APPENDIX 10B

Tables

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TABLE 10.4-1
Comparison of the January and February 2015 Market Segment Routes in Michigan North of MP 109.6

Environmental Factor	Unit	Proposed Route as Filed in January 2015 [1]	Proposed Route as Filed in February 2015 [2]
Total length:	miles	109.6	0
Length adjacent to existing rights-of-way	miles	24.6	0
Percent adjacent to existing rights-of-way	percent	22.5%	0
Total construction right-of-way	acres	1,802.06	0
Emergent wetlands	acres	44.41	0
Scrub-shrub wetlands	acres	20.92	0
Forested wetlands	acres	40.55	0
Forest	acres	486.04	0
Agricultural land	acres	1,201.79	0
Open land	acres	114.23	0
Permanent access roads	acres	1.03	0
Temporary access roads	acres	4.83	0
Permanent right-of-way	acres	661.54	0
Intermittent streams crossed	number	10	0
Perennial streams crossed	number	19	0
NRHP Listed Properties within 500 feet	number	Not Available	0
Roads crossed	number	127	0
Railroads crossed	number	6	0
Tracts crossed	number	1,324	0
Residences within 50 feet of the centerline	number	24	0
NSAs (e.g., schools, hospitals) within 500 feet	number	0	0
Public lands crossed	miles	0	0

[1] The January 2015 route for the Market Segment included 109.6 miles in Michigan, extending from MP 100.0 in Livingston County, through Shiawassee, Genesee, Oakland, Lapeer, Macomb, and St. Clair counties to the U.S./Canadian border (see Figure 10.4-8 in Appendix 10A).

[2] Following an agreement with Vector to use Vector's pipeline system to transport Rover's natural gas volumes, the February 2015 route for the Market Segment eliminated 109.4 miles in Michigan extending north of MP 100.0 in Livingston County, Michigan.

TABLE 10.5-1
Comparison of the Sherwood Lateral and Sherwood West Alternate Route

Environmental Factor	Unit	Sherwood West Alternate	Proposed Route
Total length:	miles	51.88	54.0
Length adjacent to existing rights-of-way	miles	4.3	0.88
Percent adjacent to existing rights-of-way	percent	8.3	1.6
Total construction right-of-way	acres	865.45	897.92
NWI Emergent wetlands (100 feet wide)	acres	0	0
NWI Scrub-shrub wetlands (100 feet wide)	acres	1.25	0
NWI Forested wetlands (75 feet wide)	acres	0.12	0
Forest (125 feet wide)	acres	694.13	715.07
Agricultural land (150 feet wide)	acres	125.32	134.03
Open land (125 feet wide)	acres	46.00	48.82
Permanent right-of-way (50 feet wide)	acres	314.45	328.62
NHD Intermittent streams crossed	number	61	40
NHD Perennial streams crossed	number	10	19
NRHP Listed Properties within 500 feet	number	0	0
Roads crossed	number	95	114
Railroads crossed	number	1	1
Tracts crossed	number	167 [1]	300
Residences within 50 feet of the centerline	number	0	2
NSAs (e.g., schools, hospitals) within 500 feet	number	0	0
Public lands crossed	miles	1.3	0

NWI – National Wetlands Inventory
NHD – National Hydrograpy Dataset
NRHP – National Register of Historic Places
NSA – Noise Sensitive Area

Note: Comparisons based on publicly available GIS data.

[1] Only partial tract data available.

TABLE 10.5-2
Comparison of the CGT Lateral and Alternate Route

Environmental Factor	Unit	CGT Alternate	Proposed Route
Total length:	miles	5.38	5.70
Length adjacent to existing rights-of-way	miles	0	0
Percent adjacent to existing rights-of-way	percent	0	0
Total construction right-of-way	acres	49.33	51.87
NWI Emergent wetlands (75 feet wide)	acres	0	0
NWI Scrub-shrub wetlands (75 feet wide)	acres	0	0
NWI Forested wetlands (75 feet wide)	acres	0	0
Forest (75 feet wide)	acres	45.43	49.36
Agricultural land (100 feet wide)	acres	2.27	1.22
Open land (75 feet wide)	acres	1.63	1.29
Permanent right-of-way (50 feet wide)	acres	32.62	34.56
NHD Intermittent streams crossed	number	3	1
NHD Perennial streams crossed	number	1	1
NRHP Listed Properties within 500 feet	number	0	0
Roads crossed	number	6	3
Railroads crossed	number	0	0
Tracts crossed	number	40	35
Residences within 50 feet of the centerline	number	0	0
NSAs (e.g., schools, hospitals) within 500 feet	number	0	0
Public lands crossed	miles	0	0

NWI – National Wetlands Inventory
NHD – National Hydrograpy Dataset
NRHP – National Register of Historic Places
NSA – Noise Sensitive Area

Note: Comparisons based on publicly available GIS data.

TABLE 10.5-3
Comparison of the Seneca Lateral and Alternate Route

Environmental Factor	Unit	Seneca Alternate	Proposed Route
Total length:	miles	25.76	25.6
Length adjacent to existing rights-of-way	miles	24.59	22.29
Percent adjacent to existing rights-of-way	percent	95.5	86.7
Total construction right-of-way	acres	445.32	416.0
NWI Emergent wetlands (100 feet wide)	acres	0	0
NWI Scrub-shrub wetlands (100 feet wide)	acres	0	0
NWI Forested wetlands (75 feet wide)	acres	0	0
Forest (125 feet wide)	acres	223.20	229.63
Agricultural land (150 feet wide)	acres	190.47	155.90
Open land (125 feet wide)	acres	31.65	30.47
Permanent right-of-way (50 feet wide)	acres	156.2	155.9
NHD Intermittent streams crossed	number	31	32
NHD Perennial streams crossed	number	14	13
NRHP Listed Properties within 500 feet	number	0	0
Roads crossed	number	36	36
Railroads crossed	number	0	0
Tracts crossed	number	171	159
Residences within 50 feet of the centerline	number	0	0
NSAs (e.g., schools, hospitals) within 500 feet	number	0	0
Public lands crossed	miles	0	0

NWI – National Wetlands Inventory
NHD – National Hydrograpy Dataset
NRHP – National Register of Historic Places
NSA – Noise Sensitive Area

Note: Comparisons based on publicly available GIS data.

TABLE 10.5-4
Comparison of the Berne Lateral and Alternate Routes

Environmental Factor	Unit	Berne Alternate	Proposed Route
Total length:	miles	4.13	3.71
Length adjacent to existing rights-of-way	miles	2.26	0.95
Percent adjacent to existing rights-of-way	percent	54.7	25.6
Total construction right-of-way	acres	40.84	35.18
NWI Emergent wetlands (75 feet wide)	acres	0	0
NWI Scrub-shrub wetlands (75 feet wide)	acres	0	0
NWI Forested wetlands (75 feet wide)	acres	0	0
Forest (75 feet wide)	acres	24.76	27.41
Agricultural land (100 feet wide)	acres	14.04	6.44
Open land (75 feet wide)	acres	2.04	1.33
Permanent right-of-way (50 feet wide)	acres	25.08	22.49
NHD Intermittent streams crossed	number	4	3
NHD Perennial streams crossed	number	2	1
NRHP Listed Properties within 500 feet	number	0	0
Roads crossed	number	7	6
Railroads crossed	number	0	0
Tracts crossed	number	43	38
Residences within 50 feet of the centerline	number	0	0
NSAs (e.g., schools, hospitals) within 500 feet	number	0	0
Public lands crossed	miles	0	0

NWI – National Wetlands Inventory
NHD – National Hydrograpy Dataset
NRHP – National Register of Historic Places
NSA – Noise Sensitive Area

Note: Comparisons based on publicly available GIS data.

TABLE 10.5-5
Comparison of the Clarington Lateral, West Alternate 1 and East Alternate 2 Routes

Environmental Factor	Unit	West Alternate 1	East Alternate 2	Proposed Route
Total length:	miles	36.02	43.88	32.6
Length adjacent to existing rights-of-way	miles	7.60	38.52	13.3
Percent adjacent to existing rights-of-way	percent	21.1	87.8	40.6
Total construction right-of-way	acres	568.04	685.18	535.26
NWI Emergent wetlands (100 feet wide)	acres	5.26	0	0
NWI Scrub-shrub wetlands (100 feet wide)	acres	0.9	1.8	0.24
NWI Forested wetlands (75 feet wide)	acres	0.01	2.26	0
Forest (125 feet wide)	acres	361.82	329.50	209.34
Agricultural land (150 feet wide)	acres	158.90	279.96	253.45
Open land (125 feet wide)	acres	47.32	75.72	72.47
Permanent right-of-way (50 feet wide)	acres	218.27	265.99	198.53
NHD Intermittent streams crossed	number	26	3	3
NHD Perennial streams crossed	number	12	53	30
NRHP Listed Properties within 500 feet	number	0	0	0
Roads crossed	number	44	48	38
Railroads crossed	number	0	7	2
Tracts crossed	number	39 [1]	49 [1]	205
Residences within 50 feet of the centerline	number	1	0	0
NSAs (e.g., schools, hospitals) within 500 feet	number	0	0	0
Public lands crossed	miles	4.59	0	0

NWI – National Wetlands Inventory
NHD – National Hydrograpy Dataset
NRHP – National Register of Historic Places
NSA – Noise Sensitive Area

Note: Comparisons based on publicly available GIS data.

