

## **5.0 CONCLUSION AND RECOMMENDATIONS**

### **5.1 SUMMARY OF THE STAFF'S ENVIRONMENTAL ANALYSIS OF THE PROPOSED ACTION AND ALTERNATIVES**

We have determined that construction and operation of the proposed Midcontinent Express Pipeline Project would result in limited adverse environmental impacts based on information provided by MEP and data developed from information requests; field investigations; literature research; alternatives analysis; comments from federal, state, and local agencies; and input from public groups and individual citizens.

As part of our review, we developed specific mitigation measures that we believe would appropriately and reasonably reduce the environmental impacts resulting from construction and operation of the proposed Project. We believe that environmental impacts would be minimized if the proposed Project is constructed and operated in accordance with applicable laws and regulations, MEP's proposed mitigation, and our additional mitigation measures. We are, therefore, recommending that our mitigation measures be attached as conditions to any authorization issued by the Commission. A summary of the anticipated Project impacts and our conclusions is provided below by resource area.

#### **5.1.1 Geology**

Construction and operation of the proposed Project would have minimal impact on geological resources. The primary effect of Project construction would be disturbances to the existing topography along the proposed pipeline construction right-of-way, but all areas disturbed during pipeline construction would be finish-graded and restored as closely as possible to preconstruction contours during cleanup and restoration. Additionally, no bedrock blasting is anticipated for the proposed Project. The proposed Project would be located in a region with a low risk of seismic activity, soil liquefaction, landslide susceptibility, and subsidence. The proposed Project route does not cross any areas known to contain sensitive paleontological resources, but MEP has developed an unanticipated discovery plan that would be implemented in the event that paleontological resources were found during construction.

The proposed Project would be located in proximity to a number of oil and natural gas wells, but construction and operation of the proposed Project is not expected to have a negative impact on exploitable oil or natural gas resources. Though the proposed Project pipeline could conflict with current and future extraction of mineral resources at one actively used gravel pit and another gravel pit that has a current lease for mineral resource mining operations, compensation for any losses or limitations on future expansion of mining operations there would be addressed during easement negotiations with the affected landowners.

#### **5.1.2 Soils**

The proposed Project would traverse a variety of soil types and conditions. About 50 percent of the soils that would be crossed by the proposed Project mainline are classified as prime farmland, and nearly all (about 97 percent) of the soils along the proposed CenterPoint Lateral route are designated prime farmland. Construction activities associated with the proposed Project, such as clearing, grading, trenching, and backfilling could adversely affect soil resources by resulting in erosion, compaction, and the loss of soil productivity and fertility by mixing of topsoil and subsoil horizons and changing drainage patterns. Such effects would be of particular concern in agricultural areas. However, MEP would implement the mitigation measures contained in its Plan to control erosion, ensure successful revegetation, and minimize any potential adverse impacts to soil resources. Specifically, potential soil impacts to agricultural areas would be mitigated through measures such as topsoil stripping, compaction

testing and treatment, and monitoring of crop yields to ensure that those yields in areas affected by construction were similar to that in adjacent, undisturbed areas. Additionally, MEP would implement a SPCC Plan during construction to prevent and contain, if necessary, accidental spills of any material that may contaminate soils, and to ensure that inadvertent spills of fuels, lubricants, or solvents are contained and cleaned up in an appropriate manner.

The proposed Project route would traverse approximately 19 miles of loess deposits in Warren and Hinds Counties, Mississippi. Loess soils are particularly sensitive due primarily to their severe erosion potential, but also because of associated or other soil limitations, characteristics, or designations occurring in the area including moderately steep topography and poor revegetation potential. To better address the potential for erosion in this sensitive area, we are recommending that MEP finalize their Loess Soil Management Plan in coordination with NRCS.

MEP requested that the FERC allow compensation for reduced crop yields due to impacts to agricultural areas in lieu of restoration. We are denying this request and are recommending that MEP revise its Plan to be consistent with the FERC Plan, Section VII.A.2, which states that revegetation will be considered successful if post-construction crop yields be similar to adjacent undisturbed portions of the same field.

### **5.1.3 Water Resources**

Construction and operation of the proposed Project would not significantly affect groundwater resources, including sole-source aquifers, wellhead protection areas, drinking water wells, and springs. Potential impacts to groundwater resources would be avoided or minimized by implementing the measures described in MEP's Procedures (including the alternative measures approved in this EIS), SPCC Plan, and Unanticipated Discovery of Contaminated Soils or Groundwater Plan, and our recommendations. We are including recommendations for MEP to extend the coverage of its Water Well Testing Program to all wells and springs used for domestic water supply or agricultural use and to file information concerning any private or domestic water wells/systems and springs damaged and repaired as a result of construction activities. Additionally, we are recommending that MEP coordinate with the public water system providers that operate public water supply wells within 150 feet of proposed construction work areas to ensure that MEP's testing program would meet the requirements of the potentially affected municipal water systems.

The proposed Project would cross 228 perennial streams, 758 intermittent streams, two perennial canals, and 39 lakes or ponds. As proposed, most waterbody crossings would be accomplished using open-cut methods. Potential effects to most major and sensitive waterbodies would be largely avoided through implementation of HDD installation techniques, which would be used to accomplish pipeline installation across 41 waterbodies. Waterbodies that would be crossed using HDD include 26 of the 38 major waterbody crossings and all navigable waterways; all of the streams designated as Louisiana Natural and Scenic Rivers or NRI-listed; and the majority of the impaired waterbodies that occur along the proposed Project route. We are recommending that MEP consult further with the LDWF and NPS regarding crossing methods and withdrawal of hydrostatic test water from Louisiana Natural and Scenic Rivers and NRI-listed rivers, respectively. The streams most likely to contain habitat for federally-listed species would also be crossed via HDD, either as proposed by MEP or per our recommendations. Additionally, we are recommending that MEP consult further with FWS regarding crossing methods for FWS-identified significant recreational fisheries. All waterbody crossings would be accomplished in accordance with MEP's Procedures and the terms of any applicable federal or state permits that may be granted. Further, we are recommending that no streams proposed to be crossed by HDD be crossed by open-cut methods without prior FERC approval.

No surface water intakes are located within three miles downstream of the proposed Project waterbody crossings, but we have recommended that MEP consult further with water systems located in the area of the White Oak Creek Source Water Assessment and Protection area located in Morris and Cass Counties, Texas. There are no records of contaminated sediments in any of the waterbodies that would be crossed by the proposed Project. Accidental spills during construction and operations would be prevented or adequately minimized through implementation of MEP's Procedures and SPCC Plan. Additionally, MEP's DDCP describes the procedures that would be implemented to monitor for, contain, and clean up any inadvertent releases of drilling fluids during HDD operations.

