

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 CONCLUSIONS OF THE ENVIRONMENTAL ANALYSIS

The conclusions and recommendations presented in this section are those of the FERC environmental staff. Our conclusions and recommendations were developed in consultation with the appropriate regional offices of COE, FWS, NRCS, and ILDOA as cooperating agencies.

Our review of the information provided by Rockies Express and further developed from data requests; field investigations; scoping; literature research; alternatives analysis; and contacts with federal, state, and local agencies and individual members of the public indicates that the REX East Project would result in mostly temporary, short-term, long-term, and potentially permanent environmental impacts during construction and operation. We also conclude that construction and operation of the REX East Project would result in a significant unavoidable long-term, and potentially permanent, impact to upland forest and forested wetland vegetation, which is habitat for the federally listed Indiana bat and many species of migratory birds. However, the mitigation measures proposed by Rockies Express and our recommended mitigation would ensure that impacts to forested tracts in the Project area are adequately minimized and/or mitigated to acceptable levels. We conclude that if the REX East Project were constructed and operated in accordance with applicable laws and regulations, Rockies Express' proposed mitigation, and the additional mitigation recommendations presented below, the Project would result in mostly limited adverse environmental impact and would be an environmentally acceptable action.

As part of our review, we developed specific mitigation measures to further reduce the environmental impact that would otherwise result from construction and operation of the Project. Many of these mitigation measures were developed as a direct result of comments and concerns expressed by local, state, and federal agencies and by affected landowners. The additional studies or field investigations that we recommend would result in site-specific mitigation and further reduce impacts; therefore, we recommend that these mitigation measures be attached as conditions to any Certificate issued by the Commission. These mitigation measures are presented in section 5.2. A summary of the anticipated Project impacts and our conclusions is provided below by resource area.

General Recommended Mitigation

The only nonjurisdictional facilities that would be constructed for this Project are Duke Power electric transmission lines, which would provide power for the Hamilton Compressor Station. To ensure that the proper ESA and NHPA consultations have occurred, we are recommending that Rockies Express defer receiving service from these facilities until comments from FWS and Ohio SHPO have been filed with the Commission.

Landowners and state agencies have raised concerns about the width of the construction right-of-way and the additional temporary workspaces, and their relationship to existing rights-of-way. We agree with these concerns and are recommending six measures to reduce the footprint of the Project. These recommendations would also reduce impacts to wetlands and forested land.

We are recommending that Rockies Express prepare and file a Hydrostatic Testing Plan that would help protect fisheries and downstream water users.

Rockies Express has not indicated how it would dispose of bulk waste. We are recommending that a plan for the disposal of these materials be prepared and filed.

Rockies Express has filed its Plan and Procedures, which include its minimum proposed mitigation for construction-related impacts. We have identified several items that should be changed or added to Rockies Express' Plan and Procedures, including: the width of right-of-way, restoration equipment, and location of welding activities at waterbodies. We are recommending that Rockies Express make changes to their Plan and Procedures.

In order to protect two national Wild and Scenic Rivers (Big Darby Creek and Little Miami River), Rockies Express has proposed to cross them using the HDD method. In the event HDDs are not successfully, Rockies Express proposes to use microtunneling to avoid impacts to the waterbodies. Although we agree the use of this construction method as a contingency plan should provide protection for these waterbodies, in order to ensure their protection, we are recommending that Rockies Express provide additional information on the fluids that would be used during the process.

Landowners have raised concerns about placing a high-pressure pipeline near high-tension transmission lines. We are recommending that Rockies Express prepare a plan that would indicate what additional measures it would take to prevent potential damage to the pipeline caused by fault currents and induced voltage.

To provide the Commission with onsite monitors during the construction of the Project, we are recommending that Rockies Express develop a draft third-party environmental monitoring program.

5.1.1 Alternatives

As alternatives to the proposed action, we evaluated the No Action or Postponed Action Alternatives, system alternatives, route alternatives, route variations, and aboveground facility site alternatives. While the No Action or Postponed Action Alternative would eliminate the short-term or long-term and potentially permanent environmental impacts identified in the EIS, the objectives of the Project would not be met, and new sources of Rocky Mountain natural gas would not be available to supply the midwestern and eastern U.S. markets.

Our analysis of system alternatives included an evaluation of whether existing and proposed natural gas systems would meet the Project objectives, which is to transport 1.8 bcf of natural gas from the Rocky Mountain basins directly to markets in the Midwest and East. We are unaware of any existing pipeline systems that could be expanded to meet the purpose of the REX East Project; therefore we conclude that the use of existing pipeline systems is not a viable alternative.

We evaluated ten major route alternatives to determine if impacts could be avoided or reduced on environmentally sensitive resources, such as population centers, recreational and designated scenic areas, and wildlife and natural habitat management areas that would be crossed by the Project. We concluded that: an alternative route south of Mt. Zion, Illinois; two alternative routes north of Indianapolis; an alternative route through northern Johnson County, Indiana; an alternative route south of Caesar Creek Lake; an alternative route through Deer Creek State Park; and alternative crossings of the Mississippi, Little Miami River, Big Darby Creek, and Wabash River – do not offer clear environmental advantages over the proposed Project route and we do not recommend them.

We considered 64 requests for route variations and evaluated 27 route variations in detail to minimize impacts of the Project route. These variations were based on comment letters received from landowners or other stakeholders. We conducted field visits, collected information from Rockies Express, and used various desktop resources, including aerial imagery, to identify technically feasible variations that could minimize environmental impacts. Of the 27 segments we evaluated, we are recommending that 19 be incorporated into a revised Project route including 4 Rockies Express agreed to

in previous filings. We recommend Rockies Express continue consultations with landowners for four variations that would affect new landowners. These variations would increase the overall Project length by approximately 1.4 miles. However, the variations address landowners concerns, reduce forest fragmentation, and reduce the overall impact to forested lands by 0.9 mile crossed.

We considered alternative aboveground site locations for compressor and meter stations to avoid or minimize impacts to forested land, wetlands, and waterbodies, and to locate the facility as far as practicable from NSAs. Most of the Project's compressor and meter station sites are on agricultural land, far from NSAs and residential developments, and would not adversely affect sensitive environmental resources.

Of the seven compressor stations proposed for the Project, we received landowner comments on two locations: the Hamilton and the Bainbridge Compressor Stations. We did not receive any landowner comments or identify any significant issues that would require further evaluation of alternative locations for the other five sites. The change to the Hamilton Compressor Station site, discussed further in section 3.6.1, addresses landowner comments that we received on the originally proposed location. The change to Bainbridge Compressor Station site, as well as two alternative locations for the site that were added in response to landowner concerns about potential noise impacts from operation of the station, are discussed in section 3.6.2.

Our review of the alternative locations for the Hamilton and the Bainbridge Compressor Stations indicates that they are not environmentally preferable to the proposed locations.

5.1.2 Geology

Most of the Project would be located in the Central Lowlands and Appalachian Plateau physiographic provinces. The majority of the pipeline route would cross areas of unconsolidated glacial deposits, but approximately 14 percent of the route would be in areas of shallow bedrock that may require trenching or blasting. Several sand and gravel pits and quarries are located within 1,500 feet of the Project, but construction of the Project would not prevent operation of these facilities. Seven oil or gas wells are located within the proposed pipeline construction right-of-way. To mitigate impacts to these wells, we are recommending that Rockies Express file site-specific protection plans for oil and gas wells located in the construction work area, prior to construction.

Seismicity, landslides, subsidence, and flooding/scour are geologic hazards identified in the Project area. Although it does not cross any active faults, the pipeline could be affected by the New Madrid and Wabash Valley seismic zones. However, due to the low intensity of potential seismic events, as well the use of arc-welding techniques and design in accordance with CFR Parts 192 and 193, we do not expect seismic hazards to pose significant risks to the Project. Approximately 29 percent of the proposed route lies in areas susceptible to moderate to severe landslides. In such areas, Rockies Express would employ mitigation measures outlined in its Plan and Procedures.

Subsidence could occur in the Project areas due to karst features or abandoned underground mines. About 24 percent of the pipeline route has the potential for karst features from 10 to 200 feet below the ground surface (see table 4.1.3-2). To address karst-related subsidence, we recommend that prior to the start of construction Rockies Express file a plan, developed in consultation with the appropriate state agencies, for the identification of karst features and mitigation for crossing any such features. In order to further minimize impacts on pipeline construction in karst terrain, we recommend that prior to the start of construction Rockies Express file a contingency plan, developed in consultation with state and federal natural resource agencies, for HDD technology in the karst areas identified in table 4.1.3-2. The plan would include pre-construction identification of the potential for subsurface karst

features and a procedure to limit the amount of mud lost to successfully complete the drill if a solution void were intercepted during an HDD.

To address subsidence from underground mines, we recommend that Rockies Express file prior to the start of construction a Mining Subsidence Plan for monitoring areas where the pipeline would cross underground mines. This monitoring should continue for the life of the Project.

Blackburn Island, which is located on the Mississippi River, is prone to seasonal flooding. This island is proposed to be used as a staging area for the HDD rigs and would be utilized during construction. In order to mitigate impacts of a flooding event during construction, we recommend that, prior to the start of construction, Rockies Express develop and file a High Water Contingency Plan for the Mississippi River crossing. See section 5.1.4 for further discussion of the Mississippi River.

Seasonal and flash flooding hazards are potential concerns where the pipeline route would cross major streams and small watersheds. Although flooding itself does not present a risk to buried pipelines, bank erosion and/or scour could expose sections of pipe or cause them to become unsupported. In order to mitigate for a scour event, we recommend that Rockies Express consult with IDNR and ODNR to discuss the scour susceptibility of waterbodies crossed by the Project prior to the start of construction.

During construction, paleontological resources may be encountered, although the areas disturbed would be relatively small and are not thought to contain high densities of fossils. Rockies Express has filed with the FERC Unanticipated Discovery Plans for paleontological resources for each state that would be crossed by the pipeline. Contractors and staff would be instructed to be aware of the possibility of encountering paleontological material during pipeline or aboveground facility construction in these areas. If any significant paleontological material is encountered, the EI would contact the appropriate agency and request further investigation. Construction would halt until a site determination is made.

Based on Rockies Express' proposal, including implementation of its Plan and Procedures, and our recommended mitigation measures, we believe impacts to geological resources would be adequately minimized and would not be significant.

5.1.3 Soils

Soil types crossed by the Project were analyzed using the STATSGO database. The specific soil characteristics evaluated were: the potential for erosion by wind and water, shallow bedrock, prime farmland designation, compaction, and the percentage of stones/rocks, droughty soil, and hydric soil present. Approximately 28 percent of the soils crossed by the Project are highly susceptible to water erosion, and 0.2 percent are highly susceptible to wind erosion. To minimize soil erosion, Rockies Express would employ mitigation measures as identified in its Plan and Procedures. About 65 percent of the Project route would cross prime farmland soils. Rockies Express developed the AIMP to minimize the impacts of the pipeline on these agricultural soils. See section 5.1.9 for further discussion and our recommendation regarding state AIMPs.

Soil compaction is also a concern in some areas of the Project, particularly those areas containing fine-grained poorly-drained soils. To mitigate compaction in agricultural areas during wet weather, we recommend that prior to the start of construction, Rockies Express prepare an Agricultural Wet Weather Contingency Plan. In addition to erosion and compaction, mixing of topsoil with subsoil during construction could have negative impacts on soil resources. To reduce the likelihood of mixing topsoil with subsoil, Rockies Express would implement topsoil segregation procedures as outlined in its Plan and AIMP.

Based on Rockies Express' proposal, including implementation of its Plan and Procedures, and our recommended mitigation measures, we believe impacts to soils would be adequately minimized and would not be significant.

5.1.4 Water Resources

Along the REX East Project route, groundwater is a significant source of drinking water in selected areas and is used for agricultural irrigation and in industry. One sole source aquifer (the Miami Valley Sole Source Aquifer in Ohio) would be crossed by the Project. Twenty-five wells and six springs have been identified within the vicinity of the pipeline. No public water supply wells were identified within 150 feet of Project facilities. Surveys are ongoing for active wells and springs. We therefore recommend that Rockies Express file the locations by milepost of all springs, seeps, and wells identified within 150 feet of construction work areas.

Rockies Express would minimize or avoid groundwater impacts during construction by implementing measures outlined in its Plan and Procedures. In addition, we recommend that Rockies Express file a report within 30 days of placing the pipeline facilities in service that identifies all water supply wells damaged by construction and how they were repaired.

Consultation with state and local authorities regarding WPAs has not been completed, nor have mitigation measures been agreed to for each WPA; therefore, we recommend that prior to the start of construction, Rockies Express file with the Secretary documentation of consultations with applicable local and state agencies regarding construction in WPAs or other groundwater management areas that would be crossed by the pipeline.

