

## **CHAPTER 4**

### **ENVIRONMENTAL IMPACTS OF THE BLACK ROCK ROAD ALTERNATIVE**

This chapter evaluates the potential environmental impacts associated with the Black Rock Road alternative. OEA revisited each of the 12 environmental resource areas evaluated in Chapter 4, Environmental Impacts, of the DEIS to identify the applicable environmental impacts associated with the Black Rock Road alternative. As previously noted, the Black Rock Road alternative is a modified version of the Local Road System Upgrade alternative involving the construction of a new access road (i.e., Black Rock Road) from S.R. 0053 to Gorton Road. All of the proposed roadway improvements (and accompanying environmental impacts) associated with the Local Road System Upgrade alternative discussed in the DEIS would apply to the Black Rock Road alternative, except for the improvements to Gorton Road. Instead of improving Gorton Road, the 3.1-mile Black Rock Road would be constructed from S.R. 0053, approximately 2.3 miles west of the village of Moshannon, across Black Moshannon Creek to a new intersection with Gorton Road. Where applicable, OEA focused its evaluation of the Black Rock Road alternative on this 3.1-mile new roadway construction, and did not re-evaluate the environmental impacts of the other accompanying roadway improvements (i.e., widening S.R. 0053, widening S.R. 0144, etc.) because these impacts remain unchanged since issuance of the DEIS. A detailed discussion of the environmental impacts of these other roadway improvements can be found in Chapter 4 of the DEIS.

OEA's environmental impact assessment process for the Black Rock Road alternative is based on an equivalent level of preliminary engineering information developed for each of the other alternatives evaluated in the DEIS. OEA also employed a similar methodology to the methodology presented in Chapter 4 of the DEIS and relied on the information presented in Chapter 3, Affected Environment, and mapped in Volume 2, Environmental Features Mapping, of the DEIS when evaluating the potential impacts associated with the Black Rock Road alternative.

#### **4.1 TRANSPORTATION AND SAFETY**

##### **4.1.1 Impact Analysis – Local Road Traffic**

Similar to the Local Road System Upgrade alternative, the Black Rock Road alternative would result in increased truck volumes on S.R. 0053 and S.R. 0144. One notable difference is that the 1,100 roundtrip trucks (i.e., 550 loaded and 550 empty) per day would use the new Black Rock Road under the Black Rock Road alternative instead of using Gorton Road under the Local Road System Upgrade alternative. Thus, this alternative would result in significantly fewer trucks using Gorton Road through the small village of Moshannon. Under the Black Rock Road alternative, the 25% (or 275) trucks that would have accessed Gorton Road from the west via S.R. 0053 would no longer enter the village of Moshannon, as these trucks would now access Black Rock Road at its intersection with S.R. 0053 approximately 2.3 miles west of Moshannon (see Figure 2-3). The remaining 75% (or 825) trucks expected to access Black Rock Road from the east and/or north would still travel through Moshannon via the intersection of S.R. 0144 and S.R. 0053 to get to Black Rock Road. Therefore, there would be a reduction in truck traffic through the intersection of S.R. 0053 and S.R. 0144 in Moshannon under the Black Rock Road alternative because only 825 trucks, instead of all 1,100 trucks under the Local Road System Upgrade alternative, would travel through this intersection. The 825 trucks from the east and/or north would also need to travel the additional 2.3 miles west of Moshannon on S.R. 0053 to get to the intersection of S.R. 0053 and Black Rock Road, which would result in a significant increase in truck traffic on this 2.3-mile section

of S.R. 0053. These truck volumes do not account for the additional 64 trucks (i.e., 32 loaded and 32 empty) per day associated with the potential transport of ethanol from the waste-to-ethanol facility. These additional 64 trucks would further increase the daily truck volume using the local roads under this alternative.

Like the Local Road System Upgrade alternative, the Black Rock Road alternative would also include roadway improvements designed to accommodate the increased truck volumes with all intersections and intersection movements operating at Level of Service (LOS) C or better.<sup>1</sup> However, as noted in Chapter 4 of the DEIS, the Point of Access Study<sup>2</sup> prepared for the I-80 Interchange alternative indicates that the addition of this many large trucks to the local roadway network would impact safety and result in potential conflicts with other local and regional traffic.

#### **4.1.2 Impact Analysis – Rail Operations and Rail Operations Safety**

The Black Rock Road alternative would not impact rail operations or rail operations safety.