MEP has proposed to use surface waters for hydrostatic testing of the proposed pipeline, though municipal water supplies may be used as test water sources for some prefabricated components at aboveground facility sites. MEP would also avoid or adequately minimize potential effects to waterbodies resulting from hydrostatic testing by implementing its Procedures and Hydrostatic Testing Plan, limiting contact of test waters to new pipe, and avoiding the use of potentially toxic test water additives. Additionally, hydrostatic test waters would be sampled and treated, if needed, prior to discharge.

#### **5.1.4 Wetlands**

Construction of the proposed Project pipeline would affect 378 wetland areas resulting in a total of approximately 308.4 acres of wetland disturbance, including approximately 203.0 acres of forested wetlands and approximately 105.4 acres of scrub-shrub or emergent wetlands. No wetlands would be affected by the proposed aboveground facilities. During operations, approximately 87.8 acres of wetlands, including approximately 82.8 acres of currently forested wetlands, would be converted to other wetland types in the maintained portion of the permanent pipeline right-of-way. Special-status wetlands potentially affected by the proposed Project include lands in the NRCS-administered WRP and high-quality bald cypress-tupelo forested wetlands.

MEP would avoid and minimize wetland impacts by reducing the construction right-of-way width through wetlands to 75 feet and reducing the width of the maintained portion of the permanent right-of-way to 30 feet. Following construction, affected wetlands located outside the maintained portion of the permanent pipeline right-of-way would be allowed to revert to preconstruction conditions. Impacts to emergent and scrub-shrub wetlands would be minor overall as regeneration to preconstruction condition would occur rapidly in these areas, and maintenance of the permanent pipeline right-of-way would not result in a permanent conversion of emergent wetlands. Impacts to forested wetlands would be either permanent or long-term due to the slow regeneration time of forested areas.

MEP would minimize unavoidable wetland impacts by completing all wetland crossings in accordance with its Procedures and by complying with the terms and conditions of any Section 404 authorizations issued by the COE, including the provisions of any required wetland compensatory mitigation. We are also including several recommendations, such as development of a Project-specific forested wetland restoration plans and/or identification of additional measures to further avoid and minimize forested wetland impacts (e.g., implementation of additional or extended HDDs), and further consultations with NRCS regarding impacts to WRP lands, that would sufficiently minimize overall impacts to wetland resources. Additionally, MEP would compensate for all unavoidable wetland impacts through purchase of wetland mitigation bank credits in the area of the proposed Project. We are recommending that MEP file its finalized and approved wetland mitigation plan with the FERC.

### **5.1.5 Vegetation**

In addition to the wetland vegetation resources described above, construction and operation of the proposed Project would affect four primary types of upland, vegetative communities: upland forest, pine plantation, agricultural land, and open lands. Approximately 57 percent of the upland vegetation resources affected during construction would consist of pine plantation and upland forest, with agricultural and open lands making up the remainder. Several extensive forested tracts and areas containing exotic and/or invasive plant species would also be crossed by the proposed pipeline route, as well as vegetative communities of special concern, including NRCS-administered CRP lands; a Water Oak-Willow Oak Forest Vegetative Community in Titus County, Texas; the Bodcau WMA in Bossier and Webster Parishes, Louisiana; and the Service property in Caddo Parish, Louisiana, which contains a variety of rare plants. We are recommending that MEP consult further with TPWD regarding the extent and quality of the Water Oak-Willow Oak forested community and to develop impact avoidance, minimization, and mitigation measures if necessary.

MEP would restore all disturbed areas in accordance with its Plan and Procedures, and the specific recommendations of NRCS, local and state agencies, and soil conservation services. Affected agricultural and open lands would typically be revegetated within one or two growing seasons, but impacts to pine plantations and upland forest would be long-term, taking up to 30 years or more to recover. Impacts to forested areas contained within the permanent pipeline right-of-way would also represent a more substantial change in vegetative strata. Impacts to forested areas, including large forested tracts, would be minimized by routing the proposed Project along existing rights-of-way and through other previously disturbed areas, such as agricultural and open lands, where possible. Additionally, many of the large forested tracts crossed by the proposed Project are subject to some disturbance associated with timber management programs. Given these measures, and our recommendations for MEP to consult with appropriate agencies regarding impacts to vegetation communities of special concern at Bodcau WMA and to finalize its Draft Revegetation Plan and Draft Control Plan for Noxious and Invasive Species, effects to upland vegetation would be effectively minimized.

### **5.1.6 Wildlife and Aquatic Resources**

The wetlands and upland vegetation communities crossed by the proposed Project route support habitats that provide cover and forage for a variety of wildlife species including birds, mammals, reptiles, and amphibians. Physical disturbance, displacement, and clearing of herbaceous upland and wetland habitats would affect wildlife at or near the time of construction, but such effects would be largely temporary and many habitats would generally recover quickly following construction. Upland and wetland forested habitats would be affected most substantially, with a long-term conversion of wooded areas to successional stages in the temporary construction right-of-way and a permanent conversion to scrub-shrub or herbaceous levels within the permanent pipeline right-of-way. The proposed Project route would be collocated with or parallel to existing utility rights-of-way for approximately 51 percent of the proposed mainline pipeline route. Collocation would minimize impacts to previously undisturbed vegetation and wildlife habitats, and MEP would further minimize impacts to wildlife habitats through implementation of its Plan and Procedures. As noted above, sensitive wildlife habitats including Bodcau WMA, WRP lands, CRP lands, and extensive forested tracts would be crossed by the proposed Project, but MEP's proposed avoidance or mitigation measures, in combination with our recommendations, would effectively limit the significance of the anticipated impacts.

MEP did not identify any colonial nesting waterbird rookeries during its field surveys, but MEP would conduct an aerial flyover survey of major waterbody crossings and forested wetlands to identify the locations of any rookeries and colonies of the interior least tern along the proposed Project route

during the nesting season in the spring of 2008. MEP also indicated that it would comply with FWS recommendations and restrict any construction activities within 1,000 feet of an identified colonial nesting waterbird rookery to the non-nesting period. Additionally, MEP proposed to construct the project between August 2008 and March 2009, thereby avoiding the major migratory bird spring nesting season. We are including a recommendation for MEP to consult with the FWS regarding a conservation plan for migratory birds should the proposed construction schedule be modified. Further, during operation of the pipeline, routine vegetation maintenance would not occur between April 15 and August 1 of any year to minimize the potential for impacts on migratory bird species that may use the permanent pipeline right-of-way for nesting.