Hoosier Hills provides water for more than 35,000 people in Indiana and raised many concerns during the comment period on the draft EIS. Due to the shallow depth of the Hoosier Hills WPA (10 to 30 feet below the ground's surface) we believe an inadvertent spill of hazardous materials could cause contamination within the WPA. Therefore, we recommend that Rockies Express conduct water quality testing at Hoosier Hills Regional Water District's existing wells prior to, during, and for 2 years post construction to document any construction-related impacts on the WPA. We also recommend that Rockies Express notify Hoosier Hills prior to construction between MP 393 and 394 and develop a specialized spill plan that would further reduce the likelihood of construction-related equipment impacting the Hoosier Hills WPA.

Rockies Express developed an SPCC Plan to address the potential impacts and mitigation measures if an inadvertent spill of hazardous materials were to occur during construction. This plan restricts refueling or other liquid transfer to specific areas and provides additional precautions when specified setbacks cannot be maintained. However, the SPCC Plan is not consistent with the specific distances for setbacks in these areas; therefore we recommend that Rockies Express file with the Secretary a revised SPCC Plan that states it would restrict refueling or other liquid transfer within 100 feet of wetlands and waterbodies, 200 feet of any private water supply wells, and 400 feet of any municipal water supply wells.

The REX East Project would cross 1,485 surface waters in two major watersheds: the Upper Mississippi Regional Watershed and the Ohio Regional Watershed. The Project would cross 59 waterbodies designated as sensitive by state agencies because of significant fisheries resources (see table 4.6.2-1). Crossing methods proposed for these waterbodies include dry open-cut crossings, dam-and-pump/flume, and HDD. For dry, intermittent waterbodies, we recommend that Rockies Express use open-cut methods in accordance with its Procedures.

Consultations with the organizations or individuals who withdraw potable water within 3 miles of the proposed open-cut crossings of Flatrock River in Indiana and Somerset Creek in Ohio have not been completed. The City of Louisiana in Missouri also expressed concern regarding water withdrawal along the proposed pipeline route. Therefore, we recommend that Rockies Express file with the Secretary documentation of finalized consultation with these organizations or individuals prior to the start of construction.

Rockies Express may require blasting activities in or adjacent to 53 perennial waterbodies along the Project right-of-way. In accordance with its Blasting Plan, Rockies Express would notify nearby landowners at least 48 hours prior to the initiation of blasting activities.

Rockies Express proposes to conduct 21 HDD crossings under 32 waterbodies. Rockies Express was denied survey permission at the Embarras River (MP 202.9) and the Muskingum River (MP 577.2). Therefore, we recommend that Rockies Express file with the Secretary for review the results of its HDD geotechnical feasibility investigations, site-specific construction diagrams, and contingency plans for the Embarras and Muskingum Rivers' HDD locations prior to the start of construction. Rockies Express developed an HDD Contingency and Frac Out Plan, which includes containment measures should an inadvertent release of drilling mud occur.

Several waterbodies that are considered sensitive or unique would be crossed by the pipeline. Agency consultations and surveys are ongoing; therefore we recommend that Rockies Express file revised site-specific restoration and mitigation measures applicable to each sensitive crossing. The Project would cross eight sensitive perennial waterbodies that are listed on the NRI. Rockies Express proposes to cross all NRI waterbodies by the HDD method with the exception of the White River and Paint Creek, which would be crossed by dry-ditch crossing methods. Dry-ditch crossings may not be feasible; therefore we recommend that Rockies Express file with the Secretary consultations with all applicable state and federal agencies prior to initiating an alternative crossing method for the White River or Paint Creek.

The Project would cross two designated Wild and Scenic Rivers: the Little Miami River and Big Darby Creek. Rockies Express proposes to cross these waterbodies by HDD or microtunneling methods. However, there is concern that these methods may not be successful due to geologic features at these proposed locations. Therefore, we recommend that Rockies Express successfully complete the HDD or microtunnel crossing of the Little Miami River prior to constructing between MP 432.0 and MP 467.2. Further, we recommend that a successful HDD or microtunnel crossing of Big Darby Creek be complete prior to constructing between MP 494.1 and MP 533.9. To further limit impacts on the Little Miami River and Big Darby Creek, Rockies Express has agreed to cross all tributaries to these waterbodies by using dry-ditch construction methods.

Rockies Express would verify the integrity of its pipeline before placing it into service by conducting a series of hydrostatic tests that include filling the pipeline with water, pressurizing it, and then checking for pressure losses due to pipeline leakage. In accordance with its Procedures, Rockies Express has agreed to file with the Secretary a final list of hydrostatic test water sources and discharge locations for the review and approval of the Director of OEP prior to the start of construction. Hoosier Hills expressed concern about hydrostatic test water discharge to the Whitewater River and the possible impacts it could have on the Hoosier Hills WPA; therefore, we recommend that Rockies Express provide Hoosier Hills Regional Water District a copy of the hydrostatic test analysis prior to discharge to the Whitewater River.

The REX East pipeline route would cross approximately 4.3 miles of wetlands. Construction of the Project would affect a total of about 37.8 acres of wetland, including 7.1 acres in Missouri, 6.8 acres in Illinois, 6.8 acres in Indiana, and 17.1 acres in Ohio. No wetlands would be affected by the proposed

facilities in Nebraska and Wyoming. The primary impact of pipeline construction and right-of-way maintenance activities on wetlands would be the long-term and permanent conversion of wetland vegetation. These effects would be greatest during and immediately following construction. Impacts to herbaceous and scrub-shrub wetlands generally would be temporary or short-term as these vegetation communities would transition back into a community functionally similar to pre-construction wetlands. Forested wetlands could take more than 50 years to regenerate into a forest community, which would be a long-term impact; however, woody species would regenerate over time outside of the maintained permanent right-of-way. The majority of forested wetland impacts would be from the conversion of woody vegetation to scrub-shrub and herbaceous vegetation. Therefore, impacts on forested wetlands would be long-term.

Two sensitive wetlands in Missouri are located between the Salt River and the Mississippi River and are part of Blackburn Island. FWS recommended that these wetlands be replaced near or adjacent to the Ted Shanks State Conservation Area in order to support ongoing conservation and restoration efforts. Therefore, we recommend that Rockies Express develop a wetland restoration plan for Blackburn Island in consultation with COE, FWS, and MODNR.

Rockies Express would implement wetland mitigation measures that are designed to minimize the overall area of wetland disturbance, minimize the duration of wetland disturbance, reduce the amount of wetland soil disturbance, and enhance wetland restoration following construction. In addition, Rockies Express has attempted to avoid and minimize impacts on wetlands to the extent practicable by collocating the proposed pipeline route adjacent to existing corridors. We recommend Rockies Express finalize consultations with the appropriate agencies to finalize its Wetland Mitigation Plan. We also recommend that Rockies Express include the following in its Wetland Mitigation Plan: replanting, monitoring, managing reforestation, and compensatory mitigation for forested wetland impacts in temporary and permanent rights-of-way, additional temporary workspaces, and contractor yards/pipe yards.

Based on Rockies Express' proposal, including implementation of its Plan and Procedures, and our recommended measures, we believe impacts to water resources would be adequately minimized and would not be significant. We also believe impacts to herbaceous and scrub-shrub wetlands would generally be temporary or short-term and would not be significant. Impacts to forested wetlands would result in long-term to permanent impacts, which are considered significant. However implementation of Rockies Express' Procedures, in addition to our recommended measures, would ensure that impacts on forested wetlands are adequately minimized and/or mitigated to acceptable levels.

5.1.5 Vegetation

Construction of the REX East Project pipeline would affect three main vegetative communities: agricultural, forested, and herbaceous vegetation. During construction, the pipeline route would cross 490.6 miles (11,131.3 acres) of agriculture and herbaceous open land and 143.5 miles (3,095.8 acres) of forested areas. The primary impacts on vegetation from construction of the Project would be the cutting, clearing, and removal of existing vegetation within the construction work area.

The majority of construction-related impacts would be temporary. Cleared vegetation would be able to return to natural conditions after construction, with the exception of the 10-foot-wide corridor centered on the pipeline, which would be maintained in an herbaceous state throughout the life of the Project. The clearing of upland forest would result in long-term impacts as upland forest can take more than 50 years to return to pre-construction conditions. Impacts to forests and other vegetation would be minimized by collocating the pipeline adjacent to existing rights-of-ways and allowing the vegetation to return to existing cover types and uses where practical.

The Project would cross areas of contiguous forest in Missouri, Illinois, Indiana, and Ohio. The loss of vegetation in contiguous forest lands may cause loss of wildlife habitat due to vegetation conversion. FWS is concerned with the loss of forested vegetation and the loss of wildlife that depend on it. Therefore, we are recommending that Rockies Express comply with the Conservation Guidelines developed in consultation with FWS to minimize forest impacts and forest fragmentation impacts to migratory birds.

To minimize impacts on forested areas, we recommend that Rockies Express limit tree clearing between HDD entry and exit workspaces, to minor brush clearing, less than 3-foot-wide, using hand tools.

Vegetated riparian strips along streams are important for erosion prevention and serve as wildlife habitat. To ensure the protection of vegetated riparian strips during maintenance, we recommend onsite markers be used to identify “no-clearing” zones within vegetated riparian strips, which are to be avoided during maintenance activities.

The REX East pipeline route would cross vegetation communities of special concern in Indiana and CRP lands in Missouri, Illinois, Indiana, and Ohio. Construction of the Project would temporarily disturb approximately 51.8 acres of classified forests in Indiana. A classified forest starting at approximately MP 331.9 would be crossed by the proposed pipeline in Johnson County, Indiana. A route variation was considered in the draft EIS, but it was determined that a minor route variation would not avoid or minimize impacts to the classified forest. Therefore, we recommend that Rockies Express file with the Secretary a site-specific construction plan that uses a 75-foot right-of-way within this classified forest and provides justification for any temporary workspace that requires the removal of trees. We also recommend that Rockies Express develop its Compensatory Mitigation Plan for classified forests in consultation with classified forest landowners and appropriate agencies.

Specific waterbodies in Indiana require floodway crossing licenses; therefore we recommend Rockies Express file with the Secretary a copy of its Flood Control Permits from INDNR.

To date, 24 tracts of CRP lands have been identified along the pipeline route in Missouri. FSA identified landowners with CRP land in all counties crossed by the Project except for Belmont and Monroe Counties, Ohio. We recommend that Rockies Express consult with the landowners to identify affected CRP lands and identify mitigation measures to protect these lands.

Rockies Express has developed a Weed Management Plan based on the agencies’ recommendations to minimize the spread of noxious weeds with preventative measures and treatment methods. To further limit the introduction of noxious weeds, we recommend Rockies Express only use certified weed-free straw or hay during construction.

We believe impacts to herbaceous vegetation generally would be temporary or short-term and would not be significant. Impacts to agricultural vegetation are more fully addressed in sections 5.1.3 and 5.1.9. Impacts to tracts of forest and potential fragmentation would result in long-term and limited permanent impacts, which are considered significant. However, implementation of Rockies Express’ Plan and the Conservation Guidelines, in addition to our recommended measures, would ensure that impacts on forest tracts along the Project area are adequately minimized or mitigated to acceptable levels.

5.1.6 Wildlife

The predominant wildlife habitats in the REX East Project area are open water, agricultural lands, forested lands, herbaceous upland, herbaceous wetland, and developed areas. The impact of the Project on wildlife species, including game species, and their habitats, would vary depending on the requirements of each species and the existing habitat present along the Project route. The clearing of right-of-way vegetation would reduce cover, nesting, and foraging habitat for some wildlife. The degree of impact would depend on the type of habitat affected and the rate at which vegetation regenerates after construction. To minimize impacts on wildlife habitat, we recommend that Rockies Express consult with each state's applicable comprehensive conservation strategy coordinator to verify compliance with each state's Comprehensive Wildlife Conservation Strategy to the extent practicable.

Portions of the Mississippi Flyway and its principal routes pass through each state that would be crossed by the pipeline; thus, migratory birds occur in the Project area. The bald eagle was removed from the federal list of threatened and endangered species in June 2007 due to recovery and is no longer protected under the ESA. However, the species is currently protected under both the MBTA and the BGEPA, and is known to nest in the Project area. Rockies Express has agreed to implement the NBEM Guidelines for the protection of bald eagles; however, to further minimize impacts to the species, we recommend that Rockies Express file documentation of consultations with FWS to determine the need for bald eagle surveys in the Project area. In addition, although all forested areas along the right-of-way could be used as breeding sites by migratory birds, FWS has identified multiple wooded locations where the pipeline is not collocated and where the presence of BCC is probable. We recommend that Rockies Express comply with the Conservation Guidelines developed in consultation with FWS to address impacts to forested lands, including fragmentation.

