

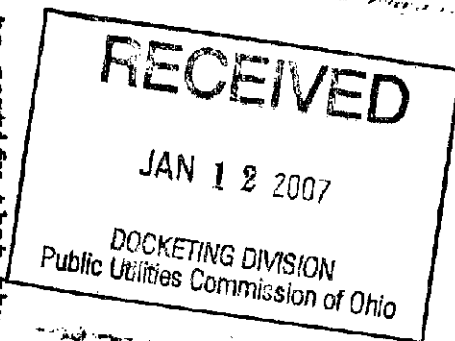


Rockies Express Pipeline

ROCKIES EXPRESS PIPELINE-EAST PROJECT

Resource Report 3 Fish, Wildlife, and Vegetation

Draft



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Prepared by



January 2007

ROCKIES EXPRESS PIPELINE-EAST PROJECT
Rockies Express Pipeline LLC
Resource Report 3

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ROCKIES EXPRESS PIPELINE-EAST PROJECT
Rockies Express Pipeline LLC

3.0 RESOURCE REPORT 3 – FISH, WILDLIFE, AND VEGETATION

The filing requirements from Title 18 of the Code of Federal Regulations (CFR) § 380.12 that are applicable to Resource Report 3 of the Rockies Express Pipeline-East (REX-East) Project are listed in table 3-1, along with the locations where they are addressed in this resource report.

TABLE 3-1 Rockies Express Pipeline-East Project Resource Report 3 Filing Requirements Checklist		
Filing Requirement	Requirement Addressed	Location within this Document
18 CFR § 380.12 (e) Fish, Wildlife, and Vegetation	✓	Section 3.0
18 CFR § 380.12 (e)(1) Fisheries	✓	Section 3.1
18 CFR § 380.12 (e)(2) Wildlife and Terrestrial Habitats	✓	Section 3.3
18 CFR § 380.12 (e)(3) Vegetation	✓	Section 3.2
18 CFR § 380.12 (e)(4) Construction and Operation Impacts on Fisheries, Wildlife and Terrestrial Habitats, and Vegetation	✓	Sections 3.1.3, 3.2.2, and 3.3.2
18 CFR § 380.12 (e)(5) Threatened and Endangered Species	✓	Section 3.4
18 CFR § 380.12 (e)(6) Essential Fish Habitat	✓	Section 3.1
18 CFR § 380.12 (e)(7) Site-Specific Mitigation Measures	✓	Sections 3.1.3, 3.2.2, and 3.3.2
18 CFR § 380.12 (e)(8) Threatened and Endangered Species Correspondence	✓	Appendix 3A

3.1 FISHERIES

The proposed REX-East Project is located outside of the jurisdiction of the National Marine Fisheries Service (NMFS) (Chirarella, 2006). No waterbodies affected by the project contain or have the potential to contain species managed by the NMFS, nor do they support essential fish habitat (EFH) as defined under the Magnuson-Stevens Fishery Conservation and Management Act (Public Law 94-265 as amended through October 11, 1996). Therefore, EFH will not be affected by the project.

3.1.1 Description of Existing Fisheries Resources

The REX-East Project will cross 385 waterbodies, including 197 perennial waterbodies and 188 intermittent waterbodies. The intermittent and perennial waterbodies that will be crossed by the REX-East Project are listed by milepost in Appendix 2A of Resource Report 2.

Table 3.1.1-1 provides the general fish communities, game and commercial fish species occurrence, fishery classifications, and characteristics of fishery management in each of the states crossed by the proposed pipeline route. The two proposed compressor stations located in Wyoming and Nebraska will not affect any waterbodies and, therefore, are not discussed further.

TABLE 3.1.1-1					
Rockies Express Pipeline-East Project Game Fish Species Found in Waterbodies Crossed by the Proposed Pipeline Route					
Species	Spawning Season	Missouri ^a	Illinois ^b	Indiana ^c	Ohio ^d
Bluegill	Mid-Spring to Early Summer	X	X	X	X
Green sunfish	Mid-Spring to Early Summer	X	X	X	X
Orange spotted sunfish	Later Spring to Mid-Summer	X	X	X	X
Longear sunfish	Summer		X	X	X
Redear sunfish	Late Spring to Mid-Summer		X	X	X
Pumpkinseed	Later Spring to Early Summer			X	X
White crappie	Spring to Early Summer	X	X	X	X
Black crappie	Spring	X	X	X	X
Rock bass	Spring	X	X	X	X
White bass	Spring	X	X	X	X
Yellow bass	Spring			X	
Largemouth bass	Mid-Spring to Early Summer	X	X	X	X
Smallmouth bass	Late Spring to Early Summer	X	X	X	X
Spotted Bass	Mid to Late Spring		X	X	X
Yellow perch	Mid-Spring to Early Summer		X	X	X
Walleye	Early to Mid-Spring	X	X	X	X
Sauger	Spring	X	X	X	X
Saugeyes	Spring			X	X
Muskellunge	Early to Mid-Spring		X		
Northern pike	Early to Mid-Spring		X		X
Grass pickerel	Spring			X	X
Channel catfish	Late Spring to Early Summer	X	X	X	X
Flathead catfish	Early to Mid-Summer	X	X	X	X
Blue catfish	Late Spring to Early Summer	X			
Yellow bullhead	Late Spring to Early Summer	X	X	X	X
Black bullhead	Late Spring to Early Summer	X	X	X	X
Brown bullhead	Late Spring to Early Summer		X		X
Paddlefish	Early to Mid-Spring	X	X		
Shovelnose sturgeon	Early to Mid-Spring			X	
^a Missouri Department of Conservation, 2006 ^b Illinois Department of Natural Resources, 2006 ^c Indiana Department of Natural Resources, 2006 ^d Ohio Environmental Protection Agency, 2006					

3.1.1.1 Missouri

The Missouri Department of Conservation (MDC) does not use a formal classification system based on fish community for waterbodies within its jurisdiction. However, based on consultations with fisheries biologists at the MDC, all of the waterbodies that will be crossed by the pipeline route can be described as warmwater (Todd, 2006).

The Missouri Department of Natural Resources (MDNR) manages surface waters for a variety of beneficial uses. The beneficial or designated uses for all of the waterbodies crossed by the pipeline route are provided in Appendix 2A of Resource Report 2. Commercial fishing is regulated by the MDC in the Mississippi and Missouri Rivers as well as in a portion of the St.

Francis River that borders Arkansas. Commercial fishing is prohibited on all other inland waters under the jurisdiction of the MDC (Todd, 2006).

The pipeline route will cross two watersheds in Missouri, the Salt River and the Upper Mississippi River. During survey efforts conducted by the MDC since 1995, 65 fish species have been collected from waterbodies in the Salt River watershed, 17 of which are game fish (Dames and Todd, 2005). The most common species in the watershed include the bluntnose minnow, red shiner, johnny darter, creek chub, redbfin shiner, and green sunfish. A list of game fish collected by the MDC in the Missouri watersheds is provided in table 3.1.1-1.

The Mississippi River (crossed at milepost (MP) 43.1) is the largest river in the United States and contains a varied aquatic habitat that supports a diverse fish community. The river is broken into two watersheds, the Upper and the Lower Mississippi River. The proposed project will cross the river within the portion designated as the Upper Mississippi River watershed. The hydrological alterations to the Upper Mississippi River watershed were caused by the construction of the lock and dam system. This construction created a main channel/backwater complex, which provides habitat for fish species that either prefer or seek to avoid areas with current. There are over 107 species of fish present in the Upper Mississippi River watershed. The most abundant fish species include gizzard shad, emerald shiner, common carp, bluegill, freshwater drum, river carpsucker, white sucker, channel catfish, bigmouth buffalo, white bass, white and black crappie, largemouth bass, and walleye (Schramm, 2003). Commercial fishing has been occurring in the Mississippi River since as early as the mid-1800s (MDNR, 2004). The combined catch of common carp, buffalos, catfishes, and freshwater drum make up over 90 percent of the commercial fish harvest in the Upper Mississippi River watershed (Schramm, 2003). Commercial harvest in the Upper Mississippi River watershed is likely driven more by market demand and selling price than catch rate.

3.1.1.2 Illinois

The waterbodies that will be crossed by the pipeline route in Illinois are within the Illinois River, Sangamon River, Kaskaskia River, Embarras River, and Wabash River watersheds. Although the Illinois Department of Natural Resources (ILDNR) does not have a formal classification for waterbodies based on their fish community, all of the waterbodies that will be crossed can generally be classified as warmwater (Pallo, 2006). Documented game fish species found in the waterbodies crossed by the pipeline route in Illinois are listed in table 3.1.1-1.

Commercial fishing is allowed by the ILDNR on sections of several large rivers affected by the project, including the Mississippi, Illinois, Embarras, Sangamon, and Kaskaskia Rivers (ILDNR, 2006a). Fish that can be harvested by commercial fisherman include catfish, carp, suckers, buffalo, drum, bullheads, redhorses, bowfin, shovenose sturgeon, carp suckers, and gizzard shad.

Within the Illinois River watershed, the pipeline route will cross the Illinois River at MP 71.2, from which about 95 fish species have been collected (ILDNR, 1997a). The Illinois Natural History Survey maintains over 20 electrofishing sites along the Illinois River that it surveys annually. Based on these surveys, the fish species collected most often in the river are gizzard shad, common carp, emerald shiner, bigmouth buffalo, largemouth bass, bluegill, black crappie, white crappies, green sunfish, freshwater drum, and white bass (Warner, 1998).

The ILDNR separates the Sangamon River into two watersheds, the Upper Sangamon and the Lower Sangamon, of which the pipeline route will only cross the Lower Sangamon River watershed. Within this watershed, the pipeline route will cross the South Fork of the Sangamon River (MP 130.6) in Sangamon County. There are 100 fish species that have been collected within the Lower Sangamon River watershed; however, species abundance data is not available (ILDNR, 2003). There are two sections of the main stem of the Sangamon River that have been designated as biologically significant waterbodies by the ILDNR but these segments will not be crossed by the pipeline route (ILDNR, 2003).

Within the Kaskaskia River watershed, the pipeline route will cross the Kaskaskia River at MP 193.3, which is known to contain 112 species of fish; however, species abundance data is not available (ILDNR, 2000a). There are five species found within the watershed on the Illinois list of threatened and endangered fish. A description of threatened and endangered species is provided in section 3.4. Three segments of the Kaskaskia River are listed on the ILDNR biologically significant waterbodies list; however, the pipeline route will not cross these river segments (ILDNR, 2000a).

There are over 90 species of fish known to occur within the Embarras River watershed. The most common species include spotted bass, longear sunfish, slenderhead darter, dusky darter, bluntnose minnow, silverjaw minnow, redbfin shiner, steelcolor shiner, sand shiner, and spotfin shiner (ILDNR, 1998). Three species listed by the ILDNR as threatened or endangered (the bigeye shiner, eastern shiner, and harlequin darter) have been documented within the Embarras River watershed. Two sections of the Embarras River come under the ILDNR biologically significant waterbodies ranking because of the diversity of aquatic species and habitats (ILDNR, 1998). One of these sections, the Embarras River-Camargo, will be crossed at MP 202.7 and is listed by ILDNR in the Illinois Natural Areas Inventory as a significant natural area.

3.1.1.3 Indiana

The waterbodies that will be crossed by the pipeline route in Indiana are within the Wabash River, White River, Big Blue River, and Whitewater River watersheds (Hoggatt, 1975). The Indiana Department of Natural Resources (INDNR) does not have a classification system for the lakes, rivers, or streams within its jurisdiction based on the fish community or waterbody type (Stefanavage, 2006). However, consultations with INDNR fisheries biologists revealed that all of the waterbodies crossed by the pipeline route can be described as warmwater (Long, 2006a).

The Indiana Department of Environmental Management (IDEM) has a classification system for lakes, rivers, and streams that is based on a waterbody's ability to support aquatic life. The IDEM aquatic life classification for all of the waterbodies crossed by the pipeline route are provided in Appendix 2A of Resource Report 2.

The INDNR does not use supplemental fish stockings as a regular management tool to enhance the fish populations within waters under its jurisdiction (Long, 2006a). As detailed in section 312, IAC 9-8-1 to 9-8-6 of the Indiana Administrative Code, commercial fishing is allowed by the INDNR in Lake Michigan, the Ohio River, and the Wabash River, and several of its tributaries (State of Indiana, 2006). Commercial fishing is allowed for species such as carp, buffalo, and catfish but is not allowed for game fish such as largemouth bass, northern pike, or walleye.

The largest watershed in Indiana crossed by the pipeline route is the Wabash River watershed. The pipeline route will cross the mainstem of the Wabash River at MP 246.9 at the border between Vermillion and Parke Counties. The INDNR has documented 116 fish species in the Wabash River and its tributaries (Stefanavage, 2006). Based on INDNR collections, the most abundant species within the Wabash River are gizzard shad, common carp, freshwater drum, steelcolor shiner, flathead catfish, channel catfish, shortnose gar, quillback carpsucker, and golden redhorse. The game fish that have been documented by INDNR field surveys in the waterbodies crossed by the pipeline route are presented in table 3.1.1-1.

Within the White River watershed, the pipeline route will cross the White River at MP 314.2. Fish surveys conducted along the White River in 2003 revealed that the most abundant fish species in the river include smallmouth bass, longear sunfish, bluegill, spotted sucker, northern hog sucker, rock bass, gizzard shad, and common carp.

Within the Big Blue River watershed, the pipeline route will cross the Big Blue River at MP 338.6, which is listed for outstanding river ecology by the IDEM at the pipeline crossing location. The most abundant species in the Big Blue River based on INDNR surveys are central stoneroller, steelcolor shiner, golden redhorse, striped shiner, northern hogsucker, emerald shiner, sand shiner, and big eye chub.

Within the Whitewater River watershed, the pipeline route will cross the Whitewater River at MP 391.1. The most abundant fish in the Whitewater River based on INDNR collections are gizzard shad, golden redhorse, emerald shiner, northern hogsucker, smallmouth bass, shorthead redhorse, spotfin shiner and highfin carpsucker.

3.1.1.4 Ohio

The waterbodies that will be crossed by the pipeline route in Ohio are within the Great Miami River, Little Miami River, Scioto River, Hocking River, and Muskingum River watersheds (Ohio Department of Natural Resources (ODNR), 1999). The Ohio Environmental Protection Agency (OEPA) has a classification system for waterbodies that is based on water quality and aquatic life uses, which takes into account the fish community of the system. The OEPA aquatic life use classification for the waterbodies crossed by the pipeline route are listed Appendix 2A of Resource Report 2. Some of the waterbodies affected by the project have not been assessed by the OEPA and, as a result, these waterbodies do not have a designated aquatic life use classification. A list of all game fish species documented in the waterbodies crossed by the pipeline route in Ohio is presented in table 3.1.1-1.

In Ohio, commercial fishing is allowed in Lake Erie from March 1 to December 31 each year but is not permitted in any other lakes, rivers, or streams within the state (Maloney, 2006).

Within the Great Miami River watershed, the main stem of the Great Miami River will be crossed by the pipeline route at MP 428.4 where it is listed as exceptional warmwater habitat by the OEPA (OEPA, 1996). Based on fish community surveys conducted by the OEPA, the most abundant species in the mainstem of the Great Miami River are golden redhorse, gizzard shad, spotfin shiner, shorthead redhorse, common carp, and longear sunfish (OEPA, 1996). In the tributaries of the Great Miami River, the most abundant species include central stoneroller, bluntnose minnow, creek chub, rainbow darter, and blacknose dace.

Within the Little Miami River watershed, the pipeline route will cross the Little Miami River at MP 448.0 where it is listed as exceptional warmwater habitat by the OEPA (OEPA, 2000). The most abundant species in the Little Miami River and its tributaries based on OEPA surveys are emerald shiner, golden redhorse, gizzard shad, shorthead redhorse, common carp, and northern hogsucker (Mishne, 2006). Based on OEPA fish surveys, game fish are not abundant in the Little Miami River. The OEPA fish surveys have not collected any threatened or endangered fish species in the Little Miami River in recent years (Mishne, 2006).

Also crossed within the Little Miami River watershed is Caesar Creek (MP 456.1). The most abundant fish species in Caesar Creek Lake, located approximately 0.4 mile downstream of the proposed crossing of Caesar Creek, is gizzard shad in terms of numbers and biomass. Other common species in the lake include white and black crappie, bluegill, saugeyes (a walleye/sauger hybrid), white bass, largemouth bass, smallmouth bass, spotted bass, channel catfish, carp, freshwater drum, golden redhorse, and black bullhead (Maloney, 2006). It is expected that species occurring with the lake also use Caesar Creek for spawning or foraging and may be found at or near the crossing location.

Within the Scioto River watershed, the pipeline route will cross the Scioto River at MP 511.1 where it is listed as warmwater habitat by the OEPA (OEPA, 2004a). There have been extensive fish surveys conducted by the OEPA on the main stem of the Scioto River and its tributaries. The most abundant fish species within the main stem of the Scioto River are spotfin shiner, gizzard shad, suckermouth minnow, golden redhorse, longear sunfish, spotted bass, emerald shiner, river carpsucker, shorthead redhorse, and channel catfish (Mishne, 2006). Big Darby Creek (MP 505.7), which also lies within the Scioto River watershed, is one of the most sensitive waterbodies in Ohio (Mishne, 2006; OEPA, 2004a). The most abundant species in Big Darby Creek are spotfin shiner, bluntnose minnow, longear sunfish, golden redhorse, central stoneroller, and gizzard shad. Several darter species that are intolerant of pollution, such as the banded darter, greenside darter, variegated darter, and rainbow darter have been collected in fairly large numbers within Big Darby Creek.

Also within the Scioto River watershed is Deer Creek, which will be crossed at MP 496.2. Gizzard shad are the most abundant fish in Deer Creek Lake, which is approximately 2.3 miles downstream of the proposed crossing of Deer Creek, in terms of numbers and biomass. Other common species in the impoundment include largemouth bass, white bass, saugeye, channel catfish, white sucker, bluegill, common carp, black and white crappie, freshwater drum, and golden redhorse (Carter, 2006). Saugeyes have been stocked annually by the ODNR since at least 1979. During periods of high flow, saugeyes are able to escape Deer Creek Lake and, as a result, have become established in Deer Creek below the dam. This tailwater area below the Deer Creek Lake dam has become an important regional saugeye fishery (Carter, 2006).

Within the Hocking River watershed, the pipeline route will cross the Hocking River at MP 526.8. Sections of the Hocking River are listed as warmwater habitat by the OEPA. However, at the proposed crossing location, the Hocking River is not in attainment of the OEPA warmwater habitat criteria (OEPA, 1997). Based on fish surveys conducted by the OEPA of the Hocking River, the most abundant species are white sucker, creek chub, northern hog sucker, blacknose dace, green sunfish, central stoneroller, greenside darter, spotfin shiner, common carp, and smallmouth bass (Mische, 2006).

Within the Muskingum River watershed, the pipeline route will cross the Muskingum River at MP 573.6. Sections of the Muskingum River are listed as warmwater habitat by the OEPA. However, at the proposed crossing location, the Muskingum River is not in attainment of the OEPA warmwater habitat criteria (OEPA, 2004b). The most abundant species in the Muskingum River are emerald shiner, gizzard shad, spotted bass, orange spotted sunfish, common carp, bluegill, golden redhorse, blunt nose minnow, and channel catfish (Mische, 2006). Excessive sedimentation has led to the predominance of silt substrate and an overall degradation of aquatic habitat in the Muskingum River (OEPA, 2004b).

3.1.2 Fisheries of Special Concern

Fisheries of special concern are defined as important fisheries of exceptional recreational or commercial value, or are those that provide habitat for special status species (i.e., threatened, endangered, or sensitive). Native fish and fisheries are protected in these waterbodies and managed by the MDC, ILDNR, INDNR, and OEPA. Any special listing or habitat status for the waterbodies affected by the REX-East Project is listed in Appendix 2A of Resource Report 2. The potential occurrence of listed or special status fish species in these waterbodies is discussed in section 3.4.

3.1.3 Construction and Operation Impacts and Mitigation

Construction-related impacts on fisheries and aquatic resources will be primarily limited to the period of active construction and are dependant on the physical characteristics of the waterbodies (e.g., flow, bottom substrate, channel configuration, gradient), waterbody crossing methods, and time of year of crossing. Project construction is scheduled to begin June 2008 and is expected to be completed in October 2008. All of the waterbodies crossed by the project are considered warmwater fisheries. Unless otherwise indicated by agency recommendations, in-stream construction will occur between June 1 and November 30 in accordance with the REX-East Wetland and Waterbody Construction and Mitigation Procedures (REX-East Procedures) (see Appendix 1D of Resource Report 1). The proposed compressor stations in Carbon County, Wyoming and Phelps County, Nebraska will not affect any surface waters; therefore, these facilities are not discussed further in this section.

Although engineering analyses and agency consultations are still being conducted, Rockies Express currently proposes to use the open-cut method to cross all intermittent waterbodies and the majority of perennial waterbodies along the REX-East Project pipeline route. Typically, waterbodies less than 10 feet wide will be completed within 24 hours; those between 10 and 100 feet wide, within 48 hours; and those greater than 100 feet, within 7 days. Implementation of the measures included in the REX-East Procedures will further minimize impacts on in-stream biota. These include the following:

- limiting the size of the workspace at the waterbody crossing to the minimum needed to cross the waterbody;
- locating all extra work areas at least 50 feet away from the waterbody;
- limiting the clearing of vegetation between the extra work areas and the edge of the waterbody;

- installing sediment barriers/silt fences between spoil piles and the waterbody;
- maintaining flow rates downstream of the waterbody crossing to ensure protection of aquatic life;
- routing the pipeline in such a manner as to avoid, to the maximum extent possible, multiple crossings of meandering waterbodies;
- storing hazardous materials such as fuel, chemicals, and lubricating oils at least 100 feet away from the waterbody;
- minimizing to the maximum extent possible the number of equipment crossings at each waterbody; and
- restoring stream banks and riparian areas to as near as possible pre-construction conditions or to a more stable condition after crossing is complete.

The open-cut crossing method is typically the quickest crossing method, thereby minimizing the time of active in-stream disturbance. However, there is a potential for direct impacts resulting from the open-cut construction technique including increased sedimentation, substrate removal or alteration, and habitat alteration due to the removal or disturbance of streamside vegetation and other types of cover for fish. The effects of these changes on aquatic biota could include reductions in the abundance and diversity of macrophytes and benthic macroinvertebrate communities, and displacement and possible reductions in fish populations (Reed, 1977; Murphy et al., 1981; Lenart et al., 1981). Reductions in fish numbers could occur if spawning or nursery areas are covered by sediment (Karr and Schlosser, 1978). These impacts will be limited mainly to areas at or just downstream of the trenched area. If construction is completed during a low flow period, sediment-related impacts will be localized. These impacts are generally temporary, lasting only during the period of active in-stream construction.

The predominant land use category affected by the REX-East Project is agriculture, consisting of row crops and pasture (see section 8.1.3 of Resource Report 8). One of the major impacts caused by agricultural land uses is increased turbidity and sedimentation in waterbodies. The prevalence of agricultural land uses across the Midwest has led to a shift in aquatic communities towards species that are tolerant of increased turbidity and sedimentation (Menzel, 1981). Additionally, only very high concentrations of sediment that are rarely encountered in waterbodies directly cause mortality in adult fish (Karr and Schlosser, 1978). The major effect of increased sedimentation on fish is disruption of normal reproduction. When sediments settle, they can cover spawning grounds or eggs, or prevent the emergence of recently hatched fry (Karr and Schlosser, 1978). Spawning seasons for game fish in waterbodies crossed by the pipeline route are provided in table 3.1.1-1. While the exact time of fish spawning is dependant on water temperature, the majority of fish generally spawn in spring or early summer. In accordance with the REX-East Procedures, waterbody crossings will take place between June 1 and November 30. By delaying waterbody crossings until early to mid-summer, and by implementing proper erosion and sedimentation control practices, Rockies Express will minimize impacts on spawning and young-of-the-year fish to the maximum extent possible. While some waterbody crossings may take place during fish spawning activities, the corridor of in-stream disturbance will be narrow and increases in suspended sediments will be

short in duration, which will not result in population level impacts to fish species. Open-cut waterbody crossings may cause direct mortalities to macroinvertebrates in each stream as substrate is removed. However, both fish and macroinvertebrate communities will likely recolonize the disturbed area within 12 months after construction is completed (Reed, 1977).

