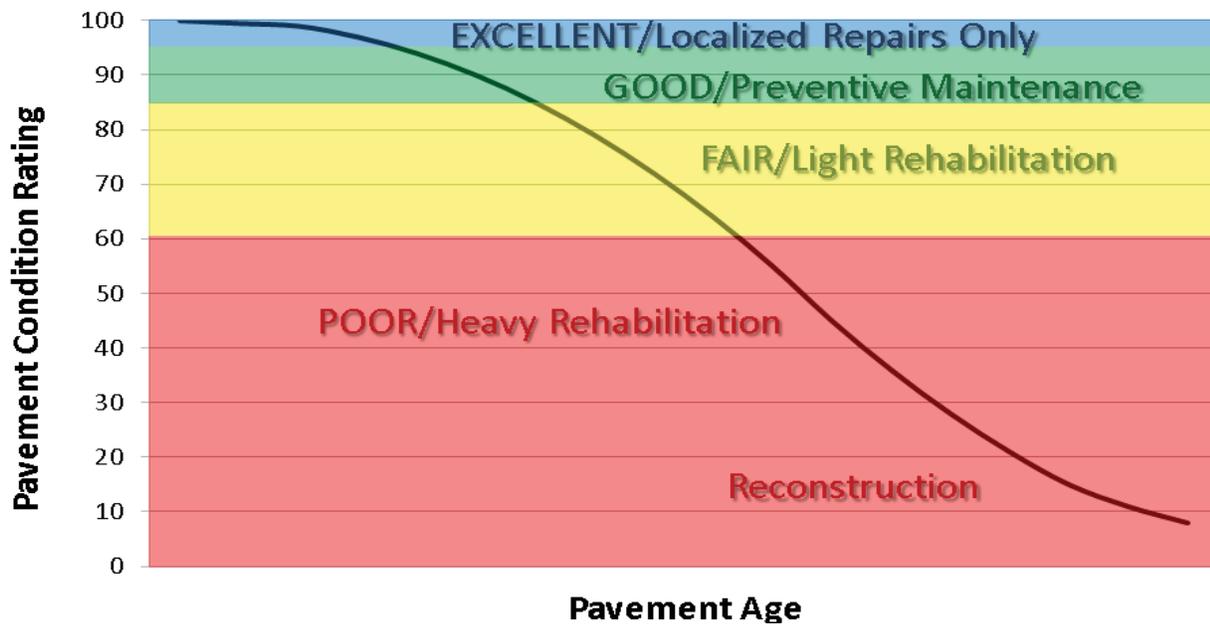
### Explanation of the Excellent, Good, Fair and Poor Condition Descriptions

In addition to the RIP Index changes that have been implemented in Cycle 5, we will also aim to provide greater assistance in translating excellent/good/fair/poor categories into pavement needs categories. The PCR can be used to indicate the place in the Pavement Life Cycle and the types of treatments that should be considered now and into the future.

- Excellent/New: PCR of 95-100. Pavements in this range will require only spot repairs
- Good: PCR of 85-94. Pavements in this range will likely be candidates for Preventive Maintenance. Examples include Chip and Slurry Seals, Micro Surfacing and Thin Overlays.
- Fair: PCR of 61-84. Pavements in this range will likely be candidates of Light Rehabilitation (L3R). Examples include single-lift overlays up to 2.5 inches in total thickness, milling and overlays.
- Poor: PCR of 0-60. Pavements in this range will likely be candidates of Heavy Rehabilitation or Reconstruction (H3R or 4R). Examples include Pulverization, Multiple Lift Overlays, and Reconstruction.

At this time, specific Maintenance and Rehabilitation activities should be evaluated and recommended at the project level. Site-specific conditions that influence treatment type should be determined based on performing a subsurface investigation and/or pavement condition survey, and not be based solely on RIP data. Additionally, RIP produces a snapshot of conditions the year in which the data was collected. For further information or to obtain additional Pavement Management System's data from our Highway Pavement Management Application (HPMA) please contact the Eastern Federal Lands pavement team.

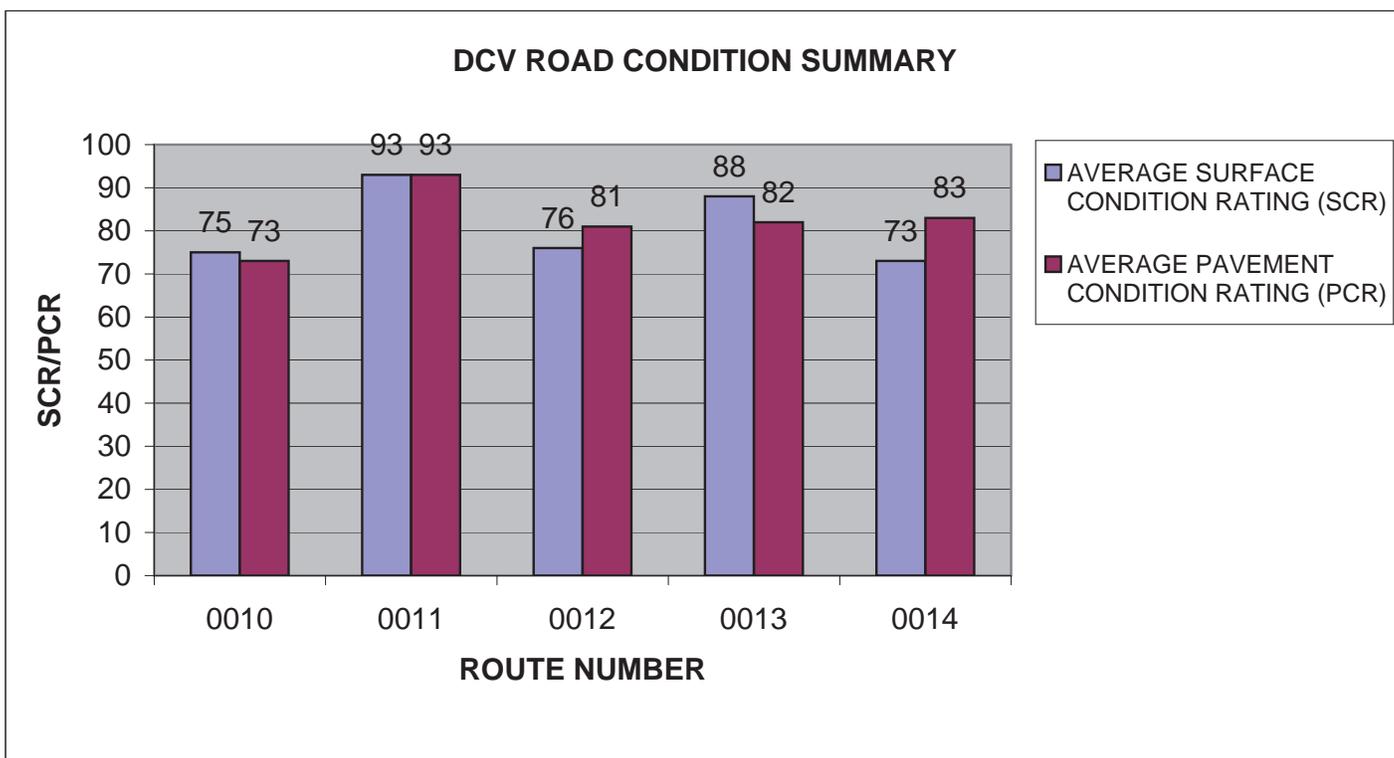
### Condition Categories and Treatments



# DEWA: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

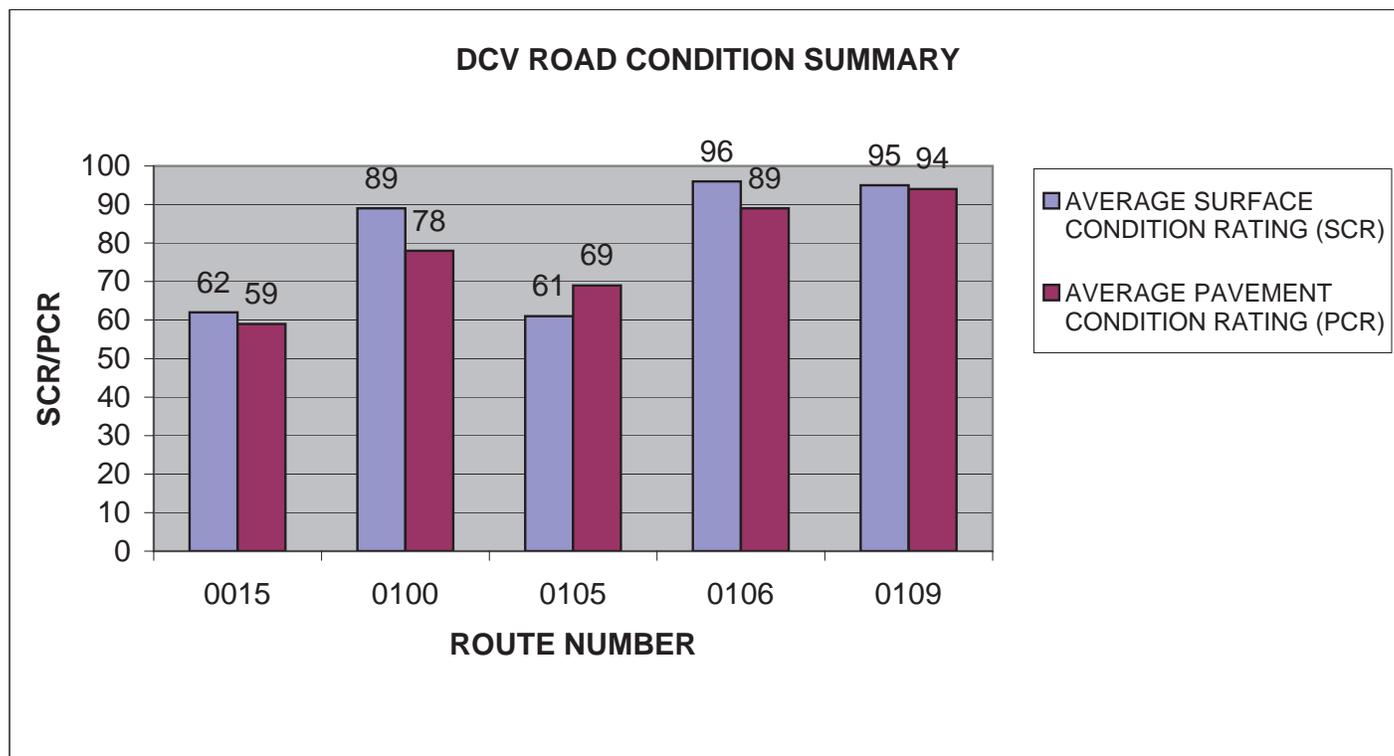
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0010	OLD MINE ROAD (SOUTH SECTION)	1	13.47	ASPHALT	75	73
0011	KUHN ROAD	2	0.79	ASPHALT	93	93
0012	PETERS VALLEY - WAGONWHEEL ROAD	2	1.08	ASPHALT	76	81
0013	NATIONAL PARK DRIVE	1	0.83	ASPHALT	88	82
0014	US ROUTE 209	1	21.05	ASPHALT	73	83



# DEWA: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

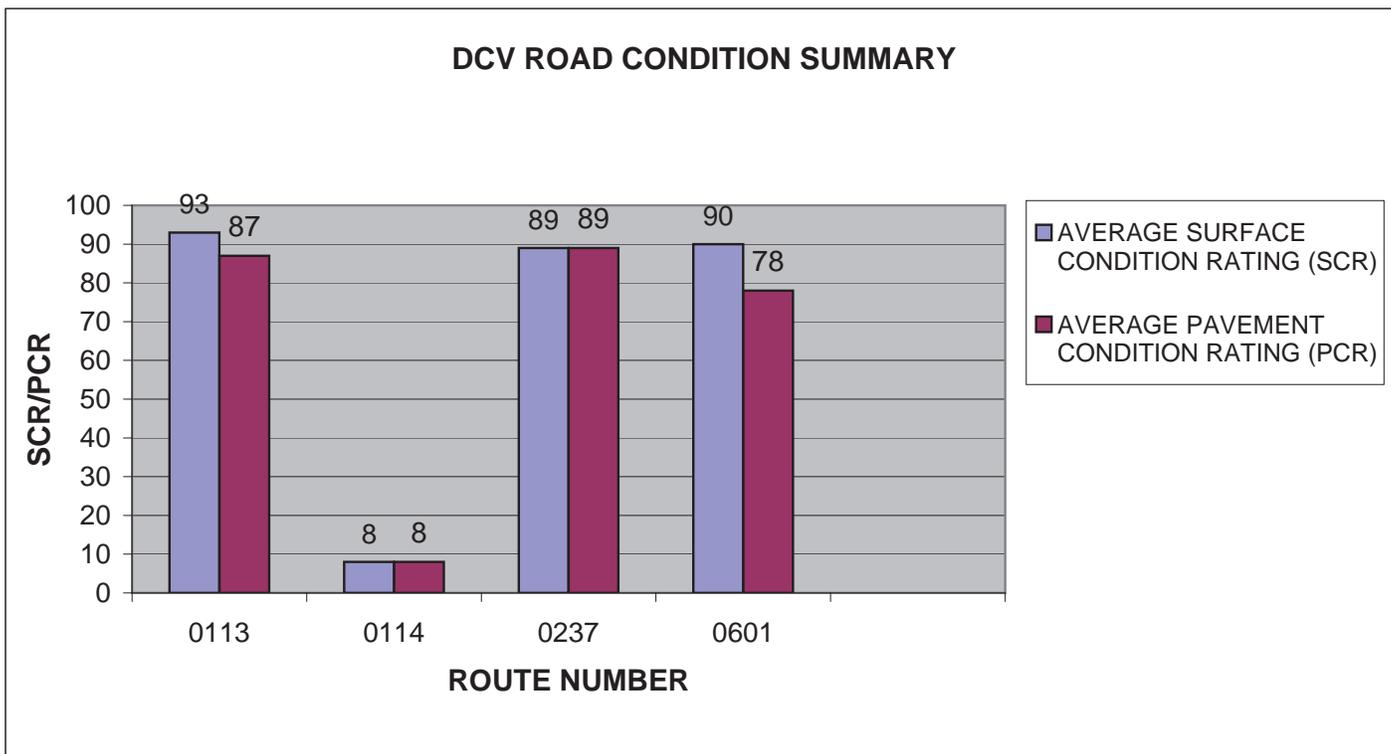
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0015	OLD MINE ROAD (NORTH SECTION)	1	7.58	ASPHALT	62	59
0100	BLUE MOUNTAIN LAKE ROAD	2	2.88	ASPHALT	89	78
0105	RIVER ROAD	2	5.89	ASPHALT	61	69
0106	JAGER ROAD	2	0.68	ASPHALT	96	89
0109	NPS 602	1	1.73	ASPHALT	95	94



# DEWA: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0113	NPS ROUTE 615	1	9.72	ASPHALT	93	87
0114	SCHOOL HOUSE ROAD	2	0.12	ASPHALT	8	8
0237	CLIFF PARK ENTRANCE ROAD	3	0.52	ASPHALT	89	89
0601	STRUBLE ROAD	8	0.41	ASPHALT	90	78



# Section 4

## Park Route Location Maps

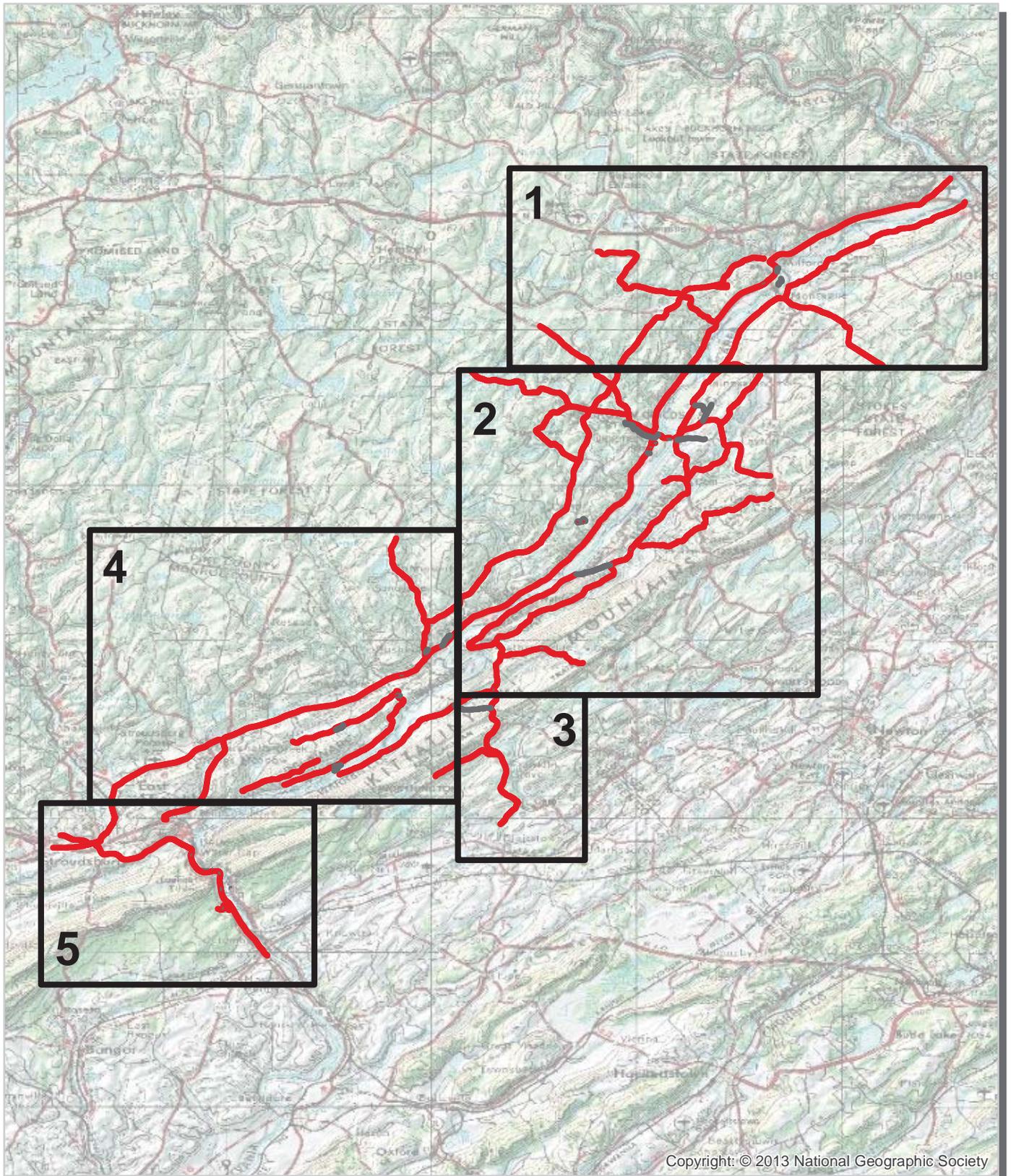


Delaware Water Gap National Recreation Area



Federal Lands Highway  
Road Inventory Program

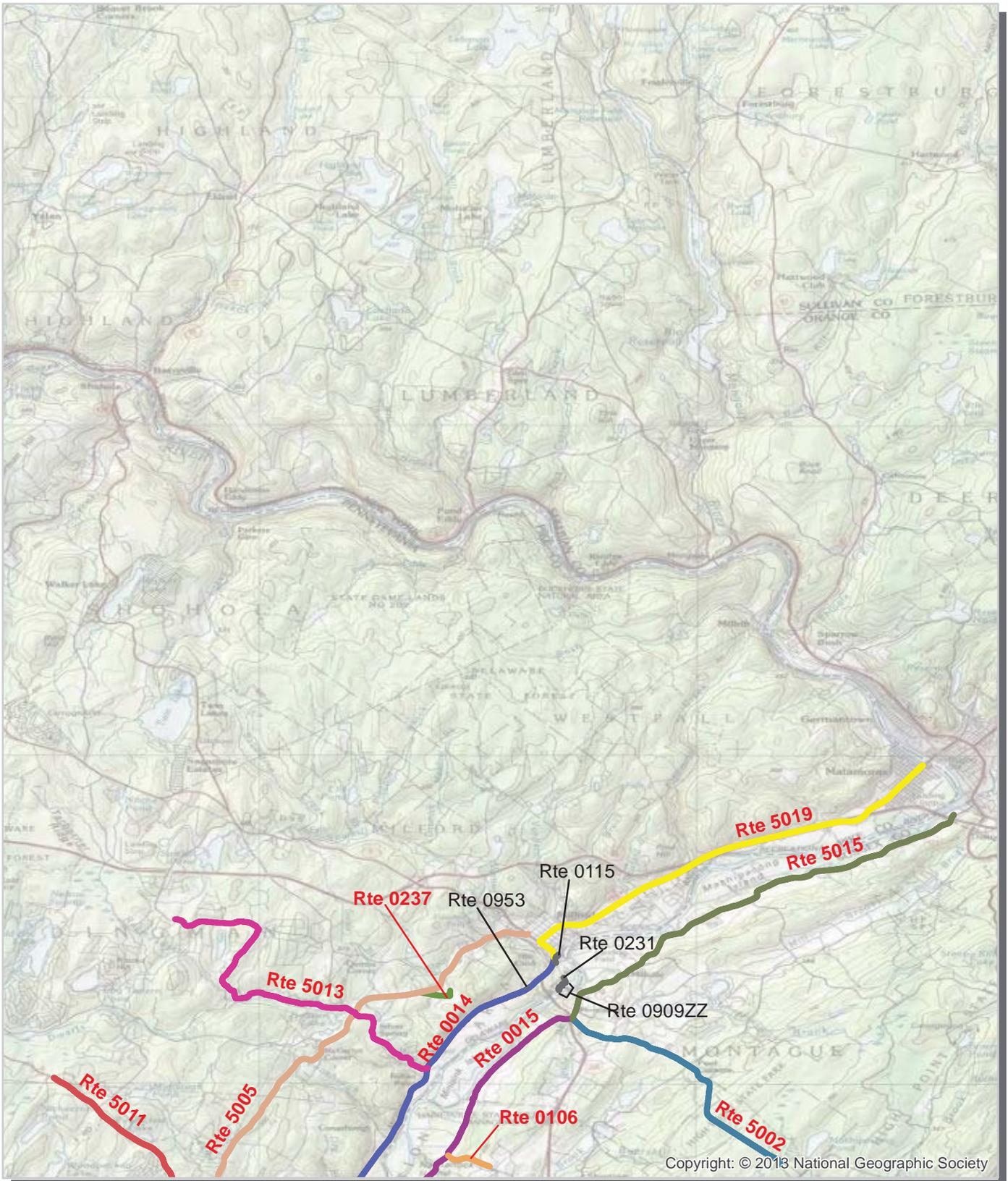
# Delaware Water Gap National Recreation Area Route Location Map Key Map



