UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
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CHICAGO, IL 60604-3590

APR 11 2016

REPLY TO THE ATTENTION OF:

Kimberly D. Bose, Secretary
Federal Energy Regulatory Commission
888 First St., N.E., Room 1A
Washington, DC 20426

Re: FERC Draft Environmental Impact Statement (DEIS) for the Rover Pipeline Project, Panhandle Backhaul Project, and Trunkline Backhaul Project (FERC Docket Nos. CP15-93-000, CP15-94-000, CP15-96-000, Respectively) (CEQ No. 20160046)

Dear Ms. Bose:

In accordance with our responsibilities under Section 309 of the Clean Air Act, the National Environmental Policy Act (NEPA), and the Council on Environmental Quality (CEQ) regulations for implementing NEPA, the United States Environmental Protection Agency (EPA) has completed its review of the Federal Energy Regulatory Commission's (FERC) draft environmental impact statement (DEIS) for the Rover Pipeline Project, Panhandle Backhaul Project, and Trunkline Backhaul Project (Projects), proposed by Rover Pipeline, LLC (Rover), Panhandle Eastern Pipe Line Company, LP (Panhandle), and Trunkline Gas Company, LLC (Trunkline), respectively.

Rover, Panhandle, and Trunkline (Projects Proponents) request FERC authorization to construct and operate certain interstate natural gas pipeline facilities in Michigan, Ohio, Pennsylvania, West Virginia, Indiana, Illinois, Tennessee, and/or Mississippi to deliver up to 3.25 billion cubic feet per day (Bcf/d) of natural gas supply from the Marcellus and Utica Shale producers in Pennsylvania, West Virginia, and Ohio through interconnections with existing pipeline infrastructure in Ohio and Michigan to supply interstate natural gas pipelines and storage facilities as well as markets in the Gulf Coast, Midwest, and Canadian regions.

EPA has rated the DEIS EC-2 Environmental Concerns, Insufficient Information. The EC-2 rating indicates that we have concerns that the document does not contain enough information to fully assess the environmental impacts that should be avoided in order to fully protect the environment. See the enclosed Summary of Rating Definitions for a detailed explanations of EPA's ratings.

EPA concerns are primarily due to insufficient information regarding: 1) avoidance of and minimization of impacts to wetlands and streams, 2) identification and analysis of impacts to upland forest, core forest and associated wildlife, 3) identification of environmental justice populations, 4) potential noise impacts on noise-sensitive areas (NSAs), such as residences with school-age children, 5) greenhouse gas emissions and climate change, and 5) mitigation. In addition, the DEIS does not include: 1) a wetland/stream mitigation plan, 2) upland/core forest

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mitigation plan, nor 3) Rover's emergency response plan. Enclosed are our detailed comments which include recommendations for additional information to include in the Final EIS.

When FERC submits the Final EIS to EPA headquarters, also send paper copies and CDs of the Final EIS to EPA Regional Offices as follows:

- EPA Region 5: one (1) paper copy and three (3) sets of CDs,
- EPA Region 4: one (1) set of CDs, and
- EPA Region 3: one (1) set of CDs.

If you or your staff have any questions or concerns, I can be reached at 312-886-2910, or contact Virginia Laszewski of my staff at laszewski.virginia@epa.gov or 312-886-7501.

Sincerely,

Kenneth A. Westlake, Chief
NEPA Implementation Section
Office of Enforcement and Compliance Assurance

Enclosures: Summary of Rating Definitions
EPA Detailed Comments

Cc (email): Federal Energy Regulatory Commission, Kevin Bowman, Environmental Project Manager, kevin.bowman@ferc.gov

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U.S. Fish and Wildlife Service, West Virginia Field Office, John Schmidt, Project Leader, John_Schmidt@fws.gov and Tiernan Lennon, Project Contact, Biologist, Tiernan_Lennon@fws.gov

US Fish and Wildlife Service, Region 4 Southeast, Atlanta, GA, Cindy Dohner, cindy_dohner@fws.com.

SUMMARY OF RATING DEFINITIONS AND FOLLOW UP ACTION

Environmental Impact of the Action

LO-Lack of Objections
The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have disclosed opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

EC-Environmental Concerns
The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures may require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impacts. EPA would like to work with the lead agency to reduce these impacts.

EO-Environmental Objections
The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative). EPA intends to work with the lead agency to reduce these impacts.

EU-Environmentally Unsatisfactory
The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potential unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

Adequacy of the Impact Statement

Category 1-Adequate
The EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alterative and those of the alternatives reasonably available to the project or action. No further analysis or data collecting is necessary, but the reviewer may suggest the addition of clarifying language or information.

Category 2-Insufficient Information
The draft EIS does not contain sufficient information for the EPA to fully assess the environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

Category 3-Inadequate
EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.

*From EPA Manual 1640 Policy and Procedures for the Review of the Federal Actions Impacting the Environment

U. S. EPA DETAILED COMMENTS ON THE DRAFT ENVIRONMENTAL IMPACT STATEMENT FOR THE ROVER PIPELINE PROJECT, PANHANDLE BACKHAUL PROJECT AND TRUNKLINE BACKHAUL PROJECT, MICHIGAN, OHIO, PENNSYLVANIA, WEST VIRGINA, INDIANA, ILLINIOIS, TENNESSEE, MISSISSIPPI, FEBRUARY 2016 (CEQ NO. 20160046)

The following comments follow the numbered topic order as presented in the Draft Environmental Impact Statement (DEIS).

1.0 Introduction

Section 1.2.2 U.S. Environmental Protection Agency: The DEIS describes EPA's involvement in the Rover review.

