

449 Eisenhower Boulevard, Suite 300
Harrisburg, PA 17111-2302

E-mail: skellyloy@skellyloy.com
Internet: www.skellyloy.com



EI-16384

Phone: 717-232-0593
800-892-6532

Fax: 717-232-1799

January 26, 2009

Ms. Susan Zacher
Bureau for Historic Preservation
Commonwealth Keystone Building, Second Floor
400 North Street
Harrisburg, Pennsylvania 17120-0093

Re: ER No. 2008-1481-042
Beech Creek Railroad Reactivation
Project, Wallacetown, Boggs, Morris,
and Cooper Townships, Clearfield
County, and Rush and Snow Shoe
Townships, Centre County, Penn-
sylvania

Dear Ms. Zacher:

Skelly and Loy, Inc. is pleased to provide revised text and additional figures for the Pennsylvania Historic Resource Survey form for the Beech Creek Railroad, Wallacetown to Gorton section, for the referenced project. Please note that only the text of the previous submission has been changed. The remainder of the form remains the same, including the first two figures and the photographs. Six additional figures have been added.

We have addressed the comments as follows:

1. *Document the role of the Beech Creek Railroad to the New York Central Railroad as the only provider or only provider of coal for the region.*

Inquiries about New York Central documents did not have any positive answers. Only anecdotal evidence, drawn from interviews in 1984-1985, was available.

2. *Assess the integrity of the whole line (only 20 miles of the 100-mile line have been evaluated).*

Aerial photographs were used to evaluate the integrity of the entire line.

3. *Provide a context on the structures in the section of the line. How do these tunnels, viaducts and bridges compare to others on the line?*

Additional context has been added to the descriptions.

4. *Provide more information on specific engineering features of the tunnel, viaduct, and other structures.*

Additional information has been added to the descriptions.

Ms. Susan Zacher
Page 2
January 26, 2009

No archaeological survey is anticipated for this project. The existing rail bed remains intact, except an area of surface mining. The reactivation project will place rails back on the existing rail bed. The bridges remain intact and, according to a recent inspection, are able to carry the anticipated loads with only minor repairs. No construction is anticipated outside of the existing cut and fill of the existing rail bed. Other remains, such as signal tower foundations, siding beds, and tipple remains, lie outside of the anticipated limits of disturbance. As a result, Skelly and Loy does not recommend an archaeological survey. We request your concurrence with our recommendation.

Please contact me at the above number if you have any questions.

Sincerely yours,

SKELLY and LOY, Inc.



Douglas Dinsmore, Ph.D.
Cultural Resource Specialist

Enclosure

cc: Danielle Gosselin, Surface Transportation Board ✓
Jackie Melander, Centre County Historical Society
Kevin Starnes
R08-0101.002
File: Zacher Letter

Survey Code: _____ Tax Parcel/Other No.: Multiple
County: Clearfield and Centre Municipality: Multiple
Address: Multiple
Historic/Other Name: Beech Creek Railroad

PHYSICAL DESCRIPTION:

In this form, the Beech Creek Railroad (BCR) will be discussed in general, and the section from Wallacetown to Gorton will be detailed. The Wallacetown to Gorton section is the subject of an ongoing project.

The BCR is a linear historic district, running from Jersey Shore to Mahaffey Junction, approximately 112 miles. Constructed from 1883 to 1893, the railroad primarily carried coal from the mines of Centre and Clearfield Counties for use in the locomotives of the New York Central and Hudson River Railroad, later the New York Central Railroad (NYC). The BCR also carried coke for the construction and repair of the locomotives and cars of the NYC. Other products also carried by the railroad, included lumber, stone, and passengers.

The BCR consists primarily of rail bed. In some areas, the rail bed has been obliterated. In the section extending from the crossing of the West Branch of the Susquehanna River west to Lock Haven, very little remains. From Lock Haven west to Beech Creek, a few components remain. From Beech Creek west to Mahaffey Junction, most of the rail bed remains intact. Likewise, eastward from the Susquehanna River crossing to Jersey Shore, most of the rail bed remains. Through much of this latter section, tracks remain, and trains still operate on them. The Avis rail yard still operates.

The overall integrity of the existing rail bed of the BCR was assessed using a combination of aerial photography from Google Earth and USA Prime Imagery. Figure 3 and Table 1 show the contributing and non-contributing parts. The plates of Figure 3 run from Jersey Shore to Mahaffey, the direction in which the rail bed was constructed.