Commercial fishing is allowed in some form in the REX-East Project area. In Missouri and Ohio, commercial fishing is only allowed in major waterbodies such as the Missouri, Mississippi, and Ohio Rivers, and Lake Erie. Of these waterbodies, the REX-East Project pipeline route will only cross the Mississippi River (MP 43.1). Rockies Express proposes to cross the Mississippi River by using the horizontal directional drill (HDD) method. As a result, there will be no impacts on commercial fish species or commercial fishing activities in the Mississippi River. In Illinois, commercial fishing is allowed in several of the larger inland rivers that will be crossed by the pipeline route, such as the Illinois, South Fork of the Sangamon, Kaskaskia, and Embarras Rivers (MPs 71.2, 130.6, 193.3, and 202.7, respectively). In Indiana, commercial fishing is allowed in the Wabash River (MP 246.9). Rockies Express intends to utilize the HDD method to cross the Illinois and Wabash Rivers. Crossing methods for the South Fork of the Sangamon, Kaskaskia, and Embarras Rivers will be determined based on site-specific constructability concerns. Rockies Express will continue to consult with the ILDNR and INDNR on measures to minimize potential impacts on fish communities and the commercial fishing industry.

Rockies Express is in the process of completing agency consultations, surveys, and engineering analyses to determine waterbodies that will be crossed using the HDD method (see Appendix 2A of Resource Report 2). The HDD method will not disturb or alter aquatic or streambank habitat at crossings where used. Erosion control procedures will be implemented to minimize any sediment input to the river from work areas. The unexpected loss of drilling mud through a natural fracture or weak area in the ground (called a frac-out) could cause localized sedimentation and smothering of benthic communities in the waterbody being crossed. Rockies Express has not yet created its HDD Contingency Plan for the draft Resource Reports. However, this information will be provided with Rockies Express' application.

Potential fuel or other petroleum product spills are not expected to affect aquatic biota or their habitat, since refueling and maintenance activities will be prohibited within a minimum of 100 feet of all waterbodies. Environmental inspectors will inspect the construction areas to ensure that leaks or spills have not occurred at the stream crossings. In order to minimize potential impacts on aquatic biota or their habitat from a spill or leak, Rockies Express will develop a Spill Prevention, Control, and Countermeasures (SPCC) Plan, which will include requirements for training employees that handle fuels and other hazardous materials and ensuring that equipment is in good operating order and inspected on a regular basis.

The pipeline will be hydrostatically tested with water obtained from surface waters, wells, or municipal sources. Hydrostatic testing will be conducted in accordance with withdrawal and discharge permits and is not expected to significantly affect the aquatic habitat of the waterbodies crossed by the pipeline. Following testing, hydrostatic test water will either be discharged to a well vegetated upland area or back to the surface water in accordance with applicable permit requirements. Restoration procedures will involve seeing disturbed areas as described in the REX-East Upland Construction Plan (REX-East Plan) (see Appendix 1C of Resource Report 1). Additional information pertaining to hydrostatic testing is included in Resource Report 2.

3.2 WILDLIFE

3.2.1 Existing Resources

Wildlife species that inhabit areas within the proposed project area are typical of the Level I Eastern Temperate Forest Ecoregion as described by the U.S. Environmental Protection Agency (EPA). This region is described as having a moderate and mildly humid climate, dense and diverse forest cover, high human density, and diverse populations of mammals, birds, fish, reptiles, and amphibians (Commission for Environmental Cooperation, 1997). Wildlife found along the proposed project route is typical of the community type preferred by each species. Predominant communities occurring along the REX-East Project pipeline route include open water, cultivated, forest, herbaceous upland, herbaceous wetland, and developed areas. The proposed project area encompasses potential habitat for a diversity of animal taxa. Important game and nongame species are categorized by primary habitat in table 3.2.1-1.

TABLE 3.2.1-1		
Rockies Express Pipeline-East Project Common Species Associated With Wildlife Habitats Potentially Affected by the Proposed Project		
Habitat Type/Name	Representative Species	Scientific Name
Open Water	River Otter	<i>Lontra canadensis</i>
	Beaver	<i>Castor canadensis</i>
	Mallard *	<i>Anas platyrhynchos</i>
	Wood Duck *	<i>Aix sponsa</i>
	Tundra Swan	<i>Cygnus columbianus</i>
	Great Blue Heron	<i>Ardea herodias</i>
	American Crow	<i>Corvus brachyrhynchos</i>
	American Toad	<i>Bufo americanus</i>
	Snapping Turtle	<i>Chelydra serpentina</i>
Cultivated Land	Virginia Opossum	<i>Didelphis marsupialis</i>
	Coyote	<i>Canis latrans</i>
	Red Fox	<i>Vulpes vulpes</i>
	Long-tailed Weasel	<i>Mustela frenata</i>
	Striped Skunk	<i>Mephitis mephitis</i>
	White-tailed Deer *	<i>Odocoileus virginianus</i>
	Mallard *	<i>Anas platyrhynchos</i>
	Ring-necked Pheasant *	<i>Phasianus colchicus</i>
	Wild Turkey *	<i>Meleagris gallopavo</i>
	Turkey Vulture	<i>Cathartes aura</i>
	Red-tailed Hawk	<i>Buteo jamaicensis</i>
	Horned Lark	<i>Eremophila alpestris</i>
Forest	Virginia Opossum	<i>Didelphis marsupialis</i>
	Silver-haired Bat	<i>Lasionycteris noctivagans</i>
	Coyote	<i>Canis latrans</i>
	Red Fox	<i>Vulpes vulpes</i>
	Bobcat	<i>Lynx rufus</i>
	Striped Skunk	<i>Mephitis mephitis</i>
	White-tailed Deer *	<i>Odocoileus virginianus</i>
	Mallard *	<i>Anas platyrhynchos</i>
	Wood Duck *	<i>Aix sponsa</i>
	Wild Turkey *	<i>Meleagris gallopavo</i>
	Great-horned Owl	<i>Bubo virginianus</i>
	American Toad	<i>Bufo americanus</i>

TABLE 3.2.1-1		
Rockies Express Pipeline-East Project Common Species Associated With Wildlife Habitats Potentially Affected by the Proposed Project		
Habitat Type/Name	Representative Species	Scientific Name
Herbaceous Upland	Virginia Opossum	<i>Didelphis marsupialis</i>
	Coyote	<i>Canis latrans</i>
	Red Fox	<i>Vulpes vulpes</i>
	Long-tailed Weasel	<i>Mustela frenata</i>
	Striped Skunk	<i>Mephitis mephitis</i>
	Mallard ^a	<i>Anas platyrhynchos</i>
	Tundra Swan	<i>Cygnus columbianus</i>
	Ring-necked Pheasant ^a	<i>Phasianus colchicus</i>
	Turkey Vulture	<i>Cathartes aura</i>
	Red-tailed Hawk	<i>Buteo jamaicensis</i>
	Horned Lark	<i>Eremophila alpestris</i>
	American Toad	<i>Bufo americanus</i>
	Virginia Opossum	<i>Didelphis marsupialis</i>
	Silver-haired Bat	<i>Lasiorycteris noctivagans</i>
Herbaceous Wetland	River Otter	<i>Lontra canadensis</i>
	Long-tailed Weasel	<i>Mustela frenata</i>
	Mink	<i>Neovison vison</i>
	Common muskrat	<i>Ondatra zibethicus</i>
	Snowy Egret	<i>Egretta thula</i>
	Osprey	<i>Pandion haliaetus</i>
	Swamp Sparrow	<i>Melospiza georgiana</i>
	Western Chorus Frog	<i>Pseudacris triseriata</i>
	Spring Peeper	<i>Pseudacris crucifer</i>
	Spotted Salamander	<i>Ambystoma maculatum</i>
	Northern Painted Turtle	<i>Chrysemys picta</i>
	Virginia Opossum	<i>Didelphis marsupialis</i>
	Coyote	<i>Canis latrans</i>
	Red Fox	<i>Vulpes vulpes</i>
Developed	Striped Skunk	<i>Mephitis mephitis</i>
	White-tailed Deer ^a	<i>Odocoileus virginianus</i>
	Mallard ^a	<i>Anas platyrhynchos</i>
	Red-tailed Hawk	<i>Buteo jamaicensis</i>
	Mourning Dove	<i>Zenaida macroura</i>
	American Crow	<i>Corvus brachyrhynchos</i>

^a Species with significant recreational or commercial value.

^b Source: NatureServe Explorer, 2006

Significant wildlife habitat areas potentially affected by the project are included in table 3.2.1-2. Detailed information about vegetative communities (including acreage affected) crossed by the proposed route are described in section 3.3. Some of the areas listed in table 3.2.1-2 are managed for purposes other than wildlife resources (e.g., state parks). Those areas are discussed in further detail in Resource Report 8. A discussion of the wildlife communities of the significant habitat areas crossed by the proposed pipeline route follows.

Rockies Express Pipeline-East Project
Resource Report 3 – Fish, Wildlife, and Vegetation

TABLE 3.2.1-2			
Rockies Express Pipeline-East Project Significant or Sensitive Wildlife Habitats Crossed by the Proposed Pipeline ^a			
State / County	Mileposts	Habitat Type/Name (owned/managed by) ^b	Crossing Length (feet) ^c
MISSOURI			
Pike	42.6-42.9	Upper Mississippi – Ted Shanks Conservation Area (Missouri Department of Conservation (MDC))	TBD
ILLINOIS			
Douglas	202.7	Embarras River: High Quality River System (Illinois Department of Natural Resources)	TBD
INDIANA			
Parke	257.9 - 258.1	Quality Upland Mesic Forest (Unknown)	TBD
OHIO			
Warren	448.2-448.3	Little Miami Scenic State Park (Ohio Department of Natural Resources (ODNR))	TBD
Warren	448.0	Little Miami River: National Wild and Scenic River, High Quality Watershed (National Park Service)	TBD
Clinton	456.0-456.1	Caesar Creek State Park (ODNR)	TBD
Clinton	456.1-456.3	Caesar Creek Wildlife Area (ODNR)	TBD
Fayette, Pickaway	496.4-497.3	Deer Creek State Park (ODNR)	TBD
Fayette, Pickaway	495.5-496.5	Deer Creek Wildlife Area (ODNR)	TBD
	497.3-497.4		
Pickaway	505.7	Big Darby Creek: National Wild and Scenic River, High Quality Watershed (National Park Service)	TBD
Perry	554.8-555.1	Perry State Forest (ODNR)	TBD
	555.3		
	555.1-556.3		
Muskingum	578.1-579.1	Blue Rock State Forest (ODNR)	TBD
Belmont	625.0-626.3	Raven Rocks (Raven Rocks, Inc.)	TBD
	626.5-626.9		
Belmont	626.5-626.6	High Quality Hemlock-Hardwood Forest (Raven Rocks, Inc.)	TBD
Belmont	626.5-626.6	and Non-Calcareous Cliff Community (Raven Rocks, Inc.)	TBD
^a Significant and sensitive habitats include those that provide breeding, rearing, nesting, migratory, or overwhelming cover or forage areas. This table does not include habitat for listed species. Refer to section 3.4 for coverage of these habitats. ^b Information from Natural Heritage Databases provided by MDC, Illinois Department of Natural Resources, INDNR, and ODNR. ^c TBD = to be determined. This information will be provided with Rockies Express' application.			

Many of the bird species that potentially in the REX-East Project area are migratory. Migratory birds are those species that breed in Canada and the United States during the summer, and then spend the winter in Mexico, Central or South America, or the Caribbean Islands (Smithsonian, Not Dated). Many bird species pass through the proposed project area during migration to and from tropical regions. Additionally, some migratory bird species may nest within the project area during the breeding season. The Upper-Mississippi-Shanks Conservation Area is an important resource for migratory birds. According to the MDC, the Mississippi River corridor is the longest and most traversed migratory route for birds in the Northern hemisphere (Missouri/Mississippi, 2005). Habitats along the waterway attract ducks, geese, shorebirds, large wading birds, raptors, warblers, and other songbirds (Missouri/Mississippi, 2005). These conservation areas are leased and managed by the MDC (MDC, 2006).

The Scioto River, in Pickaway County, Ohio, supports a Great Blue Heron Rookery, which has been identified by the Natural Heritage Inventory (NHI) as existing within 1 mile south of the proposed pipeline crossing location. Herons inhabit rookeries to enhance their ability to avoid predation by populating as many as 135 nests. Nests are built in tall treetops adjacent to feeding areas and away from human disturbance. The Scioto River provides suitable feeding habitat in the vicinity of the proposed pipeline crossing location, which may increase the potential for individuals to nest within the project area. Herons migrate to areas with unfrozen waters in the winter, and may return to Ohio as early as February. Rookeries are protected by the Migratory Bird Treaty Act, which prohibits the removal of active nests and activities in the immediate vicinity of nests that may cause the abandonment of nest sites. Herons are easily disturbed by noise and activity near nest sites. Disturbance may disrupt the breeding process or the successful reproduction of young herons.

Perennial and intermittent waterbodies are crossed at various locations along the REX-East Project pipeline route. Some of these waterbodies support limited wetland and riparian vegetation that provides valuable habitat for a number of local vertebrate and invertebrate species. Perennial waterbody crossings are discussed in Resource Report 2. Aquatic resources within these waterbodies are discussed in section 3.1.

3.2.2 Construction and Operation Impacts and Mitigation

General construction-related impacts on wildlife will be caused primarily by habitat removal and, to a lesser extent, human activity in the project area. Long-term impacts from habitat alteration will be minimized, however, by adherence to the REX-East Plan and Procedures (see Appendices 1C and 1D of Resource Report 1, respectively). Impacts on federally listed and candidate species as well as state-listed species are discussed in section 3.4.

Construction of the proposed project will affect vegetation within all project work areas, which will in turn temporarily displace local wildlife. Removal of local habitat is not expected to have a population level effect on wildlife because habitats crossed represent a small portion of habitat available to wildlife species throughout the area of the proposed project. Effects of removal of herbaceous vegetation will be temporary as these areas will be reseeded with vegetation adapted to the region when construction is complete, in accordance with the REX-East Plan, and are expected to return to preconstruction condition the year following construction. Disturbance of cropland will occur within the construction right-of-way and temporary extra workspaces. In cultivated cropland, disturbance will be temporary and re-vegetation will be performed when crops are re-planted by the landowner or tenant.

Some areas of the REX-East Project pipeline route will require blasting, which may have temporary impacts on local wildlife. Potential for significant amounts of blasting occurs in Pike County, Missouri, Franklin County, Indiana, and Fairfield, Noble, Monroe, Perry, Muskingum, Guernsey, and Belmont Counties, Ohio. As such, blasting has the potential to affect habitats and resources in those counties. In general, potential effects of blasting on local wildlife populations include temporary displacement as a result of noise disturbance, and possible nest abandonment as a result of the activity's proximity to nesting birds. Rockies Express anticipates the return of local wildlife to areas near blasting sites upon project completion. The locations where blasting may be required is included in Resource Report 6.

Removal of trees and shrubs will result in a long-term reduction of these vegetation types for wildlife resources. Although it is anticipated that woody species will eventually re-establish within the areas disturbed during project construction, a permanent right-of-way (i.e., 50 feet wide) will be maintained free of large trees and shrubs during pipeline operation. A permanent, non-vegetated right-of-way maintained in a forested area may result in the fragmentation of important forest communities. Forest fragmentation may negatively affect certain species by reducing total habitat area, increasing vulnerability during dispersal to other fragments, isolating populations, and increasing edge effects such as changes in microclimate or vulnerability to external competition and predation (Chesapeake, Not Dated). Wherever feasible, Rockies Express has collocated the proposed pipeline with existing utility corridors. In these areas, construction and maintenance of the project's right-of-way will only reset the existing edge rather than create a new corridor, thereby removing the potential effects of forest fragmentation. Additionally, very few of the species that are year-round residents in the project area prefer only large tracts of unbroken forest; nearly all of the species found in the project area are well adapted to edge or open habitats. Consequently, although clearing may have a long-term impact on forest vegetation, the effect on wildlife will be incremental and is not expected to be significant.

In order to minimize impacts on sensitive habitats and managed lands, Rockies Express will continue to consult with state and federal agencies.

Direct impacts on game species (e.g., white-tailed deer, ducks, pheasants) will include a temporary reduction of potential forage and cover. However, this temporary reduction represents a small fraction of the available vegetation within the project region. Indirect impacts on big game species will include impacts caused by increased human activity, augmented noise levels, dispersal of noxious and invasive weeds, and dust effects from unpaved road traffic. Big game species temporarily displaced by construction will likely return to the area upon completion of the project, when noise levels and human activity have decreased. Small game species will incur the same impacts as big game species except that limited mortalities may result during construction.

Rockies Express anticipates minimal impacts on nongame species from loss of potential breeding and foraging habitat and available cover. This impact assessment is based on the incremental disturbance of the upland habitats crossed by the pipeline route relative to the abundance of similar habitats in surrounding areas. With the exception of forested areas, impacts on habitats will be temporary, as the construction right-of-way will be reseeded and revegetated in accordance with the REX-East Plan. Impacts on wetland and riparian habitat will be minimized by adherence to the REX-East Procedures.

Potential impacts on waterfowl include the short-term loss of foraging habitat (i.e., open water and wetlands), and increased dispersal from the project area due to additional human presence. Trenching may result in the direct removal of riparian vegetation, which could affect wildlife associated within this habitat type. The extent of potential impacts on nesting birds will be dependent on the timing of construction activities relative to the breeding season. Impacts on riparian habitat as a result of trenching may be minimized through adherence to the REX-East Plan and Procedures. Potential impacts on waterbodies containing only emergent riparian vegetation are anticipated to be minimal, due to methods listed in the REX-East Procedures. Regrowth of riparian vegetation could take 1 to 3 years.

Pipeline trenching activities and associated spoil piles may result in a short-term barrier to movement of some wildlife species. During clearing and grading activities, more mobile wildlife species will be able to avoid the construction area. Animals with limited mobility (i.e., invertebrates, small mammals, bird nestlings, and some amphibians and reptiles) may incur limited mortalities. These effects will cease after construction and Rockies Express does not anticipate that the project will alter the local wildlife populations.

Since some construction along the REX-East Project pipeline right-of-way is planned to occur during the breeding season, migratory birds may be affected. Impacts on migratory birds could include disruption of mating and breeding, destruction of nest and associated direct mortality of nestlings, and disruption of care for young. Many of the migratory birds with the potential to occur along the project route tend to avoid edge habitats due to higher relative predation and nest parasitism common along edges. Since much of the proposed pipeline route follows existing corridors, relatively minor amounts of vegetation clearing will be necessary, and much of the clearing that is necessary will occur along existing habitat edges. Following construction, a corridor will be maintained in a herbaceous state for the life of the pipeline. In order to limit impacts on nesting birds, routine vegetation maintenance will not occur more frequently than every 3 years and will not occur between April 15 and August 1 of any year in accordance with the REX-East Plan. Overall, the potential for impact on migratory birds is limited and Rockies Express does not anticipate any negative population-level impacts will be incurred by migratory bird species.

Current and ongoing consultations with the FWS and the appropriate state agencies will include evaluations of the potential impacts of the proposed project on habitat quality and quantity. Agency recommendations regarding species-specific habitat concerns for threatened and endangered species are described in section 3.4.

Construction and operation of the aboveground facilities associated with the project will result in the permanent loss of habitat that will permanently displace local wildlife. Impacts of aboveground facilities on vegetation communities are further discussed in section 3.3.2.

3.3 VEGETATION

Vegetation communities affected by the facilities associated with the REX-East Project, including the pipeline, temporary extra workspaces, and aboveground facilities were identified using USGS Land Use and Land Cover Data (LULC) (USGS, 2006) and recent (2005) aerial photography.

3.3.1 Existing Resources

Rockies Express analyzed the distribution of vegetative land cover types in the project area, as defined by the USGS Land Cover Institute (LCI) (USGS, 2006). The major vegetation types that will be crossed by the pipeline route include cultivated, forested, and herbaceous. Areas classified as barren and open water are not described as areas with significant vegetative cover and, therefore, are not discussed in this report; they are further described according to waterbody or wetland type or land use type in Resource Reports 2 and 8, respectively.

Cultivated lands are vegetated areas primarily used to produce row crops. These lands comprise 384.5 miles, or approximately 61 percent, of the vegetation traversed by the proposed pipeline route. These lands are characterized by herbaceous vegetation that has been planted

or is intensely managed for the production of food, feed, or fiber (USGS, 2006). The majority of the cropland in the counties crossed by the pipeline route include, but are not limited to, irrigated (center-pivot or flood) and non-irrigated winter wheat, wheat, corn, and soybeans (USDA, 2005).

Forest lands include deciduous, evergreen, and mixed forest types, and woody wetlands, which comprise approximately 105.1 miles and 16.5 percent of areas within the proposed project corridor. These communities are scattered throughout the landscape and may occur in fragmented patches or in more contiguous stands, particularly in Ohio. This vegetative type is characterized by areas with trees greater than 20 feet tall that account for greater than 25 percent of the cover (USGS, 2006). Deciduous forests are represented by greater than 75 percent dominance by tree species that shed foliage seasonally. These include species of elm, ash, hickory, birch, maple, cherry, cottonwood, oak, willow, or poplar (MDC, 2004; ODNR, 2006a). Evergreen forests maintain a green canopy year-round, due to greater than 75 percent dominance by needled species. These include species of pine, spruce, or cedar (MDC, 2004; ODNR, 2006a). Mixed forests are those with neither deciduous nor evergreen species representing more than 75 percent of the cover (USGS, 2006). Forested wetlands are present along the proposed project and are further discussed in Resource Report 2.

Herbaceous vegetation comprises approximately 143.3 miles, or 22.5 percent, of the vegetative cover type within the proposed project area. This cover type occurs in upland grasslands, emergent wetlands, ditches, road and railroad rights-of-way, pipeline and power line utility corridors, fallow fields, and areas used for the production of hay and small grains. Upland grasslands are characterized by natural or semi-natural herbaceous vegetation, accounting for 75 to 100 percent of the cover. Native upland species potentially occurring along the pipeline route include, but are not limited to, wild onion, lead plant, butterfly weed, coreopsis, larkspur, little bluestem, prairie dropseed, Indian grass, and aster species (MDC, 2004). Herbaceous wetlands include palustrine emergent wetlands, where 75 to 100 percent of the cover is represented by herbaceous perennials and the soil is periodically or permanently saturated. Dominant wetland species include sedge, bulrush, narrow-leaved cattail, common cattail, common arrowleaf, swamp rose, bald cypress, swamp cottonwood, pumpkin ash, and reed species. Previously disturbed areas, some of which have been re-vegetated either naturally or by reclamation, are also considered herbaceous. Most roads and railroads are devoid of vegetation with the exception of adjacent ditches. Utility corridors are primarily dominated by native and introduced, early successional species due to site management and vegetation maintenance. Residential areas are typically dominated by manicured landscapes composed mainly of Kentucky bluegrass and scattered trees. Industrial and commercial areas are typically devoid of natural vegetation with the exception of some weedy species.

Sensitive, unique, or protected vegetative communities that are managed by the MDC, ILDNR, INDNR, ODNR, and FWS and that provide habitat to known occurrences of protected wildlife and plant species are discussed in section 3.4. Wildlife preserves and other designated significant or sensitive wildlife habitat along the pipeline route are listed in table 3.2.1-2. Areas designated as significant or sensitive are described in detail in section 8.3 of Resource Report 8.

3.3.2 Construction and Operation Impacts and Mitigation

Construction and operation activities will affect vegetation communities in several ways including compaction of herbaceous material due to construction equipment, trampling, partial

removal of aboveground plant cover, and long-term removal. Clearing, trenching, grubbing, blading, and vegetation trampling may occur within the proposed project area. Impacts on vegetation associated with the proposed project area can be classified as short-term, long-term, or permanent. Temporary and permanent impacts on the vegetation cover types as a result of the project are listed in table 3.3.2-1. Rockies Express has not yet finalized the locations and dimensions of all additional temporary workspace areas and aboveground facilities for its draft Resource Reports. However, this information will be provided with Rockies Express' application.

In order to minimize impacts on cultivated lands, Rockies Express is developing an AIMA based in consultation with state and local agencies, such as the Illinois Department of Agriculture and state and local farm bureaus. The AIMA is included in Appendix 1E of Resource Report 1. To minimize environmental impacts and promote site stabilization and revegetation, Rockies Express will follow construction procedures detailed in the REX-East Plan and Procedures

Temporary vegetation impacts associated with construction activities will occur within the 125-foot-wide construction right-of-way and additional temporary workspaces. In herbaceous wetlands, Rockies Express intends to "neck-down" to a 100-foot-wide construction right-of-way in order to limit the extent of impacts from the project. Rockies Express will consult with local soil conservation authorities for recommendations pertaining to revegetation in non-agricultural areas, and will adhere to site-specific recommendations regarding seeding requirements, applications of fertilizers, and the use of soil pH modifiers. Areas disturbed by the project will be seeded as described in the REX-East Plan or with seed mixtures recommended by the local soil conservation authorities, in accordance with recommended rates of dispersal and planting timeframes. In residential and commercial areas, Rockies Express will restore all turf, ornamental shrubs, and specialized landscaping, in accordance with the landowner's request.