 Cycle 5 Collected Routes  
 Routes Collected in Previous Cycle



# Delaware Water Gap National Recreation Area Route Location Map Area 1

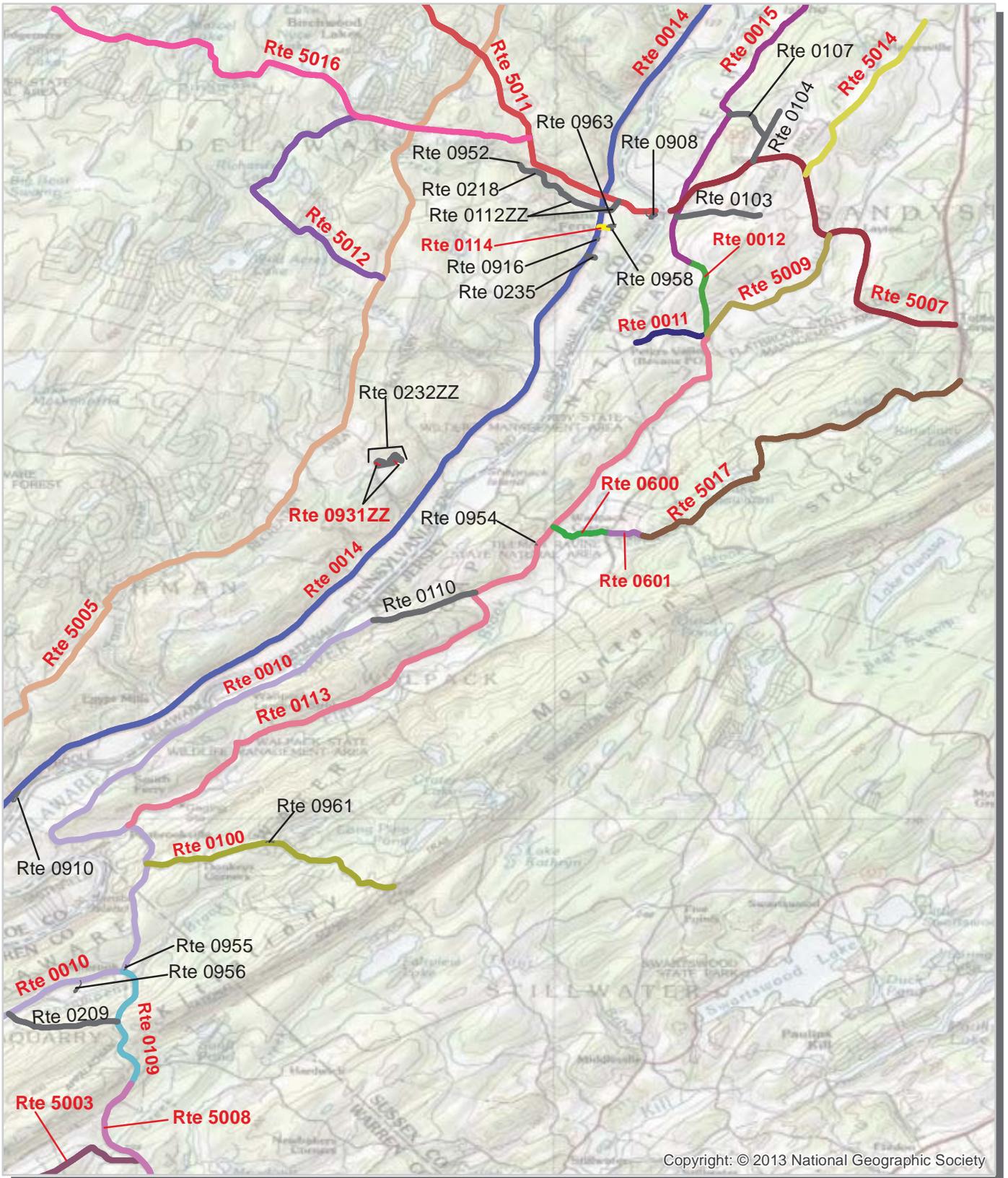


Unique colors used to differentiate routes

Routes Collected in Previous Cycle

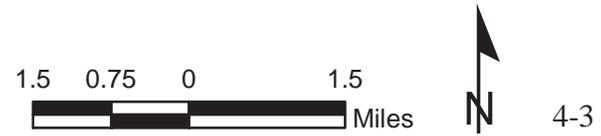


# Delaware Water Gap National Recreation Area Route Location Map Area 2

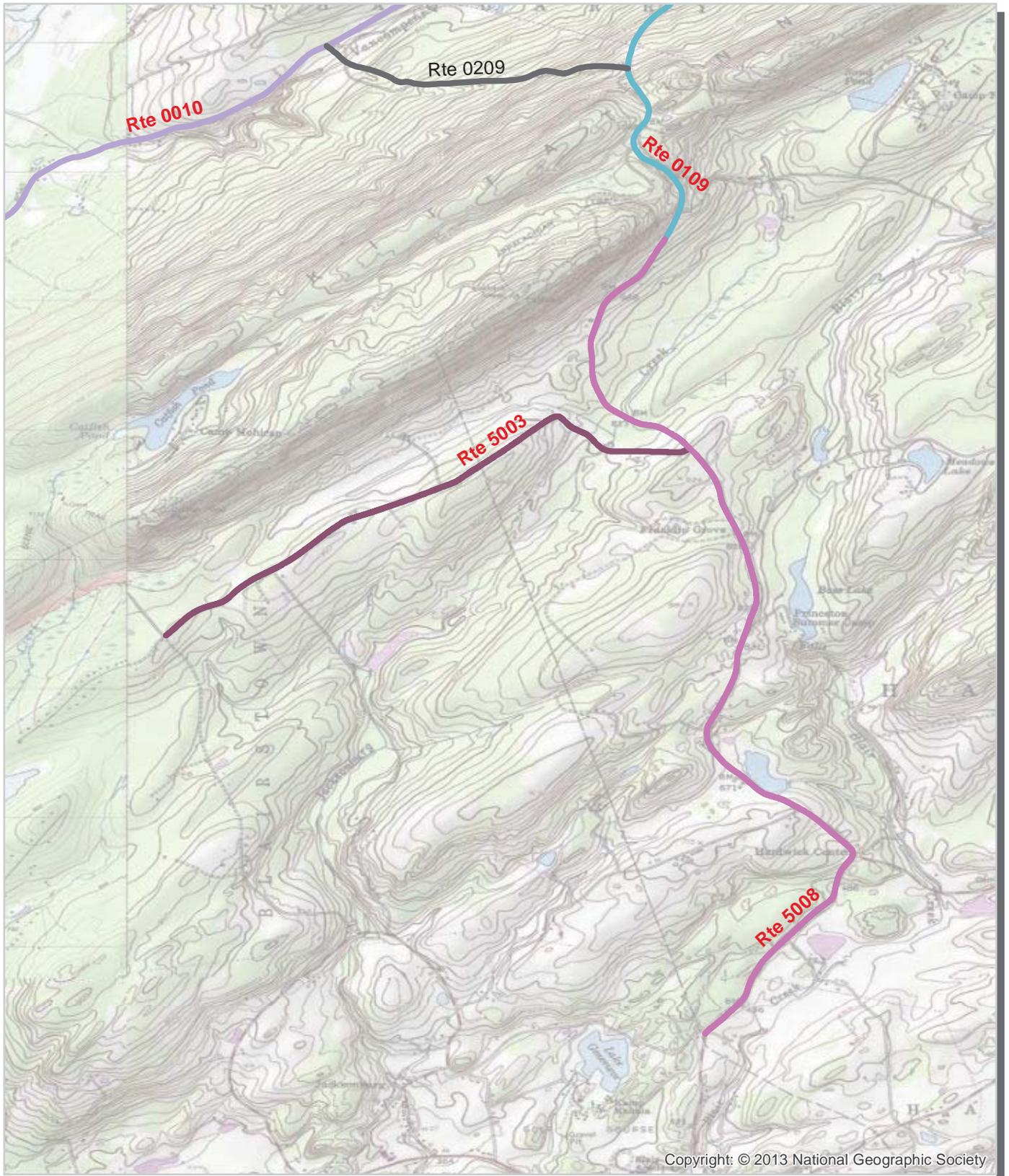


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Unique colors used to differentiate routes  
 Routes Collected in Previous Cycle

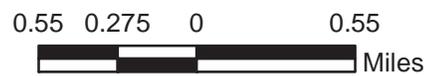


# Delaware Water Gap National Recreation Area Route Location Map Area 3

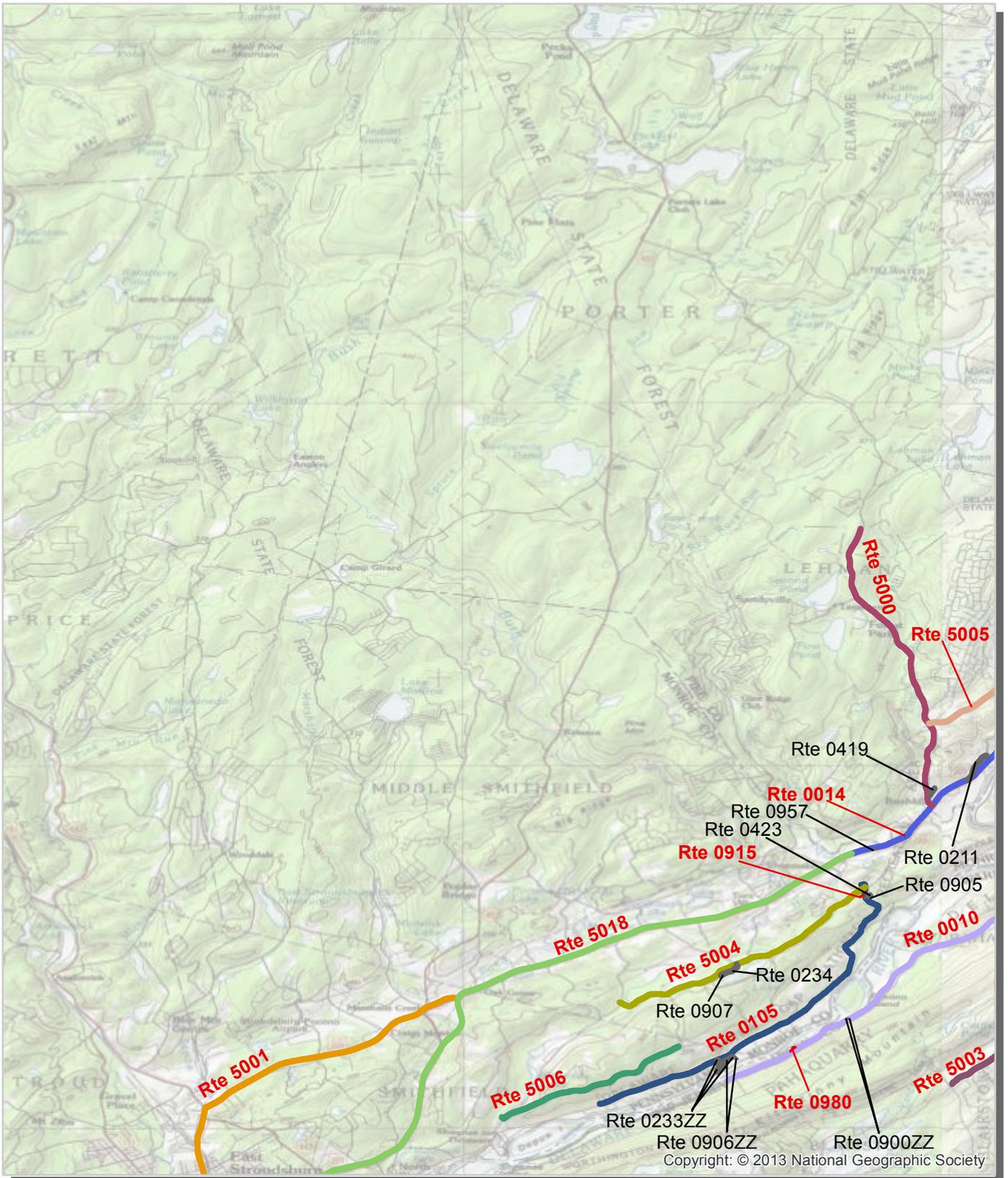


Unique colors used to differentiate routes

— Routes Collected in Previous Cycle



# Delaware Water Gap National Recreation Area Route Location Map Area 4

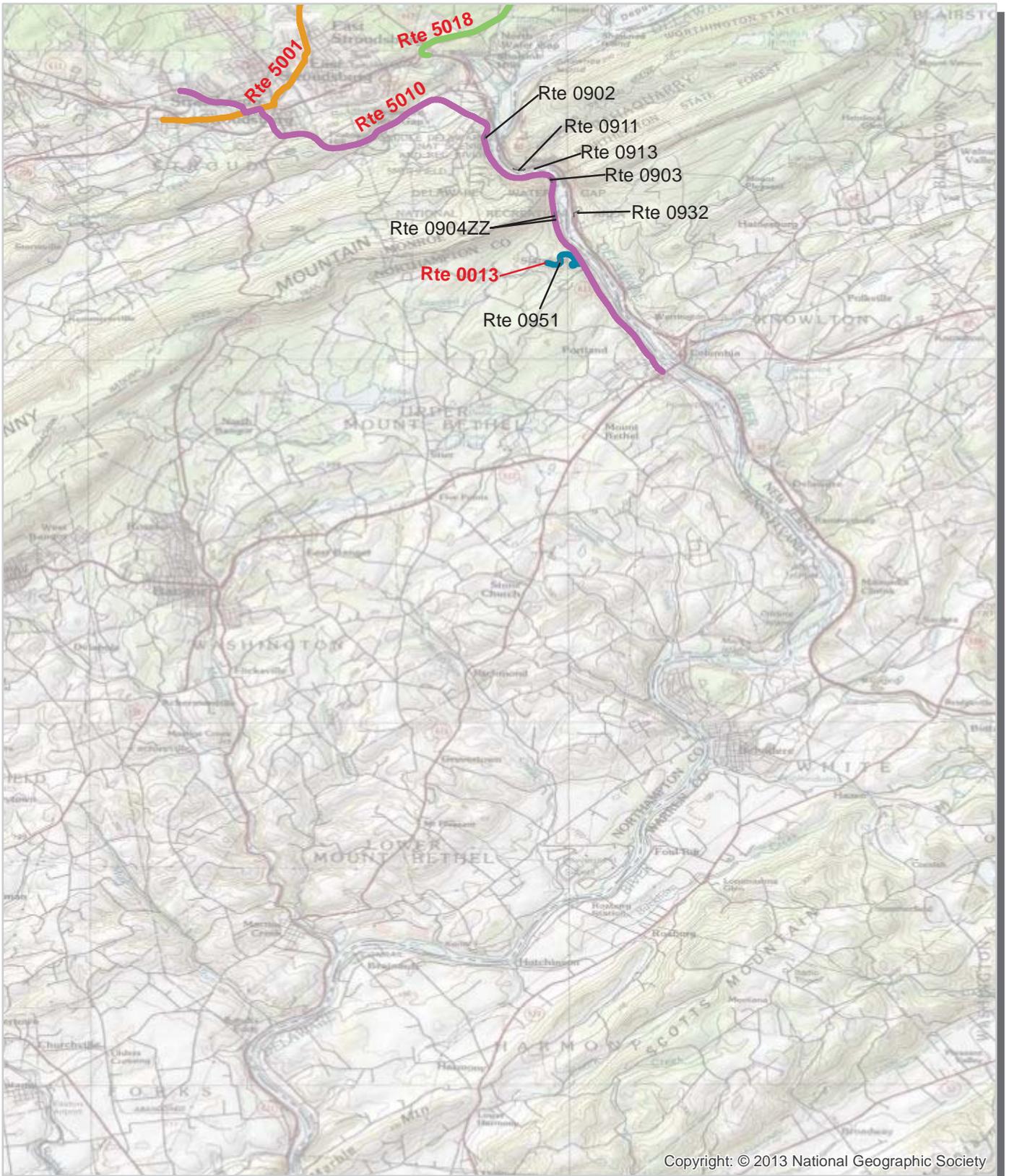


Unique colors used to differentiate routes

Routes Collected in Previous Cycle



# Delaware Water Gap National Recreation Area Route Location Map Area 5



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Unique colors used to differentiate routes

— Routes Collected in Previous Cycle

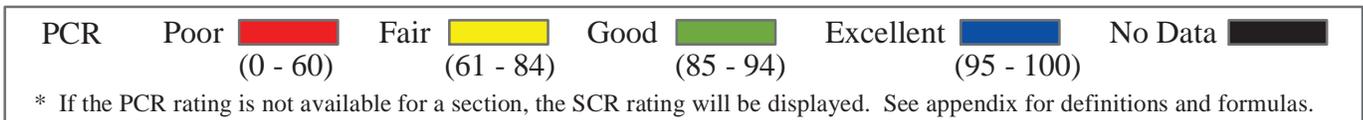
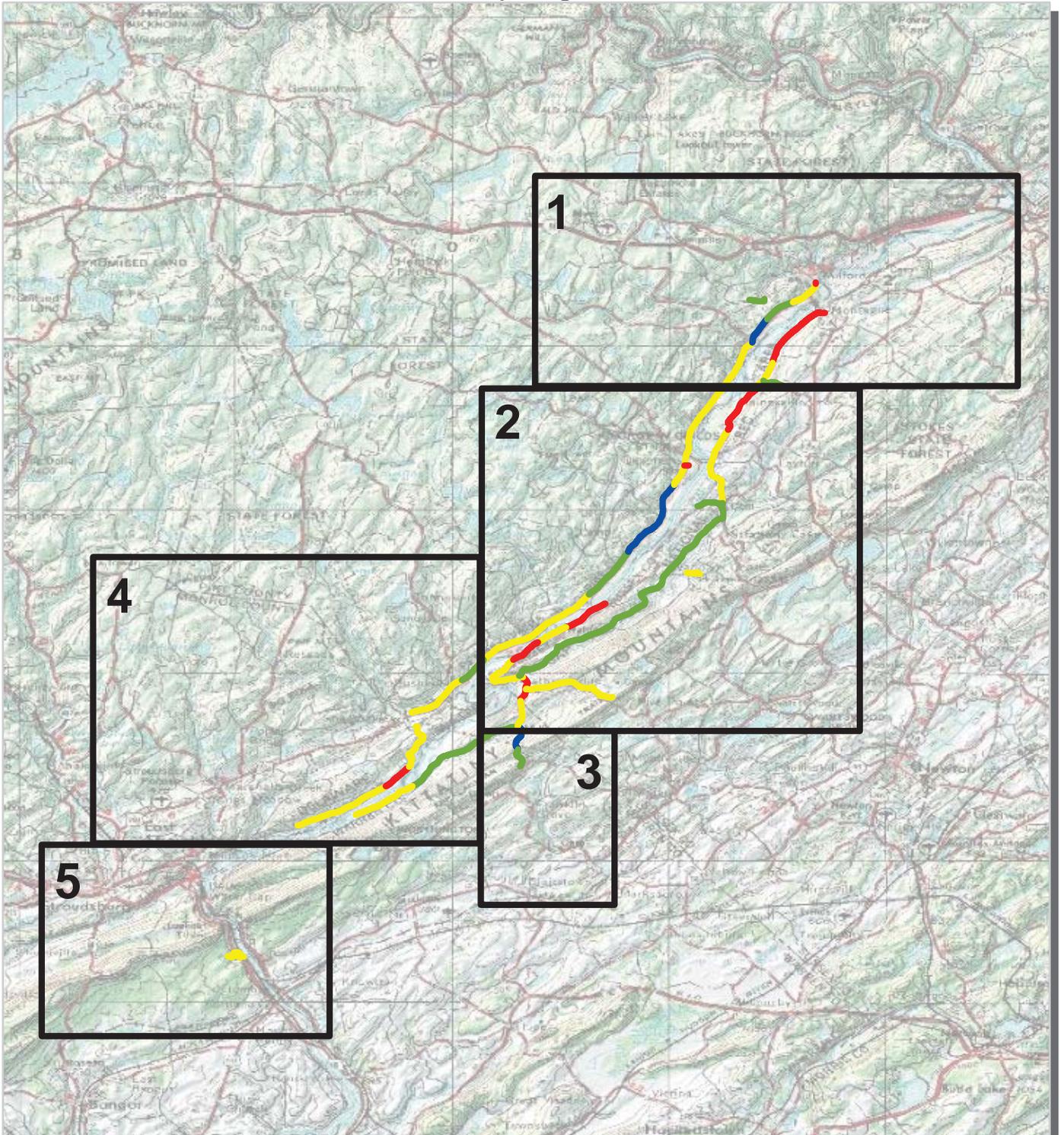


# Delaware Water Gap National Recreation Area

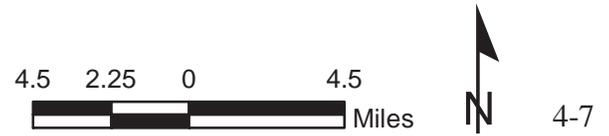
## Route Condition Map

### PCR - Mile by Mile

### Key Map



Note: Only routes collected by the DCV in Cycle-5 are displayed.

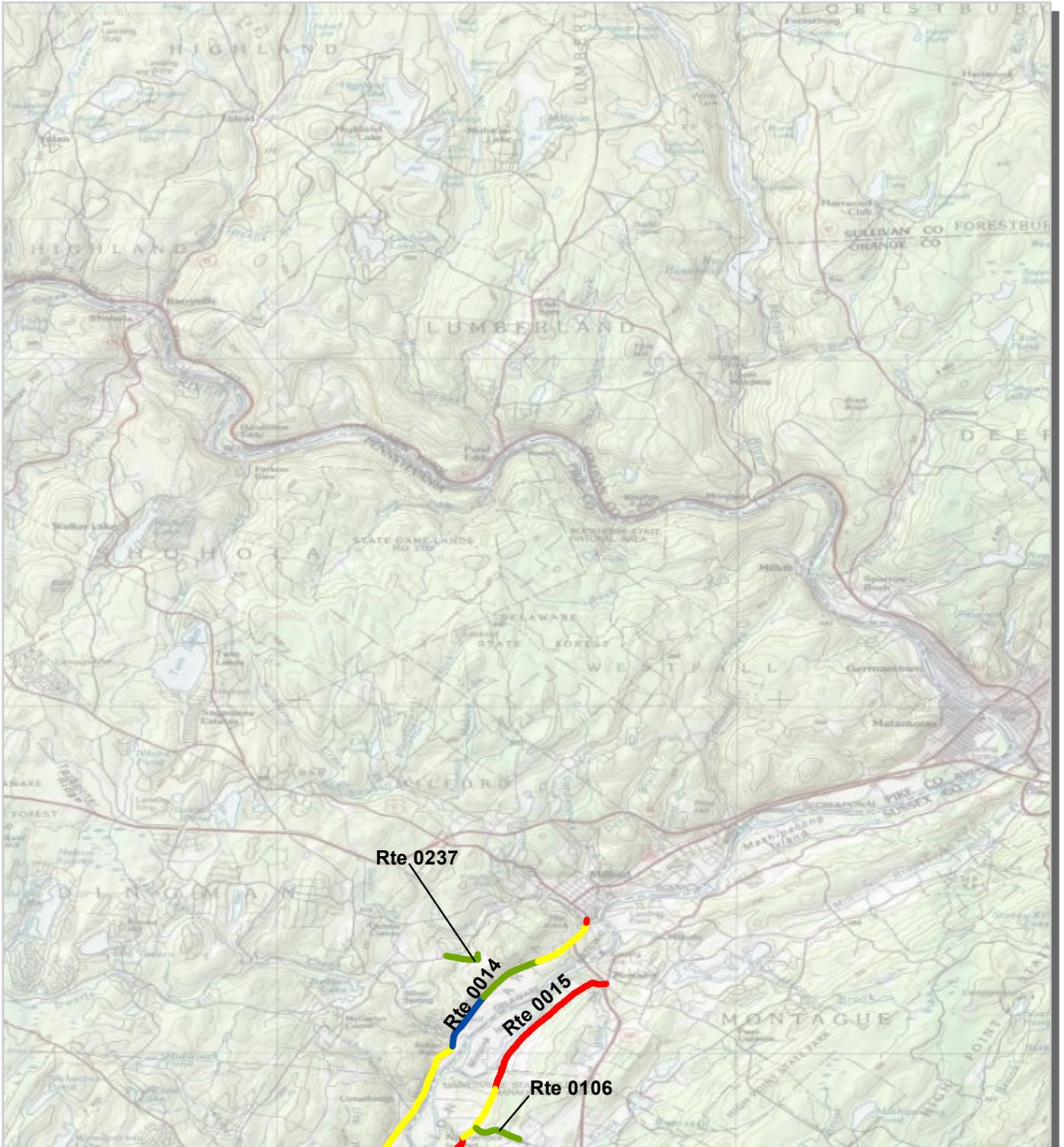


# Delaware Water Gap National Recreation Area

## Route Condition Map

### PCR - Mile by Mile

#### Area 1

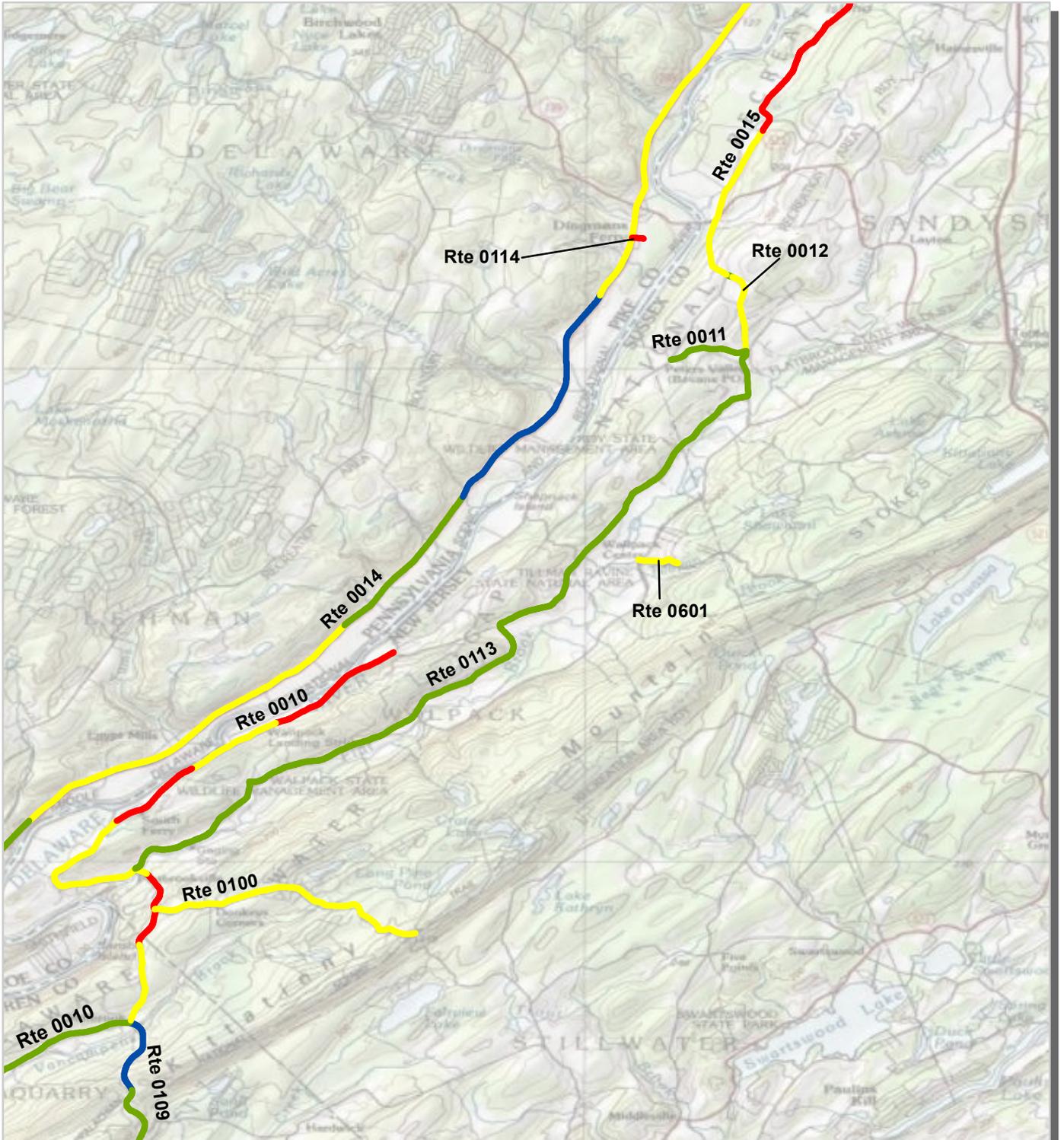


# Delaware Water Gap National Recreation Area

## Route Condition Map

### PCR - Mile by Mile

#### Area 2



PCR	Poor	<span style="display: inline-block; width: 20px; height: 10px; background-color: red; border: 1px solid black;"></span>	Fair	<span style="display: inline-block; width: 20px; height: 10px; background-color: yellow; border: 1px solid black;"></span>	Good	<span style="display: inline-block; width: 20px; height: 10px; background-color: green; border: 1px solid black;"></span>	Excellent	<span style="display: inline-block; width: 20px; height: 10px; background-color: blue; border: 1px solid black;"></span>	No Data	<span style="display: inline-block; width: 20px; height: 10px; background-color: black; border: 1px solid black;"></span>
	(0 - 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.

