Part I - Supplement to the Application Form

PERMIT APPLICATION

Michigan Natural Resources & Environmental Protection Act (1994 PA-451)

Part 301, Inland Lakes and Streams
Part 303, Wetlands Protection
Part 31, Floodplain/Water Resources Protection

TO:

Michigan Department of Environmental Quality Water Resources Division, Lansing District

FOR THE:

ROVER PIPELINE PROJECT LIVINGSTON, COUNTY, MICHIGAN

PROPOSED BY:

Rover Pipeline LLC 1300 Main Street, Houston, TX 77022

Addendum 1, June 2015



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This Addendum 1 to Rover's application only includes those sections and tables where modifications have been made to the Rover Pipeline Project as submitted in February 2015.

1.0 PROJECT LOCATION INFORMATION

The Rover Pipeline Project (Project) will include approximately 15.4 miles of 42-inch-diameter natural gas pipeline, one meter station, and associated pipeline facilities within Livingston County in the Michigan Department of Environmental Quality (MDEQ), Lansing District. See Section 3 for additional information on the Project and facilities in the MDEQ, Lansing District.

Table 1-1 lists the municipalities/townships crossed by the pipeline, as well as the township, range, and section.

	TABLE 1-1 Project Location Information									
County	Municipality	Township	Range	Section						
Livingston	Handy, Iosco Township	03N	03E	36						
Livingston	Iosco Township	02N	03E	1						
Livingston	Iosco Township	02N	03E	12						
Livingston	Marion Township	02N	03E	12						
Livingston	Marion Township	02N	04E	7						
Livingston	Marion Township	02N	04E	18						
Livingston	Marion Township	02N	04E	19						
Livingston	Marion Township	02N	04E	30						
Livingston	Marion, Putnam Township	02N	04E	31						
Livingston	Putnam Township	01N	04E	5						
Livingston	Putnam Township	01N	04E	6						
Livingston	Putnam Township	01N	04E	7						
Livingston	Putnam Township	01N	04E	8						
Livingston	Putnam Township	01N	04E	15						
Livingston	Putnam Township	01N	04E	16						
Livingston	Putnam Township	01N	04E	17						
Livingston	Putnam Township	01N	04E	18						
Livingston	Putnam Township	01N	04E	21						
Livingston	Putnam Township	01N	04E	22						
Livingston	Putnam Township	01N	04E	27						
Livingston	Putnam Township	01N	04E	34						
Livingston	Putnam Township	01S	04E	3						



3.0 PROJECT DESCRIPTION

3.1 WATERBODIES AND WETLANDS

See Section 10 for detailed information on waterbodies crossed and Section 12 for information on wetlands crossed.

3.2 OVERVIEW OF THE ROVER PIPELINE PROJECT

Rover Pipeline LLC (Rover) is seeking authorization from the Federal Energy Regulatory Commission (FERC) pursuant to Section 3 and Section 7(c) of the Natural Gas Act to construct, own, and operate the proposed Rover Pipeline Project (Project). The Rover Pipeline Project is a new natural gas pipeline system that will consist of approximately 712.9 miles of Supply Laterals and Mainlines, 10 compressor stations, and associated meter stations and other aboveground facilities that will be located in parts of West Virginia, Pennsylvania, Ohio, and Michigan. The Project will include approximately 510.7 miles of proposed right-of-way, including approximately 202.2 miles of dual pipelines, extending from the vicinity of New Milton, Doddridge County, West Virginia to the vicinity of Howell, Livingston County, Michigan.

The Project will consist of the following components and facilities:

• Supply Laterals:

- o eight supply laterals consisting of approximately 201.2 miles of 24-, 30-, 36-, and 42-inch-diameter pipeline in West Virginia, Pennsylvania, and Ohio,
- o two parallel supply laterals, each consisting of approximately 18.6 miles (for a total of approximately 37.2 miles) of 42-inch-diameter pipeline (Supply Connector Line A and Line B) in Ohio,
- o approximately 72,645 horsepower (hp) at six new compressor stations to be located in Doddridge and Marshall counties, West Virginia; Washington County, Pennsylvania; and Noble, Monroe, and Harrison counties, Ohio, and
- o two new delivery, 11 new receipt, and two bi-directional meter stations on the Supply Laterals.