The waterbodies that would be traversed by the proposed Project provide habitat for a variety of aquatic species, including warm water fishes and mussels. Potential impacts to fisheries and aquatic habitats would include sedimentation and turbidity, loss of cover, introduction of pollutants into the aquatic environment, potential blockage of fish migrations and interruptions of spawning, and entrainment or loss of stream flow during hydrostatic testing. As described above, all waterbody crossings would be accomplished in accordance with MEP's Procedures and the terms of any applicable federal or state permits that may be granted. Direct impacts would be avoided by the use of HDD installation at many waterbody crossings, and aquatic habitat impacts at other crossing locations would be largely temporary, as crossings would be completed in less than 48 hours in most instances. Additionally, intake screening to limit entrainment of fishes and maintenance of adequate stream flow rates to protect aquatic life during hydrostatic test water withdrawals would further ensure that any Project-related impacts to aquatic habitats would be minor and temporary.

#### **5.1.7 Threatened, Endangered, and Special-Status Species**

Based on consultations with the FWS and state wildlife management agencies, we identified 22 federally-listed threatened, endangered, or candidate species that could potentially be affected by the proposed Project. In addition, the bald eagle, which is federally protected under the Bald and Golden Eagle Protection Act, was identified as potentially occurring within the Project area. Based on our review of these species and the survey reports prepared by MEP, we have determined that these species and their preferred habitats either do not occur along the proposed Project route, their potential habitats would be avoided through special construction procedures, or that adverse effects would be unlikely. Additionally, we are including numerous recommendations for development and implementation of measures to minimize the potential for Project-related effects to various species, including measures to protect the interior least tern and implementation of HDD crossing methods at several streams to avoid impacts to listed aquatic species. Field surveys have been completed along approximately 95.3 percent of the proposed Project route, but completion of surveys and habitat evaluations along the remaining portions of the proposed Project route, would be required to complete the process of compliance with Section 7 of the ESA. We are requesting that the FWS consider this Draft EIS as our Biological Assessment. We are concluding that potential Project effects would be not likely to adversely affect any federally-listed species. We are recommending that construction activities not begin until FERC concludes the consultation process with the FWS and MEP receives written authorization from the FERC.

In addition to federally-listed species, there are an additional 20 special-status species listed as either endangered, threatened, imperiled, or rare by the states of Oklahoma, Texas, Louisiana, Mississippi, and Alabama that were identified through consultations with ODWC, TPWD, LDWF, MDWFP, and ADCNR. We are recommending that MEP conduct additional consultations with these agencies, complete any required additional surveys, and determine whether additional mitigation measures are required to ensure that potential Project-related effects to all special-status and state-listed species would be adequately avoided or minimized.

### **5.1.8 Land Use, Recreation and Special Interest Areas, and Visual Resources**

As proposed, construction of the proposed Project would affect approximately 8,394.2 acres of land, including 6,774.6 acres for the Project mainline construction right-of-way; 21.2 acres for the CenterPoint Lateral construction right-of-way; 100.0 acres for the aboveground facilities; and 1,498.4 acres for extra work areas (extra workspaces, pipe storage and contractor yards, and access roads). MEP has proposed a nominal construction right-of-way width of 100 to 125 feet along upland sections of the proposed Project mainline, but are recommending that MEP reduce the nominal construction right-of-way along all sections of the proposed Project mainline to 100 feet in width to reduce impacts, particularly to individual landowners and forested lands. This would reduce the overall Project land requirements by more than 1,000 acres. The typical construction right-of-way width for the CenterPoint Lateral would be 75 feet. Following construction, all affected areas outside the permanent pipeline right-of-way and aboveground facility sites would be restored and allowed to revert to preconstruction conditions and uses. During operation of the proposed Project, the permanent pipeline right-of-way, aboveground facilities, and permanent access roads would encumber approximately 3,148.6 acres. MEP proposes to maintain a 60-foot-wide permanent right-of-way along approximately 69.2 miles of the proposed Project mainline, but in an effort to reduce permanent land requirements, we are recommending that MEP not exercise eminent domain authority granted under the NGA to acquire a permanent right-of-way greater than 50 feet in width. Based on our experience with other similar projects, as well as our understanding of pipeline operational procedures, we believe that a 50-foot-wide permanent right of way is sufficient to safely and efficiently operate the proposed pipeline. In addition, permanent impacts to landowner properties would be minimized.

MEP would mitigate any unavoidable impacts to structures (e.g., sheds or barns) located within construction work areas per the terms of the agreements negotiated during the easement acquisition process. Approximately 23 residential structures would be located within 50 feet of proposed Project construction work areas, but MEP would attempt to maintain a minimum separation of 25 feet between residences and any construction work area wherever feasible. Where maintenance of such a separation is not feasible, site-specific plans would be developed for each residence within 25 feet of proposed construction work areas and submitted to the FERC for review and approval prior to the end of the Draft EIS comment period.

The proposed Project would potentially affect several recreation and special interest areas, including CRP and WRP lands administered by the USDA; the Bodcau WMA; six NRI-listed Rivers; three Louisiana Natural and Scenic Rivers (four separate crossings); the Natchez Trace Parkway and several other state or federal scenic byways; the Archusa Creek Water Park; and Sixteenth Section Lands. To minimize impacts to these areas, MEP proposes to cross several resources via HDD. For those features where MEP does not propose to cross via HDD, MEP has consulted with the managing agencies to identify appropriate avoidance and minimization measures. Permits and approvals for proposed Project-related use and/or approved mitigation for potential impacts to levee crossings and WRP lands are outstanding, and we are recommending that MEP consult with the applicable agencies and file documentation of any agency recommended measures to avoid, minimize, or otherwise mitigate those effects prior to construction. Permits and approvals are also outstanding for the Archusa Creek Water Park and Sixteenth Section lands and we are recommending that MEP file documentation of consultation with these entities prior to the end of the Draft EIS comment period.

The proposed Project would cross the NPS-managed Natchez Trace Parkway which is a 444-mile-long elongated park and roadway in Mississippi, Alabama, and Tennessee. Based on consultations with the NPS, MEP would cross the Natchez Trace Parkway via HDD installation from outside the boundaries of the Parkway, thereby avoiding any direct surface impacts to resources within the Parkway.

Visual resources along the proposed Project route would be affected by the installation of certain aboveground facilities and through the alteration of existing vegetative patterns associated with the clearing and maintenance of the construction and permanent pipeline rights-of-way. However, the impact is not expected to be significant in most areas, and we are including recommendations for MEP to develop site-specific visual screening plans prior to the end of the Draft EIS comment period for several facilities to minimize any visual impacts to adjacent landowners.