[1] Only partial tract data available.

TABLE 10.5-6
Comparison of the Majorsville Lateral and Alternate Route

Environmental Factor	Unit	Majorsville Alternate	Proposed Route
Total length:	miles	22.72	23.93
Length adjacent to existing rights-of-way	miles	2.12	0.60
Percent adjacent to existing rights-of-way	percent	9.3	2.5
Total construction right-of-way	acres	211.13	226.01
NWI Emergent wetlands (75 feet wide)	acres	0.08	0
NWI Scrub-shrub wetlands (75 feet wide)	acres	0.11	0
NWI Forested wetlands (75 feet wide)	acres	0.34	0.15
Forest (75 feet wide)	acres	171.9	167.82
Agricultural land (100 feet wide)	acres	22.63	39.14
Open land (75 feet wide)	acres	16.6	19.05
Permanent right-of-way (50 feet wide)	acres	137.75	145.04
NHD Intermittent streams crossed	number	0	0
NHD Perennial streams crossed	number	30	30
NRHP Listed Properties within 500 feet	number	0	0
Roads crossed	number	45	43
Railroads crossed	number	2	2
Tracts crossed	number	164	145
Residences within 50 feet of the centerline	number	0	2
NSAs (e.g., schools, hospitals) within 500 feet	number	0	0
Public lands crossed	miles	0	0

NWI – National Wetlands Inventory
NHD – National Hydrograpy Dataset
NRHP – National Register of Historic Places
NSA – Noise Sensitive Area

Note: Comparisons based on publicly available GIS data.

TABLE 10.5-7
Comparison of the Cadiz Lateral and Alternate Route

Environmental Factor	Unit	Cadiz Alternate	Proposed Route
Total length:	miles	2.86	2.94
Length adjacent to existing rights-of-way	miles	0	0
Percent adjacent to existing rights-of-way	percent	0	0
Total construction right-of-way	acres	49.95	51.14
NWI Emergent wetlands (100 feet wide)	acres	0.5	0
NWI Scrub-shrub wetlands (100 feet wide)	acres	0	0
NWI Forested wetlands (75 feet wide)	acres	0	0
Forest (125 feet wide)	acres	5.66	6.16
Agricultural land (150 feet wide)	acres	39.01	37.4
Open land (125 feet wide)	acres	5.28	7.58
Permanent right-of-way (50 feet wide)	acres	17.39	17.92
NHD Intermittent streams crossed	number	3	3
NHD Perennial streams crossed	number	3	3
NRHP Listed Properties within 500 feet	number	0	0
Roads crossed	number	3	3
Railroads crossed	number	0	0
Tracts crossed	number	42	42
Residences within 50 feet of the centerline	number	0	0
NSAs (e.g., schools, hospitals) within 500 feet	number	0	0
Public lands crossed	miles	0	0

NWI – National Wetlands Inventory
NHD – National Hydrograpy Dataset
NRHP – National Register of Historic Places
NSA – Noise Sensitive Area

Note: Comparisons based on publicly available GIS data.

TABLE 10.5-8
Comparison of the Supply Connector and Alternate Route

Environmental Factor	Unit	Supply Connector Alternate	Proposed Route
Total length:	miles	16.58	18.83
Length adjacent to existing rights-of-way	miles	14.86	4.10
Percent adjacent to existing rights-of-way	percent	89.62	21.8
Total construction right-of-way	acres	274.79	315.77
NWI Emergent wetlands (120 feet wide)	acres	0	1.51
NWI Scrub-shrub wetlands (120 feet wide)	acres	1.51	0.33
NWI Forested wetlands (75 feet wide)	acres	0	0.00
Forest (135 feet wide)	acres	203.29	205.01
Agricultural land (150 feet wide)	acres	47.48	91.71
Open land (135 feet wide)	acres	24.02	21.11
Permanent right-of-way (60 feet wide)	acres	120.63	136.95
NHD Intermittent streams crossed	number	12	11
NHD Perennial streams crossed	number	9	8
NRHP Listed Properties within 500 feet	number	0	0
Roads crossed	number	23	22
Railroads crossed	number	1	1
Tracts crossed	number	134	299
Residences within 50 feet of the centerline	number	0	0
NSAs (e.g., schools, hospitals) within 500 feet	number	0	0
Public lands crossed	miles	1.73	0

NWI – National Wetlands Inventory
NHD – National Hydrograpy Dataset
NRHP – National Register of Historic Places
NSA – Noise Sensitive Area

Note: Comparisons based on publicly available GIS data.

TABLE 10.5-9
Comparison of the Burgettstown Lateral and Alternate Route

Environmental Factor	Unit	Burgettstown Alternate	Proposed Route
Total length:	miles	45.85	51.34
Length adjacent to existing rights-of-way	miles	4.62	2.37
Percent adjacent to existing rights-of-way	percent	10.1	4.6
Total construction right-of-way	acres	557.12	566.97
NWI Emergent wetlands (100 feet wide)	acres	2.34	1.85
NWI Scrub-shrub wetlands (100 feet wide)	acres	1.82	0.28
NWI Forested wetlands (75 feet wide)	acres	1.50	0.25
Forest (125 feet wide)	acres	346.05	317.36
Agricultural land (150 feet wide)	acres	166.59	222.06
Open land (125 feet wide)	acres	44.48	27.55
Permanent right-of-way (50 feet wide)	acres	277.91	311.81
NHD Intermittent streams crossed	number	54	53
NHD Perennial streams crossed	number	12	18
NRHP Listed Properties within 500 feet	number	0	0
Roads crossed	number	64	81
Railroads crossed	number	4	4
Tracts crossed	number	245 [1]	318
Residences within 50 feet of the centerline	number	5	0
NSAs (e.g., schools, hospitals) within 500 feet	number	0	0
Public lands crossed	miles	0.52	0

NWI – National Wetlands Inventory
NHD – National Hydrograpy Dataset
NRHP – National Register of Historic Places
NSA – Noise Sensitive Area

Note: Comparisons based on publicly available GIS data.

[1] Majority, but not complete, tract data available.

TABLE 10.5-10
Comparison of Mainlines A and B and the Alternate Route

Environmental Factor	Unit	Mainlines A and B Alternate	Proposed Route
Total length:	miles	183.79	190.6
Length adjacent to existing rights-of-way	miles	143.76	164.44
Percent adjacent to existing rights-of-way	percent	78.2	85.8
Total construction right-of-way	acres	3273.18	3414.36
NWI Emergent wetlands (120 feet wide)	acres	6.84	10.26
NWI Scrub-shrub wetlands (120 feet wide)	acres	12.79	10.12
NWI Forested wetlands (75 feet wide)	acres	20.71	17.70
Forest (135 feet wide)	acres	499.66	378.83
Agricultural land (150 feet wide)	acres	2517.67	2873.20
Open land (135 feet wide)	acres	255.85	160.33
Permanent right-of-way (60 feet wide)	acres	1336.71	1393.18
NHD Intermittent streams crossed	number	155	158
NHD Perennial streams crossed	number	46	52
NRHP Listed Properties within 500 feet	number	0	0
Roads crossed	number	210	247
Railroads crossed	number	21	22
Tracts crossed	number	1071	981
Residences within 50 feet of the centerline	number	76	4
NSAs (e.g., schools, hospitals) within 500 feet	number	2	0
Public lands crossed	miles	0.90	0.12

NWI – National Wetlands Inventory
NHD – National Hydrograpy Dataset
NRHP – National Register of Historic Places
NSA – Noise Sensitive Area

Note: Comparisons based on publicly available GIS data.

TABLE 10.5-11
Comparison of the Mainlines A and B and the NEXUS Alternate

Environmental Factor	Unit	Mainlines A and B, MPs 52.4 to 203.6	
		NEXUS Alternate	Proposed Route
Total length:	miles	170.40	151.20
Length adjacent to existing rights-of-way	miles	90.38	123.73
Percent adjacent to existing rights-of-way	percent	53.00	79.74
Total construction right-of-way	acres	3038.46	2735.36
NWI Emergent wetlands (120 feet wide)	acres	2.40	9.71
NWI Scrub-shrub wetlands (120 feet wide)	acres	8.54	6.45
NWI Forested wetlands (75 feet wide)	acres	10.48	5.30
Forest (135 feet wide)	acres	319.57	187.83
Agricultural land (150 feet wide)	acres	2511.12	2429.41
Open land (135 feet wide)	acres	207.77	118.12
Permanent right-of-way (60 feet wide)	acres	1239.36	1112.55
NHD Intermittent streams crossed	number	77	134
NHD Perennial streams crossed	number	48	41
NRHP Listed Properties within 500 feet	number	0	0
Roads crossed	number	174	161
Railroads crossed	number	28	17
Tracts crossed	number	17 [1]	755
Residences within 50 feet of the centerline	number	1	3
NSAs (e.g., schools, hospitals) within 500 feet	number	0	0
Public lands crossed	miles	0	0

NWI – National Wetlands Inventory
NHD – National Hydrograpy Dataset
NRHP – National Register of Historic Places
NSA – Noise Sensitive Area

Note: Comparisons based on publicly available GIS data.