### **4.2 LAND USE**

#### **4.2.1 Impact Analysis**

Apart from the right-of-way acquisition that would be required from adjacent private property owners along S.R. 0053 and S.R. 0144, the Black Rock Road alternative would have minimal impacts on land use. Unlike the Local Road System Upgrade alternative, the Black Rock Road alternative would not involve the displacement of any residential structures. Rather, the 3.1-mile Black Rock Road would be constructed entirely on the undeveloped RRLLC property. Assuming a typical 60-foot roadway footprint (i.e., two 11-foot travel lanes with 4-foot shoulders and 15-foot outsoles) for 3.1 miles, the construction of Black Rock Road would result in the direct conversion of approximately 22.5 acres of undeveloped forestland/reverting strip mine areas on the RRLLC property. However, approximately 1.2 miles of the 3.1-mile total length of Black Rock Road would tie into the existing gravel road system on the RRLLC property. Since approximately 1.2 miles of Black Rock Road would be built overtop an existing gravel roadway, the undeveloped forestland/reverting strip mine impact acreage would be reduced by approximately 8.7 acres to 13.8 acres.

#### **Consistency with Local and Regional Land Use Plans**

OEA analyzed the long-range land use/transportation planning goals and objectives outlined in the Comprehensive Plans of the project area municipalities and counties to draw conclusions about

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<sup>1</sup> Level of Service refers to a degree of peak congestion experienced by roadway vehicle traffic stream using procedures that consider factors such as vehicle delay, freedom to maneuver, traffic interruptions, comfort and convenience, and safety. Traffic analysts express level of service as letter grades, ranging from Level of Service A (free-flowing) to Level of Service F (severely congested); they measure level of service by the average for all vehicles using the particular system.

<sup>2</sup> Proposed improvements to the existing local road system and construction of the new I-80 interchange were analyzed in a Point of Access Study for the I-80/Gorton Road Interchange, dated November 14, 2006, prepared by Rettew Associates, Inc., located in Lancaster, Pennsylvania. A Point of Access Study is required by FHWA when a new interchange or other significant change in access is proposed on a segment of the existing Interstate Highway System. A Point of Access Study evaluates the need for the proposed interchange along with its anticipated operational, environmental, and societal impacts. A Point of Access Study is prepared in order to obtain conceptual approval from FHWA for the proposed change in access.

the consistency of the Proposed Action and its alternatives, excluding the No-Action Alternative. Regarding the Black Rock Road alternative, which is a modified version of the Local Road System Upgrade alternative, OEA has made the following consistency findings:

- The associated increase in truck traffic on local roads does not appear to be consistent with the Clearfield County Comprehensive Plan, which includes a rail and freight objective aimed at increasing the use of rail in lieu of trucks on local roads.
- The associated increase in truck traffic on local roads does not appear to be consistent with the Cooper Township Comprehensive Plan given the concern stated in the Plan about the existing volume of truck traffic on S.R. 0053, its connection to I-80 at Kylertown, and its conflict with residential land uses through several small communities.
- The associated increase in truck traffic on local roads does not appear to be consistent with the Centre County Comprehensive Plan – Phase I (2003) which makes several references to the County’s central location and the issues associated with the growing levels of truck traffic moving through the County, primarily via I-80.
- Coordination with Snow Shoe Township officials indicates that they have adopted the Centre County Comprehensive Plan as their township comprehensive plan. Thus, the consistency determination stated above for Centre County would also apply to Snow Shoe Township.

### 4.3 ENERGY RESOURCES

#### 4.3.1 Impact Analysis

OEA calculated the estimated annual diesel fuel requirement that would be associated with the operation of truck traffic over the Black Rock Road alternative (see Table 4-1). To complete the analysis, OEA used the estimated truck volumes anticipated to operate on each leg of this alternative on a daily basis multiplied by six days per week. The standard fuel consumption rate of six miles/gallon for heavy trucks has also been factored into the analysis.