> **Recommendation:** The DEIS should be amended to include EPA's oversight of Michigan Department of Environmental Quality's (MIDEQ) Clean Water Act (CWA) Section 404 permit for 404 impacts in Michigan, and indicate that the U.S. Army Corps of Engineers (Corps) permitting only pertains to the other affected states.

2.0 Projects Description

Rover Pipeline, LLC (Rover), Panhandle Eastern Pipe Line Company, LP (Panhandle), and Trunkline Gas Company, LLC (Trunkline) (Projects Proponents) propose to construct and operate the following natural gas facilities/components (Projects):

- Rover Pipeline Project (OH, MI, WV, PA) – construct 510.7 miles of new 24-, 30-, 36-, and 42-inch-diameter natural gas pipeline [Mainlines A and B (OH), Market Segment (OH and MI), and 9 Lateral Lines (OH, PA and WV)] and appurtenant facilities that include 10 new compressor stations, 19 new meter stations, 5 new tie-ins, 78 mainline valves, and 11 pig launcher and receiver facilities;

- Panhandle Backhaul Project (OH, IN, IL) – modify existing piping at four existing compressor stations and three valve sites to allow for bi-directional flow of natural gas; and,

- Trunkline Backhaul Project (IL, TN, MS) - modify existing piping at four existing compressor stations (Johnsonville, Joppa, Dyersburg, and Independence) to allow for bi-directional flow; and modify the Panhandle-Trunkline Interconnect through installation of valves and fittings and modification of piping within the Panhandle-Trunkline Tuscola Compressor Stations, as well as construction and modifications at the existing Bourbon Meter Station.

2.1 Proposed Facilities

> **Recommendation:** In *Table 2.1.2-1 Above Ground Facilities for the Projects* - include acres associated with each aboveground facility in this table.

2.2 Land Requirements

Construction of the proposed Projects would impact 9,998.3 acres. Operation of the Projects would permanently disturb 3,507.8 acres. Forested land and agricultural land would sustain the largest acreage impact. The majority of the acreage impacts are associated with the Rover Project. Only approximately 24 percent of Rover's proposed pipeline routes are within or parallel to existing pipeline and/or utility rights-of-way (ROW).

The Rover Project would impact 9,227.6 acres of vegetated land during construction and 3,460.5 acres of vegetated land during operation. Of the Rover Project acres affected by construction, 2,991.4 are upland forested areas, 760.8 acres are upland open lands, 5,294.9 acres are agricultural lands, and 180.5 acres are wetlands, including 40.4 acres of forested wetlands (page 4-101). Rover would cross 852 waterbodies, 29 of which are classified as fisheries of special concern. Fourteen (14) residences would be within the construction work area, and 3 residences would be within 10 feet for the construction work area. Sixteen (16) federally listed threatened and endangered species are potentially present in the vicinity of the Projects. Also potentially present in the vicinity of the Projects are 56 species that are state-listed as threatened, endangered, or noted by the applicable state agencies as being of special concern (page ES-6). The pipelines and associated routes would also cross, but are not limited to, areas of steep slopes, erodible soils, karst geology, and abandoned and active mine sites.

2.2.3 Contractor Yards

> **Recommendation:** *Table 2.2.3-1 Contractor Yards along the Rover Pipeline Project Route* – Better describe what is meant by "Open Land" on this table. For example is agricultural land included in the "Open Land" designation for Sherwood Yard? We recommend that the Final EIS better describe the existing land use associated with Sherwood Yard.

2.3 Construction Procedures

The DEIS (page 2-20) states "To reduce construction impacts, Rover would implement its Construction Mitigation Plans (CMPs) (see appendix G). The CMPs include Rover's *Upland Erosion Control, Revegetation, and Maintenance Plan* (Rover's Plan[3]), which is based on our *Upland Erosion Control, Revegetation, and Maintenance Plan* (our Plan[4]). The CMPs also include Rover's *Wetland and Waterbody Construction and Mitigation Procedures* (Rover's Procedures[5]), which are based upon and contain many of the measures found in our *Wetland and Waterbody Construction and Mitigation Procedures* (our Procedures[4]). . . . *Unanticipated Discovery Plan for Paleontological Resources* (Rover's Paleontological Discovery Plan), [6] . . . "

The footnotes provide web addresses/links to generic Rover and/or FERC websites, instead of providing direct links to the specific documents.

Recommendations: We recommend the Final EIS provide direct links to the above referenced documents that are not provided in the hardcopy or CD version of the EIS. Also include Rover's Spill Prevention and Response Procedures (Rover's Spill Procedures).

2.3.1 General Pipeline Construction Procedures

Recommendation: Page 2-23, under *"Grading"* -- Include a discussion of soil compaction.

2.3.2.8 Rugged Topography

Recommendation: Clarify what defines "rugged terrain" (soil or geology types and slopes). Highlight where rugged terrain is located (using maps or reference a section in the EIS).

2.5.3 FERC Third-Party Compliance Monitoring

The DEIS (page 2-36) states *"Rover has agreed to fund a FERC third-party compliance monitoring program during the Project construction phase. Under this program, a contractor is selected by, managed by, and reports solely to the FERC staff to provide environmental compliance monitoring services."*

Recommendation: EPA recommends the Final EIS identify whether a FERC third-party compliance monitor will be stationed on-site at each of the 15 construction spreads. In addition, identify whether FERC third-party compliance monitors will have the authority to stop construction, if necessary.

2.5.5 Post-Construction Monitoring

Recommendation: In addition to Rover's Agricultural Impact Mitigation Plan (AIMP) to help and conserve agricultural lands that may be affected by construction and/or operation of the pipelines (DEIS page 4-169), we recommend FERC consider requesting Rover develop project specific Impact Mitigation Plans for other important resources impacted by the project, such as forest land, wetlands, residences, drinking water supply wells.