As stated in the REX-East Plan and Procedures (see Appendices 1C and 1D of Resource Report 1, respectively), monitoring of revegetation success in upland areas will be implemented during the first and second growing seasons following pipeline construction. Monitoring of wetland revegetation will be conducted annually for the first 3 years after construction or until wetland vegetation is successful. Revegetation will be considered successful if the density and cover of non-nuisance vegetation are similar in density and cover to adjacent undisturbed lands.

Long-term vegetation impacts associated with pipeline construction activities will occur within the permanent right-of-way in forested wetlands and upland forests. Rockies Express will allow the temporary workspaces to revert to preconstruction conditions, as such, mid-story and canopy species will be allowed to reestablish. Assuming successful revegetation, all other vegetation types will resemble undisturbed areas of a similar type in the local vicinity. In a letter dated June 28, 2006, the INDNR commented that construction should be avoided in wooded riparian corridors and that Rockies Express will be required to mitigate for impacts on trees located within the project corridor (see Appendix 3A). Rockies Express will continue to work with the INDNR and other applicable state and federal agencies to develop measures to avoid or minimize potential impacts on riparian areas, forested wetlands, and other public forests.

Permanent impacts include those that result from operational and maintenance activities associated with the 50-foot-wide permanent right-of-way and all aboveground facilities where

vegetation types will be converted to commercial/industrial land. Vegetation in the permanent right-of-way will be maintained in an herbaceous state by mowing, cutting, and trimming in all areas except active agricultural areas and wetlands. Within forested wetlands, trees 15 feet tall or greater within 15 feet of the pipeline centerline may be removed from the permanent right-of-way to facilitate pipeline monitoring and maintenance activities. To facilitate periodic pipeline maintenance activities in scrub shrub wetlands, Rockies Express may maintain a 10-foot-wide strip centered over the pipeline in an herbaceous state as per the REX-East Procedures. The right-of-way will be allowed to re-vegetate; however, large brush and trees will be periodically removed as described in the REX-East Plan and Procedures.

Rockies Express proposes to construct seven new compressor stations. Each facility will permanently occupy approximately 15 acres of land. Rockies Express also proposes to construct 20 meter stations, which will be placed adjacent to roads whenever possible to minimize the acreage required to construct and operate the facility. Rockies Express has not yet identified the exact construction and operational land requirements for the meter stations for its draft Resource Reports. This information will be provided with Rockies Express' application in April 2007.

Additionally, 43 mainline valve sites will be installed along the pipeline route. Each mainline valve will affect about 0.06-acre of land, however, they will typically be constructed and operated within the proposed compressor station sites or the permanent right-of-way. Four pig launchers and four pig receivers will be also constructed and operated within five of the proposed compressor stations and, therefore, will not result in additional vegetation impacts.

3.3.2.1 Noxious Species

Subsequent to ground disturbance from construction, vegetation communities may be susceptible to infestations of noxious species. These species are most prevalent in areas of prior surface disturbance, such as agricultural areas, roadsides, existing utility rights-of-way, and wildlife concentration areas. As stipulated by the REX-East Plan, soils imported to agricultural and residential areas will be certified as free of noxious weeds and soil pests, and only weed-free straw or hay will be used to construct sediment control devices or used as mulch applications. Title 7 Code of Federal Regulations Part 360 contains a list of federal noxious weeds, including 19 aquatic or wetland weeds and 72 terrestrial weeds (USDA, 2000).

Each state is mandated to uphold the federal rules and regulations regarding weeds, and manage their lands accordingly. In addition to federal noxious weed lists, each state affected by the proposed project maintains a list of regulated and prohibited noxious weed species. In general, state laws prohibit the planting or distribution of plants listed as noxious within each state (USDA, 2000). During the Ohio interagency meeting held on June 22, 2006, the ODNR commented that areas affected by construction, including stream banks, should be revegetated with native species (see Appendix 3A). Rockies Express will continue to coordinate with the ODNR and other applicable agencies to determine stream bank restoration methodologies.

Despite efforts to prevent the spread of noxious weeds, it is possible that pipeline construction, operation, and maintenance activities (e.g., ground surveillance and routine checks of aboveground facilities) will increase the prevalence of noxious weeds along the pipeline route right-of-way, or that weeds will be transported into areas that were relatively weed-free prior to construction. Rockies Express will evaluate the presence of noxious weeds

in the project area and will consult federal, state, and local agencies concerned with the containment of noxious plant material. Rockies Express will include the recommended seed mixtures into project planning and will develop specific procedures, as necessary, to prevent the introduction or spread of noxious weeds and soil pests resulting from construction and restoration activities.

3.3.2.2 Sensitive Vegetative Communities

The Conservation Reserve Program (CRP) and the Wetland Reserve Program (WRP) offer landowners the opportunity to protect, restore, and enhance specified portions of their property (NRCS, 2001; NRCS, 2005). Rockies Express anticipates that lands enrolled in these programs will likely occur throughout the proposed REX-East Project, and will be identified during the land acquisition process. These areas are further described in section 8.1.3.1 of Resource Report 8.

Rockies Express will attempt to minimize the amount of crossings scheduled to occur in high quality areas, state managed areas, conservation areas, or other designated sensitive vegetation communities. Where these areas can not be avoided, Rockies Express will consult with the appropriate land management authority to determine suitable crossing methods. If crossed, Rockies Express will restore sensitive areas to the extent possible in accordance with the REX-East Plan and Procedures.

3.4 THREATENED AND ENDANGERED SPECIES

As the lead federal agency, the Federal Energy Regulatory Commission (FERC or Commission) is responsible for compliance with the section 7 (of the Endangered Species Act (ESA)) consultation process with the FWS. However, in accordance with section 380.13(b) of the FERC's Order 603, the project sponsor is designated as the FERC's non-federal representative for purposes of informal consultation with the FWS. As such, Rockies Express has consulted with the FWS and various state agencies regarding potential impacts of pipeline construction on federally and state-listed species. Rockies Express has not yet finalized the locations and dimensions of all additional temporary workspace areas and aboveground facilities for its draft Resource Reports. However, Rockies Express will assess these areas for potential effects to sensitive species, and will include this information with Rockies Express' application in April 2007. This assessment will include a determination of potential impacts on sensitive resources due to the construction and operation of two compressor stations at Arlington, Wyoming, and Bertrand, Nebraska. A summary of discussions held to date, and the resulting assessment of potential impacts, are included below.

3.4.1 Federally Listed Species

3.4.1.1 Consultation Summary

Rockies Express consulted with state and federal agencies to determine the potential presence of special status species throughout the project area. Initial consultation with the Natural Heritage Inventory (NHI) databases of Missouri, Illinois, Indiana, and Ohio provided locations of known species occurrences, as well as sensitive or significant natural resource areas including state parks, state forests, and nature preserves located on or adjacent to the pipeline route (MDC, 2006; ILDNR, 2006b; INDNR, 2006b; ODNR, 2006b). Rockies Express reviewed NHI data along with online resources to determine occurrence potential for each listed

species based on habitat requirements and/or known distribution. Rockies Express then conducted a preliminary review of habitat types in the vicinity of the project to determine which species could be affected by project activities as well as to determine which species will require surveys to determine presence/absence.

Rockies Express has provided its summary comments on plant and animal species listed as federally threatened or endangered to the FWS Ecological Services Field Offices (ESO) of Columbia, Missouri; Marion, Illinois (designated as the lead office for the Illinois portion of the project); Bloomington, Indiana; and Reynoldsburg, Ohio. During a follow-up discussion held on September 14, 2006, the Columbia ESO concurred with species occurrence summaries and potential project-related impacts as anticipated by Rockies Express (Scott, 2006). Comments received from the Marion Illinois ESO, in a letter dated August 3, 2006, generally concur with proposed survey methodology and with the species list, with the addition of the spectaclecase mussel (FWS, 2006a). Comments received from the Bloomington ESO, in a letter dated August 4, 2006, agreed with the list of species and amended proposed survey procedures for the Indiana bat (FWS, 2006b). Subsequent communications have resulted in the development of the Indiana Bat Survey Plan, which incorporates recommendations provided by all four FWS offices that will be implemented project-wide. In a letter dated August 7, 2006, the Reynoldsburg ESO confirmed their agreement with the species list for Ohio and requested the project also consider three candidate species (FWS, 2006c). The Ohio FWS will require that all species-specific surveys in Ohio be completed in coordination with the Reynoldsburg ESO. Based on this correspondence, Rockies Express anticipates that 12 plant and animal species federally listed as threatened or endangered, or considered candidates for listing could occur within the project area. Copies of agency correspondence are provided in Appendix 3A.

Through ongoing consultation with the FWS, Rockies Express has received general concurrence with the proposed list of potential impacts and will continue to incorporate suggestions for further action. Rockies Express has reviewed aerial photographs to identify areas with habitat capable of supporting species that are federally listed as threatened or endangered, or are candidates for listing, and has proposed surveys to determine if listed species are present within the project area, as applicable. The results of the habitat review is summarized in table 3.4.1-1.

As agreed upon by the FWS, Rockies Express began field surveys in fall 2006 and will continue these surveys through spring 2007 to complete a preliminary habitat assessment of the project area. Results of this effort will include identification of potential habitat areas for federally listed species, and will be submitted upon completion to the FWS for review. Rockies Express will consult with the FWS to determine locations and species meriting species-specific surveys to be conducted in summer 2007 by qualified biologists. Rockies Express will adhere to the measures in its REX-East Plan and Procedures to restore all habitats to their original condition or as near as practicable.

Rockies Express Pipeline-East Project
Resource Report 3 – Fish, Wildlife, and Vegetation

TABLE 3.4.1-1

Rockies Express Pipeline-East Project Federally Listed Endangered, Threatened, and Candidate Species Potentially Occurring in the Proposed Project Area			
Species	Status	State: Potential Occurrence *	Basic Habitat Association
BIRDS			
Bald Eagle (<i>Haliaeetus leucocephalus</i>)	T	MO, IL, IN, OH: Riparian forest of large rivers along entire route. Known near MP 313.8.	Requires perch sites in large trees near or along shorelines of lakes, rivers, or reservoirs. Concentrates in forested areas near water. Prefers areas with limited human activity.
MAMMALS			
Indiana bat (<i>Myotis sodalis</i>)	E	MO, IL, IN, OH: Forested stands along entire route.	Roosts in snags or trees with sloughing bark, split tree cavities; forages within open forest corridors, along forest edges, floodplain forests, wetlands, or other waterbodies.
MUSSELS			
Clubshell (<i>Pleurobema clava</i>)	E	OH: Perennial waterbodies in Greene, Pickaway, and Fairfield Counties. Known near MP 360.0 and in Walnut Creek, Sugar Creek, Flatrock River, Scioto River, and Deer Creek State Park.	Clean loose sand and gravel in medium to small waterbodies. Known to bury itself in clean sand to a depth of 2 to 4 inches.
Northern Riffleshell (<i>Epioblasma torulosa rangiana</i>)	E	OH: Perennial waterbodies in Pickaway County. Known in Scioto River and Big Darby Creek.	Found in small to large waterbodies, preferring runs with bottom substrates of firmly packed sand and fine to coarse gravel.
Fanshell (<i>Cyprogenia stegaria</i>)	E	OH: Perennial waterbodies in Muskingum County.	Medium to large waterbodies, in sand or gravel substrates of deep waters with moderate current.
Fat Pocketbook (<i>Potamius capax</i>)	E	MO: Perennial waterbodies in Pike and Ralls Counties.	Prefers sand, mud and fine gravel bottoms of larger waterbodies. Can be found in water depths ranging from only a few inches up to 8 feet.
Rayed Bean (<i>Villosa fabalis</i>)	C	OH: Headwater creeks in Warren and Pickaway Counties.	Known from smaller headwater creeks but has been found in large waterbodies. Substrates include gravel and sand in or near riffle areas or shoals. Individuals are often found buried among the roots of vegetation.
Spectaclecase (<i>Cumberlandia monodonta</i>)	C	IL: Mississippi River.	Known in project vicinity from Mississippi River only. Primarily a large river species found in a variety of substrates including mud, sand, gravel or cobble. Usually found in quiet areas sheltered from but very near to the interface with swift current areas.
PLANTS			
Running Buffalo Clover (<i>Trifolium stoloniferum</i>)	E	OH: Moderately open areas in Warren County.	Habitat generalist; requires moderate disturbance and partial shade.
Decurrent False Aster (<i>Boltonia decurrens</i>)	T	MO: Pike County. IL: Pike and Scott Counties.	Disturbed alluvial ground bordering sloughs, ditches, ponds, waterbodies, and the Mississippi and Illinois Rivers. Open muddy shores of floodplain forests.
Eastern Prairie Fringed Orchid (<i>Platanthera leucophaea</i>)	T	IL: Appropriate habitat statewide.	Requires full sunlight; inhabits tall grass calcareous silt loam or sub-irrigated sand prairies. Calcareous wetlands at the eastern edge of its range, including fens, sedge meadows, and marshes.
Prairie Bush Clover (<i>Lespedeza leptostachya</i>)	T	IL: Appropriate habitat statewide.	Mesic native prairies; usually found on well drained gravelly areas, including slopes and river terraces.

TABLE 3.4.1-1			
Rockies Express Pipeline-East Project Federally Listed Endangered, Threatened, and Candidate Species Potentially Occurring in the Proposed Project Area			
Species	Status	State: Potential Occurrence ^a	Basic Habitat Association
^a Species may inhabit counties listed on the U.S. Fish and Wildlife Service website, http://www.fws.gov . Specific locations of species occurrences are recorded in the Natural Heritage Database/Inventory and are provided by the Missouri Department of Conservation, and the Illinois, Indiana, and Ohio Department of Natural Resources.			
T = Threatened E = Endangered C = Candidate for listing as Threatened or Endangered			

3.4.1.2 Species Descriptions

Bald Eagle

The federally threatened bald eagle has known populations in areas along the pipeline route. This raptor, previously endangered, was downlisted to federally threatened on July 12, 1995, and the FWS currently proposes to delist the bald eagle in the lower 48 states (DOI, 2006). Bald eagles could potentially nest, migrate, or roost throughout the project area, although distribution of this species varies seasonally.

The bald eagle has known populations in Pike and Ralls Counties, Missouri where they are likely to overwinter from November 15 to March 15 and may also be casual summer residents (MDC, 2006). In Illinois, eagles overwinter in Pike, Scott, Morgan, Sangamon, Christian, and Moultrie Counties (ILDNR, 2006b). In addition to being listed as occurring statewide in Indiana, the FWS (2006b) specifically identified the Wabash River (MP 246.9), Sugar Creek (MP 335.7), Raccoon Creek (MP 269.4), Big Walnut Creek (MP 280.9), and the White River (MP 314.2) as areas containing disproportionate amounts of habitat or nests. The riparian area of the Wabash River in the vicinity of the project also serves as important wintering habitat. Bald eagles may overwinter and/or casually reside through the summer in Pickaway, Muskingum, Guernsey, and Noble Counties in Ohio (FWS, 2006c). Nesting populations have been identified in Morgan County, Indiana, where breeding pairs may maintain a nest site between February 1 and June 31. In addition to known sites, bald eagles could potentially establish new breeding territories and/or nest sites within the project area, primarily in forested areas located near rivers and other large waterbodies.

During the breeding season, bald eagles establish and defend territories, with mated pairs generally returning to the same breeding territory each year. Human interference during the production and chick-rearing life stages can cause premature abandonment of young and juvenile offspring. Bald eagles migrate from breeding areas between September and December and generally winter as far north as open water and food are available (FWS, 2006d). Wintering bald eagles may gather in large aggregations and share communal roosts, diurnal perches, and feeding areas.

Rockies Express has coordinated with the FWS and state agencies regarding known and currently monitored bald eagle nesting locations. These agencies identified bald eagle nests along the route near Blackburn Island (MP 43.1), and along the Wabash and White Rivers (MPs 246.9 and 311.2, respectively). Rockies Express will conduct species-specific surveys

during the nesting season in 2007 and as necessary ahead of construction in 2008 in areas having known nests or suitable nesting habitat, to determine if bald eagle nests are present and active. If active nests are identified within 1 mile of the proposed construction right-of-way, Rockies Express will consult with the FWS to develop conservation measures to avoid or minimize impacts on eagles and eagle nests. Measures may include temporal and spatial restrictions around nests as long as they remain active, but each nest will be assessed on a site-specific basis. Generally, Rockies Express will avoid construction in areas within 0.25 mile of known nests between December 1 and June 31 (FWS, 2006e). Rockies Express will provide copies of correspondence with the FWS regarding bald eagles to the Commission as it becomes available. By implementing measures developed in consultation with the FWS, the REX-East Project *is not likely to adversely affect the bald eagle*.

Indiana Bat

The federally endangered Indiana bat is listed as occurring in all of the counties crossed by the pipeline route. Since this species was first listed as endangered in 1967, populations have declined by nearly 60 percent (FWS, 2002b). Individuals may roost under the bark of trees in riparian and upland forests, generally near perennial waterbodies. During the summer, maternity colonies typically occur behind sloughing bark or in cavities, often in, but not limited to, dead trees. Indiana bats forage on insects in and around the tree canopy of floodplain, riparian, and upland forests. Waterbodies associated with floodplain forests and impounded bodies of water such as ponds, reservoirs, and wetlands are sometimes considered preferred foraging habitats for bats (FWS, 2006c).

Population declines are caused primarily by human disturbance during hibernation and the loss of suitable hibernacula. Rockies Express will not disturb hibernacula during construction or operation of the proposed project.

Consultations with the Natural Heritage Database Inventories of Missouri, Illinois, Indiana, and Ohio identified no known occurrences of the Indiana bat within 1 mile of the proposed pipeline route (MDC, 2006; ILDNR, 2006b; INDNR, 2006b; ODNR, 2006b). Although unidentified by the Ohio Natural Heritage Inventory, comments received during an interagency meeting on December 4, 2006 indicate that a maternity colony is known from the Big Darby Creek, adjacent to the proposed crossing. While no caves or karst areas capable of supporting hibernacula are anticipated along the pipeline route, the FWS maintains that summer foraging and roosting habitat is likely to be present throughout the project area (FWS, 2006a; FWS, 2006b; FWS, 2006c). The FWS specifically identifies important habitat for this species surrounding the Wabash River (MP 246.9), Sugar Creek (MP 335.7), Raccoon Creek (MP 269.4), Big Walnut Creek (MP 280.9), the White River (MP 314.2), and Big Darby Creek (MP 505.7) (FWS, 2006b; 2006f). Fragmentation of forest habitat used for foraging may also contribute to population declines, as it reduces the area individuals can safely traverse without the heightened threat of predation (FWS, 2006c; FWS, 2002b). Loss of individual roost trees due to clearing incurs a direct loss of summer habitat to individuals, and may fragment populations.

In coordination with the FWS, Rockies Express created a three-step survey protocol to identify areas of potential Indiana bat habitat and determine which areas may be occupied by bats. The protocol, labeled the Indiana Bat Habitat Assessment and Survey Plan, is provided with the agency consultations in Appendix 3A of this report. As part of step one, Rockies

Express will conduct preliminary habitat surveys in forested areas along the project corridor to identify areas of suitable Indiana bat summer roosting habitat. Surveys involved pedestrian meander searches for trees with the appropriate bark structure or cavities to sustain roosting bats. Rockies Express is completing this initial assessment of forested areas along the project route and, in accordance with the approved survey plan, will perform a qualitative habitat assessment of the areas identified as containing potential roost trees, including categorizing habitats by quality. As part of step two, Rockies Express will arrange for field visits with the FWS to forest stands of various qualities. As the final step in the survey protocol, in coordination with Rockies Express, the FWS will recommend specific locations where mist net surveys or telemetry may be required. Rockies Express will conduct the applicable surveys at the recommended or otherwise agreed upon locations.

Rockies Express has been and will continue to coordinate with the FWS regarding all stages of survey and will develop measures to avoid or minimize impacts on the Indiana bat. Such measures may include avoidance of stands containing maternity colonies, restricting right-of-way widths through specific forest stands, and/or seasonal restriction on tree clearing. In a letter dated November 14, 2006, the Bloomington ESO of the FWS agreed with this process and stated its intent to participate in further coordination regarding this species (FWS, 2006g). By complying with this plan and developing conservation measures in coordination with the FWS, the REX-East Project *is not likely to adversely affect the Indiana bat*.

Mussels and Mussel Beds

There are four federally endangered mussel species and two mussel species of concern with the potential to occur along the pipeline route. Of the endangered species, one is listed exclusively in Missouri and three are listed exclusively in Ohio (see table 3.4.1-1; FWS, 2006a; FWS, 2006c). Freshwater mussels rely on host fish for their larval development, during which time the glochidia must attach to the gills or fins of a specific fish species (Bruenderman, 2002). This dependence on a more mobile species can assist with population dispersal for mussels, but can also reduce the survival of juveniles if individuals drop from the host fish into degraded habitat. While similar, the two mussel species of concern appear to express species-specific preferences for stream qualities including substrate and water velocity (see section 3.4.1.3).

The clubshell, known to occur in only 13 waterbodies throughout its range, has been identified in Greene, Pickaway, and Fairfield Counties, Ohio. Sensitive to disturbance, this mussel inhabits areas with low turbidity in medium to small waterbodies with loose sand or gravel substrate (FWS, 1997a). According to information provided by the ODNR, clubshell populations have been identified in Walnut Creek, Sugar Creek, Flatrock River, Scioto River, and within Deer Creek State Park (ODNR, 2006b).

The northern riffleshell is known to occur in Pickaway County, Ohio, where it inhabits firm sand or gravel substrates in waterbodies of varying size (FWS, 1997b). Natural Heritage Data identified historical populations in the Scioto River and Big Darby Creek, which are crossed by the proposed project at MP 511.1 and MP 505.7, respectively (FWS, 2006c).

The fanshell is known to occur in Muskingum County, Ohio. This species is found in medium or large waterbodies with moderate current and sand or gravel substrate (FWS, 1997c). Of the seven perennial waterbodies crossed in Muskingum County, four may be large enough to support fanshell populations. However, no known records of fanshell have been reported within 1 mile of the pipeline route (ODNR, 2006b).

The fat pocketbook is known to occur in Pike and Ralls Counties, Missouri. This freshwater mussel is generally found in deep pools of large waterbodies, typically over a mixture of silt, mud, and sand (FWS, 1997e; MDC, 2000a). The fat pocketbook is only known to occur in three large rivers, none of which are crossed by the pipeline route in Missouri. In addition, according to Natural Heritage Data supplied by the MDC, there are no known observations of the mussel within 1 mile of the pipeline route (MDC, 2006).

Mussel species are sensitive to siltation, as heavy silt loads interfere with the filtering and feeding of adults and can smother juveniles (Bruendeman, 2002). During in-stream construction and other activities, suspended sediment will be carried downstream, where it could interfere with larval attachment to host fish, smother juveniles, or greatly reduce adult survival. As mentioned in section 3.1.2, Rockies Express currently proposes to use the open-cut method to cross many perennial waterbodies along the proposed pipeline route. This method could temporarily increase sediment loads and turbidity, which could affect freshwater mussels, host fish, and associated habitat. Increased sediment loads can alter a stream's substrate composition and fill inter-gravel spaces and pool habitats. Increased sediment loads can also degrade the existing aquatic habitat by reducing spawning habitat, available adult habitat, and benthic invertebrate production (the primary food supply of many fish). These habitat changes can affect fish populations, including host fish, by suffocating eggs and newly hatched larvae living in gravels and by abrading sensitive gill membranes of both young and adult fish. An open-cut crossing is typically the quickest crossing method, involving 1 day or less of in-stream construction for smaller waterbodies and 2 to 3 days for larger waterbodies. Therefore, sedimentation and turbidity resulting from construction will be short-term and generally limited to periods of active construction within a waterbody. Adverse effects to aquatic biota will tend to be localized. Dry crossing methods include dam and pump and flume techniques as described in the REX-East Procedures. These techniques contain suspended sediment during in-stream activities, limiting the duration of downstream sediment transfer to specific periods of flume and dam installation and removal.

Additionally, Rockies Express proposes to use the HDD method to cross sensitive waterbodies. Assuming technical success, all HDD crossings will result in no impact on these waterbodies and associated mussel communities.

Rockies Express' waterbody surveys along the pipeline route will include an analysis of the substrate and hydrology of waterbody crossings. In waterbodies identified as having suitable habitat for mussels or mussel beds, Rockies Express will conduct surveys during summer and fall 2007. Surveys will be conducted by experienced malacologists, and will be used to determine presence or absence and species composition of mussels within these waterbodies. During the Ohio interagency meeting held on June 22, 2006, the Ohio FWS stated that Rockies Express will be required to avoid work in waterbodies with freshwater mussel beds between April 15 and June 15 (see Appendix 3A). If listed mussel species are identified in waterbodies crossed by the proposed project, Rockies Express will consult with FWS to determine appropriate conservation measures to avoid negative impacts on these species. In all waterbodies, Rockies Express will utilize crossing methods designed to reduce or contain suspended sediment. Due to the commitment to survey for mussel species and develop conservation measures in consultation with FWS as appropriate, the REX-East Project *is not likely to adversely affect listed mussel species and mussel beds*.