### **5.1.9 Socioeconomics**

Construction of the proposed Project would not have a significant adverse impact on local populations, housing, employment, community services, or local commerce. Any adverse impacts would be highly localized and temporary do to the relatively short construction period and the rapid rate at which construction crews would pass through any one area. Construction of the proposed Project would temporarily increase demand for public services such as medical, police, and fire protection, but these effects would be offset by increased tax revenues to local governments. The proposed Project would have positive impacts on local spending, employment, and tax income during construction and operation, but such contributions would likely be minimal. In addition, information about the proposed Project has been readily available to the public and there is no evidence that the proposed Project would result in disproportionately high and adverse human health or environmental effects on minority and/or low-income communities or Native American tribes.

### **5.1.10 Cultural Resources**

Where survey permission was obtained, MEP has conducted cultural resource surveys and prepared associated technical reports covering approximately 95 percent (480.3 miles) of the proposed Project mainline route; the full length of the proposed CenterPoint Lateral route; all 133 proposed Project access roads; 23 of the 27 proposed offsite pipe storage and contractor yards; 7 of the 13 proposed meter stations, and all of the proposed compressor station facilities. In total, these surveys identified 103 prehistoric sites (not including 36 isolated finds), including 1 site eligible for listing on the NRHP and 11 sites potentially eligible for listing on the NRHP. MEP indicated that the eligible site would be avoided. If avoidance of the other sites is not feasible, Phase II testing would be conducted to further characterize the sites and determine their NRHP eligibility status. MEP also identified 49 historic sites (22 sites contained both prehistoric and historic characteristics) and 3 architectural sites within the Project APE, but none of these are considered eligible for listing in the NRHP.

MEP contacted 11 Native American groups regarding the proposed Project, and although some requested additional consultation or information, none have expressed opposition to the proposed Project. The cultural resource survey reports for the surveyed portions of the Project have been submitted to the various SHPOs for review, but consultations with the SHPOs regarding the unsurveyed portions of the proposed Project route are still pending. To ensure that all our responsibilities under Section 106 of the NHPA are met, we are recommending that MEP defer construction until surveys and evaluations of areas not previously accessed are completed, all survey reports and any necessary treatment plans have been reviewed by appropriate parties, and the FERC provides written notification to proceed.

### **5.1.11 Air Quality and Noise**

Air quality impacts associated with construction of the proposed Project would include emissions from fossil-fueled construction equipment and fugitive dust. However, such air quality impacts would generally be temporary and localized and are not expected to cause or contribute to a violation of applicable air quality standards. The proposed Lamar, Atlanta, Perryville, and Vicksburg Compressor Stations, as well as the proposed Delhi Booster Station, would emit air pollutants as a result of

combustion of natural gas to drive the compressor units, and in association with the periodic operation of auxiliary generators. However, the air emissions associated with operation of the compressor stations would meet Federal or state ambient air quality standards.

Impacts to noise quality associated with construction of the proposed Project would generally be temporary, minor, and limited to daylight hours, except at HDD sites, where drilling and related construction equipment would likely operate on a continuous basis. To minimize the potential for HDD-related construction noise, we are recommending that MEP identify those NSAs that would potentially be affected by such effects and develop a noise control plan that identifies all noise mitigation that MEP would implement during drilling activity to reduce noise levels to less than significant levels.

The proposed compressor stations would generate noise on a continuous basis during operations. However, the predicted noise levels attributable to operations of the new compressor stations would not result in significant effects on the NSAs nearest to those facilities as the largest increase in noise level would be 4.2 dBA and overall noise levels would not exceed 55 dBA. Additionally, we are including a recommendation for completion of post-construction noise surveys and implementation of additional mitigation measures, if required, to ensure that actual noise levels resulting from Project operations would not exceed significant or existing levels.

#### **5.1.12 Reliability and Safety**

The proposed Project would be designed, constructed, operated, and maintained to meet or exceed all DOT safety standards for natural gas pipelines. Following construction, MEP would also initiate a pipeline integrity management plan to ensure public safety during operation. The proposed Project would result in only a slight increase in risk to the nearby public.

#### **5.1.13 Cumulative Impacts**

Three types of projects (past, present, and reasonably foreseeable future projects) could potentially contribute to a cumulative impact when considered with the proposed Project. These projects include other natural gas transmission pipelines in the Project area, nonjurisdictional facilities associated with the proposed Project, and unrelated projects in the vicinity of the proposed pipeline route. Interstate natural gas pipeline projects recently completed, under construction now, or that would be constructed within the counties and parishes affected by the proposed Project include the Carthage to Perryville Project (Docket No. CP06-85-000); Gulf South's Southeast Expansion Project (Docket No. CP07-32-000); Gulf South's East Texas to Mississippi Expansion Project (Docket No. CP06-446-000); Gulf Crossing Project (Docket No. CP07-398-000); and the Southeast Header Supply Project (Docket No. CP07-44-000). Construction of the new projects is projected to occur between the years 2006 through 2008. The environmental impacts associated with these projects that would be most likely to be potentially cumulatively significant are related to wetlands and waterbodies, vegetation and wildlife (including federally- and state-listed endangered and threatened species), land use, air quality, and noise.

We believe that impacts associated with the proposed Project would be relatively minor overall, and we are including recommendations in this EIS to further reduce the environmental impacts associated with the Project. Similarly, each of the projects considered in our analysis has been or would be designed to avoid or minimize impacts to sensitive environmental resources. Additionally, it is anticipated that any significant unavoidable impacts to sensitive resources resulting from these projects would be mitigated. Mitigation generally leads to the avoidance or minimization of cumulative impacts. Consequently, only a small cumulative effect is anticipated when the impacts of the proposed Project are added to past, present, or reasonably foreseeable future projects in the area.

#### 5.1.14 Alternatives

As an alternative to the proposed action, we evaluated the no action or postponed action alternatives, system alternatives, major route alternatives, route variations, and aboveground facility site alternatives. While the no action or postponed action alternative would eliminate the short- and long-term environmental impacts identified in this EIS, the objectives of the proposed Project would not be met, and MEP would not be able to provide a new source of natural gas to markets that can be accessed through the proposed pipeline interconnects. We also evaluated the use of alternative energy sources and the potential effects of energy conservation, but these measures would not satisfy the need for the proposed Project.