**TABLE 4-1  
BLACK ROCK ROAD ALTERNATIVE  
ESTIMATED ANNUAL DIESEL FUEL CONSUMPTION**

ROADWAY SEGMENT	LENGTH (MILES)	ROUNDRIP TRUCKS/DAY	FUEL ECONOMY (MILES/GALLON)	ANNUAL FUEL CONSUMPTION (GALLONS/YEAR)
S.R. 0053 (Kylertown to Black Rock Road)	8.4	275	6.0	120,120
S.R. 0144 (Snow Shoe to Moshannon)	3.9	715	6.0	145,002
S.R. 0053 (Moshannon to Black Rock Road)	2.3	825	6.0	98,670
Black Rock Road (S.R. 0053 to Gorton)	3.1	1100	6.0	177,320
<b>Total</b>				<b>541,112</b>

This table indicates that the operation of truck traffic over the Black Rock Road alternative would have an estimated annual fuel requirement of approximately 541,112 gallons, which is nearly six times greater than the estimated annual fuel requirement associated with the proposed rail line. To be consistent, OEA used the estimated truck volumes presented in the DEIS and did not account for the additional 64 trucks (i.e., 32 loaded and 32 empty) per day associated with the potential transport of ethanol from the waste-to-ethanol facility. These additional 64 trucks would further increase the annual diesel fuel requirement (by approximately 31,565 gallons) for this alternative.

## 4.4 AIR QUALITY

### 4.4.1 Impact Analysis – Air Quality

As presented in the DEIS, OEA used FHWA’s local road truck emissions in grams/mile which was derived from USEPA’s MOBILE6.2 emission modeling software to calculate estimated annual mobile source emissions of criteria pollutants (i.e., NO<sub>x</sub>, CO, HC, and PM) for the volume of trucks that would be using the Local Road System Upgrade alternative. These calculations were based on the estimated truck volumes and diesel fuel requirements presented in Section 4.3, Energy Resources, of the DEIS. For the purpose of analyzing the air quality impacts of the Black Rock Road alternative, OEA also relied on the estimated truck volumes and diesel fuel requirements calculated in Section 4.3 above. These calculations resulted in an estimated annual diesel fuel requirement of 541,112 gallons, which is 48,620 gallons (or 9.9%) higher than that presented for the Local Road System Upgrade alternative in the DEIS. Therefore, OEA concluded that the annual mobile source emissions of criteria pollutants for the Black Rock Road alternative would also be 9.9% higher than that presented for the Local Road System Upgrade alternative (see Table 4-2). Even with this increase, however, the estimated annual mobile source emissions for this alternative would still be under USEPA’s major emission source threshold of 100 tons/year for Title V permit applicability.<sup>3</sup> Under these standards, neither the operation of trains over the proposed rail line nor the increase in truck traffic associated with the Black Rock Road alternative would result in significant adverse impacts to local air quality. When compared to the proposed rail line, the estimated annual emissions from the Black Rock Road alternative would be significantly higher than that of the Proposed Action or the Modified Proposed Action due to the lower fuel efficiency of trucks when compared to rail.

**TABLE 4-2  
ESTIMATED ANNUAL MOBILE SOURCE EMISSIONS  
OF CRITERIA POLLUTANTS (TONS/YEAR)**

ALTERNATIVE	NO <sub>x</sub>	CO	HC	PM
Local Road System Upgrade alternative	52.0	24.7	2.4	1.3
Black Rock Road alternative	57.1	27.1	2.6	1.4

### 4.4.2 Impact Analysis – Odors

Similar to the Local Road System Upgrade alternative, the Black Rock Road alternative involves using trucks to transport municipal solid waste to RRLLC’s proposed waste-to-ethanol facility via

<sup>3</sup> See Title V of the Clean Air Act, as amended in 1990. This section of the Federal Air Quality regulations contains the operating permit program for larger industrial and commercial sources that release pollutants into the air.

I-80, S.R. 0053, and S.R. 0144 through the communities of Drifting, Moshannon, Gillintown, and Snow Shoe. While vehicular transportation of municipal solid waste is subject to certain federal and state regulatory requirements, those requirements do not mandate the use of airtight, watertight, double-wrapped bales in locked-cover vessels. Thus, OEA concluded that the Black Rock Road alternative and the associated truck-based transport of municipal solid waste would likely have a greater impact on localized odors than the Proposed Action or Modified Proposed Action.