[1] Very limited coverage for tracts.

TABLE 10.5-12
Comparison of the Market Segment and Alternate Route

Environmental Factor	Unit	Market Segment Alternate	Proposed Route
Total length:	miles	98.30	100.04
Length adjacent to existing rights-of-way	miles	25.98	22.86
Percent adjacent to existing rights-of-way	percent	25.7	22.7
Total construction right-of-way	acres	493.56	495.29
NWI Emergent wetlands (120 feet wide)	acres	50.80	40.26
NWI Scrub-shrub wetlands (120 feet wide)	acres	25.78	21.73
NWI Forested wetlands (75 feet wide)	acres	19.65	21.53
Forest (135 feet wide)	acres	13.04	13.84
Agricultural land (150 feet wide)	acres	461.40	465.08
Open land (135 feet wide)	acres	19.12	16.37
Permanent right-of-way (60 feet wide)	acres	714.98	727.54
NHD Intermittent streams crossed	number	21	22
NHD Perennial streams crossed	number	29	27
NRHP Listed Properties within 500 feet	number	0	0
Roads crossed	number	112	83
Railroads crossed	number	6	14
Tracts crossed	number	1119	1482
Residences within 50 feet of the centerline	number	0	0
NSAs (e.g., schools, hospitals) within 500 feet	number	0	0
Public lands crossed	miles	0	0

NWI – National Wetlands Inventory
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NRHP – National Register of Historic Places
NSA – Noise Sensitive Area

Note: Comparisons based on publicly available GIS data.

TABLE 10.5-13
Comparison of Planned Market Segment Route Alternative 1 and the Proposed Route

Environmental Factor	Unit	Market Segment MPs 67.99 – 81.75	
		Market Segment Route Alternative 1	Proposed Route
Total length:	miles	13.60	13.76
Length adjacent to existing rights-of-way	miles	4.06	2.19
Percent adjacent to existing rights-of-way	percent	29.9	15.82
Total construction right-of-way	acres	237.46	240.16
NWI Emergent wetlands (120 feet wide)	acres	2.82	4.25
NWI Scrub-shrub wetlands (120 feet wide)	acres	17.21	12.57
NWI Forested wetlands (75 feet wide)	acres	3.61	6.16
Forest (135 feet wide)	acres	40.55	45.93
Agricultural land (150 feet wide)	acres	187.06	187.44
Open land (135 feet wide)	acres	9.84	6.79
Permanent right-of-way (60 feet wide)	acres	82.46	83.92
NHD Intermittent streams crossed	number	0	0
NHD Perennial streams crossed	number	2	2
NRHP Listed Properties within 500 feet	number	0	0
Roads crossed	number	15	15
Railroads crossed	number	1	1
Tracts crossed	number	208	238
Residences within 50 feet of the centerline	number	0	0
NSAs (e.g., schools, hospitals) within 500 feet	number	0	0
Public lands crossed	miles	0	0

NWI – National Wetlands Inventory
NHD – National Hydrograpy Dataset
NRHP – National Register of Historic Places
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Note: All calculations are based on publicly available GIS data

TABLE 10.5-14
Comparison of Planned Market Segment Route Alternative 2 and the Proposed Route

Environmental Factor	Unit	Market Segment MPs 83.90 – 86.84	
		Market Segment Route Alternative 2	Proposed Route
Total length:	miles	2.92	2.94
Length adjacent to existing rights-of-way	miles	0.36	2.16
Percent adjacent to existing rights-of-way	percent	12.3	73.5
Total construction right-of-way	acres	46.86	48.25
NWI Emergent wetlands (120 feet wide)	acres	2.69	9.52
NWI Scrub-shrub wetlands (120 feet wide)	acres	0.53	1.84
NWI Forested wetlands (75 feet wide)	acres	0	0.99
Forest (135 feet wide)	acres	30.66	19.92
Agricultural land (150 feet wide)	acres	13.82	20.08
Open land (135 feet wide)	acres	2.38	8.25
Permanent right-of-way (60 feet wide)	acres	17.71	17.98
NHD Intermittent streams crossed	number	0	0
NHD Perennial streams crossed	number	1	1
NRHP Listed Properties within 500 feet	number	0	0
Roads crossed	number	3	3
Railroads crossed	number	0	0
Tracts crossed	number	25	111
Residences within 50 feet of the centerline	number	0	0
NSAs (e.g., schools, hospitals) within 500 feet	number	0	0
Public lands crossed	miles	0	0
Village of Pinckney Sewage Treatment Plant	miles	0	0.64

NWI – National Wetlands Inventory
NHD – National Hydrograpy Dataset
NRHP – National Register of Historic Places
NSA – Noise Sensitive Area

Note: All calculations are based on publicly available GIS data

TABLE 10.5-15
Comparison of Planned Market Segment Route Alternative 3 and the Proposed Route

Environmental Factor	Unit	Market Segment MPs 88.24- 89.27	
		Market Segment Route Alternative 3	Proposed Route
Total length:	miles	1.26	1.03
Length adjacent to existing rights-of-way	miles	0.66	0.66
Percent adjacent to existing rights-of-way	percent	52.6	64.1
Total construction right-of-way	acres	21.68	20.96
NWI Emergent wetlands (120 feet wide)	acres	0.44	0.58
NWI Scrub-shrub wetlands (120 feet wide)	acres	0.48	0.24
NWI Forested wetlands (75 feet wide)	acres	0	1.22
Forest (135 feet wide)	acres	2.16	1.31
Agricultural land (150 feet wide)	acres	15.18	12.71
Open land (135 feet wide)	acres	4.34	6.94
Permanent right-of-way (60 feet wide)	acres	7.66	7.49
NHD Intermittent streams crossed	number	0	0
NHD Perennial streams crossed	number	1	1
NRHP Listed Properties within 500 feet	number	0	0
Roads crossed	number	2	2
Railroads crossed	number	0	0
Tracts crossed	number	28	32
Residences within 50 feet of the centerline	number	0	1
NSAs (e.g., schools, hospitals) within 500 feet	number	0	0
Public lands crossed	miles	0	0

NWI – National Wetlands Inventory
NHD – National Hydrograpy Dataset
NRHP – National Register of Historic Places
NSA – Noise Sensitive Area

Note: All calculations are based on publicly available GIS data

TABLE 10.5-16
Comparison of Planned Market Segment Route Alternative 4 and the Proposed Route

Environmental Factor	Unit	Market Segment MPs 93.28 – 100.0	
		Market Segment Route Alternative 4	Proposed Route
Total length:	miles	6.49	6.72
Length adjacent to existing rights-of-way	miles	6.49	6.19
Percent adjacent to existing rights-of-way	percent	100	92
Total construction right-of-way	acres	113.51	118.88
NWI Emergent wetlands (100 feet wide)	acres	8.43	8.04
NWI Scrub-shrub wetlands (100 feet wide)	acres	6.82	2.56
NWI Forested wetlands (75 feet wide)	acres	3.49	5.03
Forest (125 feet wide)	acres	43.91	40.56
Agricultural land (150 feet wide)	acres	63.12	72.70
Open land (125 feet wide)	acres	6.48	5.62
Permanent right-of-way (50 feet wide)	acres	41.5	39.65
NHD Intermittent streams crossed	number	0	0
NHD Perennial streams crossed	number	0	0
NRHP Listed Properties within 500 feet	number	0	0
Roads crossed	number	6	6
Railroads crossed	number	0	0
Tracts crossed	number	15	49
Residences within 50 feet of the centerline	number	0	0
NSAs (e.g., schools, hospitals) within 500 feet	number	0	0
Public lands crossed	miles	0	0

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NHD – National Hydrograpy Dataset
NRHP – National Register of Historic Places
NSA – Noise Sensitive Area

Note: All calculations are based on publicly available GIS data.