Our analysis of system alternatives included an evaluation of whether existing or proposed natural gas pipeline systems would meet the proposed Project objectives while offering an environmental advantage over the proposed Project. While two existing pipeline systems (NGPL and CEGT) and one pipeline system under construction (SESH) traverse the same general geographic area as the proposed Project, neither of these systems would meet the capacity requirements or the geographic needs of the proposed Project without substantial system upgrades, such as new or increased compression and new pipeline looping, or the construction of additional pipelines to extend existing systems to the proposed Project terminus. Similarly, it is anticipated that construction and operational impacts associated with system alternatives based on a new pipeline proposed for construction (Boardwalk) and a pipeline under construction (SESH) in the general Project area would be similar to that of the proposed Project. Consequently, no system alternatives are considered available to provide environmental benefits superior to the proposed Project. We also examined the feasibility of replacing the two proposed pipeline projects currently under our review (the Midcontinent Express Pipeline and Gulf Crossing Projects) with a single pipeline system that would transport the combined volumes of both projects. However, we do not consider the single pipeline system to represent a reasonable alternative, and we eliminated it from further consideration.

We evaluated six major route alternatives to the proposed Project route. However, none of these would offer significant environmental advantages over the proposed Project route, and we eliminated them from further consideration. Lastly, we considered route variations to resolve or reduce construction impacts to localized, specific resources. During the Pre-Filing Process, MEP identified a total of 156 miscellaneous minor route variations to the initially planned route that it incorporated into the currently proposed Project route. We have evaluated each of these minor route variations and considered their associated environmental consequences as part of our environmental analysis of the proposed Project. Additionally, we identified and evaluated nine additional route variations in response to public comments received during the Pre-Filing and scoping periods for the proposed Project. We are recommending that two of these be incorporated into the proposed Project route to reduce environmental impacts. We are also recommending that MEP consult further with NRCS regarding a route variation that would avoid a WRP site in Bossier Parish, Louisiana. Additionally, it is anticipated that minor alignment shifts would be made prior to and during construction to accommodate such site-specific circumstances as landowner concerns.

We also evaluated the proposed locations of the Project aboveground facilities to determine whether environmental impacts would be reduced or mitigated by use of alternative facility sites. We did not identify any alternative sites for the proposed interconnects, pig launcher/receiver facilities, or mainline valve assemblies that would offer a significant environmental advantage to the proposed sites. Though no significant environmental consequences were identified in association with any of the proposed compressor station sites, we did evaluate alternative sites for each of the proposed compressor station facilities, based in part on public comments. However, none of the alternative sites evaluated were considered to be environmentally preferable to the proposed sites.

## 5.2 FERC STAFF'S RECOMMENDED MITIGATION

If the Commission issues a Certificate for the proposed Project, we recommend that the Commission's Order include the following specific conditions. We believe that these measures would further mitigate the environmental impacts associated with the construction and operation of the proposed Project.

1. MEP shall follow the construction procedures and mitigation measures described in its application, supplemental filings (including responses to staff information requests), and as identified in the EIS, unless modified by the Order. MEP must:
  - a. request any modification to these procedures, measures, or conditions in a filing with the Secretary;
  - b. justify each modification relative to site-specific conditions;
  - c. explain how that modification provides an equal or greater level of environmental protection than the original measure; and
  - d. receive approval in writing from the Director of the OEP **before using that modification.**
2. The Director of OEP has delegated authority to take whatever steps are necessary to ensure the protection of all environmental resources during construction and operation of the Project. This authority shall allow:
  - a. the modification of conditions of the Commission's Order; and
  - b. the design and implementation of any additional measures deemed necessary (including stop work authority) to assure continued compliance with the intent of the environmental conditions as well as the avoidance or mitigation of adverse environmental impact resulting from Project construction and operation.
3. **Prior to any construction**, MEP shall file an affirmative statement with the Secretary, certified by a senior company official, that all company personnel, EIs, and contractor personnel will be informed of the EI's authority and have been or will be trained on the implementation of the environmental mitigation measures appropriate to their jobs before becoming involved with construction and restoration activities.
4. The authorized facility location shall be as shown in the EIS, as supplemented by filed alignment sheets, and shall include all of the staff's recommended facility locations. **As soon as they are available, and prior to the start of construction**, MEP shall file with the Secretary any revised detailed survey alignment maps/sheets at a scale not smaller than 1:6,000 with station positions for all facilities approved by the Order. All requests for modifications of environmental conditions of the Order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.

MEP's exercise of eminent domain authority granted under NGA Section 7(h) in any condemnation proceedings related to the Order must be consistent with these authorized facilities and locations. MEP's right of eminent domain granted under NGA Section 7(h) does not authorize it to increase the size of its natural gas pipeline to accommodate future

needs or to acquire a right-of-way for a pipeline to transport a commodity other than natural gas.

5. MEP shall file with the Secretary detailed alignment maps/sheets and aerial photographs at a scale not smaller than 1:6,000 identifying all route realignments or facility relocations, and staging areas, pipe storage yards, new access roads, and other areas that would be used or disturbed and have not been previously identified in filings with the Secretary. Approval for each of these areas must be explicitly requested in writing. For each area, the request must include a description of the existing land use/cover type, and documentation of landowner approval, whether any cultural resources or federally listed threatened or endangered species would be affected, and whether any other environmentally sensitive areas are within or abutting the area. All areas shall be clearly identified on the maps/sheets/aerial photographs. Each area must be approved in writing by the Director of OEP **prior to construction** in or near that area.

This requirement does not apply to route variations required herein or minor field realignments per landowner needs and requirements, which do not affect other landowners or sensitive environmental areas such as wetlands.

Examples of alterations requiring approval include all route realignments and facility location changes resulting from:

- a. implementation of cultural resources mitigation measures;
  - b. implementation of endangered, threatened, or special concern species mitigation measures;
  - c. recommendations by state regulatory authorities; and
  - d. agreements with individual landowners that affect other landowners or would affect sensitive environmental areas.
6. **Within 60 days of the acceptance of this certificate and prior to construction**, MEP shall file an initial Implementation Plan with the Secretary for review and written approval by the Director of OEP describing how MEP will implement the mitigation measures required by the Order. MEP must file revisions to the plan as schedules change. The plan shall identify:
    - a. how MEP will incorporate these requirements into the contract bid documents, construction contracts (especially penalty clauses and specifications), and construction drawings so that the mitigation required at each site is clear to onsite construction and inspection personnel;
    - b. the number of EIs assigned per spread, and how the company will ensure that sufficient personnel are available to implement the environmental mitigation;
    - c. company personnel, including EIs and contractors, who will receive copies of the appropriate material;
    - d. what training and instructions MEP will give to all personnel involved with construction and restoration (initial and refresher training as the Project progresses and personnel change), with the opportunity for OEP staff to participate in the training session;