• Mainlines A and B:

- o approximately 190.9 miles of 42-inch-diameter pipeline (Mainline A) in Ohio,
- o approximately 183.6 miles of parallel 42-inch-diameter pipeline (Mainline B) in Ohio,
- o approximately 114,945 hp at three new compressor stations to be located in Carroll, Wayne, and Crawford counties, Ohio, and
- o two new delivery meter stations in Defiance County, Ohio.

Market Segment:

- o approximately 100.0 miles of 42-inch diameter pipeline in Ohio and Michigan,
- o approximately 25,830 hp at one new compressor station to be located in Defiance County, Ohio, and



o two new delivery meter stations in Washtenaw and Livingston counties, Michigan.

3.3 PROJECT FACILITIES WITHIN THE LANSING DISTRICT

A portion of the Market Segment of the Project is located within the Michigan Department of Environmental Quality's (MDEQ) Lansing District in Livingston County. The Market Segment also crosses the MDEQ, Jackson District in Lenawee and Washtenaw counties.

The following facilities are within the MDEQ's Lansing District as shown on Figure IIA-4 (USGS Topographic Maps) and Figure IIC (Alignment Sheets) that are provided in *Part II – Maps and Drawings* of the Permit Application.

- 15.4 miles of 42-inch-diameter pipeline extending north from the Washtenaw/Livingston County lines near Pinckney, Michigan in Putnam Township to the Vector Meter Station, between milepost (MP) 84.7 to MP 100.0,
- Vector Meter Station in Handy Township,
- Mainline Valves (MLV) located at:
 - o MLV-08 at MP 87.9 in Putnam Township, Livingston County, and
 - o MLV-09 at MP 98.8 in Marion Township, Livingston County.
- Access Roads as listed in Table 3-1:

TABLE 3-1 Permanent and Temporary Access Roads in the Lansing District										
Access Road ID	MP	Township, County	Temporary / Permanent	Existing Surface / Land Type	Length (ft)					
MI-LI-022.520-PAR-7	87.87	Putnam, Livingston	Perm.	New – Forest, Open	2,077					
MI-LI-024.510-TAR-28	88.52	Putnam, Livingston	Temp.	Existing – Asphalt	1,328					
MI-LI-025.000-TAR-12	89.15	Putnam, Livingston	Temp.	Existing – Gravel	409					
MI-LI-035.560-TAR-37	91.55	Putnam, Livingston	Temp.	Existing – Dirt	2,419					
MI-LI-073.501-TAR-30	96.17	Marion, Livingston	Temp.	Existing – Dirt	695					
MI-LI-082.000-TAR-31	98.82	losco, Livingston	Temp.	Existing – Dirt	221					

• Contractor Yards – No contractor yards are currently proposed in Livingston County.

The locations where HDDs are proposed are listed in Table 3-2. . Site-specific plans for the HDDs, including access paths along the path of the drill, are shown on Figure IID (Site-Specific HDD Drawings) that are provided as *Part II – Maps and Drawings* section of the Permit Application. These HDD figures replace those provided in February 2015.



TABLE 3-2 HDD Locations in the Lansing District									
Feature Approximate Entry Approximate Exit MP MP MP (feet)									
Portage River	84.50	84.85	2,070						
Lake at Vines Road	95.12	94.77	1,815						
Marion-Losco Drain (Jewell Road)	96.83	97.48	3,462						



4.0 PROJECT PURPOSE, USE AND ALTERNATIVES

4.2 **ALTERNATIVES**

In response to landowner comments that the pipeline be placed within existing utility rights-of-way, Rover contacted the International Transmission Company (ITC) to discuss the possibility of installing the pipeline within ITC's electric transmission corridor along parts of the Market Segment in Michigan. On January 12, 2015, Rover and ITC met and agreed to investigate the potential of co-location and overlapping of easements where feasible. ITC granted survey permission and surveys were completed in the spring of 2015.

