

**Rover Pipeline Project**  
**2016 Mist Net Survey in West Virginia**  
**Executive Summary**

Mist Net Methods

In response to comments from the U.S. Fish and Wildlife Service West Virginia Field Office (WVFO) that surveys be conducted for Indiana Bat (*Myotis sodalis*) in West Virginia for all areas of the Rover Pipeline Project (Project) that fall outside of known-use buffers to determine if federally listed species are present, Rover Pipeline LLC (Rover) conducted a mist net survey, pursuant to the April 2016 Range-wide Indiana Bat Summer Survey Guidelines (2016 Guidelines), along the Sherwood, CGT, and Majorsville Laterals in West Virginia in June 2016. Surveys were completed in 2015 along the Burgettstown Lateral portion of the Project in West Virginia.

To determine the level of effort required to satisfy regulatory concerns, the Project alignment was divided into 1 kilometer (km) segments. Using aerial imagery, each segment was then assessed to determine the presence of potentially suitable habitat, as described above. Desktop reconnaissance identified 92 kilometer segments of the proposed alignment that contain forested habitat that will be impacted by the proposed Project, including access roads. However, the portion of the proposed alignment along the Sherwood Lateral between approximate mileposts 12 and 22 is within a known Indiana bat occurrence buffer. As such, Rover assumes the species is present and no further surveys were conducted within this area. The desktop reconnaissance was used to develop a study plan that included the proposed site locations and methods used to conduct the survey. The study plan was provided to, and subsequently approved by, the West Virginia Department of Natural Resources (WVDNR) and the WVFO. Rover, in coordination with applicable resource agencies, identified a total of 75 km segments that required survey, which was reduced from 92 km segments by the exclusion of those sites located within the Indiana bat known occurrence buffer.

A total of 72 mist net sites were established and surveyed where survey permission was granted along the CGT, Majorsville, and Sherwood Laterals in West Virginia from 6 - 15 June, 2016. A complete discussion regarding the selection of the mist net sites will be provided in the final 2016 mist net survey report. Pursuant to the 2016 Guidelines, each mist net site included three net sets, operated for two calendar nights, resulting in six net nights of survey per site, as West Virginia is considered white-nose syndrome impacted. The total level of effort across the Project area was 432 net nights of survey. A net night is defined as the operation of one net set for one night. A breakdown of survey effort along each lateral is provided in Table 1.

**Table 1. Mist net survey level of effort conducted during the 2016 summer maternity season in West Virginia.**

<b>State</b>	<b>Number of Sites</b>	<b>Net Nights</b>
CGT	9	54
Majorsville	22	132
Sherwood	41	246
<b>Total</b>	<b>72</b>	<b>432</b>

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Mist Net Results

Mist net sites were placed in the best available habitat within each km where survey access was granted, as determined by WVFO approved surveyors in the field. A total of 257 bats, representing six species, were captured at 72 sites along the Project alignment.

The following species were captured:

- big brown bat (*Eptesicus fuscus*, n = 84; 32.7% of total capture),
- northern long-eared bat (*Myotis septentrionalis*, n = 83; 32.3%),
- red bat (*Lasiurus borealis*, n = 80; 31.1%),
- tri-colored bat (*Perimyotis subflavus*, n = 5; 1.9% ), and
- silver-haired bat (*Lasionycteris noctivigans*, n = 4; 1.6%)
- hoary bat (*Lasiurus cinereus*, n = 1; 0.4%)

A summary of all species captured along each lateral is provided in Table 2. Complete demographic data for all bats captured during the course of the survey will be provided in a final survey report. A total of 83 northern long-eared bats were captured in the following four counties: Doddridge, Marshal, Tyler, and Wetzel counties in West Virginia. No Indiana bats were encountered during the course of the survey.

**Table 2. Bats captured during the 2016 summer maternity season in West Virginia.**

Species	Adult Female <sup>1</sup>				Juvenile <sup>2</sup>		Male <sup>3</sup>		UNK <sup>4</sup>	Total
	P	L	PL	NR	F	M	TD	NR		
<b>CGT</b>										
northern long-eared ( <i>Myotis septentrionalis</i> )	8	0	0	1	0	0	0	3	0	<b>12</b>
red ( <i>Lasiurus borealis</i> )	0	0	0	1	0	0	2	2	0	<b>5</b>
silver-haired ( <i>Lasionycteris noctivigans</i> )	0	0	0	0	0	0	0	1	0	<b>1</b>
big brown ( <i>Eptesicus fuscus</i> )	0	1	0	0	0	0	0	0	0	<b>1</b>
<b>Total – CGT</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>6</b>	<b>0</b>	<b>19</b>
<b>Majorsville</b>										
big brown ( <i>Eptesicus fuscus</i> )	14	12	0	3	0	0	3	9	4	<b>45</b>
northern long-eared ( <i>Myotis septentrionalis</i> )	7	5	0	0	0	0	2	4	0	<b>18</b>
red ( <i>Lasiurus borealis</i> )	3	0	0	1	0	0	1	4	1	<b>10</b>
tri-colored ( <i>Perimyotis subflavus</i> )	0	0	0	0	0	0	0	1	0	<b>1</b>
hoary ( <i>Lasiurus cinereus</i> )	0	1	0	0	0	0	0	0	0	<b>1</b>
silver-haired ( <i>Lasionycteris noctivigans</i> )	0	0	0	0	0	0	0	1	0	<b>1</b>
<b>Total – Majorsville</b>	<b>24</b>	<b>18</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>19</b>	<b>5</b>	<b>76</b>
<b>Sherwood</b>										
red ( <i>Lasiurus borealis</i> )	20	3	0	2	0	0	0	34	6	<b>65</b>
northern long-eared ( <i>Myotis septentrionalis</i> )	28	2	0	5	0	0	1	17	0	<b>53</b>
big brown ( <i>Eptesicus fuscus</i> )	11	9	1	1	0	0	5	10	1	<b>38</b>

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Species	Adult Female <sup>1</sup>				Juvenile <sup>2</sup>		Male <sup>3</sup>		UNK <sup>4</sup>	Total
	P	L	PL	NR	F	M	TD	NR		
tri-colored ( <i>Perimyotis subflavus</i> )	2	0	0	0	0	0	0	2	0	4
silver-haired ( <i>Lasionycteris noctivigans</i> )	0	0	0	0	0	0	0	2	0	2
<b>Total – Sherwood</b>	<b>61</b>	<b>14</b>	<b>1</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>65</b>	<b>7</b>	<b>162</b>
<b>GRAND TOTAL</b>	<b>93</b>	<b>33</b>	<b>1</b>	<b>14</b>	<b>0</b>	<b>0</b>	<b>14</b>	<b>90</b>	<b>12</b>	<b>257</b>
<sup>1</sup> pregnant (P); lactating (L); post lactating (PL); non-reproductive (NR) <sup>2</sup> female (F); male (M) <sup>3</sup> testes descended (TD); non-reproductive (NR) <sup>4</sup> captured bat escaped from net or hand before morphometric data collection (UNK.)										