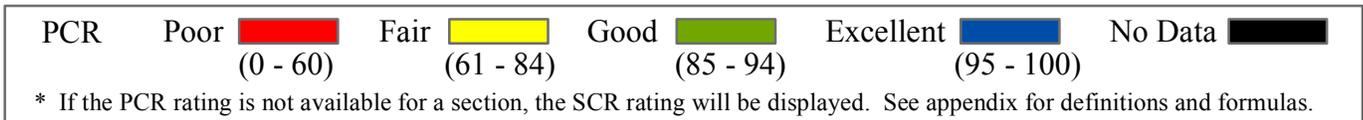
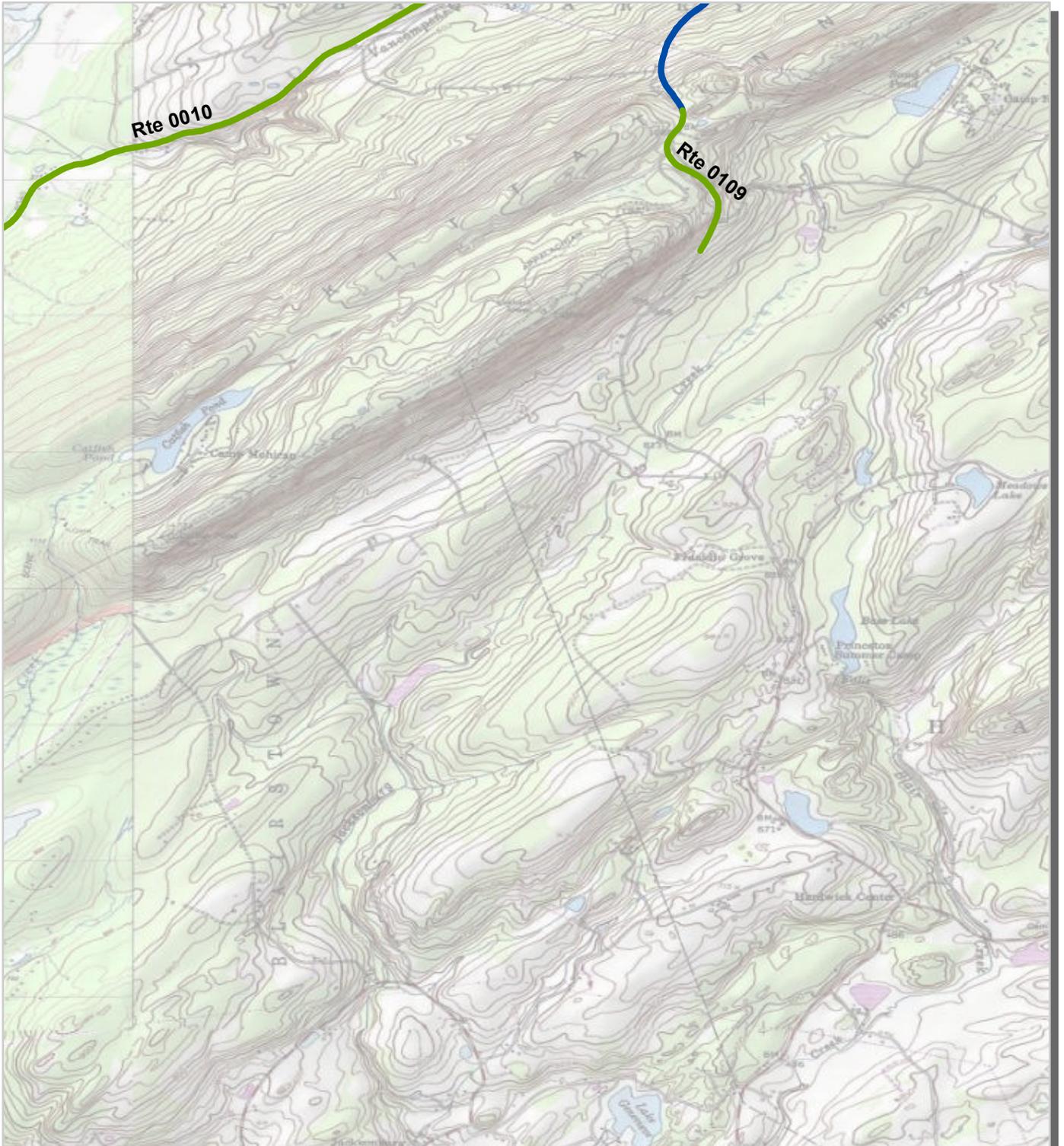


# Delaware Water Gap National Recreation Area

## Route Condition Map

### PCR - Mile by Mile

#### Area 3

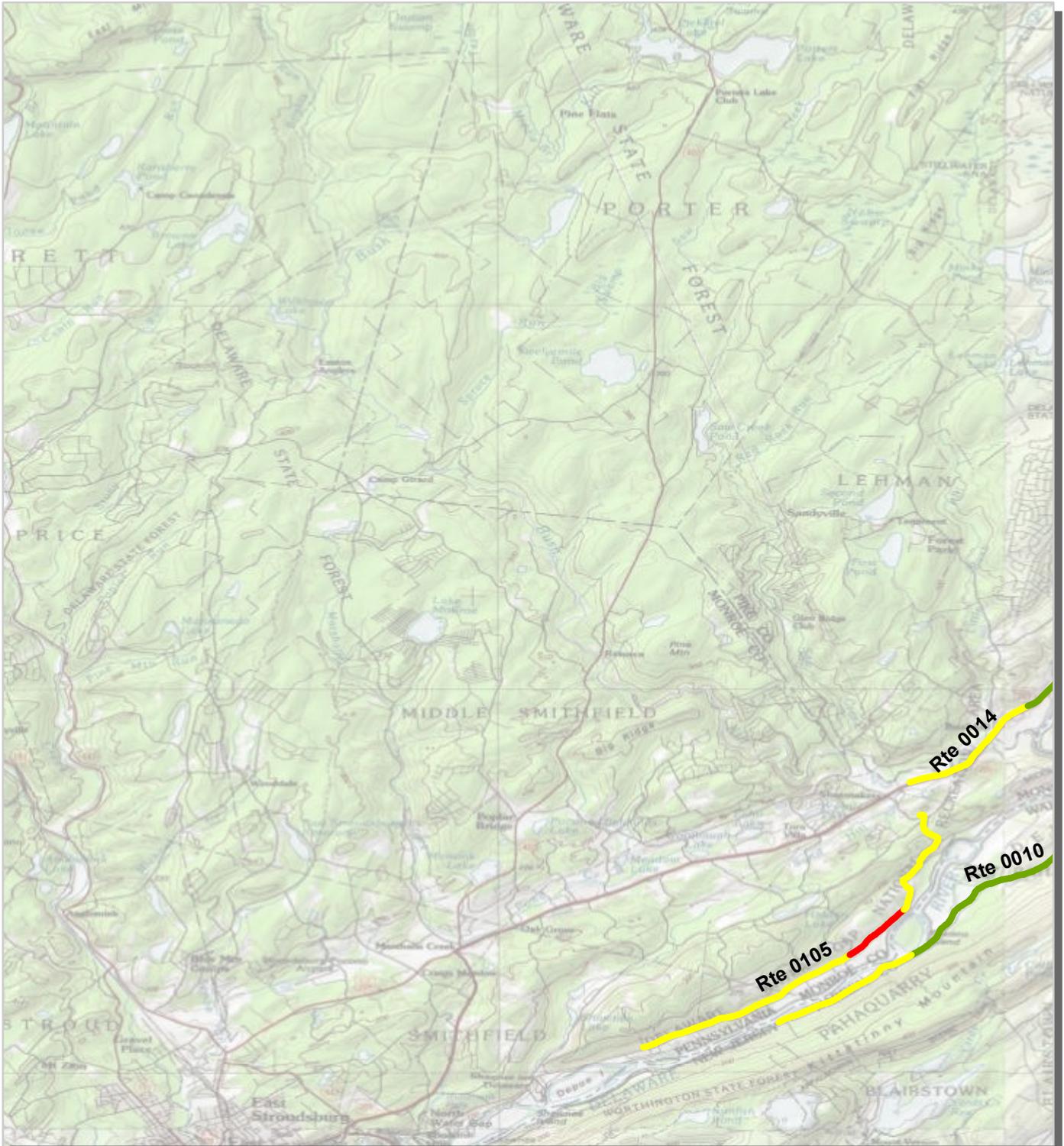


# Delaware Water Gap National Recreation Area

## Route Condition Map

### PCR - Mile by Mile

#### Area 4



PCR	Poor	<span style="display: inline-block; width: 20px; height: 10px; background-color: red; border: 1px solid black;"></span>	Fair	<span style="display: inline-block; width: 20px; height: 10px; background-color: yellow; border: 1px solid black;"></span>	Good	<span style="display: inline-block; width: 20px; height: 10px; background-color: green; border: 1px solid black;"></span>	Excellent	<span style="display: inline-block; width: 20px; height: 10px; background-color: blue; border: 1px solid black;"></span>	No Data	<span style="display: inline-block; width: 20px; height: 10px; background-color: black; border: 1px solid black;"></span>
	(0 - 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.

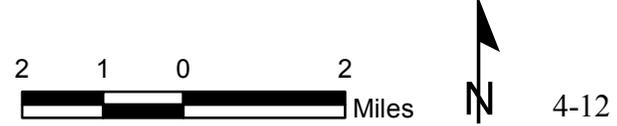
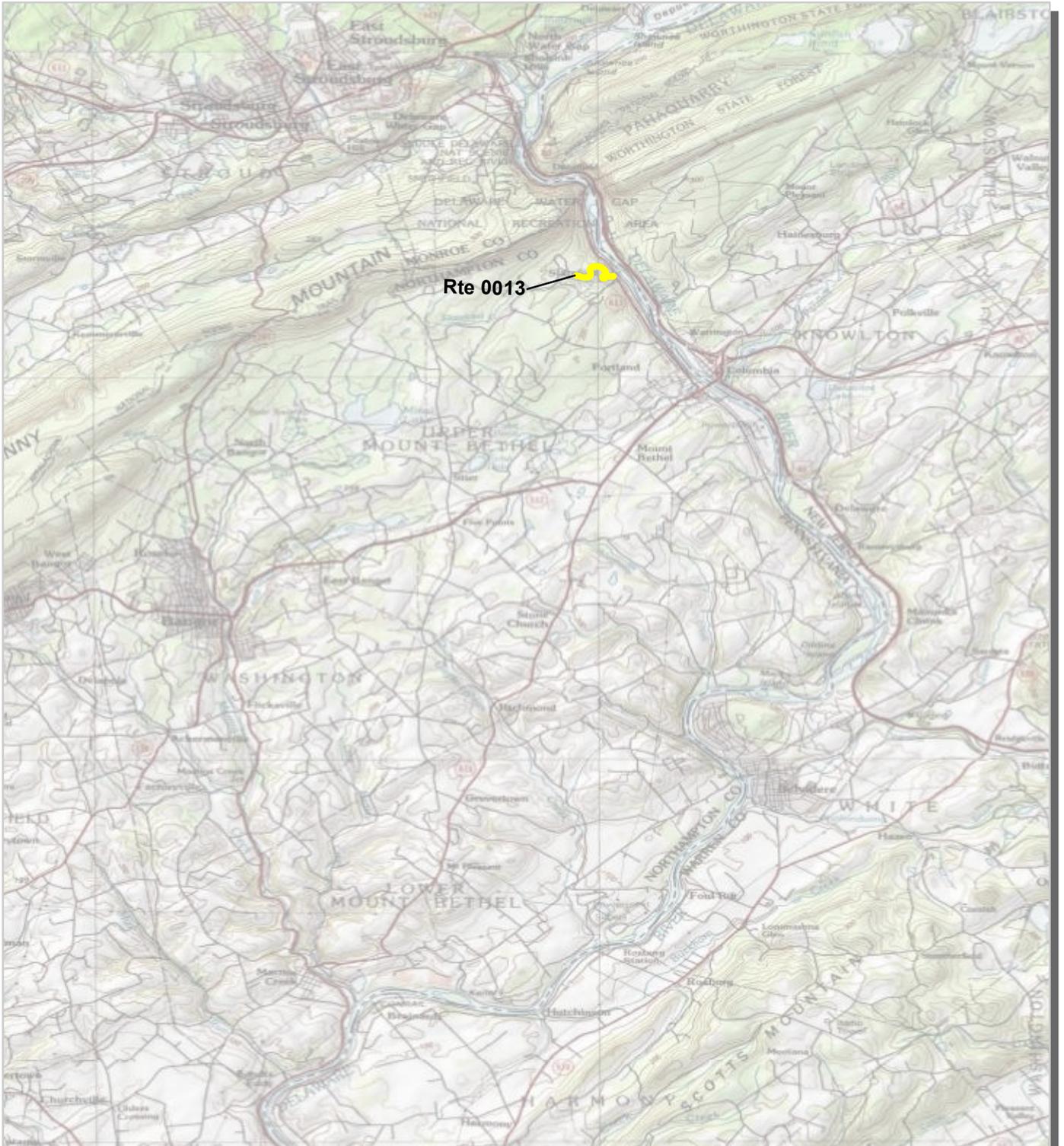


# Delaware Water Gap National Recreation Area

## Route Condition Map

### PCR - Mile by Mile

#### Area 5



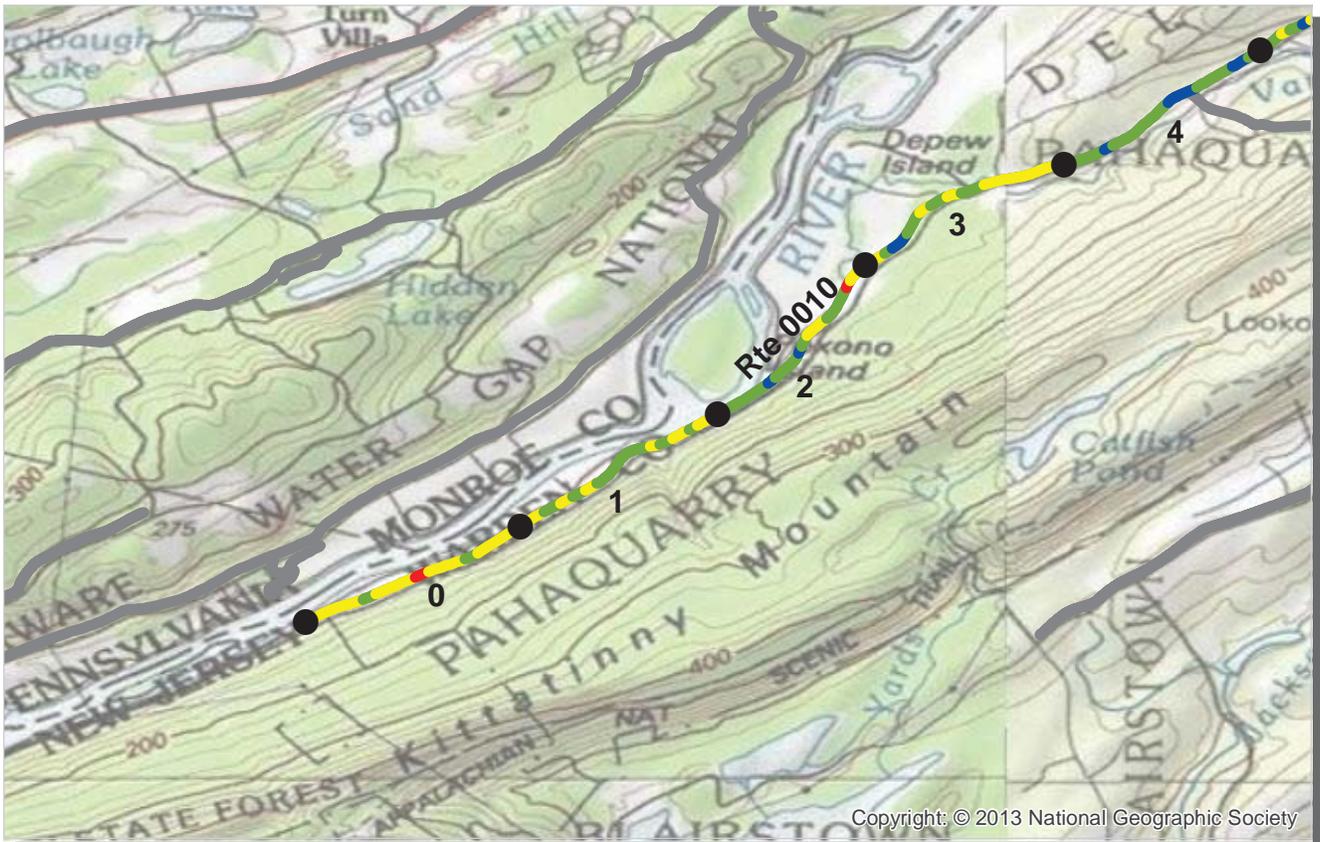
**Section 5**  
**Paved Route**  
**Condition Rating Sheets**



Delaware Water Gap National Recreation Area



**Federal Lands Highway  
Road Inventory Program**



PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 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.

**ROUTE: 0010 OLD MINE ROAD (SOUTH SECTION)**

**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/14/2013**

**NORTHEAST REGION**

**TOTAL LENGTH: 13.47 Miles**

<i>Section Number</i>	0	1	2	3	4
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	20	20	20	21	20
Lane Width (ft)	9	9	8	8	8
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	80	88	89	92	94
PCR (Pavement Condition Rating)	72	83	87	86	93
<i>Distress Index Values</i>					
Structural Crack Index	80	88	89	92	96
Transverse Cracking Index	100	100	100	99	100
Patching Index	98	100	100	100	100
Rutting Index	89	91	91	94	94
Roughness Condition Index (RCI)	59	76	84	76	91

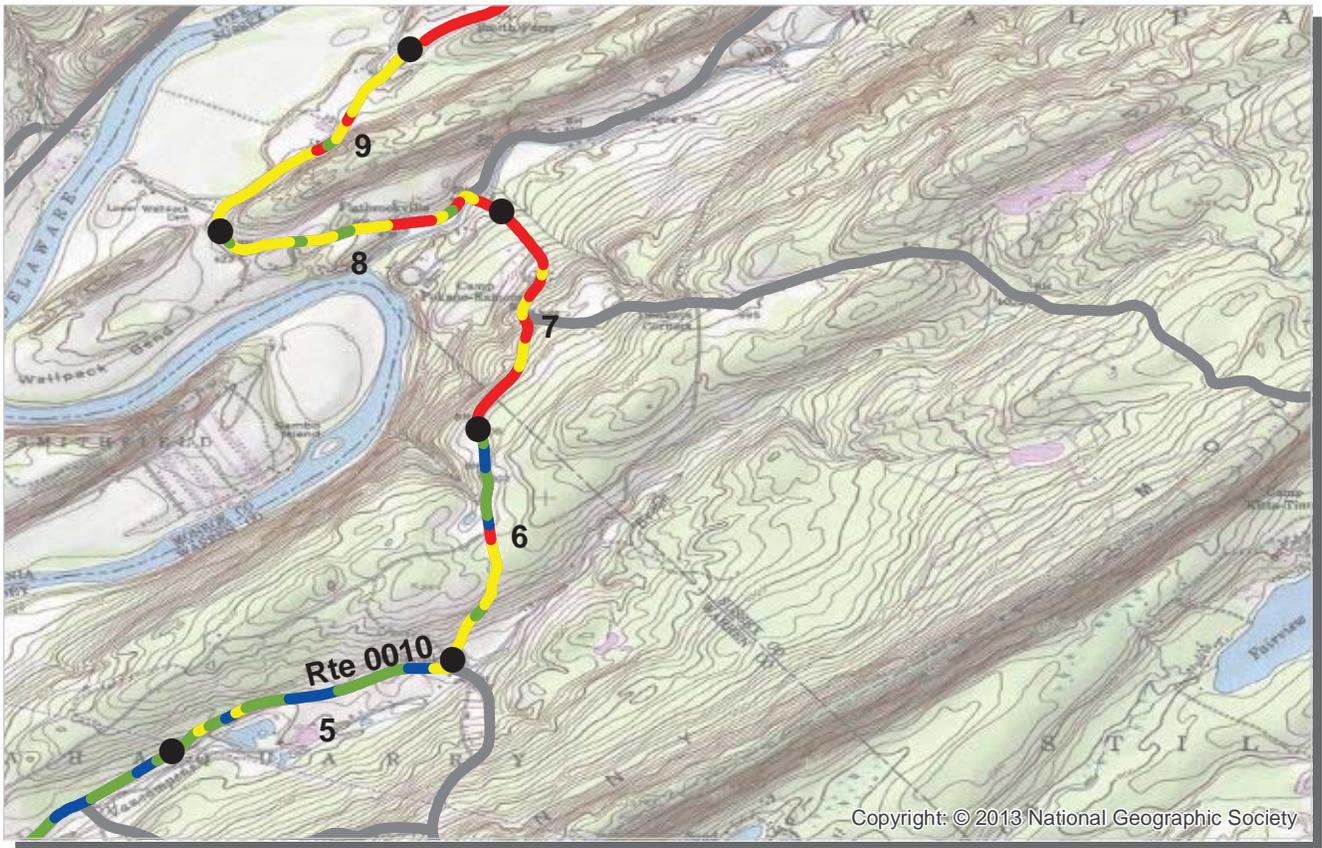
**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable

**ROUTE: 0010 OLD MINE ROAD (SOUTH SECTION)**



PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 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.