The rail bed of the BCR remains largely intact from Jersey Shore to Clearfield. There are some spots where the rail bed has been obliterated. Some bridges are gone. The bridge crossing Pine Creek (Figure 3-1) and the West Branch of the Susquehanna River (Figure 3-2) remain extant, both presently in use. In Castanea (Figure 3-5), the depot, now a museum, remains on Logan Street (T-561 on the figure). Other bridges remain at Bald Eagle and Beech Creek crossings. The three crossings of Moshannon Creek retain their bridges, including the 770-foot-long viaduct.

Areas exist where the rail bed is absent. A trucking company, agricultural and commercial buildings, and streets have been built on the site of the rail bed. A landfill and a surface coal mine both obliterated the rail bed. In the upper reaches of Beech Creek, five bridges are gone. In some areas, erosion has compromised the rail bed. However, about 97 percent (108.5 of 112 miles) remains clearly visible, including many of the bridges.

In the section running from Clearfield to Mahaffey (approximately 18 miles; Figures 3-31 to 3-38), the situation becomes more complex. The section from Curry Run to Mahaffey (four miles) remains on the same alignment as it was constructed in 1892-1893. The section from Clearfield to Curry Run originally followed Little Clearfield Creek, then overland to the West Branch of the Susquehanna River at Curry Run as depicted on the 1932 USGS map (Figure 4; see also Figures 5, 6, and 7). By the time of the 1942 USGS map, the BCR now ran along the Susquehanna River the entire way from Clearfield to Mahaffey (Figure 8). Between 1932 and 1942, the BCR purchased a section of the Buffalo, Rochester and Pittsburgh Railroad, and extended the route on the

Survey Code: _____ Tax Parcel/Other No.: _____ Multiple
County: Clearfield and Centre Municipality: Multiple
Address: Multiple
Historic/Other Name: Beech Creek Railroad

PHYSICAL DESCRIPTION (continued):

north side of the West Branch to meet with the existing line at Curry Run. The portion along Little Clearfield Creek was abandoned, and is not visible in aerial photographs.

When the US Army Corps of Engineers constructed the flood control dam across the West Branch of the Susquehanna River just south of Curwensville in 1965, a four-mile section of the BCR from Curwensville to Lumber City was relocated (Figures 3-34 and 3-35). On Figure 3-35, near the north arrow in the upper right corner, the previous bridge that carried the BCR over the river can be seen, minus one span that had been demolished to permit boats to pass. The post-1965 alignment is depicted on Figures 3-34 and 3-35.

Wallaceton to Gorton section, the primary subject of this form, includes a ten-mile portion that has reverted to private ownership and a ten-mile portion maintained for use as a trail by the Snow Shoe Rails to Trails Association (SSRTA).

The trail portion contains two of the most significant features of the BCR: the Peale Tunnel and the Moshannon Creek Viaduct. The Collins Brothers of Bellefonte, Pennsylvania, constructed the 1,277-foot-long Peale Tunnel in 1883. With cut-stone portals and brick, concrete, and rock ceiling, the Peale Tunnel permitted the BCR to traverse the rugged terrain of the Allegheny Front.

The Moshannon Creek Viaduct, once designated NYC RR Bridge #B-25, carries the BCR across the valley of Moshannon Creek. Running 770 feet long and 110 feet from the valley floor, the viaduct is a deck-girder bridge built on steel trestles resting on stone and concrete piers. Rebuilt in steel in 1902-1903, the viaduct contained both ties and rails as well as wooden walkways on both sides of the track. The American Bridge Company built the original in 1884.

Other, less spectacular features also remain. A second, 123-foot-long, 25-foot-high, crossing of Moshannon Creek occurs near Winburne. This crossing is a deck-girder bridge set on concrete and stone abutments and a concrete pier, also dating from the 1902-1903 rebuild of the BCR (a date of 1903 is inscribed in the concrete). A smaller crossing of Black Bear Run shows similar construction. The crossing of Black Bear Run exhibits stone abutments with a spalled concrete cap, on which the plate girders sit. A third crossing of Moshannon Creek occurs at Six Mile Run, 150 feet long, and 20 feet above the waterway; like the Winburne bridge, it is a deck-girder bridge, set on concrete and stone abutments, with a concrete pier. All three bridges have cut-stone abutments with concrete caps. Both Moshannon Creek bridges have a concrete pier, which appeared to replace two earlier stone piers.

Small-scale features also are common. Evidence of numerous sidings and foundations of signal towers and watchman's shanties abound. Remains of tipples occur. The early mines were drift mines, created by digging into the hillside where the horizontal, or near-horizontal layers of coal outcropped. Later surface mines destroyed most of the evidence of the drift mines, except for some of the tipple remains. Stone culverts, dating to the original construction, also remain. Mile markers remain at many locations.

PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM -- NARRATIVE SHEET
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

89C

Survey Code: _____ Tax Parcel/Other No.: Multiple
County: Clearfield and Centre Municipality: Multiple
Address: Multiple
Historic/Other Name: Beech Creek Railroad

PHYSICAL DESCRIPTION (continued):

The rail bed remains extant through most of the Wallacetown-to-Gorton section. In some of the privately-owned portions, landowners have built outbuildings immediately adjacent to the rail bed. The rail bed's course through the King Coal surface mine, approximately 4,200 feet (0.8 mile) has been obliterated. At two former grade-separated crossings, Wallacetown Road (S.R. 2034) and Myers Road (T-682), the bridges have been removed and fill added. However, most of the rail bed of the BCR contains integrity of location, design, setting, workmanship, feeling, and association.

Survey Code: _____ Tax Parcel/Other No.: Multiple
County: Clearfield and Centre Municipality: Multiple
Address: Multiple
Historic/Other Name: Beech Creek Railroad

HISTORICAL NARRATIVE (portions used with permission from Jeff Feldmeier):

The BCR was once part of a network of railroad lines extending south and west from Jersey Shore Junction, Lycoming County, to the Cherry Tree area, via Clearfield. The Beech Creek's parent company, the Vanderbilt family's New York Central & Hudson River Railroad, built these lines in part to reach bituminous coal deposits for use in its own locomotives, power plants, and for similar purposes. This was vitally important as obtaining coal for its own consumption had become a concern, both in terms of cost and supply. The Vanderbilts formed a coal subsidiary, Clearfield Bituminous Coal Company (later Corporation; CBC) as part of this effort. In fact, the CBC owned much of the land on each side of the BCR right-of-way. Commercial coal companies acquired additional tracts in the area. Coal from the BCR moved northward into New York State via Jersey Shore Junction and east via a connection with the Philadelphia & Reading Railroad at Newberry Junction, near Williamsport. The BCR remained an active rail line until being taken out of service in 1990 due to the decline of the area's coal industry. The track was removed in 1993-94 and the right-of-way from Snow Shoe (Clarence) to a point just east of Winburne is now a rail-to-trail facility. Much of the rest has reverted to private ownership.

Upon its completion in 1893, the BCR provided a link across the Allegheny Front. It connected with the Pennsylvania Railroad at Mahaffey Junction. The BCR's route provided a more gentle grade and shorter route; as a result, some of the Pennsylvania Railroad traffic across the Front became diverted onto the BCR.

Presently, despite the fact that the track itself has been removed, the rail bed remains intact for most of the 20-mile section from Wallaceton to Gorton. As a result, the BCR represents a good example of advanced railroad civil engineering techniques of its era. The BCR in this section had to be built through the challenging topography of the Allegheny Plateau in such a way that heavy coal trains would not be greatly impeded by severe grades. The bridges and the tunnel on this segment (which will be covered separately in more detail) are other examples of how this mountainous territory was conquered. Similarly, the cut and fill technique was employed extensively here—the right-of-way was sliced through or cut along a hillside and the rock and earth removed was used to fill the next hollow. The 1883-1893 construction of this line included a rise in elevation from 604 feet at Jersey Shore to 1,745 feet at Wallaceton, in a rugged portion of the Allegheny Front, with no portion above two percent grade.

The BCR is also notable in the growth and prosperity it brought to the area. For some decades before the arrival of the railroad, geologists and local industrialists had known that rich coal and fire clay deposits existed here. Unfortunately there were no means to transport these raw materials to market. The railroad changed that. Towns such as Peale, Gorton, and Grassflat owed their founding and early prosperity to the Beech Creek. Prior to the railroad's arrival, a vast forest covered the land that would become Peale and Gorton and Grassflat. The BCR opened up numerous economic opportunities in the Central Pennsylvania coalfields. Towns appeared during the BCR's construction.

The BCR played a role in the industrialization of Pennsylvania and the nation. Coal hauled by the Beech Creek fueled mills, foundries, power plants, locomotives, ships, and other cogs of an industrialized economy. The railroad handled fire clay to area refractory facilities and in turn moved the finished firebrick to the iron and steel mills, public utilities, non-ferrous metal smelting operations, cement and lime plants, and glass, petroleum, ceramic, and chemical industries. As noted above, the coal tonnage moved over the Beech Creek was for company (NYC) use. As such,

Survey Code: _____ Tax Parcel/Other No.: Multiple
County: Clearfield and Centre Municipality: Multiple
Address: Multiple
Historic/Other Name: Beech Creek Railroad

HISTORICAL NARRATIVE (continued):

virtually any locomotive on the NYC's Lines East (trackage east of Buffalo, New York), from yard switch engines to the streamlined locomotives, used coal originated carried by the BCR. The BCR had a hand in the movement of tons and tons of commodities and passengers over the vast New York Central System. The BCR permitted the NYC to compete in the lucrative Northeast industrial market.