From the information gathered during the 2015 surveys on the ITC corridor and adjacent properties as available, Rover identified two locations where Rover believes co-location within the ITC corridor is possible based on constructability and safe operating procedures, and overlapping of construction easements where co-location would not be possible and the pipeline would need to be adjacent to the ITC corridor. Rover submitted the revised plans to ITC and met with them on May 22, 2015. ITC is currently reviewing the plans for compatibility with future expansion plans, engineering constraints, and safe construction procedures, as well as operational challenges that co-location would potentially create.

The route in Michigan as currently proposed places the pipeline adjacent to the ITC corridor with some overlap into the ITC corridor for the construction right-of-way. However, there are two locations where Rover would like to co-locate the pipeline within ITC's corridor. These two areas are designated Planned Route Variation MS26 in Washtenaw County and Planned Route Variation MS27 in Livingston County. Planned Route Variation MS27 in Livingston County would begin at Market Segment MP 93.19, north of Burgess Road, and would co-locate the pipeline within the ITC corridor for approximately 4.6 miles between MPs 93.19 and MP 97.81. Planned Route Variation MS 27 is shown on Figure IIA-5, included in *Part II – Maps and Drawings* section of the Permit Application.

If acceptable to ITC, Rover would incorporate Planned Route Variations MS26 and MS27 into its proposed route. Rover will provide updates of the continuing discussions with ITC concerning these variations.



5.0 LOCATING YOUR PROJECT SITE

As a natural gas pipeline, the Project crosses a number of federal, state, and county roads in Livingston county as listed on Table 5-1 and shown on Figures IIA-4 and IIC included in $Part\ II - Maps\ and\ Drawings$ section of the Permit Application.

TABLE 5-1 Road Crossings										
Road/Railroad Name	Approximate MP	Туре	Jurisdiction	Crossing Method						
LIVINGSTON COUNTY	•		1							
TIPLADY RD	84.66	GRAVEL	COUNTY	HDD						
PATTERSON LAKE (D-32)	85.49	ASPHALT	COUNTY	BORE						
MOWER RD	86.54	ASPHALT	COUNTY	BORE						
SR M- 36 (W MAIN ST)	87.08	ASPHALT	FEDERAL	BORE						
CEDAR LAKE LN	87.85	DIRT	COUNTY	BORE						
CEDAR LAKE RD	88.32	GRAVEL	COUNTY	BORE						
ACACIA TRAIL	88.52	CONCRETE	COUNTY	BORE						
EMU DRIVE	90.03	CONCRETE	COUNTY	BORE						
HINCHEY RD	90.1	GRAVEL	COUNTY	BORE						
SPEARS RD	91.01	GRAVEL	COUNTY	BORE						
BURGESS RD	92.03	GRAVEL	COUNTY	BORE						
PINGREE RD	92.95	GRAVEL	COUNTY	BORE						
W SCHAFER RD	93.37	GRAVEL	COUNTY	BORE						
VINES RD	95.4	GRAVEL	COUNTY	BORE						
W COON LAKE RD	95.9	DIRT	COUNTY	BORE						
W LANGE RD	98.05	GRAVEL	COUNTY	BORE						
CROFOOT RD	98.77	GRAVEL	COUNTY	BORE						
W MASON RD	99.99	ASPHALT	STATE	BORE						



8.0 ADJOINING PROPERTY OWNERS

Rover will obtain easements from property owners to install and operate the pipeline. Table A1 in Appendix A lists the names and addresses of property owners whose property includes regulated wetlands, lakes or streams affected by the Rover Pipeline Project or who abut properties with regulated wetland, lake, or stream impacts. Appendix A is submitted as privileged and confidential.