4.1.3 Geologic Hazards
4.1.3.4: Landslides

Recommendations:
Table 4.1.3-2 Landslide Hazards in the Rover Pipeline Project Area. Include a map in the FEIS that accompanies this table to show the locations of landslide susceptibility. Follow with a reference to best management practices (BMPs) that will reduce impacts.

We recommend additional investigations via surveys to help determine the segments of each pipeline that will need to be diverted due to landslide susceptibility. Include a

description and findings of the surveys in the Final FEIS. Also, identify any proposed route modifications, associated impacts and mitigation measures in the Final EIS.

Describe and identify in the Final EIS how long Rover will invest in post-construction inspection BMPs to make sure they work properly.

4.1.3.6 Ground Subsidence
Karst Topography

Recommendations:
Page 4-27, Development on karst terrain can have large impacts on the project and water resources if there is contamination during construction and/or operation. The pipeline routes and above ground facilities should be surveyed for karst features, such as caves and sinkholes. We recommend that the Final EIS include a map of these areas. We also recommend that the specific measures that will be used during construction and operation be identified in the Final EIS.

Section 4.1.3.8: Blasting
The DEIS identifies that Panhandle and Trunkline Projects are not within areas of shallow bedrock, therefore blasting would not be required in these areas.

Recommendation: Though it may be unlikely blasting will be required for the Panhandle and/or Trunkline Projects, we recommend the Final EIS show that the project proponents are prepared to undertake BMPs for blasting, if necessary.

4.2 Soils
4.2.2.1 Erosion by Water and Wind

Recommendations: We recommend this section reference the BMPs that will help reduce soil erosion from water and wind, discuss when BMPs will be used and identify how they will be maintained during construction. Additionally, discuss whether construction of the project may need soil retention walls. If soil retention walls may be needed, identify the plans and procedures that will be used to inspect and insure retention walls are safe and well maintained.

4.2.2.6 Prime Farmland and Farmland of Statewide Importance

Recommendations: Page 4-44, EPA recommends this section identify the type of crops that will be affected and discuss whether the project proponents have spoken with state farm agencies and landowners regarding impacts, mitigation and compensation.

4.2.2.7 Contaminated Soil

Recommendations: Identify in this section as well as in *Section 4.3.1.6 Contaminated Groundwater* and *Section 4.8.6 Hazardous Waste Sites* of the Final EIS if Resource Conservation and Recovery Act (RCRA) corrective action, Leaking Underground

Storage Tanks (LUSTs), and/or Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (Superfund) sites are within the construction areas of the Projects. Identify the databases that were used to make the determinations. Identify the procedures to notify the state/s and EPA if contaminated areas are found.

4.2.4 Access Roads
Construction of 86.7 miles of access road associated with the Rover Project (page 4-46) will increase the amount of impervious surface. This is not addressed in the DEIS.

Recommendation: The Final EIS should address the increase in impervious surface due to proposed access roads. The document should discuss how it will impact flooding, water infiltration, water resources and habitats.

4.3 Water Resources (Surface and Groundwater)
4.3.1 Groundwater Resources
4.3.1.6 Contaminated Groundwater
The DEIS identifies that the proposed location for the Dover Contractor Yard is in close proximity to the Reilly Tar & Chemical Company (Reilly Tar) Superfund site in Dover, Ohio.

Recommendation: For the most recent information and coordination regarding the Reilly Tar Superfund site, contact John Fagiolo, EPA Remedial Project Manager (phone: 312/886-0800). Include the results of this coordination in the Final EIS.

4.3.1.2 Sole Source Aquifers

Recommendation: We recommend that this section mention the closest Sole Source Aquifer and define "close proximity."

4.3.1.4 Wellhead and Aquifer Protection Areas
Table 4.3.1-3 Wellhead Protection Areas Crossed by the Rover Pipeline Project: According to the text (page 4-59) twenty-one Wellhead Protection Areas (WHPAs) will be crossed by the Rover Project in PA, OH, WV, and MI; however, Table 4.3.1-3 lists only twenty.

Recommendation: Clarify whether it is twenty or twenty-one WHPAs that will be crossed by the Rover Project.

Ohio and Michigan (page 4-60): Eight WHPAs would be crossed in Ohio. Ten WHPAs would be crossed in Michigan: seven crossed by the Market Segment, and three are within the Whitmore Lake Contractor Yard sit.

Recommendation: Identify in the Final EIS if all water suppliers in the WHPAs have been consulted and the outcome of that consultation Identify the specific measures that Rover will take to insure protection of the water resource in the WHPAs during project construction and operation.

West Virginia (page 4-60): The text briefly mentions one Wellhead Protection Area (WHPA)

will be crossed by the project in WV.

> **Recommendation**: Identify in the Final EIS the project lateral that will cross the WHPA in WV, identify where it will cross the WHPA, and if the water supplier has been contacted. Include the results of that contact.

4.3.2 Surface Water Resources
Regarding impacts to streams, drainages, ponds, and lakes, the DEIS does not adequately describe the regulatory requirements under the CWA Section 404. Instead, it focuses CWA permitting and compensatory mitigation requirements only to wetlands.

> **Recommendation:** We recommend that the Final EIS better describe CWA Section 404 permitting requirements for the placement of dredge or fill material within all waters of the U.S.

Construction and operation of proposed new and/or modified aboveground facilities will increase impervious surfaces. For example, the Dyers Compression Station (C.S.) entails 34.7 acres and the Independence C.S. entails 39.6 acres of impact.