Running Buffalo Clover

The federally endangered running buffalo clover requires moderate, periodic disturbance, and partial shade, but is intolerant of full-sun, full-shade, or severe disturbance. This species has been known to occur in mowed areas, along waterbodies and trails, and on the fringe of forests and bottomland meadows (FWS, 2003).

Once presumed extirpated within the area affected by the proposed project, running buffalo clover is now found in isolated populations in Indiana, Missouri, and Ohio (DOI, 2005). This species is known to exist in Warren County, Ohio. The pipeline route crossing of Warren County is predominantly comprised of agricultural land, which is unlikely to sustain populations due to severe disturbance and exposure. According to information provided by the ODNR, there are no known occurrences of this species within 1 mile of the pipeline route (ODNR, 2006b).

Although records of known occurrences for this species are scarce, areas may be present along the pipeline route with the appropriate habitat for running buffalo clover. In areas of suitable habitat, as identified during preliminary habitat reviews and in coordination with the FWS, Rockies Express will conduct species-specific surveys during the flowering season in 2007, between mid-April and June. Rockies Express does not anticipate that this species is likely to be found within the project area. However, if populations are found along the edge of the proposed right-of-way, Rockies Express will attempt to fence off plants to avoid impacts on the species. If plants cannot be avoided, Rockies Express will coordinate with the FWS to develop measures to mitigate for this species. Due to the commitment to survey for running buffalo clover and develop conservation measures in consultation with FWS as appropriate, the REX-East Project *is not likely to adversely affect the running buffalo clover*.

Decurrent False Aster

The federally threatened decurrent false aster is a big river floodplain species that primarily inhabits wetlands and borders of marshes, lakes, oxbows, and sloughs. This species reportedly favors sites characterized by moist soil and regular disturbance, which maintains open areas with high light levels. Seeds are dispersed primarily by floodwater (MDC, 2000b). Excessive siltation is a major cause of this species' decline. Highly intensive agricultural activities in the region have increased topsoil runoff, which smothers seeds and seedlings (FWS, 1997f). Habitat destruction from floodplain conversion, channeling of rivers, flood-control measures, and wetland drainage has also contributed to reductions of decurrent false aster populations.

The decurrent false aster has been recorded in Pike County, Missouri, and in Pike and Scott Counties, Illinois. Natural Heritage Database records indicate that the decurrent false aster has not been observed within 1 mile of the pipeline route (MDC, 2006; ILDNR, 2006b). However, suitable habitat for this species is present in the counties listed above at the Salt, Mississippi, and Illinois River crossings and may also occur in non-riparian areas.

Construction activities in aquatic and associated floodplain areas could increase sediment suspension and downstream displacement, and may contribute to reductions in this species' reproductive success. Temporary impacts on floodplain and river-shore wetlands will occur during staging and trenching activities. Rockies Express anticipates no permanent impacts on areas with suitable habitat for the decurrent false aster, as no aboveground facilities

will be built on floodplains or river-shore wetlands in the counties with populations of this species.

Temporary impacts on suitable habitat, including trampling and soil mixing, may occur during staging and construction activities associated with the proposed project. Individual plants, in part or in whole, may be unintentionally removed during construction activities if located in the right-of-way and not appropriately identified prior to construction activities. Wetland delineations along the route began in August 2006 and are being used to identify areas of suitable habitat for the decurrent false aster. Where suitable habitat is identified, species-specific surveys will be conducted by qualified botanists during the flowering season (August to October 2007). Surveys will include floodplain areas on both sides of the waterbody directly aligned with the pipeline route. Rockies Express does not anticipate that this species is likely to be found within the project area. However, if populations are found along the edge of the proposed right-of-way, Rockies Express will attempt to fence off plants. If plants can not be avoided, Rockies Express will coordinate with the FWS to develop measures to mitigate for this species. Due to the commitment to survey for this species and develop conservation measures in consultation with FWS as appropriate, the REX-East Project *is not likely to adversely affect the decurrent false aster*.

Eastern Prairie Fringed Orchid

The eastern prairie fringed orchid is federally threatened and is state-listed as endangered in Illinois and Ohio. This orchid occurs in a wide variety of habitats, from mesic prairie to wetlands such as sedge meadows, marsh edges, and bogs. This species requires full sun and herbaceous habitat with little or no woody encroachment, and may benefit from disturbances that expose the soil to this orchid's seeds, and reduces competition from established plants (FWS, 1999a). Mature seed capsules are wind dispersed between late August and late September (FWS, 2005). Individual plants regenerate from tubers, which are dormant during the winter (FWS, 1989).

This orchid is listed as potentially occurring statewide in Illinois, in all counties containing dry/mesic/wet prairies. Historically, Illinois contained the largest population of this species, which extended across 33 counties in the northern two-thirds of the state. Known populations currently concentrate in the six counties surrounding the Chicago area (FWS, 1989). Historically threatened by the conversion of habitat to cropland, the eastern prairie fringed orchid is currently most threatened by the drainage and development of wetlands as well as competition from non-native species (FWS, 2005). According to the ILDNR Natural Heritage Database, there are no known occurrences of this species within 1 mile of the pipeline route and there are no prairie regions in the general area of the project (ILDNR, 2006b).

Wetland delineations began along the route in August 2006 and will continue as necessary in spring 2007. Wetland surveys have included assessments for suitable eastern prairie fringed orchid habitat. Wetland areas determined to be appropriate for this species will be candidates for species-specific surveys, which will take place during the flowering season, approximately between mid-June and August 2007. Rockies Express does not anticipate that this species is likely to be found within the project area. However, if populations are found along the edge of the proposed right-of-way, Rockies Express will attempt to fence off plants. If plants can not be avoided, Rockies Express will coordinate with the FWS to develop measures to mitigate for this species. In accordance with noxious weed control requirements, revegetation

of wetland areas will include control of non-native species including reed canary grass, purple loosestrife, and glossy buckthorn. The control of non-native species to promote the successful re-growth of the eastern prairie fringed orchid could indirectly benefit this species by providing suitable habitat. Due to the commitment to survey for this species and develop conservation measures in consultation with FWS as appropriate, the REX-East Project *is not likely to adversely affect the eastern prairie fringed orchid*.

Prairie Bush Clover

The prairie bush clover is federally threatened and state-listed as endangered in Illinois. Often found on the north-facing slopes of dry upland prairies, this species is endemic to the tall-grass prairie region of the upper Mississippi River Valley in Iowa, Illinois, Minnesota, and Wisconsin. Throughout this region, the prairie bush clover is known to occur in 23 counties, where it is restricted to fewer than 40 sites (FWS, 2006h).

This clover is listed as potentially occurring statewide in Illinois, in areas containing dry/mesic/wet prairies. However, roughly 90 percent of all known plants occur within a “core area” located in Iowa and Minnesota (CPC, 2000). In all 13 known Illinois populations, a total of approximately 250 plants remain. The rarity of this endemic species can be attributed primarily to the loss of tall-grass prairie habitat, specifically mesic to dry prairie (FWS, 2006h). Surviving populations occur primarily in areas that were not converted to cropland because the terrain is too steep or rocky (FWS, 2006h). According to the ILDNR Natural Heritage Database, there are no known occurrences of this species within 1 mile of the pipeline route and there are no prairie regions in the general area of the project (ILDNR, 2006).

Upland areas determined to be appropriate for this species will be candidates for species-specific surveys, which will take place during the flowering season (mid-July 2007). If plants are found, Rockies Express will consult with the FWS to determine the appropriate site-specific action plan, which may include exclusionary fencing or plant relocation. Revegetation efforts in such areas will be coupled with a long-term right-of-way maintenance plan, stipulating no-mow periods during late-summer. Rockies Express does not anticipate that this species is likely to be found within the project area. However, if populations are found along the edge of the proposed right-of-way, Rockies Express will attempt to fence off plants. If plants can not be avoided, Rockies Express will coordinate with the FWS to develop measures to mitigate for this species. Due to the commitment to survey for this species and develop conservation measures in consultation with FWS as appropriate, the REX-East Project *is not likely to adversely affect the prairie bush clover*.

3.4.1.3 Candidates for Federal Listing

One headwater species, the rayed bean, and one large river species, the spectaclecase, are candidates for federal listing as threatened or endangered. These species have been identified during consultations with the FWS as potentially occurring in waterbodies within the proposed project area (FWS, 2006a; FWS, 2006c). The FWS has identified the spectaclecase as present in the Mississippi River in the vicinity of the project. However, Rockies Express will complete the crossing of the Mississippi River using the HDD method and, therefore, impacts on this species are unlikely to occur.

Rockies Express’ waterbody surveys along the project route will include an analysis of the substrate and hydrology of waterbody crossings. In waterbodies identified as having

suitable habitat for mussels or mussel beds, Rockies Express will conduct surveys using experienced malacologists to determine presence or absence and species composition of mussels within these waterbodies. If candidate mussel species are identified in waterbodies crossed by the proposed project, Rockies Express will consult with FWS to determine appropriate conservation measures to avoid negative impacts on these species. Due to the commitment to survey for mussel species and develop conservation measures in consultation with FWS as appropriate, the REX-East Project *is not likely to adversely affect candidate mussel species*.

3.4.2 State-Listed Species

Species that are listed as threatened or endangered in the states crossed by the project, and that have been identified as potentially occurring along the proposed route, are discussed below. Species listed at both the state and federal levels are discussed in section 3.4.1 of this report.

3.4.2.1 Consultation Summary

Rockies Express consulted with the MDC, ILDNR, INDNR, and ODNR regarding state-listed species. The Natural Heritage Inventories of Missouri, Illinois, Indiana, and Ohio were contacted and electronic or written data describing known occurrences of state-listed species within the proposed project area was provided (see Appendix 3A) (MDC, 2006; INDNR, 2006b; ILDNR, 2006b; ODNR, 2006b). In addition to the NHI data, in Illinois, Rockies Express reviewed the Ecological Compliance Assessment Tool (EcoCat) website. Rockies Express reviewed NHI occurrences project-wide, having identified buffers for potential impacts on threatened and endangered species in the project vicinity as within 2 miles for aquatic resources, within 1 mile for terrestrial animals, and within 0.5 mile for terrestrial plants. Results of this review are summarized in table 3.4.2-1.

TABLE 3.4.2-1 Rockies Express Pipeline-East Project State-listed Endangered and Threatened Species Potentially Occurring in the Proposed Project Area				
Species	Status	Milepost(s)	Basic Habitat Association	Eliminated from Further Consideration/Discussion
MISSOURI-LISTED SPECIES				
Birds				
Greater Prairie Chicken	E	1.1-6.9 16.5-17.4	Large (>160 acres) tracts of prairie, grasslands, or cropland bordered by oak woodlands, savannas and wetlands.	No
ILLINOIS-LISTED SPECIES				
Fish				
Bigeye Chub	E	234.4	Small to moderate size tributaries with clear water and sand, gravel, or rocky substrates.	No
Invertebrates				
Little Spectaclecase	T	203.8	Medium size creeks with low current and sand or mud substrate.	No
Black Sandshell	T	46.2	Riffles or raceways of medium to large rivers over firm sand or gravel substrate.	No

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TABLE 3.4.2-1

**Rockies Express Pipeline-East Project
State-listed Endangered and Threatened Species Potentially Occurring in the Proposed Project Area**

Species	Status	Milepost(s)	Basic Habitat Association	Eliminated from Further Consideration/Discussion
INDIANA-LISTED SPECIES				
Mammals				
American Badger	E	311.5 383.4 392.4	Short grass grasslands, fields, and pastures. Sometimes seen along roads, fence rows, ditches, or crop fields.	No
Bobcat	E	371.5	Large territory encompassing varied habitats from lowland swamp to mountain forest. Avoids areas with intense human habitation and agriculture.	Yes, lack of suitable habitat
Birds				
Upland Sandpiper	E	311.5	Dry upland plains, short-grass fields, pastures and meadows.	Yes, lack of suitable habitat, observed in 1952
Loggerhead Shrike	E	257.0	Edge habitat in agricultural regions, nests along roads and hedgerows.	No
Fish				
Variegate Darter	E	379.7 379.9 390.0 390.1 393.1 395.4 396.2	Large river riffles with swift current and substrates composed of large cobbles and small boulders.	No
Invertebrates				
Cobblestone Tiger Beetle	E	393.3	Cobblestone islands and deltas in large rivers.	No
Rabbitsfoot	E	335.3-335.7	Clear waterbodies with swift current flowing over gravel substrates	No
Plants				
Scarlet Hawthorn	T	356.7	Light woodland, sunny edges, light shade.	Yes, lack of suitable habitat, observed in 1912
OHIO-LISTED SPECIES				
Mammals				
Bobcat	E	633.8	Large territory encompassing varied habitats from lowland swamp to mountain forest. Avoids areas with intense human habitation and agriculture.	No
Birds				
Loggerhead Shrike	E	507.7-507.8 474.7	Edge habitat in agricultural regions, nests along roads and hedgerows.	No
Upland Sandpiper	T	495.1	Dry upland plains, short-grass fields, pastures and meadows.	No
Fish				
Tonguetied Minnow	T	420.4	Rocky pools and runs of creeks and small to medium rivers, often near vegetation or other cover.	No
Northern Madtom	E	575.5	Deep riffles and runs of clear, warm waterbodies with a bottom of shifting sand and mud in moderate current. Swifter portions are usually avoided, as are heavily silted areas. Sometimes found in dense vegetation attached to bottom material.	Yes, lack of suitable habitat

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TABLE 3.4.2-1				
Rockies Express Pipeline-East Project State-listed Endangered and Threatened Species Potentially Occurring in the Proposed Project Area				
Species	Status	Milepost(s)	Basic Habitat Association	Eliminated from Further Consideration/Discussion
Mountain Madtom	E	575.5	Deep, fast riffles and runs of clear, warm waterbodies. Moderate- to swift-flowing large waterbodies with a bottom of large stones, rubble, gravel and sand. Sometimes found in dense vegetation attached to bottom material. It is apparently very sensitive to siltation and other pollutants.	Yes, lack of suitable habitat
Reptiles				
Eastern Massasauga	E	454.3	Crayfish burrows in wetlands and associated upland areas.	No
Invertebrates				
Sloan's Crayfish	T	411.8	Clean water shaded by trees.	Yes, lack of suitable habitat, observed in 1961
Fawnsfoot	T	447.8 505.7 575.1	Large rivers or the lower reaches of medium-sized waterbodies in sand or gravel	No
Long-Solid	E	511.1	Large rivers in gravel.	No
Rabbitsfoot	E	511.1	Clear waterbodies with swift current flowing over gravel substrates	No
Snuffbox	E	447.7 447.8 505.7	Gravel riffles in clear waters of medium to large rivers.	No
Mussel Beds	NA	447.6 447.8 449.4 505.4	Aquatic systems with various characteristics.	No
Lichen				
Rock Ramalina	E	626.3	Restricted to sandstone, generally in light shade	No
Plants				
Drummond's Aster	T	506.3	Open to semi-open situations, often in dry, calcareous substrates. Prairie, open woods, woody edge, thickets, roadsides.	No
Carolina Willow	T	462.7	Rocky soil along riverbanks, gravel bars, sandy shores, low woods.	Yes, lack of suitable habitat, observed in 1953
Diffuse Rush	E	547.8	Shallow water and shores of ponds, ditches, and quiet waterbodies.	No
White Wood-sorrel	E	626.3	A variety of moist, mossy woods, frequently with hemlocks; tolerant of deep shade.	No

Wetland surveys, conducted between fall 2006 and spring 2007, include a preliminary habitat assessment for species of concern and determination of suitable habitat. Species-specific habitat surveys will be conducted for terrestrial and aquatic resources during late spring/early summer 2007. Applicable species-specific surveys will be conducted, as required, during the appropriate survey period. Time tables and survey protocols have not been approved by state agencies and, therefore, the information contained in this section should be considered preliminary information only. The final survey report will be submitted to the FERC, the FWS, and state agencies when available. These technical reports will provide detailed information on survey methodology, results, data interpretation, and qualifications of the field biologists, as required by the FERC's Order 603, section 380.13(b)(5)(iii).

3.4.2.2 Missouri-Listed Species

Greater Prairie Chicken

The greater prairie chicken is endangered in Missouri. Habitat for this species includes mid- and tall-grass prairies bordered by open oak woodlands, oak forests, and cropland. Nesting habitat in Missouri is limited to cropland and nearby prairies mainly on the Osage Plains. The greater prairie chicken breeding season occurs between March and July.

The MDC identified two historic greater prairie chicken populations in Audrain County, between MPs 1.1 and 6.9, and between MPs 16.5 and 17.4. If construction occurs during the breeding season, Rockies Express will consult with the MDC on the need for presence/absence surveys of potentially suitable habitat within 1 mile of the pipeline route. If active lek sites or populations are located during the surveys, Rockies Express will consult with the MDC regarding appropriate conservation measures.

Based on the limited amount of suitable habitat in the project area, the lack of known lek sites and populations, and Rockies Express' commitment above, the REX-East Project is not likely to change the population status of the greater prairie chicken.

3.4.2.3 Illinois-Listed Species

Black Sandshell

The black sandshell, a state-threatened mussel, was reported within 2 miles of the proposed Mississippi River crossing, near the Illinois shore in Pike County. The black sandshell inhabits riffles or raceways of medium to large rivers over firm sand or gravel substrates.

Rockies Express is proposing to install the pipeline beneath the Mississippi River using the HDD method. The HDD method is a trenchless crossing method that avoids disturbing the bed and the banks of the waterbody. This crossing method will avoid direct impacts on in-channel aquatic habitat used by the black sandshell and other species, and will prevent direct mortality of black sandshell individuals that may exist near the river crossing location. As a result, no impacts on the black sandshell within the Mississippi River are anticipated as a result of the REX-East Project.

Little Spectaclecase

The little spectaclecase, a state-threatened mussel, was noted within 2 miles of the proposed Embarras River crossing in Douglas County. The little spectaclecase can be found in creeks to medium size rivers and prefers areas of low current over sand or mud substrates.

Rockies Express is currently in the process of conducting field surveys of waterbody crossings in Illinois. During the preliminary assessment of the Embarras River crossing, Rockies Express will determine if suitable habitat for the little spectaclecase exists at the proposed crossing site. Once the assessment of the crossing location is completed, Rockies Express will consult with the ILDNR to determine if additional field surveys for the little spectaclecase are necessary, and if so, will conduct surveys during the summer of 2007. If surveys identify individuals, Rockies Express will consult with the ILDNR to discuss the need to develop conservation measures to avoid or minimize impacts on the species. Due to the

commitment to survey for this species and develop conservation measures in consultation with the ILDNR as appropriate, the REX-East Project is not likely to change the population status of the little spectaclecase.

Bigeye Chub

The bigeye chub, a state-endangered fish, was reported as occurring within 2 miles of the proposed Crabapple Creek crossing in Edgar County. The bigeye chub is found in small to moderate sized tributaries with clear water and sand, gravel, or rocky substrates. They are often found in quiet areas near riffles or near aquatic vegetation.

Rockies Express is currently in the process of conducting field surveys of waterbody crossings in Illinois. During the assessment of the Crabapple Creek crossing, as well as during subsequent assessments, as necessary, Rockies Express will determine if suitable habitat for the bigeye chub exists at the crossing site and if field assessments for bigeye chubs are necessary. If warranted, such field assessments would be conducted during the summer of 2007. Due to the narrow width of Crabapple Creek (less than 100 feet) at the REX-East crossing location, instream construction activities will likely occur within 24 to 48 hours. Rockies Express will implement proper erosion control measures along with appropriate in-channel and riparian habitat restoration to minimize the impacts to aquatic habitat. If individual chub are present at the crossing location, it is expected that they would avoid the project area during the short time that instream activities are ongoing. Following restoration, it is likely that chub would be able to utilize the area similar to pre-construction use patterns. As such, although temporary avoidance of the area by chub may occur during construction, depending on crossing method, impacts on individual and/or populations of the bigeye chub are unlikely to occur as a result of the REX-East Project.

3.4.2.4 Indiana-Listed Species

American Badger

The American badger is endangered in Indiana. Historic records of the species occur in the vicinity of the project area near MPs 311.5, 383.4, and 392.9. Badgers are grassland species, specifically favoring habitats with short grass, such as fields and pastures. Individuals are secretive and nocturnal, making them difficult to detect, but may be seen along roadways, fence rows, ditch banks, field edges, or idle crop fields. The most obvious signs of badgers are their dens, which exhibit large holes that serve as entrances to the burrows. The American badger resides in its burrow year-round. Badgers usually inhabit burrows solitarily, except during mating season between summer and early autumn. After mating, badgers remain sensitive to disturbance through gestation and the birth of young in late-march and April. Litters of one to five young remain with the mother for as long as 3 months.

Rockies Express will consult with the INDNR regarding this species to formulate survey plans in accordance with the guidance provided. Surveys will be used to identify dens and will occur in areas including, but not limited to, suitable habitat identified in the vicinity of known occurrences of the American badger. If dens are found, Rockies Express will coordinate with the INDNR to determine appropriate conservation measures. Due to the commitment to survey for this species and develop conservation measures in consultation with the INDNR as appropriate, the REX-East Project is not likely to change the population status of the American badger.

Loggerhead Shrike

The loggerhead shrike is endangered in Indiana, where it inhabits open grassy areas with scattered shrubs or small trees. This species utilizes edge habitat and nests along roads and in hedgerows or fence rows in agricultural regions. Nests are often built 3 to 15 feet off the ground in shrubs or tree species with thorns, which the loggerhead shrike uses to impale prey. Population declines are attributed primarily to the use of pesticides, which has reduced the supply of insects that serve as the shrike's primary food source.

Historic records of this species occur along the proposed pipeline route near MP 257.0. Rockies Express will consult with the INDNR regarding the need to conduct surveys for this species. If nests are found, Rockies Express will coordinate with the INDNR to determine appropriate conservation measures. Due to the commitment to survey for this species and develop conservation measures in consultation with the INDNR as appropriate, the REX-East Project is not likely to change the population status of the loggerhead shrike.

Variegate Darter

Endangered in Indiana, the variegate darter is typically found in stream riffles with swift currents and substrates composed of large cobbles and small boulders. This fish species is most abundant in large, clean waterbodies, and may exist in waterbodies crossed between MPs 379.0 and 396.5. Observed at multiple locations between MPs 379.7 and 396.2, the variegate darter has the potential to occur in Big Cedar Creek, Whitewater River, Little Cedar Creek, and any connected waterbody crossings.

Rockies Express will consult with the INDNR regarding the need to conduct surveys for this species and will formulate survey plans in accordance with the guidance provided. If surveys are required and individuals are found, Rockies Express will coordinate with the INDNR to determine appropriate conservation measures. Due to the commitment to survey for this species if necessary and develop conservation measures in consultation with the INDNR as appropriate, the REX-East Project is not likely to change the population status of the variegate darter.

Cobblestone Tiger Beetle

The cobblestone tiger beetle is endangered in Indiana. Inhabiting cobblestone heads of islands within major rivers in the eastern United States, populations may exist south of MP 393.3 and along the shores of the Whitewater River. This species is restricted to areas where water currents are strong enough to periodically scour beaches and expose cobbles and larger stones along shorelines. Adults emerge from pupation in late June and continue their feeding, mating, and egg laying activities until early September. Adults may also be found just above the cobblestones where vegetation is sparsely intermixed with stone.

Rockies Express will consult with the INDNR regarding this species to formulate survey plans in accordance with the guidance provided. If individuals or actively used habitat are found, Rockies Express will coordinate with the INDNR to determine appropriate conservation measures. Due to the commitment to survey for this species and develop conservation measures in consultation with the INDNR as appropriate, the REX-East Project is not likely to change the population status the cobblestone tiger beetle.

Rabbitsfoot Mussel

The rabbitsfoot is endangered in Indiana. This mussel species inhabits clear waterbodies with swift current flowing over gravel substrates, and has been recorded in the Sugar Creek system. Populations may occur in this river system and connected waterbodies in the vicinity of MP 335.5. Freshwater mussels rely on host fish for their larval development, during which time the glochidia must attach to the gills or fins of a specific fish species (Bruenderman, 2002). The rabbitsfoot's dependence on its host fish, the spotfin shiner, can assist with population dispersal but can also reduce the survival of juveniles if individuals drop from the host fish into degraded habitat.

Mussel species are sensitive to siltation, as heavy silt loads interfere with the filtering and feeding of adults and can smother juveniles (Bruenderman, 2002). During instream construction and other activities, suspended sediment will be carried downstream, where it could interfere with larval attachment to host fish, smother juveniles, or greatly reduce adult survival. Increased sediment loads can alter a waterbody's substrate composition and fill inter-gravel spaces and pool habitats. Increased sediment loads can also degrade the existing aquatic habitat by reducing spawning habitat, available adult habitat, and benthic invertebrate production (the primary food supply of many fish). These habitat changes can affect fish populations, including host fish, by suffocating eggs and newly hatched larvae living in gravels and by abrading sensitive gill membranes of both young and adult fish. Dry crossing methods can contain suspended sediment during instream activities, limiting the duration of downstream sediment transfer to specific periods of flume installation and removal. Dry crossing methods include the dam and pump and flume methods, which are described in the REX-East Procedures. Rockies Express is currently considering adopting a dry crossing method to cross all waterbodies containing sensitive species.