## **4.5 NOISE AND VIBRATION**

### **4.5.1 Impact Analysis – Noise**

The DEIS included the findings of a traffic noise screening analysis conducted for the Local Road System Upgrade alternative using FHWA's Traffic Noise Model (TNM2.5) Look-up Table Program to analyze the potential for increased noise resulting from additional truck traffic on the local roadway network. That analysis identified 204 noise-impacted sensitive land uses along the various local roadway segments. OEA has determined that the noise impacts associated with the Black Rock Road alternative would be similar to that presented in the DEIS for the Local Road System Upgrade alternative except for the 33 noise-impacted sensitive land uses identified along Gorton Road. Since the Black Rock Road alternative would use Black Rock Road instead of Gorton Road, this alternative would not impact these 33 sensitive land uses. Therefore, the total number of noise-impacted sensitive land uses associated with the Black Rock Road alternative would be 171. Additionally, truck trips along the 2.3-mile section of S.R. 0053 between the village of Moshannon and the intersection of the new Black Rock Road would increase from 275 to 825, and these additional truck trips would have a greater noise impact on sensitive land uses located along this section of roadway. Conversely, the truck trips at the S.R. 0053 and S.R. 0144 intersection in the village of Moshannon would decrease from 1,100 to 825, and this decrease in truck trips would reduce the noise impacts at that intersection.

### **4.5.2 Impact Analysis – Vibration**

Similar to the Local Road System Upgrade alternative, OEA did not conduct a vibration impact assessment for the Black Rock Road alternative because of the inherent difficulty associated with calculating vibration levels for vehicular traffic.

## **4.6 BIOLOGICAL RESOURCES**

### **4.6.1 Impact Analysis – Vegetation and Wildlife**

Construction of Black Rock Road would cause the vegetation and wildlife impacts associated with the Black Rock Road alternative. Construction of this 3.1-mile new roadway would impact approximately 2.8 acres of old field/herbaceous (i.e., meadow), 2.1 acres of shrub, and 11.6 acres of forest wildlife habitat (see Table 4-3), and would result in the fragmentation of wildlife habitat on the RRLLC property. However, some habitat fragmentation already exists along the 1.2 miles of the new Black Rock Road that would tie into the existing gravel roads on the RRLLC property. These existing gravel roads are only used by high-clearance 4x4 vehicles on a very infrequent basis, which causes only minimal fragmentation between adjacent habitats. Therefore, construction of Black Rock Road, and its subsequent use by 1,100 trucks per day, would constitute more significant habitat fragmentation than currently exists.

Additionally, given the remote undeveloped character of the surrounding landscape, this alternative would likely result in some wildlife mortality attributable to vehicle-wildlife collisions. Because part of this alternative would be physically located within the designated boundaries of the Black Moshannon Landscape Conservation Area, the substantial increase in truck traffic on S.R. 0053 and S.R. 0144 would potentially increase the likelihood for vehicle-wildlife collisions. This alternative would not impact the Southern Sproul State Forest Important Bird Area, the Snow Shoe Moshannon Biological Diversity Area, or the Snow Shoe Swamp Biological Diversity Area.

**TABLE 4-3**  
**BLACK ROCK ROAD ALTERNATIVE**  
**VEGETATIVE COMMUNITY/WILDLIFE HABITAT IMPACTS**

SEGMENT	OLD FIELD/ HERBACEOUS (ACRES)	SHRUB (ACRES)	FOREST (ACRES)
S.R. 0053 (Kylertown to Moshannon)	4.3	4.8	19.4
S.R. 0144 (Snow Shoe to Moshannon)	1.2	2.2	3.4
Black Rock Road (S.R. 0053 to Gorton)	2.8	2.1	11.6
<b>Total Impact</b>	<b>8.3</b>	<b>9.1</b>	<b>34.4</b>

#### 4.6.2 Impact Analysis – Threatened and Endangered Species

As presented in the DEIS, coordination with the various threatened and endangered species resource agencies indicated that the Local Road System Upgrade alternative is within the known range of the following threatened and endangered species:

- Indiana Bat (*Myotis sodalis*) – Federal Endangered,
- Timber Rattlesnake (*Crotalus horridus*) – PA Candidate,
- Alleghany Woodrat (*Neotoma magister*) – PA Threatened,
- Alleghany Plum (*Prunus alleghaniensis*) – PA Threatened (proposed), and
- Carey’s Smartweed (*Polygonum careyi*) – PA Endangered.