TABLE 10.6-1
Comparison of Sherwood Variation 1 and the Proposed Route

Environmental Factor	Unit	Sherwood Lateral MPs 32.9 – 36.9	
		Sherwood Variation 1	Proposed Route
Total length:	miles	3.37	3.98
Length adjacent to existing rights-of-way	miles	0	0
Percent adjacent to existing rights-of-way	percent	0	0
Total construction right-of-way	acres	52.01	61.78
NWI Emergent wetlands (120 feet wide)	acres	0	0
NWI Scrub-shrub wetlands (120 feet wide)	acres	0	0
NWI Forested wetlands (75 feet wide)	acres	0.21	0
Forest (135 feet wide)	acres	38.31	40.95
Agricultural land (150 feet wide)	acres	4.41	10.93
Open land (135 feet wide)	acres	9.29	9.9
Permanent right-of-way (50 feet wide)	acres	20.46	24.12
NHD Intermittent streams crossed	number	1	0
NHD Perennial streams crossed	number	1	3
NRHP Listed Properties within 500 feet	number	0	0
Roads crossed	number	8	13
Railroads crossed	number	0	1
Tracts crossed	number	32	24
Residences within 50 feet of the centerline	number	0	1
NSAs (e.g., schools, hospitals) within 500 feet	number	0	0
Public lands crossed	miles	0	0

NWI – National Wetlands Inventory
NHD – National Hydrograpy Dataset
NRHP – National Register of Historic Places
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Note: All calculations are based on publicly available GIS data

TABLE 10.6-2
Comparison of Market Segment Variation 1 and the Proposed Route North of MP 100.0

Environmental Factor	Unit	Market Segment MPs 44.45-45.07	
		Market Segment Variation 1	Proposed Route
Total length:	miles	0.61	0.62
Length adjacent to existing rights-of-way	miles	0	0
Percent adjacent to existing rights-of-way	percent	0	0
Total construction right-of-way	acres	10.40	10.57
NWI Emergent wetlands (120 feet wide)	acres	0	0.45
NWI Scrub-shrub wetlands (120 feet wide)	acres	0	0.39
NWI Forested wetlands (75 feet wide)	acres	0.47	0
Forest (135 feet wide)	acres	6.10	2.85
Agricultural land (150 feet wide)	acres	4.30	7.72
Open land (135 feet wide)	acres	0	0
Permanent right-of-way (60 feet wide)	acres	3.76	3.82
NHD Intermittent streams crossed	number	0	0
NHD Perennial streams crossed	number	1	1
NRHP Listed Properties within 500 feet	number	0	0
Roads crossed	number	0	0
Railroads crossed	number	0	0
Tracts crossed	number	23	13
Residences within 50 feet of the centerline	number	0	0
NSAs (e.g., schools, hospitals) within 500 feet	number	0	0
Public lands crossed	miles	0	0

NWI – National Wetlands Inventory
NHD – National Hydrograpy Dataset
NRHP – National Register of Historic Places
NSA – Noise Sensitive Area

Note: All calculations are based on publicly available GIS data

TABLE 10.6-3
Responses to Landowner Requests for Route Variations

Responses to Landowner Requests for Route Variations	Comment ID FERC Comment ID	Tract	Segment / MP	Comment	Resolution
Beveridge, David & Elizabeth Alma, WV	C859, C1169 20141216-5178, 20141216-4008	WV-DO-SHC-047.000 & 048.000	Sherwood Lateral 8.39	The pipeline route should be modified to move the pipeline to the portion of the meadow nearest to the house to allow a drilling site only on the portion of the meadow furthest from the house.	Rerouted. Map WV-DO-SHC-048.
Helmick, Larry Sisterville, WV	C467, C785 20141201-5103, 20141210-5086	WV-TY-SCH-080.340, 350 & WV-TY-SCH-081.000 & 082	Sherwood Lateral 27.0	Reroute to avoid cutting through middle of properties.	The current alignment was selected for being an equal distance from all residences in this area. Landowner has existing pipelines through the middle of the property, and the proposed route is adjacent through his property. Any reroute will impact multiple additional landowners.
Meyer, Robert Clarington, OH	C857 20141216-5225	APN: 280200160000	Sherwood Lateral Offline	My brother, Charles and I are owners of 250 acres of farmland used for raising beef cattle. My brother and I are more than willing to discuss possible routing locations thru our property with no intentions of impeding the impending progress of the overall project.	Offline
Nichol, Philip St. Clairsville, OH	C1150 20141218-5236	APN: 51-00156.001	Clarington Lateral Offline	As presently projected, the pipeline route will intersect a recently coal strip-mined area just to the west of my property. In this path are several OEPA, ODNR, and ACOE stream areas and pond mitigation areas. During the mining of this area, utmost care was taken to preserve the water quality by the previous mentioned entities.	Offline

TABLE 10.6-3
Responses to Landowner Requests for Route Variations

Responses to Landowner Requests for Route Variations	Comment ID FERC Comment ID	Tract	Segment / MP	Comment	Resolution
Roth, Henry Wheeling, WV	C343, C473 20141027-0036, 20141202-5091	WV-MA-ML-046.000, WV-MA-ML-044.000	Majorsville Lateral 8.5	Cutting of 200-year-old trees. Route should be routed into hay field.	During initial routing, many adjustments were made to accommodate this landowner, and stay off of Mr. Roth's property as much as possible. Proposed route is currently on the southernmost edge of the property with 152' of centerline impact. A reroute farther south is not possible due to a large ravine and consequent constructability issues.
Traylor, Joel Shadyside, OH	C821 20141211-5163	OH-BE-ML-010.000 , 011.000, 011.340, 012.000	Majorsville Lateral 12.7	Reroute to minimize impacts on New Life Fellowship Church properties.	This tract is in an extremely high population area near the Ohio River, with extreme terrain. Rover is consulting with the church to minimize any potential impacts during construction or operation of the pipeline.
Dewey, Barbara Monroe, Township, Harrison County, Ohio	C870 20141215-0045	OH-HR-042.510	Supply Connector 14.5	A shorter northern route would take it through meadows and our neighbor's aquaculture pond, which he frequently drains and scrapes anyway.	Rerouting to minimize impact. Map OH-HR-042.510.
Stillwater, JD & Ann Monroe, Township – Harrison, County	C466, C496, C800 20141201-5013, 20141203-5011, 20141201-5013	OH-HR-042.510.310	Supply Connector 14.5	Go north along to-be-constructed UEO pipeline.	Line rerouted to avoid tract. Map OH-HR-042.510.310.
Harris, Dawn Richmond, OH	C164 20140922-5120	OH-JE-HL-058.000, 059, 060	Burgettstown Lateral 26.5	Crossing of the forested properties.	Landowner is requesting that we relocate the pipeline 800'-1,000' to the south. The new location is in a low lying area, wetlands and parallel stream. Re-route will impact (3) additional landowners. Map OH-JE-HL-058.000

TABLE 10.6-3
Responses to Landowner Requests for Route Variations

Responses to Landowner Requests for Route Variations	Comment ID FERC Comment ID	Tract	Segment / MP	Comment	Resolution
O'Neill, Alex St. Clairsville, OH	C858 20141216-5164	Various sites, Murray Energy Corporation	Supply Laterals 27-29	Murray is willing to agree to conversations with Rover in an attempt to relocate the proposed pipeline and compressor station to a location that will not be impacted by future mining operations.	Currently working with Murray Energy to conduct surveys and agree on routing. Meetings are ongoing and have been very productive. Murray Energy owns many tracts along the Supply Laterals.
Lahr, Terrence Bethlehem Township, Navarre, OH	C393, C832 20141107-5164, 20141215-5021	OH-ST-024.000	Mainlines A and B 44.0	Requested reroute attached to avoid future building site.	Reroute not feasible. Best route selected for area. A reroute would impact 5 other landowners in a congested area.
Sautter, Greg Franklin Township, Wayne County, OH	NA11 20141222-4005	OH-WA-052.510	Mainlines A and B 66.4	Back in late October a new survey was done, which moves the pipeline very, very close to our house, through the corner of the septic system and through the corner of the geothermal system we have, the power line, plus the septic drain line, fences and so forth.	Rerouted to avoid landowner issues. Map OH-WA-052.510.
Alsdorf, Judy & Dawson Franklin, Township, Wooster, OH	C835 20141215-5038	OH-WA-052.516	Mainlines A and B 67.5	Pipeline crosses a potential historic Indian village or burial mound.	No evidence of a mound or village site was encountered in the Project study corridor. A reroute would impact 7 small tracts to avoid this parcel.