10.0 PROJECTS IMPACTING INLAND LAKES, STREAMS, GREAT LAKES, WETLANDS, OR FLOODPLAINS

Field delineation surveys for waterbodies and wetlands were conducted from mid-June 2014 through May 2015. Approximately 99 percent of the route in the MDEQ, Lansing District has been surveyed. The remaining surveys for approximately 0.2 mile will be conducted as soon as landowner permission has been obtained. All wetland surveys were conducted in accordance with the U.S. Army Corps of Engineers (USACE) Wetlands Delineation Manual (USACE, 1987), and the Regional Supplements to the USACE Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0), and Midwest Region (Version 2.0).

A. Projects Requiring Fill

The Project involves the temporary excavation of a trench, temporary storage of excavated materials (at least 10 feet from the ordinary high water mark when crossing streams), installation of the pipeline, and backfill of the trench with excavated materials. As such there is no permanent fill. Backfilling will be done with previously excavated material.

The area of disturbance for the pipeline crossings of streams in Livingston county is listed in Table 10-1.

B. Projects Requiring Dredging or Excavation

The Project involves the temporary excavation of a trench, temporary storage of excavated materials (at least 10 feet from the ordinary high water mark when crossing streams), installation of the pipeline, and backfill of the trench with excavated materials. As such there is no permanent fill. Backfilling will be done with previously excavated material.

The area of disturbance for the pipeline crossings of streams in Livingston county is listed in Table 10-1.



TABLE 10-1 Streams and Ponds Crossed in the Lansing District

Approx.				Subwatershed			Length Across	Dimens	Volume		
Enter Milepost	Waterbody ID Number	Waterbody Name	County	Name (HUC 8)	Flow	Crossing Method	Construction Right-of-Way (ft)	OHWM Width (feet)	Average Depth (feet)	Trench Width (feet)	(cubic yards)
84.60	S5K-LI-405	Portage River*	Livingston	Huron	Perennial	HDD	120.70	20.0	-		-
86.84	S2K-LI-239	Honey Creek	Livingston	Huron	Perennial	Open Cut	102.36	28.0	8.5	25.0	220.4
89.02	S5K-LI-115	UT to Honey Creek	Livingston	Huron	Perennial	Open Cut	120.91	11.0	8.5	25.0	86.6
90.82	S2K-LI-242	UT to County Drain No. 7	Livingston	Huron	Intermittent	Open Cut	158.13	3.0	8.5	25.0	23.6
91.95	WB5K-LI-128	Unnamed Pond	Livingston	Huron	Pond- Manmade	Open Cut	59.96	80.3	8.5	25.0	632.0
92.86	S1K-LI-286	County Drain No 7	Livingston	Huron	Perennial	Open Cut	105.86	7.0	8.5	25.0	55.1
94.79	S2K-LI-249	Unnamed Tributary*	Livingston	Upper Grand	Intermittent	HDD	217.22	2.0	-	-	-
95.58	WB5K-LI-180	Unnamed Pond	Livingston	Upper Grand	Pond- Manmade	Open Cut	46.85	57.0	8.5	25.0	448.6
96.19	WB5K-LI-156	Unnamed Pond	Livingston	Upper Grand	Pond-Natural	Open Cut	94.03	219.7	8.5	25.0	1,729.1
97.43	S5K-LI-273	Marion-losco Drain*	Livingston	Upper Grand	Perennial	HDD	79.43	6.0	-	-	-
98.87	S2K-LI-263	UT to Red Cedar River	Livingston	Upper Grand	Perennial	Open Cut	597.77	6.0	8.5	25.0	47.2
99.60	S2K-LI-266	Handy Iosco Drain	Livingston	Upper Grand	Intermittent	Open Cut	75.00	12.0	8.5	25.0	94.4
										Total	3,337.0

Notes:

OHM = Ordinary high water mark as documented during field surveys.

All impacts are temporary. Material excavated from trench will be stored on site and returned to the trench for backfill following pipe installation. Following installation of the pipeline, the stream bed and banks will be restored as closely as possible to pre-construction contours. Streams banks will be stabilized and seeded within 24 hours, weather conditions permitting.