Since the Black Rock Road alternative is a modified version of the Local Road System Upgrade alternative and still involves the use of S.R. 0053 and S.R. 0144, OEA concluded that these same threatened and endangered species issues would apply to the Black Rock Road alternative. As noted in the DEIS, the Local Road System Upgrade alternative would involve improvements to existing roadways (i.e., S.R. 0053, S.R. 0144, and Gorton Road) to accommodate the anticipated volume of truck traffic generated by the RRLLC development site. Because suitable habitat immediately adjacent to these existing roadways does not exist, OEA concluded in Chapter 4 of the DEIS that the proposed improvements to S.R. 0053, S.R. 0144, and Gorton Road would not likely impact the Indiana Bat, Timber Rattlesnake, or the Alleghany Woodrat. For the Black Rock Road alternative, OEA has determined that this same conclusion would apply to the portions of the alternative involving S.R. 0053 and S.R. 0144. Under the Local Road System Upgrade alternative, OEA also discussed one potential specimen of the Alleghany Plum that was identified near the vicinity of the Gorton Road Bridge over Black Moshannon Creek that would likely be impacted by the proposed replacement of this bridge. This finding is not applicable to the Black Rock Road alternative because under this alternative there would be no improvements to Gorton Road, including the Gorton Road Bridge over Black Moshannon Creek.

Regarding the construction of the 3.1-mile Black Rock Road itself, OEA coordinated with the threatened and endangered species resource agencies to identify any potential new or different threatened and endangered species concerns. The results of these additional coordination efforts are summarized below by resource agency. Appendix C contains subsequent correspondence from the resource agencies.

Additional consultation with PA DCNR showed that Black Rock Road is within the known range of Carey's Smartweed, a Pennsylvania Endangered Species. However, in its September 30, 2009 correspondence (see Appendix C) PA DCNR indicated that based on the nature of the project, the immediate location, and the results of a field survey, the proposed construction of Black Rock Road would likely not impact this species. PA DCNR did not identify any other threatened and/or endangered species concerns for the Black Rock Road alternative.

Additional consultation with PGC, which included a project area field view with PGC staff, showed that there was no suitable habitat for the Allegheny Woodrat on or in close proximity to the proposed Black Rock Road alternative. Therefore, PGC determined that the construction of Black Rock Road would not cause any adverse impacts to the Allegheny Woodrat. However, PGC did indicate that the construction of Black Rock Road could have potential impacts to the Eastern Small-footed Bat (*Myotis leibii*), a Pennsylvania Threatened Species, and subsequently requested that the following conservation measures be implemented if this alternative is selected:

- Harvest all trees or dead snags (i.e., standing dead trees) greater than five inches in diameter at breast height between November 15 and March 31.
- Establish a “no disturbance buffer” of at least 300 meters around all known roost locations, maternity colonies, and hibernation sites to protect them from degradation, deforestation, water contamination, erosion, and flooding. If small-footed roosting habitat is impacted, alternate roosting habitat must be created and additional coordination with PGC is required.
- Create a 50-foot “riparian buffer zone” along the stream edge (total of 100 feet from both stream banks) or wetland to reduce impacts to foraging bats.

PFBC identified a known den of Timber Rattlesnakes within the Black Rock Road alternative. In its January 14, 2009 correspondence, PFBC determined that there would be no adverse impacts to the Timber Rattlesnake if construction would be conducted out of the active season of the species. However, if construction would be conducted from April 15 to November 15, PFBC requested the following precautions to safeguard workers and rattlesnakes if this alternative is selected:

- Have a qualified Timber Rattlesnake biologist visit the site and define the den site and basking areas to establish a 300-foot buffer around the sites within which timber harvest would be limited to the period between November 15 and April 15, and no large rocks (>2-foot diameter) would be disturbed by skidding activities.
- Have a qualified Timber Rattlesnake biologist on-site during construction to inspect the area (including staging areas) for Timber Rattlesnakes and to capture and remove any rattlesnakes that may be encountered.

- Advise construction workers that Timber Rattlesnakes may be encountered and that the species is a state-protected species and is not to be harmed.
- Have a qualified Timber Rattlesnake biologist submit a report to the Natural Diversity Section following the completion of the project documenting all of the activity and herpetofauna (i.e., reptiles and amphibians) encountered at each crossing and staging area.