**ROUTE: 0010 OLD MINE ROAD (SOUTH SECTION)**  
**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/14/2013**  
**TOTAL LENGTH: 13.47 Miles**

**NORTHEAST REGION**

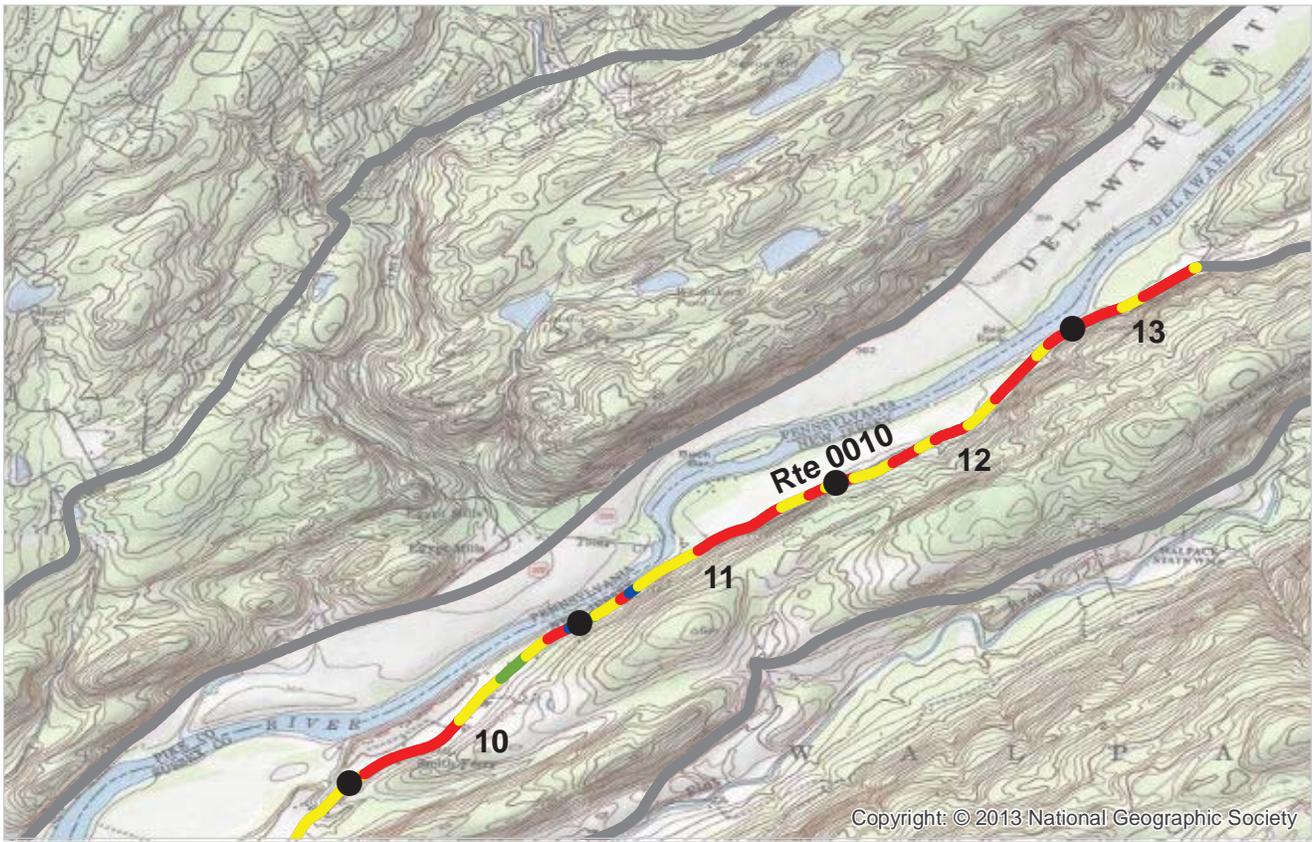
<i>Section Number</i>	5	6	7	8	9
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	20	22	21	20	20
Lane Width (ft)	8	9	8	9	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	95	91	72	67	54
PCR (Pavement Condition Rating)	88	83	56	69	65
<i>Distress Index Values</i>					
Structural Crack Index	95	91	72	67	54
Transverse Cracking Index	100	100	99	99	99
Patching Index	100	100	93	100	100
Rutting Index	96	92	82	95	92
Roughness Condition Index (RCI)	78	72	33	72	82

**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable

**ROUTE: 0010 OLD MINE ROAD (SOUTH SECTION)**



PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 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.

**ROUTE: 0010 OLD MINE ROAD (SOUTH SECTION)**

**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/14/2013**

**NORTHEAST REGION**

**TOTAL LENGTH: 13.47 Miles**

Section Number	10	11	12	13
Section Length (mi)	1.00	1.00	1.00	0.47
<b>Cross Section Information</b>				
Number of Lanes	2	2	2	2
Paved Width (ft)	20	19	19	20
Lane Width (ft)	10	9	10	10
<b>Roadway Condition Information</b>				
SCR (Surface Condition Rating)	49	66	53	54
PCR (Pavement Condition Rating)	57	65	58	60
<b>Distress Index Values</b>				
Structural Crack Index	49	66	53	54
Transverse Cracking Index	99	98	98	98
Patching Index	100	100	100	100
Rutting Index	91	96	93	95
Roughness Condition Index (RCI)	68	64	65	68

**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

**ROUTE: 0010 OLD MINE ROAD (SOUTH SECTION)**



PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 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.

**ROUTE: 0011 KUHN ROAD**

**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/14/2013**  
**TOTAL LENGTH: 0.79 Miles**

**NORTHEAST REGION**

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.79				
<b>Cross Section Information</b>					
Number of Lanes	2				
Paved Width (ft)	19				
Lane Width (ft)	9				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	93				
PCR (Pavement Condition Rating)	93				
<b>Distress Index Values</b>					
Structural Crack Index	93				
Transverse Cracking Index	98				
Patching Index	100				
Rutting Index	96				
Roughness Condition Index (RCI)	92				

**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable

**ROUTE: 0011 KUHN ROAD**



PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 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.

**ROUTE: 0012 PETERS VALLEY - WAGONWHEEL ROAD**  
**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/14/2013**  
**TOTAL LENGTH: 1.08 Miles**

**NORTHEAST REGION**

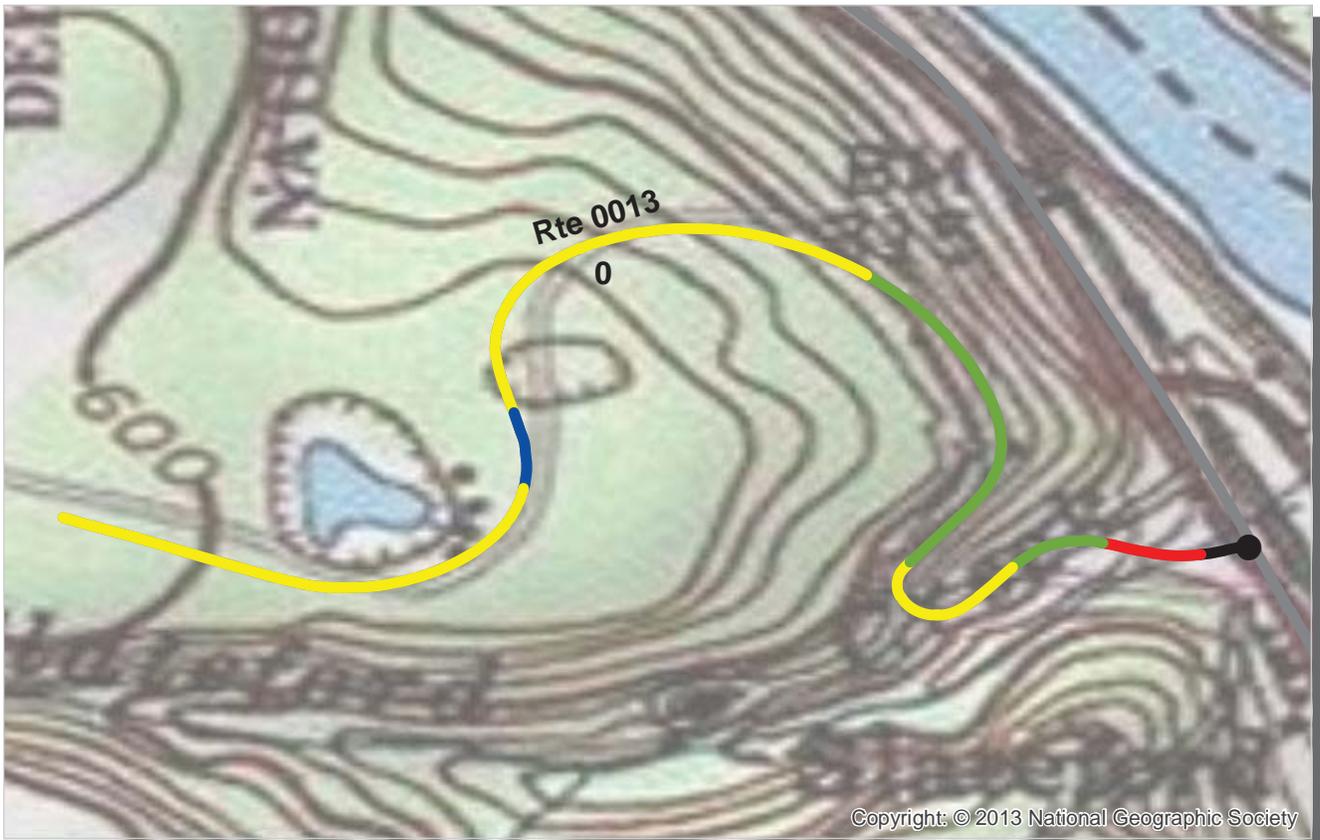
<b>Section Number</b>	0	1			
<b>Section Length (mi)</b>	1.00	0.08			
<b>Cross Section Information</b>					
Number of Lanes	2	2			
Paved Width (ft)	19	19			
Lane Width (ft)	9	9			
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	76	82			
PCR (Pavement Condition Rating)	80	87			
<b>Distress Index Values</b>					
Structural Crack Index	76	82			
Transverse Cracking Index	100	95			
Patching Index	100	100			
Rutting Index	98	99			
Roughness Condition Index (RCI)	87	94			

**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable

**ROUTE: 0012 PETERS VALLEY - WAGONWHEEL ROAD**



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PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 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.

**ROUTE: 0013 NATIONAL PARK DRIVE**  
**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/13/2013**  
**TOTAL LENGTH: 0.83 Miles**

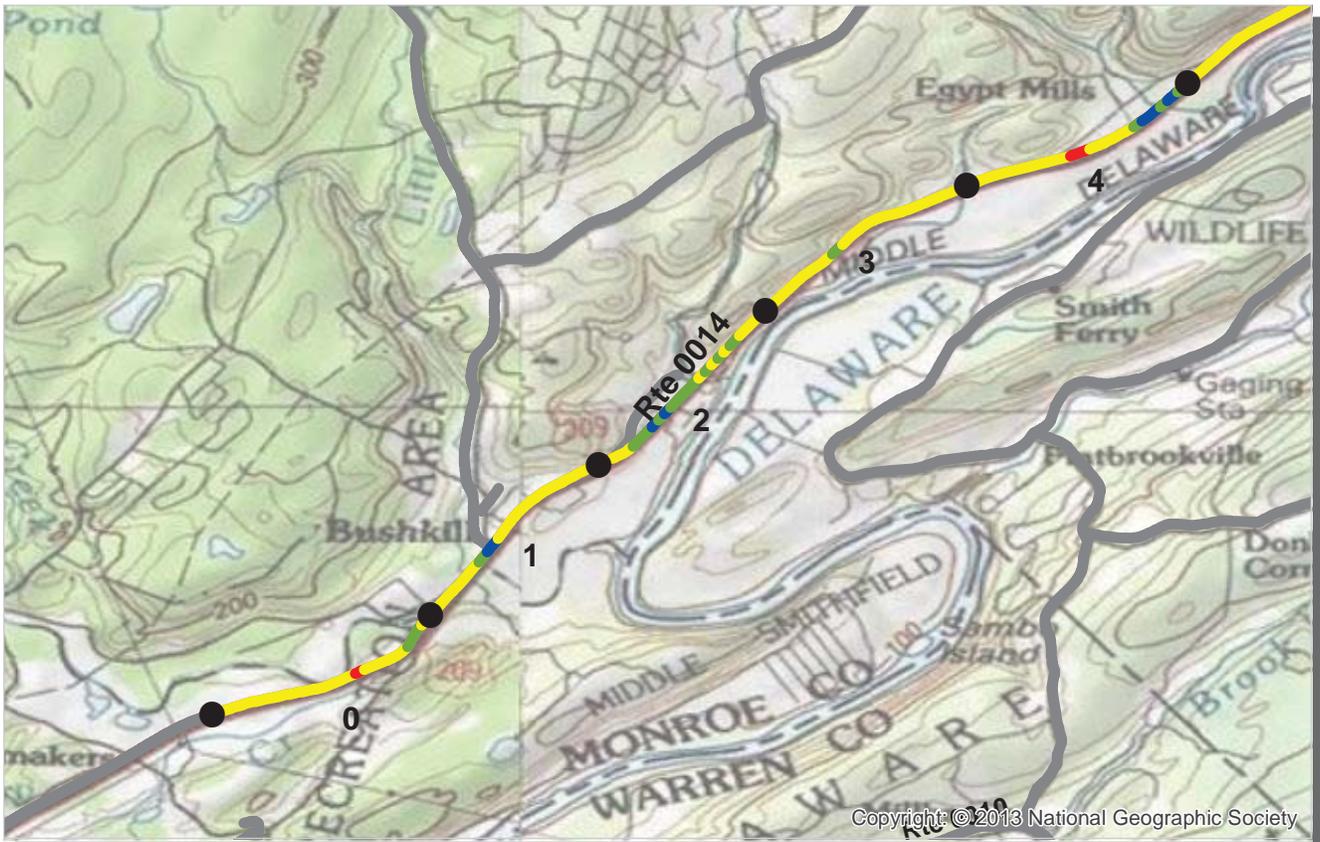
**NORTHEAST REGION**

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.83				
<b>Cross Section Information</b>					
Number of Lanes	2				
Paved Width (ft)	26				
Lane Width (ft)	11				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	88				
PCR (Pavement Condition Rating)	82				
<b>Distress Index Values</b>					
Structural Crack Index	88				
Transverse Cracking Index	99				
Patching Index	100				
Rutting Index	94				
Roughness Condition Index (RCI)	73				

NOTES:  
 Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.  
 NC - Not Collected    N/A - Not Applicable



ROUTE: 0013 NATIONAL PARK DRIVE



PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 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.

**ROUTE: 0014 US ROUTE 209**

**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/13/2013**

**NORTHEAST REGION**

**TOTAL LENGTH: 21.05 Miles**

<i>Section Number</i>	0	1	2	3	4
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	39	32	28	28	29
Lane Width (ft)	11	11	11	10	11
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	63	60	75	55	60
PCR (Pavement Condition Rating)	73	74	85	73	76
<i>Distress Index Values</i>					
Structural Crack Index	63	60	75	55	60
Transverse Cracking Index	78	75	84	73	72
Patching Index	100	100	100	100	100
Rutting Index	99	99	100	99	100
Roughness Condition Index (RCI)	88	96	100	100	100

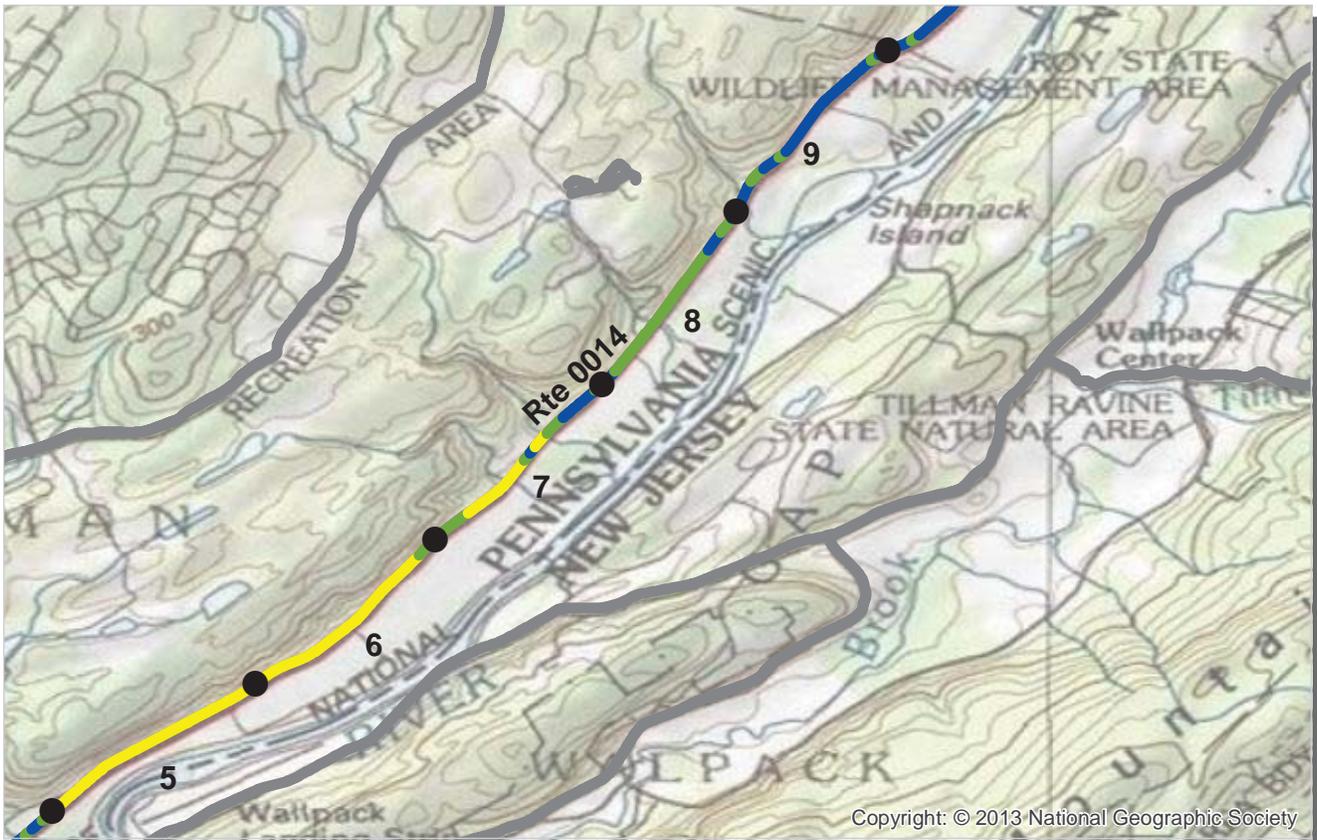
**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

**ROUTE: 0014 US ROUTE 209**



PCR	Poor (0 - 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.

**ROUTE: 0014 US ROUTE 209**

**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/13/2013**

**NORTHEAST REGION**

**TOTAL LENGTH: 21.05 Miles**

Section Number	5	6	7	8	9
Section Length (mi)	1.00	1.00	1.00	1.00	1.00
<b>Cross Section Information</b>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	28	27	26	25	28
Lane Width (ft)	11	11	11	11	11
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	58	61	83	89	98
PCR (Pavement Condition Rating)	75	77	90	93	99
<b>Distress Index Values</b>					
Structural Crack Index	58	61	83	94	98
Transverse Cracking Index	75	78	87	89	99
Patching Index	100	100	100	100	100
Rutting Index	100	99	98	94	99
Roughness Condition Index (RCI)	100	100	100	100	100

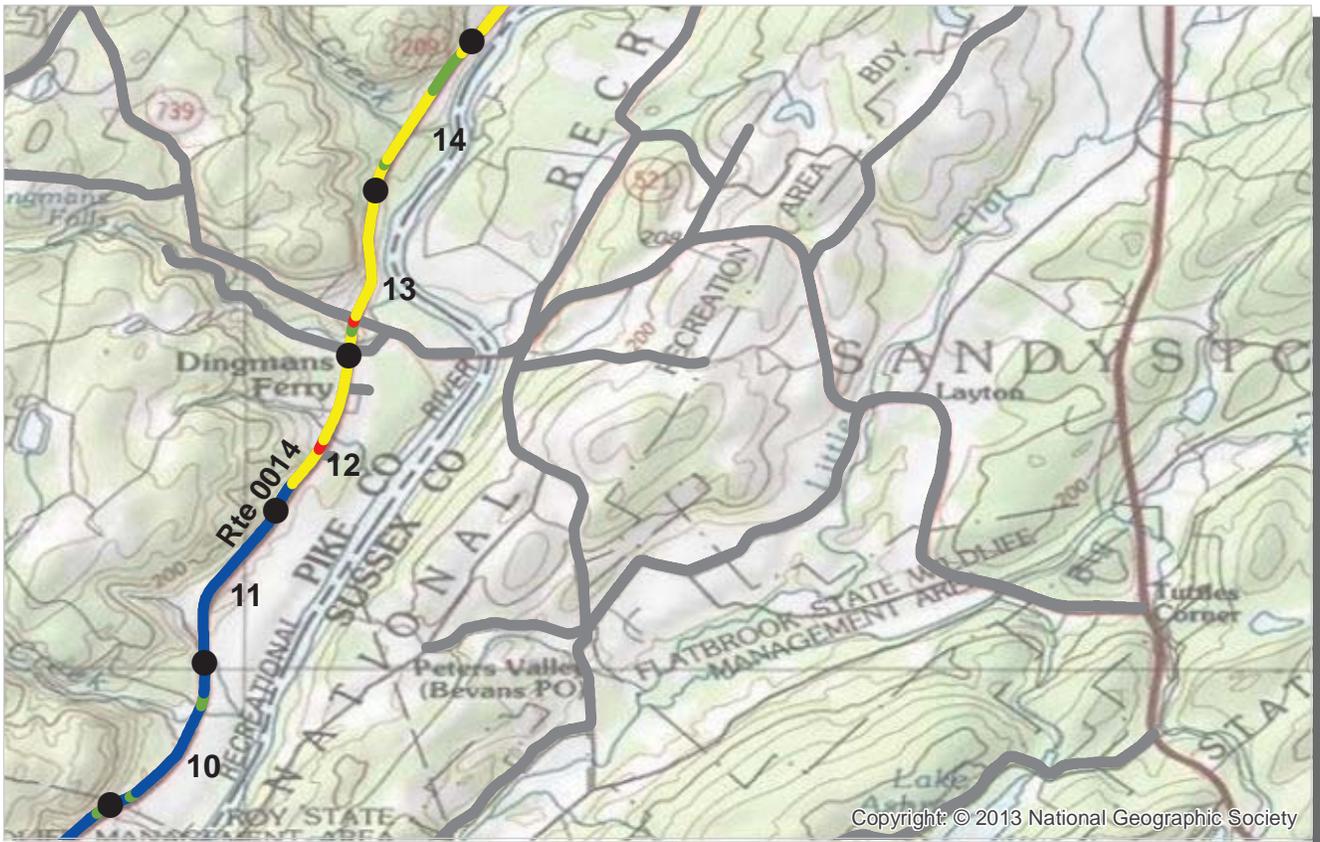
**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

**ROUTE: 0014 US ROUTE 209**



PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 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.

**ROUTE: 0014 US ROUTE 209**

**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/13/2013**

**NORTHEAST REGION**

**TOTAL LENGTH: 21.05 Miles**

<i>Section Number</i>	10	11	12	13	14
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	30	29	28	31	31
Lane Width (ft)	11	11	11	11	11
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	99	100	59	61	71
PCR (Pavement Condition Rating)	99	100	75	76	83
<i>Distress Index Values</i>					
Structural Crack Index	99	100	59	61	71
Transverse Cracking Index	100	100	80	78	89
Patching Index	100	100	100	100	100
Rutting Index	100	100	99	100	100
Roughness Condition Index (RCI)	100	100	100	98	100

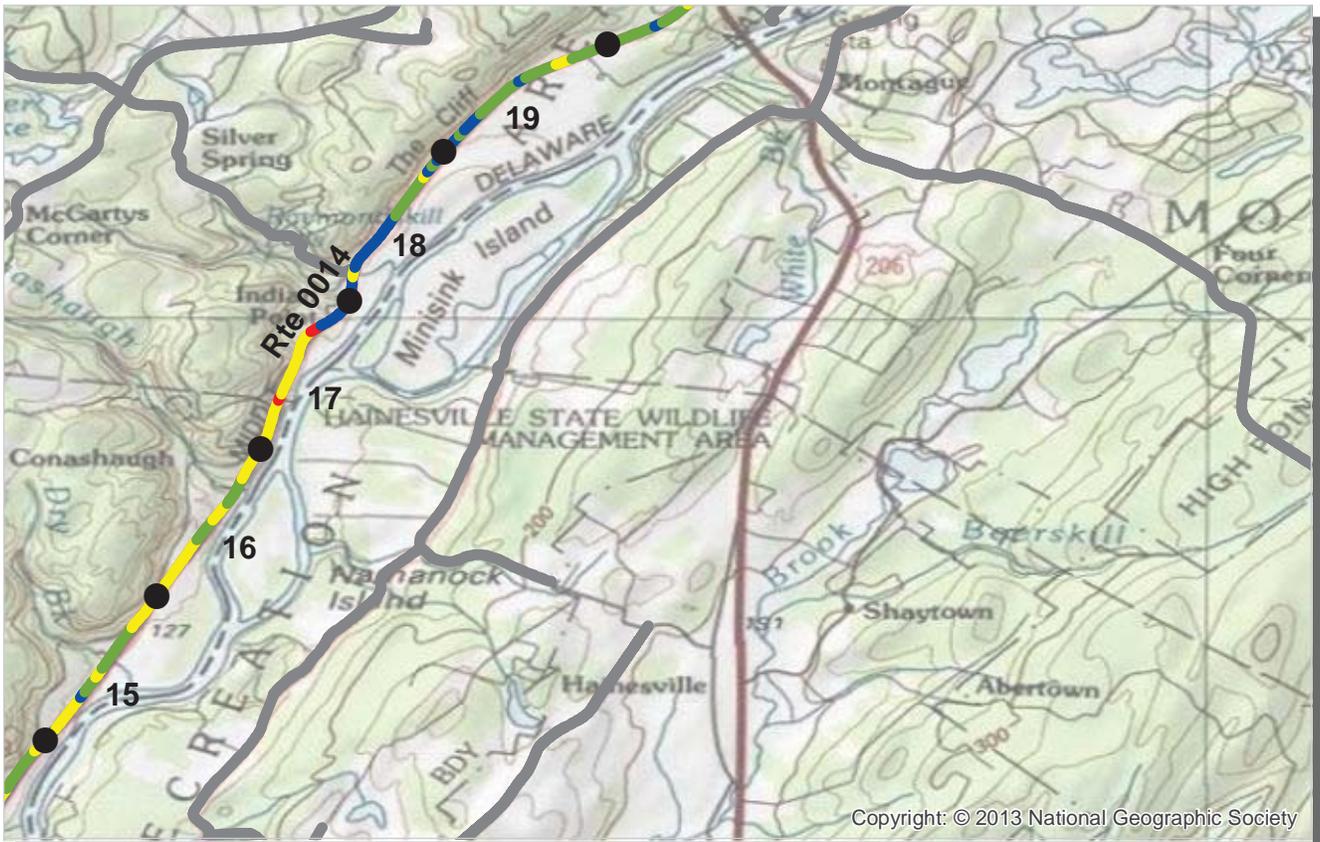
**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable

**ROUTE: 0014 US ROUTE 209**



PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 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.