The proposed pipeline would cross 11 areas considered to be significant or sensitive wildlife habitats in Missouri and Ohio. We believe that following existing corridors, where practicable; the use of HDD methods; and implementation of Rockies Express' Plan and Procedures, AIMP, Weed Management Plan, and Blasting Plan, along with the implementation of our recommendations, the REX East Project would not significantly impact wildlife habitat in these managed and sensitive wildlife areas. In forested areas, the proposed and recommended measures would ensure that impacts on these tracts are adequately minimized or mitigated, to acceptable levels.

5.1.7 Fisheries

All waterbodies affected by the Project have been classified as warmwater fisheries. Of the 1,485 waterbody crossings, 59 would involve fisheries of special concern. No essential fish habitat, as defined by the Magnuson-Stevens Fishery Conservation and Management Act, would be affected by the Project.

Construction of the Project could result in several impacts on fisheries resources, including increased stress due to changes in water quality, decreased habitat and habitat value, loss of shading, and likelihood of streambank erosion. Overall, these impacts would be minor due to the relatively small area of the waterbody that would be affected.

The season in which construction takes place could influence the degree of impacts associated with instream activities. Because construction during periods of sensitive fish activity (i.e., spawning and migration) could have a greater impact on fish than construction during other periods, several agencies have recommended construction timing restrictions designed to minimize impacts on fisheries. Therefore, we recommend that Rockies Express comply with the waterbody crossing time windows established by the ILDNR (no construction activities from March 1 to June 30); the INDNR (no construction activities, including installation of bridges requiring instream support, between April 1 and

June 30); and the OPSB (no construction activities between April 15 and June 30), unless provided with written approval from the appropriate state agency.

Rockies Express proposes to use open-cut methods for a majority of the waterbody crossings. The dam-and-pump/flume crossings method could also be used to cross Project waterbodies. Rockies Express proposes to cross 32 waterbodies using the HDD method. A successful HDD would avoid direct impacts on the waterbody and aquatic resources.

Rockies Express may require blasting activities at 54 locations in or adjacent to perennial waterbodies along the Project right-of-way. Instream blasting could injure or kill aquatic organisms close to blasting activities. Rockies Express would adhere to its site-specific Blasting Specifications Plan and would file a blasting schedule for our review before beginning any construction where blasting would be required within each waterbody greater than 10 feet wide.

The intake of hydrostatic test water also has the potential to affect fisheries from the entrainment and loss of prey organisms, as well as through the loss of fish and shellfish during early life stages. However, impacts on fisheries from hydrostatic test water intake would be limited by to Rockies Express adhering to its Plan and Procedures.

The Project would cross 59 fisheries of special concern, including 1 waterbody on the border of Missouri and Illinois, 1 in Illinois, 8 in Indiana, and 49 in Ohio. Because Rockies Express has not provided correspondence with state agencies approving an open-cut technique for any of the sensitive waterbodies, we recommend Rockies Express use a dry technique to cross fisheries of special concern with a wetted width less than 30 feet as described in section 4.6.2.

Based on Rockies Express' proposal, including implementation of its Plan and Procedures, and our recommended mitigation, we believe impacts on fisheries would be adequately minimized.

5.1.8 Special Status Species

Agency consultations resulted in the identification of 10 federally listed threatened or endangered species (Indiana bat, whooping crane, the clubshell, fanshell, fat pocketbook, and northern riffleshell mussels, decurrent false aster, eastern prairie fringed orchard, prairie bush clover, and running buffalo clover) and 3 candidate species (eastern massasauga, rayed bean mussel, and spectaclecase mussel) for federal listing that potentially occur in the Project area.

Based on a survey report filed by Rockies Express, the Indiana bat occurs in several locations along the Project route. Stress could arise during construction and when bats seek roost trees that have been removed. However, this temporary stress is not expected to negatively impact reproduction. Any bats in trees that are disturbed by construction would be expected to leave the tree. In order to minimize impacts during construction, Rockies Express would limit activities such as clearing, trenching, welding, backfilling, and grading within a 300-foot radius of roost trees identified during surveys. This would be limited to one-half hour after dawn to one half-hour before dusk during the period of tree clearing restriction indicated by FWS (April 1 through September 30). Areas where surveys could not be completed because of timing, denied access, or route changes would be surveyed before construction begins.

As currently proposed by Rockies Express, construction of the REX East Project would start during the spring of 2008. This construction period would conflict with the FWS recommendation that potential roost trees be removed between October 1 and March 31 to avoid the summer roosting season for Indiana bats along the Project route. Removal of occupied roost trees between April 1 and September

30, when bats may occur along the proposed route, could cause injury or death. In addition, the noise associated with construction would disturb bats in the immediate vicinity of the construction corridor. To address the potential impacts on the Indiana bat, the FERC and FWS have developed a number of recommendations and mitigation measures, and Rockies Express has committed to a number of compensation and mitigation measures that are presented in section 4.7.1.

Due to Rockies Express' commitment to (1) avoid occupied roost trees and their immediate microclimate, (2) consult with FWS on the protection of the microclimate of a nursery roost tree, and (3) implement the measures outlined above based on the results of the 2008 mist net surveys, as well as the recommendations and conservation measures developed by the FERC and FWS, we have determined that the REX East Project would *not likely adversely affect* the Indiana bat.

The whooping crane is not likely to occur, but is transient, in the Project area. Even though the whooping crane is a transient species in the Project area, based on FWS's concern, we recommend that if whooping cranes are found in the immediate vicinity of the Project, construction activities stop.

Rockies Express conducted surveys for federally listed mussels in 2007. No federally listed mussels were found. However, waterbodies in Ohio remain to be surveyed for mussels; therefore, we recommend that prior to the start of construction, Rockies Express file with the Secretary completed mussel survey reports for the federally listed mussel species in Ohio, documentation of its consultation with FWS and ODNR, and conservation measures necessary to minimize impact to mussel bed.

Hydrostatic testing of the pipeline could adversely affect mussels or glochidia/host fish or juveniles. Intake screens would be used to limit the entrainment of fish; however these screens may not adequately protect mussel species. Therefore, to ensure that hydrostatic testing activities do not adversely affect federally listed mussels, we recommend Rockies Express avoid withdrawal of hydrostatic test water from waterbodies known to contain federally listed mussel species or their tributaries.

Surveys were not required by FWS or completed for the decurrent false aster or the eastern prairie fringed orchid. Surveys were completed for the prairie bush clover and the running buffalo clover. The survey for the eastern prairie fringed orchid is complete and no individuals or populations were identified, however, areas still remain to be surveyed for the running buffalo clover. The decurrent false aster, the eastern prairie fringed orchid, and the prairie bush clover are not expected to be present along the Project corridor. Based on our informal consultation with FWS and the informal consultation between Rockies Express and FWS, we have determined that the REX East Project would have *no effect* on the decurrent false aster, the eastern prairie fringed orchid, and the prairie bush clover. To minimize the potential impacts on the running buffalo clover, we recommend that prior to construction, Rockies Express file with the Secretary completed survey reports for the running buffalo clover and documentation of its consultation with FWS. Based on the results of the surveys, Rockies Express would implement the additional mitigation measures presented in section 4.7.1.

We issued the BA on March 25, 2008, and provided it to FWS for its review and concurrence. Based on our analysis of the BA, we have determined that the Project would have *no effect* on 4 of the 10 federally listed threatened or endangered species (clubshell, decurrent false aster, eastern prairie fringed orchid, and the prairie bush clover). We have determined that with the implementation of Rockies Express' proposed mitigation measures and our recommended mitigation measures, the REX East Project *may affect, but would not likely adversely affect*, the remaining 6 federally listed threatened or endangered species (whooping crane, Indiana bat, fanshell, fat pocketbook, northern riffleshell, and the running buffalo clover). However, Rockies Express would still be required to conduct additional preconstruction surveys for the Indiana bat, fanshell, fat pocketbook, northern riffleshell, and the running buffalo clover

prior to the start of construction. We issued the BA on March 25, 2008, and provided it to FWS for review and concurrence.

Survey reports for two potential habitat sites for the federal candidate eastern massasauga snake are pending. Once access is granted, Rockies Express would complete the surveys and submit the results to ODNR and FWS. Given the results of the report titled "Report of Assessment of Potential Habitat for the Eastern Massasauga and Eastern Hellbender" and Rockies Express' commitment to complete the surveys once access is granted, we believe it is unlikely that there would be an adverse impact on this federal candidate species. In addition, because the rayed bean and spectaclecase mussels have not been found in any of the completed surveys and Rockies Express would complete all surveys prior to the start of construction and would provide the results to the FERC and FWS for review and comment, we believe it is unlikely that there would be an adverse impact on these federal candidate species.

The Natural Heritage Databases of Missouri, Illinois, Indiana, and Ohio, as well as consultation with the ODNR, identified 31 state-listed threatened or endangered species that may occur in the Project area. Sixteen were eliminated because they are either transient in the Project area; are unlikely to adversely respond to temporary and permanent impacts associated with the proposed facilities; or were determined after the initial review, in consultation with the agencies, to probably not occur in the Project area. Rockies Express continues to consult with the state agencies with regard to minimizing impacts on state-listed and special status species. In response to concerns identified by ODNR and INDNR, we recommend Rockies Express not withdraw hydrostatic test water from the Little Miami River or its tributaries in order to reduce impacts on the snuffbox, the long-solid, the fawnsfoot, the washboard, and the sharp-ridged mussels. With implementation of Rockies Express' proposed mitigation, along with our recommended measures, we believe impacts on state-listed and special status species would be minimized.

5.1.9 Land Use and Visual Resources

Construction of the Project would affect approximately 14,334.4 acres of land, including 9,678.5 acres for the pipeline construction right-of-way; 153.0 acres for the aboveground facilities (including access roads); 36.7 acres for interconnects and laterals; and 4,466.1 acres for additional temporary workspaces and pipe storage and contractor yards. Agricultural land comprises about 72 percent of the Project area and 23 percent is forest land. Commercial/industrial land, open water, open land, and residential land account for the remaining 5 percent of this acreage. Following construction, all affected areas outside the permanent pipeline right-of-way and aboveground facility sites would be restored and allowed to revert to pre-construction conditions and uses. During operation of the Project, the permanent pipeline right-of-way would consist of approximately 3,871.8 acres, and the aboveground facility sites and permanent access roads would permanently convert about 153.0 acres to commercial/industrial use.

The Project would impact approximately 10,692.6 acres of agricultural land during construction. Based on consultation with federal and state agencies, as well as comments from landowners, we identified five areas of primary concern: drain tile repair, pipeline depth of cover, topsoil segregation, working in wet fields, and landowners having the ability to negotiate for other or additional mitigation. Rockies Express developed an AIMP to address these areas of concern and other potential impacts to agricultural lands. However, we believe the AIMP does not fully address the issues outlined above, thus we are making several recommendations to ensure that agricultural lands, and the respective properties' owners, are minimally impacted. The first recommendation requires Rockies Express to extend their proposed post-construction monitoring period to cover the 5 years following construction activities. We are also recommending that Rockies Express employ two AIs for Spreads 1 through 5 instead of one, to ensure adequate coverage, and compensate landowners where crop yields may be impacted by soil heating downstream of compressor stations. In cases where drain tile damage is unavoidable, we

recommend that Rockies Express hire local drain tile contractors to install or repair drain tiles that are damaged or need to be rerouted due to construction activities. We recommend that Rockies Express identify and mark all encountered, severed, or damaged tile lines on each property using GPS accurate to 1 meter. Also, we recommend that Rockies Express bury the pipeline at a depth of 5 feet in agricultural areas to minimize damage to drain tiles. Because some landowners may have already signed agreements, we recommend that Rockies Express give landowners the opportunity to request 5 feet of cover. We also recommend that Rockies Express provide site-specific mitigation plans to avoid impacts to horses during construction. We also recommend that Rockies Express reduce the right-of-way to 75 feet to preserve maple trees at the Wilson Friendly Maple Farm.

Rockies Express identified 66 residences and 18 non-residential structures within 50 feet of the construction right-of-way. The Project would cross near the Chester Township Fire Department; therefore, we recommend that Rockies Express develop a plan to maintain safe egress for emergency vehicles during construction. Route variations were developed to avoid four residences that were originally within the proposed permanent right-of-way. There are 18 residences within 25 feet of a proposed work area, of which 3 are within 10 feet of the proposed work area. Because of the proximity to construction activities, we recommend that Rockies Express undertake measures to mitigate construction impacts on these residences. We also recommend that Rockies identify all septic systems prior to construction, and present each landowner with their septic system contingency plan.