> **Recommendation**: The Projects Proponents should identify and the Final EIS address stormwater management controls from increased impervious surfaces for each aboveground facility.

4.3.2.4 Sensitive Waterbodies
Impaired Waterbodies (page 4-76)

> **Recommendations:** We recommend that this section include the linear feet of impaired streams that are crossed.

Flood Hazard Zones (page 4-77)

> **Recommendation:** We recommend the Final EIS identify and discuss: 1) how many acres will be within each of the Flood Hazard Zones, 2) if there are any impacts to surrounding areas prone to flooding, and 3) if construction will occur during times of the year that have higher risks of flooding. Also, address if the project will create new and/or additional flooding in areas affected by an increase in impervious surface due to project access roads and aboveground facilities.

4.3.2.5 Waterbody Construction Procedures
Hydrostatic Testing and Dust Control (pages 4-78 – 4-84, and 4-87 – 4-88)
"Rover proposes to withdraw about 259 million gallons of test water from 34 local surface waters and various municipal supplies (see table 4.3.2-5). The testing would occur at 45 test segments (see table 4.3.2-6)" (page 4-78)

Recommendation: We recommend the Final EIS mention why hydrostatic testing is the preferred method of testing pressure why other, non-resource intensive methods are not being proposed, such as pneumatic pressure testing.

The DEIS (page 4-78) states "This testing involves cleaning each test segment prior to hydrostatic testing . . ." but does not explain what "cleaning" entails.

Recommendation: We recommend that the Final EIS explain what pre-cleaning entails. How much water does it use? Is this in addition to the amount of water used for the actual hydrostatic test? What chemicals, if any, are used in the pre-cleaning process?

Table 4.3.2-5 Hydrostatic Test Water Sources and Volumes for the Projects

Table 4.3.2-6 Proposed Hydrostatic Test Water Segments for Rover's Pipeline Facilities

Recommendations: We recommend Table 4.3.2-5 and Table 4.3.2-6 include additional categories to identify: 1) the proposed intake areas, 2) daily water flow amounts for each water intake, 3) where water will be recycled from one segment to another, and 4) the amount of water that will be recycled in each segment.

The DEIS does not address the specific requirements for the disposal of test water associated with the various components of the Proposed Projects. For example, the Trunkline Backhaul Project's Dyersburg Compressor Station (C.S.) (TN) and Independence C.S. (MS) will use 150,000 and 90,000 gallons, respectively, of municipal water for hydrostatic testing. The Panhandle Backhaul Project's Zionsville C.S. (IN) and Tuscola C.S. (IL) will use 130,000 and 50,000 gallons of municipal water, respectively, for hydrostatic testing.

Recommendations: The Final EIS should address specific requirements for the disposal of all test waters.

Recommendation: We also recommend the Final EIS identify all BMPs that will be used for: 1) water withdrawal in hydrostatic testing to prevent the entrainment of fish and other aquatic organisms, and 2) BMPs to dissipate waters after testing to prevent/minimize erosion and sediment movement.

Recommendation: We recommend that the Final EIS explain what happens inside the pipe after hydrostatic test water has been discharged. Is the pipe dried? If so, are any chemicals used in the pipe drying process?

4.3.2.6 General Impacts and Mitigation

Open-cut Crossings: The DEIS (page 4-86) states that Rover proposes to cross all waterbodies and drainages using the open-cut method, except in areas that would be crossed using the horizontal directional drilling (HDD) method.

Recommendation: In addition to the open-cut crossing method, we recommend that the dry-ditch method also be explained in the Final EIS. We recommend explaining the

reason for picking one method over the other by comparing the two methods to identify the method that would cause the least amount of impact to aquatic resources.

4.4 Wetlands

The DEIS (page 4-92) states *"Construction of the Project would impact a total of 180.49 acres of wetland, including 40.53 acres of forested wetlands, 27.19 acres of scrub-shrub wetlands, and 112.77 acres of emergent wetlands."*

The alternatives analysis regarding surface water and wetland crossings is not detailed enough to determine if the preferred alignment has sufficiently avoided and minimized adverse impacts to waters of the U.S. More detail will be needed during permitting.

> **Recommendation**: We recommend the Final EIS evaluate alternative locations with fewer wetland impacts for the Burgettstown contractor yard (4.47 acres of wetland impacts) and the Dennison contractor yard (11.39 acres of wetland impacts).

Section 4.4.1 Existing Wetland Resources (page 4-89) states that Rover applied to the Corps for a Nationwide Permit 12 for impacts to wetlands. Based on the information available, EPA does not agree that the impacts proposed by Rover are sufficiently minimal to justify the use of a general permit (NWP 12).

> **Recommendation:** Based on the information available, including the scale of the project, the number of wetland and stream crossings, and the permanent impacts to forested wetlands proposed, EPA believes that the Rover project should be permitted via an individual Section 404 permit. We recommend that the Corps, which is a cooperating agency on this FERC EIS, work with FERC to identify in the Final EIS how the Corps and MIDEQ propose to permit the Rover Project, i.e., whether an individual permit or NWP 12 is most appropriate for the Rover Project.