- e. the company personnel (if known) and specific portion of MEP's organization having responsibility for compliance;
  - f. the procedures (including use of contract penalties) MEP will follow if noncompliance occurs; and
  - g. for each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:
    - (1) the completion of all required surveys and reports;
    - (2) the mitigation training of onsite personnel;
    - (3) the start of construction; and
    - (4) the start and completion of restoration.
7. MEP shall employ one or more EIs per construction spread. The EIs shall be:
- a. responsible for monitoring and ensuring compliance with all mitigative measures required by the Order and other grants, permits, certificates, or other authorizing documents;
  - b. responsible for evaluating the construction contractor's implementation of the environmental mitigation measures required in the contract and any other authorizing document;
  - c. empowered to order correction of acts that violate the environmental conditions of the Order, and any other authorizing document;
  - d. a full-time position, separate from all other activity inspectors;
  - e. responsible for documenting compliance with the environmental conditions of the Order, as well as any environmental conditions/permit requirements imposed by other federal, state, or local agencies; and
  - f. responsible for maintaining status reports.
8. MEP shall file updated status reports with the Secretary on a **weekly** basis **until all construction-related activities, including restoration, are complete for each phase of the Project**. On request, these status reports will also be provided to other federal and state agencies with permitting responsibilities. Status reports shall include:
- a. the current construction status of each spread, work planned for the following reporting period, and any schedule changes for stream crossings or work in other environmentally sensitive areas;
  - b. a listing of all problems encountered and each instance of noncompliance observed by the EI(s) during the reporting period (both for the conditions imposed by the Commission and any environmental conditions/permit requirements imposed by other federal, state, or local agencies);

- c. a description of corrective actions implemented in response to all instances of noncompliance, and their cost;
  - d. the effectiveness of all corrective actions implemented;
  - e. a description of any landowner/resident complaints that may relate to compliance with the requirements of the Order, and the measures taken to satisfy their concerns; and
  - f. copies of any correspondence received by MEP from other federal, state or local permitting agencies concerning instances of noncompliance, and MEP's response.
9. MEP must receive written authorization from the Director of OEP **before commencing service** for each phase of the Project. Such authorization will only be granted following a determination that rehabilitation and restoration of areas affected by the Project are proceeding satisfactorily.
10. **Within 30 days of placing the certificated facilities in service**, MEP shall file an affirmative statement with the Secretary, certified by a senior company official:
- a. that the facilities have been constructed in compliance with all applicable conditions, and that continuing activities will be consistent with all applicable conditions; or
  - b. identifying which of the certificate conditions MEP has complied with or will comply with. This statement shall also identify any areas affected by the Project where compliance measures were not properly implemented, if not previously identified in filed status reports, and the reason for noncompliance.
11. MEP shall develop and implement an environmental complaint resolution procedure. The procedure shall provide landowners with clear and simple directions for identifying and resolving their environmental mitigation problems/concerns during construction of the Project and restoration of the right-of-way. **Prior to construction**, MEP shall mail the complaint procedures to each landowner whose property would be crossed by the Project.
- a. In its letter to affected landowners, MEP shall:
    - (1) provide a local contact that the landowners should call first with their concerns; the letter should indicate how soon a landowner should expect a response;
    - (2) instruct the landowners that, if they are not satisfied with the response, they should call MEP's Hotline; the letter should indicate how soon to expect a response; and
    - (3) instruct the landowners that, if they are still not satisfied with the response from MEP's Hotline, they should contact the Commission's Enforcement Hotline at (888) 889-8030, or at [hotline@ferc.gov](mailto:hotline@ferc.gov).
  - b. In addition, MEP shall include in its weekly status report a copy of a table that contains the following information for each problem/concern:
    - (1) the date of the call;
    - (2) the identification number from the certificated alignment sheets of the affected property and approximate location by MP;

- (3) the description of the problem/concern; and
  - (4) an explanation of how and when the problem was resolved, will be resolved, or why it has not been resolved.
12. **Prior to the end of the Draft EIS comment period**, MEP shall file revised alignment sheets with the Secretary that reflect reduction in the width of the nominal construction right-of-way to 100 feet along the 36- and 42-inch-diameter segments of the proposed Project pipeline (MP TX 25.7 to MP AL 5.5). MEP shall also file revised land requirement tables corresponding to this reduction, as well as a table that identifies the location (milepost), extent (acreage), and site-specific justification for any areas where MEP believes that expansion of the nominal construction right-of-way width would be required due to site-specific circumstances. (*Section 2.2.1*)
13. MEP shall not exercise the eminent domain authority granted under Section 7(h) of the NGA to acquire a permanent pipeline right-of-way exceeding 50 feet in width, and where collocated, the 50-foot-wide permanent right-of-way shall abut the existing right-of-way. (*Section 2.2.1*)
14. **Prior to the end of the Draft EIS comment period**, MEP shall file a finalized version of its Upland Erosion Control, Revegetation, and Maintenance Plan that is consistent with Section VII.A.2 of the FERC Plan. (*Section 3.2.3*)
15. **Prior to the end of the Draft EIS comment period**, MEP shall file a finalized Loess Soils Management Plan, developed in consultation with the NRCS, that identifies any NRCS-recommended construction and restoration measures to be implemented in areas of loess soils and specifies the frequency of post-construction monitoring to identify and address any problem areas. (*Section 3.2.4*)
16. **Prior to construction**, MEP shall revise its Water Well Testing Program to include provisions for pre- and post-construction monitoring and mitigation, if required, for all wells and springs identified within 150 feet of the proposed construction work areas that are used for domestic water supply or agricultural use. (*Section 3.3.1*)
17. MEP shall file a report with the Secretary, **within 30 days of placing its pipeline facilities in service**, identifying all private and domestic water wells/systems and springs damaged by construction and how they were repaired. The report shall include a discussion of any complaints concerning well or spring yield and/or quality and how each problem was resolved. (*Section 3.3.1*)
18. MEP shall coordinate with the public water system providers that operate public water supply wells within 150 feet of proposed construction work areas and file documentation of consultation with those entities with the Secretary **prior to the end of the Draft EIS comment period** that demonstrates how potential Project-related impacts to these public water supplies would be avoided, monitored, and mitigated, as necessary. (*Section 3.3.1*)
19. **Prior to the end of the Draft EIS comment period**, MEP shall identify any potentially affected local water system dependent on waters associated with the White Oak Creek SWAP area and file with the Secretary documentation of consultations with those entities regarding potential Project-related impacts to downstream water uses and any special permit requirements or construction methods required, as appropriate. (*Section 3.3.2*)