The railroad itself provided jobs to thousands of workers with its own construction, operations, and maintenance. The mines and related activities provided tens of thousands more jobs. The mining and railroad industries comprised the lifeblood of the region for decades. Many immigrants came from the Europe to work in area mines. Once the railroad was built and the mines opened, Slovaks and Swedes were some of the prominent ethnic groups that settled in this area. Many descendents of these early workers still live there. They supplemented other ethnic groups, including Germans, Scots-Irish, and English, who had arrived previously.

From the time it opened, the BCR also moved passengers, thereby allowing rapid movement between small coal towns and big cities at speeds and comfort previously unknown. The BCR even provided a daily, except Sunday, Pullman sleeping car to and from Philadelphia in its early years, via the Reading connection at Williamsport. Again, the railroad helped open what had previously been very remote areas to development.

The Peale Tunnel provides an excellent example of how railroad civil engineers and construction crews successfully conquered the difficult topography of the Allegheny Plateau during the building the BCR. As noted above, the P & T Collins Company, owned by the brothers Phillip and Thomas Collins, was the subcontractor in charge of building the mountainous sections of the BCR for which the Peale Tunnel was a part. Work on the east end heading began on June 30, 1833, and the west heading on July 27. The headings met on the night of October 30. Grading of the line through the Peale Tunnel may have been completed as early as April 1884 but track was not laid through the tunnel until July.

The tunnel's portals consist of cut stone. This cut stone continues inside along the walls and ceiling for a short distance, from each end. The ceiling is partially lined with brick with a concrete cap while the remainder is solid rock. With the obvious exception of the removal of the track, the tunnel is likely to be essentially as it was when completed in 1884. An exception may be the addition of the concrete cap to the brick ceiling portions.

The Peale Tunnel is one of two railroad tunnels along the BCR. The Peale Tunnel's maximum ceiling height is 20 feet at the entrances. The Peale Tunnel is the longest at 1,277 feet. The 600-foot-long Hogback Tunnel lies along the portion of the BCR that runs beside its namesake. The Hogback Tunnel is located between Snow Shoe and Orviston.

By the time of construction of the BCR, tunnels had become a common feature of railroads in rugged terrain. Railroads required a fairly low grade, usually less than three percent (steepest on the BCR is 2.8 percent). So tunnels were required to pierce ridges that were too steep to reasonably climb. A tunnel might save miles of track, making its high cost bearable. Workers used steam-powered drills to open holes in the rock face, which were then filled with explosives, in the period of the tunnels' construction, dynamite. The explosive fractured the rock face, and crews operating drag lines pulled the rock debris, or muck, to the entrance, where machines loaded it into rail cars. Workers usually tunneled from both ends toward the middle.

Viaducts performed the reverse function; carrying railroads across chasms. If possible, larger bridges were avoided. The girder viaduct provided the most cost effective way to bridge a gorge. The pieces could be assembled with cranes and bolted together. The pieces were largely uniform, minimizing mistakes in assembly. When the waterway was

Survey Code: _____ Tax Parcel/Other No.: Multiple
County: Clearfield and Centre Municipality: Multiple
Address: Multiple
Historic/Other Name: Beech Creek Railroad

HISTORICAL NARRATIVE (continued):

small and navigation not an issue, a viaduct provided an economical way to maintain the grade, and like the tunnel, minimized the amount of track that would need to be laid. All of the bridges, including the viaduct, were rebuilt with high strength steel in 1902-1904. Concrete caps were added to existing stone abutments. Piers were generally replaced, as the spans were lengthened. All of the bridges on the line are deck plate girder bridges, including the viaduct.

The town of Peale, named for Samuel Richard Peale (1830-1910), the Lock Haven politician and financier who championed the BCR, provides a microcosm of the railroad and coal industry in the central Allegheny Plateau. Peale, the town, began simultaneously with the BCR. Likely it housed the workers that constructed the BCR, and their families. Then many of the same people went to work in the coal mines. Coal mines of the period (1884-1924) required intensive labor, often several hundred workers per mine. Peale lay between the Tunnel and Grassflat mines, about a mile from each. Although a railroad spur had been projected to service the town of Peale, the spur was not constructed. By 1921, the end of the war in Europe had dampened American prosperity, and a recession occurred. A second occurred in 1923; in addition, many industries and facilities that previously used coal began to turn to petroleum products. As a result, the coal industry precipitously declined in the 1920s. The workers and their families of Peale began to leave for other jobs, and Peale became a ghost town by 1945.