Rockies Express' waterbody surveys along the project route will include an analysis of the substrate and hydrology of waterbody crossings. In waterbodies identified as having suitable habitat for mussels or mussel beds, Rockies Express will conduct surveys using experienced malacologists to determine presence or absence and species composition of mussels within these waterbodies. If the rabbitsfoot is identified in waterbodies crossed by the pipeline route, Rockies Express will consult with INDNR to determine appropriate conservation measures to avoid negative impacts on this species. In all waterbodies, Rockies Express will utilize crossing methods designed to reduce or contain suspended sediment. Due to the commitment to survey for mussel species and develop conservation measures in consultation with the FWS and INDNR as appropriate, the REX-East Project is not likely to change the population status of the rabbitsfoot mussel.

3.4.2.5 Ohio-Listed Species

Bobcat

The bobcat is endangered in Ohio, where there have been only 14 verified reports between 1990 and 1996 and an unknown number of sightings between 1996 and 2006. Generally a solitary animal, the bobcat is territorial of its home range which may vary from 0.2 to 78 square miles. Home range is determined in part by availability of food and sheltered rock outcrops, which individuals use to defend established territories. Bobcats may inhabit a wide variety of habitat types, from lowland swamps to mountain forests, in areas throughout North America, except those with intensive human habitation or agriculture. When available, females

will use an area of rock outcroppings as a natal den, which may reduce the threat of predation on the young by foxes, owls, coyotes, mountain lions, and adult male bobcats.

As indicated by a recent observation south of MP 633.8, bobcats may inhabit the forested complex in Belmont and Monroe Counties in the vicinity of the proposed project. Rockies Express does not anticipate conflicts between the project's construction and the general use of the area by bobcats. However, Rockies Express will consult with the ODNR and other appropriate agencies regarding this species to determine locations of known den sites. If individuals or actively used habitat are found, Rockies Express will coordinate with the ODNR to determine appropriate conservation measures. Due to the commitment to develop conservation measures in consultation with the ODNR as appropriate, the REX-East Project is not likely to change the population status of the bobcat.

Loggerhead Shrike

The loggerhead shrike is endangered in Ohio, where it inhabits open grassy areas with scattered shrubs or small trees. This species utilizes edge habitat and nests along roads and in hedgerows or fence rows in agricultural regions. Nests are often built 3 to 15 feet off the ground in shrubs or tree species with thorns, which the loggerhead shrike used to impale prey. Population declines are attributed primarily to the use of pesticides, which has reduced the supply of insects that serve as the shrike's primary food source.

Historic records of this species occur along the proposed pipeline route near MP 474.7, and between MPs 507.7 and 507.8. Rockies Express will consult with the ODNR regarding the need to conduct surveys for this species. If nests are found, Rockies Express will coordinate with the ODNR to determine appropriate conservation measures. Due to the commitment to survey for this species and develop conservation measures in consultation with the ODNR as appropriate, the REX-East Project is not likely to change the population status of the loggerhead shrike.

Upland Sandpiper

The upland sandpiper is threatened in Ohio, where it spends the spring and summer in short-grass fields, pastures and meadows before migrating to wintering areas in Texas and Mexico. Eggs are laid in May in nests situated in grassy ground depressions. Most young fledge by the end of June.

Individuals have been observed north of MP 495.1. The species may nest in the vicinity of this observation or in similar habitats within this species' region of migration. Rockies Express will consult with the ODNR regarding the need to conduct surveys for this species. If nests are found, Rockies Express will coordinate with the ODNR to determine appropriate conservation measures. Due to the commitment to survey for this species and develop conservation measures in consultation with the ODNR as appropriate, the REX-East Project is not likely to change the population status of the upland sandpiper.

Tonguetied Minnow

The tonguetied minnow is threatened in Ohio and has been observed in Seven-mile Creek in the vicinity of MP 420.4. Primary habitat includes rocky pools and runs of creeks and small to medium rivers, often near vegetation or other cover. This North American minnow is

broadly distributed in the Great Miami and Little Miami River systems of Ohio, and may occur in waterbodies connected to Seven-mile Creek.

Rockies Express will consult with the ODNR regarding the need to conduct surveys for this species. If surveys are conducted and individuals are found, Rockies Express will coordinate with the ODNR to determine appropriate conservation measures. Due to the commitment to survey for this species if necessary and develop conservation measures in consultation with the ODNR as appropriate, the REX-East Project is not likely to change the population status of the tongue-tied minnow.

Eastern Massasauga

The eastern massasauga rattlesnake has been observed within 1 mile of MP 454.3. This species is a candidate for federal listing as threatened or endangered with the potential to occur along the route in Clinton, Fayette, Greene, and Warren Counties, Ohio, and is state-listed as endangered in Missouri, Illinois, Indiana, and Ohio. Massasaugas are characteristic of mesic prairies and wet lowlands, including areas along rivers, lakes, and marshes. Crayfish burrows, which are built in river bottom dugouts with aboveground mud chimneys, are the most common hibernacula of this species. Massasaugas remain in the water through much of the overwintering period, and seasonally high water tables are common at most known sites. It is believed that this snake is intolerant to freezing and selects wet environments to prevent desiccation during hibernation. This species is active aboveground from April through October. Summer habitat includes wet meadows, upland grasslands, and sparsely vegetated dry areas. Commonly used upland areas are often characterized by intermittent shade that assists in thermoregulation, woody debris that provides hiding spaces, and tall herbaceous growth that protects snakes from aerial predation. The timing of each snake's relocation to summer habitats varies and is associated with resource availability at different sites (Szymanski, 1998).

Wetland drainage has severely reduced massasauga habitat in many states (FWS, 1999b). Rockies Express anticipates that impacts of the proposed project on semi-open wetlands will be temporary, as re-vegetation of these areas is expected to be complete within 3 years. Fragmentation of suitable habitat enhances the dangers present to snakes as they travel from wetland to upland areas by increasing the amount of open areas and roads the snake will cross to locate food (FWS, 1999b). Rockies Express does not anticipate any permanent impacts related to fragmentation, as areas maintained by Rockies Express along the permanent right-of-way will be of minimal width. If present during construction, massasaugas will be at risk of mortality. Rockies Express maintains a policy prohibiting the killing or harassment of wildlife, and will provide environmental training for all construction personnel including guidelines for the appropriate identification and removal of eastern massasaugas from the project area.

Documented ranges indicate that snakes may summer as far as 2 miles from their hibernacula. However, individuals may not migrate at all depending on the characteristics of the site and seasonal conditions. Due to this species' variable range and habitat specifications, Rockies Express has determined that preconstruction surveys will not provide definitive information necessary to determine presence or absence. However, due to the reclusive nature of this species, the FWS recommends early project coordination to avoid potential impacts on individuals and their habitat (FWS, 2006c). Rockies Express will assume that suitable habitat includes all wetlands along the project route in the four counties in Ohio for which the Eastern massasauga has been given candidacy status. Rockies Express will coordinate with the FWS

regarding the appropriate construction protocols for these specified areas, which may include timing restrictions or exclusionary fencing in the vicinity of wetlands. Rockies Express is committed to avoiding this species and does not anticipate that any long-term impacts will increase the likelihood that this species is federally listed as threatened or endangered. As such, the REX-East Project is not likely to change the population status of the eastern massasauga.

Mussels

There are four mussel species known to occur within 2 miles of the proposed project that are listed as threatened or endangered in Ohio. In addition, mussel beds that may include sensitive species have occurred historically in waterbodies crossed by the project.

Two species endangered in Ohio, the rabbitsfoot and the long-solid, have historic records at MP 511.1, where populations may exist in the Scioto River. The rabbitsfoot inhabits clear waterbodies with swift current flowing over gravel substrates. The long-solid is a big river species, preferring large rivers with gravel substrate.

The snuffbox is endangered in Ohio, where it inhabits medium- to large-sized rivers with clear water and gravel riffles. Individuals have been observed in the Little Miami River (south of MP 448.0) and a population center was discovered in the Big Darby Creek (MP 505.7).

Although widespread and common throughout most of its range, the fawnsfoot is threatened in Ohio. This species inhabits medium- or large-sized rivers with sand or gravel, and has been observed in the Little Miami River (south of MP 448.0), Big Darby Creek (at MP 505.7), and in the Muskingum River (north of MP 573.6).

Freshwater mussels rely on host fish and are sensitive to siltation (see Indiana mussel listing for a description of mussel sensitivities) (Bruenderman, 2002). Instream construction can increase suspended sediment. Rockies Express proposes to use the HDD method to cross many of the waterbodies that potentially contain sensitive mussel species, including the Little Miami, Muskingum, Mississippi, Big Darby, and Scioto Rivers. Rockies Express will consider using a dry crossing method at all other waterbodies containing sensitive mussel species, which will limit the duration and extent of higher than normal sedimentation.

Rockies Express' waterbody surveys along the project route will include an analysis of the substrate and hydrology of waterbody crossings. In waterbodies identified as having suitable habitat for mussels or mussel beds, Rockies Express will conduct surveys using experienced malacologists to determine presence or absence and species composition of mussels within these waterbodies. During the Ohio interagency meeting held on June 22, 2006, the Ohio FWS stated that Rockies Express will be required to avoid work in waterbodies with freshwater mussel beds between April 15 and June 15. If sensitive mussels are identified in waterbodies crossed by the Project, Rockies Express will consult with the FWS and ODNR to determine appropriate conservation measures to avoid negative impacts on these species. Due to the commitment to survey for mussel species and develop conservation measures in consultation with the FWS and ODNR as appropriate, the REX-East Project is not likely to change the population status of mussel species.

Rock Ramalina

Rock ramalina is a small, yellow-green lichen that inhabits the eastern United States and the Rocky Mountains. This species is endangered in Ohio, where it is restricted to sandstone areas in light shade. Even in areas where apparently good habitat exists, this lichen is found only in small areas. This species was observed in 2005 south of the proposed pipeline route near MP 625.5, where sandstone cliff communities exist to the north and south of the project area. Rockies Express will consult with the ODNR to discuss the need for surveys for this species. If surveys are conducted and the species is identified, Rockies Express will coordinate with the ODNR to develop conservation measures to avoid or minimize impacts on the species. As such, the REX-East Project is not likely to change the population status of rock ramalina.

Drummond's Aster

Threatened in Ohio, drummond's aster grows in open to semi-open areas such as prairies, open woods, wood edges, thickets, or roadsides. This species is intolerant to overshadowing by woody species and thrives in maintained areas, including utility rights-of way. A historical record of this species occurs at MP 506.3, where a plant community has succeeded in the apparently maintained right-of-way corridor through a wooded area.

Impacts on special status plant species from surface disturbing activities could include the loss of individuals as a result of collision with construction vehicles and equipment. Construction activities could affect local populations of special status plant species within the project area. Indirect impacts on special status species may include impacts caused by increased human activity and dispersal of noxious and invasive weeds.

Rockies Express will consult with the ODNR regarding the need to conduct surveys for this species. If required, surveys for the drummond's aster would be conducted in the vicinity of the known occurrence during the flowering season, which occurs between August and October. If plants are identified along the edge of the right-of-way, exclusion fencing will be placed around the plants so they can be avoided by construction activities. If plants are located within the right-of-way, Rockies Express will consult with the appropriate agencies and evaluate the potential to modify the route alignment (e.g., centerline location), change the construction right-of-way configuration (e.g., reduce the width of the right-of-way or "neck down") to avoid the population, or relocate the plant populations either temporarily or permanently. Rockies Express will coordinate with the ODNR to determine appropriate conservation measures. Due to the commitment to survey for this species and develop conservation measures in consultation with the ODNR as appropriate, the REX-East Project is not likely to change the population status of the drummond's aster.

Diffuse Rush

The diffuse rush has been listed as endangered in Ohio since 1992. This shoreline species grows in shallow water along ponds, ditches, and quiet waterbodies, and is sensitive to drainage or other alteration to wetland habitat. There is a historic record of this species existing near a shallow farm pond located within 0.25 mile south of MP 547.8 and the pond is surrounded by potential habitat.

Impacts on special status plant species from surface disturbing activities could include the loss of individuals as a result of collision with construction vehicles and equipment.

Construction activities could affect local populations of special status plant species within the project area. Indirect impacts on special status species may include impacts caused by increased human activity and dispersal of noxious and invasive weeds.

Rockies Express' wetland surveys along the project route will include an analysis of the substrate and hydrology of wetland crossings. The results of this survey effort will be used to identify suitable habitat. If habitat is determined to be present along the route, surveys for the diffuse rush will be conducted during the flowering and fruiting season, which occurs between August and October. If plants are identified along the edge of the right-of-way, exclusion fencing will be placed around the plants so they can be avoided by construction activities. If plants are located within the right-of-way, Rockies Express will consult with the appropriate agencies and evaluate the potential to modify the route alignment (e.g., centerline location), change the construction right-of-way configuration (e.g., reduce the width of the right-of-way or "neck down") to avoid the population, or relocate the plant populations either temporarily or permanently. Rockies Express will coordinate with the ODNR to determine appropriate conservation measures. Due to the commitment to survey for this species and develop conservation measures in consultation with the ODNR as appropriate, the REX-East Project is not likely to change the population status of the diffuse rush.

White Wood-Sorrel

White wood-sorrel is a stemless perennial herb that was listed as endangered in Ohio in 2000. Extremely rare, this species is known from only three counties in the state. According to NHI records, a community of over 1,000 plants exists within 0.5 mile south of MP 626.3, on the Raven Rocks property. The area surrounding this occurrence remains forested, providing suitable habitat for this species that inhabits wet woods and is tolerant of deep shade.

Construction activities could permanently remove habitat for local populations of special status plant species within forested segments of the project area. Indirect impacts on special status species may include impacts caused by increased human activity and dispersal of noxious and invasive weeds.

Rockies Express will consult with the ODNR regarding the need to conduct surveys for this species. If required, surveys for white wood-sorrel would be conducted in the forested areas surrounding this known occurrence during the flowering season, which occurs between May and August. If plants are identified along the edge of the right-of-way, exclusion fencing will be placed around the plants so they can be avoided by construction activities. If plants are located within the right-of-way, Rockies Express will consult with the appropriate agencies and evaluate the potential to modify the route alignment (e.g., centerline location), change the construction right-of-way configuration (e.g., reduce the width of the right-of-way or "neck down") to avoid the population, or relocate the plant populations either temporarily or permanently. Rockies Express will coordinate with the ODNR to determine appropriate conservation measures. Due to the commitment to survey for this species and develop conservation measures in consultation with the ODNR as appropriate, the REX-East Project is not likely to change the population status of the white wood-sorrel.

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ROCKIES EXPRESS PIPELINE-EAST PROJECT

Resource Report 3

**APPENDIX 3A
Agency Consultations**

Appendix 3A Agency Correspondence Index

Agency/Date	Correspondence
U.S. Fish and Wildlife	
07-05-06	Missouri Survey Plan Letter Sent to Mr. Charlie Scott, Columbia Ecological Services Field Office (ESO), from Mr. Jeff Thommes, Natural Resource Group (NRG)
08-14-06	Call Log of Conversation Initiated From Ms. Della Kelly, NRG, to Mr. Charlie Scott, Regarding Missouri Survey Plans
07-05-06	Illinois Survey Plan Letter Sent to Mr. Richard Nelson, Rock Island ESO, and Ms. Joyce Collins, Marion Illinois Suboffice, From Mr. Jeff Thommes, NRG
07-28-06	Call Log of Conversation Initiated From Ms. Della Kelly, NRG, to Ms. Joyce Collins, Marion Illinois Suboffice, Regarding the Illinois Consultation
08-03-06	Illinois Survey Plan Response Letter Sent to Mr. Jeff Thommes, NRG, From Ms. Joyce Collins, Marion Illinois Suboffice
08-29-06	Call Log of Conversation Initiated From Ms. Della Kelly, NRG, to Ms. Joyce Collins, Marion Illinois Suboffice, Requesting Review of the Indiana Bat Survey Plan Draft
11-28-06	Call Log of Conversation Initiated From Ms. Joyce Collins, Marion Illinois Suboffice, to Ms. Della Kelly, NRG, Regarding Agency Comments For Project Planning
11-29-06	Email From Ms. Joyce Collins, Marion Illinois Suboffice, to Ms. Della Kelly, NRG, Regarding Potential Impacts From the Project
11-30-06	Email From Ms. Della Kelly, NRG, to Ms. Joyce Collins, Marion Illinois Suboffice, Requesting Review of the Indiana Bat Survey Plan, Second Draft
07-05-06	Indiana Survey Plan Letter Sent to Mr. Scott Pruitt, Bloomington ESO, From Mr. Jeff Thommes, NRG
07-28-06	Call Log of Conversation Initiated From Ms. Della Kelly, NRG, to Mr. Forest Clark, Bloomington ESO, Regarding Indiana Survey Plans
08-04-06	Indiana Survey Plan Response Letter Sent to Mr. Jeff Thommes, NRG, From Mr. Scott Pruitt, Field Supervisor Bloomington ESO
08-14-06	Call Log of Conversation Initiated From Mr. Jeff Thommes, NRG, to Mr. Forest Clark, Bloomington ESO, to Discuss Survey Methodology for Indiana Bats
09-05-06	Email From Mr. Jeff Thommes, NRG, to Mr. Forest Clark, Bloomington ESO, Requesting Review of Indiana Bat Survey Plan Revisions
09-05-06	Indiana Bat Mist Net Guidelines, Sent From Mr. Forest Clark, Bloomington ESO, to Mr. Jeff Thommes, NRG
11-14-06	Indiana Bat Survey Plan Response Letter Sent to Mr. Jeff Thommes, NRG, From Mr. Scott Pruitt, Bloomington ESO
06-21-06	Ohio Survey Plan Letter Sent to Ms. Mary Knapp, Reynoldsburg ESO, From Mr. Jeff Thommes, NRG
06-22-06	Interagency Meeting Minutes, Ohio FWS, ODNR, and Rockies Express met to discuss potential impacts of the project
08-15-06	Ohio Survey Plan Letter Response Sent to Mr. Jeff Thommes, NRG, From Ms. Mary Knapp, Reynoldsburg ESO
11-30-06	Email From Ms. Angela Zimmerman, Reynoldsburg ESO, to Ms. Della Kelly, NRG, Regarding Comments From Ohio FWS in Response to Preliminary Review
11-30-06	Email From Ms. Della Kelly, NRG, to Ms. Angela Zimmerman, Reynoldsburg ESO, to Clarify Comments Received From Ohio FWS in Response to Preliminary Review
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10-05-06	Review Comments Received by The Honorable Magalie Salas, FERC, From Mr. Ernest Quintana, Midwest Regional Director, Regarding the Notice of Intent to Prepare an EIS for the Project
National Marine Fisheries Service	
10-20-06	Call Log of Conversation Initiated by Mr. Jeff Madejczyk, NRG, to Mr. Lou Chirarella, National Marine Fisheries Service, Regarding Essential Fish Habitat
Missouri Department of Conservation	
04-05-06	Natural Heritage Inventory Request Letter Sent From Ms. Della Kelly, NRG, to Mr. Shannon Cave, Missouri Department of Conservation (MDC)
04-05-06	Call Log of Conversation Initiated by Ms. Della Kelly, NRG, to Mr. Shannon Cave, MDC, to Discuss Delivery Options for the Natural Heritage Inventory Request
04-19-06	Natural Heritage Response Letter Received by Ms. Della Kelly, NRG, from Mr. Shannon cave, MDC
10-10-06	Call Log of Conversation Initiated by Mr. Jeff Madejczyk, NRG, to Mr. Paul Calvert, MDC, Regarding Waterbody Classification and Fish Communities in Waterbodies Proposed for Crossing

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Agency/Date	Correspondence
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10-17-06	Call Log of Conversation Initiated by Mr. Jeff Madejczyk, NRG, to Mr. Brian Todd, MDC, Regarding Waterbody Classification and Fish Communities
10-26-06	Email Received by Mr. Jeff Madejczyk, NRG, From Mr. Doyle Brown, MDC, Regarding Consultation of County Lists of Species
Illinois Department of Natural Resources	
04-05-06	Natural Heritage Inventory Request Letter Sent From Ms. Delia Kelly, NRG, to Ms. Tara Kieninger, ILDNR
04-05-06	Call Log of Conversation Initiated by Ms. Delia Kelly, NRG, to Ms. Tara Kieninger, ILDNR, to Discuss Delivery Options for the Natural Heritage Inventory Request
04-17-06	Email Requesting Natural Heritage License Agreement, sent to Ms. Delia Kelly, NRG, From Ms. Tara Kieninger, ILDNR
04-17-06	Natural Heritage License Agreement, Memo Sent From Ms. Delia Kelly, NRG, to Ms. Tara Kieninger, ILDNR
04-17-06	Natural Heritage License Agreement Sent From Ms. Delia Kelly, NRG, to Ms. Tara Kieninger, ILDNR
04-17-06	Email Containing the Natural Heritage Data Response, Sent to Ms. Delia Kelly, NRG, from Ms. Tara Kieninger, ILDNR
10-11-06	Call Log of Conversation Initiated by Mr. Jeff Madejczyk, NRG, to Mr. Steve Pallo, ILDNR, Regarding Stream Classification and Fish Communities in Waterbodies Proposed for Crossing
12-14-06	Letter Sent from Mr. Jeff Thommes, NRG, to Mr. Rick Pietruszka, ILDNR, Requesting Consultation Regarding State-Listed Species
Indiana Department of Natural Resources	
04-05-06	Call Log of Conversation Initiated by Ms. Delia Kelly, NRG, to Mr. Ronald Hellmich, INDNR, to Discuss Delivery Options for the Natural Heritage Inventory Request
04-05-06	Natural Heritage Inventory Request Letter, Sent by Ms. Delia Kelly, NRG, to Mr. Ronald Hellmich, INDNR
04-24-06	Email Sent to Ms. Delia Kelly, NRG, from Mr. Ronald Hellmich, INDNR, In Response to the Natural Heritage Data Request
10-11-06	Call Log of Conversation Initiated by Mr. Jeff Madejczyk, NRG, to Mr. Rhett Wisener and Mr. Chip Long, INDNR, Regarding Stream Classification and Fish Communities in Waterbodies Proposed for Crossing
10-16-06	Email Response From Fisheries Biologist, Mr. Chris Long, INDNR, to Mr. Jeff Madejczyk, NRG, Regarding Fish Communities
10-16-06	Call Log of Conversation Initiated by Mr. Chip Long, INDNR, to Mr. Jeff Madejczyk, NRG, Regarding Stream Classification and Fish Communities in Waterbodies Proposed for Crossing
10-18-06	Call Log of Conversation Initiated by Mr. Jeff Madejczyk, NRG, to INDNR Big Rivers Fisheries Biologist, Tom Stefanavage, Regarding Commercial Fishing in Indiana
10-18-06	Call Log of Conversation Initiated by Mr. Jeff Madejczyk, NRG, to INDNR Environmental Coordinator, Christie Stanafor, Regarding the Consultation Process for Threatened and Endangered Species
10-19-06	Response Email From INDNR Big Rivers Fisheries Biologist, Tom Stefanavage, to Mr. Jeff Madejczyk, NRG, Regarding the Wabash River Species List
11-08-06	Response Email From Mr. Chris Long, INDNR, to Mr. Jeff Madejczyk, NRG, Regarding the White River Species List
11-21-06	Response Email From Mr. Clinton Kowalik, INDNR, to Mr. Jeff Madejczyk, NRG, Regarding the Sand Creek Fish List
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04-05-06	Call Log of Conversation Initiated by Ms. Delia Kelly, NRG, to Ms. Debbie Woischke, ODNR, to Discuss Delivery Options for the Natural Heritage Inventory Request
04-14-06	Natural Heritage Inventory Request Letter, Sent by Ms. Delia Kelly, NRG, to Ms. Debbie Woischke, ODNR
04-27-06	Natural Heritage Data Response Received by Ms. Delia Kelly, NRG, from Ms. Debbie Woischke, ODNR
08-21-06	Call Log of Conversation Initiated by Ms. Delia Kelly, NRG, to Mr. Mark Shieldcastle, ODNR, Regarding Locations of Known Eagle Nests in Ohio
10-12-06	Call Log of Conversation Initiated by Mr. Jeff Madejczyk, NRG, to Mr. Doug Maloney, ODNR, Regarding Stream Classification and Fish Communities in Waterbodies Proposed for Crossing
10-18-06	Call Log of Conversation Initiated by Mr. Jeff Madejczyk, NRG, to Mindy Bankey, ODNR Environmental Coordinator, Regarding the Consultation Process for Threatened and Endangered Species

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Agency/Date	Correspondence
11-06-06	Call Log of Conversation Initiated by Mr. Jeff Madejczyk, NRG, to Mr. Rich Carter, ODNR District 1 Fisheries Biologist, Regarding Deer Creek Fish Community Data
11-06-06	Call Log of Conversation Initiated by Mr. Jeff Madejczyk, NRG, to Mr. Doug Maloney, ODNR District 5 Fisheries Biologist, Regarding Caesar Creek Fish Community Data
Ohio Environmental Protection Agency	
10-19-06	Call Log of Conversation Initiated by Mr. Hugh Trimble, OEPA Southwest Region Water Quality Specialist, to Mr. Jeff Madejczyk, NRG, Regarding Ohio Watersheds Proposed for Crossing
10-20-06	Email from Mr. Dennis Mishne, ODNR, to Mr. Jeff Madejczyk, NRG, Regarding Big River Fish Species in Ohio Rivers Proposed for Crossing

1000 IDS Center
80 South Eighth Street
Minneapolis, MN 55402



telephone (612) 347-6789
facsimile (612) 347-6780
www.NRGINC.com

July 5, 2006

Mr. Charlie Scott
U.S. Fish and Wildlife Service
Columbia Ecological Services Field Office
101 Park DeVille Drive Suite A
Columbia, MO 65203

RE: Rockies Express Pipeline LLC, Rockies Express-East Project
Threatened and Endangered Species Survey Plans

Dear Mr. Scott:

Rockies Express Pipeline LLC (Rockies Express) is proposing to construct and operate a new pipeline, including compressor and ancillary facilities to transport natural gas produced in the Rocky Mountain basins for delivery primarily to other pipelines and distribution customers located in the Midwest and eastern United States. The Rockies Express pipeline system consists of existing and new proposed natural gas pipeline facilities extending from Rio Blanco County, Colorado to a terminus in Marion County, Ohio.