TABLE 10.6-3
Responses to Landowner Requests for Route Variations

Responses to Landowner Requests for Route Variations	Comment ID FERC Comment ID	Tract	Segment / MP	Comment	Resolution
Maurer, Roger & David Wooster, Township, Wayne, County, Ohio	C1157 20141222-4005	OH-WA-052.536	Mainlines A and B 69.5	The proposed pipeline is going to be within 150' of an oilfield waste injection well. This injection well is not shown on either the ET Rover aerial or the ET Rover topographic maps. This well is located In Section 29 of Wooster Township on 15 acres at the corner of Batdorf Road and West Tolbert Road. One of these injection wells, in the Youngstown, Ohio area, has been determined to be the cause of several small earthquakes in the past several years.. An earthquake could compromise the integrity of the welds connecting the two pipes.	Proposed reroute not feasible. The area is very congested. There is a subdivision to the north and Killbuck Marsh Wildlife Area to the South.
Tienarend, Rob Bloomdale, OH	NA48 20141222-4005	OH-WO-007.000	Mainlines A and B 161.75	The difference is, it cuts 600 acres right down the middle.	Reroute would move impacts to adjacent landowners with same issues.
Meyer, James Richmond Township , OH	DE04 20141222-4003	Offline	Mainlines A and B Offline	This proposed project will also impact my ability to graze and market timber because that is my crop on that woods, resulting in the land being of little or no value to me, to my descendants, and forever on the permanent right-of-way 'cause I cannot grow trees.	Offline
Stuckey, Thomas (Northwest Technical College) Ridgeville Township, Henry County Archbold, OH	C2 20140721-5048	OH-HN-009.500	Market Segment 8.75	Pipeline will interfere with expansion plans of the college.	Line change to avoid impact to area of interest to college for expansion. Map OH-HN-009.500.
Dennis, John C Franklin Township – Fulton, County, Wauseon, OH	C3 20140724-5020	OH-FU-034.000 (W. Dennis)	Market Segment 21.0	Run pipeline along property lines.	Reroute would have more Environmental Impact

TABLE 10.6-3
Responses to Landowner Requests for Route Variations

Responses to Landowner Requests for Route Variations	Comment ID FERC Comment ID	Tract	Segment / MP	Comment	Resolution
Marcinkiewicz, Charles Clinton, MI	AD37 20150102-5234	MI-LE-125.550	Market Segment 55.5	I just bought 20 acres that's in the middle of the pipeline. My concern is that they're coming very close to the Wisner Drain Field, which goes through my property. They'll be crossing it three to four times just in my area alone and no one seems to be interested if there is ever a leak where it might go.	The current route is the shortest route and is placed between houses to reduce impact:
Roberts, Catherine Manchester, MI	C500 20141204-5065	20141204-5065	Market Segment 58.0	West of the Compression Station is an oil pipeline, and west of that is a gravel pit. The pit owns a good chunk of land and it would be a much better location to run the pipeline. The pipeline would be placed away from our population center, the lake, and a productive farm field, and would be located in a completely uninhabited area.	Offline. Current route allows best access to proposed tie-in to Consumers Freedom station and avoids Pleasant Lake and residential housing.
Timoszyk, Timothy Manchester, MI	CH30 20141222-4024	MI-WA-023.510	Market Segment 61.5	It just so happens that this pipeline that they're proposing goes right through that swath of trees, so every single stick between when I look outside my living room to M52 will be gone.	Offline. Following METC power line easement. Some trees will remain between Rover and M52.
Belknap, John & Kelly Manchester, MI	C110, C140, C284, C449, C777, C837, C1046 20140911-5123, 20140919-5000, 20141016-5001, 20141124-5106, 20141205-5103, 20141215-5051, 20141217-5181	MI-WA-042.000	Market Segment 64.5	Pipeline crosses diagonally through property. Reroute options.	Will reroute on landowners property to satisfy his requests. Map MI- WA-042 (MP 65).

TABLE 10.6-3
Responses to Landowner Requests for Route Variations

Responses to Landowner Requests for Route Variations	Comment ID FERC Comment ID	Tract	Segment / MP	Comment	Resolution
Daniel, David A (Littlefield Daniel Trust) Manchester, MI	C354, C830 20141029-5057, 20141215-5006	MI-WA-043.000	Market Segment 65.0	Trust has committed large percentage of tract to wildlife habitat improvement and conservation.	Will evaluate reroute if survey permission is granted in area tracts. Map – MI-WA-044 (MP 65).
Schaible, Luther Manchester, MI	C132 20140917-5046	MI-WA-059.000	Market Segment 68.0	Move pipeline 600 feet west to avoid drain tile	Rerouting to follow existing easements. Map – MI-WA-059.
Poley, Irene Chelsea, MI	C1152 20150102-5234	MI-WA-066.510	Market Segment 71.0	Our thought would be if you would follow existing gas pipeline this would be a little easier to except then in the middle of the field.	Rerouting to follow Panhandle Pipeline easement to reduce impacts to multiple landowners. Map MI-WA-066.510.
Wenk, Paul Chelsea, MI	C880 20150102-5234	MI-WA-066.510 & MI-WA-070.000	Market Segment 71.0	We already have an existing pipeline crossing this property to which this route does not follow. The existing pipeline and proposed pipeline starts near same location on south property line then separate going north over steep hills ending hundreds of yards west of current pipeline at north line fence.	Route was adjusted during survey to follow existing lines. Map MI-WA-066.510.
Maturo, Pamela Riggs Chelsea, MI	CH10 20141222-4024	MI-WA-072.000 (Also listed as Dean & Sari Solden)	Market Segment 71.5	In addition, I have trees on that pasture land. The proposed pipeline runs right down the middle of a dozen mature trees that my animals use for shelter during the summer months. If those trees are not there, they're gone, they come in, they run in for shelter, and you may laugh, but you know what that means is me scooping poop for I don't know how many years, so that results in increased labor on my part, and I can guarantee Rover's not going to take that into consideration. [Also noted son's tree house in path of pipeline].	Rerouting to parallel Panhandle Easement existing right-of-way. Map MI-WA-072.000.
Hansen, Eric & Mary Dexter, MI	C1084 20141218-4024	Abutter Tract	Market Segment 75.0	Move pipeline east to the Panhandle Eastern Pipeline easement.	Offline. Rerouted to Panhandle Eastern easement. Map MI-WA-Hansen Tract.

TABLE 10.6-3
Responses to Landowner Requests for Route Variations

Responses to Landowner Requests for Route Variations	Comment ID FERC Comment ID	Tract	Segment / MP	Comment	Resolution
Roehrig, Karl Dexter, MI	C95, C388, C819, C823 20140908-5188, 20141106-5000, 20141212-5067, 20141212-5058	MI-WA-111.530	Market Segment 82.0	Pipeline going through middle of 33-acre property.	Reroute not feasible. Best route selected for area. A reroute would result in impacts to areas of higher congestion.
Salowitz, Amy (Village of Pinckney) Pinkney, MI	C277 20141014-5248	MI-LI-006.520 et al.	Market Segment 86.0	Pipeline could prevent expansion of the municipal sewage treatment plant.	Rerouted to avoid site of waste water treatment plant in Pinckney, MI Map - LI-006-520.
McCraw, Chris & Michelle Pinckney, MI	C498 20150102-5234	MI-LI-013.510	Market Segment 87.0	A month after we signed the papers and handed over our check, Rover shows up at our house asking for permission to go on our property. Not knowing the severity of the impact it was going to have, we said yes, and it has been a nightmare since. The pipeline is going to destroy that property. They will be cutting down 40%+ of the mature pines, and it is routed on the ridgeline which is the most buildable area. They have told us we can just put our house further back in the corner. Who buys 10 acres to be right next to your neighbor, not to mention the added cost to have everything ran back that much further?	Offline. Rerouted off of tract. Map MI-LI-013.510.

TABLE 10.6-3
Responses to Landowner Requests for Route Variations

Responses to Landowner Requests for Route Variations	Comment ID FERC Comment ID	Tract	Segment / MP	Comment	Resolution
Golden, Toni & Guy & Mark & Marilyn Pinckney, MI	C107, C108, C127, C129, C197, C200, C314, C315, C318, C330, C345, C356, C362, C380, C419, C435 20140911-5061, 20140911-5073, 20140916-0014, 20140916-0009, 20140926-5204, 20140929-5062, 20141021-5130, 20141021-5141, 20141023-5033, 20141027-5029, 20141027-5154, 20141029-5059, 20141030-5073, 20141104-5170	MI-LI-025.500, 025.510	Market Segment 88.6	Going through 125 acre farm that is zoned for 1-3 acre parcels. Pipeline would ruin any chance of development and would tear up hayfields. Use powerline right-of-way on southern edge of property.	Rerouted to avoid impacts to the 1-3 acre parcels. Map MI-LI-025.500-MI-LI-025.510.
Humble, Rodney & Carrie Pinckney, MI	C480 20141201-5051	MI-LI-030.500	Market Segment 90.0	Bought parcel because no pipelines.	Rerouted. This tract is now offline. MI-Map-LI-030.500.

TABLE 10.6-3
Responses to Landowner Requests for Route Variations

Responses to Landowner Requests for Route Variations	Comment ID FERC Comment ID	Tract	Segment / MP	Comment	Resolution
Munsell, Frank Fowlerville, MI	AD63 20141222-4008	MI-LI-83.560	Market Segment 99.8	We started out, my granddad did in 1905 with 160 acres and now we have over 1,100 acres, same location. We already have a 42-inch Vector natural gas line that crosses our property. We have a 30-inch Enbridge crude oil that crosses our property. The Vector line right now is running 1,200 pounds of pressure designed to go to 2,200 pounds of pressure, which would increase capacity by 125 percent. Now, we're at the point where they want to run the new Rover line on the east portion of our farming operation. I don't want another pipeline. I didn't want the three that we've got there now. I certainly don't want any more.	This landowner is near the Vector interconnect and the reroute for the Vector interconnect is being evaluated pending weather and survey permission.
Weiner, James T (SE Michigan Land Conservancy) Holly, MI	C289 20141016-5127	MI-OA-285.000, MI-OA-286.000 (G. Nyland)	Market Segment 138.0 Offline	Pipeline crosses Lost Lake Nature Preserve and should be rerouted.	No longer affected (see Section 10.4.1, Vector System Alternative).
Stanley, Ted Holly, MI	C1154 C1154	MI-OA-289.000	Market Segment 139.0 Offline	My land rised gradualy away from the swamp to a drier area. I am not an engineer, but it seems to me that if the gas pipeline were to be moved north (about 100 yards) you could bury the pipe causing less environmental impact. It would be away from my property enabling me access. At present the survey is a few feet from an access gate. If it were farther back I would be able to use it.	No longer affected (see Section 10.4.1, Vector System Alternative).