The Project would be constructed with the area of the 100:1 slope restrictions for the Fairfield County Airport. The OPSB expressed concern that construction equipment may be tall enough to interfere with airport operations. We are recommending that Rockies Express consult with FAA and Ohio Department of Transportation Office of Aviation about these concerns.

The Project would affect 34 recreational and special interest areas, including Conservation Opportunity Areas administered by MDC and containing the Ted Shanks Alluvial Complex; the Sny Levee, several scenic by-ways, various rivers listed as having significant habitat and/or recreational values; recreational trails, state forests and parks, Raven Rocks, White Oak Exotic Hunting Preserve and Camp Woodsmoke. To date, Rockies Express has not provided site-specific crossing plans for many of these sites. In other cases, we have found their draft plans to be incomplete. Therefore, we recommend that Rockies Express provide or revise these plans and/or file, feasibility studies, safety mitigation (including maintain access) and portage plans, restoration plans, timing considerations, and consultation with the landowner/manager for these recreation and special-use areas.

Consultations continue with NPS regarding the pipeline crossing of Big Darby Creek and the Little Miami River. NPS states that tributaries of these Wild and Scenic Rivers require special measures to ensure that sedimentation and proper erosion controls are used to minimize downstream siltation. Rockies Express has filed site-specific plans to cross each tributary of the Big Darby Creek and Little Miami River. The plan includes: use of dry-crossing methods; minimization of tree clearing at the crossing; erosion controls that would minimize downstream siltation, and a restoration and revegetation plan. In addition, NPS requested that Rockies Express consult with them to determine which of the tributaries of Big Darby Creek require surveys for mussel and fish spawning areas. Therefore, we recommend that prior to the start of construction, Rockies Express consult with NPS to determine which tributaries may require surveys, and file with us any correspondence they have with NPS.

Visual resources along the Project route would be adversely affected, particularly during the construction phase. There are several existing pipelines in the vicinity of the Project, and the Rockies Express pipeline would parallel some of these existing rights-of-way; however only about 59 percent of the pipeline would be collocated. While some areas along the Project are either inaccessible or do not

provide long-range unobstructed views, public viewpoints are present along many of the rivers and roadways. In addition, areas such as Raven Rocks offer unique viewing opportunities in the area.

Based on Rockies Express' proposal, along with our recommended measures to reduce impacts on special-interest lands, land use, and land requirements, we believe impacts to land use, special-interest lands, and visual resources would be minimized and would not be significant.

5.1.10 Socioeconomics

Construction of the Project would have a minor, temporary impact on local transportation, and provide minor, temporary stimulatory increases to local populations, housing, employment, and taxes. Rockies Express has stated it would coordinate with the local emergency response services (police, medical, and fire) to minimize impacts of Project construction on local agencies. Additionally, we are recommending that Rockies Express consult with each state's DOT and local traffic authorities regarding road closures and traffic detours. Operation of the Project, which would permanently employ 20 full-time equivalents, would have a negligible effect on local spending and employment. Local taxes, in the form of ad valorem (property) taxes, would be paid annually to counties for the life of the Project.

5.1.11 Cultural Resources

Rockies Express consulted with the Wyoming, Nebraska, Missouri, Illinois, Indiana, and Ohio SHPOs and performed cultural resource investigations for areas that would be potentially affected by construction and operation of the Project. In Missouri, survey identified 93 archaeological sites and architectural resources. To date, 45 of these sites have been recommended as potentially eligible for listing on the NRHP. In Illinois, 481 archaeological sites and architectural resources were identified. Sixty-four of these have been recommended as potentially eligible for the NRHP. In Indiana, 857 archaeological and architectural resources have been identified. To date, 58 were recommended as potentially eligible for listing on the NRHP and 7 had pending determinations but are being treated as potentially eligible at this time. Within Ohio, a total of 639 archaeological and architectural sites have been identified. Of those, 72 sites were found eligible or potentially eligible for listing on the NRHP. An initial assessment is pending for another 71 sites. In Nebraska, no cultural resources were identified at the compressor station site. In Wyoming, one archaeology site was identified at the compressor station site; however, the site is not eligible for listing on the NRHP.

Rockies Express would develop plans to avoid and protect sites that may contain human remains such as prehistoric mound sites and historic cemeteries. We recommend that Rockies Express provide status updates regarding the consultation and disposition of the human remains. Site protection may include fencing and/or providing an archaeological monitor for construction activities in the vicinity of these sites. Additionally, we recommend that Rockies Express avoid, or develop treatment plans to mitigate impacts to, all other NRHP-eligible resources. Rockies Express is currently reviewing routing alternatives for 11 sites that have been assessed as eligible for listing on the NRHP. Rockies Express also has agreed to bore under or use an HDD to avoid impacts to other potentially NRHP-eligible sites, including several historic roads and canals.

Because survey and evaluation are ongoing, we have not yet determined the number of historic properties that would be adversely affected. Rockies Express would be required to produce site-specific treatment plans for the mitigation of adverse effects at historic properties that cannot be avoided, to be reviewed and approved by the appropriate parties. We would ensure that treatment is carried out according to the terms of the Memorandum of Agreement before construction is allowed in any given area where a historic property would be affected.

In order to ensure that the ACHP would have the opportunity to comment on any historic properties that might be identified by the ongoing studies, we recommend that Rockies Express not be allowed to construct any facilities, use any staging, storage, or temporary work areas, or use any access roads, until it files the survey reports, required treatment plans, and SHPO comments with the Commission, and is given written authorization to proceed by the Director of OEP. We are also recommending that Rockies Express plan for avoidance or mitigation of certain sites with cultural resource values and provide documentation of SHPO comments on these plans.

Rockies Express contacted 43 Native American tribes with cultural links to the Project area. In total, 22 tribes responded. Two tribes asked to participate in the consultation process, three tribes expressed interest in parts of the Project, but have not responded to further inquiry, and an additional seventeen asked to be notified if human remains were found.

Rockies Express prepared its Plans for the Unanticipated Discovery of Historic Properties and Human Remains during Construction for the Project, to be used in the event that any unanticipated historic properties (consisting of prehistoric or historic archaeological resources) or human remains are encountered during construction of the Project.

5.1.12 Air Quality and Noise

Air quality impacts associated with construction of the 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. Rockies Express indicated it would require its contractors to use their best available non-road construction equipment in their fleets in the non-attainment areas. However, we believe this assumption is insufficient to demonstrate that General Conformity Thresholds would not be exceeded. Therefore, we recommend Rockies Express file an implementation plan of the measures Rockies Express would use to demonstrate compliance with the ratios of projected construction equipment emission technology, prior to the start of construction.

The proposed Arlington, Bertrand, Mexico, Blue Mound, Bainbridge, Hamilton, and Chandlersville Compressor Stations would emit air pollutants as a result of combustion of natural gas to drive the compressor units and associated equipment. However, screening analyses of these stations indicate air emissions associated with operation of these facilities would meet federal and state ambient air quality standards. Rockies Express has filed for air permit applications for all compressor stations except the Chandlersville Compressor Station.

Impacts to noise levels associated with construction of the 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 for up to several weeks. As a result of this continual operation, noise levels at 11 of evaluated HDD sites could be significantly increased at nearby NSAs. To minimize this potential increase in noise levels and the resulting impacts to NSAs at the 11 sites, Rockies Express has committed to using a temporary noise barrier at least 16 feet high along with other noise mitigation measures. With these mitigation measures, noise impacts due to HDD activities would not be significant. However, we recommend that Rockies Express provide site-specific plans for the use of the mitigation measures at the HDD sites and file the appropriate noise analyses for any HDD sites that were not evaluated in the EIS.

The proposed new compressor stations would generate noise on a continuous basis during operation. However, the predicted noise levels attributable to operation of the Arlington, Bertrand, Mexico, Blue Mound, Bainbridge, Hamilton, and Chandlersville Compressor Stations should not result in

significant impacts on the NSAs nearest to those facilities. To ensure that actual noise levels resulting from Project operation would not exceed significant levels, we recommend that Rockies Express file post-construction noise survey reports for all compressor stations.

With implementation of Rockies Express' proposed mitigation and our recommendations, we believe impacts on air quality and noise would be minimized.

5.1.13 Reliability and Safety

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

Rockies Express has agreed with the Sny Levee District to install the pipeline over the top of the Sny Levee located on the eastern bank of the Mississippi River. The pipeline would be constructed using conventional methods in accordance with Rockies Express' Plan and additional measures to protect the integrity of the levee. This installation may cause settling. We recommend that Rockies Express file the results of their levee settlement monitoring every 6 months for a period of 5 years after installation.

5.1.14 Cumulative Impacts

We identified 12 present and reasonably foreseeable future projects that could result in a cumulative impact when considered in conjunction with the REX East Project. These projects include other natural gas transmission pipelines, electric generating facilities, ethanol plants, transportation and other infrastructure projects, residential and urban development, COE lock-and-dam projects, and water supply projects. Significant cumulative impacts associated with these projects are most likely to occur to wetlands, forested areas, wildlife that are particularly sensitive to habitat fragmentation, federally and state-listed endangered and threatened species, soils, and land use. We include recommendations in this EIS to further reduce the environmental impacts associated with the Project. Similarly, each of the other actions considered in our cumulative analysis has been or would be designed to avoid or minimize impacts to sensitive environmental resources.

5.2 FERC STAFF'S RECOMMENDED MITIGATION

If the Commission approves the REX East Project, we recommend that the following measures be included as specific conditions of the Certificate. We believe that these measures would further mitigate the environmental impact associated with the construction and operation of the Project.

1. Rockies Express shall follow the construction procedures and mitigation measures described in their respective applications, supplemental filings (including responses to staff data requests), and as identified in the EIS, unless modified by the Commission's Order. Rockies Express 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 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 REX East 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**, Rockies Express shall file with the Secretary an affirmative statement, certified by a senior company official, that all company personnel, EIs, and contractor personnel will be informed of the EIs 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 locations shall be as shown in the EIS, as supplemented by filed alignment sheets. **As soon as they are available, and prior to the start of construction**, Rockies Express 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 Commission's Order. All requests for modifications of environmental conditions of the Commission's Order or site-specific clearances must be written and must reference locations designated on these alignment maps/sheets.

Rockies Express' exercise of eminent domain authority granted under NGA Section 7(h) in any condemnation proceedings related to the Commission Order must be consistent with these authorized facilities and locations. Rockies Express' 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. Rockies Express 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, 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 **before construction in or near that area**.

This requirement does not apply to extra workspace allowed by Rockies Express' Upland Erosion Control, Revegetation, and Maintenance Plan, and/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 could affect sensitive environmental areas.

6. **Within 60 days of the acceptance of its Certificate and prior to the start of construction,** Rockies Express shall file an initial Implementation Plan for the review and written approval of the Director of OEP describing how Rockies Express will implement the mitigation measures required by the Commission's Order. Rockies Express must file revisions to the plan as schedules change. The plan shall identify:

- a. How Rockies Express 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 on-site 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. The training and instructions Rockies Express 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(s);
- e. The company personnel (if known) and the specific portion of Rockies Express' organization having responsibility for compliance;
- f. The procedures (including use of contract penalties) Rockies Express will follow if noncompliance occurs; and
- g. For each discrete facility, a Gantt or PERT chart (or similar project scheduling diagram), and dates for:
 - i. The completion of all required surveys and reports;
 - ii. The mitigation training of on-site personnel;
 - iii. The start of construction; and
 - iv. The start and completion of restoration.