^{* =} Water crossed using Horizontal Directional Drill (HDD)



12.0 ACTIVITIES THAT MAY IMPACT WETLANDS

Table 12-1 provides a list of wetlands crossed or affected in Livingston county, including length of each crossing, acres affected, depth of trench, volume of fill excavated and backfilled.



TABLE 12-1 Wetlands Crossed in the Lansing District

					Acres Affected				Temporary Dredging ⁴				
Approx. Enter Milepost	Wetland ID Number	Subwatershed Name (HUC 8)	Wetland Type ¹	Length of Crossing (feet) ²	Temp.	Perm.	Total	Coversion from PFO/PSS to PEM	Average Depth (feet)	Trench Width (feet)	Volume (cubic yards)	County	
84.59	W5K-LI-406*	Huron	PSS	57.0	0	0.08	0.08	0.08	-	-	-	Livingston	
84.62	W5K-LI-439*	Huron	PSS	130.4	0	0.14	0.14	0.14	-	-	-	Livingston	
84.78	W7K-LI-181*	Huron	PSS	-	0	0.01	0.01	0.01	-	-	-	Livingston	
84.98	W7K-LI-139	Huron	PSS	586.6	0.62	0.66	1.28	0.66	8.5	12.0	2216.04	Livingston	
85.83	W5K-LI-407	Huron	PEM	-	0.08	0.03	0.11	0	-	-	-	Livingston	
85.85	W5K-LI-427	Huron	PEM	189.6	0.17	0.18	0.35	0	8.5	12.0	716.27	Livingston	
85.97	W5K-LI-429	Huron	PFO	40.7	0	0.03	0.03	0.02	8.5	12.0	153.76	Livingston	
86.04	W5K-WA-409	Huron	PFO	-	0.01	0.01	0.02	0.01	-	-	-	Livingston	
86.14	W5K-WA-410	Huron	PEM	-	0.01	0	0.01	0	-	-	-	Livingston	
86.79	W2K-LI-238	Huron	PSS	236.5	0.27	0.27	0.54	0.27	8.5	12.0	893.44	Livingston	
86.85	W2K-LI-238a	Huron	PSS	48.6	0.06	0.06	0.12	0.06	8.5	12.0	183.60	Livingston	
89.01	W5K-LI-116	Huron	PEM	87.1	0.12	0.11	0.23	0	8.5	12.0	329.04	Livingston	
89.03	W5K-LI-113	Huron	PFO	36.4	0.05	0	0.05	0.03	8.5	12.0	137.51	Livingston	
89.03	W5K-LI-114	Huron	PEM	54.4	0.06	0.07	0.13	0.00	8.5	12.0	205.51	Livingston	
89.04	W5K-LI-113	Huron	PFO	9.5	0	0.05	0.05	0	8.5	12.0	35.89	Livingston	
90.81	W2K-LI-243	Huron	PEM	240.8	0.13	0.17	0.3	0	8.5	12.0	909.69	Livingston	
91.02	W5K-LI-419	Huron	PEM	259.2	0.3	0.3	0.6	0	8.5	12.0	979.20	Livingston	
91.19	W2K-LI-244	Huron	PEM	800.4	0.97	0.94	1.91	0.00	8.5	12.0	3023.73	Livingston	
91.38	W5K-LI-417	Huron	PFO	73.4	0.05	0.09	0.14	0.05	8.5	12.0	277.29	Livingston	
91.58	W5K-LI-125	Huron	PSS	396.5	0.28	0.44	0.72	0.44	8.5	12.0	1497.89	Livingston	
91.66	W5K-LI-413	Huron	PFO	943.0	0.58	1.1	1.68	0.65	8.5	12.0	3562.44	Livingston	
91.83	W5K-LI-127	Huron	PEM	637.8	0.70	0.73	1.43	0.00	8.5	12.0	2409.47	Livingston	