4.4.5 Compensatory Mitigation. The DEIS (page 4-97) states *"Rover did not provide compensatory wetland mitigation plans as part of its applications for Section 404 Nationwide Permit Number 12 Permits to the COE, the PADEP, the MIDEQ, OHEPA, or WVDEP. However, Rover has been in consultation with these federal and state agencies regarding the possible mitigation options available and has provided a conceptual plan of mitigation possibilities for each state. Rover anticipated finalizing the compensatory mitigation plan for the Project with the COE and MIDEQ by the fourth quarter 2015. However, this has not been completed."*

Section 4.4.6 Conclusion: The DEIS (page 4-99) states: *"With adherence to the Rover Procedures, the state agency requirements, and the Corps permit requirements, impacts on wetlands would be minimized. While adverse and long-term impacts on wetland would occur, with Rover's implementation of its mitigation we conclude the impacts would be reduced to less than significant levels."*

EPA is concerned that the level of detail of mitigation measures in the DEIS (Sections 4.4.5 and

4.4.6), including details regarding wetland mitigation, do not demonstrate this level of certainty. Because of the large scope of the whole project, the proposal will have more than minimal impacts. Mitigation for long-term impacts to waters of the U.S. is required, including "temporary impacts" to forested and scrub shrub wetlands.

> **Recommendation:** EPA recommends the Final EIS include the wetland/stream compensatory mitigation plan that includes, but is not limited to, compensation for the temporal as well as permanent loss of forested and scrub shrub wetlands. Provide an update on the plans approval status by the Corps and MIDEQ.

4.5 Vegetation

4.5.1 Existing Vegetation Conditions (page 4-99)

The DEIS (page 4-101) discloses that the Rover Project would impact 9,227.6 acres of vegetated land during construction and 3,460.5 acres of vegetated land during operation. Of the Rover Project acres affected by construction 2,991.4 are upland forested areas, 760.8 acres are upland open lands, 5,294.9 acres are agricultural lands, and 180.5 acres are wetlands including 40.4 acres of forested wetlands (page 4-103).

<u>Upland forest/Core Forest/Forest Fragmentation/Invasive Species</u>

"Upland forest habitat would be impacted by the construction right-of-way as well as additional temporary workspace and is present throughout Pennsylvania, West Virginia, Ohio, and Michigan. The pipelines would cross large tracts of forested areas in West Virginia, Pennsylvania, and southeastern Ohio where forested tracts of 100 acres are prevalent, but as they continue west through Ohio and north through Michigan, agricultural and open land are predominant and large (100-acre) forested tracts become more rare." (Page 4-101)

Upland forests play an important role in protecting water quality in the immediate watershed, providing wildlife habitat and acting as a carbon sink. Less than 25 percent of Rover's proposed pipeline routes would use or abut existing utility or road rights-of-way (ROW); thereby fragmenting forest land. Forest fragmentation reduces forest habitat and provides an opening for invasive species to move in and establish themselves. In addition, the loss of forest likely reduces the amount of carbon currently sequestered by the trees that would be removed.

EPA agrees with FERC staff conclusion (page 4-103) that impacts on the upland forest habitat is significant. The DEIS does not include an upland forest compensation mitigation plan.

> **Recommendations**: EPA recommends the Final EIS:
>
> 1) Include an estimate of the amount of carbon capture that will be lost due to the removal of forest for construction/operation of the Rover Project.
>
> 2) Identify any compensatory mitigation the project proponents intend to undertake for the temporal and permanent loss of upland forest.

3) Identify any required forest compensation Rover will undertake as identified in the final "Migratory Bird Conservation Plan" under the Migratory Bird Treaty Act (MBTA).

4.5.3 Interior Forest Habitat
The DEIS does not identify the amount (number and acres) of interior forest cores that will be affected by the Projects.

Recommendations: We recommend that the Final EIS include a map/figure in this section to document the areas of forest core that will be impacted, as well as a table here that identifies by county and state the amount (number and acres) of interior forest core that will be lost and the amount (feet) of edge habitat that will be created due to construction and operation of the Projects, and identify and discuss potential mitigation for core forest loss.

4.5.4 Noxious Weeds and Other Invasive Plant Species (page 4-104)
The DEIS is not clear (page 4-104) whether Rover will develop and implement an Invasive Species Management Plan for construction, operation and maintenance of the Rover Project.

Recommendation: EPA recommends the Final EIS include Rover's Invasive Species Management Plan for the Rover Project, and the highlights of the plan be discussed in this section of the FEIS.

4.6 Wildlife and Aquatic Resources
4.6.1.2 Sensitive or Managed Wildlife Habitats (pages 4-108 -4-110)
Table 4.6.1-1 Managed Wildlife Habitats Crossed by the Rover Pipeline Project (page 4-109) identifies that six Sensitive Habitats in Ohio administered by the National Audubon Society and one Sensitive Habitat in Michigan administered by the Michigan Department of Natural Resources (MIDNR) will be crossed by the project. The Michigan site and 4 Ohio sites have existing forest habitat. The six Ohio sites are identified as Important Bird Areas (IBA). The DEIS (page 4-110) states *"IBAs are noted as priority areas in the 2011 Memorandum of Understanding between the U.S. Fish and Wildlife Service (FWS) and the FERC regarding the conservation of migratory birds under the MBTA."*

Recommendation: We recommend this section of the Final EIS present the results of any negotiations between Rover, FWS and the administrators of the seven Sensitive Habitats identified on Table 4.6.1-1, including requested/required mitigation measures.

The DEIS (page 4-110) discloses that Rover would not cross sensitive wildlife habitats, managed wildlife habitats, or IBAs in West Virginia and Pennsylvania.

Recommendation: EPA recommends the Final FEIS identify whether sensitive wildlife habitats, managed wildlife habitats, or IBAs are near Rover's proposed pipelines and related facilities in West Virginia and Pennsylvania. If applicable, identify potential impacts and mitigation measures.