Existing pipeline facilities are being extended this summer under a Federal Energy Regulatory Commission (FERC) Certificate of Public Convenience and Necessity (Certificate), CP04-413-000. This project, referred to as the REX- Entrega Project, involves the completion of a 326-mile-long segment from Rio Blanco County, Colorado to Weld County, Colorado. A second segment, REX-West, will extend approximately 713 miles from Weld County, Colorado to Audrain County, Missouri. An application for a Certificate has been filed with the FERC (Docket No. CP06-354-000). A third segment, REX-East, will continue for another 622 miles from Audrain County, Missouri, to Monroe County, Ohio. Rockies Express has filed a request to participate in the FERC Pre-Filing process (Docket No. PF06-30-000) for this project.

Each project, while connected, will serve separate markets. The REX-East Project is the subject of this consultation.

In addition to the pipeline, REX-East will include construction of some aboveground facilities including compressor stations, block valves, and metering/regulation facilities. With the exception of compressor stations, aboveground facilities will be located within or adjacent to existing facilities or largely within the permanent right-of-way of the proposed project. These facilities will be sited to avoid impacts on special status species and sensitive vegetation communities. Pipeline construction will generally involve a 125-foot-wide construction right-of-way and is anticipated to begin in spring 2008 with an expected in-service date of winter 2008. The Federal Energy Regulatory Commission (FERC) is the lead federal agency for the project.

Pursuant to 18 CFR 380.13, Rockies Express is acting as the FERC's non-federal representative for purposes of complying with section 7(a) of the Endangered Species Act (ESA). Rockies Express has retained Natural Resource Group, Inc. (NRG) to assist with various aspects of project development, including agency consultations, environmental field surveys, and preparation of an application to the FERC. NRG, on behalf of Rockies Express, will be preparing environmental review documents for the project.

Based on a review of public documents for the REX-East Pipeline, including lists of federally endangered or threatened species found on websites maintained by the FWS, the following species were identified as potentially occurring in the general project area in Missouri:

- Indiana bat,
- gray bat,
- fat pocketbook,
- bald eagle,
- decurrent false aster

In order to complete an assessment of potential project impacts on these species, Rockies Express is proposing to conduct a general habitat review of the project area and focused follow-up surveys as necessary. Details of this general review and the potential surveys are described below.

General Habitat Assessment

Rockies Express is currently planning to conduct wetland and waterbody surveys within a 250-foot-wide corridor along the project route beginning in mid-August 2006. Wetland surveys will follow the methodology outlined in the 1987 Corps of Engineers Wetland Delineation Manual. Waterbody surveys will include identification of both perennial and intermittent waterbodies occurring along the project corridor as well as a qualitative assessment of many stream characteristics. Specifically, survey crews will record approximate stream width (bank-to-bank and at water level), depth, flow, substrate, bank slope, and bank vegetation (type and percent cover).

During these surveys, field crews will assess wetlands, waterbodies, and undisturbed upland areas within the survey corridor for suitable habitat for the six species listed above. Where suitable habitat is identified, Rockies Express proposes to conduct additional species specific details as described in the following sections.

Indiana Bat

The federally endangered Indiana bat is listed as occurring in all 3 Missouri counties crossed by the proposed route, where individuals may roost under the bark of trees in riparian and upland forests near perennial streams. During the summer, maternity colonies are typically found roosting behind sloughing bark or in cavities, often in, but not limited to, dead trees. Indiana bats forage on insects in and around the tree canopy of floodplain, riparian, and upland forests. Streams associated with floodplain forests and impounded bodies of water such as ponds, reservoirs, and wetlands are sometimes considered preferred foraging habitats for bats. The Missouri Department of Conservation, *Heritage Report*, identified no known occurrences of the Indiana bat within one mile of the proposed pipeline route. However, Rockies Express will conduct surveys in forested areas along the project corridor to identify areas of suitable summer roosting

habitat. Surveys will involve pedestrian meander searches for trees with the appropriate bark structure or cavities to sustain roosting bats. Rockies Express will not limit surveys to upland or wetland forests nor restrict identification of suitable trees to certain species or size. If suitable roost trees are identified, trees will be uniquely marked in the field and noted on aerial photographs.

Gray Bat

The federally endangered gray bat is known to inhabit areas in Ralls and Pike counties during part of its migratory cycle. During winter hibernation, generally lasting from October to April, the population is concentrated in three caves in southern Missouri. Rockies Express will not have any impact on the area of these three hibernation caves. In the spring, gray bats migrate to scattered caves with domed ceilings where maternity colonies cluster to retain heat. Disturbance of maternity colonies may result in the abortion or abandonment of young. The Missouri Department of Conservation, Heritage Report, identified no gray bat populations or individuals within one mile of the proposed route. However, caves are known to occur within five miles of the route along approximately 18.4 miles of Pike County. Rockies Express will survey the route for cave locations and will incorporate this information into the engineering of project planning.

Fat Pocketbook

The federally endangered fat pocketbook is known to occur in Pike and Ralls counties. This freshwater mussel is generally found in large rivers, seemingly preferring a mixture of silt, mud, and sand. Spawning occurs from late August through September and successful reproduction is reliant on the presence of a suitable population of its host fish, the freshwater drum. Like many mussel species, fat pocketbooks are sensitive to siltation and habitat destruction. The fat pocketbook is only known to occur in three large rivers, none of which are crossed by the proposed route in Missouri. In addition, according to Natural Heritage Data supplied by the Missouri Department of Conservation, there are no known observations of the mussel within one mile of the proposed route. Waterbody surveys scheduled to begin along the project route in August 2006 will include an analysis of the substrate and hydrology of waterbody crossings. In streams identified as having suitable habitat for the fat pocketbook, Rockies Express will conduct surveys using trained biologists to determine presence or absence of populations along the proposed route.

Bald Eagle

The federally threatened bald eagle has known populations in Pike and Ralls counties, where they are likely to be present from November 15 to March 15 and may also be casual summer residents. Of the 3 perennial streams crossed by the proposed route in Missouri, one unnamed creek in Pike County could be large enough to support nesting bald eagles. Rockies Express will coordinate with your office regarding any known and currently monitored bald eagle nesting locations. Additionally, Rockies Express will conduct surveys in areas of suitable nesting habitat during the nesting season to determine if bald eagle nests are present.

Decurrent False Aster

The federally threatened decurrent false aster has been recorded in Pike County. This big river floodplain species primarily inhabits wetlands and borders of marshes, lakes, oxbows, and sloughs. It reportedly favors sites characterized by moist soil and regular disturbance, typically periodic flooding, which maintains open areas with high light levels. Seeds are dispersed primarily by floodwater. Natural Heritage records supplied to

Rockies Express by the Missouri Department of Conservation indicate that the decurrent false aster has not been observed within one mile of the proposed route. Wetland delineations along the route will begin in August 2006, and will identify areas of suitable habitat for the decurrent false aster to be targeted by future species-specific surveys.

Upon completion of preliminary habitat assessments and focused species surveys, as necessary, Rockies Express will determine the potential for the project to affect listed species and develop conservation measures to avoid or minimize effects. Rockies Express will then submit the survey results, assessment of potential effects, and discussion of conservation measures to the FWS for review.

With this letter Rockies Express requests approval of both the list of species identified as potentially occurring along the project route (as shown on the attached map) and approval of the proposed survey methods. If additional species or alternate survey methods are recommended or required, please provide details in your response letter. Rockies Express would appreciate a response within 30 days to allow incorporation into the survey planning process.

If you have any questions or need additional information regarding protected species, please contact me at (612) 359-5678 or jrthommes@nrginc.com.

Sincerely,

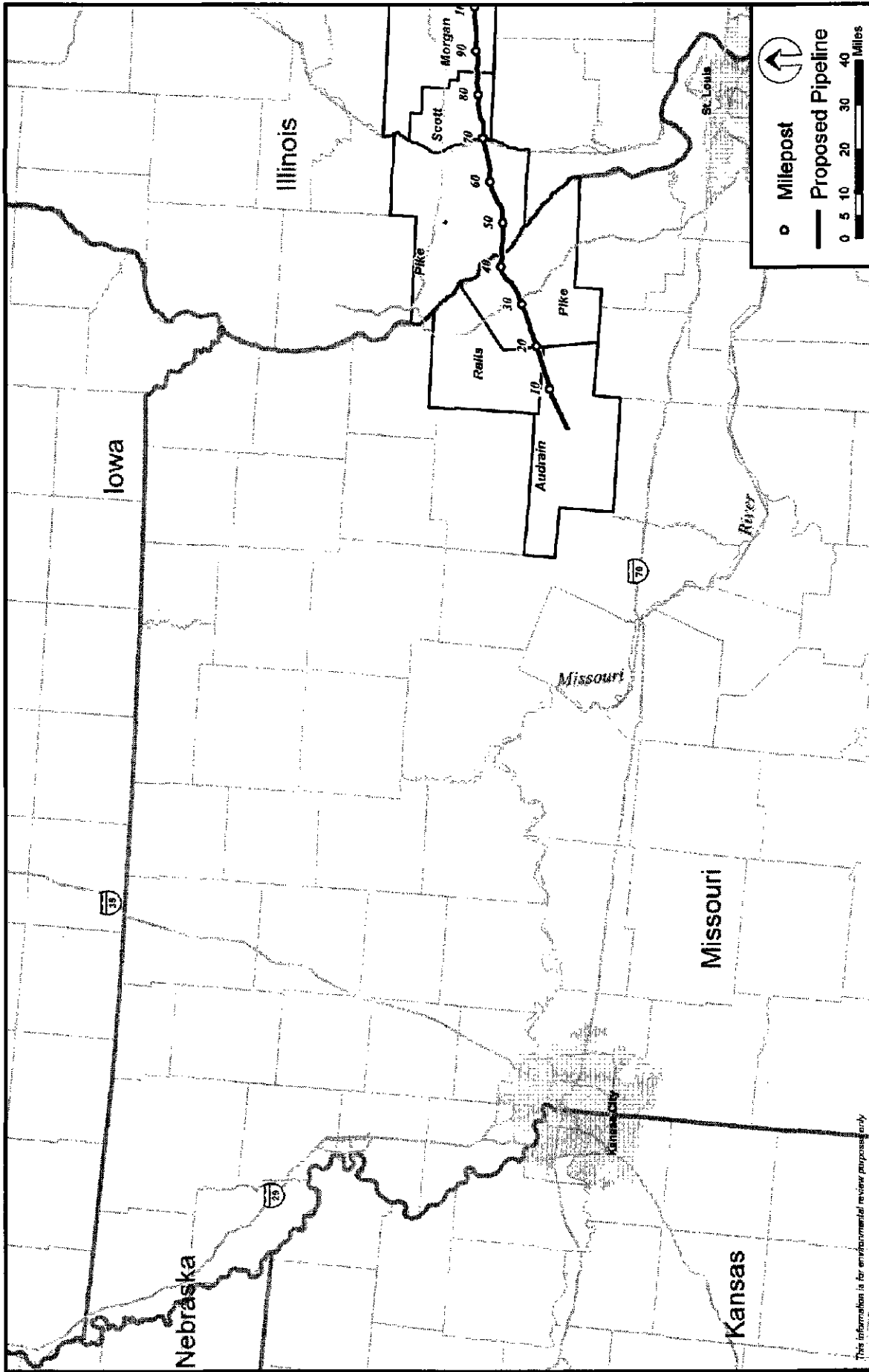
Natural Resource Group, Inc.



Jeff Thommes
Natural Resource Specialist

Enclosure: Project Location Map

cc: Jim Thompson, Rockies Express
Ryan Childs, Rockies Express
Elizabeth Dolezal, Natural Resource Group
Project File



This information is for environmental review purposes only.

Rockies Express Pipeline Project (REX-East) **General Location Map** **Missouri**

DATE: 07/05/06

REVISED: 07/05/06

SCALE: 1:1,963,386

DRAWN BY: KRSOLBERG

M:\Clients\J-L\KRM\REX_East\GIS\2006107_IL_IN_MO.mxd





LOG

LOG OF TELEPHONE CONVERSATION

CALL TO/FROM WHOM: Charlie Scott	PHONE NO.: 573-234-2132
COMPANY: United States Fish and Wildlife, Columbia Missouri	
NRG CONTACT: Delia Kelly	PHONE NO.: 612-347-6794
DATE: September 14, 2006	NRG OFFICE LOCATION: Minneapolis
RE: Threatened and Endangered Species Survey Plans Letter – Follow Up	
LOG OF CONVERSATION:	

I called Mr. Scott to follow up on the letter sent to him from Jeff Thommes on July 5, 2006, requesting that his office provide input into the survey plans for species of concern in Missouri. Mr. Scott said that he had the information and apologized for not replying sooner. He stated that they do not have many concerns, and that there was nothing in the letter that appeared erroneous at first glance. For the Indiana bat, he agrees with the survey procedures called for by REX-West, which are more lenient than those for REX-East, and said that the plans for REX-East surveys will likely be more than suitable for their needs. He said that it is unlikely that there will be significant habitat for mussels or Bald Eagles along the proposed route, and the Gray bat will not be a concern. I notified Mr. Scott that wetland survey crews will be initiating survey on September 18, 2006, and will be performing a preliminary habitat assessment, as described in the letter. Mr. Scott said that sounded fine, and offered to provide a response to the survey plan letter tomorrow, September 15. I provided him my contact information as supplemental to the information provided in the letter, and thanked him for his time.

1000 IDS Center
80 South Eighth Street
Minneapolis, MN 55402



telephone (612) 347-6789
facsimile (612) 347-6780
www.NRGINC.com

July 5, 2006

Richard Nelson
U.S. Fish and Wildlife Service
Rock Island Ecological Services Field Office
4469 48th Avenue Court
Rock Island, IL 61201

Joyce Collins
U.S. Fish and Wildlife Service
Marion Illinois Suboffice
8588 Route 148
Marion, IL 62959

RE: Rockies Express Pipeline LLC, Rockies Express-East Project
Threatened and Endangered Species Survey Plans

Dear Mr. Nelson and Ms. Collins:

Rockies Express Pipeline LLC (Rockies Express) is proposing to construct and operate a new pipeline, including compressor and ancillary facilities to transport natural gas produced in the Rocky Mountain basins for delivery primarily to other pipelines and distribution customers located in the Midwest and eastern United States. The Rockies Express pipeline system consists of existing and new natural gas pipeline facilities extending from Rio Blanco County, Colorado to a terminus in Marion County, Ohio.

Existing pipeline facilities are being extended this summer under a Federal Energy Regulatory Commission (FERC) Certificate of Public Convenience and Necessity (Certificate), CP04-413-000. This project, referred to as the REX- Entrega Project, involves the completion of a 326-mile-long segment from Rio Blanco County, Colorado to Weld County, Colorado. A second segment, REX-West, will extend approximately 713 miles from Weld County, Colorado to Audrain County, Missouri. An application for a Certificate has been filed with the FERC (Docket No. CP06-354-000). A third segment, REX-East, will continue for another 622 miles from Audrain County, Missouri, to Monroe County, Ohio. Rockies Express has filed a request to participate in the FERC Pre-Filing process (Docket No. PF06-30-000) for this project.

Each project, while connected, will serve separate markets. The REX-East Project is the subject of this consultation.

In addition to the pipeline, REX-East will include construction of some aboveground facilities including compressor stations, block valves, and metering/regulation facilities. With the exception of compressor stations, aboveground facilities will be located within or adjacent to existing facilities or largely within the permanent right-of-way of the proposed project. These facilities will be sited to avoid impacts on special status species and sensitive vegetation communities. Pipeline construction will generally involve a 125-foot-

wide construction right-of-way and is anticipated to begin in May 2008 with an expected in-service date of winter 2008. The Federal Energy Regulatory Commission (FERC) is the lead federal agency for the project.

Pursuant to 18 CFR 380.13, Rockies Express is acting as the FERC's non-federal representative for purposes of complying with section 7(a) of the Endangered Species Act (ESA). Rockies Express has retained Natural Resource Group, Inc. (NRG) to assist with various aspects of project development, including agency consultations, environmental field surveys, and preparation of an application to the FERC. NRG, on behalf of Rockies Express, will be preparing environmental review documents for the project.

Based on a review of public documents for the REX-East Pipeline, including lists of federally endangered or threatened species found on websites maintained by the FWS, the following species were identified as potentially occurring in the general project area in Illinois:

- Indiana bat,
- gray bat,
- prairie bush clover,
- bald eagle,
- decurrent false aster,
- eastern prairie fringed orchid

In order to complete an assessment of potential project impacts on these species, Rockies Express is proposing to conduct a general habitat review of the project area and focused follow-up surveys as necessary. Details of this general review and the potential surveys are described below.

General Habitat Assessment

Rockies Express is currently planning to conduct wetland and waterbody surveys within a 250-foot-wide corridor along the project route beginning in mid-August 2006. Wetland surveys will follow the methodology outlined in the 1987 Corps of Engineers Wetland Delineation Manual. Waterbody surveys will include identification of both perennial and intermittent waterbodies occurring along the project corridor as well as a qualitative assessment of many stream characteristics. Specifically, survey crews will record approximate stream width (bank-to-bank and at water level), depth, flow, substrate, bank slope, and bank vegetation (type and percent cover).

Indiana Bat

The federally endangered Indiana bat is listed as occurring statewide. Individuals may roost under the bark of trees in riparian and upland forests near perennial streams. During the summer, maternity colonies are typically found roosting behind sloughing bark or in cavities, often in, but not limited to, dead trees. Indiana bats forage on insects in and around the tree canopy of floodplain, riparian, and upland forests. Streams associated with floodplain forests and impounded bodies of water such as ponds, reservoirs, and wetlands are sometimes considered preferred foraging habitats for bats. The Illinois Department of Natural Resources, Natural Heritage Database reports no known occurrences of the Indiana bat within one mile of the proposed pipeline route. However, Rockies Express will conduct surveys in forested areas along the project corridor to identify areas of suitable summer roosting habitat. Surveys will involve

pedestrian meander searches for trees with the appropriate bark structure or cavities to sustain roosting bats. Rockies Express will not limit surveys to upland or wetland forests nor restrict identification of suitable trees to certain species or size. If suitable roost trees are identified, trees will be uniquely marked in the field and noted on aerial photographs.

Gray Bat

The federally endangered gray bat is known to inhabit caves and/or abandoned mines in Pike County. Rockies Express will not be constructing during the period of winter hibernation, generally lasting from October to April, and does not anticipate having any impact on the area of the hibernation caves. In the spring, gray bats migrate to scattered caves with domed ceilings where maternity colonies cluster to retain heat. Disturbance of maternity colonies may result in the abortion or abandonment of young. The Illinois Department of Natural Resources, Natural Heritage Database has identified no gray bat populations or individuals within one mile of the proposed route. While cave locations in Illinois are not known, Rockies Express has identified 100 sinkholes within 10 miles of the proposed route. These sinkholes, concentrated in Pike and Scott Counties, indicate a strong likelihood of karst terrain. Rockies Express will survey the route for cave locations and will incorporate this information into project planning.

Prairie Bush Clover

The federally threatened prairie bush clover is listed as potentially occurring statewide in counties containing dry/mesic/wet prairies. This Midwestern endemic prairie legume is found only in the tall-grass prairie region of 23 counties, where it is restricted to fewer than 40 sites. The rarity of this species can be attributed primarily to the loss of tall-grass prairie habitat, specifically mesic to dry prairie. Remaining populations occur primarily in areas that were not converted to cropland because the terrain is too steep or rocky. According to the Illinois Department of Natural Resources, Natural Heritage Database there are no known occurrences of this species within one mile of the proposed route and there are no prairie regions in the general area of the project. Wetland delineations are scheduled to begin along the proposed route in August 2006, and will include surveys for suitable prairie bush clover habitat. In areas determined to be appropriate for this species, Rockies Express will perform species-specific surveys during the flowering season (mid-July) of 2007.

Bald Eagle

The federally threatened bald eagle has wintering populations in Pike, Scott, Morgan, Sangamon, Christian, and Moultrie counties, where they are likely to be present from November 15 to March 15. Of the 56 perennial streams crossed by the proposed route in Illinois, 10 could be large enough to support nesting bald eagles. Rockies Express will coordinate with your office regarding any known and currently monitored bald eagle nesting locations. Additionally, Rockies Express will conduct surveys in areas of suitable nesting habitat during the nesting season to determine if bald eagle nests are present.

Decurrent False Aster

The federally threatened decurrent false aster has been recorded in Pike, Scott, and Morgan Counties. This big river floodplain species primarily inhabits wetlands and borders of marshes, lakes, oxbows, and sloughs. It reportedly favors sites characterized by moist soil and regular disturbance, typically periodic flooding, which maintains open areas with high light levels. Seeds are dispersed primarily by floodwater. Natural Heritage records supplied to Rockies Express by the Illinois Department of Natural Resources, Natural Heritage Database indicate that the decurrent false aster has not

been observed within one mile of the proposed route. Wetland delineations along the route will begin in August 2006, and will identify areas of suitable habitat for the decurrent false aster to be targeted by future species-specific surveys.

Eastern Prairie Fringed Orchid

The federally threatened eastern prairie fringed orchid is listed as potentially occurring statewide in counties containing dry/mesic/wet prairies. This species occurs in a wide variety of habitats, from mesic prairie to wetlands such as sedge meadows, marsh edges, and bogs. It requires full sun and a grassy habitat with little or no woody encroachment. Historically threatened by the conversion of habitat to cropland, the eastern prairie fringed orchid is currently most threatened by the drainage and development of wetlands as well as competition from non-native species. According to the Illinois Department of Natural Resources, Natural Heritage Database there are no known occurrences of this species within one mile of the proposed route and there are no prairie regions in the general area of the project. Wetland delineations are scheduled to begin along the proposed route in August 2006, and will include surveys for suitable eastern prairie fringed orchid habitat. In areas determined to be appropriate for this species, Rockies Express will perform species-specific surveys during the flowering season (which peaks between mid-June and August) of 2007.

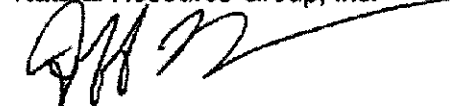
Upon completion of preliminary habitat assessments and focused species surveys, as necessary, Rockies Express will determine the potential for the project to affect listed species and develop conservation measures to avoid or minimize effects. Rockies Express will then submit the survey results, assessment of potential effects, and discussion of conservation measures to the FWS for review.

With this letter Rockies Express requests approval of both the list of species identified as potentially occurring along the project route (as shown on the attached map) and approval of the proposed survey methods. If additional species or alternate survey methods are recommended or required, please provide details in your response letter. Rockies Express would appreciate a response within 30 days to allow incorporation into the survey planning process.

If you have any questions or need additional information regarding protected species, please contact me at (612) 359-5678 or jrthommes@nrginc.com.