TABLE 12-1 Wetlands Crossed in the Lansing District

						Acr	es Affect	ed	Temporary Dredging ⁴			
Approx. Enter Milepost	Wetland ID Number	Subwatershed Name (HUC 8)	Wetland Type ¹	Length of Crossing (feet) ²	Temp.	Perm.	Total	Coversion from PFO/PSS to PEM	Average Depth (feet)	Trench Width (feet)	Volume (cubic yards)	County
92.35	W5K-LI-129	Huron	PEM	133.6	0.15	0.16	0.31	0	8.5	12.0	504.71	Livingston
92.55	W5K-LI-130	Huron	PSS	379.1	0.52	0.44	0.96	0.44	8.5	12.0	1432.16	Livingston
92.67	W1K-LI-288	Huron	PEM	148.4	0.14	0.14	0.28	0.00	8.5	12.0	560.62	Livingston
92.69	W1K-LI-289	Huron	PSS	92.9	0.12	0.13	0.25	0.13	8.5	12.0	350.96	Livingston
92.83	W1K-LI-285	Huron	PEM	613.0	0.8	0.71	1.51	0	8.5	12.0	2315.78	Livingston
92.96	W1K-LI-283	Huron	PSS	294.6	0.41	0.34	0.75	0.34	8.5	12.0	1112.93	Livingston
93.42	W5K-LI-250	Upper Grand	PFO	115.6	0.09	0.14	0.23	0.08	8.5	12.0	436.71	Livingston
93.47	W5K-LI-251	Upper Grand	PFO	53.9	0.01	0.05	0.06	0.04	8.5	12.0	203.62	Livingston
93.76	W7K-LI-177	Upper Grand	PEM	75.5	0.06	0.07	0.13	0	8.5	12.0	285.22	Livingston
93.87	W5K-LI-101	Upper Grand	PFO	-	0.01	0	0.01	0	-	-	-	Livingston
93.87	W5K-LI-178	Upper Grand	PEM	1128.3	1.27	1.29	2.56	0	8.5	12.0	4262.47	Livingston
94.34	W5K-LI-100	Upper Grand	PEM	100.3	0.1	0.1	0.2	0	8.5	12.0	378.91	Livingston
94.57	W5K-LI-186	Upper Grand	PEM	177.9	0.18	0.22	0.4	0	8.5	12.0	672.07	Livingston
94.7	W5K-LI-260	Upper Grand	PEM	-	0.03	0	0.03	0	-	-	-	Livingston
94.74	W5K-LI-258	Upper Grand	PFO	147.3	0.54	0.17	0.71	0.1	8.5	12.0	556.47	Livingston
94.77	W2K-LI-248	Upper Grand	PEM	44.9	0.16	0.05	0.21	0	8.5	12.0	169.62	Livingston
94.8	W2K-LI-250*	Upper Grand	PEM	237.1	0	0.31	0.31	0	-	-	-	Livingston
95.01	W2K-LI-251*	Upper Grand	PEM	497.9	0.03	0.55	0.58	0	-	-	-	Livingston
95.64	W5K-LI-383	Upper Grand	PEM	-	0.1	0	0.1	0	-	-	-	Livingston
95.91	W2K-LI-252	Upper Grand	PFO	-	0.01	0	0.01	0	-	-	-	Livingston
96.15	W5K-LI-155	Upper Grand	PEM	125.6	0.17	0.14	0.31	0.00	8.5	12.0	474.49	Livingston
96.88	-	Upper Grand	PSS	110.4	0.01	0.14	0.15	0.14	8.5	12.0	417.07	Livingston