7. Rockies Express shall file updated status reports prepared by the lead EI on a **weekly** basis **until all construction-related activities, including restoration, are complete.** These status reports shall also be provided to other federal and state agencies with permitting responsibilities upon request. 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 EIs or the third-party compliance monitors 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). This shall also include an identification of utilities damaged and/or service interrupted by the construction of the Project;
 - c. A description of corrective actions implemented in response to all instances of noncompliance, and their cost. For all damaged utilities and/or service interruptions, this shall include a description of steps taken to restore the utility to preconstruction conditions or better;
 - 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 Commission's Order, and the measures taken to satisfy their concerns; and
 - f. Copies of any correspondence received by Rockies Express from other federal, state, or local permitting agencies concerning instances of noncompliance, and Rockies Express' response.
8. Rockies Express shall develop and implement an environmental complaint resolution procedure that remains active for at least 3 years following the completion of construction for the respective project. 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 the start of construction**, Rockies Express shall file with the Secretary the environmental complaint resolution procedures and mail the environmental complaint resolution procedures to each landowner whose property would be crossed by the respective project:
- a. In its letter to affected landowners, Rockies Express shall:
 - i. Provide a local contact that the landowners should call first with their concerns; the letter should indicate how soon to expect a response;
 - ii. Instruct the landowners that, if they are not satisfied with the response, they should call Rockies Express' Hotline, as applicable; the letter should indicate how soon to expect a response; and
 - iii. Instruct the landowners that, if they are still not satisfied with the response from Rockies Express' Hotline, they should contact the Commission's Enforcement Hotline at (888) 889-8030, or at hotline@ferc.gov.
 - b. In addition, Rockies Express shall file with the Secretary weekly status reports that include a table that contains the following information for each problem/concern:
 - i. The identity of the caller and the date of the call;

- ii. The identification number from the certificated alignment sheet(s) of the affected property and appropriate location by milepost;
 - iii. A description of the problem/concern; and
 - iv. An explanation of how and when the problem was resolved, will be resolved, or why it has not been resolved.
- 9. Rockies Express must receive written authorization from the Director of OEP **before commencing service of the Project**. Such authorization will only be granted following a determination that rehabilitation and restoration of the right-of-way and other areas of project-related disturbance are proceeding satisfactorily.
- 10. **Within 30 days of placing the certificated facilities in service**, Rockies Express shall file an affirmative statement, 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 Rockies Express has complied with or will comply with. This statement also shall identify any area 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. Rockies Express shall defer obtaining service from Duke Energy's planned transmission line until comments of Ohio SHPO and FWS on the transmission line have been filed with the Secretary and the Director of OEP issues written approval to obtain service.

Section 2.2 – Page 2-5

- 12. In areas where the pipeline parallels PEPL's 300 and 400 lines (MP 33.8 to MP 69.2); MP 98.3 to MP 128.0; MP 194.1 to MP 220.1; and MP 259.0 to MP 274.4), Rockies Express shall revise its construction plans in order to overlap, for spoil storage purposes, 15 feet of the existing PEPL permanent right-of-way.

Page 2-6

- 13. Rockies Express shall revise its construction plans to center the pipeline within the permanent right-of-way in areas where it is currently shown within 10 feet of the edge of the permanent right-of-way, unless this would decrease the separation distance between its pipeline and the PEPL 100 and 200 lines to less than 65 feet, and incorporate these revisions to its pre-construction planning, revising the REX East right-of-way configurations as necessary. Rockies Express shall file the revised right-of-way configurations with the Secretary **prior to the start of construction**.
- 14. **Prior to the start of construction**, Rockies Express shall file with the Secretary for review and written approval by the Director of OEP the proposed use and site-specific justification for the size of each of its proposed additional temporary workspaces.
- 15. Rockies Express shall not exercise eminent domain authority granted under Section 7(h) of the NGA to acquire an additional 35-foot-wide temporary workspace for the storage of topsoil. Rockies Express may negotiate for the use of these extra workspaces for topsoil storage.

Section 2.3 – Page 2-9

16. Rockies Express shall revise its Plan and Procedures to be consistent with tables 2.3-1 and 2.3-2 of the EIS. Rockies Express shall file its revised Plan and Procedures with the Secretary, **prior to the start of construction.**

Page 2-13

17. Rockies Express shall file with the Secretary for review and written approval by the Director of OEP a site-specific justification for each additional workspace that is within 50 feet of a wetland or waterbody, **prior to the start of construction.**
18. **Prior to the start of construction,** Rockies Express shall file with the Secretary for review and written approval by the Director of OEP, a bulk material disposal plan for excess rock, trees, brush, and other construction debris.

Page 2-16

19. Rockies Express shall develop a Hydrostatic Testing Plan that includes, but is not limited to, the following information:
 - a. The screen size proposed for use on intake hoses to prevent entrainment of fish; and
 - b. Documentation that appropriate federal and state agencies have been consulted regarding the establishment of water withdrawal rates to ensure the withdrawals would have minimal impact on flows, fisheries, and downstream water users.

This Hydrostatic Testing Plan shall be filed with the Secretary for review and written approval by the Director of OEP, **prior to the start of construction.**

Page 2-18

20. Rockies Express shall revise its Procedures to use a 75-foot-wide construction right-of-way for wetlands. Rockies Express shall incorporate these revisions in its pre-construction planning, revising the REX East construction alignment sheets, as necessary, to accommodate the revised work areas. For wetlands that Rockies Express believes would require a right-of-way width greater than 75 feet, Rockies Express shall file with the Secretary, site-specific justification in its implementation plan for the Project for review and written approval by the Director of OEP, **prior to the start of construction.**

Page 2-21

21. **Prior to the use of the microtunneling technique,** Rockies Express shall file with the Secretary for review and written approval a list of fluids that would be used during the tunneling process. No microtunneling shall take place until the list has been approved by the Director of OEP.

Page 2-24

22. Rockies Express shall, in consultation with DOT and the power company, develop a construction plan for all locations where the REX East Pipeline would cross or be constructed along or with power line rights-of-way. In addition, the plan shall include any additional measures that would be

used in these areas during operation to prevent damage to the pipeline that could be caused by fault currents and induced voltages. Rockies Express shall file this plan with the Secretary, **prior to the start of construction.**

Section 2.5 – Page 2-27

23. Rockies Express shall file with the Secretary for review and written approval by the Director of OEP a draft third-party environmental monitoring program and obtain proposals from potential contractors to provide monitoring services, and file the program and proposals with the Secretary for review and written approval by the Director of OEP **at least 60 days prior to the anticipated start of pipeline construction.** The monitoring program shall include:
- a. The employment by the contractor of one or two full-time onsite monitors per construction spread;
 - b. The employment by the contractor of at least one full-time onsite monitor with knowledge of agricultural practices in the Project area;
 - c. The employment by the contractor of a full-time compliance manager to direct and coordinate with the monitors, manage the reporting system, and provide technical support to the FERC staff;
 - d. A systematic strategy for the review and approval by the contract compliance manager and monitors of variances to certain construction activities as may be required by Rockies Express based on site-specific conditions;
 - e. The development of an Internet Web site for posting daily or weekly inspection reports submitted by both the third-party monitors and Rockies Express' EIs; and
 - f. A discussion of how the monitoring program can incorporate and/or be coordinated with the monitoring or reporting and other ongoing communication that may be required by other federal, state, and local agencies.

Section 3 – Page 3-43

24. **Prior to the start of construction from MP 291.0 to MP 291.3,** Rockies Express shall incorporate into the Project route the FERC variation for the McCarroll property as depicted in appendix J, figure J-1 in the EIS. Rockies Express shall file with the Secretary updated alignment sheets.

Page 3-43

25. **Prior to the start of construction from MP 300.5 to MP 301.0,** Rockies Express shall incorporate into the Project route the variation for the Rogers property as depicted in appendix J, figure J-2 in the EIS. Rockies Express shall file with the Secretary updated alignment sheets.

Page 3-45

26. **Prior to the start of construction from MP 318.1 to MP 318.5,** Rockies Express shall incorporate into the Project route the FERC's Parker variation for the Parker property as depicted in appendix J, figure J-4 in the EIS. Rockies Express shall file with the Secretary updated alignment sheets.

Page 3-46

27. **Prior to the start of construction from MP 370.0 to MP 370.6**, Rockies Express shall incorporate into the Project route the route variation for the Alverson properties as depicted in appendix J, figure J-5, specifically avoiding to the maximum extent practicable, the removal of trees located adjacent to the southern boundary of the Alverson property. Rockies Express shall file with the Secretary updated alignment sheets.

Page 3-46

28. **Prior to the start of construction from MP 376.3 to MP 376.8**, Rockies Express shall incorporate into the Project route the route variation for the Brattain property as depicted in appendix J, figure J-6 in the EIS. Rockies Express shall file with the Secretary updated alignment sheets.

Page 3-47

29. **Prior to the start of construction from MP 380.4 to MP 380.6**, Rockies Express shall incorporate into the Project route the route variation for the Yane property as depicted in appendix J, figure J-7 in the EIS. Rockies Express shall file with the Secretary updated alignment sheets and site-specific erosion and spill control measures to protect the Yane's pond from contamination and siltation.

Page 3-48

30. **Prior to the start of construction from MP 383.1 to MP 384.0**, Rockies Express shall incorporate into the Project route the route variation for the Morgan property as depicted in appendix J, figure J-8 in the EIS. Rockies Express shall file with the Secretary updated alignment sheets.

Page 3-49

31. **Prior to the start of construction**, Rockies Express shall file with the Secretary for review and written approval a site-specific construction plan for an extended bore to cross Walnut Fork Creek and Pipe Creek Road.
32. **Prior to the start of construction from MP 395.1 to MP 395.8**, Rockies Express shall incorporate into the Project route the route variation for the White property as depicted in appendix J, figure J-10 in the EIS. Rockies Express shall file with the Secretary updated alignment sheets.

Page 3-50

33. **Prior to the start of construction from MP 401.5 to MP 402.4**, Rockies Express shall file:
- a. Documentation of consultations with the newly affected landowner(s) regarding an easement agreement for the route variation from MP 401.5 to MP 402.4, as depicted in appendix J, figure J-11 of the EIS; or
 - b. Documentation of consultation with Schulte, Oetzel, and Stirn to identify an alternative route variation on their property which would address their concerns.

Rockies Express shall file with the Secretary for review and written approval by the Director of OEP revised alignment sheets, and a summary of the resources (e.g., forests, wetlands, sensitive species, and cultural resources) affected by the revised route.

Page 3-51

34. **Prior to the start of construction from MP 405.1 to MP 405.9**, Rockies Express shall incorporate into the Project route the route variation for the Minges and Schoenharl properties as depicted in appendix J, figure J-12 in the EIS. Rockies Express shall file with the Secretary updated alignment sheets.

Page 3-51

35. **Prior to the start of construction from MP 406.2 to MP 406.5**, Rockies Express shall incorporate into the Project route the route variation for the Maus property as depicted in appendix J, figure J-13 in the EIS. Rockies Express shall file with the Secretary updated alignment sheets.

Page 3-52

36. **Prior to the start of construction from MP 417.8 to MP 418.4**, Rockies Express shall file:
- a. Documentation of consultations with the newly affected landowner(s) regarding an easement agreement for the route variation from MP 417.8 to MP 418.4, as depicted in appendix J, figure J-14 of the EIS; or
 - b. Documentation of consultation with Storck-Stump and Hesford to identify an alternative route variation on their property which would address their concerns.

Rockies Express shall file with the Secretary for review and written approval by the Director of OEP revised alignment sheets, and a summary of the resources (e.g., forests, wetlands, sensitive species, and cultural resources) affected by the revised route.

Page 3-53

37. **Prior to the start of construction from MP 426.1 to MP 426.3**, Rockies Express shall incorporate into the Project route the Chase route variation as depicted in appendix J, figure J-15 in the EIS. Rockies Express shall file with the Secretary updated alignment sheets.

Page 3-54

38. **Prior to start of construction from MP 452.7 to MP 453.8**, Rockies Express shall incorporate into the Project route the Frye route variation as depicted in appendix J, figure J-17. Rockies Express shall file with the Secretary updated alignment sheets. This information shall also be provided concurrently to the Village of Waynesville, Ohio Waste and Water Division of the Utilities Department, and other applicable agencies regarding construction in the WPA.

Page 3-56

39. **Prior to the start of construction from MP 458.1 to MP 458.9**, Rockies Express shall incorporate into the Project route the revised route variation for the Mowrey and Jones properties as depicted in appendix J, figure J-18 in the EIS. Rockies Express shall file with the Secretary updated alignment sheets.

Page 3-56

40. **Prior to the start of construction from MP 459.8 to MP 460.0**, Rockies Express shall incorporate into the Project route the Rowe route variation as depicted in appendix J, figure J-19 in the EIS. Rockies Express shall file with the Secretary updated alignment sheets.

Page 3-57

41. **Prior to the start of construction from MPs 477.1 to 477.5**, Rockies Express shall incorporate into the Project route the route variation for the Kile property as depicted in appendix J, figure J-20 in the EIS. Rockies Express shall file with the Secretary updated alignment sheets.

Page 3-57

42. **Prior to the start of construction from MP 521.9 to MP 523.3**, Rockies Express shall file:
- a. Documentation of consultations with the newly affected landowner(s) regarding an easement agreement for the route variation from MP 521.9 to MP 523.3, as depicted in appendix J, figure J-21 of this EIS; or
 - b. Documentation of consultation with Scothorn and Petty to identify an alternative route variation on their property which would address their concerns.

Rockies Express shall file with the Secretary for review and written approval by the Director of OEP revised alignment sheets, and a summary of the resources (e.g., forests, wetlands, sensitive species, and cultural resources) affected by the revised route.