**ROUTE: 0014 US ROUTE 209**

**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/13/2013**

**NORTHEAST REGION**

**TOTAL LENGTH: 21.05 Miles**

<i>Section Number</i>	15	16	17	18	19
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	31	34	33	31	31
Lane Width (ft)	11	11	11	11	11
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	70	64	67	94	82
PCR (Pavement Condition Rating)	82	78	77	96	89
<i>Distress Index Values</i>					
Structural Crack Index	70	64	67	94	82
Transverse Cracking Index	91	92	92	99	98
Patching Index	100	100	97	98	100
Rutting Index	99	100	99	99	99
Roughness Condition Index (RCI)	100	100	92	100	100

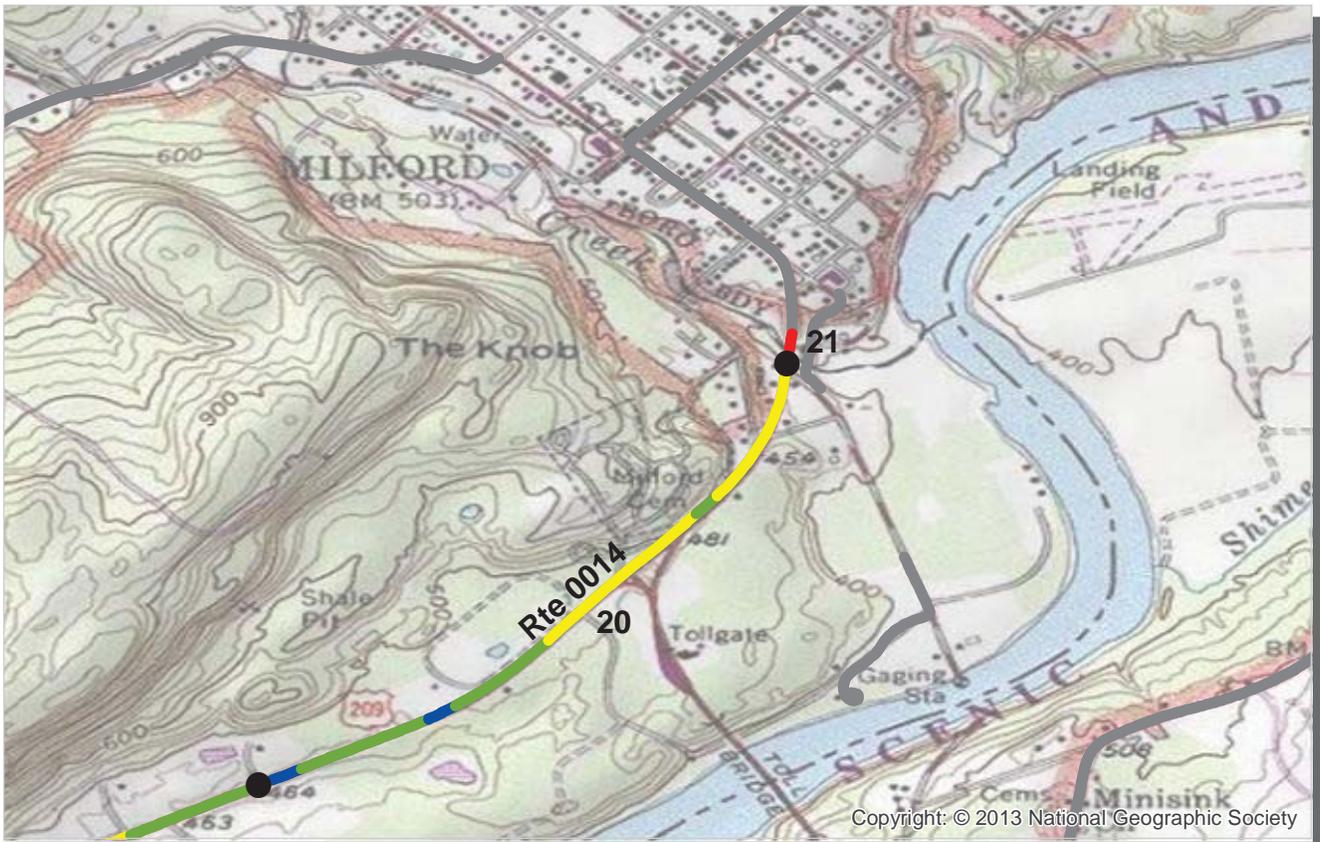
**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable

**ROUTE: 0014 US ROUTE 209**



PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 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.

**ROUTE: 0014 US ROUTE 209**

**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/13/2013**

**NORTHEAST REGION**

**TOTAL LENGTH: 21.05 Miles**

<b>Section Number</b>	20	21			
<b>Section Length (mi)</b>	1.00	0.05			
<b>Cross Section Information</b>					
Number of Lanes	3	3			
Paved Width (ft)	42	28			
Lane Width (ft)	11	11			
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	73	73			
PCR (Pavement Condition Rating)	84	50			
<b>Distress Index Values</b>					
Structural Crack Index	73	73			
Transverse Cracking Index	91	79			
Patching Index	100	100			
Rutting Index	97	83			
Roughness Condition Index (RCI)	100	16			

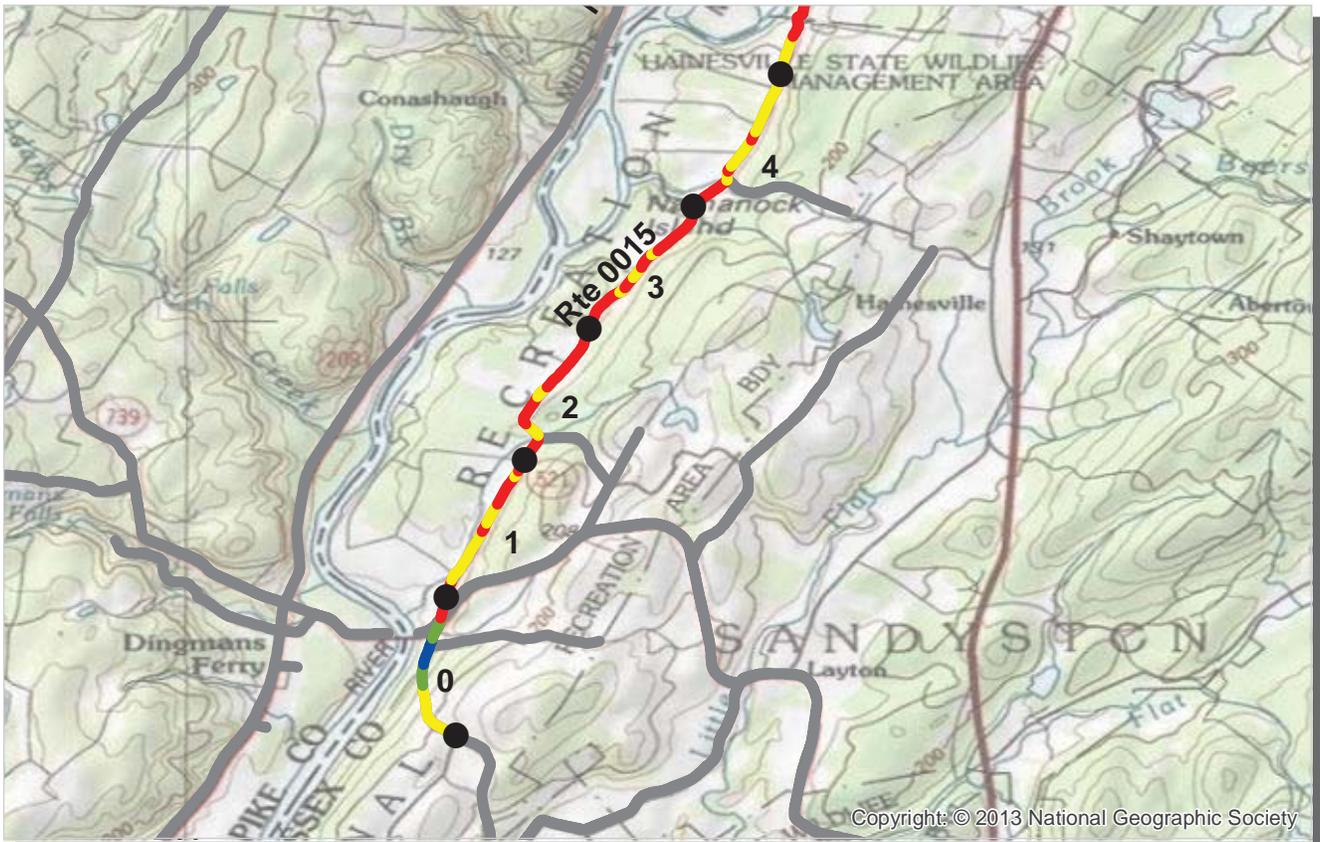
**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable

**ROUTE: 0014 US ROUTE 209**



PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 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.

**ROUTE: 0015 OLD MINE ROAD (NORTH SECTION)**  
**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/14/2013**  
**TOTAL LENGTH: 7.58 Miles**

**NORTHEAST REGION**

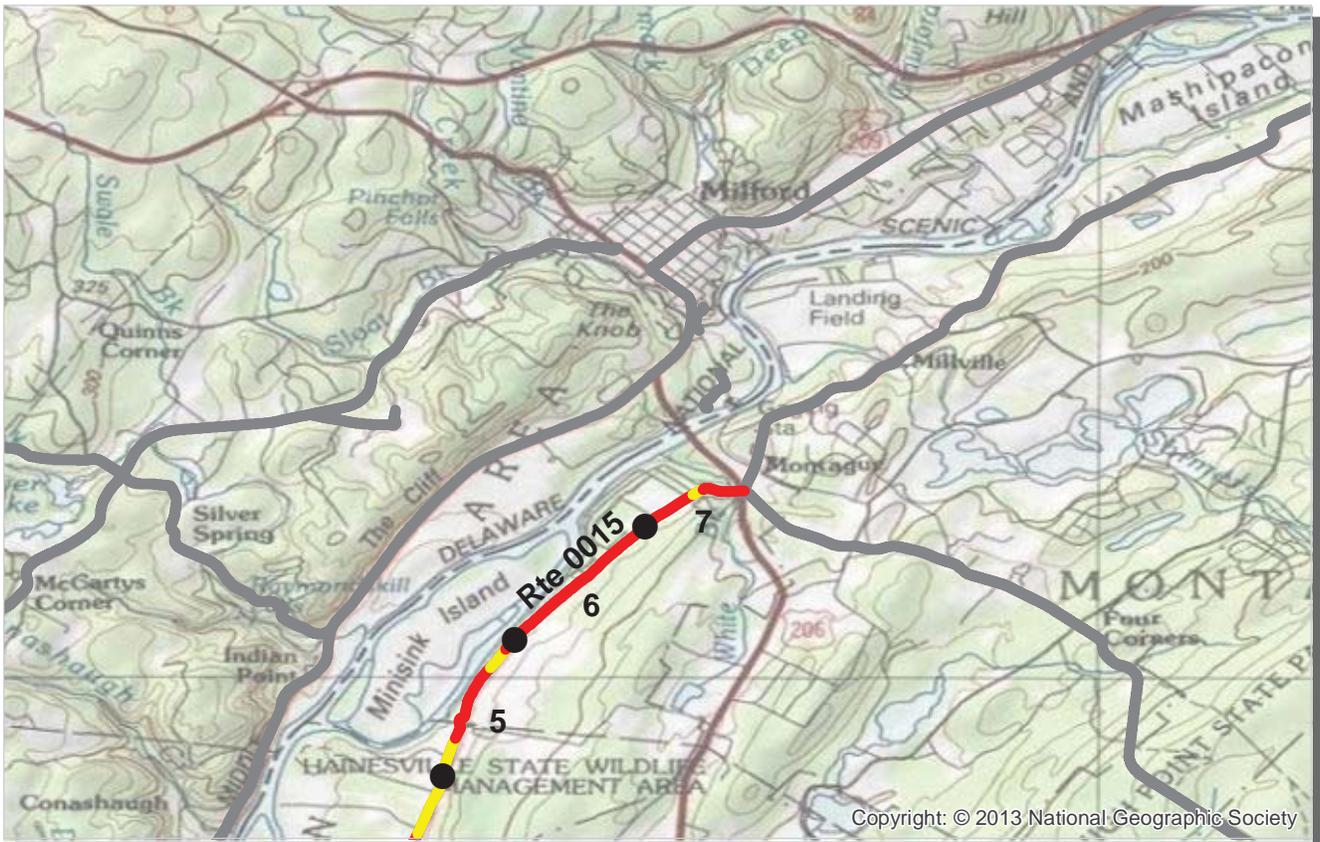
<i>Section Number</i>	0	1	2	3	4
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	19	19	19	20	20
Lane Width (ft)	8	8	8	9	9
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	83	62	59	63	70
PCR (Pavement Condition Rating)	81	62	54	53	63
<i>Distress Index Values</i>					
Structural Crack Index	83	62	59	63	70
Transverse Cracking Index	99	91	73	84	90
Patching Index	100	100	98	97	99
Rutting Index	98	88	79	77	79
Roughness Condition Index (RCI)	78	62	46	38	52

**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable

**ROUTE: 0015 OLD MINE ROAD (NORTH SECTION)**



PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 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.

**ROUTE: 0015 OLD MINE ROAD (NORTH SECTION)**  
**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/14/2013**  
**TOTAL LENGTH: 7.58 Miles**

**NORTHEAST REGION**

Section Number	5	6	7		
Section Length (mi)	1.00	1.00	0.58		
<b>Cross Section Information</b>					
Number of Lanes	2	2	2		
Paved Width (ft)	19	21	20		
Lane Width (ft)	9	9	9		
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	59	44	57		
PCR (Pavement Condition Rating)	56	49	54		
<b>Distress Index Values</b>					
Structural Crack Index	59	44	57		
Transverse Cracking Index	79	92	89		
Patching Index	99	99	100		
Rutting Index	91	89	85		
Roughness Condition Index (RCI)	51	57	49		

NOTES:  
 Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.  
 NC - Not Collected    N/A - Not Applicable

ROUTE: 0015 OLD MINE ROAD (NORTH SECTION)



PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 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.

**ROUTE: 0100 BLUE MOUNTAIN LAKE ROAD**  
**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/14/2013**  
**TOTAL LENGTH: 2.88 Miles**

**NORTHEAST REGION**

<i>Section Number</i>	0	1	2		
<i>Section Length (mi)</i>	1.00	1.00	0.88		
<i>Cross Section Information</i>					
Number of Lanes	2	2	2		
Paved Width (ft)	22	21	20		
Lane Width (ft)	10	10	10		
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	91	85	92		
PCR (Pavement Condition Rating)	81	73	81		
<i>Distress Index Values</i>					
Structural Crack Index	91	85	98		
Transverse Cracking Index	97	96	100		
Patching Index	97	100	100		
Rutting Index	95	88	92		
Roughness Condition Index (RCI)	66	54	64		

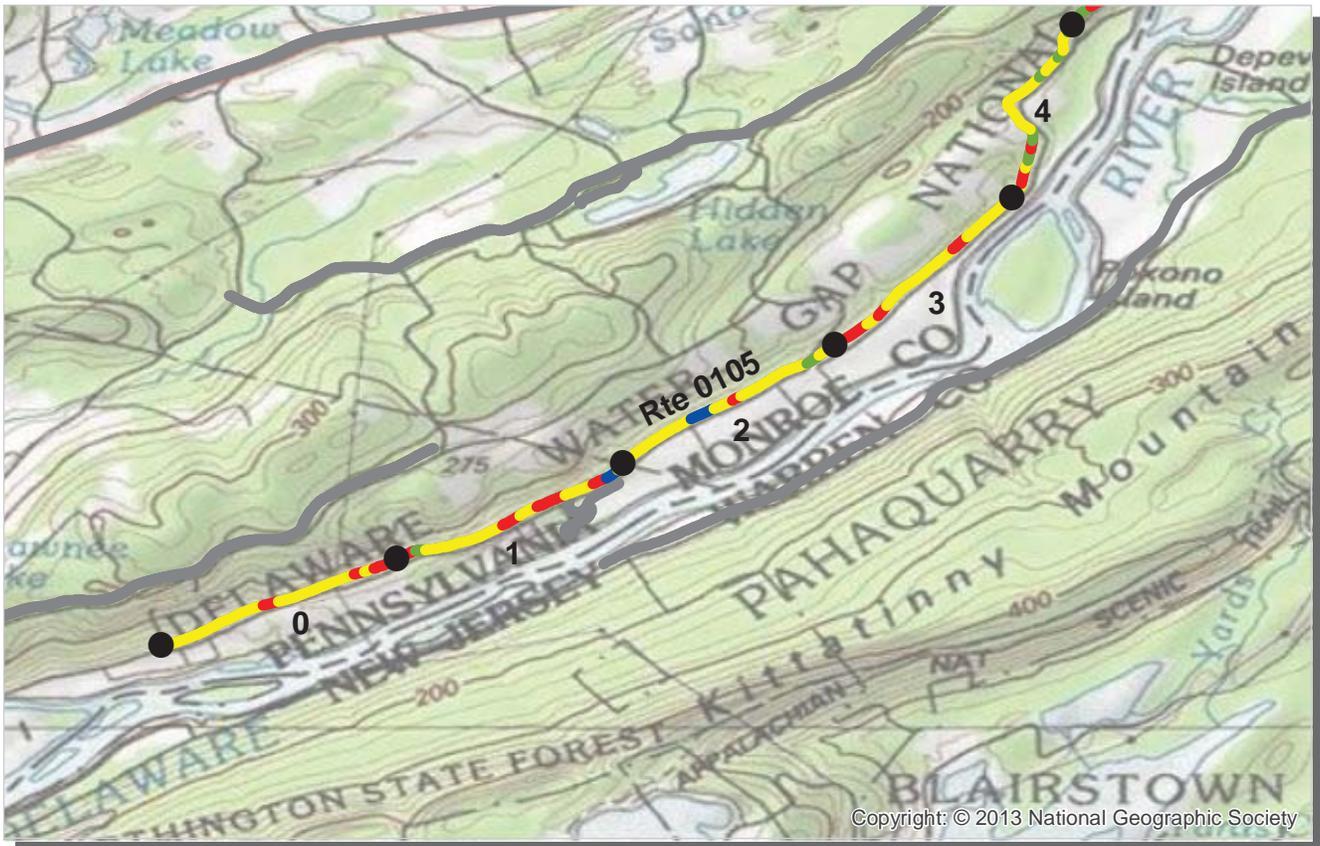
**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable



**ROUTE: 0100 BLUE MOUNTAIN LAKE ROAD**



PCR	Poor (0 - 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.

**ROUTE: 0105 RIVER ROAD**

**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/15/2013**  
**TOTAL LENGTH: 5.89 Miles**

**NORTHEAST REGION**

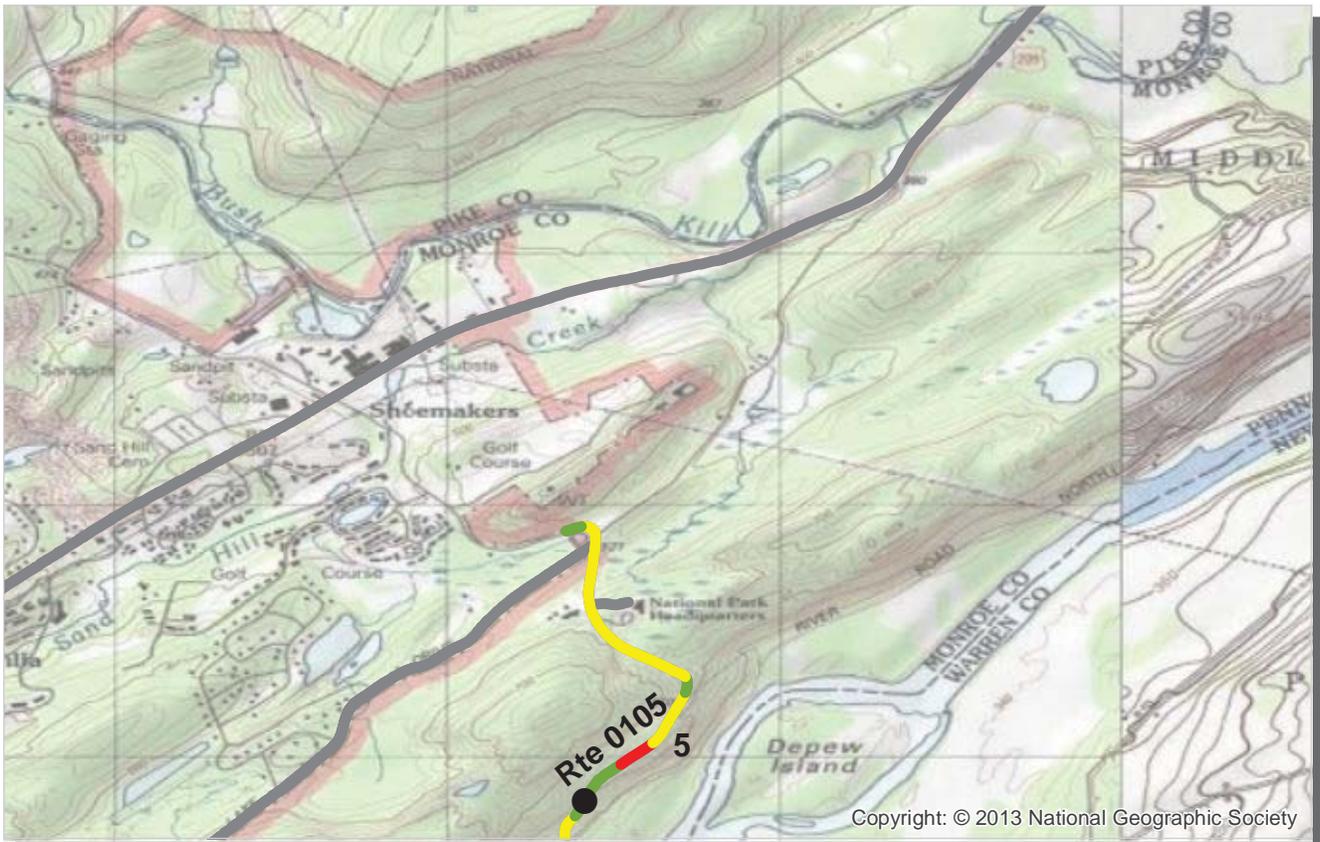
Section Number	0	1	2	3	4
Section Length (mi)	1.00	1.00	1.00	1.00	1.00
<b>Cross Section Information</b>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	19	19	19	19	20
Lane Width (ft)	8	9	8	9	9
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	47	49	57	50	78
PCR (Pavement Condition Rating)	64	64	71	60	76
<b>Distress Index Values</b>					
Structural Crack Index	47	49	57	50	78
Transverse Cracking Index	99	100	99	99	99
Patching Index	100	100	100	99	100
Rutting Index	100	99	99	97	100
Roughness Condition Index (RCI)	89	86	91	76	72

**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

**ROUTE: 0105 RIVER ROAD**



PCR	Poor (0 - 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.

**ROUTE: 0105 RIVER ROAD**

**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/15/2013**  
**TOTAL LENGTH: 5.89 Miles**

**NORTHEAST REGION**

<b>Section Number</b>	5				
<b>Section Length (mi)</b>	0.89				
<b>Cross Section Information</b>					
Number of Lanes	2				
Paved Width (ft)	21				
Lane Width (ft)	9				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	89				
PCR (Pavement Condition Rating)	78				
<b>Distress Index Values</b>					
Structural Crack Index	89				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	98				
Roughness Condition Index (RCI)	61				

**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

**ROUTE: 0105 RIVER ROAD**



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PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 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.

**ROUTE: 0106 JAGER ROAD**

**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/14/2013**

**NORTHEAST REGION**

**TOTAL LENGTH: 0.68 Miles**

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.68				
<b>Cross Section Information</b>					
Number of Lanes	2				
Paved Width (ft)	22				
Lane Width (ft)	10				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	96				
PCR (Pavement Condition Rating)	89				
<b>Distress Index Values</b>					
Structural Crack Index	96				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	98				
Roughness Condition Index (RCI)	78				

**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable



**ROUTE: 0106 JAGER ROAD**



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PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 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.