Additional consultation with USFWS indicated that Black Rock Road is within the known range of the Indiana Bat and Northeastern Bulrush (*Scirpus ancistrochaetus*), species that are federally listed as endangered. In its April 14, 2009 correspondence (see Appendix C), the USFWS included a request to conduct an Indiana Bat survey between May 15 and August 15 by a qualified, USFWS-approved biologist if this alternative is selected. In addition, USFWS initially determined that the Northeastern Bulrush could be affected if the construction of Black Rock Road would directly or indirectly affect wetlands. A wetland survey was conducted for the project area, and no wetlands were identified as suitable habitat for the Northeastern Bulrush. However, the USFWS has not yet concurred with this finding.

#### **4.6.3 Impact Analysis – Vermin/Vectors for Disease**

Similar to the Local Road System Upgrade alternative, the Black Rock Road alternative would use truck traffic to transport municipal solid waste to RRLLC's proposed waste-to-ethanol facility via I-80, S.R. 0053, and S.R. 0144 through the communities of Drifting, Moshannon, Gillintown, and Snow Shoe. While vehicular transportation of municipal solid waste is subject to certain federal and state regulatory requirements, those requirements do not mandate the use of airtight, watertight, double-wrapped bales in locked-cover vessels. Thus, OEA has concluded that the Black Rock Road alternative and the associated truck-based transport of municipal solid waste would likely have a greater impact on increased vermin/vectors for disease than the Proposed Action or the Modified Proposed Action.

### **4.7 WATER RESOURCES**

#### **4.7.1 Impact Analysis – Wetlands and Watercourses**

Similar to the Local Road System Upgrade alternative, construction of the roadway improvements that would be associated with the Black Rock Road alternative would result in direct impacts to wetlands and watercourses. In particular, this alternative calls for the construction of a new two-span bridge over Black Moshannon Creek. This new bridge would carry Black Rock Road over Black Moshannon Creek immediately south of its intersection with S.R. 0053. The bridge would be designed so that the single pier would be placed along the northern bank of the stream, and not in the watercourse itself. In addition, the construction of Black Rock Road would require a new culvert crossing of an unnamed tributary to Black Moshannon Creek. Tables 4-4 and 4-5 quantitatively summarize the wetland and watercourse impacts associated with this alternative.

**TABLE 4-4  
BLACK ROCK ROAD ALTERNATIVE  
WETLAND IMPACTS**

<b>WETLAND ID*</b>	<b>SHEET NUMBER*</b>	<b>STATION NUMBER*</b>	<b>IMPACT (SQUARE FEET)</b>
WET 101 (PSS)	97	2081+00	4,400
WET 102 (POW)	107-108	2233+00	15,500
WET 103 (PEM)	108	2240+00	1,600
BMC-WRC (PFO)	117	2380+00	6,400
BMC-WRC (PFO)	118	2393+00	7,000
WET R4 (PEM/PFO/PSS)	118	2403+00	1,600
WET 105 (PEM)	119	2414+50	2,800
WET 106 (PEM)	120	2433+50	16,700
WET 107 (PSS)	122	2463+50	4,800
WET 108 (PFO)	122-123	2469+25	5,600
WET 109 (PFO)	123-124	2479+25	6,800
WET 110 (PSS)	127	2537+00	2,500
<b>Total Impact</b>			<b>75,700</b>

\* As shown on the Environmental Features Mapping in Volume 2 of the DEIS

**TABLE 4-5  
BLACK ROCK ROAD ALTERNATIVE  
WATERCOURSE IMPACTS**

<b>WATERCOURSE ID*</b>	<b>SHEET NUMBER*</b>	<b>STATION NUMBER*</b>	<b>IMPACT (LINEAR FEET)</b>
WC 102	108	2249+50	40
WC 103	109	2255+50	40
WC 104	111	2291+50	40
WC 105	113	2310+00	40
WC 010 (Moshannon)	116	2374+00	No Impact
WC 106 (Black Moshannon)	118	2403+00	50
WC 108	120	2424+00	40
WC 107	124	2487+00	40
WC 109	126	2521+50	40
WC 110	128	2549+00	40
WC 111	130	2587+25	190
WC 112	135	2657+00	40
WC R6	N/A	N/A	40
<b>Total Impact</b>			<b>640</b>

\* As shown on the Environmental Features Mapping in Volume 2 of the DEIS

Beyond these direct construction-related impacts, the Black Rock Road alternative would have the potential to result in additional indirect wetland and watercourse impacts via typical roadway maintenance activities (i.e., clearing of drainage features, vegetation management, wintertime application of anti-skid compounds, etc.). While difficult to quantify, most of these indirect impacts

would likely be temporary in nature, and wetland functions and values would be naturally self-regenerative.