Page 3-59

43. **Prior to the start of construction from MP 555.4 to MP 557.3**, Rockies Express shall file with the Secretary revised alignment sheets to incorporate into the Project route the Rockies Express Noll Route Variation (i.e., the proposed route) as depicted in appendix J, figure J-22 in the EIS.

Page 3-60

44. **Prior to the start of construction from MP 623.3 to MP 624.4**, Rockies Express shall file:
- a. Documentation of consultations with the newly affected landowner(s) regarding an easement agreement for the route variation from MP 623.3 to MP 624.4, as depicted in appendix J, figure J-23 of this EIS; or
 - b. Documentation of consultation with Shaffer to identify an alternative route variation on their property which would address their concerns.

Rockies Express shall file with the Secretary for review and written approval by the Director of OEP revised alignment sheets, and a summary of the resources (e.g., forests, wetlands, sensitive species, and cultural resources) affected by the revised route.

Page 3-60

45. **Prior to the start of construction from MP 384.0 to MP 384.4**, Rockies Express shall incorporate into the Project route Rockies Express' Revised MP 384 Variation for residences at MP 384.3 and MP 384.4 as depicted in appendix J, figure J-24 in the EIS. This route variation shall be similar to that shown in the February 19, 2008 filing, but start at MP 384.0. Rockies Express shall file with the Secretary updated alignment sheets.

Page 3-62

46. **Prior to the start of construction from MP 446.5 to MP 447.4**, Rockies Express shall incorporate into the Project route the FERC's Revised McCarty Variation for the McCarty's property as depicted in Appendix J, figure J-25 in the EIS. Rockies Express shall file with the Secretary updated alignment sheets and provide a landowner notification package to the newly affected landowner(s).

Section 4.1 – Page 4-4

47. **Prior to the start of construction**, Rockies Express shall file with the Secretary for review and written approval by the Director of OEP, a site-specific plan for oil or gas wells within the construction work area, both active and abandoned. The plan shall include details on how the wells would be protected and monitored during construction, and discuss how it would determine if any damage attributable to construction activities occurred to the aboveground equipment, casing, or plug (for abandoned wells). The plan shall also discuss how any damage would be mitigated.

Page 4-10

48. **Prior to the start of construction**, Rockies Express shall file with the Secretary for review and written approval by the Director of OEP, a plan developed in consultation with the appropriate state agencies for the identification of karst features and mitigation for crossing any such features identified during construction. This plan shall also indicate how areas with these features would be monitored during the life of the Project and what steps would be taken if the area were to destabilize in the future.
49. **Prior to the start of construction**, Rockies Express shall file with the Secretary for review and written approval by the Director of OEP, a contingency plan developed in consultation with state and federal natural resource agencies for HDDs in the karst areas identified on table 4.1.3-2 in the EIS. This plan shall include pre-construction identification of the potential for subsurface karst features and identify what Rockies Express would do if a solution void is intercepted to limit the amount of mud lost and successfully complete the drill.

Page 4-11

50. **Prior to the start of construction**, Rockies Express shall file with the Secretary for review and written approval by the Director of OEP, a Mining Subsidence Plan that at a minimum addresses the following:
 - a. This plan shall indicate how areas where the pipeline would cross underground mines would be monitored during the life of the Project and what steps would be taken if the area were to destabilize in the future; and

- b. Communications with mining companies planning to use longwall or room and pillar mining techniques in areas of the pipeline. The plan shall outline the monitoring protocol and mitigation measures that may be implemented to prevent subsidence impacts from these specific types of mining to the pipeline.

51. **Prior to the start of construction**, Rockies Express shall consult with INDNR and ODNR to discuss the scour susceptibility of waterbodies crossed by the Project. Rockies Express shall file the results of its consultations and a revised list of scour-prone areas with the Secretary.

Page 4-12

52. **Prior to the start of construction**, Rockies Express shall file with the Secretary for review and written approval by the Director of OEP, a High Water Contingency Plan for the construction of the Mississippi River crossing. This plan shall be developed in consultation with COE.

Section 4.2 – Page 4-19

53. Rockies Express shall prepare an Agricultural Wet Weather Contingency Plan to address construction practices in agricultural areas during wet weather (i.e., active precipitation and/or saturated ground or as otherwise determined by the EI). This plan shall include, at a minimum:

- a. A determination of the allowable depth of rutting, and allowable working conditions, prior to suspension of construction activities based on the type of soil, topsoil, and subsoil thickness and/or using the Atterberg Field Test Procedure;
- b. Designation of authority for the onsite AI to have “stop-work” authority in the event that wet weather conditions place topsoil and subsoil at risk; and
- c. Identification of alternate construction procedures to enable activities to continue without risking the loss and/or mixing of topsoil and subsoil and severe compaction in the event of an unseasonably wet construction season.

This plan shall be filed with the Secretary for review and written approval by the Director of OEP **prior to the start of construction**.

Section 4.3 – Page 4-24

54. **Prior to the start of construction**, Rockies Express shall file with the Secretary the locations by milepost of all springs, seeps, and wells identified within 150 feet of construction work areas.

Page 4-26

55. **Prior to the start of construction**, Rockies Express shall file with the Secretary a revised SPCC Plan that states it would restrict refueling or other liquid transfer within 100 feet of wetlands and waterbodies, 200 feet of any private water supply wells, and 400 feet of any municipal supply wells.

Page 4-27

56. Rockies Express shall develop a site-specific specialized spill plan that would further reduce the likelihood of spills/leaks from construction-related equipment impacting the Hoosier Hills WPA.

This plan shall be in addition to Rockies Express' SPCC Plan and shall contain a list of all fluids that would be used during construction in the area. Rockies Express shall file this plan with the Secretary for review and written approval of the Director of OEP **prior to the start of construction** between MPs 393 and 394.

57. Rockies Express shall develop a water quality testing plan for Hoosier Hills Regional Water District's existing wells in consultation with Hoosier Hills Regional Water District. This plan shall include water quality testing **prior to, during, and for 2 years post construction** to document any construction-related impacts on the Hoosier Hills WPA. Rockies Express shall file a finalized plan with the Secretary **prior to the start of construction**. Copies of the water quality test results shall be provided to Hoosier Hills.
58. Rockies Express shall notify Hoosier Hills at least **48 hours prior to the start of construction** between MPs 393 and 394.

Page 4-28

59. **Prior to the start of construction**, Rockies Express shall file with the Secretary documentation of consultations with applicable local and state agencies regarding construction in areas with WPAs or other groundwater management areas crossed by the pipeline.
60. **Within 30 days of placing the pipeline facilities in service**, Rockies Express shall file a report with the Secretary identifying all water supply wells/systems damaged by construction and how they were repaired. The report shall include a discussion of any complaints concerning the well yield or quality and how each problem was resolved.

Page 4-32

61. **Prior to the start of construction**, Rockies Express shall file with the Secretary documentation of finalized consultation with the organizations or individuals who withdraw potable water within 3 miles of the open-cut crossings of Flatrock River (MP 362.7) in Indiana and Somerset Creek (MP 553.2) in Ohio, along with documentation of finalized consultations with the City of Louisiana in Missouri.

Page 4-33

62. Rockies Express shall file with the Secretary for review and written approval by the Director of OEP, the results of its HDD geotechnical feasibility investigations, revised site-specific construction diagrams, and contingency plans for the Embarras and Muskingum Rivers' HDD locations. If a planned HDD crossing is not feasible, then Rockies Express shall develop a site-specific alternative crossing plan for each waterbody in consultation with all relevant agencies. Rockies Express' plans and documentation of consultations regarding the site-specific HDD plans shall be filed with the Secretary **prior to the start of construction**.

Page 4-35

63. Rockies Express shall cross all dry intermittent waterbodies using the open-cut method with application of the mitigation measures described in v(B)(2) through v(B)(4) of its Procedures.
64. **Prior to the start of construction**, Rockies Express shall file with the Secretary revised site-specific crossing plans that identify specific restoration and mitigation measures applicable to each

sensitive waterbody crossing listed in tables 4.3.5-1 and 4.6.2-1 of the EIS and any applicable state and federal agency consultations for review and written approval by the Director of OEP.

Page 4-39

65. Rockies Express shall file with the Secretary consultations with all applicable state and federal agencies for review and written approval by the Director of OEP **prior to initiating an alternative crossing method** at Paint Creek or the White River.

Page 4-40

66. Rockies Express shall successfully complete the HDD or microtunneling crossing of the Little Miami River **prior to the start of construction** between MP 432.9 and MP 467.2.
67. Rockies Express shall successfully complete the HDD or microtunneling crossing of Big Darby Creek **prior to the start of construction** between MP 494.1 and MP 533.9.
68. **Prior to the start of construction**, Rockies Express shall develop and file site-specific plans with the Secretary for review and written approval by the Director of OEP that identify the source and discharge locations of hydrostatic test water used for the HDD of Little Miami River and Big Darby Creek.

Page 4-43

69. Rockies Express shall provide Hoosier Hills Regional Water District a copy of hydrostatic test water analysis **prior to discharge** to the Whitewater River.

Page 4-46

70. Rockies Express shall prepare site-specific blasting plans for each wetland with shallow bedrock **prior to blasting**. Rockies Express shall also evaluate and incorporate appropriate methods to seal fractures in the bedrock following blasting to help prevent possible drainage of the wetlands. Rockies Express shall file this plan with the Secretary for review and written approval by the Director of OEP.

Page 4-48

71. **Prior to the start of construction**, Rockies Express shall develop a site-specific wetland restoration plan for Blackburn Island in consultation with COE, FWS, and MODNR. Rockies Express shall file this plan with the Secretary for review and written approval by the Director of OEP.

Page 4-51

72. **Prior to the start of construction**, Rockies Express shall consult with COE, FWS, and other appropriate state and federal agencies regarding replanting, monitoring, and managing reforestation, including compensatory mitigation for wetland impacts for all temporary and permanent rights-of-way, additional temporary workspaces, and contractor yards/pipe yards located within forested wetlands. Rockies Express shall include this information in its Wetland Mitigation Plan.

Page 4-51

73. **Prior to the start of construction**, Rockies Express shall finalize consultations with COE, FWS, and appropriate state and federal agencies to develop its Wetland Mitigation Plan; and file with the Secretary a final Wetland Mitigation Plan and the results of its consultations with these agencies.

Section 4.4 – Page 4-59

74. For all HDDs, Rockies Express shall not clear any trees between the workspace for the drill entry site and the workspace for the exit site **during construction**. Minor brush clearing, less than 3 feet wide, using hand tools is allowed to facilitate the use of the HDD tracking system.
75. Rockies Express shall use onsite markers along the permanent right-of-way for identifying “no-clearing” zones within vegetated riparian strips adjacent to waterbodies that are to be avoided during maintenance activities.

Page 4-61

76. **Prior to the start of construction**, Rockies Express shall file with the Secretary for review and written approval by the Director of OEP a site-specific construction plan that uses a 75-foot right-of-way within the classified forest located between approximate MP 331.9 and MP 332.2 and provides justification for any temporary workspace which requires the removal of trees.
77. **Prior to the start of construction**, Rockies Express shall develop its Compensatory Mitigation Plan for classified forest areas in Indiana, in consultation with classified forest landowners; INDNR, Division of Forestry; and the local District Forester. This plan shall be filed with the Secretary along with documentation of related consultation for review and written approval by the Director of OEP.

Page 4-63

78. **Prior to the start of construction**, Rockies Express shall file with the Secretary a copy of its Flood Control Permit from INDNR.
79. **Prior to the start of construction**, Rockies Express shall identify affected CRP lands in consultation with landowners to develop mitigation measures to protect CRP lands. Rockies Express shall file this information with the Secretary along with copies of all related correspondence.

Page 4-64

80. Rockies Express shall use only certified weed-free straw or hay bales for sediment barriers or mulch during construction and revegetation of disturbed areas.

Section 4.5 – Page 4-70

81. **Prior to the start of construction**, Rockies Express shall consult with the Comprehensive Wildlife Conservation Strategy Coordinators for Missouri, Indiana, and Ohio to verify that it is in compliance with the state’s Comprehensive Wildlife Conservation Strategy to the maximum extent practicable and file with the Secretary documentation of this correspondence.

Page 4-73

82. **Prior to the start of construction**, Rockies Express shall file with the Secretary documentation of consultations with FWS to determine the need for bald eagle surveys. If surveys are required, Rockies Express shall file with the Secretary survey reports along with FWS comments on those surveys and documentation of its consultation with FWS.

Page 4-75

83. Rockies Express shall comply with the Conservation Guidelines developed in consultation with FWS to minimize impacts to forested lands and migratory birds **during construction and operation of the Project**.