**ROUTE: 0109 NPS 602**

**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/14/2013**  
**TOTAL LENGTH: 1.73 Miles**

**NORTHEAST REGION**

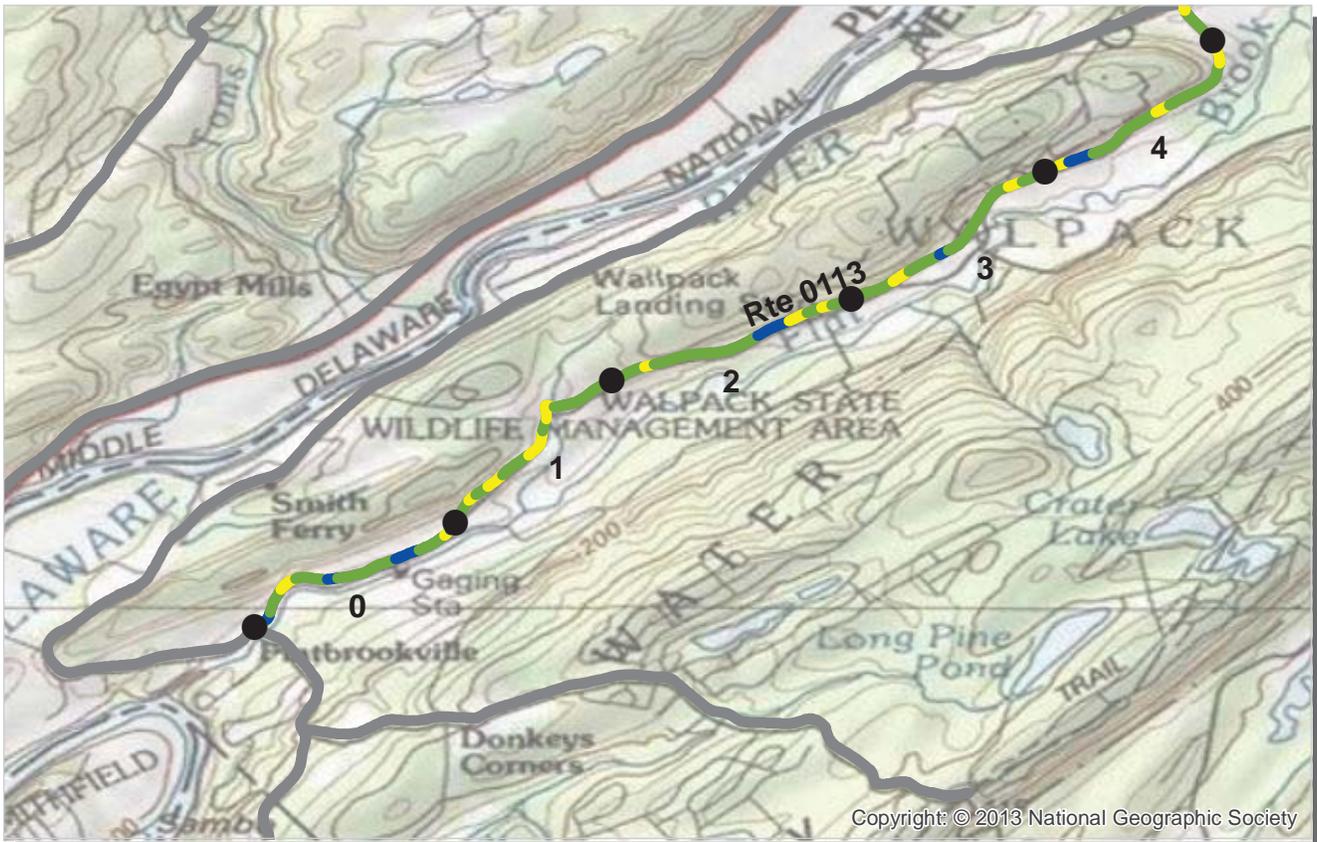
Section Number	0	1			
Section Length (mi)	1.00	0.73			
<b>Cross Section Information</b>					
Number of Lanes	2	2			
Paved Width (ft)	25	24			
Lane Width (ft)	10	10			
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	95	96			
PCR (Pavement Condition Rating)	95	92			
<b>Distress Index Values</b>					
Structural Crack Index	95	96			
Transverse Cracking Index	99	100			
Patching Index	100	100			
Rutting Index	99	99			
Roughness Condition Index (RCI)	96	87			

**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

**ROUTE: 0109 NPS 602**



PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 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.

**ROUTE: 0113 NPS ROUTE 615**

**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/14/2013**  
**TOTAL LENGTH: 9.72 Miles**

**NORTHEAST REGION**

<i>Section Number</i>	0	1	2	3	4
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	22	21	22	22	21
Lane Width (ft)	10	9	9	9	9
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	97	96	95	92	92
PCR (Pavement Condition Rating)	89	85	88	88	87
<i>Distress Index Values</i>					
Structural Crack Index	97	96	95	92	92
Transverse Cracking Index	100	100	100	99	100
Patching Index	100	100	100	100	100
Rutting Index	100	97	99	99	100
Roughness Condition Index (RCI)	77	69	77	81	80

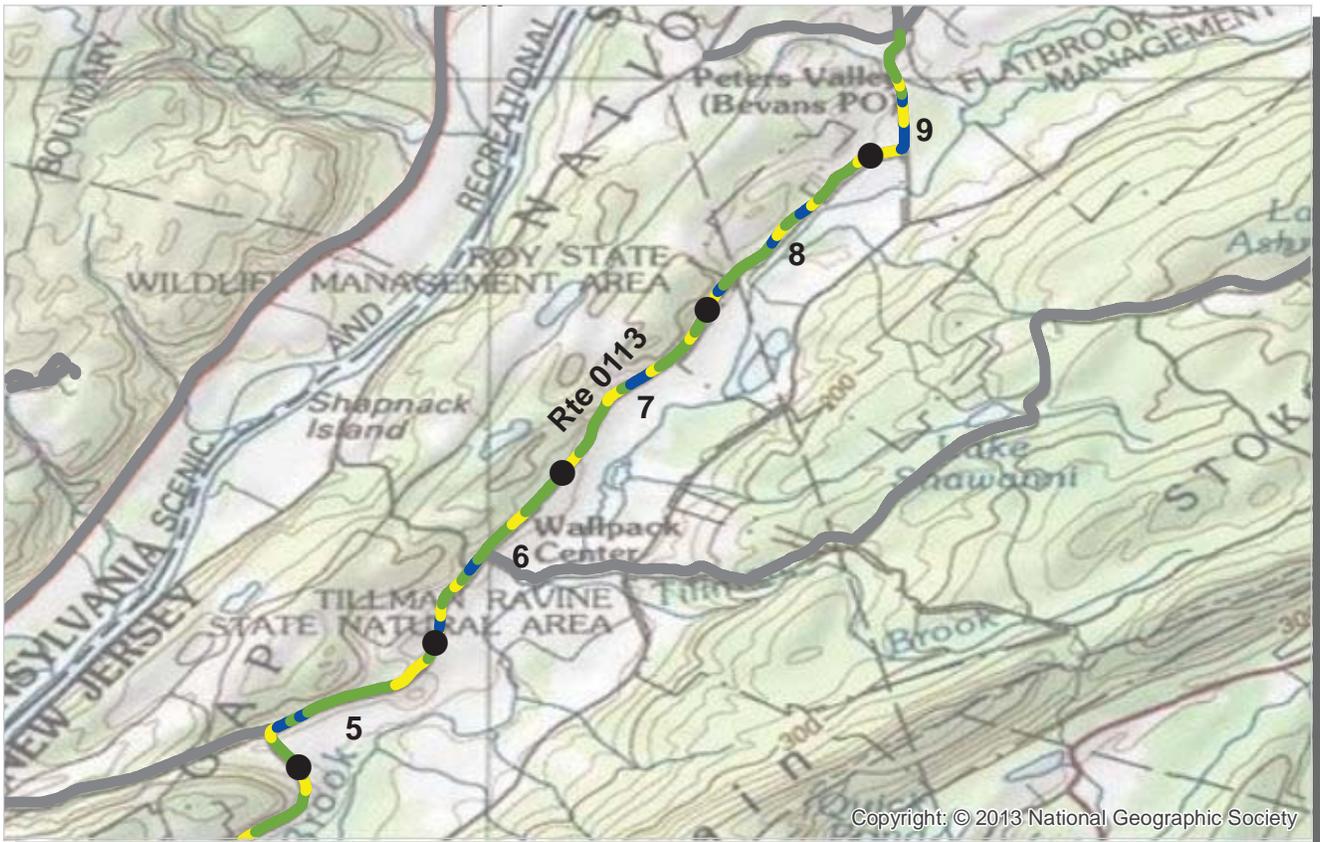
**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable

**ROUTE: 0113 NPS ROUTE 615**



PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 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.

**ROUTE: 0113 NPS ROUTE 615**

**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/14/2013**  
**TOTAL LENGTH: 9.72 Miles**

**NORTHEAST REGION**

<i>Section Number</i>	5	6	7	8	9
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	0.72
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	22	22	22	24	24
Lane Width (ft)	10	10	10	11	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	90	91	93	92	92
PCR (Pavement Condition Rating)	86	87	89	87	87
<i>Distress Index Values</i>					
Structural Crack Index	90	91	93	92	92
Transverse Cracking Index	99	99	100	100	99
Patching Index	100	100	100	100	100
Rutting Index	100	99	100	100	100
Roughness Condition Index (RCI)	80	82	84	79	80

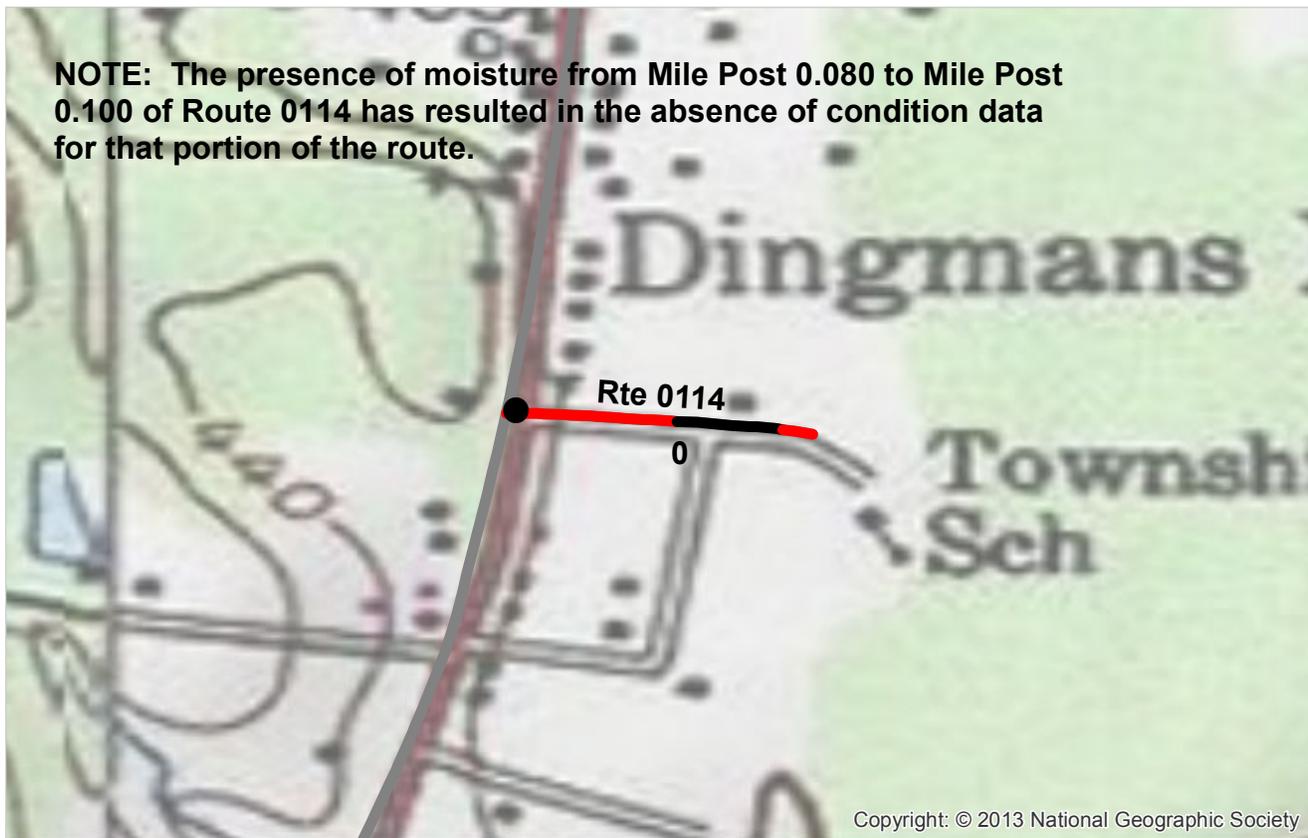
**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable

**ROUTE: 0113 NPS ROUTE 615**

**NOTE: The presence of moisture from Mile Post 0.080 to Mile Post 0.100 of Route 0114 has resulted in the absence of condition data for that portion of the route.**



PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 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.

**ROUTE: 0114 SCHOOL HOUSE ROAD**

**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/15/2013**  
**TOTAL LENGTH: 0.12 Miles**

**NORTHEAST REGION**

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.12				
<b>Cross Section Information</b>					
Number of Lanes	2				
Paved Width (ft)	22				
Lane Width (ft)	9				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	8				
PCR (Pavement Condition Rating)	8				
<b>Distress Index Values</b>					
Structural Crack Index	8				
Transverse Cracking Index	71				
Patching Index	98				
Rutting Index	86				
Roughness Condition Index (RCI)	NC				

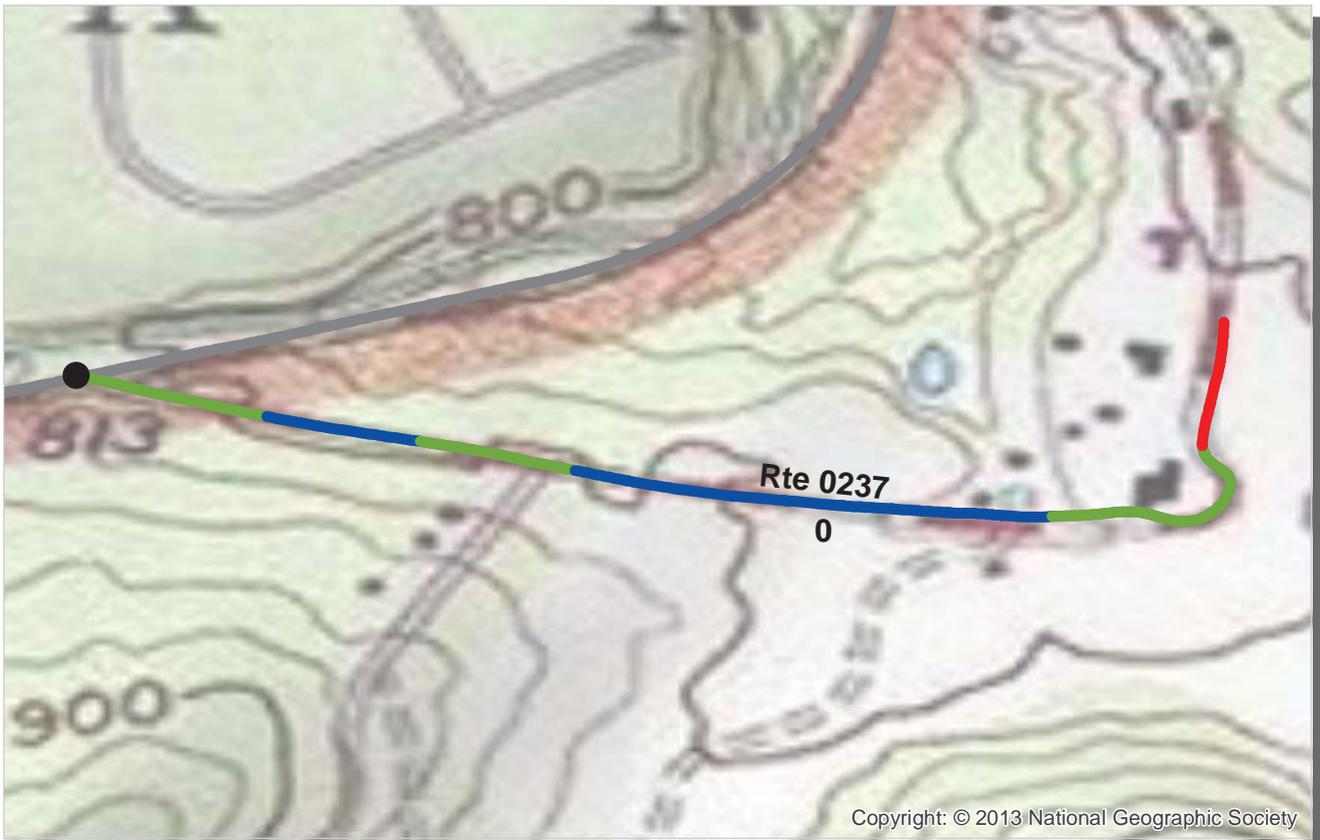
**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

**ROUTE: 0114 SCHOOL HOUSE ROAD**



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PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 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.

**ROUTE: 0237 CLIFF PARK ENTRANCE ROAD**  
**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

COLLECTED: 4/15/2013  
 TOTAL LENGTH: 0.52 Miles

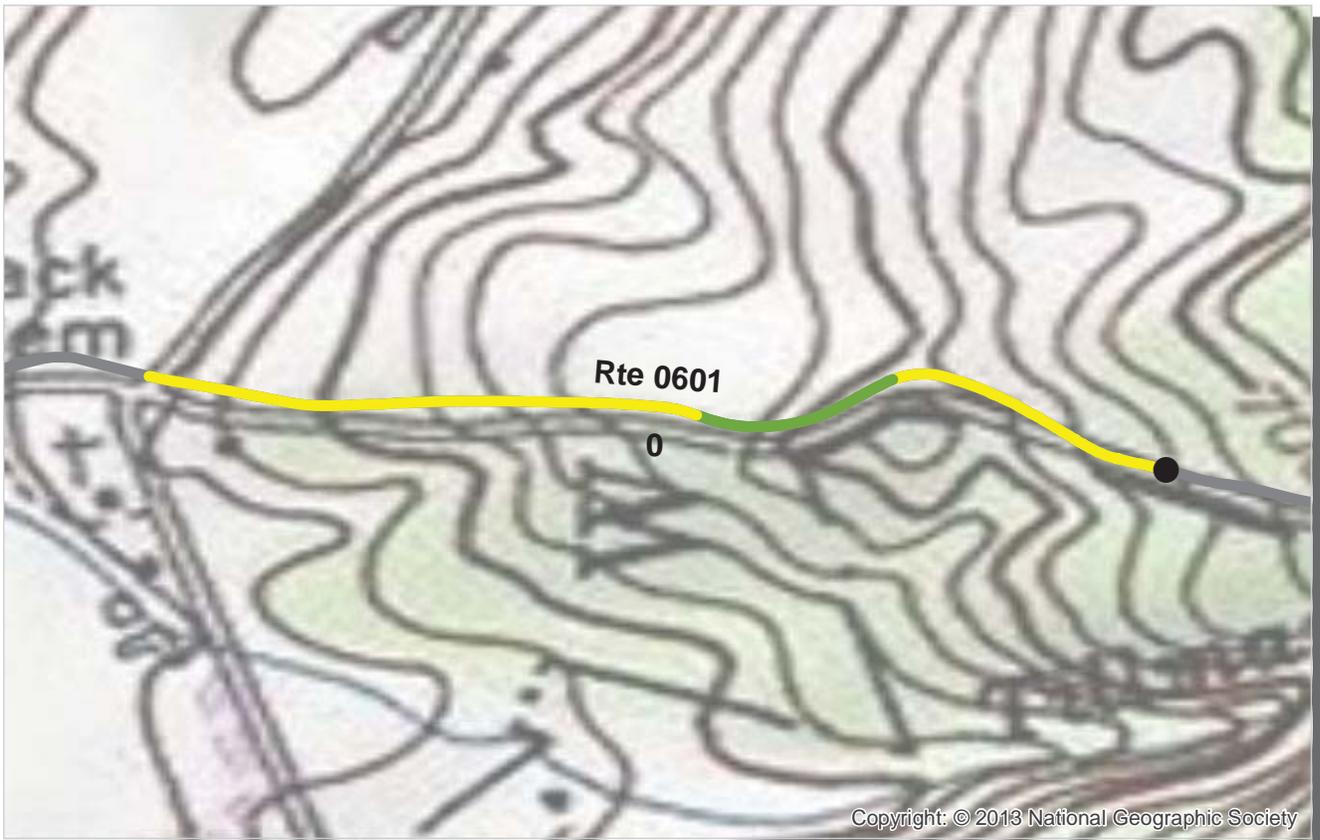
**NORTHEAST REGION**

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.52				
<b>Cross Section Information</b>					
Number of Lanes	2				
Paved Width (ft)	16				
Lane Width (ft)	9				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	89				
PCR (Pavement Condition Rating)	89				
<b>Distress Index Values</b>					
Structural Crack Index	89				
Transverse Cracking Index	98				
Patching Index	100				
Rutting Index	95				
Roughness Condition Index (RCI)	NC				

NOTES:  
 Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.  
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.  
 NC - Not Collected    N/A - Not Applicable



ROUTE: 0237 CLIFF PARK ENTRANCE ROAD



PCR    Poor ■    Fair ■    Good ■    Excellent ■    No Data ■  
           (0 - 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.

**ROUTE: 0601 STRUBLE ROAD**

**DEWA : DELAWARE WATER GAP NATIONAL RECREATION AREA**

**COLLECTED: 4/14/2013**  
**TOTAL LENGTH: 0.41 Miles**

**NORTHEAST REGION**

<b>Section Number</b>	0				
<b>Section Length (mi)</b>	0.41				
<b>Cross Section Information</b>					
Number of Lanes	2				
Paved Width (ft)	16				
Lane Width (ft)	8				
<b>Roadway Condition Information</b>					
SCR (Surface Condition Rating)	90				
PCR (Pavement Condition Rating)	78				
<b>Distress Index Values</b>					
Structural Crack Index	100				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	90				
Roughness Condition Index (RCI)	59				

**NOTES:**

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected    N/A - Not Applicable

**ROUTE: 0601 STRUBLE ROAD**

**Section 6**  
**Manually Rated Paved Route**  
**Condition Rating Sheets**



Delaware Water Gap National Recreation Area



**Federal Lands Highway**  
**Road Inventory Program**

# DELAWARE WATER GAP NATIONAL RECREATION AREA

## Route 0600

MAIN STREET (WALPACK)

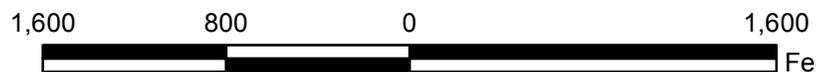
FROM ROUTE 0113 (NPS ROUTE 615)

TO INTERSECTION OF ROUTE 0108 (MOUNTAIN ROAD),

ROUTE 0601 (STRUBLE ROAD) AND BROOK ROAD

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Paved Length (mi)	Paved Width (ft)
0600	PUBLIC	4/14/2013	60,720	1.05	0.58	20
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR	Surface Type
0	0	0	NO CURB AND GUTTER	NO CURB	GOOD/90	AS

\* Lane miles are based on 11' lane widths



# Section 7

## Parking Area

### Condition Rating Sheets



Delaware Water Gap National Recreation Area



Federal Lands Highway  
Road Inventory Program

# DELAWARE WATER GAP NATIONAL RECREATION AREA

## Route 0915

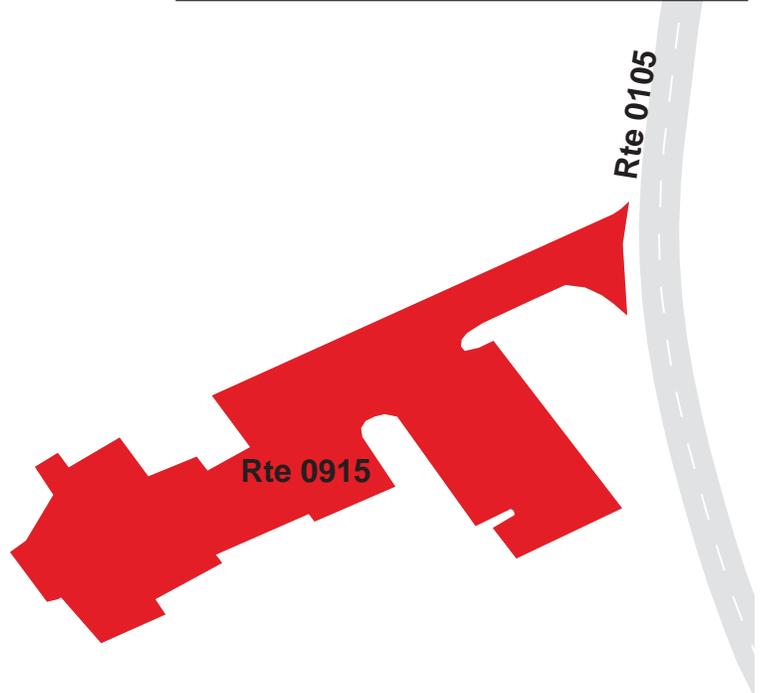
### BUSHKILL MAINTENANCE AREA

FROM ROUTE 0105 (RIVER ROAD) AT MP 5.67 (ON LEFT)

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0915	NONPUBLIC	10/4/2012	30,412	0.52	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	2	1	NO CURB AND GUTTER	NO CURB	POOR/45