#### **4.7.2 Impact Analysis – Groundwater and Public Water Supplies**

Construction of the Black Rock Road alternative could result in alterations to shallow groundwater flow paths by impacting the ability of the soil to receive and transport surface runoff. However, these impacts are considered minor, and would have no long-term or lasting effects. Of greater groundwater concern would be potential groundwater contamination from highway traffic accidents. The most significant risk for groundwater contamination would come from a highway traffic accident involving a tanker truck hauling untreated “frac water” or ethanol. This type of traffic accident could result in potentially significant water quality impacts to both surface and groundwater resources. OEA has determined that the likelihood of this type of accident would be directly proportional to the traveling speed of the particular vehicle. The designated functional classification of the roadway controls or dictates vehicle speed. For example, the potential for an event of this magnitude to occur would be much greater on I-80, where vehicles are traveling at speeds in excess of 65 mph, than on the new Black Rock Road, where vehicles would be traveling at speeds averaging 25-30 mph. Any driver, however, who exceeds the local speed limit and travels too fast for roadway conditions could cause a vehicular accident. While the statistical probability of such an event is greater for this alternative than for the rail alternatives (i.e., vehicular accidents occur far more frequently than train accidents), a lower volume of material would likely be released during a truck accident because a single truck can only carry approximately 15% of the load of a single railroad tanker car.

#### **4.7.3 Impact Analysis – Floodplains**

Construction of the Black Rock Road alternative would potentially impact the floodplain associated with Black Moshannon Creek where a new two-span bridge would be constructed. However, in accordance with state permitting requirements, the proposed new bridge would be hydraulically designed and constructed to avoid and/or minimize (to the maximum extent practicable) any increase in the water surface elevation of the 100-year flood event. This alternative would also involve an existing transverse floodplain encroachment (i.e., the S.R. 0053 bridge crossing of Moshannon Creek), but the 100-year floodplain would not be impacted. Thus, this alternative would not result significant floodplain impacts.

### **4.8 SOCIOECONOMICS**

#### **4.8.1 Impact Analysis – Demographics and Employment**

The Black Rock Road alternative would not require the displacement of any residential or commercial structures. Jobs created by this alternative would be temporary positions associated with the physical construction of the roadway improvements. Beyond these temporary construction jobs, this alternative could result in an increased demand for qualified truck drivers. OEA was unable to estimate the number of new truck driver jobs potentially generated by this alternative because OEA does not know who would be contracted to haul materials to/from the facility and if that contracted hauler would use existing drivers or hire new drivers.

## **4.8.2 Impact Analysis – Community Facilities and Services**

Similar to the Local Road System Upgrade alternative, the Black Rock Road alternative would not require the displacement of any community facility/service structures. However, truck traffic associated with this alternative could result in potential impacts on community facilities and services, as well as a potential increased demand for emergency response services. Specifically, conflicts such as delays of emergency response service vehicles and local school bus operations could result from the increased volume of truck traffic on local roadways. Additionally, the increased volume of truck traffic on local roadways could result in increased vehicle and pedestrian collisions, thereby placing an increased demand on emergency response services.

## **4.8.3 Impact Analysis – Parks and Recreation Facilities**

Construction of local road improvements associated with the Black Rock Road alternative would result in temporary impacts to the PA Wilds Elk Scenic Drive and PA Bicycle Route V due to temporary lane restrictions on S.R. 0144 and S.R. 0053. Beyond these temporary impacts, the increased volume of truck traffic on S.R. 0144 and S.R. 0053 would introduce additional conflicts with the recreational users of the PA Wilds Elk Scenic Drive and PA Bicycle Route V.

## **4.9 ENVIRONMENTAL JUSTICE**

### **4.9.1 Impact Analysis**

Apart from increased truck volumes on local roadways, the Black Rock Road alternative would have little to no impact on low income environmental justice communities. No residential structures would be displaced by this alternative. Minor right-of-way acquisitions required to improve S.R. 0053 and S.R. 0144 would be mitigated by financial compensation to the respective property owners.