Page 4-78

84. Rockies Express shall develop construction schedules in consultation with the MDC and appropriate agencies responsible for managing the Grassy Creek and the Upper Mississippi COA to minimize construction-related impacts on migratory birds, waterfowl, deer, and turkey **prior to the start of construction**.

Section 4.6 – Page 4-82

85. Rockies Express shall comply with the waterbody crossing time windows established by the ILDNR (no construction activities from March 1 to June 30), the INDNR (no construction activities, including installation of bridges requiring instream support, between April 1 and June 30), and the OPSB (no construction activities between April 15 and June 30), unless provided with written approval from the appropriate state agency.

Page 4-88

86. Rockies Express shall use a dry-ditch technique, such as flume, dam-and-pump, bore, or HDD, to cross any waterbodies that are considered fisheries of special concern with a wetted width less than 30 feet, as described in table 4.6.2-1 of the EIS. If a wet crossing method would be used for waterbodies less than 30 feet, Rockies Express shall file with the Secretary the proposed crossing method and documentation of approval by the appropriate state and federal agencies **prior to the start of construction**.

Section 4.7 – Page 4-104

87. For the habitat unit IDs surveyed in 2007 and for which Indiana bats were identified but no nursery roost trees were identified, Rockies Express shall implement the following recommendations and conditions to avoid direct effects on Indiana bat roosting in alternative roost trees:
- a. Remove trees during the inactive season (between October 1 and March 31); or
 - b. Remove trees while bats are foraging under the following conditions:
 - i. Tree removal would occur between 1 hour after sunset and 1 hour before sunrise;
 - ii. Temperature would be greater than 50°F; and
 - iii. No precipitation or strong winds (as before an approaching thunderstorm).

88. For the habitat unit IDs surveyed in 2007 and for which Indiana bats were identified and nursery roost trees were identified, Rockies Express shall implement the following recommendations and conditions:
- a. Rockies Express would reconfirm the location of the nursery roost tree(s) **prior to the start of construction** to determine if it remains suitable. This requirement would apply to all sites in table 4.7.1-3 of the EIS where at least one roost tree was identified, as well as to Habitat Unit IDs MO-3.0, IN-32.0, and OH-10.7.
 - i. If the nursery roost tree remains a suitable nursery roost tree, Rockies Express would avoid the nursery tree and immediate microclimate (as identified by a certified biologist and approved by FWS) by altering the construction area and placement of the pipeline route. A minimum distance of 100 feet would be maintained between the construction area and the nursery roost tree and Rockies Express would (a) erect fencing to delineate the boundary and prevent inadvertent encroachment into the area, and (b) erect signs stating “no trespassing” or “do not disturb – sensitive area.”
 - ii. If the nursery roost tree is no longer suitable, Rockies Express would implement one of the following conservation measures:
 - (1) Conduct a radiotelemetry study in accordance with FWS-approved 2007 procedures to locate new nursery roost tree(s) and if within the action area, avoid the tree(s) and its microclimate in accordance with Conservation Measure 3(a)(i) in the BA; or
 - (2) Protect all potential nursery trees (live or standing dead trees or snags over 9 inches dbh with exfoliating, peeling or loose bark, split trunks or branches, or cavities). These characteristics must be plentiful enough to allow the colony to change locations along the tree to aid in thermoregulation. If the habitat characteristics are found only on the branches of the tree, the branches must be at least 8 inches in diameter at the site of the habitat characteristics. These trees must have some solar exposure, and trees must be part of, or connected to, a travel corridor, forested area within the action area, that is, treat all potential nursery roost trees as actual nursery roost trees; or
 - (3) Identify potential nursery roost trees and conduct exit counts to determine whether it is an occupied nursery roost (if more than 20 bats are observed, the tree would be classified as an occupied nursery tree; if fewer than 20 bats are observed, the tree would be classified as an alternate roost tree). If a nursery roost tree is documented, avoid the tree and its microclimate per Conservation Measure 3(a)(i) in the BA. If it is not documented as a nursery roost tree, employ applicable alternate roost tree avoidance measures per recommendation and Conservation Measure 2 in the BA.

Page 4-105

89. In all areas that were not surveyed in 2007 including any areas where the alignment has shifted such that unsurveyed habitat may be affected (see table 4.7.1-5 in the EIS), Rockies Express shall survey the areas in accordance with FWS-approved 2007 procedures to locate new nursery roost tree(s). **Prior to the start of construction** in an unsurveyed habitat unit ID area, Rockies Express shall complete all surveys and submit the findings to the FERC and FWS for review and comment. Rockies Express shall not begin construction in the habitat unit ID until it has received written notification from the Director of OEP that construction or use of mitigation may begin. Based on

the findings of the surveys to be conducted in 2008, Rockies Express shall implement one of the following measures:

- a. If a nursery roost tree is identified, Rockies Express would avoid the nursery tree and immediate microclimate (as identified by a certified biologist and approved by FWS) by altering the construction area and placement of the pipeline route. A minimum distance of 100 feet would be maintained between the construction area and the nursery roost tree and Rockies Express would erect fencing to delineate the boundary and prevent inadvertent encroachment into the area.
 - b. If Indiana bats are captured and a nursery roost tree is not identified, Rockies Express would identify potential nursery roost trees and conduct exit counts to determine whether it is an occupied nursery roost (if more than 20 bats are observed, the tree would be classified as an occupied nursery tree; if fewer than 20 bats are observed, the tree would be classified as an alternate roost tree). If a nursery roost tree is documented, avoid the tree and its microclimate per Conservation Measure 3(a)(i) in the BA. If it is not documented as a nursery roost tree, employ applicable alternate roost tree avoidance measures per recommendation and Conservation Measure 2 in the BA.
90. **Prior to the start of construction**, Rockies Express shall file with the Secretary and FWS an updated list of areas that remain to be surveyed for Indiana bats identifying the habitat unit IDs by milepost.
91. **Prior to the start of construction** within an identified habitat unit ID, Rockies Express shall file with the Secretary for review and written approval by the Director of OEP the specific mitigation measures in accordance with the BA that would apply based on the survey results.

Page 4-106

92. **During construction**, Rockies Express shall not burn trees, limbs, brush, and debris in the right-of-way within 500 feet of the entire area of suitable habitat associated with each habitat unit ID.
93. Rockies Express shall not use herbicides or pesticides for maintenance of the permanent right-of-way or adjacent forested areas, regardless of whether Indiana bats are present, **for the life of the Project** except as allowed by the appropriate land management agency or state agency.
94. In the event that a trenchless crossing fails at the Mississippi River, Wabash River, Big Walnut Creek, or Big Darby Creek, Rockies Express shall halt construction activities at the crossing(s) until Rockies Express files with the Secretary and receives written approval by the Director of OEP a site-specific alternate waterbody crossing plan developed in consultation with the FERC, COE, and FWS. The plan shall include:
- a. Scaled drawings identifying all areas that would be disturbed by an alternative crossing method; and
 - b. A description of the mitigation measures that would be implemented to minimize the extent and duration of disturbance on the river and the Indiana bat.
95. In addition, Rockies Express shall not begin an alternative crossing of the Mississippi River, Wabash River, Big Walnut Creek, or Big Darby Creek until:

- a. The FERC evaluates the potential impact on the Indiana bat and the Commission staff completes consultation with FWS;
 - b. The FERC, FWS, and COE determine that the alternative crossing method and mitigation plan are acceptable; and
 - c. The Director of OEP notifies Rockies Express in writing that it may proceed with the alternative river crossing plan.
96. Rockies Express shall use a dry-ditch crossing method at Sugar Creek (MP 484.3).
97. To minimize potential impacts on foraging Indiana bats during construction, Rockies Express shall limit specific construction activities (clearing, trenching, welding, backfilling, and grading) within 300 feet of documented nursery roost trees and alternative roost trees identified during the field surveys from one-half hour after dawn to one-half hour before dusk for the period of tree clearing restriction as identified by FWS (April 1 - September 30). This timing restriction would allow ample time for bats to return to roost trees at dawn and time for bats to emerge from roosts at dusk.
98. Rockies Express shall have a FWS qualified biologist supervise tree clearing operations in Indiana bat habitat along the construction areas to ensure that individual bats that may be in the vicinity are not harmed, and all tree clearing activities are in compliance with FWS requirements as identified above under Compensation, Mitigation, and Monitoring.

Page 4-108

99. **During construction**, if any whooping cranes are encountered in the immediate vicinity of the construction work area, Rockies Express shall:
- a. Immediately stop construction in that area;
 - b. Contact FWS and the FERC to determine what protection measure would be required; and
 - c. Work may not resume in the area until Rockies Express has been notified by the Director of OEP in writing.

Page 4-113

100. **Prior to the start of construction**, Rockies Express shall file with the Secretary completed mussel survey reports for the federally listed mussel species in Anderson Fork, East Fork Paint Creek, Little Walnut Creek, Tributary to Burley Run, Brush Creek, Buffalo Fork, Tributary to Crabapple Creek, and Cat Run in Ohio, documentation of its consultation with FWS and ODNR, and conservation measures necessary to minimize impact to mussel beds.

Page 4-113

101. **During construction**, Rockies Express shall not withdraw hydrostatic test water from Sugar Creek, the Scioto River, Deer Creek, and Big Darby Creek or the tributaries of these waterbodies in order to protect endangered mussels or glochidia/host fish or juveniles from direct impacts.
102. In the event that a trenchless crossing fails at the Scioto River, Deer Creek in Deer Creek State Park, or Big Darby Creek, Rockies Express shall stop construction activities at the crossing(s) until

Rockies Express files with the Secretary and receives written approval from the Director of OEP a site-specific alternate waterbody crossing plan developed in consultation with the FERC, COE, and FWS. The plan shall include:

- a. The specific reasons that the trenchless technique was not successful;
 - b. A description of how Rockies Express would seal the abandoned drill hole;
 - c. Scaled drawings identifying all areas that would be disturbed by an alternative crossing method; and
 - d. A description of the mitigation measures that would be implemented to minimize the extent and duration of disturbance on the river and any mussels.
103. Rockies Express shall not begin an alternative crossing of the Scioto River, Deer Creek in Deer Creek State Park, or Big Darby Creek until:
- a. The FERC evaluates the potential impact on the mussel species and the Commission staff completes consultation with FWS;
 - b. The FERC, FWS, and COE determine that the alternative crossing method and mitigation plan are acceptable; and
 - c. The Director of OEP notifies Rockies Express in writing that it may proceed with the alternative river crossing plan.

Page 4-115

104. For the running buffalo clover Rockies Express shall:
- a. File with the Secretary completed survey reports and documentation of its consultation with FWS **prior to the start of construction**;
 - b. Implement the following **prior to the start of construction** if running buffalo clover is identified within the action area during remaining surveys:
 - i. If plants are located adjacent to or along the edge of the construction right-of-way, fence off the plants and avoid the area;
 - ii. If plants are located within the construction right-of-way, modify the construction right-of-way configuration to avoid plants, retain tree cover in and around plants, and fence off the plants;
 - iii. Use only approved native plant species during restoration of the right-of-way;
 - iv. Prohibit herbicide applications within 200 feet of the plants and avoid mowing between May and June; and
 - v. Consult with FWS to develop site-specific invasive plant control measures to include a monitoring plan. Rockies Express shall file these measures with the Secretary for review and written approval by the Director of OEP.

- c. Not burn in or adjacent to any areas where an individual or population of running buffalo clover has been identified **during construction**.

Section 4.8 – Page 4-131

105. Rockies Express shall develop and implement a 5-year post-construction monitoring program to evaluate crop productivity in areas impacted by the construction of the Project. Rockies Express shall file with the Secretary **quarterly reports for a period of 5 years following construction** documenting any crop-related problems, including soil heating near compressor stations, identified by the company or landowner and describing any corrective action taken to remedy those problems. If any landowner agrees that revegetation and crop productivity are successful prior to the 5-year requirement, Rockies Express shall provide documentation in its quarterly reports, indicating which landowners have agreed that monitoring is no longer necessary. This documentation shall include the landowner name, tract number, and the date of agreement. Copies of the quarterly reports shall be provided to all landowners and tenants of properties being monitored.

Page 4-131

106. Rockies Express shall employ two Agricultural Inspectors for Spreads 1, 2, 3, 4, and 5.

Page 4-134

107. Rockies Express shall hire local drain tile contractors to install/repair drain tiles that are damaged or need to be rerouted due to construction activities.
108. **During construction**, Rockies Express shall identify and mark all encountered, severed, and/or damaged tile lines on each affected landowner's property using GPS coordinates accurate to 1 meter. Rockies Express shall provide this information to the landowner, and the local county Soil and Water Conservation District, and the information shall be kept in the company's landowner records for future reference.