\* Lane miles are based on 11' lane widths



# DELAWARE WATER GAP NATIONAL RECREATION AREA

## Route 0931ZZ

### PEEC COMPLEX PARKING AREAS

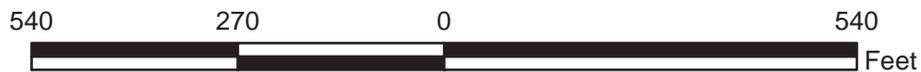
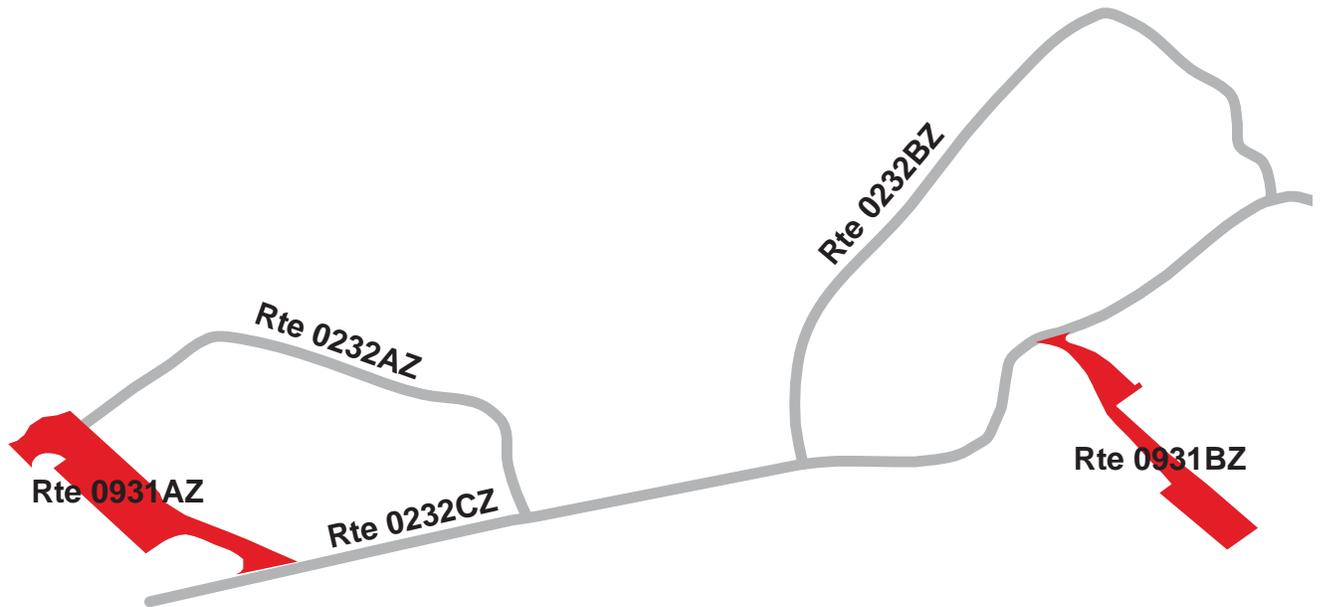
FROM ROUTE 0232ZZ (PEEC CABIN ACCESS ROADS)

TO PARKING

Summary Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0931ZZ	PUBLIC	4/13/2013	23,907	0.41	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
1	2	0	NO CURB AND GUTTER	CONCRETE CURB	SUMMARY/90

\* Lane miles are based on 11' lane widths



# DELAWARE WATER GAP NATIONAL RECREATION AREA

## Route 0931AZ

### PEEC COMPLEX REGISTRATION PARKING

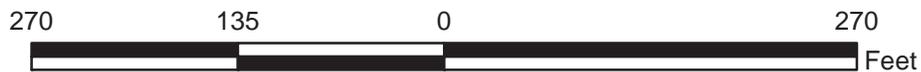
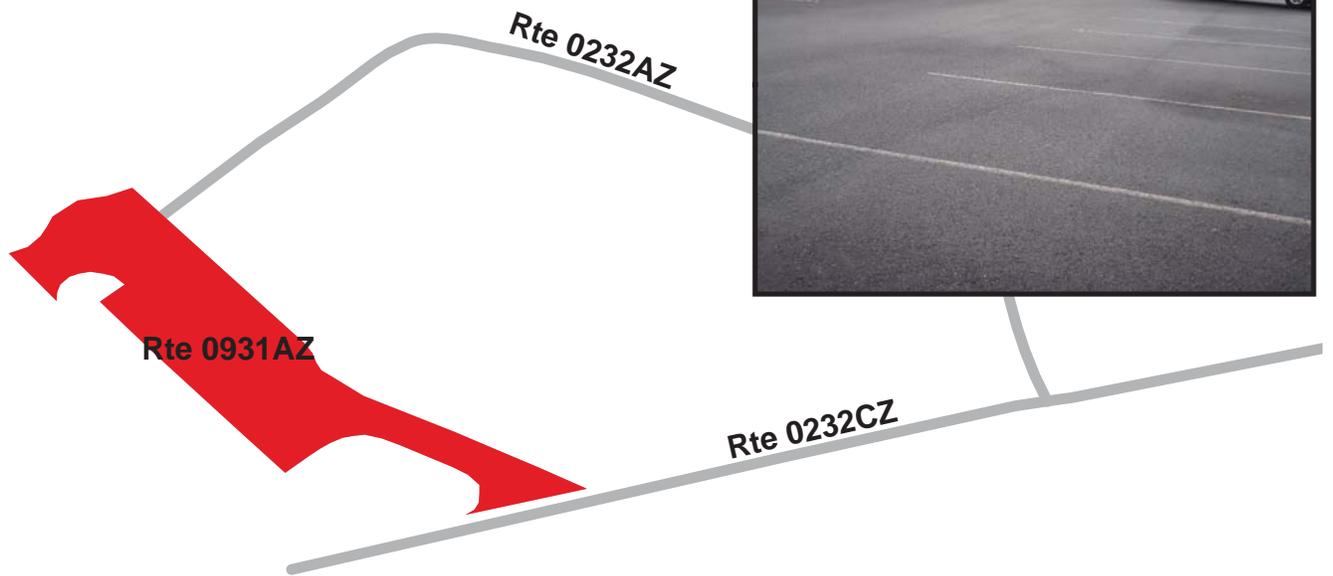
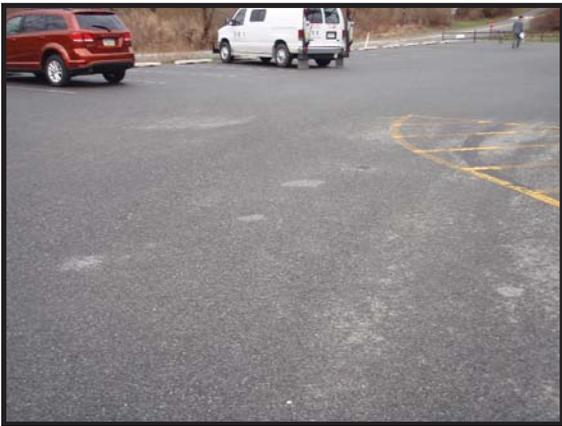
FROM EMERY ROAD ON RIGHT

TO ROUTE 0232CZ (PEEC CABIN ACCESS)

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0931AZ	PUBLIC	4/13/2013	14,702	0.25	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
1	1	0	NO CURB AND GUTTER	CONCRETE CURB	GOOD/90

\* Lane miles are based on 11' lane widths



# DELAWARE WATER GAP NATIONAL RECREATION AREA

## Route 0931BZ

PEEC COMPLEX DINING HALL PARKING

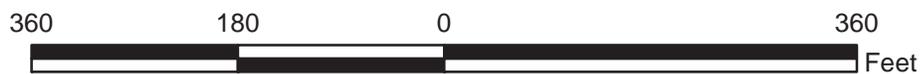
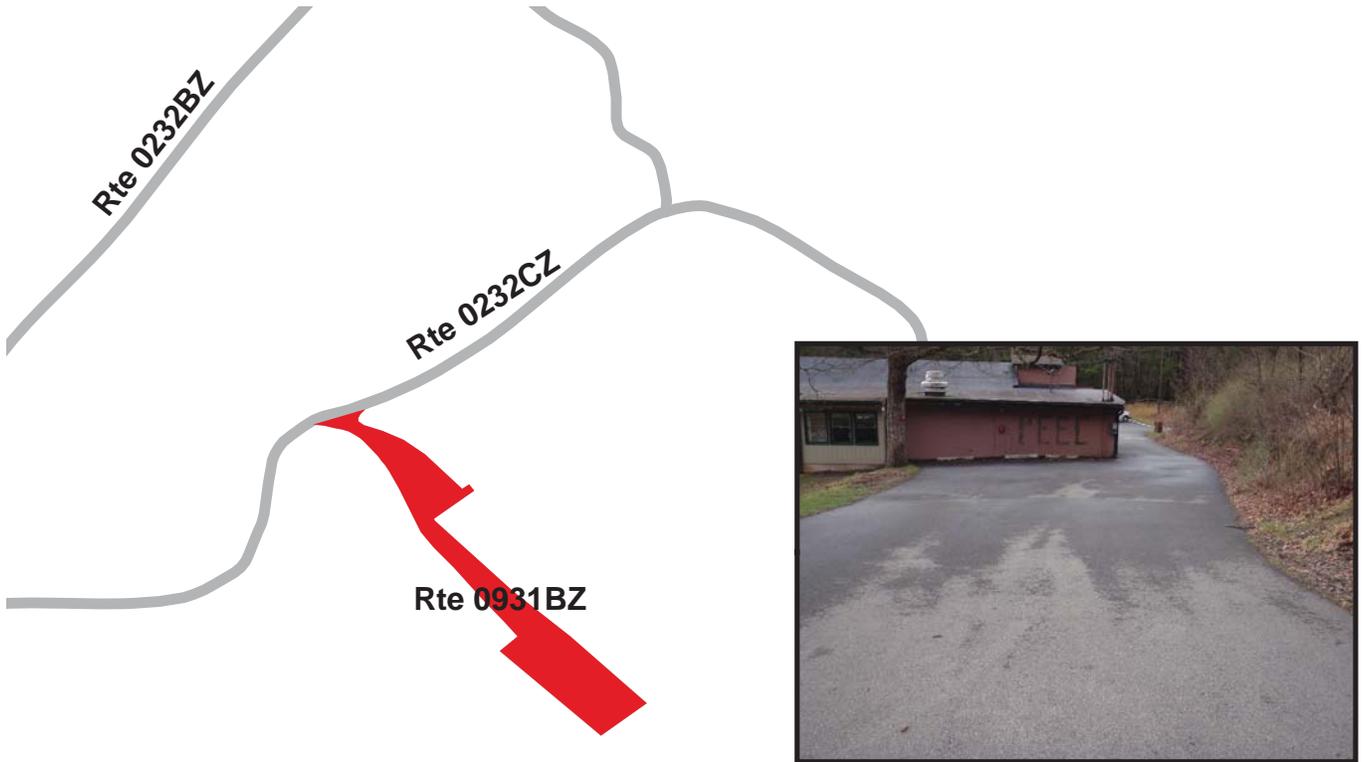
FROM ROUTE 0232CZ (PEEC CABIN ACCESS)

TO PARKING

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0931BZ	PUBLIC	4/13/2013	9,205	0.16	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	1	0	NO CURB AND GUTTER	NO CURB	GOOD/90

\* Lane miles are based on 11' lane widths



# DELAWARE WATER GAP NATIONAL RECREATION AREA

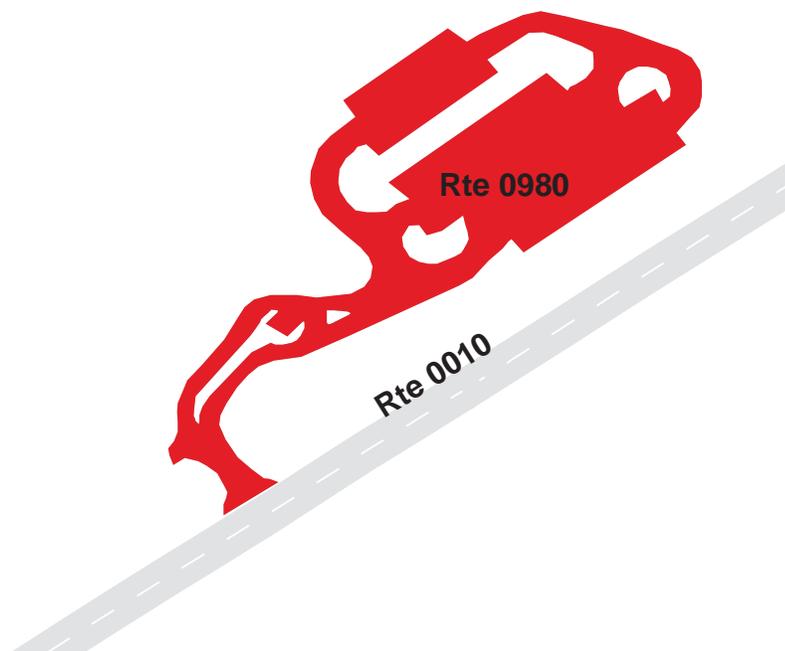
## Route 0980

### TURTLE BEACH PARKING

FROM ROUTE 0010 (OLD MINE ROAD (SOUTH SECTION))  
TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0980	PUBLIC	10/3/2012	63,193	1.09	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	2	4	NO CURB AND GUTTER	NO CURB	GOOD/90

\* Lane miles are based on 11' lane widths



# Section 8

## Route Maintenance Features Summaries



Delaware Water Gap National Recreation Area



Federal Lands Highway  
Road Inventory Program

# DEWA: DCV ROUTE MAINTENANCE FEATURES SUMMARY

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all new or re-aligned DCV driven routes.

FEATURE	ROUTE 0237 CLIFF PARK ENTRANCE ROAD	ROUTE 0601 STRUBLE ROAD	UNIT
BRIDGE	0	0	EACH
CATTLE GUARD	0	0	EACH
CULVERT	4	2	EACH
CURB	0	0	LINEAR FEET
DROP INLET	0	0	EACH
GATE	1	1	EACH
GUARD/GUIDE RAIL	0	0	LINEAR FEET
CABLE	0	0	LINEAR FEET
NON-CABLE	0	0	LINEAR FEET
GUARD/GUIDE WALL	0	0	LINEAR FEET
BOLLARD	0	0	LINEAR FEET
TEMPORARY BARRIER	0	0	LINEAR FEET
NON TEMP/BOLLARD	0	0	LINEAR FEET
INTERSECTION	6	3	EACH
LOW WATER CROSSING	0	0	EACH
LOW WATER CROSSING	0	0	LINEAR FEET
MILE MARKER	0	0	EACH
OVERPASS	0	0	EACH
PARK BOUNDARY	0	0	EACH
PAVED DITCH	0	0	LINEAR FEET
PULLOUT	0	0	EACH
PULLOUT	0	0	LINEAR FEET
RAILROAD CROSSING	0	0	EACH
RETAINING WALL	0	0	EACH
RETAINING WALL	0	0	LINEAR FEET
SIGN	14	1	EACH
STATE BOUNDARY	0	0	EACH
TRAFFIC LIGHT	0	0	EACH
TUNNEL	0	0	EACH
TUNNEL	0	0	LINEAR FEET

## **STRUCTURE LIST**

This park is classified as a large park. Therefore, in Cycle 5, BIP-Structures were inventoried only if they were located along routes that were modified or previously uncollected by RIP, so this report does not provide an all-inclusive listing of all BIP-Structures in the park.

**Section 9**  
**Route Maintenance Features**  
**Road Logs**



Delaware Water Gap National Recreation Area



**Federal Lands Highway  
Road Inventory Program**

# DEWA: ROUTE MAINTENANCE FEATURES ROAD LOG

## ROUTE 0237: CLIFF PARK ENTRANCE ROAD

**Notice:** Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all new or re-aligned DCV driven routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 5005 (MILFORD ROAD / STATE ROUTE 2001) APPROX. 1.1 MI NORTH OF RAYMONDSKILL ROAD
0.000	0.000	INTERSECTION	RIGHT	ROUTE 5005 (MILFORD ROAD / STATE ROUTE 2001)
0.000	0.000	INTERSECTION	LEFT	ROUTE 5005 (MILFORD ROAD / STATE ROUTE 2001)
0.010	0.010	SIGN	LEFT	REGULATORY, STOP
0.074	0.074	CULVERT	N/A	N/A
0.100	0.100	CULVERT	N/A	N/A
0.148	0.148	CULVERT	N/A	N/A
0.158	0.158	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.158	0.158	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.159	0.159	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.159	0.159	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.162	0.162	INTERSECTION	RIGHT	UNPAVED PARKING / NON NPS
0.170	0.170	SIGN	RIGHT	GUIDE, GOLF COURSE CLOSED
0.170	0.170	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.171	0.171	GATE	N/A	N/A
0.175	0.175	CULVERT	N/A	N/A
0.175	0.175	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.295	0.295	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.322	0.322	SIGN	LEFT	WARNING, CAUTION YIELD TO GOLFERS
0.322	0.322	SIGN	LEFT	REGULATORY, SPEED LIMIT 15
0.457	0.457	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.458	0.458	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.462	0.462	INTERSECTION	LEFT	PAVED PARKING / NON NPS
0.475	0.475	INTERSECTION	LEFT	PAVED PARKING / NON NPS
0.520	0.520	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.520	0.520	INTERSECTION	N/A	TO END
0.520	0.520	ROUTE END	N/A	TO CLIFF PARK INN

# DEWA: ROUTE MAINTENANCE FEATURES ROAD LOG

## ROUTE 0601: STRUBLE ROAD

**Notice:** Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all new or re-aligned DCV driven routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM END OF ROUTE 5017 (STRUBLE ROAD / NON NPS)
0.000	0.000	INTERSECTION	N/A	ROUTE 5017 (STRUBLE ROAD / NON NPS)
0.088	0.088	CULVERT	N/A	N/A
0.325	0.325	CULVERT	N/A	N/A
0.395	0.395	SIGN	LEFT	GUIDE, STOKES STATE FOREST NO PARKING ON FOREST LANDS OR ROADS 10:00 PM 5:00 AM ALCOHOL BEVERAGES PROHIBIT
0.401	0.401	GATE	N/A	N/A
0.407	0.407	INTERSECTION	LEFT	PAVED ROUTE (BROOK ROAD)/ NON NPS
0.407	0.407	INTERSECTION	RIGHT	ROUTE 0108 (MOUNTAIN ROAD)
0.407	0.407	ROUTE END	N/A	TO INTERSECTION OF ROUTE 0108 (MOUNTAIN ROAD), ROUTE 0600 (MAIN STREET (WALPACK)) AND BROOK ROAD

# Section 10 Appendix



Delaware Water Gap National Recreation Area



Federal Lands Highway  
Road Inventory Program

## **Explanation of Changes to the RIP Index Equations and Determination of PCR**

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In 2005, the FHWA began implementing the use of a Pavement Management System to assist the National Park Service in prioritizing Pavement Maintenance and Rehabilitation activities. The PMS used by FHWA is the Highway Pavement Management Application (HPMA) and this software has the ability to store inventory and condition data from RIP and forecast future performance using prediction models. Outputs include performance and condition reports at the National, Region, Park, or Route level. A regional prioritized list and optimization have been produced for most regions and the Federal Highway Deferred Maintenance is calculated via the HPMA as well.

In an effort to improve the accuracy of treatment recommendations and pavement condition descriptions in relation to the distresses and indexes that comprise the Pavement Condition Rating (PCR), an extensive study was completed throughout 2010 that resulted in changes to the Road Inventory Program condition reporting method and specifically, the calculation of PCR. It was determined that a better representation of PCR could be achieved by modifying the relative impact certain distresses would have on the overall rating.

Through the use of HPMA data, it was noted that false failure indicators existed with the existing PCR model, and that it would be necessary to reduce their impact. The distresses affected in this way were Rutting and Roughness. Conversely, experience showed that roadways with extensive cracking present were often shown to have a high PCR. Therefore, the crack index models were adjusted to be more sensitive to changes in crack severity or quantity. It was also determined that these issues were not due to a problem with data acquisition (i.e. the RIP “van”), but with the way the collected data was processed. The final change was to provide guidance on when to use the Roughness Condition Index (RCI) in the PCR calculation. Roughness data is of little value to determining overall condition on routes that, due to their length or geometrics, have lower vehicle operating speeds. Therefore, in Cycle 5, only routes that have lengths of one half mile or greater and posted speed limits of 25 mph or greater will have RCI reported and included in the PCR calculations.

The changes that were implemented were endorsed by management at both the FHWA and NPS. In order to show the effectiveness of these changes, several sites were ground truth tested to ensure that an improvement was achieved between the relationship of PCR and the actual Maintenance and Rehabilitation needs that were represented. These changes will allow greater use of RIP and HPMA data for not simply condition data reporting, but also as a reliable tool for project identification and selection.

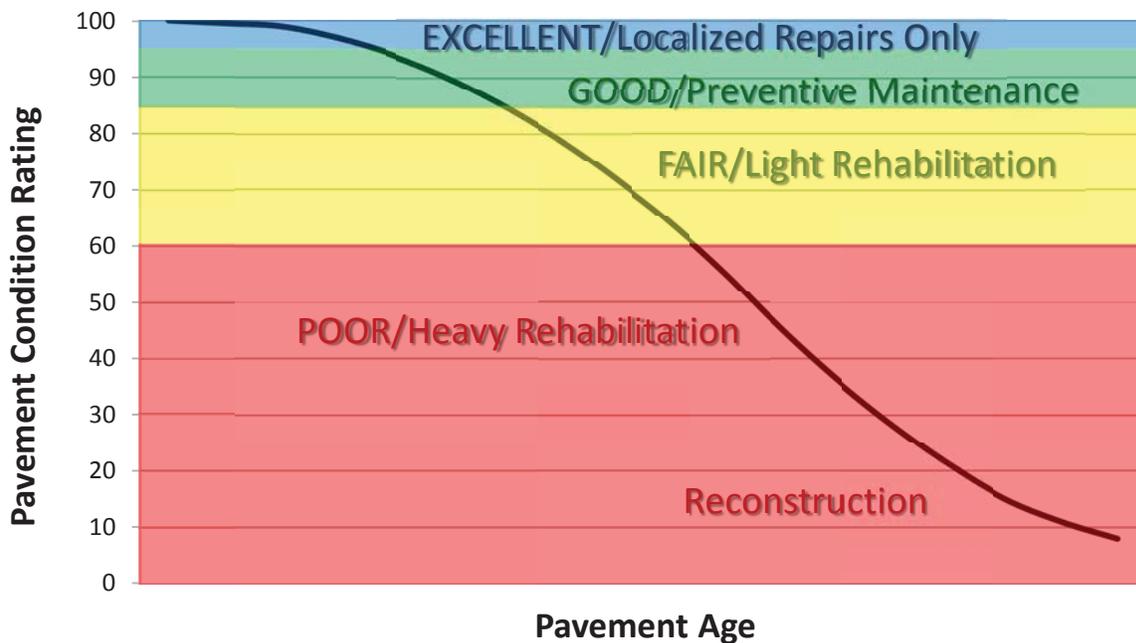
# Explanation of the Excellent, Good, Fair and Poor Condition Descriptions

In addition to the RIP Index changes that were implemented in Cycle 5, we will provide greater assistance in translating good/fair/poor categories into pavement needs categories. The PCR can be used to indicate the place in the Pavement Life Cycle and the types of treatments that should be considered now and into the future.

- Excellent/New: PCR of 95-100. Pavements in this range will require only spot repairs.
- Good: PCR of 85-94. Pavements in this range will likely be candidates for Preventive Maintenance. Examples include Chip and Slurry Seals, Micro Surfacing and Thin Overlays.
- Fair: PCR of 61-84. Pavements in this range will likely be candidates of Light Rehabilitation (L3R). Examples include single-lift overlays up to 2.5 inches in total thickness, milling and overlays.
- Poor: PCR of 60 or below. Pavements in this range will likely be candidates of Heavy Rehabilitation or Reconstruction (H3R or 4R). Examples include Pulverization, Multiple Lift Overlays, and Reconstruction.

Specific Maintenance and Rehabilitation activities should be evaluated and recommended at the project level. Site-specific conditions that influence treatment type should be determined based on performing a subsurface investigation and/or pavement condition survey, and not be based solely on RIP data. Additionally, RIP produces a snapshot of conditions the year in which the data was collected. For further information or to obtain additional Pavement Management System's data from our Highway Pavement Management Application (HPMA) please contact the Eastern Federal Lands pavement team.

## Condition Categories and Treatments



## DESCRIPTION OF RATING SYSTEM

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The Federal Highway Administration (FHWA), National Park Service Road Inventory Program (NPS-RIP), collects condition data on paved roads, parkways, and parking areas in park units nationwide. Road surface condition data is collected using an automated Data Collection Vehicle (DCV). Roads having brick, cobblestone, or wood surfaces are not normally surveyed with the DCV, but are manually rated for the purpose of assigning a condition rating. Unpaved roads, parkways, and parking areas are not currently being evaluated for condition. Paved campground pads and driveways are also not currently being evaluated for condition.

The FHWA RIP is implemented based on the premise that an accurate pavement surface condition assessment can be accomplished using automated crack detection technology as applied to digital images. Various methods of pavement condition assessment have been developed over the years with varying degrees of accuracy and acceptance. The use of digital photography to record pavement images and subsequent crack detection and classification has undergone continuous improvements over the past decade. Digital cameras with increasingly superior resolution and high definition have become more affordable, and the proprietary programming code and algorithms have been improved in crack detection software.

With the use of high quality digital photography and automated crack detection software, FHWA RIP is tasked with executing a pavement condition assessment on about 5000 miles of National Park Service roads and parkways. Foremost in setting up the basis of pavement distress identification is employing the distress identification protocols used by FHWA. There is no single distress identification system that is universal among entities conducting a program of distress identification. For the purpose of the NPS-RIP, FHWA employs distress identification protocols that are specific to this program.