Sincerely,

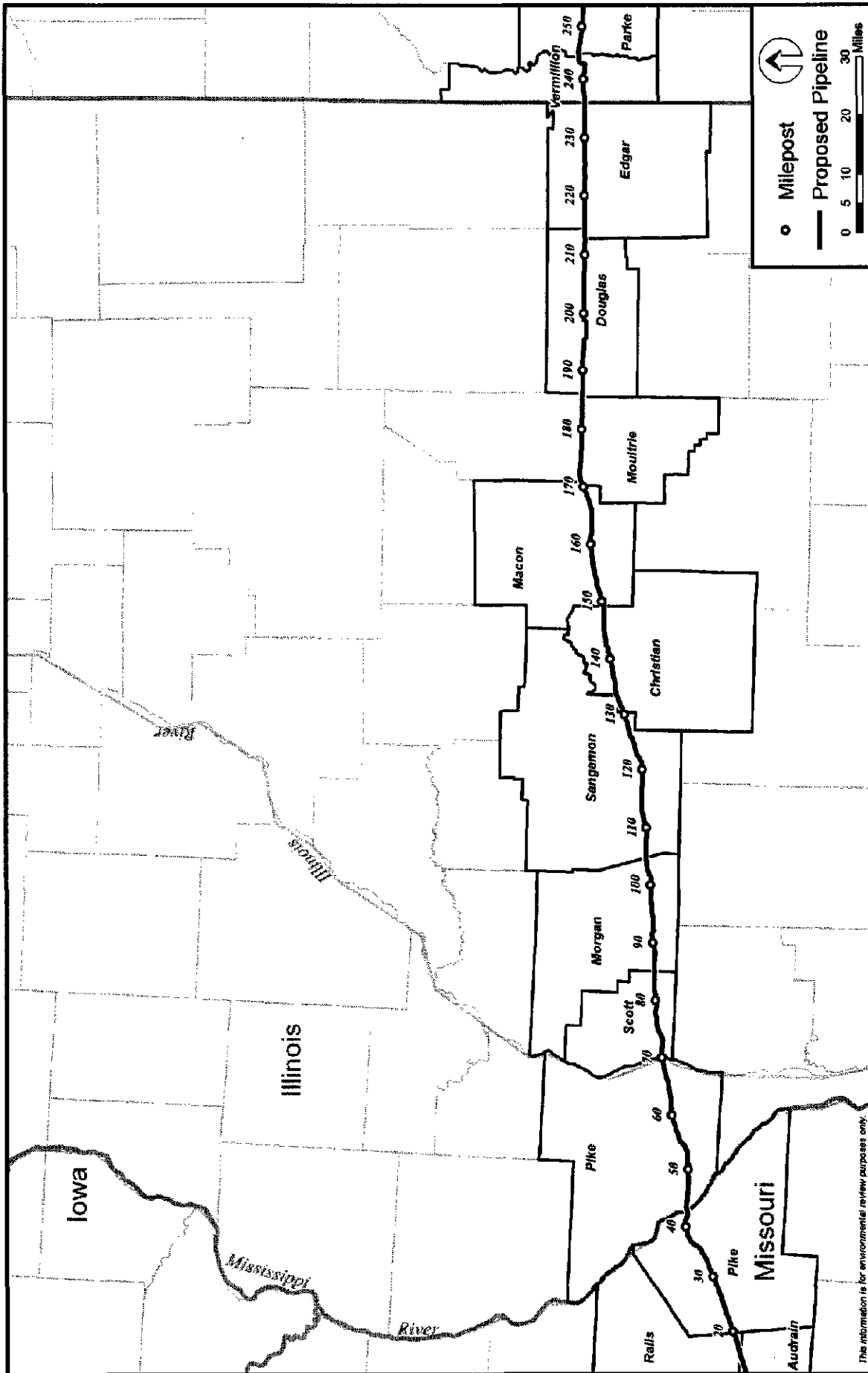
Natural Resource Group, Inc.



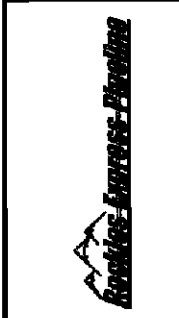
Jeff Thommes
Natural Resource Specialist

Enclosure: Project Location Map

cc: Jim Thompson, Rockies Express
Ryan Childs, Rockies Express
Elizabeth Dolezal, Natural Resource Group



This information is for environmental review purposes only.



Rockies Express Pipeline Project (REX-East) **General Location Map** **Illinois**

DATE: 07/05/06
REVISED: 07/05/06
SCALE: 1:1,492,471
DRAWN BY: KRSOLBERG
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LOG

LOG OF TELEPHONE CONVERSATION

CALL TO/FROM WHOM: Joyce Collins	PHONE NO.: 618-997-3344 x340
COMPANY: Illinois Fish and Wildlife Service – Marion Suboffice	
NRG CONTACT: Delia Kelly	PHONE NO.: 612-345-7156
DATE: July 28, 2006	NRG OFFICE LOCATION: Minneapolis
RE: Status of the Threatened and Endangered Species Consultation	

LOG OF CONVERSATION:

I called Ms. Collins to inquire as to the status of the species consultation and answer any questions she might have about the project. Ms. Collins said that her office would issue a response within a week, but added that the response would be limited in scope because more refined topo maps would be needed to assess specific concerns. Ms. Collins told me she will be the lead contact for Illinois FWS, and that contact with the Rock Island office would be unnecessary. She said that she has had some contact with the FWS offices included in the project area and that it is likely that one state will take the lead for the entire project. No project lead has been determined as of this point.

Ms. Collins said that in general, the list of species included in the REX-East consultation request letter is an accurate depiction of the anticipated species of concern. In addition to the methods of survey described in the letter, Ms. Collins may require mist net surveys for the Indiana bat and may want to add the spectaclecase mussel to the list of concerns. The spectaclecase would only be a concern in the Mississippi River, and would not be impacted in the project drills beneath the river. I told Ms. Collins that it was my understanding that the project would drill. Ms. Collins said that the gray bat is a karst dependant species and, since karst areas are in the western part of the state, impacts to the gray bat are unlikely. She told me that the prairie bush clover and eastern prairie fringed orchid would be found on prairie remnants only and advised that the project survey for prairies, but included that the likelihood of finding prairie remnants is low. I told Ms. Collins that more refined project location information would be included in future communications between the project team and the FWS and thanked her for her time.



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Marion Illinois Suboffice (ES)
8588 Route 148
Marion, IL 62959
(618) 997-3344

August 3, 2006

Mr. Jeff Thommes
Natural Resource Specialist
Natural Resources Group, Inc.
1000 IDS Center
80 South Eighth Street
Minneapolis, MN 55402

Dear Mr. Thommes:

This is in reference to your July 5, 2006 letter regarding the Rockies Express Pipeline, LLC, Rockies Express-East Project. Your letter requested Fish and Wildlife Service (Service) approval of the list of federally threatened and endangered species identified as potentially occurring along the project route and approval of the proposed survey methods for each species. The letter was provided to both the Rock Island Field Office and the Marion, Illinois Sub-Office for response. This response will fulfill the request for both offices and until otherwise indicated this office will be the lead field office for consultation and coordination associated with this project within the state of Illinois.

In general we concur with the species list provided in your letter. We do note that a candidate mussel species, Spectaclecase (*Cumberlandia monodonta*), is known to occur in the Mississippi River in the vicinity of the proposed pipeline route. We recommend impacts to candidate species be avoided wherever practical in order to protect existing populations and potentially prevent the need for listing these species in the future. Per a telephone conversation with Delia Kelly of NRG on July 28, 2006, we understand that the proposed pipeline will be directionally drilled under the Mississippi River. Therefore, impacts to mussel beds are unlikely to occur.

In general we also concur with the proposed habitat assessment methodologies and focused survey efforts, as necessary. However, the maps provided thus far are insufficient for determining the location of large blocks of forested habitat that may be suitable for Indiana bat maternity colonies or use by individual males and/or non-reproductive females. While the initial habitat survey will provide an indication of potential habitat, it does not preclude the possible need for mist-net surveys to further assess the potential for the presence of Indiana bats in the project area. We recommend more refined maps (e.g., topographic maps) and/or aerial photographs with the proposed

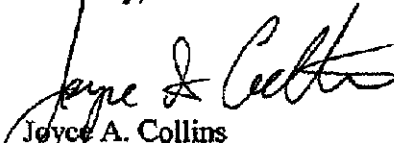
Mr. Jeff Thommes

2.

pipeline route identified be provided to this office as soon as practical. This will then enable identification of potential areas that may require mist-netting for Indiana bats.

Thanks you for the opportunity to review the species list and proposed habitat assessment methodologies. Please contact me at 618/997-3344, ext. 340, should you have any questions or require additional information.

Sincerely,



Joyce A. Collins
Assistant Field Supervisor

cc: USFWS (Nelson, Scott, Clark, Zimmerman)
IDNR (Rettig, Kruse)



LOG

LOG OF TELEPHONE CONVERSATION

CALL TO/FROM WHOM: Joyce Collins	PHONE NO.: 618-997-3344 X340
COMPANY: United States Fish and Wildlife Service – Marion Sub-Office, Illinois	
NRG CONTACT: Delia Kelly	PHONE NO.: 612-347-6794
DATE: August 29, 2006	NRG OFFICE LOCATION: Minneapolis
RE: Indiana Bat Survey Plan	
LOG OF CONVERSATION:	

I called Ms. Collins to follow up on the Indiana Bat draft survey plan, sent to her by Jeff Thommes, and collect any comments she might want incorporated into the revisions suggested by Forest Clark of the Indiana US Fish and Wildlife Service. Ms. Collins said that she had received the draft plan and the comments from Mr. Clark. Ms. Collins supports Mr. Clark's comments and has nothing further to add.



LOG

LOG OF TELEPHONE CONVERSATION

CALL TO/FROM WHOM: Joyce Collins	PHONE NO.: 618-997-3344 X340
COMPANY: US Fish and Wildlife Service, Marion Illinois Sub-Office	
NRG CONTACT: Delia Kelly	PHONE NO.: 612-347-6794
DATE: November 28, 2006	NRG OFFICE LOCATION: Minneapolis
RE: Rockies Express Pipeline – East Project, Threatened and Endangered Species Review	
SIGNATURE:	TIME OF CONVERSATION: 11:30 AM

LOG OF CONVERSATION:

Ms. Collins returned my message, left November 27, 2006. She verified that she had received aerial photo maps of the project sent October 23, 2006. She said that she had reviewed the maps and compiled a list of concerns, and mentioned her concern for appropriate erosion control at the crossings of the Mississippi and Illinois Rivers, as well as the headwaters of the Kaskaskia. She also discussed potential concerns with Blackburn Island, stating that the COE would need to be contacted to coordinate efforts in this area. She offered to email me a list of her concerns. I outlined for Ms. Collins the status of the survey thus far, and told her that species-specific surveys are tentatively scheduled for spring, 2007. She agreed to participate in planning for these surveys. I thanked her for her time.

From: Joyce_Collins@fws.gov
To: Delia Kelly;
CC:
Subject: Rockies Express (REX East) Pipeline Project
Date: Wednesday, November 29, 2006 3:06:53 PM
Attachments:

Delia,

As I mentioned on the phone, I've reviewed the Oct. 20, 2006, aerial photos for this project. The following information is provided to further assist in planning for this project.

1. Sheet 1 of 146, Crossing of the Salt River and Mississippi River - I just spoke with one of the policy coordinators with the Missouri Dept. of Conservation and she relayed to me that they have already had a meeting at this site with the Corps of Engineers and representatives for REX East to discuss the crossing of the General Plan Lands in this area. For this reason I don't have much to add. I would just request that REX east work to reduce the impacts to Blackburn Island (not Angle) and the riparian corridor on the Illinois side as much as possible.
2. Sheet 4 of 146 - The Civil Survey Route would be preferable to the April Route to reduce impacts to the slough.
3. Sheets 12 and 13 of 146 - Minimize impacts to the forested habitat to the greatest extent possible.
4. Sheet 22 of 146 - We have 1985 and 1988 records of endangered Indiana bat captures approximately 6-7 miles south of Montezuma, IL (near Pearl, IL). The area is identified as a migratory corridor.

Additionally, the threatened decurrent false aster is known to occur in several locations within the Illinois River floodplain. No populations are known to occur within the proposed right-of-way and suitable habitat does not appear to be present based on the aerial photos. However, surveys may be needed depending upon the outcome of wetland investigations (e.g., if emergent, farmed, or other open wetlands are located within the IL River floodplain).

5. Sheets 25 of 146 - In July of 1985 two juvenile Indiana bats were netted in an area just north of the proposed right-of-way between mileposts 74 and 75 in Scott County, Illinois. This would indicate the presence of a maternity colony within close proximity (<1 mile) of the pipeline route.

6. Sheet 92 of 146 - Minimize impacts to the forest/riparian corridor along Finley Creek. It appears that if the route is moved south a few hundred feet, impacts could be significantly reduced.

7. Sheet 113 of 146 - This area is the headwaters of the Kaskaskia River, an important river system in Illinois. Stringent erosion control measures should be utilized in crossing this river to minimize impacts to downstream resources, such as Lake Shelbyville. The Illinois Department of Conservation should be contacted to determine if important state mussel or fisheries resources may be impacted. Keith Shank (217-785-4984) the Impact Assessment Section Manager would be a good person to initially contact for this information.

That's all the specific comments I have. On a general note, I can see that you folks have gone to great lengths to minimize the amount of forest that will be impacted. I applaud you for this effort as it will reduce impacts to migratory birds, and possibly Indiana bats.

Thanks,

/s/ Joyce A. Collins

Joyce A. Collins
Assistant Field Supervisor
U.S. Fish and Wildlife Service
Marion Illinois Sub-Office
8588 Route 148
Marion, Illinois 62959
phone: 618/997-3344, ext. 340
fax: 618/997-8961
email: joyce_collins@fws.gov

Delia Kelly

From: Delia Kelly
Sent: Thursday, November 30, 2006 10:07 AM
To: 'Joyce_Collins@fws.gov'
Cc: Jeff Thommes
Subject: REX-East Indiana Bat Survey Plan
Attachments: Mist Net Guidelines 9_5_06.pdf, Indiana Bat Survey Data Sheet_FINAL.pdf, Indiana Bat Survey Plan_Draft 2.pdf

Hello Joyce,

I received your email yesterday and want to thank you for your response comments, they will be very useful to future efforts on the project. Attached you will find the Rockies Express Indiana Bat Habitat Assessment and Survey Plan. This document is a revision of the plan that you reviewed earlier this year, and is a product of ongoing consultations between Indiana FWS and Jeff Thommes, NRG. We are confident that this plan will provide guidance toward a responsible survey effort, and would like to ask that you review it and provide comments as you see fit. The plan makes reference to the Indiana Bat Survey Data Sheet and Mist Net Guidelines. Both documents are also attached for your reference.

Again, thank you for your continued participation in this project.

Delia



Delia Kelly
drkelly@nrginc.com
612.347.6794 Direct
612.347.6780 Fax

1000 IDS Center
80 South Eighth Street
Minneapolis, MN 55402



telephone (612) 347-6789
facsimile (612) 347-6780
www.NRGINC.com

July 5, 2006

Scott Pruitt
U.S. Fish and Wildlife Service
Bloomington Ecological Services Field Office
620 South Walker Street
Bloomington, IN 47403

RE: Rockies Express Pipeline LLC, Rockies Express-East Project
Threatened and Endangered Species Survey Plans

Dear Mr. Pruitt:

Rockies Express Pipeline LLC (Rockies Express) is proposing to construct and operate a new pipeline, including compressor and ancillary facilities to transport natural gas produced in the Rocky Mountain basins for delivery primarily to other pipelines and distribution customers located in the Midwest and eastern United States. The Rockies Express pipeline system consists of existing and new natural gas pipeline facilities extending from Rio Blanco County, Colorado to a terminus in Marion County, Ohio.

Existing pipeline facilities are being extended this summer under a Federal Energy Regulatory Commission (FERC) Certificate of Public Convenience and Necessity (Certificate), CP04-413-000. This project, referred to as the REX- Entrega Project, involves the completion of a 326-mile-long segment from Rio Blanco County, Colorado to Weld County, Colorado. A second segment, REX-West, will extend approximately 713 miles from Weld County, Colorado to Audrain County, Missouri. An application for a Certificate has been filed with the FERC (Docket No. CP06-354-000). A third segment, REX-East, will continue for another 622 miles from Audrain County, Missouri, to Monroe County, Ohio. Rockies Express has filed a request to participate in the FERC Pre-Filing process (Docket No. PF06-30-000) for this project.

Each project, while connected, will serve separate markets. The REX-East Project is the subject of this consultation.

In addition to the pipeline, REX-East will include construction of some aboveground facilities including compressor stations, block valves, and metering/regulation facilities. With the exception of compressor stations, aboveground facilities will be located within or adjacent to existing facilities or largely within the permanent right-of-way of the proposed project. These facilities will be sited to avoid impacts on special status species and sensitive vegetation communities. Pipeline construction will generally involve a 125-foot-wide construction right-of-way and is anticipated to begin in May 2008 with an expected in-service date of winter 2008. The Federal Energy Regulatory Commission (FERC) is the lead federal agency for the project.

Pursuant to 18 CFR 380.13, Rockies Express is acting as the FERC's non-federal representative for purposes of complying with section 7(a) of the Endangered Species

Act (ESA). Rockies Express has retained Natural Resource Group, Inc. (NRG) to assist with various aspects of project development, including agency consultations, environmental field surveys, and preparation of an application to the FERC. NRG, on behalf of Rockies Express, will be preparing environmental review documents for the project.

Based on a review of public documents for the REX-East Pipeline, including lists of federally endangered or threatened species found on websites maintained by the FWS, the following species were identified as potentially occurring in the general project area in Indiana:

- Indiana bat,
- bald eagle

In order to complete an assessment of potential project impacts on these species, Rockies Express is proposing to conduct a general habitat review of the project area and focused follow-up surveys as necessary. Details of this general review and the potential surveys are described below.

General Habitat Assessment

Rockies Express is currently planning to conduct wetland and waterbody surveys within a 250-foot-wide corridor along the project route beginning in mid-August 2006. Wetland surveys will follow the methodology outlined in the 1987 Corps of Engineers Wetland Delineation Manual. Waterbody surveys will include identification of both perennial and intermittent waterbodies occurring along the project corridor as well as a qualitative assessment of many stream characteristics. Specifically, survey crews will record approximate stream width (bank-to-bank and at water level), depth, flow, substrate, bank slope, and bank vegetation (type and percent cover).

Indiana Bat

The federally endangered Indiana bat is listed as occurring statewide. Individuals may roost under the bark of trees in riparian and upland forests near perennial streams. During the summer, maternity colonies are typically found roosting behind sloughing bark or in cavities, often in, but not limited to, dead trees. Indiana bats forage on insects in and around the tree canopy of floodplain, riparian, and upland forests. Streams associated with floodplain forests and impounded bodies of water such as ponds, reservoirs, and wetlands are sometimes considered preferred foraging habitats for bats. The Indiana Department of Natural Resources, Natural Heritage Data Center reports no known occurrences of the Indiana bat within one mile of the proposed pipeline route. However, Rockies Express will conduct surveys in forested areas along the project corridor to identify areas of suitable summer roosting habitat. Surveys will involve pedestrian meander searches for trees with the appropriate bark structure or cavities to sustain roosting bats. Rockies Express will not limit surveys to upland or wetland forests nor restrict identification of suitable trees to certain species or size. If suitable roost trees are identified, trees will be uniquely marked in the field and noted on aerial photographs.

Bald Eagle

The federally threatened bald eagle has wintering populations in all counties crossed by the proposed route, where they are likely to be present from November 15 to March 15. Individuals may also be casual summer residents and nesting has been recorded in

Morgan County. Of the 57 perennial streams crossed by the proposed route in Indiana, 11 could be large enough to support nesting bald eagles. Rockies Express will coordinate with your office regarding any known and currently monitored bald eagle nesting locations. Additionally, Rockies Express will conduct surveys in areas of suitable nesting habitat during the nesting season to determine if bald eagle nests are present.

Upon completion of preliminary habitat assessments and focused species surveys, as necessary, Rockies Express will determine the potential for the project to affect listed species and develop conservation measures to avoid or minimize effects. Rockies Express will then submit the survey results, assessment of potential effects, and discussion of conservation measures to the FWS for review.

With this letter Rockies Express requests approval of both the list of species identified as potentially occurring along the project route (as shown on the attached map) and approval of the proposed survey methods. If additional species or alternate survey methods are recommended or required, please provide details in your response letter. Rockies Express would appreciate a response within 30 days to allow incorporation into the survey planning process.

If you have any questions or need additional information regarding protected species, please contact me at (612) 359-5678 or jrthommes@nrginc.com.

Sincerely,

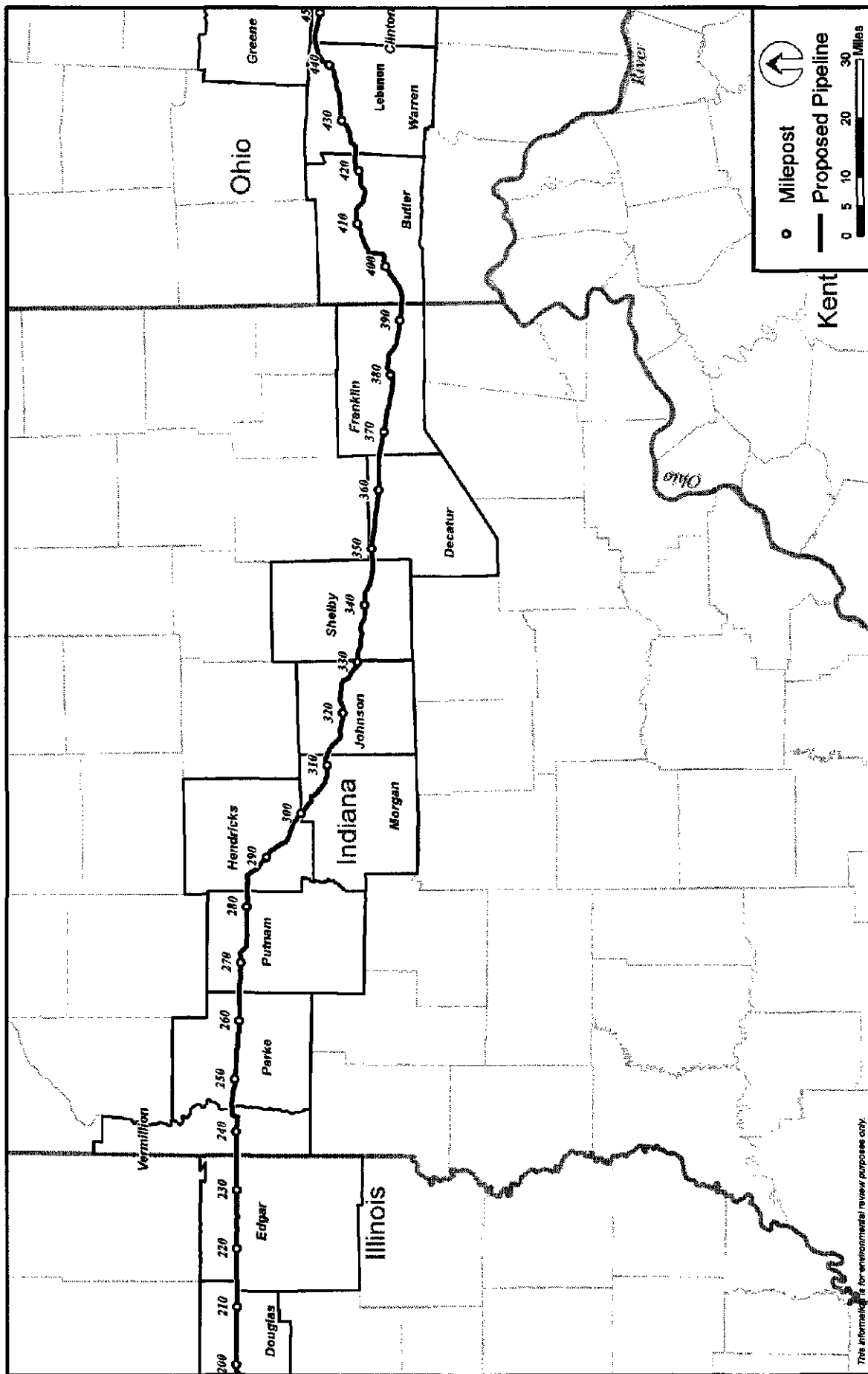
Natural Resource Group, Inc.