TABLE 10.6-3
Responses to Landowner Requests for Route Variations

Responses to Landowner Requests for Route Variations	Comment ID FERC Comment ID	Tract	Segment / MP	Comment	Resolution
Baecker, Dianna Holly, MI	C190 20140924-5050	Offline	Market Segment 140.0 Offline	Pipeline should not be considered in the neighborhood of Cranberry Drive.	No longer affected (see Section 10.4.1, Vector System Alternative).
Lusty, James Goodrich, MI	C1145 20141222-4005	MI-GE-073.000	Market Segment 141.9 Offline	If the pipeline is located where it is proposed, the environmental impact on my parcel's portion would be great. This area is currently all wildlife habitat. A reasonable alternative to the proposed pipeline placement would be to follow property owner's property lines. If the proposed pipeline would follow my south property line, the environmental impact would be less because it consists of mostly brush versus mature trees, including deciduous and evergreen.	No longer affected (see Section 10.4.1, Vector System Alternative).
Warner, Jerry Goodrich, MI	C468 20141202-5010	MI-GE-078.000	Market Segment 142.5 Offline	Not adequate footage to allow for safe routing between our home and our next door neighbor. If the statement was made by your representative that the pipeline would not go down the I69 corridor for safety reasons, what makes it safer to go 100 feet from my home?	No longer affected (see Section 10.4.1, Vector System Alternative).
Merkel, Bryan & Tammy Goodrich, MI	C479, C483 20141201-4009, 20141201-5280	MI-GE-082.000	Market Segment 142.6 Offline	Pipeline will go through 3.5 acre parcel. Have plans to build house.	No longer affected (see Section 10.4.1, Vector System Alternative).
Axt, Jeffrey & Renee Brandon, MI	C41-12 20140818-5097	Offline: MI-OA-130.000, MI-OA-132.000, MI-OA-134.000	Market Segment 146.0 Offline	The Rover Pipeline should not be located on any portion of the Axt property. Alternate locations exist on nearby open farmland.	No longer affected (see Section 10.4.1, Vector System Alternative).
Kugler, David Ortonville, MI	C73 20140728-5150	Offline (MI-OA-151.000-ADJ)	Market Segment 146.0 Offline	Going through south end of property.	No longer affected (see Section 10.4.1, Vector System Alternative).

TABLE 10.6-3
Responses to Landowner Requests for Route Variations

Responses to Landowner Requests for Route Variations	Comment ID FERC Comment ID	Tract	Segment / MP	Comment	Resolution
Gagnon, Thomas Goodrich, MI	C808 20141210-5033	MI-GE-091.500	Market Segment 149.5 Offline	Reroute to powerline.	No longer affected (see Section 10.4.1, Vector System Alternative).
Allen, John & MaryAnn (Allen Family Living Trust) Goodrich, MI	C296 20141020-5129	Offline	Market Segment 149.8 Offline	Pipeline should be located through ITC property or Ortonville State Park.	No longer affected (see Section 10.4.1, Vector System Alternative).
Detheridge, Gary & Aura Hadley, MI	C870 20141215-0045	Offline	Market Segment 149.8-164 Offline	Recommends reroute along powerlines	No longer affected (see Section 10.4.1, Vector System Alternative).
McCreedy, Peter (Lapeer Land Conservancy) Metamora, MI	C230 20141006-5143	MI-LA-030.000	Market Segment 153.0 Offline	This is an 80-acre parcel called the Sutherland Nature Sanctuary.	No longer affected (see Section 10.4.1, Vector System Alternative).
Townsend, Fred Metamora, MI	C879, FL 71 20150102-5234	MI-LA-030.000	Market Segment 153.8 Offline	In 1998, a 75-acre parcel of land in the S 1/2 of the SE 1/4 of Section 10 in Hadley Township, Lapeer County, was deeded to the Lapeer Land Conservancy by Doris Sutherland of the local Sutherland family to be cared for as a nature sanctuary. The deed specifies that the land "shall always remain in a natural state, no improvements or changes of any kind or nature whatsoever shall occur other than those necessary for ecological preservation of biological diversity." The Sutherland Nature Sanctuary	No longer affected (see Section 10.4.1, Vector System Alternative).
DuRocher, Daniel J & Shirley Metamora, MI	C216, C395, C838, C876 20141002-5001, 20141110-5016, 20141215-5052, 20141216-5037	MI-LA-036.510	Market Segment 154.0 Offline	Pipeline will pass through horse paddock and within 50 feet of pond.	No longer affected (see Section 10.4.1, Vector System Alternative).
Hays, William Metamora, MI	C133 20140915-5009	MI-LA-038.000 (Offline)	Market Segment 155.0 Offline	Model railroad on 10-acre tract. Avoid.	No longer affected (see Section 10.4.1, Vector System Alternative).

TABLE 10.6-3
Responses to Landowner Requests for Route Variations

Responses to Landowner Requests for Route Variations	Comment ID FERC Comment ID	Tract	Segment / MP	Comment	Resolution
Pteiness, Kathy Hadley, MI	C256 20141009-0010	Offline	Market Segment 154.5 Offline	Route pipeline through Metamora-Hadley State Recreation Area.	No longer affected (see Section 10.4.1, Vector System Alternative).
Kaplan, Robert	C447, C494 20141125-5193, 20141203-5003	Offline	Market Segment 154.5 Offline	Reroute to end of Pine Creek Road.	No longer affected (see Section 10.4.1, Vector System Alternative).
Schlatman, Jeff Metamora, MI	FL64 20150102-5234	MI-LA-060.000	Market Segment 156.8 Offline	And so the pipeline is going to be 136 feet from my house. Basically, it overlaps my septic field.	No longer affected (see Section 10.4.1, Vector System Alternative).
Robles, Jesus & Sharyn Lapeer, MI	C99, C272, C485 20140910-5012, 20141014-5049, 20141202-5056	MI-LA-073.000 & 074.000	Market Segment 159.0 Offline	Property used for child care for 23 years	No longer affected (see Section 10.4.1, Vector System Alternative).
Cole, Kenneth (Masco Corp) Metamora, MI	C344 20141027-0039	MI-LA-081.000	Market Segment 161.1 Offline	Property is 1,020 acres of pristine natural area with lake, horse stables, riding/walking trails, cabins, conference center.	No longer affected (see Section 10.4.1, Vector System Alternative).
Larcinese, David Attica, MI	C184 20140924-4004	00302502400 (offline)	Market Segment 168.5 Offline	Route pipeline to farmland on west.	No longer affected (see Section 10.4.1, Vector System Alternative).
Kunz, Gail M Lake Orion, MI	C285, C413 20141016-5004, 20141112-0107	MI-LA-148.000	Market Segment 171.5 Offline	Route pipeline adjacent to existing easements	No longer affected (see Section 10.4.1, Vector System Alternative).
Schapman, Rick & Connie (Bruce Township, MI) Romeo, MI	C73 20140903-5033	20140903-5033	Market Segment 181.0 Offline	They are part of Michigan Agriculture, Schapman Land, LLC. We are writing to implore you to suggest ET Rover not traverse the middle of our family farm and pick an alternate route, if this project is even deemed a necessity.	No longer affected (see Section 10.4.1, Vector System Alternative).
Ghesquiere, Michael & Lynn Columbus, MI	C497, C621 20141203-5063, 20141205-0025	MI-ST-187.000	Market Segment 196.0 Offline	Go south through open farmland toward an already existing power easement.	No longer affected (see Section 10.4.1, Vector System Alternative). .