20. MEP shall consult with the LDWF related to the proposed HDD crossing of, and surface water withdrawal from, designated Louisiana Natural and Scenic Rivers (Dorcheat Bayou [MP LA 42.1], Bayou D'Arbonne [MP LA 59.6 and MP LA 90.6; two separate crossings], and Bayou D'Loutre [MP LA 113.1]) and file copies of all permits, approvals, or comments that may be obtained, including plans to address any additional mitigation measures recommended by LDWF, with the Secretary **prior to the end of the Draft EIS comment period.** (*Section 3.3.2*)
21. MEP shall consult with the NPS regarding its proposed HDD crossing of, and hydrostatic test water withdrawal from, the NRI-listed Bayou D'Arbonne (MP LA 59.6 and MP LA 90.6; two separate crossings), Bayou D'Loutre (MP LA 113.1), Big Black River (MP MS 12.7), Chickasawhay River (MP MS 137.8), Pearl River (MP MS 44.8), and Strong River (MP MS 76.1), and file the results of those consultations, including plans to address any additional mitigation measures recommended by NPS, with the Secretary **prior to the end of the Draft EIS comment period.** (*Section 3.3.2*)
22. MEP shall develop site-specific plans to cross Coulee Ditch (MP LA 134.2), Steen Creek (MP MS 47.3), Dabbs Creek (MP MS 63.2), West Tallahala Creek (MP MS 98.1), Tallahala Creek (MP MS 115.6), Souenlovie Creek (MP MS 134.6), and Buckatunna Creek (MP MS 147.8) via HDD and file these plans with the Secretary **prior to the end of the Draft EIS comment period.** (*Section 3.3.2*)
23. MEP shall complete consultations with the FWS regarding the proposed crossing methods for Bakers Creek (MP MS 19.4), Campbell Creek (MP MS 68.3), Oakohay Creek (MP MS 86.7), and Okatuppa Creek (MP AL 2.2). MEP shall file a summary of those consultations with the Secretary **prior to the end of the Draft EIS comment period.** The summary shall include copies of all correspondence and a site-specific justification for any FWS-recommended measure not adopted by MEP. (*Section 3.3.2*)
24. MEP shall not begin an open-cut crossing of any of the waterbodies proposed to be crossed using HDD until it files an amended crossing plan with the Secretary for review and written approval by the Director of OEP. The amended crossing plan shall include site-specific drawings identifying all areas that would be disturbed using the proposed alternate crossing method. MEP shall file the amended crossing plan **concurrent with the appropriate state and federal applications** required for implementation of the plan. (*Section 3.3.2*)
25. MEP shall consult with the COE, FWS, TPWD, LDWF, MDWFP, and other appropriate agencies to identify and evaluate appropriate avoidance and/or minimization measures (e.g., implementation of additional or extended HDDs and/or development of site-specific forested wetland crossing and restoration plans) to further reduce impacts to the extensive forested wetland crossings located at MP TX 50.4, MP TX 51.4, MP TX 61.0, MP TX 62.3, MP LA 10.9, MP LA 17.4, MP LA 90.3, MP LA 136.8, MP LA 142.7, MP LA 146.7, MP LA 176.6, and MP MS 14.2. MEP shall file the results of that consultation, including plans to address any additional mitigation measures recommended, with the Secretary **prior to the end of the Draft EIS comment period.** (*Section 3.4.2*)
26. MEP shall consult with the COE, FWS, TPWD, LDWF, MDWFP, and other appropriate agencies to identify and evaluate appropriate avoidance and/or minimization measures (e.g., implementation of additional or extended HDDs and/or development of site-specific forested wetland crossing and restoration plans) to further reduce impacts to the high-quality cypress-tupelo wetlands located at MP LA 2.5, MP LA 10.2, MP LA 42.2, MP LA 62.9,

- MP LA 113.1, MP LA 115.5, MP MS 12.8, and MP MS 144.8. MEP shall file the results of that consultation, including plans to address any additional mitigation measures recommended, with the Secretary **prior to the end of the Draft EIS comment period.** (*Section 3.4.3*)
27. **Prior to construction**, MEP shall file with the Secretary its final COE-approved compensatory wetlands mitigation plan. (*Section 3.4.4*)
  28. MEP shall consult with the NRCS, ODWC, TPWD, LDWF, MDWFP, ADCNR, local soil conservation agencies, and other appropriate agencies regarding its Draft Revegetation Plan. **Prior to the end of the Draft EIS comment period**, MEP shall file a finalized version of its Revegetation Plan with the Secretary that describes the outcome of these consultations and addresses any additional agency-recommended seed mixtures and revegetation practices that would be implemented along the various jurisdictions traversed by the proposed Project. (*Section 3.5.2*)
  29. MEP shall complete consultations with the TPWD to identify the extent and quality of the Water Oak – Willow Oak Vegetative Community that would be affected by the proposed Project and determine any TPWD-recommended measures to avoid or mitigate for unavoidable Project impacts. A summary of these consultations and associated measures, including copies of all relevant correspondence, shall be filed with the Secretary **prior to the end of the Draft EIS comment period.** (*Section 3.5.3*)
  30. **Prior to construction**, MEP shall consult with the COE and LDWF and file with the Secretary copies of any agreements for Project-related use and impacts to lands held in the Bodcau WMA. In that filing, MEP shall also document how it would implement any COE or LDWF-recommended measures to avoid, minimize, or mitigate unavoidable impacts to Bodcau WMA lands. (*Section 3.5.3*)
  31. MEP shall consult with the FWS, NRCS, ODWC, TPWD, LDWF, MDWFP, ADCNR regarding its Draft Control Plan for Noxious and Invasive Species. **Prior to the start of construction**, MEP shall file with the Secretary a finalized version of its Control Plan for Noxious and Invasive Species that identifies all agency recommended measures that would be implemented during construction and operations to control exotic and invasive plant species. (*Section 3.5.3*)
  32. MEP shall develop a Migratory Bird Conservation Plan in consultation with the FWS **prior to construction** if any part of the proposed construction schedule would encompass the migratory bird nesting season of April 15 through August 1. This plan shall be filed with the Secretary **prior to construction**, if applicable. (*Section 3.6.1*)
  33. **Prior to construction**, MEP shall file with the Secretary the results of the FWS-approved preconstruction surveys for the interior least tern. These surveys shall include evaluation of nesting habitat located within 650 feet of any proposed construction work area at the Red and Mississippi River crossings. If interior least terns are observed during the preconstruction surveys, MEP shall not conduct any construction activity within 650 feet of interior least terns or their actively-used habitat. MEP shall immediately notify the FERC staff and the FWS if interior least tern nesting colonies are observed within 650 feet of any work area at any time prior to or during construction. (*Section 3.7.1*)