TABLE 12-1 Wetlands Crossed in the Lansing District

						Acres Affected			Tem	porary Dro	edging ⁴	
Approx. Enter Milepost	Wetland ID Number	Subwatershed Name (HUC 8)	Wetland Type ¹	Length of Crossing (feet) ²	Temp.	Perm.	Total	Coversion from PFO/PSS to PEM	Average Depth (feet)	Trench Width (feet)	Volume (cubic yards)	County
96.99	W5K-LI-271*	Upper Grand	PFO	1275.6	0.26	1.49	1.75	0.88	ı	-	-	Livingston
97.27	W5K-LI-272*	Upper Grand	PEM	-	0	0	0	0	-	-	-	Livingston
97.48	W7K-LI-106	Upper Grand	PSS	-	0.04	0	0.04	0	-	-	-	Livingston
97.49	W5K-LI-269	Upper Grand	PSS	380.7	0.87	0.44	1.31	0.44	8.5	12.0	1438.20	Livingston
97.66	W5K-LI-456	Upper Grand	PEM	-	0.11	0	0.11	0	-	-	-	Livingston
97.83	W2K-LI-253	Upper Grand	PEM	786.2	0.88	0.86	1.74	0.00	8.5	12.0	2970.09	Livingston
98.06	W2K-LI-254	Upper Grand	PEM	414.0	0.55	0.48	1.03	0	8.5	12.0	1564.00	Livingston
98.38	W7K-LI-105	Upper Grand	PEM	147.8	0.17	0.16	0.33	0.00	8.5	12.0	558.36	Livingston
99.19	W5K-LI-381	Upper Grand	PSS	90.8	0.11	0.1	0.21	0.1	8.5	12.0	343.02	Livingston
99.31	W5K-LI-377	Upper Grand	PFO	-	0.01	0	0.01	0	-	-	-	Livingston
99.59	W5K-LI-374	Upper Grand	PFO	47.0	0.02	0.05	0.07	0.03	8.5	12.0	177.56	Livingston
99.61	W5K-LI-454	Upper Grand	PFO	249.2	0.14	0.29	0.43	0.17	8.5	12.0	941.42	Livingston
99.66	W5K-LI-452	Upper Grand	PSS	-	0.02	0.01	0.03	0.01	1	-	-	Livingston
			Totals	12,695.5	12.55	14.5	27.05	5.32			39,657.23	

PEM = emergent; PSS = scrub-shrub; PFO = forested
Pipeline crossing length. If no crossing length, wetland encroaches into the workspace.
Conversion based on maintaining a 10 to 30-foot-wide corridor centered on the pipeline centerline in forested wetlands and up to 50 feet in scrub-shrub wetlands.
Trench spoil will be sidecast along trench and returned to trench after pipeline is installed.
Wetland to be Horizontal Directional Drilled (HDD)



13.0 FLOODPLAIN ACTIVITIES

Portions of the Project cross floodplain. However in accordance with MDEQ's Part 31 Floodplain Rules at R 323.1312(J) Rule 312, the floodplain rules do not apply to utility crossings where "the floodplain will be restored essentially to existing elevations."

Table 13-1 lists Federal Emergency Management Agency (FEMA) Flood Hazard zones crossed by the Project in the Lansing District.

F	TABLE 13-1 FEMA Flood Hazard Zones Crossed in the Lansing District											
County	County MP Begin MP End Total Distance (mi) FEMA Flood Zoi											
Livingston, MI	84.57	84.64	0.07	AE								
Livingston, MI	86.8	86.85	0.05	A								
Livingston, MI	89.01	89.04	0.03	A								
Livingston, MI	91.71	91.84	0.13	AE								
Livingston, MI	92.73	92.77	0.04	AE								
Livingston, MI	92.84	92.93	0.09	AE								

¹ Floodplain Definitions: A=subject to inundation by the 1-percent-annual-chance-flood; AE=subject to inundation by the 1-percent-annual-chance-flood, Base Flood Elevations determined.

Source:

[FEMA] Federal Emergency Management Agency. 2014. FEMA Flood Map Service Center. Accessed online at: https://msc.fema.gov/portal.



Appendix A

Property Owners (Privileged and Confidential)



Volume IIB, Attachment 2B, MIDEQ - Lansing District, Appendix A

Property Owners (Privileged and Confidential)

Redacted to separate cover under Volume IV-PRIV, Attachment 2B, Lansing District, Appendix A.



Appendix D

Wetland Delineation Report, Addendum 1



Volume IIB, Attachment 2B, Appendix D

Wetland Delineation Report, Addendum 1
Contained under separate cover.

Refer to June 10, 2015 Supplemental Filing