TABLE 10.6-3
Responses to Landowner Requests for Route Variations

Responses to Landowner Requests for Route Variations	Comment ID FERC Comment ID	Tract	Segment / MP	Comment	Resolution
Sexton, Kelly East China, MI	FL14 20141222-4002	20141222-4002	Market Segment 198.0 Offline	Rover plans to traverse through about one-third of my entire parcel, rendering almost four acres of it useless for development in the future. We have the ITC corridor which is one mile to the north of us and I am asking that you request that Rover talk to those individuals about trying to lay this pipe down the already existing easement.	No longer affected (see Section 10.4.1, Vector System Alternative).
Distelrath, Donald & Karen Columbus, MI	C40, C794, C1083, C1147 20140818-5050, 20141211-5145, 20141218-5055, 20141218-0021	MI-SC-051.000	Market Segment 200.0 Offline	Establishing wildlife sanctuary on 28 acres	No longer affected (see Section 10.4.1, Vector System Alternative).
Gilleran, Mike East China, MI	C312, C458, C789 20141021-5015, 20141128-5001, 20141211-5008	MI-ST-075.570	Market Segment 203.5 Offline	Pipeline will destroy forest on 3-acre property.	No longer affected (see Section 10.4.1, Vector System Alternative).
Haener, William East China, MI	C770 20141208-5084	MI-ST-106.520	Market Segment 209.3 Offline	Relocate St. Clair crossing to existing easements north or south.	No longer affected (see Section 10.4.1, Vector System Alternative).
Schweihofer, Jeff (for Elaine) East China, MI	C842 20141215-5096	MI-SC-106.510	Market Segment 209.5 Offline	Relocate St. Clair crossing to existing easements north or south.	No longer affected (see Section 10.4.1, Vector System Alternative).
Downey, Jr – Bruce Oxford, MI	C21 20140811-5058	Offline	Market Segment Offline	Instead of going through flat farmland they have decided to go through my wetlands and up a steep incline.	No longer affected (see Section 10.4.1, Vector System Alternative).
Farley, Robert J & Jeanette Almont, MI	C397, C446 20141110-5143, 20141124-5068	Offline	Market Segment Offline	This pipeline will take a new easement of land through an area where a gas pipeline easement already exists. If this line must go through, it should at least go on the existing easement.	No longer affected (see Section 10.4.1, Vector System Alternative).

TABLE 10.6-3
Responses to Landowner Requests for Route Variations

Responses to Landowner Requests for Route Variations	Comment ID FERC Comment ID	Tract	Segment / MP	Comment	Resolution
Gale, Patricia & Kenneth Goodrich, MI	C1156 20141218-0049	Offline	Market Segment Offline	If this pipeline is so essential, could they not find a less invasive route such as going straight North from Defiance, Ohio along the western edge of Lenawee County, Michigan up to the northern edge of Shiawassee County, then along the extreme northern edge of Genesee, Lapeer and St.Clair Counties, dropping down to the Port Huron terminus in the United States using easements along 1-94 From there to their destination in Sarnia, Ontario, Canada. Or, there are easements along the I-69 corridor that could be used from the western edge of Shiawassee CO to Port Huron to Sarnia, Canada.	No longer affected (see Section 10.4.1, Vector System Alternative).
Hamilton-Tilly, Sandra Holly, MI	FL31 20141222-4002	20141222-4002	Market Segment Offline	Move pipeline to existing utility right-of-ways which exist south of Holly and other areas. Should not impact our neighbors to the west of us in Livingston County, Fenton Township or to the East of us, Groveland or Holly, uh Groveland or Atlas Township.	No longer affected (see Section 10.4.1, Vector System Alternative).
Hartwig, Kenneth & Barbara Hadley, MI	C205, C465, C840 20140929-0020, 20141201-5021, 20141215-5058	Offline	Market Segment Offline	An alternate route from approximately MP108 in Livingston County to MP183 in St. Clair County on Oakland Alternative map dated August 2014 can utilize 85% route along existing powerlines to substantially limit environmental impact and effects to landowners.	No longer affected (see Section 10.4.1, Vector System Alternative).

TABLE 10.6-3
Responses to Landowner Requests for Route Variations

Responses to Landowner Requests for Route Variations	Comment ID FERC Comment ID	Tract	Segment / MP	Comment	Resolution
Heuvelhorst, Hugh G Fowlerville, MI	C878 20141217-5029	Offline	Market Segment Offline	Pipeline will affect the western 75 to 125 feet of our property. Rover will remove trees from that portion of our property. That portion of the property is the highest in elevation and has the best stand of maple trees for sap collection. The remainder of the wooded area is dominated by a forested wetland, and use is limited. I stand to lose approximately 0.85 acre of my 5 wooded acres.	Offline
Holly Township Holly, MI	C1168 20141218-5337	Offline	Market Segment Offline	All NOCFA ambulances and all Village of Holly emergency services ambulances must travel on North Holly Road or be subjected to a 13 miles detour to the west or a 9 mile detour to the east. Lives can be lost during that delay. Because of our bedroom community status most of our residents commute to work and most go north to our closest major city, Flint. Having only one paved north/south road requires that it have extraordinary accessibility, a circumstance noted by the Michigan State Police, NOCFA and the Road Commission for Oakland County. North Holly Road cannot be restricted or closed at any time and the pipeline must be done completely underground within this important roadway. Holly Township believes we should be provided with an Emergency Management Plan that will cover every contingency that we have to respond to both during the construction and when the new pipeline is in service.	No longer affected (see Section 10.4.1, Vector System Alternative).

TABLE 10.6-3
Responses to Landowner Requests for Route Variations

Responses to Landowner Requests for Route Variations	Comment ID FERC Comment ID	Tract	Segment / MP	Comment	Resolution
Izzo, Carolyn Holly, MI	C1 20140721-0009	Offline	Market Segment Offline	Already has a pipeline in the middle of her property and along the north to side sides. Does not want another one going through her property east to west. Has flora and fauna on property.	No longer affected (see Section 10.4.1, Vector System Alternative).
Miotke, Dave East China, MI	RI30 20141222-4060	Offline	Market Segment Offline	And there are existing energy corridors approximately one mile north and one mile south of our location. The location to the north, adjacent to Puttygut Road, currently houses some high voltage transmission lines and numerous pipelines that cross the river from Michigan to Canada with approximately 300 feet of riverfront way. The location to the south of us is DTE, and so that would also be a possibility that they could do that. So we would certainly like them to look at alternative crossings and not go through a residential area.	No longer affected (see Section 10.4.1, Vector System Alternative).
Mogan, John F East China, MI	C482 20141202-5001	Offline	Market Segment Offline	An attempt by Rover personnel to secure a new, less expensive river crossing site on private property, under the guise of "eminent domain". This tactic would alleviate Rover having to negotiate with other pipeline competitors and public utilities who own available right of ways and easements within a half a mile (north and south) of the presently proposed private property. There ARE other available river crossing routes not associated with private property.	No longer affected (see Section 10.4.1, Vector System Alternative).
Ray, Nancy Hadley, MI	C173 20140923-5037	Offline	Market Segment Offline	Board horses on farm. Clients leaving. Will not be able to make a living.	No longer affected (see Section 10.4.1, Vector System Alternative).

TABLE 10.6-3
Responses to Landowner Requests for Route Variations

Responses to Landowner Requests for Route Variations	Comment ID FERC Comment ID	Tract	Segment / MP	Comment	Resolution
Schmid, Joan Washington, MI	C374 20141103-0028	20141103-0028	Market Segment Offline	If mandated they should parallel the easement established for the current pipeline and not cross diagonally over the largest parcel 44-011-029-023-00. (70 acres)	No longer affected (see Section 10.4.1, Vector System Alternative).
VanDaelle, John & Marianna Ortonville, MI	C38, C89 20140818-0021	20140818-0021	Market Segment Offline	Use an alternate route north of Ortonville.	No longer affected (see Section 10.4.1, Vector System Alternative).
Norwood, Timothy Chelsea, MI	C215 20141001-5244	Offline	Market Segment Offline	I have tried numerous times to request information regarding the placement of the ET Rover Pipeline in relationship to my property by both emailing and calling the listed contacts listed on ET Rover website	Offline
Stevens, Linda Metamora, MI	C622 20141222-4005	Offline	Market Segment Offline	My farm is oriented south to north; the proposed pipeline route runs west to east. In looking at Exhibit B, I have outlined my property in yellow. The private road is marked in red. This new route will bisect the farm. The pipeline has been moved closer to my home and is now encroaching on the private road. It will pass through the wetlands near the private road, as well as the wetlands on the east side of the property. If this route is approved, roughly 15+ acres of my land will be inaccessible. I have no alternate access to the back two parcels without crossing the pipeline. My berry business will become defunct and half of the fenced horse pasture will become unusable. This projected route will cause irreparable harm, loss of use of my land, business interruption and denial of pleasure and enjoyment of same.	No longer affected (see Section 10.4.1, Vector System Alternative).

TABLE 10.6-3
Responses to Landowner Requests for Route Variations

Responses to Landowner Requests for Route Variations	Comment ID FERC Comment ID	Tract	Segment / MP	Comment	Resolution
Bunch, Chris Lost Lakes Nature Preserve, Border of Oakland & Genesee Counties	C365, FL26 20141031-5050	Offline	Market Segment Offline	Our board of directors passed a resolution urging that all new utility pipelines and transmission lines be sited within existing rights-of-way and avoid additional environmental impacts and habitat fragmentation. The new water supply line from Lake Huron to the city of Flint is being constructed within the I-69 right-of-way. In addition to these options, there are numerous other utility corridors in existence that would meet the needs of this project.	No longer affected (see Section 10.4.1, Vector System Alternative).