4.6.1.5 Migratory Birds (page 4-114)
The DEIS (page 5-7) states *"We are recommending that Rover provide its final Migratory Bird Conservation Plan which should include details of the FWS' required compensation and mitigation measures. Additionally, we are recommending that Rover restrict all tree clearing to between October 15 and March 31 for the entire project to avoid impacts on listed bat species. Because this timing window encompasses the clearing window for Migratory Birds (and is further restrictive) this recommendation would also avoid impacts on Migratory Birds."*

> **Recommendation**: EPA recommends the Final EIS include the final Migratory Bird Conservation Plan that includes FWS's required compensation and mitigation measures. The portions of the final Migratory Bird Conservation Plan pertinent to *4.6.15 Migratory Birds*, and *4.4.2 Federally Listed Species and Species Proposed for Listing* should be discussed under these sections of the Final EIS.

4.7 Special Status Species
4.4.2 Federally Listed Species and Species Proposed for Listing
Sixteen federally listed, threatened or endangered species are potentially present in the vicinity of the Rover Project (page ES-6).

> **Recommendation:** We recommend the Final EIS include the FWS Biological Opinion. Required mitigation should be identified in the applicable sections of the Final EIS.

4.7.3 State-listed Species
Fifty-six species are state-listed as threatened, endangered, or were noted by the applicable state agencies as being of special concern (page ES-6).

> **Recommendation:** EPA recommends the Final EIS identify state agencies' species-specific required/requested mitigation and discuss how Rover will implement the mitigation measures.

4.8 Land Use, Recreation, Special Interest Areas and Visual Resources
The DEIS (page 4-159) states *"Construction of the Rover Project would impact a total of 9,600.8 acres. . . . Operation of the Rover Project would permanently encumber 3,507.8 acres."*

4.8.1.2 Pipeline Facilities (page 4-159)
Impermeable surfaces associated with the Projects may affect water resources, flooding, and groundwater recharge.

> **Recommendation:** We recommend the Final EIS disclose the amount (acres) of land that will be converted from permeable surfaces to impermeable surfaces, such as pavement or aboveground structures. Identify mitigation measures in the Final EIS.

4.8.3.2 Planned Developments (page 4-168)

Recommendation: EPA recommends the Final EIS identify and discuss any covenants on properties that would prevent land owners building in the ROW of the pipelines for those lands that are leased or owned.

4.8.6 Hazardous Waste

The DEIS (page 4-177) states "Based on field and database research, as well as in consultation with state environmental agencies, Rover identified one brownfield site about 350 feet south of MP BGL 16.3."

Recommendation: In this section of the Final EIS, we recommend that FERC list all the databases that were used to search for hazardous waste sites along the proposed pipeline construction routes. This should include, but not limited to, leaking underground storage tanks (LUSTs), and Resource Conservation and Recovery Act (RCRA) corrective action sites going through remediation.

4.9 Socioeconomics

4.9.8 Environmental Justice

The DEIS (page 2-201) states "*Executive Order 12898 (EO 12898) on Environmental Justice recognizes the importance of using the NEPA process to identify and address, as appropriate, any disproportionately high and adverse health or environmental effects of federal programs, policies, and activities on minority populations and low-income populations.*" An important reason for identifying communities with environmental justice (EJ) concerns in the EIS is to use this information to communicate the impacts of the project.

FERC's DEIS identification of minority and/or low-income populations (persons below poverty level) is at a county-level to state-level comparison of U.S. Census Bureau 2015b statistics for the Rover Project, presented in Tables 4.9.8-1 and 4.9.8-2. Statistical information is not provided for the Trunkline Backhaul and Panhandle Backhaul projects.

Recommendations:

1) EPA recommends using census-tract-level information to initially help define/locate environmental justice populations/communities. FERC may wish to look at http://www.epa.gov/ejscreen.

2) We recommend the Final EIS also include statistical information and analysis regarding potential for EJ populations near the facilities associated with Trunkline Backhaul Project and Panhandle Backhaul Project.

Regarding the Rover Project the DEIS (page 4-205) states: "*Seven of the 27 counties have a poverty rate that is higher than the respective state. Three of the 10 counties where compressor stations are proposed have a poverty rate that is higher than the respective state. The highest poverty rate in the area of the Rover Project is in Tyler County, West Virginia, at 19.9 percent, although this rate is only 2 percent higher than the statewide average for West Virginia, which is at 17.9 percent. The largest discrepancy between state and county poverty rates occurs in Monroe County, Ohio, where the poverty rate is 19.0 percent and the statewide average is 15.8*

percent, a difference of 4.2 percent. . . . Although the racial and economic composition of the counties traversed by the Projects shows some deviations from state-level statistics, there is no evidence that the Projects would cause a disproportionate share of adverse environmental or socioeconomic impacts on any racial, ethnic, or socioeconomic group. . . . The primary health issues related to the Rover Project would be the risk associated with an unanticipated pipeline or compressor station failure."

The DEIS lacks information that demonstrates specific efforts FERC and Project Proponents made to further identify/locate and contact communities with environmental justice concerns regarding the proposed Projects. The DEIS does not identify opportunities there maybe for training and hiring low-income populations for Projects' construction and/or operation and maintenance.

Recommendations: EPA recommends the Final EIS:

1) Identify the number/percentage of low-income/minority individuals/populations in relation to the general population that live (own/rent/reside) within or near the Projects' areas that would be at risk of injury due to unexpected pipeline and/or associated facilities failure.

2) Identify the specific efforts FERC and Projects Proponents made and will make to further identify/locate and contact communities with EJ concerns regarding the proposed Projects.

3) Identify and discuss any opportunities there may be to train and employ low-income individuals for Projects' construction and/or operation and maintenance.

4) Demonstrate how construction or operational impacts in these communities are not disproportionately high compared to impacts to other communities (see our comments under "Noise").