Page 4-135

109. Rockies Express shall bury the pipeline at a minimum depth of 5 feet where the pipeline would cross agricultural fields unless otherwise negotiated with landowners.
110. **Prior to the start of construction**, Rockies Express shall file documentation with the Secretary demonstrating that landowners who have already signed an easement agreement with the provision for 3 feet of cover in agricultural fields were offered the opportunity to request 5 feet of cover.

Page 4-137

111. **Prior to the start of construction in the vicinity of the affected properties**, Rockies Express shall file site-specific mitigation plans, developed in consultation with the affected landowners with the Secretary for review and written approval by the Director of OEP describing how potential impacts to the horses and the operation of the businesses would be avoided, minimized, or mitigated between MP 523 and MP 524, and at MP 460. The plans shall indicate how Rockies Express would protect the horses during construction and restoration. Rockies Express shall also provide the two landowners with a copy of the plan for their property.

112. Rockies Express shall reduce the construction right-of-way to 75 feet through the forested portion of Wilson Friendly Maple Farm.

Page 4-140

113. **Prior to the start of construction in the vicinity of the Chester Township Fire Station**, Rockies Express, in consultation with local emergency response officials, shall develop a plan to maintain safe egress at the Chester Township Fire Station.

114. Rockies Express shall file site-specific plans with the Secretary for review and written approval by the Director of OEP **prior to the start of construction** that:

- a. Describe the measures that would be taken to minimize construction impacts on each residence within 25 feet of a construction work area, including but not limited to reduced pipeline separation, centerline adjustment, use of stove-pipe or drag-section techniques, working over existing pipelines, pipeline crossover, bore, or a minor route variation;
- b. Include discussion of how Rockies Express would ensure that the trench is not excavated until the pipe is ready for installation and that the trench is backfilled immediately after pipe installation; and
- c. Include evidence of landowner concurrence if the construction work area and fencing will be located within 10 feet of a residence.

Page 4-143

115. Rockies Express shall identify all septic systems **prior to the start of construction**, present each property owner with a copy of the Septic System Contingency Plan, and restore, relocate, or replace all septic systems damaged during construction, whether or not such mitigation was part of the easement negotiation.

Page 4-150

116. **Prior to the start of construction in the vicinity of the Fairfield County Airport**, Rockies Express shall consult with the Federal Aviation Administration and the Ohio Department of Transportation Office of Aviation about any restrictions in the vicinity of the Fairfield County Airport during construction. Rockies Express shall make the appropriate filings with these agencies prior to starting construction in the vicinity of the airport.

Page 4-152

117. **Prior to the start of construction of the Mississippi River crossing**, Rockies Express shall maintain public access to the boat ramp adjacent to the exit site for the HDD for the Mississippi River crossing. If access cannot be maintained, Rockies Express shall file with the Secretary a plan for mitigating the impact.

Page 4-154

118. **Prior to the start of construction at the West Fork White River**, Rockies Express shall file with the Secretary for review and written approval by the Director of OEP a plan for setting up a safe portage for canoeists who wish to traverse the crossing area of the West Fork White River during

construction. This plan shall include assistance transporting canoes around the work area for those who request help.

Page 4-155

119. Rockies Express shall maintain public access to the B&O trail and avoid tree cutting at the crossing location.

Page 4-157

120. Rockies Express shall work with Camp Woodsmoke to determine a schedule for crossing the camp. Rockies Express shall discuss with the camp the need for any additional safety mitigation (fencing, signs) during construction in the camp. The results of this consultation shall be filed with the Secretary **prior to the start of construction in Camp Woodsmoke.**

Page 4-158

121. **Prior to the start of construction of each crossing,** Rockies Express shall file with the Secretary and provide to the NPS, a site-specific plan for the crossing of each tributary of the Little Miami River, developed in consultation with the NPS. These plans shall include:
- a. Dry-crossing method;
 - b. Minimization of tree clearing;
 - c. Erosion controls that would minimize downstream siltation; and
 - d. A restoration and revegetation plan.

Page 4-160

122. **Prior to the start of construction,** Rockies Express shall consult with the NPS to determine which, of the tributaries of Big Darby Creek that would be crossed, should be surveyed for mussels and fish spawning areas. Rockies Express shall file the results of any required surveys with the Secretary **prior to the start of construction,** along with any correspondence with NPS.

Page 4-162

123. **Prior to the start of construction,** Rockies Express shall file with the Secretary a plan for the construction and restoration of the Little Miami Scenic State Park. Rockies Express shall also include a plan for maintaining safe public access through the construction area and revegetating the disturbed areas by planting native vegetation. This plan shall be developed in consultation with ODNR.

Page 4-163

124. **Prior to the start of construction,** Rockies Express shall file with the Secretary a site-specific crossing, mitigation, and restoration plan for pipeline construction activities in Caesar Creek State Park and Wildlife Area developed in consultation with ODNR and COE. Rockies Express shall also include a plan for maintaining safe public access through the construction area and revegetating the disturbed areas by planting native vegetation. This plan shall be provided to the ODNR and COE.

Page 4-165

125. **Prior to the start of construction**, Rockies Express shall file with the Secretary a site-specific crossing (including the HDD crossing of Deer Creek Lake), mitigation, and restoration plan for pipeline construction activities in Deer Creek State Park and Wildlife Area developed in consultation with ODNR and COE. This plan shall also include provisions for maintaining safe public access through the construction area. This plan shall be provided to ODNR and COE.
126. **Prior to the start of construction**, Rockies Express shall file with the Secretary a site-specific crossing, mitigation, and restoration plan, developed in consultation with the ODNR, for pipeline construction activities in Perry State Forest and Blue Rock State Forest. A copy of this plan shall be provided to ODNR.

Page 4-166

127. **Prior to the start of construction**, Rockies Express shall work with the owners of White Oak Exotic Hunting Preserve to determine construction timing to minimize disruption to their business.

Section 4.10 – Page 4-185

128. Rockies Express shall develop and file with the Secretary **prior to the start of construction** plans for avoidance or mitigation at sites 23PI365 and 23PI294, and documentation of the Missouri SHPO comments on the plans.
129. Rockies Express shall provide quarterly updates on the consultation among Rockies Express, the Missouri SHPO, interested Native American tribes, and the landowner concerning the human remains identified in Missouri, **until the final disposition of those remains is agreed upon**.
130. Rockies Express shall provide an archaeological monitor **during construction** between Missouri State Road AD and the HDD exit point for the Salt River.

Page 4-186

131. Rockies Express shall provide an archaeological monitor **during construction** in the vicinity of the Montezuma Mound Group (11PK1245) from the exit point of the HDD west to a point of infection at approximately MP 69.7.
132. **Prior to the start of construction**, Rockies Express shall file with the Secretary plans for traversing the prehistoric mound sites 11PK89, 11PK1709 and 11PK1733, including measures to avoid and/or protect the sites and documentation of Illinois SHPO comments on the plan.

Page 4-188

133. Rockies Express shall submit research plans to the Indiana SHPO for additional testing in the vicinity of 12FR125b, and file the reports and SHPO comments on the reports with the Secretary for review and written approval by the Director of OEP **prior to the start of construction**.

Page 4-189

134. Rockies Express shall provide an archaeological monitor **during construction** for work in the vicinity of the former mound site 12SH12 from the Van Pelt Ditch to County Road S 25 E.

Page 4-189

135. Rockies Express shall provide the Indiana SHPO the project documents requested to evaluate historic properties and file SHPO comments on the architectural survey reports with the Secretary for review and written approval by the Director of OEP **prior to the start of construction.**

Page 4-190

136. **Prior to the start of construction,** Rockies Express shall file with the Secretary for review and written approval by the Director of OEP a treatment plan for the Wabash & Erie Canal, and the Indiana SHPO comments on the plans.
137. **Prior to the start of construction,** Rockies Express shall file with the Secretary for review and written approval by the Director of OEP a site-specific construction plan for a horizontal bore to cross the Whitewater Canal. The plan shall be developed in conjunction with the Indiana SHPO, and shall describe how the archaeological features associated with the Whitewater Canal would be avoided.

Page 4-192

138. **Prior to the start of construction,** Rockies Express shall file with the Secretary for review and written approval by the Director of OEP the assessment of effects of the Project on the NRHP-listed Hunt-Forman Farm, and as necessary, a treatment plan for the property, and the Ohio SHPO comments on the assessment and plan.

Page 4-194

139. Rockies Express shall provide documentation/alignment sheets showing how site 33FE293 would be avoided or would conduct Phase II evaluation testing. Rockies Express shall file with the Secretary for review and written approval by the Director of OEP the Phase II report and the Ohio SHPO comments on the report, **prior to the start of construction.**

Page 4-198

140. Rockies Express shall develop and file with the Secretary **prior to the start of construction** plans for avoidance or mitigation and documentation of SHPO comments on the plans for sites:
- a. Missouri: 23PI365 and 23PI294;
 - b. Illinois: 11PK1713, 11PK1718, 11PK1599, 11PK1595, 11PK1662, 11PK1664, 11ST544, 11ST547, 11SG1344, and 11M245;
 - c. Indiana: 12DE745, 12DE772, 12DE809, 12DE811, 12DE815, 12FR310, 12FR336, 12FR343, 12FR355, 12FR360, 12FR377, 12FR394, 12FR395, 12FR398, 12FR401, 12FR403, 12HE347, 12JO536, 12MG402, 12PM362, 12VE586;
 - d. Ohio: 33CN433, 33FA1740, 33PE362, 33PE176, 33PE351, 33PE175, 33PE794, 33WA797, 33BU1019.
141. Rockies Express shall defer construction and use of facilities, staging, storage, temporary work areas, and new or to-be-improved access roads until:

- a. Rockies Express files with the Secretary all additional required cultural resource inventory and evaluation reports, avoidance or treatment plans, and any additional information that SHPOs have requested;
- b. Rockies Express files with the Secretary copies of the appropriate SHPO comments on all reports and plans;
- c. The ACHP has been provided an opportunity to comment on whether any historic properties would be adversely affected; and
- d. The Director of OEP reviews and approves all reports and plans and notifies Rockies Express in writing that it may proceed with treatment or construction.

All material filed with the Commission 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 4.11 – Page 4-215

142. **Prior to the start of construction**, Rockies Express shall file with the Secretary for review and written approval by the Director of OEP, a plan indicating measures Rockies Express would implement within the Indianapolis, Indiana and Cincinnati-Hamilton, Ohio-Kentucky-Indiana non-attainment regions to demonstrate and monitor compliance with the Tier 2 and Tier 3 emissions assumed in Rockies Express’ construction emission calculations as well as ensure emissions would remain under the General Conformity Thresholds.

Page 4-222

143. **Prior to the start of construction**, Rockies Express shall file with the Secretary for review and written approval by the Director of OEP updated site-specific plans for each HDD entry or exit site where it proposes to implement noise mitigation as shown in table 4.11.2-1 of the EIS. The updated plans shall identify any noise walls or barriers, equipment locations, equipment barriers, or any other mitigation measures.
144. **Prior to the start of construction**, Rockies Express shall file a noise analysis, for review and written approval by the Director of OEP, for all HDD sites that are not evaluated in the EIS. This analysis shall identify any NSAs within one-half mile of the HDD entry or exit location, and the proposed length of time HDD activities would occur. The analysis shall also include background noise levels and estimated drilling noise contributions at the nearest NSAs at each HDD entry and exit location with NSAs within one-half mile, along with any measures Rockies Express will implement to control noise from the HDDs.

Page 4-224

145. Rockies Express make all reasonable efforts to ensure its predicted noise levels from the Arlington, Bertrand, Mexico, Blue Mound, Bainbridge, Hamilton, and Chandlersville Compressor Stations are not exceeded at nearby NSAs and file noise surveys showing this data with the Secretary **no later than 60 days after placing each of the Arlington, Bertrand, Mexico, Blue Mound, Bainbridge, Hamilton, and Chandlersville Compressor Stations in service**. However, if the noise attributable to the operation of the Arlington, Bertrand, Mexico, Blue Mound, Bainbridge, Hamilton, or Chandlersville Compressor Stations at full load exceeds a DNL of 55 dBA at any nearby NSAs,

Rockies Express shall file a report on what changes are needed and shall install additional noise controls to meet the level **within 1 year of the in-service date**. Rockies Express shall confirm compliance with this requirement by filing a second noise survey with the Secretary **no later than 60 days after it installs the additional noise controls**.

Section 4.12 – Page 4-230

146. Rockies Express shall file with the Secretary and the Sny Levee District the survey results for levee settlement monitoring **every 6 months for a period of 5 years** after installation over the levee.