TABLE 10.7-1
Comparison of Sherwood Compressor Station Site Alternates

Environmental Factor	Unit	Sherwood Alternates 1 and 2	Sherwood Alternate 3	Proposed Site
Total site size:	acres	67.8	16.67	136.1
Forest	acres	52.33	9.81	108.9
Agricultural land	acres	14.6	6.86	18.64
Open land	acres	0.87	0	8.56
NWI wetlands on site	acre	0	0	0
Nearest residence from center of site	feet	1,360 Northwest	635 West	1,120 East
Within floodplain	--	No	No	No
Tract available for purchase	--	No	No	Yes

NWI – National Wetlands Inventory

Note: All calculations are based on publicly available GIS data

TABLE 10.7-2
Comparison of Seneca Compressor Station Site Alternates

Environmental Factor	Unit	Seneca Alternate 1	Seneca Alternate 2	Proposed Site
Total site size:	acres	29.6	10.39	44.08
Forest	acres	23.32	8.98	37.31
Agricultural land	acres	0	0	3.65
Open land	acres	6.28	1.41	3.12
NWI wetlands on site	acre	0	0	0
Nearest residence from center of site	feet	1,280 West	365 North	720 West
Within floodplain	--	No	No	No
Tract available for purchase	--	No	No	Yes

NWI – National Wetlands Inventory

Note: All calculations are based on publicly available GIS data

TABLE 10.7-3
Comparison of Clarington Compressor Station Site Alternates

Environmental Factor	Unit	Clarington Alternate 1	Clarington Alternate 2	Proposed Site (and Alternate 3)
Total site size:	acres	46.37	16.59	114.99
Forest	acres	9.78	0.96	81.75
Agricultural land (hay)	acres	35.03	15.63	25.23
Open land	acres	1.56	0	8.01
NWI wetlands on site	acre	0	0	0
Nearest residence from center of site	feet	540 West	800 West	1,660 South
Within floodplain	--	No	No	No
Tract available for purchase	--	No	No	Yes

NWI – National Wetlands Inventory

Note: All calculations are based on publicly available GIS data

TABLE 10.7-4
Comparison of Majorsville Compressor Station Site Alternates

Environmental Factor	Unit	Majorsville Alternate 1 and 2	Proposed Site
Total site size:	acres	40.9	37.35
Forest	acres	33.86	33.63
Agricultural land	acres	0	0
Open land	acres	7.04	3.72
NWI wetlands on site	acre	0	0
Nearest residence from center of site	feet	1,240 Southeast	1,400 Southeast
Within floodplain	--	No	No
Tract available for purchase	--	No	Yes

NWI – National Wetlands Inventory

Note: All calculations are based on publicly available GIS data

TABLE 10.7-5
Comparison of Cadiz Compressor Station Site Alternates

Environmental Factor	Unit	Cadiz Alternate 1	Cadiz Alternate 2	Cadiz Alternate 3	Cadiz Alternate 4	Proposed Site
Total site size:	acres	35.3	18.63	15.8	21.0	28.16
Forest	acres	33.05	1.91	0	0	0
Agricultural land	acres	0	16.72	15.8	18.29	28.16
Open land	acres	2.25	0	0	1.71	0
NWI wetlands on site	acre	0.44	0	2.71	0	0
Nearest residence from center of site	feet	1,720 South	810 South	5,040 Northeast	4,370 Northeast	3,970 Northeast
Within floodplain	--	No	No	No	No	No
Tract available for purchase	--	No	No	No	No	Yes

NWI – National Wetlands Inventory

Note: All calculations are based on publicly available GIS data

TABLE 10.7-6
Comparison of Burgettstown Compressor Station Site Alternate

Environmental Factor	Unit	Burgettstown Alternate 1	Proposed Site
Total site size:	acres	25.64	15.68
Forest	acres	25.64	1.05
Agricultural land	acres	0	0
Open land	acres	0	14.63
NWI wetlands on site	acre	0	0
Nearest residence from center of site	feet	990 East	1,150 South
Within floodplain	--	No	No
Tract available for purchase	--	No	Yes

NWI – National Wetlands Inventory

Note: All calculations are based on publicly available GIS data

TABLE 10.7-7
Comparison of Mainline Compressor Station 1 and Site Alternate

Environmental Factor	Unit	Mainline Compressor Station 1 Alternate	Proposed Site
Total site size:	acres	39.7	54.9
Forest	acres	8.16	14.49
Agricultural land	acres	31.54	38.09
Open land	acres	0	2.3
NWI wetlands on site	acre	0	0
Nearest residence from center of site	feet	705 South	705 South
Within floodplain	--	No	No
Tract available for purchase	--	Yes Included with proposed	Yes

NWI – National Wetlands Inventory

Note: All calculations are based on publicly available GIS data

TABLE 10.7-8
Comparison of Mainline Compressor Station 2 and Site Alternate

Environmental Factor	Unit	Mainline Compressor Station 2 Alternate	Proposed Site
Total site size:	acres	26.61	46.33
Forest	acres	0	0
Agricultural land	acres	26.61	44.17
Open land	acres	0	2.15
NWI wetlands on site	acre	0.02	0.02
Nearest residence from center of site	feet	890 Northeast	890 Northeast
Within floodplain	--	No	No
Tract available for purchase	--	Yes. Included with proposed	Yes

NWI – National Wetlands Inventory

Note: All calculations are based on publicly available GIS data

TABLE 10.7-9
Comparison of Mainline Compressor Station 3 and Site Alternate

Environmental Factor	Unit	Mainline Compressor Station 3 Alternate	Proposed Site
Total site size:	acres	59.7	38.23
Forest	acres	0	0
Agricultural land	acres	54.9	32.20
Open land	acres	4.8	0.03
NWI wetlands on site	acre	0	0
Nearest residence from center of site	feet	870 North	870 North
Within floodplain	--	No	No
Tract available for purchase	--	No	Yes

NWI – National Wetlands Inventory

Note: All calculations are based on publicly available GIS data

TABLE 10.7-10
Comparison of Defiance Compressor Station and Site Alternate

Environmental Factor	Unit	Defiance Compressor Station Alternate	Proposed Site
Total site size:	acres	32.6	28.4
Forest	acres	0	0
Agricultural land	acres	27.8	23.6
Open land	acres	4.8	4.8
NWI wetlands on site	acre	0	0
Nearest residence from center of site	feet	850 southeast	850 southeast
Within floodplain	--	No	No
Tract available for purchase	--	No	Yes

NWI – National Wetlands Inventory

Note: All calculations are based on publicly available GIS data

TABLE 10.8-1
Comparison of CGT Meter Station and Alternative Site

Environmental Factor	Unit	CGT Meter Station Alternative	Proposed Site
Total site size:	acres	0.5	1.85
Forest	acres	0	0
Agricultural land	acres	0.5	1.78
Open land	acres	0	0.08
NWI wetlands on site	acre	0	0
Within floodplain	--	No	No
Tract available for purchase	--	Yes Included with proposed	Yes

NWI – National Wetlands Inventory

Note: All calculations are based on publicly available GIS data
Mileage shown includes rounding differences when compared to other tables.

TABLE 10.8-2
Comparison of Berne Meter Station and Alternative Site

Environmental Factor	Unit	Berne Meter Station Alternative	Proposed Site
Total site size:	acres	1.5	3.34
Forest	acres	1.5	0
Agricultural land	acres	0	2.97
Open land	acres	0	0.37
NWI wetlands on site	acre	0	0
Within floodplain	--	No	No
Tract available for purchase	--	No	Yes

NWI – National Wetlands Inventory

Note: All calculations are based on publicly available GIS data

TABLE 10.8-3
Comparison of Majorsville Meter Station and Alternative Site

Environmental Factor	Unit	Majorsville Meter Station Alternative	Proposed Site
Total site size:	acres	40.9 [1]	4.0
Forest	acres	33.86 [1]	3.02
Agricultural land	acres	0	0
Open land	acres	7.04 [1]	0.98
NWI wetlands on site	acre	0	0
Within floodplain	--	No	No
Tract available for purchase	--	No	Yes

NWI – National Wetlands Inventory

[1] Site is within the Majorsville Alternate 2 Site for the Majorsville Compressor Station.

Note: All calculations are based on publicly available GIS data

TABLE 10.8-4
Comparison of ANR Meter Station and Alternative Site

Environmental Factor	Unit	ANR Meter Station Alternative [1]	Proposed Site
Total site size:	acres	32.6 [1]	12.79
Forest	acres	0	0
Agricultural land	acres	27.8 [1]	11.96
Open land	acres	4.8 [1]	0.83
NWI wetlands on site	acre	0	0
Within floodplain	--	No	No
Tract available for purchase	--	Yes	Yes

Note: All calculations are based on publicly available GIS data
NWI – National Wetlands Inventory

[1] Site is within the Defiance Compressor Station Alternate site.