Author Dinsmore interviewed at least six people that had once lived in Peale in 1984-1985. Although notes from the interviews have been lost, Dinsmore recalled that the people spoke with pride that they had been part of the NYC's efforts to open the coal fields of Centre and Clearfield Counties. They talked of the isolated wilderness that the area had been prior to the construction and operation of the BCR. Two interviewees noted that the NYC had previously attempted to open a new line to West Virginia, but the cost had been prohibitive. The BCR provided the coal that fueled the NYC's engines and operations more efficiently. One man told of coal trains passing moving out of the coal fields to the east, "at least twenty a day." Another man told of coal transported by the BCR fueling warships in World War I. The interviewees emphasized the prosperity that the coal mines brought to a previously depressed area.

In the late 1950s, surface mining began to occur in the areas serviced by the BCR. Surface mining required many fewer workers. Where the drift mines of the earlier period (1884-1924) required hundreds of workers, surface mines required about one-tenth the workers. The towns that remained, Morrisdale, Winburne, Allport, Munson, and Wallacetown, adequately provided the workers. No new population boom occurred. As the surface mines declined in number, they also used more machines and fewer workers. The population of the area also declined. As a result, the BCR ran fewer trains. When the PC went bankrupt, the area was not prosperous enough to support the BCR, and eventually, its rails were removed in 1994.

For a century, the BCR provided service to the central Allegheny Plateau. It hauled coal, stone, fire clay, brick, lumber, and passengers. It provided a connection across a rugged section of the Allegheny Front. The BCR not only opened up a previously undeveloped area to extractive industries, it also features representative examples of engineering of its period of construction (1883-1893) and its rebuild (1902-1904).

TABLE 1 - INTEGRITY OF BEECH CREEK RAILROAD INFRASTRUCTURE

Component	Condition	Figure
Rail bed from junction in Jersey Shore	Intact - in use	3-1
Bridge over Pine Creek	Intact - in use	3-1
Rail bed from Pine Creek to Avis Yard	Intact - in use	3-1
Avis Yard	Intact - in use	3-1
Bridge over West Branch of Susquehanna	Intact - in use	3-2
Rail bed just west of Susquehanna crossing	Absent - now a land fill	3-2
Rail bed from land fill to new Castenea bridge	Present - no rails or ties	3-2 to 3-5
Rail bed at new Castenea bridge	Absent - filled for bridge	3-5
Rail bed from new Castenea bridge to Mill Hall	Present - no rails or ties	3-5, 3-6
Fishing Creek crossing in Mill Hall	Piers present, no bridge structure	3-6
Rail bed just west of Fishing Creek crossing	Absent - parking lot	3-6
Rail bed from Mill Hall to Beech Creek (the town)	Present - no rails or ties	3-6 to 3-8
Beech Creek northwest to T-474	Present - no rails or ties	3-8, 3-9
Along T-474	Absent - now a road (T-474)	3-9
From T-474 west to Monument	Present - no rails or ties	3-9 to 3-11
T-914 in Monument	Absent - now a road (T-914)	3-11
Monument west to Hogback Tunnel	Present - no rails or ties	3-11 to 3-13
Hogback Tunnel	Present - condition unknown	3-13
North of Hogback Tunnel	Absent - eroded away	3-13
North of eroded area to Beech Creek crossing	Present - no rails or ties	3-13
Five crossings of Beech Creek	Bridges gone, some rail bed absent	3-13
Rail bed from Panther to Clarence	Present - no rails or ties	3-13 to 3-17
Rail bed from Clarence to Peale Road	Present - no rails or ties	3-17 to 3-20
Rail bed from Peale Road to Winburne - Rails-to-Trails section	Present - no rails or ties, gravel on bed	3-20 to 3-23
Rail bed from Winburne to T-682	Present - no rails or ties	3-23 to 3-26
Myers Road (T-682) over rail bed	Absent - filled	3-26
Wallaceton Road (SR 2034) over rail bed	Absent - filled	3-27
Wallaceton Road to Wallaceton	Present - no rails, some ties	326, 3-27
Wallaceton to Clearfield	Intact - in use	3-27 to 3-31
Clearfield	Absent	3-31
Clearfield to Mahaffey	Present - no rails or ties	3-31 to 3-38