5) Incorporate new/additional information and analysis since the DEIS into the cumulative impacts analysis, if applicable.

4.11.2 Noise

4.11.2.2 Construction Noise Impacts and Mitigation (pages 4-237 – 4-242)

The DEIS (page 4-237) states *"Although nighttime noise would generally not increase during construction, certain HDD activities could continue into nighttime hours. Because of this and the fact that the equipment involved in the HDDs would be stationary for an extended period of time, there is a greater potential for prolonged noise impact. Rover proposes to use the HDD method at 31 locations. The length of the activity at each HDD site would be from 2 to 8 months."*

Table 4.11.2-3 Noise Quality Analyses for the Noise-Sensitive Area (NSA) Closest to each Horizontal Directional Drilling Site (pages 4-238 – 4-240) show 28 NSA areas where noise would be above the FERC requirement of 55 dBA L_{dn}. Twenty-three (23) NSA areas may

experience a clearly noticeable noise increase and 19 of the 23 may experience a doubling or more of noise.

These increased noise levels may, in part, affect sleep patterns and consequently, adult job performance and children's ability to learn in school. The DEIS does not disclose the specifics regarding each NSA area associated with HDD activities. For example, are some NSAs schools and/or do school aged children live in an NSA residence that would be affected by increased noise levels? How many and which NSA's are part of an environmental justice community? Would noise impacts be disproportionately born by environmental justice communities?

> **Recommendations**: EPA recommends the Final EIS provide more detailed information regarding the make-up of each NSA (e.g., residence with school aged children, a school, etc.) identified on Table 4.11.2-3. Identify whether each NSA is part of a community with EJ concerns, and assess and disclose whether there would be a disproportionate noise impact. Identify and discuss appropriate mitigation measures.

4.11.2.3 Operation Noise Impacts and Mitigation (pages 4-242 – 4-246)
Table 4.11.2-5 Noise Analyses for NSAs within 1.0 Mile of the Rover Pipeline Project Compressor Stations (pages 2-244) identifies all NSAs are residences, but does not identify if any of the residences have school-age children. The Table appears to show that 23 of the NSAs already experience calculated ambient L_{dn} noise levels above 55 dBA. In addition, Table 2.11.2-5 shows 26 of the NSAs would experience noise levels at or above 55 dBA L_{dn} if the Rover Project is implemented. However, the DEIS (page 4-244) states *"As shown in table 4.11.2-5, noise levels from each compressor station are projected to be below the FERC criterion of 55 dBA Ldn.*

> **Recommendation:** EPA recommends the Final EIS clarify/explain/correct the statements made in the text with the information contained in Table 4.11.2-5.

The DEIS (page 4-242) discloses that the operational noise analysis includes Rover's use of its identified mitigation measures.

> **Recommendation:** EPA recommends Table 4.11.2-5 include additional information that compares the calculated compressor station contribution L_{dn} (dBA) noise levels with and without Rover's identified mitigation measures. In addition, Rover's identified mitigation measures should be listed in the Table's footnotes.

Table 4.11.2-6 Calculated Operational Noise Levels at the Noise Sensitive Area with Highest Baseline Sound Level for Rover's Meter Stations (page 4-245). *"Table 4.11.2-6 identifies the closest NSA, its distance and direction from the proposed Project component, and the measured ambient sound levels and the results of the acoustical assessment for the operation of the Rover meter stations. The table results include mitigation measures at the CGT, Hall, Gulfport, and Consumers Meter Stations. With these measures in place, noise from the operation of the meter stations would not exceed the FERC's criterion."*

Recommendation: EPA recommends Table 4.11.2-6 include additional information that compares the calculated meter station contribution L_{dn} (dBA) noise levels with and without Rover's identified mitigation measures. We note the footnotes in this table identify Rover's noise reduction measures.

Page 4-245, "The Panhandle and Trunkline modifications do not include any additional compression or significant new noise sources. Therefore, the modified facilities would not generate additional noise beyond that of existing operations."

Recommendation: EPA recommends the Final EIS identify the existing noise levels associated with NSAs for the existing facilities where proposed modifications will take place for Panhandle and Trunkline Projects. If applicable, identify mitigation measures Panhandle and Trunkline could take to reduce noise levels at their facilities.

Page 4-245, *"In addition to the operational noise discussed above, pipeline blowdown events would also generate noise impacts at the mainline valve sites, and station blowdown events would generate noise at the compressor stations."*

Recommendation: The DEIS does not identify how often blowdown events typically occur. EPA recommends the Final EIS identify the expected frequency of blowdown events.

4.12 Reliability and Safety

DEIS (page 4-225) states *"Rover would prepare an emergency response plan that would provide procedures to be followed in the event of an emergency that would meet the requirements of 49 CFR 192.615."*

Recommendation: EPA recommends the Final EIS include Rover's Emergency Response Plan.

4.13 Cumulative Impacts

4.13.2 Natural Gas Production

Indirect Effects

The DEIS (pages ES-10 and 5-14) states that the proposed project will facilitate distribution of existing reserves that are currently stranded at the source due to a lack of infrastructure. However, the DEIS contains limited analysis of the potential impacts of natural gas development to supply the Rover project.

Recommendations: We recommend the Final EIS consider the potential for increased natural gas production as a result of the proposal and the potential for environmental impacts associated with these potential increases.

Analysis of Cumulative Impacts

Water Resources / Surface Waters / Wetlands

The cumulative effects analysis for water resources included in the DEIS focuses on the short-

term nature of many of the adverse effects proposed. Although BMPs and site restoration function to minimize impacts from the proposed project, the long-term effects of converting forested wetlands to emergent wetlands, and the cumulative impact of constructing multiple crossings within the same watershed within a short period of time may have a cumulative adverse impact on surface waters. The DEIS lacks an analysis of cumulative impacts within specific watersheds needed to assess whether there would be a significant cumulative adverse impact on any waters of the U.S.