34. **Prior to the end of the Draft EIS comment period**, MEP shall file with the Secretary a description of measures, developed in consultation with the FWS, to train construction workers and contractors in the identification of interior least terns and their nesting habitat in the vicinity of the Red and Mississippi River crossings. (*Section 3.7.1*)
35. MEP shall not begin any construction activities **until**:
  - a. MEP completes any outstanding species-specific surveys, files all applicable results and agency correspondence with the Secretary, and the FERC receives comments from the FWS regarding the preconstruction survey reports;
  - b. The FERC completes Section 7 consultations with the FWS; and
  - c. MEP receives written notification from the Director of the OEP that construction and/or implementation of conservation measures may begin. (*Section 3.7.1*)
36. **Prior to construction**, MEP shall consult further with the ODWC, TPWD, LDWF, MDWFP, and the ADCNR regarding state-listed and rare species to determine the need for additional surveys or mitigation that would further minimize or avoid potential impacts to such species. MEP shall file the results of that consultation, as well as any associated survey reports, with the Secretary **prior to construction**. (*Section 3.7.2*)
37. **Prior to the end of the Draft EIS comment period**, MEP shall file with the Director of OEP site-specific construction plans for each residence that would be located within 25 feet of construction work areas. (*Section 3.8.3*)
38. **Prior to construction across any levee managed by the Caddo, Tensas Basin, and 5<sup>th</sup> Louisiana Levee Districts; the Louisiana Levee Board; the Louisiana Department of Transportation; and the COE**, MEP shall file with the Secretary the applicable levee crossing permits and authorizations. (*Section 3.8.4*)
39. MEP shall consult with the PHWD regarding the proposed crossing of the Archusa Creek Water Park and file copies of any easement agreement, permits, approvals, or comments that may be obtained, including plans to address any additional mitigation measures recommended by the PHWD, with the Secretary **prior to the end of the Draft EIS comment period**. (*Section 3.8.4*)
40. **Prior to construction**, MEP shall file with the Secretary the applicable documentation of meetings, special considerations, and agreements reached as a result of consultation with the NRCS regarding the proposed construction activities on WRP lands. (*Section 3.8.4*)
41. MEP shall consult with the Mississippi Secretary of State and associated managing local school boards regarding the proposed crossings of all Sixteenth Section Lands and file copies of any easement agreement, permits, approvals, or comments that may be obtained, including plans to address any additional mitigation measures recommended by these entities, with the Secretary **prior to the end of the Draft EIS comment period**. (*Section 3.8.4*)
42. **Prior to end of Draft EIS comment period**, MEP shall file with the Secretary final site screening plans for visible compressor stations (Lamar and Delhi Booster Compressor Stations) and include copies of any screening plan agreements and correspondence with community groups. MEP shall also file final site screening plans for visible interconnect

facilities (CEGT, ANR, and Transco), and the visible pig launcher/receiver facility located at MP TX 123.4. (*Section 3.8.7*)

43. MEP shall defer implementation of any treatment plans/measures (including archaeological data recovery); construction of facilities; and use of all staging, storage, or temporary work areas and new or to-be-improved access roads **until**:
  - a. MEP files with the Secretary cultural resources survey and evaluation reports, any necessary treatment plans, and the comments of the Oklahoma, Texas, Louisiana, Mississippi, and Alabama SHPOs on the reports and plans; and
  - b. The Director of OEP reviews and approves all cultural resources survey reports and plans and notifies MEP in writing that treatment plans/procedures may be implemented and/or construction may proceed.

All material filed with the Secretary containing location, character, and ownership information about cultural resources must have the cover and any relevant pages therein clearly labeled in bold lettering: **“CONTAINS PRIVILEGED INFORMATION - DO NOT RELEASE.”** (*Section 3.10.4*)

44. **Prior to the end of the Draft EIS comment period**, MEP shall file with the Secretary a noise control plan for any HDD where estimated noise impacts attributable to HDD operations would exceed 55 dBA at any NSA. The plan shall include a topographic map depicting the location of all NSAs within 0.5 mile of the HDD entry locations; the estimated length of time required for completion of each drill; the distance and direction to the nearest NSA from the proposed HDD; and the existing noise levels and estimated noise impact at the closest NSA during drilling. The plan shall also list the estimated noise impact at each NSA and identify all noise mitigation that MEP would implement during drilling activity to reduce noise at the NSAs. During HDD operations MEP shall monitor noise levels and make all reasonable efforts to restrict noise increases from HDD operations to no more than 10 dBA above ambient if the resulting impact is above 55 dBA  $L_{dn}$ . (*Section 3.11.2*)
45. **Prior to the end of the Draft EIS comment period**, MEP shall file with the Secretary a quantitative noise analysis for compressor station blowdown events that predicts the estimated noise impact at the NSAs located within 0.5 mile of each station and specifies any mitigation measures that would be implemented to minimize associated noise impacts. (*Section 3.11.2*)
46. MEP shall conduct noise surveys to verify that the noise attributable to operation of the compressor stations does not exceed an  $L_{dn}$  of 55 dBA at any NSA following the installation of each authorized compressor unit and file the results of those surveys with the Secretary **no later than 60 days** after placing each authorized compressor unit in service or prior to the start of the next phase of construction, whichever is sooner. If the noise attributable to operation of the compressor stations exceeds 55 dBA  $L_{dn}$  at any NSA, MEP shall file a report on what additional noise controls are needed to meet that level and install any required controls **within one year** of the in-service date of the associated compressor unit or prior to the start of the next phase of construction, whichever is sooner. MEP shall confirm compliance with the  $L_{dn}$  of 55 dBA requirement by filing a second noise survey with the Secretary **no later than 60 days** after it installs the additional noise controls or **prior to the start of the next phase of construction**, whichever is sooner. (*Section 3.11.2*)

47. **Prior to the end of the Draft EIS comment period**, MEP shall incorporate the Kidwell Route Variation, as described in the Draft EIS, into its proposed Project. If MEP asserts that it is not practical or preferable to adopt this route variation, MEP shall file with the Secretary a detailed description of the technical or environmental reasons why this route variation is not practical or preferable compared to the corresponding segment of the proposed Project. *(Section 4.4.1)*
48. **Prior to the end of the Draft EIS comment period**, MEP shall incorporate the Twin Lakes Route Variation, as described in the Draft EIS, into its proposed Project. If MEP asserts that it is not practical or preferable to adopt this route variation, MEP shall file with the Secretary a detailed description of the technical or environmental reasons why this route variation is not practical or preferable compared to the corresponding segment of the proposed Project. *(Section 4.4.1)*
49. MEP shall consult with the NRCS regarding the proposed crossing of the Bossier Parish WRP. MEP shall file a summary of those consultations with the Secretary **prior to the end of the Draft EIS comment period**. The summary shall include copies of all correspondence and justification for any NRCS-recommended avoidance and/or minimization measure not adopted by MEP. *(Section 4.4.2)*