## **4.10 GEOLOGY AND SOILS**

### **4.10.1 Impact Analysis – Geology**

Construction of Black Rock Road itself would result in potential geology impacts. Construction of this 3.1-mile new roadway would require cutting/excavation into the surficial rock layers of the local geology (and filling where necessary) to establish an acceptable grade for the roadway. This would consist of a cut/fill corridor approximately 60 feet in width for the length of the roadway. The impacts would be somewhat offset by the 1.2 miles that would be built over the existing gravel roads on the RRLLC property because Black Rock Road would generally follow the grade of these existing roads and no new cutting or excavating would be required.

### **4.10.2 Impact Analysis – Soils**

Construction of the Black Rock Road alternative would result in minor impacts to soils due to the necessary grading activities associated with construction-related activities. Implementation of appropriate erosion and sedimentation control measures pursuant to PA Code Title 25 Chapter

102, as outlined in an Erosion and Sedimentation Pollution Control Plan approved by the county conservation district, would avoid and minimize these impacts.

## **4.11 HAZARDOUS WASTE SITES/HAZARDOUS MATERIALS TRANSPORT**

### **4.11.1 Impact Analysis – Hazardous Waste Sites**

As described in Chapter 3 of the DEIS, a number of potential hazardous/residual waste sites have been identified within the immediate vicinity of the project area. Most of the potential hazardous/residual waste sites located in the vicinity of the new Black Rock Road alternative consist of current and former gas stations/automotive repair garages along S.R. 0053 and S.R. 0144. Construction of the Black Rock Road alternative would likely require earth disturbance activities and the associated acquisition of highway improvement right-of-way from many of the potential hazardous/residual waste sites identified along S.R. 0053 and S.R. 0144. A total of 17 potential hazardous/residual waste sites were identified within the potential impact area of this alternative. Prior to construction of this alternative, PennDOT would require additional Phase II/III Environmental Site Assessment studies at each of these locations to determine the extent and severity of potential contamination within the required right-of-way. No hazardous/residual waste sites have been identified within the 3.1-mile corridor of Black Rock Road itself.

### **4.11.2 Impact Analysis – Hazardous Materials Transport**

When the DEIS was prepared, RJCP did not plan to ship any hazardous materials over the proposed rail line or along the local road system. As presented in its initial and subsequent filings to the Board (see Appendix C of the DEIS), RJCP anticipated transporting municipal solid waste, coal, stone, and “frac water” from natural gas drilling activities. The waste would only consist of municipal solid waste and not hazardous waste because RRLLC’s proposed landfill would not be permitted to accept hazardous waste. In addition, USEPA classifies “frac water” as a residual waste material, not a hazardous material. Therefore, RJCP did not originally anticipate transporting hazardous materials as part of this project.

However, since issuance of the DEIS, RRLLC has announced its plan to develop a waste-to-ethanol facility, which would result in the outbound transportation of ethanol, a regulated hazardous material. As noted in Chapter 3 of this SDEIS, the waste-to-ethanol facility would result in a greater number of trucks using the local road system if the Board does not approve RJCP’s proposed rail line. Based on RRLLC’s estimated 160,256 gallon-per-day peak shipping capacity, an estimated 64 additional trucks (32 loaded and 32 empty at 5,000 gallons each) would be added to the local road system. The vehicular transport of ethanol via the Black Rock Road alternative would be regulated in accordance with USDOT’s hazardous materials transportation requirements. See Chapter 3 of this SDEIS.

## **4.12 CULTURAL/HISTORIC RESOURCES**

### **4.12.1 Impact Analysis**

Similar to the Local Road System Upgrade alternative, construction of the Black Rock Road alternative would likely involve the acquisition of right-of-way from the cemetery portion of the National Register-listed St. Severin’s Old Log Church to permit the planned highway improvements

that would take place under this alternative. Additional highway improvements would likely require acquisition of property from the potentially National Register-eligible nineteenth century residence at the intersection of S.R. 0053 and Winburne Road, the historic farmstead along S.R. 0144 just west of the I-80 Exit 147 Interchange, and a number of contributing elements (i.e., properties containing buildings or features that contribute to the overall significance of the district) within the Snow Shoe Borough Historic District. While the extent to which it would be necessary to acquire property is unknown at this time, it is likely that the result would be an adverse effect to several of these resources. Construction of the 3.1-mile Black Rock Road itself is not anticipated to impact any National Register-listed or eligible historic or archaeological resources. Appendix C contains documentation of the Pennsylvania Historical and Museum Commission's (PHMC) concurrence with this determination.

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