> **Recommendation:** EPA recommends the Final EIS provide an analysis of impacts based on specific watersheds for cumulative effects analysis.

Upland Forest / Core Forest and Wildlife Habitat

As discussed earlier, the DEIS does not identify the amount of forest core or analyze impacts to core forest and associated wildlife by the Rover Project. In addition, the DEIS does not attempt to estimate the amount and assess/analyze impacts to upland forest, core forest and impacts to associated wildlife due to the projects listed in DEIS *Appendix S – Existing or Proposed Projects in the Region of Influence Evaluated for Potential Cumulative Impacts*. Bisected forests due to linear projects such as the Rover Project reduce the habitat for certain bird and mammal species that live in interior forests and assist in the spread of invasive species.

> **Recommendation:** We recommend the Final EIS include a cumulative impacts analysis regarding upland forest, core forest and associated wildlife. Include an upland forest / core forest mitigation plan for the Rover Project in the Final EIS. EPA recommends that the plan address control of invasive species.

Socioeconomic / Environmental Justice

See EPA's earlier comments under **4.9 Socioeconomics / 4.9.8 Environmental Justice** regarding our recommendations for additional information to include in the Final EIS.

> **Recommendation:** EPA recommends that the Final EIS include any additional information developed regarding environmental justice communities and associated impacts in the cumulative impacts analysis.

Greenhouse Gas Emissions

The Draft EIS included a helpful discussion of the greenhouse gas (GHG) emissions associated with construction of the project, and annual emissions from the operation of the compressor stations, but did not include estimates of the GHG emissions associated with the production, leakage, and combustion of the natural gas brought into production as an indirect effect of this project. Because of the global nature of climate change, regardless of where the ultimate end use of the natural gas occurs, these additional greenhouse gas emissions attributable to the project would affect the U.S. Because of the causal relationship between this project and the emissions, it is appropriate and consistent with NEPA and CEQ regulations to consider and disclose the emissions levels in NEPA analyses.

The U.S. Department of Energy (DOE) has issued two documents that are helpful in assessing the GHG emissions implications of the project. They are "Addendum to Environmental Review

Documents Concerning Exports of Natural Gas from the United States,"[1] and the National Energy Technology Laboratory's (NETL) report, entitled "Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States."[2] Although the NETL report focuses on liquefied natural gas, together, these reports can provide a helpful overview of GHG emissions from all stages of a project, from production through transmission and combustion. The NETL report includes comparative analysis of GHG emissions associated with other domestic fuel sources and natural gas exports as they relate to other possible fuel sources in receiving regions. This information can help decision makers review foreseeable GHG emissions associated with the increased production and export of natural gas compared to other possible fuels.

In the DEIS, FERC includes comparisons of project-level greenhouse gas emissions to nationwide and global emissions. We do not recommend comparing GHG emissions from a proposed action to global emissions, total state, or U.S. emissions, as these comparisons obscure rather than illuminate consideration of GHG emissions under NEPA.

> **Recommendations:** We recommend that the Final EIS include estimates of emissions from production, leakage, and combustion of the natural gas brought into production. We also recommend that both DOE reports be considered as part of the decision making process for this project and incorporated by reference in future NEPA documents. FERC may also want to consider adapting DOE's analysis to more specifically consider the GHG implications of projects.
>
> We recommend that FERC remove comparisons of the proposed project's estimated emissions to aggregate emissions.

Methane Leakage

The DEIS does not contain estimates of methane leakage along the transport route. EPA has compiled useful information on technologies and practices that can help reduce methane emissions from natural gas systems, including specific information regarding emission reduction options for natural gas transmission operations.[3]

> **Recommendation:** We recommend including estimates of methane leakage along the route. Additionally, we recommend that the Final EIS describe potential BMPs to reduce leakage of methane associated with operation of the pipeline and compressor stations.

Climate Change

DEIS Page 4-279 *states "The U.S. Global Change Research Program's report notes the following observations of environmental impacts that may be attributed to climate change in the Midwest region:*

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[1] Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States. DOE. (http://energy.gov/sites/prod/files/2014/05/fl 6/ Addendum_ 0. pdf)

[2] Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States. DOE/NETL-2014/1649 (http://energy.gov/fe/life-cycle-greenhouse-gas-perspective-exporting-liquefied-natural-gas-united-states)

[3] (http://www.epa.gov/gasstar/methaneemissions/onshore_transmission_storage.htm)

- *more frequent days with temperatures above 90° F;*
- *a longer growing season;*
- *increased heavy precipitation;*
- *less winter precipitation falling as snow and more as rain; and*
- *rising sea surface temperatures and sea level."*

Recommendation: EPA recommends the Final EIS discuss the Projects Proponents' and FERC's consideration of the Projects' susceptibility to impacts associated with climate change and identify mitigation measures. For example, discuss the risk of the Projects' pipelines being exposed due to increases in flooding, scouring, and/or upland erosion due to expected heavy precipitation events associated with climate change.

5.0 Conclusions and Recommendations

The DEIS (page 5-1) states *"The conclusions and recommendations presented in this section are those of the FERC environmental staff. Our conclusions and recommendations were developed with input from the EPA, COE, FWS, OHEPA, and WVDEP as cooperating agencies."*

Recommendation: This section in the Final EIS will need to be updated after consideration of additional input provided by the cooperating/resources agencies and others since FERC's release of the DEIS for public and agency review and comment.