FHWA has referenced the “*Distress Identification Manual for the Long-Term Pavement Performance Program*”, Publication No. FHWA-RD 03-031, June 2003, as the point-of-reference for distress types on NPS pavement. The FHWA RIP distress types are similar to those described in the LTPP manual with some modifications. The document, “*Distress Identification Manual for the NPS Road Inventory Program, Cycle 5, 2010-2013*” was developed using the “*Distress Identification Manual for the Long-Term Pavement Performance Program*” as a guideline. Definitions of severity levels based on crack width contained in this document adhere to the LTPP Distress ID Manual. Modifications have been made to the definition of Alligator and Longitudinal Cracking and determination of Alligator Cracking severity. This manual also addresses Rutting and Roughness and its application to NPS-RIP.

In 2010, FHWA RIP began the fifth cycle of data collection in national parks. For Cycle 5, data will be collected in approximately 81 large parks (10 or more paved route miles) on Functional Class 1, 2, and 7 routes plus any new routes or parking areas previously not collected, totaling an estimated 4,459 paved route miles. Additionally, 231 small parks will be collected comprising approximately 529 paved route miles and associated paved parking areas. The data is used to support the National Park Service road maintenance program and Pavement Management System (PMS) developed and maintained by FHWA.

This “*Distress Identification Manual for the NPS Road Inventory Program, Cycle 5, 2010-2013*” will be used as a reference resource in crack detection and classification, determination of distress severity and extent, and in the calculation of distress index values for the FHWA RIP Cycle 5.

# **SURFACE DISTRESSES**

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## **Surface Condition Rating - SCR**

Surface distresses are measured in the primary lane only. In the classification and measurement of all paved surface condition data, results will be reported in the database in record intervals of 0.02 miles (105.6 feet) (smallest granularity) along the route.

### **Surface distresses determined from digital images**

- Transverse Cracks
- Longitudinal Cracks
- Alligator Cracks
- Patching/Potholes

### **Surface distress measured by DCV (Data Collection Vehicle) LRMS (Laser Rut Measuring System)**

- Rutting

### **Each of the five surface distresses is assigned a computed surface distress index**

- Transverse Crack Index
- Longitudinal Crack Index
- Alligator Crack Index
- Patching/Pothole Index
- Rutting Index

Surface distress data are classified as listed above, measured for severity, and quantified for extent. Classification, severity, and extent of these five surface distresses comprise the three main elements for calculation of SCR (Surface Condition Rating).

In addition to the five surface distresses, a **Structural Crack Index** is computed, which is a combination of the Longitudinal Crack Index and the Alligator Crack Index. The Structural Crack Index is then used in lieu of the LC and AC indices to compute SCR.

## **Roughness Condition Index - RCI**

### **Additional condition data measured by DCV (lasers and accelerometers)**

- Roughness (IRI)

Roughness is measured by FHWA's DCV and reported as International Roughness Index (IRI) in inches/mile. Using IRI, the Roughness Condition Index (RCI) is computed.

## **Pavement Condition Rating - PCR**

Using the SCR (computed from the five surface distresses) and the RCI, an overall Pavement Condition Rating (PCR) is computed. The formula for PCR is:

$$\text{Asphalt PCR} = (0.60 * \text{SCR}) + (0.40 * \text{RCI})$$

$$\text{Concrete PCR} = \text{RCI}$$

A detailed description of each distress index formula, roughness index formula, SCR and PCR is provided in this document beginning on page 8.

Each classified surface distress will fall into one or more *severity*...LOW, MEDIUM, or HIGH based on criteria listed. For each severity, an *extent* is established based on the measured quantity of the distress within that severity. Within each *severity* individual distresses are assigned a *Maximum Allowable Extent* (MAE). For example, LOW severity transverse cracking may be allowed up to 21.1 cracks within a 0.02 interval before it reaches MAE and fails.

The index formulas are based on a scale of 0-100. A PCR index value of 100 would indicate a “new” road with no measurable distresses or rough ride. A PCR value of 60 is determined to be *terminable serviceability* and the road is considered failed. The range of index values with condition descriptors is:

POOR (<=60), FAIR (61 - 84), GOOD (85 - 94), EXCELLENT (95 - 100)

Index values are generally computed based on cumulative deducts of the measured severities. As shown in the index formulas below, as any single severity reaches or exceeds MAE, the index computes to a value of 60 or less, and the road fails for that 0.02 interval.

**Note:** As a result of a unique combination of measured surface distresses and IRI, index values occasionally compute to less than 0 or greater than 100. In this instance, an index value < 0 defaults to 0. Index values > 100 default to 100. For all indices, a higher value indicates a better road condition, and a lower value indicates a poorer road condition.

On the following page, Table 1 summarizes the different types of distresses measured.

**TABLE 1: Distress Summary**

<b>ASPHALT-SURFACED PAVEMENT DISTRESS TYPES with RUTTING and ROUGHNESS</b>				
<b>DISTRESS TYPE</b>	<b>UNIT OF MEASURE...</b>	<b>...CONVERTED TO</b>	<b>DEFINED SEVERITY LEVELS?</b>	<b>MEASURED BY</b>
<b>Alligator Cracking</b>	<b>Square Feet</b>	<b>Percent of Lane Per 0.02 Mile</b>	<b>Yes</b>	<b>Digital Image Crack Detection Software</b>
<b>Transverse Cracking</b>	<b>Linear Feet</b>	<b>Number of Cracks Per 0.02 Mile</b>	<b>Yes</b>	<b>Digital Image Crack Detection Software</b>
<b>Longitudinal Cracking</b>	<b>Linear feet</b>	<b>Percent of Lane Length Per 0.02 Mile</b>	<b>Yes</b>	<b>Digital Image Crack Detection Software</b>
<b>Patching/Potholes</b>	<b>Square Feet</b>	<b>Percent of Lane Per 0.02 Mile</b>	<b>No</b>	<b>Digital Image Crack Detection Software</b>
<b>Rutting</b>	<b>Inches</b>	<b>Rut Depth Per 0.02 Mile</b>	<b>Yes</b>	<b>DCV – Laser Rut Measuring System (LRMS)</b>
<b>Roughness</b>	<b>IRI</b>	<b>*RCI Per 0.02 Mile</b>	<b>No</b>	<b>DCV – Lasers /Accelerometers</b>

**\*Note: Roughness is measured on concrete roadways, but surface distresses and rutting are not measured. For concrete, PCR = RCI**

# **ALLIGATOR CRACKING**

## **Description**

Alligator cracking is considered a combination of fatigue and block cracking. It is a series of interconnected cracks in various stages of development. Alligator cracking develops into a many-sided pattern that resembles chicken wire or alligator skin. It can occur anywhere in the road lane. Alligator cracking must have a quantifiable area.

## **Severity Levels**

### **LOW**

An area of cracks with no or very few interconnecting cracks and the cracks are not spalled. Cracks are  $\leq 0.25$  in (6mm) in mean width. Cracks in the pattern are no further apart than 1 foot (0.328 m). May be sealed cracks with sealant in good condition and a crack width that cannot be determined.

### **MEDIUM**

An area of interconnected cracks that form a complete pattern. Cracks may be slightly spalled. Cracks are  $>0.25$  in. (6 mm) and  $\leq 0.75$  in. (19 mm) or any crack with a mean width  $\leq 19$  mm and adjacent low severity cracking. Cracks in the pattern are no further apart than 6 in. (150 mm).

### **HIGH**

An area of interconnected cracks forming a complete pattern. Cracks are moderately or severely spalled. Cracks are  $>0.75$  in (19mm) or any crack with a mean width  $\leq 0.75$  in (19mm) and adjacent medium to high severity random cracking.

A combination of observed crack width and crack pattern is used to determine overall severity of alligator cracking. Based on above description of each severity, the highest level of crack width and crack pattern determines overall severity. Table 2 illustrates this.

**TABLE 2: Alligator Crack Severity Levels**

<b>ALLIGATOR CRACKING SEVERITY LEVELS</b>		<b>Crack Pattern</b>		
		<b>LOW</b>	<b>MED</b>	<b>HIGH</b>
<b>Crack Width</b>	<b>LOW</b>	L	M	H
	<b>MED</b>	M	M	H
	<b>HI</b>	H	H	H

## **LONGITUDINAL CRACKING**

### **Description**

Longitudinal cracking occurs predominantly parallel to the pavement centerline. It can occur anywhere within the lane. Longitudinal cracks occurring in the wheelpath may be noteworthy.

### **Severity Levels**

#### **LOW**

Cracks with a mean width of  $< 0.25$  in. (6 mm). Sealed cracks with sealant in good condition and a width that cannot be determined.

#### **MED**

Cracks with a mean width  $> 0.25$  in. (6 mm) and  $\leq 0.75$  in. (19 mm). Also, any crack with a mean width  $< 0.75$  in. (19 mm) and adjacent random low severity cracking.

#### **HIGH**

Cracks with a mean width  $> 0.75$  in. (19 mm). Also, any crack with a mean width  $< 0.75$  in. (19 mm) and adjacent random medium to high severity cracking.

## **TRANSVERSE CRACKING**

### **Description**

Transverse cracking occurs predominantly perpendicular to the pavement centerline. It can occur anywhere within the lane.

### **Severity Levels**

#### **LOW**

Cracks with a mean width of  $< 0.25$  in. (6 mm). Sealed cracks with sealant in good condition and a width that cannot be determined.

#### **MED**

Cracks with a mean width  $> 0.25$  in. (6 mm) and  $\leq 0.75$  in. (19 mm). Also, any crack with a mean width  $< 0.75$  in. (19 mm) and adjacent random low severity cracking.

#### **HIGH**

Cracks with a mean width  $> 0.75$  in. (19 mm). Also, any crack with a mean width  $< 0.75$  in. (19 mm) and adjacent random medium to high severity cracking.

## **PATCHING AND POTHOLES**

### **Description**

Patching is an area of pavement surface that has been removed and replaced with patching material or an area of pavement surface that has had additional patching material applied. Patching may encompass partial-lane or full-lane width. On full-lane width patching; the total, contiguous length of a patch may not exceed 0.30 mi. (0.48 km). Any full-lane width patch exceeding 0.30 mi. in length is considered a pavement change, not a patch for the purposes of distress analysis. Patching must have a quantifiable area.

Potholes are bowl-shaped holes of various sizes occurring in the pavement surface.

### **Severity Levels**

There are no stratified severities for Patching/Potholes. They either are present or they are not.

## **RUTTING**

### **Description**

Rutting is a longitudinal surface depression in the wheelpath.

### **Severity Levels**

#### **LOW**

Ruts with a measured depth  $\geq 0.20''$  and  $\leq 0.49''$

#### **MED**

Ruts with a measured depth  $\geq 0.50''$  and  $\leq 0.99''$

#### **HIGH**

Ruts with a measured depth  $\geq 1.00''$

Ruts  $< 0.20''$  are not included in the distress calculations.

## **ROUGHNESS**

### **Description**

Roughness is the measurement of the unevenness of the pavement in the direction of travel. It is measured in units of IRI (International Roughness Index), inches per mile, and is indicative of ride comfort.

### **Severity Levels**

There are no stratified severity levels for roughness. The roughness (or smoothness) of a road surface can be defined by IRI in the following table.

**TABLE 3: IRI**

<b>IRI Descriptions</b>	
<b>Type of Road</b>	<b>Typical IRI ( in/mile )</b>
New Road, no noticeable roughness	<90
Small level of roughness	90 – 126
Road of average roughness	126 – 190
Road with above average roughness	190 – 253
Road with severe roughness	253 – 380
Nearly impassable	>380

## INDEX FORMULAS

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Note: All index formulas listed below contain MAE applicable to 0.02 mile (105.6 feet) interval.

### Alligator Crack Index

$$AC\_INDEX = 100 - 40 * [(\%LOW / 35) + (\%MED / 15) + (\%HI / 5)]$$

Where:

The values *%LOW*, *%MED* and *%HI* report the percentage of the observed pavement (0.02 mile, primary lane) that contains alligator cracking within the respective severities. These values range from 0 to 100.

*%LOW* = Percent of total area (primary lane, 0.02 in length), low severity

*%MED* = Percent of total area (primary lane, 0.02 in length), medium severity

*%HI* = Percent of total area (primary lane, 0.02 in length), high severity

Percent of total area is computed as:

$$\frac{\text{square foot area of alligator crack severity}}{0.02 \text{ mile} * \text{lane width}}$$

In AC\_INDEX, the denominators 35, 15, and 5 are the Maximum Allowable Extents (MAE) for each severity. In other words, we will allow up to 35% of low severity alligator cracking for a 0.02 interval before failure, 15% for medium severity, and so on. As you can see, if any single severity reaches MAE the resulting index value is 60, or failure.

### Longitudinal Crack Index

$$LC\_INDEX = 100 - 40 * [(\%LOW / 175) + (\%MED / 75) + (\%HI / 25)]$$

Where:

The values *%LOW*, *%MED*, and *%HI* report the length of longitudinal cracking within each severity as a percent of the section length (0.02 mile, primary lane).

These values are  $\geq 0$  and can exceed 100.

*%LOW* = Percent of interval length (primary lane, 0.02 in length), low severity

*%MED* = Percent of interval length (primary lane, 0.02 in length), medium severity

*%HI* = Percent of interval length (primary lane, 0.02 in length), high severity

Percent of interval length is computed as:

$$\frac{\text{length of respective longitudinal cracking}}{0.02 \text{ mile (105.6 feet)}}$$

In LC\_INDEX, the denominators 175, 75, and 25 are the Maximum Allowable Extents (MAE) for each severity. In other words, we will allow up to 175% of low severity alligator cracking for a 0.02 interval before failure, 75% for medium severity, and so on. As you can see, if any single severity reaches MAE the resulting index value is 60, or failure.

### **Structural Crack Index**

$$SC\_INDEX = [100 - ((100 - AC\_INDEX) + (100 - LC\_INDEX))]$$

**Structural Crack Index** is a combination of Alligator Cracking and Longitudinal Cracking, and is used in the SCR formula in lieu of AC and LC separately.

### **Transverse Crack Index**

$$TC\_INDEX = 100 - 40 * [(LOW / 21.1) + (MED / 4.4) + (HI / 2.6)]$$

Where:

The values *LOW*, *MED* and *HI* report a count of the total number of transverse cracks (reported to three decimals) within each severity level, where one transverse crack is equal to the lane width. These values are  $\geq 0$ .

LOW = Number of cracks in interval (primary lane, 0.02 in length), low severity

MED = Number of cracks in interval (primary lane, 0.02 in length), medium severity

HI = Number of cracks in interval (primary lane, 0.02 in length), high severity

Number of cracks is computed as:

$$\frac{\text{Total length of transverse cracks}}{\text{Lane width}}$$

In TC\_INDEX, the denominators 21.1, 4.4, and 2.6 are the Maximum Allowable Extents (MAE) for each severity. In other words, we will allow up to 21.1 low severity transverse cracks for a 0.02 interval before failure, 4.4 cracks for medium severity, and so on. As you can see, if any single severity reaches MAE the resulting index value is 60, or failure.

## **Patching Index**

$$\text{PATCH\_INDEX} = 100 - 40 * (\% \text{PATCHING} / 80)$$

Where:

The value *%PATCHING* reports the percentage of the observed pavement (0.02 mile, primary lane) that contains patching/potholes. This value ranges from 0 to 100.

*%PATCHING* = Percent of total area (primary lane, 0.02 in length)

Percent of total area is computed as:

$$\frac{\text{square foot area of patching/potholes}}{0.02 \text{ mile} * \text{lane width}}$$

There are no severity levels for patching. It either exists or does not.

In PATCH\_INDEX, the denominator 80 is the Maximum Allowable Extent (MAE) for each severity. In other words, we will allow up to 80% patching for a 0.02 interval before failure. As you can see, if patching/potholes reaches MAE the resulting index value is 60, or failure.

## **Rutting Index**

$$\text{RUT\_INDEX} = 100 - 40 * [(\% \text{LOW} / 535) + (\% \text{MED} / 205) + (\% \text{HI} / 40)]$$

Where:

20 rut depth measurements are taken per 0.02 interval for each of 2 wheel paths (left and right), resulting in a total of 40 measurements taken for both wheel paths. *Each wheelpath is analyzed independently for rut severities.* The values *%LOW*, *%MED* and *%HI* are a *total percentage* of left wheelpath percentage and right wheelpath percentage added together for the respective severity. These values range from 0 to 200.

*%LOW* = Percent of LOW ruts in left wheelpath based on 20 ruts, plus percent of LOW ruts in right wheelpath based on 20 ruts.

*%MED* = Percent of MED ruts in left wheelpath based on 20 ruts, plus percent of MED ruts in right wheelpath based on 20 ruts.

*%HI* = Percent of HI ruts in left wheelpath based on 20 ruts, plus percent of HI ruts in right wheelpath based on 20 ruts.

Percent of rut measurements within each severity can also be computed as:

$$\frac{\text{total number of ruts within each severity in both wheelpaths}}{20} * 100$$

In RUT\_INDEX, the denominators 535, 205, and 40 are the Maximum Allowable Extents for each severity. In other words, the formula allows up to 535% low severity

ruts for a 0.02 interval before. However, since 200 is the highest measurable percentage allowed, 535% is unattainable and therefore, no amount of LOW severity rutting will cause the RUT\_INDEX to fail a road. Similarly, since the MAE for MED severity rutting is 205, no amount of MED severity rutting will cause the RUT\_INDEX to reach 60 and fail the road. As you can see, LOW severity rutting reaches MAE the resulting index value is 60, or failure. This formula was intentionally designed to minimize the impact of LOW and MED severity rutting on RUT\_INDEX.

### **Roughness Condition Index (Asphalt)**

$$RCI = 32 * [5 * (2.718282 ^ {(-0.0041 * AVG IRI)})]$$

Where:

The value *AVG IRI* reports the average value of the Left IRI and Right IRI measurements for the interval (0.02 mile, primary lane). This value can range from approximately 40 to 999.0.

Average IRI is computed as:

$$\frac{\text{Left wheelpath IRI} + \text{Right wheelpath IRI}}{2}$$

There is no applicable threshold for failure for this index.

### **Roughness Condition Index (Concrete)**

$$RCI = -0.0012(IRI^2) + 0.0499(IRI) + 99.542$$

For concrete, PCR = RCI

### **Surface Condition Rating Index**

**SCR** = *Lowest* Index Value Of: [SC\_INDEX, TC\_INDEX, PATCH\_INDEX, RUT\_INDEX]

*Note: The modified SCR equation above combines AC\_INDEX and LC\_INDEX, and considers that a single AC/LC index value of the Structural Crack Index (SC\_INDEX). The lowest of the four computed index values (SC\_INDEX, TC\_INDEX, PATCH\_INDEX, or RUT\_INDEX) becomes the SCR.*

Where:

See above for determinations of SC\_INDEX, TC\_INDEX, PATCH\_INDEX and RUT\_INDEX.

The threshold for failure for this index is SCR = 60.

## Data Collection Vehicle Subsystems

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Data on paved roads in Cycle 5 is collected by FHWA using a Pathway Services Inc. Data Collection Vehicle (DCV), called PathRunner. The DCV is driven in the primary-direction lane at posted speed limits and less.

### CAMERAS

Forward-facing and rear-facing video is collected as .jpg digital imagery at a frequency of 26.4 feet.

Two forward-facing cameras are mounted above the vehicle cab, one pointed straight ahead and the other to the right shoulder providing seamless 120 degree viewing.

<b>CAMERA SPECIFICATIONS</b> <b>Two Forward/ One Rear Facing</b>	
Camera lens/type	FUJINON CCTV LENS H16x10B-Y41
Focal length	10 mm – 160 mm
Image size	8.8 mm x 6.6mm
Image format	*.jpg
Image resolution	HD 2000 X 1200
Image pixel size	depends on distance
Zoom ratio	16x
Max Relative Aperture	1:2.5
Iris range	F25-T800 (Equivalent to F800)

Pavement images are created using a Laser Scan Imaging System. This system is composed of a single high resolution line-scan camera and two lasers configured to image an approximate 11-foot wide lane with 1 mm resolution.

<b>CAMERA SPECIFICATIONS</b> <b>Pavement Line Scan</b>	
Image size	4280 pixels/line
Image width	4 meters (3950 mm nominal)
Laser class	3B
Power	250W
Vehicle speed limitations	62 mph
Environment	Dry pavement, day or night
Sensor size (approx)	300 mm(H) x 375 mm(L) x 200 mm(D)
Image frame length	26.4 feet

### **DMI (Distance Measuring Instrument)**

The DMI (Distance Measuring Instrument) obtains road length measurements that are accurate to 0.1% for speeds up to 60 mph. The DMI is connected to the hub of the rear wheel on the driver's side, and is calibrated to the revolutions of the rear vehicle axle on a regular basis.

### **ROUGHNESS (IRI)**

The collection system includes a South Dakota type laser profiler manufactured based on active Class 1 ASTM E950 standards. The dynamic profile of the pavement surface is collected from which the IRI roughness data is computed. The sensors include one accelerometer on each wheelpath, one height sensor (laser) on each wheelpath, and a distance transducer.

<b>IRI SPECIFICATIONS</b>	
Reported IRI units	Inches/mile
Vehicle speed limitations	12-62 mph
IRI equipment certification	Texas Transportation Institute (TTI)
Wavelengths accommodated	6 in. – 300 feet
IRI computed & reported	World Bank Technical Paper Number 46
Environment	Dry pavement, day or night, above 32 degrees F
Adherence to specifications	ASTM E950-98 (2004), ASTM E 1926-08, AASHTO MP 11-08, AASHTO PP 49-08

### **RUTTING**

Rutting depths are measured using an INO Laser Rut Measurement System (LRMS). This system is a transverse profiling device that detects and characterizes pavement rutting. The LRMS can acquire full 4 meter width profiles of a pavement lane at normal traffic speeds and uses two laser profilers that digitize transverse sections of the pavement.

<b>RUTTING SPECIFICATIONS</b>	
Reported rut depth units	Inches
Vehicle speed limitations	Up to 62 mph
Sampling rate	30-150 profiles/second
Transverse resolution	1280 points/profile
Transverse field-of-view	4 m
Depth accuracy (nominal)	+/- 1 mm
Environment	Dry pavement, day or night, above 32 degrees F
Adherence to specifications	ASTM E1703M-95 (reapproved 2005)

## **GPS & INERTIAL SYSTEMS**

GPS is collected by an onboard system employing OmniSTAR real-time correction and a gyroscope (spin-type) to provide accurate positioning data (pitch/roll/heading) in instances of satellite obstruction. All GPS coordinates are tied to image and linear distance measurements.

<b>GPS SPECIFICATIONS</b>	
Static accuracy	Sub-meter
Dynamic accuracy	2-3 meters
Receiver	12 satellite tracking
Coordinate system	Lat Lon WGS 84
Environment	Day or night
Cross-slope	+ - 0.5 degrees
Grade	+ - 0.5 degrees

### **GPS on Manually Rated Roads (MRR)**

Parking areas, some roads, and other paved areas that are not fully drivable with the DCV are collected manually by field technicians. GPS is collected for these routes using portable Trimble GPS backpack units. Paved campground pads and driveways are not typically included in the inventory or GPS.

## Geodatabase – Background and Metadata

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In addition to this park report, a *geodatabase* containing both tabular and spatial data specific to this park has been provided. All data disseminated in the preceding report has been obtained from the tables and fields within said geodatabase. The geodatabase can be referenced for tabular data via Microsoft Access or for both tabular and spatial data via ESRI's ArcGIS Suite of software which consists of; ArcMap, ArcCatalog and ArcExplorer. Consolidating the RIP data into one database creates a seamless relationship of tabular and geographic data. It will allow RIP to facilitate easier updates and enhancements in the future.

A geodatabase can be thought of as simply a database containing spatial data. Many different tables are contained with the park's geodatabase. A complete and thorough description of the tables and fields contained within this geodatabase can be found in the *metadata*. The metadata is attached directly within the geodatabase and can be accessed via ESRI's ArcCatalog. The metadata portion of the geodatabase also includes data dictionary report functionality that formats the metadata into an easy to read report.

## **GLOSSARY OF TERMS AND ABBREVIATIONS**

<b><u>TERM OR ABBREVIATION</u></b>	<b><u>DESCRIPTION OR DEFINITION</u></b>
AC	Alligator Cracking
CRS	Condition Rating Sheets (Section 5)
DCV	Data Collection Vehicle
Excellent	Excellent rating with an index value of 95 to 100
Fair	Fair rating with an index value from 61 to 84
FUNCT_CLASS	Functional Classification (see Route ID, Section 2)
Good	Good rating with an index value from 85 to 94
IRI	International Roughness Index
Lane Width	Width from road centerline to fogline, or from centerline to edge-of-pavement when no fogline exists
LC	Longitudinal Cracking
MRR	Manually Rated Route
MRL	Manually Rated Line
MRP	Manually Rated Polygon
N/A	Not Applicable
NC	Not Collected
PATCH	Patching and Potholes
Paved Width	Width from edge-of-pavement to edge-of-pavement
PCR	Pavement Condition Rating
PKG	Parking Area
Poor	Poor rating with an index value of 0 to 60
RCI	Roughness Condition Index
SC	Structural Cracking
SCR	Surface Condition Rating
TC	Transverse Cracking