Jeff Thommes
Natural Resource Specialist

Enclosure: Project Location Map

cc: Jim Thompson, Rockies Express
Ryan Childs, Rockies Express
Elizabeth Dolezal, Natural Resource Group
Project File



Rockies Express Pipeline Project (REX-East) **General Location Map** **Indiana**



DATE: 07/05/06

REVISED: 07/05/06

SCALE: 1:1,492,471

DRAWN BY: KRSOLBERG

M:\Clients\LUKMEREX\ArcGIS\200607_IL_KI_MO.mxd



LOG

LOG OF TELEPHONE CONVERSATION

CALL TO/FROM WHOM: Forest Clark	PHONE NO.: 812-334-4261 x206
COMPANY: Indiana Fish and Wildlife Service – Bloomington ES	
NRG CONTACT: Delia Kelly	PHONE NO.: 612-345-7156
DATE: July 28, 2006	NRG OFFICE LOCATION: Minneapolis
RE: Status of the Threatened and Endangered Species Consultation	

LOG OF CONVERSATION:

I called Mr. Clark to inquire as to the status of the species consultation and answer any questions he might have about the project. Mr. Clark said that his office would issue a response on or before August 10, 2006, but added that the response would be limited in scope because more refined topo maps would be needed to assess specific concerns. He said that one of the four FWS state offices would likely take the lead on the project, but none had been assigned yet. Mr. Clark said that in general, the list of species included in the REX-East consultation request letter is an accurate depiction of the anticipated species of concern, and added that there would be a moderate level of concern for both the Indiana bat and Bald eagle. For the bald eagle, there are several populations in the state and there is important wintering habitat along the Wabash River. For the Indiana bat, Mr. Clark said that forested roosting areas would be the only concern but added that there may be several such areas. Mr. Clark said that the concerns he has noted at this stage of the project could likely be avoided completely if the line has some flexibility to relocate outside of habitat areas. I asked Mr. Clark if he has a preference of which format he would like to receive future project location information. He replied that GIS shape files are his preference, ideally in UTM Nad83 Zone 16 projection. I told Mr. Clark that more specific location information would be included in future communication between the project team and the FWS and thanked him for his time.



United States Department of the Interior Fish and Wildlife Service



Bloomington Field Office (ES)
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

August 4, 2006

Jeff Thommes
Natural Resource Specialist
Natural Resource Group, Inc.
1000 IDS Center
80 South Eighth Street
Minneapolis, Minnesota 55402

Dear Mr. Thommes:

The U.S. Fish and Wildlife Service (FWS) has reviewed the information provided in your letter of 5 July 2006 concerning the proposed Rockies Express East project (FERC Docket No. PF06-30-000) crossing multiple counties in Indiana.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, as amended, and the U.S. Fish and Wildlife Service's Mitigation Policy.

The proposed Rockies Express East project would construct a pipeline, compressor stations, and ancillary facilities extending over 622 miles from Audrain County, Missouri to Monroe County, Ohio. The General Location Map provided in your 5 July 2006 letter shows the proposed pipeline entering Indiana in Vermillion County then traversing Parke, Putnam, Hendricks, Morgan, Johnson, Shelby, and Decatur Counties before exiting Indiana at Franklin County.

The landscape across the central-south section of Indiana varies based on natural and human factors. Homoya, et al. (1985) describe the natural regions of Indiana based on climate, soil, presettlement vegetation, glacial history, and other factors. From west to east the proposed project would cross the Grand Prairie Section of the Grand Prairie Natural Region; the Entrenched Valley and Tipton Till Plain Sections of the Central Till Plain Natural Region; and the Muscatatuck Flats and Canyons and Switzerland Hills Sections of the Bluegrass Natural Region. Large areas of upland forest, wetlands, numerous rivers and streams, karst, and possibly small areas of remnant prairie occur along the line of the proposed project.

Development also directly and indirectly influences the landscape in central Indiana. Among the most profound change has been the conversion of natural vegetation to agriculture. There are extensive areas of farm land especially in the Tipton Till Plain Section, but across the central part

of the state. More intensive landuse has accelerated especially in the counties surrounding Indianapolis. There are developed areas throughout the proposed project area from small villages, to suburbs, to large cities.

Important Fish and Wildlife Resources

Forest

The proposed project would cross important forested sections of the state. The first of these is the Entrenched Valley Section that roughly corresponds to Vermillion and Parke Counties. This landscape is characterized by numerous headwater streams and higher order rivers that dissect a heavily forested upland. More common forest types dominate, but Hornoya et al. (1985) describe the disjunct white pine (*Pinus strobes*) and hemlock (*Tsuga Canadensis*) assemblages that occupy the cliff and ravine communities in this section.

The other comparatively heavily forested area is in the eastern part of the state where the proposed pipeline would cross the Switzerland Hills Section. This area like the Entrenched Valley Section is characterized by dissected, forested uplands. Forested areas within the Tipton Till Plain would typically involve comparatively small woodlots and forests associated with rivers and streams.

Rivers and Streams

The proposed project would cross the Wabash River as it enters Indiana from the west. The Wabash is a large river in Vermillion County with a wide floodplain in many areas. The Wabash and its major tributaries in this section (Sugar Creek, Raccoon Creek, and Big Walnut Creek) provide important habitat for the federally threatened bald eagle and the federally endangered Indiana bat, migratory birds, and of course numerous aquatic species.

In the central part of Indiana, primarily within the Tipton Till Plain Section, the proposed project would cross the West Fork White River and major tributaries to the East Fork White River. These rivers also provide habitat for the Indiana bat and bald eagle. Federally endangered mussels comprise part of the fauna of the East Fork White River, but as in the Wabash, federally listed species are unlikely to occur in the proposed project area. Mussel beds, possibly including state listed species, however, may be present in these and other streams in the path of the proposed project.

Within the Switzerland Hills Section, along the east edge of Indiana, the Whitewater River is the most important drainage. Both the Switzerland Hills Section and the Entrenched Valley Section contain numerous headwater streams that form the dissected landscape characteristic of these areas. Headwater streams are also numerous in the drainages of the West Fork White River and East Fork White River in the central part of the state. Information on the importance of headwater streams to the biological integrity of connected higher order streams and rivers, and on the terrestrial landscape is readily accessible. The Ohio Environmental Protection Agency (OEPA) maintains a website devoted to issues involving headwater streams and their ecologic and economic importance (<http://www.epa.state.oh.us/dsw/wqs/headwaters/>).

Of particular importance to the FWS, impacts to headwater streams may have consequences for the conservation of biodiversity. Headwater streams are important habitat for aquatic invertebrates, salamanders, and fish. The fishes, crayfishes, and amphibians harbored by the small ephemeral and headwater streams may be particularly vulnerable; across the country, proportionally the most at risk groups of animals are freshwater mussels, crayfishes, amphibians, and freshwater fishes (Master, 1998).

Wetlands

Prior to European settlement, approximately one quarter of Indiana was wetland. Even though the state has lost nearly 87% of this important habitat, the proposed project would undoubtedly impact a variety of wetland types. The most likely impacts may be to forested wetlands within the floodplains or in the riparian zones of the major rivers and their tributaries. Riparian forested wetlands are particularly important habitat for migratory birds, bats, and various other species. They also function as important travel corridors through central Indiana landscapes with large areas of agricultural land. The proposed project is most likely to encounter large emergent wetlands and flatwoods wetlands in the Tipton Till Plain Section and the Muscatatuck Flats and Canyons Section of the state.

Prairie

The proposed project would cross the extreme southern end of the Grand Prairie Natural Region. Small remnants of prairie persist in the Grand Prairie Section and in other areas of the state, however, no large expanses of prairie remain.

Karst

The eastern part of the proposed project may cross one of Indiana's two major karst areas known as the Muscatatuck Plateau, which underlies eastern Decatur County. Karst limestone formations are associated with an extensive network of subterranean caves, passages, and waterways. Sinkholes, which may occur in the proposed project area are typical surface features of karst formations; they function as conduits for water recharge from surface drainage. Caves often support assemblages of unique subterranean fauna. Excavation which intersects karst features or rerouting of drainage can drastically alter underground water and air flow patterns, resulting in significant adverse impacts to cave ecosystems. Drainage containing contaminants from construction sites or other sources can also have substantial impacts.

Endangered Species

The proposed project is within the range of the federally endangered Indiana bat (*Myotis sodalis*) and federally threatened bald eagle (*Haliaeetus leucocephalus*).

Indiana bats are forest bats that hibernate in caves during the colder months, then disperse to reproduce and forage in relatively undisturbed forested areas associated with water resources during spring and summer. Young are raised in nursery colony roosts in trees, typically near drainageways in undeveloped areas. There is suitable summer habitat for this species present

Page 4 of 6

throughout the proposed project area. Indiana bats have been identified at multiple sites in Vermillion, Parke, Putnam, Hendricks, Morgan, Johnson, and Shelby counties. There are no records for Decatur and Franklin counties, but Indiana bats could occupy suitable habitat in these counties. You indicate in your 5 July 2006 letter that there are no known occurrences within one mile of the proposed pipeline. A more relevant distance to consider would be five miles. Based on the type of record, foraging habitat could be within five miles of a mist net capture site (further if the record is an old one and the ephemeral roost habitat has shifted). The land within 2.5 miles of a known roost tree would be considered particularly important to that maternity colony. We support your proposed pedestrian meander searches for suitable Indiana bat trees provided the search is conducted by biologists with experience working with Indiana bats. The FWS, however, may request additional surveys, including mist net surveys, when we have more detailed information on the proposed project route. Known Indiana bat hibernacula in Indiana all occur outside the area of the proposed project.

Bald eagles have been successfully reintroduced into Indiana and in 2006 nearly 70 pairs nested in the state. The Indiana Department of Natural Resources, Division of Fish and Wildlife (IDNR) conducts a thorough breeding survey every year. A disproportionate number of bald eagle nests occur in association with the Wabash River and its major tributaries, and the West Fork White River. In 2006, Vermillion, Parke, Putnam, Hendricks, Morgan, and Johnson Counties had one or more active bald eagle nests. In Indiana, eagle nests can occur along comparatively small streams or outside of the riparian zone of rivers and streams if there are lakes or large wetlands in the area. The Wabash River in the area of the proposed project also serves as important winter habitat for this species.

This endangered species information is provided for technical assistance only, and does not fulfill the requirements of Section 7 of the Endangered Species Act.

Conclusion

The proposed project would cross the entire state of Indiana. Significant fish and wildlife resources exist within the area identified for the proposed project. Forested uplands, wetlands, large rivers, headwater streams, possible subterranean habitat, and habitat for two federally endangered species occur within Rockies Express East corridor. Based on the information provided in your 5 July 2006 letter, and currently available information on federally threatened and endangered species, the Indiana bat and bald eagle are the only federally listed species in the proposed project area. The initial habitat surveys planned should provide at least preliminary data for evaluating the potential impacts of the proposed project. We request that you provide the FWS with detailed information on the proposed project route as it becomes available.

Sincerely yours,



Scott E. Pruitt
Field Supervisor

Page 5 of 6

cc: **Christie Stanifer, IDNR, Division of Fish and Wildlife, Indianapolis, IN**
Danny Gautier, IDNR, Division of Fish and Wildlife, Bloomington, IN
Jason Randolph, IDEM, Water Quality Standards Section, Indianapolis, IN
U.S. Army Corps of Engineers, Louisville District, Louisville, KY

Page 6 of 6

References Cited

Homoya, M. A., D. B. Abrell, J. R. Aldrich, and T. W. Post. 1985. The Natural Regions of Indiana. Indiana Academy of Science 94: 245-267.

Master, L. L., S.R. Flack, and B.A. Stein, eds. 1998. Rivers of Life: Critical Watersheds for Protecting Freshwater Biodiversity. The Nature Conservancy, Arlington, Virginia.



LOG

LOG OF TELEPHONE CONVERSATION

CALL TO/FROM WHOM: Forest Clark	PHONE NO.: 812-334-4261 x206
COMPANY: U.S. Fish and Wildlife Service – Bloomington, Indiana ES Field Office	
NRG CONTACT: Jeff Thommes	PHONE NO.: 612-359-5678
DATE: August 14, 2006	NRG OFFICE LOCATION: Minneapolis
RE: Rockies Express – East Project, Survey Methodology for Indiana Bats	

LOG OF CONVERSATION:

Jeff called Mr. Clark to discuss upcoming field surveys for potential Indiana bat roost trees and foraging habitat and to verify survey methods are conducted in an appropriate manner. After referencing the August 4, 2006 letter from the FWS that stated there would be a possibility of mist netting for the Indiana bat, Jeff outlined for Mr. Clark the project's intended survey approach, which included a preliminary review of forested stands for potential roost trees. The effort would quantify potential roost tree density in each stand without particular attention paid to tree size or quality. Through additional discussion, Jeff and Mr. Clark amended the approach to identifying areas requiring mist netting to a three-step process:

- 1) The first step would include a field survey to provide an initial review of forested stands, both quantitatively and qualitatively. Field survey crews will determine tree diameter and tree species, note whether the tree is a snag or a live tree, and consider surrounding landscape. Mr. Clark agreed with Jeff that noting tree diameter in size classes would be sufficient and recommended that the classes include <4", 4-8", 8-12", 12-16", 16-20", and >20". Mr. Clark also agreed that proximity to water appears to be important in determining quality of an area and added that it would be helpful for crews to qualify the waterbody as a permanent stream, intermittent stream, wetland, pond, etc. This first step would be helpful in determining which areas are potential candidates for mist nesting.
- 2) The second step would include a more focused landscape review using aerial photographs and would also include site visits by the FWS. The FWS would spot check areas identified as low, medium, and high quality habitat based on field reviews.
- 3) The third step would be to consider the data gathered during field surveys along with follow-up visits to select sites during step two to determine locations requiring mist-net surveys.

Mr. Clark indicated that a typical FWS request during mist netting is to place transmitters on captured female Indiana bats and conduct telemetry studies to locate maternal colonies. Jeff agreed that maternal colony location information would be important in determining potential project effect.

Jeff asked Mr. Clark if he could explain some of the potential aspects of Indiana bat mitigation. Although typically determined on a site-specific basis, Mr. Clark suggested that in areas with no potential habitat (or roost trees less than 8"), the FWS would possibly not condition construction efforts. Small areas with potential habitat and instances where a lone male bat is identified would be candidates for seasonal tree clearing. It's possible that even in areas where individual Indiana bats are captured that the FWS may not recommend specific mitigation (tree clearing windows or avoidance). Also, the FWS will recommend that the project avoid areas where populations of Indiana bats or maternal colony trees are identified, but will handle such occurrences on a case-by-case basis.

Jeff offered to send Mr. Clark the centerline shape file for use in further assessment of the proposed route. Mr. Clark said that the shape file would be excellent and that he would not need any other map or aerial photo materials. He added that, once he receives the file, he can talk about the project with FWS staff and make sure that there are no surprises down the road.

Jeff stated that he will prepare an Indiana bat survey plan based on this conversation, including the three-step approach as discussed, and send it to Mr. Clark for review. Jeff also mentioned that he would provide the plan to the other FWS offices Rockies Express is consulting with and request their review and approval of the plan. Jeff reiterated that surveys are coming up soon and hoped to provide the survey plan shortly. Mr. Clark indicated that he will attempt to review the plan and provide comments in a timely manner to facilitate surveys getting started correctly.

Jeff Thommes

From: Forest_Clark@fws.gov
Sent: Tuesday, September 05, 2006 9:55 AM
To: Jeff Thommes
Subject: Re: REX bat survey plan

Jeff,

The data sheet you attached should provide useful data to help us determine where more intensive survey work might be warranted. I would suggest that field personnel also include streams, including intermittent drainages on their drawing.

Thanks for the opportunity to review it.

Forest

Forest Clark
U.S. Fish and Wildlife Service
620 South Walker Street
Bloomington, Indiana 47403
(812) 334- 4261 ext. 206

"Jeff Thommes" <JRTTHOMMES@nrginc.com>

08/30/2006 06:53 PM

To <Forest_Clark@fws.gov>

cc "Delia Kelly" <drkelly@nrginc.com>, "Bart Jensen"

<BMJENSEN@nrginc.com>, "Elizabeth Dolezal" <ENDOLEZAL@nrginc.com>

Subject REX bat survey plan

Forest-

Can you take one more quick look at the attached plan and data sheet? I believe we incorporated your recommended changes. I backed out some on what we will be able to do with the field data and how much it will affect quality determinations. I also reduced how definitive the plan was on effect determinations.

As I think you saw, Joyce agreed with your comments and we're still trying to get with Angela and Charlie for a similar approval, but assume it will come. For now, we need to be able to move forward for surveys next week. As such, the data sheet may end up collecting more data than we need, but that's not a bad thing.

I appreciate your time and expedited efforts on the project thus far. I also appreciate the open dialogue we're able to have early in the process. I'm fairly certain it will pay off for all parties involved in the end.

Best regards-

Jeff[attachment "Indiana bat survey plan - final.doc" deleted by Forest Clark/R3/FWS/DOI] [attachment "Indiana

10/17/2006

Jeff Thommes

From: Forest_Clark@fws.gov
Sent: Tuesday, September 05, 2006 3:07 PM
To: Jeff Thommes
Subject: Fw: current draft mist netting guidelines
Attachments: Mist Net Guidelines 9_5_06.doc

Jeff,

Here are the most recent revisions to the mist net guidelines.

Forest

Forest Clark
U.S. Fish and Wildlife Service
620 South Walker Street
Bloomington, Indiana 47403
(812) 334- 4261 ext. 206

----- Forwarded by Forest Clark/R3/FWS/DOI on 09/05/2006 04:05 PM -----

Lori Pruitt/R3/FWS/DOI

To Forest Clark/R3/FWS/DOI@FWS

cc

09/05/2006 02:49 PM

Subject: current draft mist netting guidelines

Lori Pruitt
U.S. Fish and Wildlife Service
Bloomington Field Office
620 S. Walker Street
Bloomington, IN 47403
(812) 334-4261 x211
(812) 334-4273 (FAX)
lori_pruitt@fws.gov

10/17/2006

Indiana Bat Mist-Netting Guidelines - 9/5/06 draft

RATIONALE

A typical mist-net survey is an attempt to determine presence or probable absence of the species; it does not provide sufficient data to determine population size or structure. Following these guidelines will standardize procedures for mist netting. It will help maximize the potential for capture of Indiana bats at a minimum acceptable level of effort. Although the capture of bats confirms their presence, failure to catch bats does not absolutely confirm their absence. Netting effort as extensive as outlined below usually is sufficient to capture Indiana bats if they are present. However, there have been instances in which additional effort yielded detection when the standard effort did not. The Service accepts the results of these surveys to determine presence for the purposes of Section 7 consultation.

NETTING SEASON: May 15 - August 15

May 15-August 15 are acceptable limits for documenting the presence of summer populations of Indiana bats, especially maternity colonies. (However, see Kiser and MacGregor 2005 for precautions regarding early-season surveys between May 15 and June 1, as well as late-season surveys between August 1 and August 15). Capture of reproductive adult females (i.e., pregnant, lactating, or post-lactating) and/or young of the year during the May 15-August 15 period indicates that a nursery colony is active in the area. Outside these dates, even when Indiana bats are caught, data should be carefully interpreted. Particularly if only a single bat is captured, it may be a transient or migratory individual.

EQUIPMENT

Mist nets to be used for Indiana bat surveys should be the finest, lowest visibility mesh commercially available: 1) In the past, this was 1 ply, 40 denier monofilament—denoted 40/1; 2) Currently, monofilament is not available and the finest on the market is 2 ply, 50 denier nylon denoted 50/2; 3) The finest mesh size available is approximately 38 mm (~1 1/2 in).

No specific hardware is required. There are many suitable systems of ropes and/or poles to hold the nets. The system of Gardner et al. (1989) has been widely used. See NET PLACEMENT below for minimum net heights, habitats, and other netting requirements that affect the choice of hardware

NET PLACEMENT

Potential travel corridors such as streams or logging trails typically are the most effective places to net. Place the nets approximately perpendicular across the corridor. Nets should fill the corridor from side to side and from stream (or ground) level up to the overhanging canopy. A typical set is 7 m high consisting of three or more nets stacked

on top one another and up to 20 m wide. (Different width nets may be purchased and used as the situation dictates.)

Occasionally it may be desirable to net where there is no good corridor. Take caution to get the nets up into the canopy. The typical equipment described in the section above may be inadequate for these situations, requiring innovation on the part of the observers.

See Kiser and MacGregor (2005) for additional discussion of net placement.

RECOMMENDED NET SITE SPACING

Stream corridors—one net site per km of stream.

Study areas other than stream corridors—two net sites per square km of habitat.

MINIMUM LEVEL OF EFFORT

A “net night” is defined as one net set up for one night. Netting at each site should include at least four net nights, consisting of: 1) a minimum of two net locations at each site (at least 30 m apart, especially in linear habitat such as a stream corridor); and 2) a minimum of two nights of netting (i.e., two net locations for two nights = four net nights per site). The sample period should begin at sunset; net for at least 5 hours (longer sample periods may improve success). For purposes of determining presence or probable absence of Indiana bats, four net nights at a site are not required if Indiana bats are caught sooner (i.e., if Indiana bats are caught on the first night of netting, a second night is not required).

CHECKING NETS

Each net should be checked approximately every 10 minutes. Some researchers prefer continuous monitoring (with or without an electronic bat detector); care must be taken to avoid noise and movement near the nets if this technique is used. When monitoring the site continuously with a bat detector, bats can be detected immediately when they are captured in the net. Prompt removal from the net decreases stress on the bat and potential for the bat to escape (MacCarthy et al. 2006). Monitoring the net with a bat detector also allows the researcher to assess the effectiveness of their net placement (i.e., if bats are active near the nets but avoiding capture); this may allow for adjustments that will increase netting success on subsequent nights. There should be no disturbance near the nets, other than to check nets and remove bats.

WEATHER AND LIGHT CONDITIONS

Severe weather adversely affects capture of bats. If Indiana bats are caught during weather extremes, it is probably because they are at the site and active despite inclement weather. On the other hand, if bats are not caught, it may be that there are bats at the site but they may be inactive due to the weather. Negative results combined with any of the following weather conditions throughout all or most of a sampling period are likely to

require additional netting: 1) precipitation; 2) temperatures below 10°C; and/or 3) strong winds (use good judgment: moving nets are more likely to be detected by bats).

It is typically best to set nets under the canopy where they are out of the moonlight, particularly when the moon is ½-full or greater. Areas illuminated by artificial light sources should also be avoided.

DOCUMENTATION OF MYOTIS SODALIS CAPTURES

Photo documentation of *M. sodalis* captured during mist netting is not required, but is encouraged. Photos taken of a bat's head, calcar, tragus, toe hairs, etc. using a macro lens or a digital camera's macro-mode are often diagnostic and aid in validating the record.

If a bat from the genus *Myotis* is captured during mist netting that can not be readily identified to the species level, species can be verified through fecal DNA analysis. Collect one or more fecal pellets (i.e., guano) from the bat in question by placing it temporarily in a holding bag (15 minutes is usually sufficient, no more than 30 minutes is recommended). The pellet (or pellets) collected should be placed in a 1.5 ml vial with silica gel desiccant; pellets from each individual bat should be stored in separate vials. Samples should be stored out of direct light. Samples should be shipped to Dr. Jan Zinck, Department of Biology, Portland State University, 630 SW Mill St., Portland, Oregon, 97201 for subsequent fecal DNA analysis to assign or confirm the specimens' identification to the species level. The cost for sequencing is approximately \$50 per individual pellet of guano. Contact Dr. Zinck (email: zinckj@pdx.edu) prior to shipping samples. To our knowledge, this is the only lab that currently provides this service. Any additional information (or additional sources) on this technique will be made available on the Indiana bat webpage on the Service's Region 3 website (www.fws.gov/midwest).

REFERENCES TO CONSULT REGARDING MIST NETTING

- Gardner, J. E., J. D. Garner, and J. E. Hofmann. 1989. A portable mist-netting system for capturing bats with emphasis on *Myotis sodalis* (Indiana bat). *Bat Research News* 30:1-8.
- Kiser, J.D. and J.R. MacGregor. 2005. Indiana bat (*Myotis sodalis*) mist net surveys for coal mining activities. Pp. 169-172 in K.C. Vories and A. Throgmorton (eds.), *Proceedings of Bat Conservation and Mining: a technical interactive forum*. U.S. Department of Interior, Office of Surface Mining and Coal Research Center, Southern Illinois University, IL. Available at: <http://www.mercc.osmre.gov/>. (Accessed: June 7, 2006).
- MacCarthy, K.A., T.C. Carter, B.J. Steffen, and G.A. Feldhamer. 2006. Efficacy of the mist-net protocol for Indiana bats: A video analysis. *Northeastern Naturalist* 13:25-28.
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United States Department of the Interior Fish and Wildlife Service



Bloomington Field Office (ES)
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

November 14, 2006

Jeff Thommes
Natural Resource Specialist
Natural Resource Group, Inc.
1000 IDS Center
80 South Eighth Street
Minneapolis, Minnesota 55402

Dear Mr. Thommes:

The U.S. Fish and Wildlife Service (FWS) has reviewed the information provided in your email dated 17 October 2006 to which was attached a second draft of the *Rockies Express - East Pipeline Project Indiana Bat Habitat Assessment and Survey Plan* (Plan) relevant to the proposed Rockies Express East project (FERC Docket No. PF06-30-000) crossing multiple counties in Indiana.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (16 U.S.C. 661 et seq.) and are consistent with the intent of the National Environmental Policy Act of 1969, the Endangered Species Act of 1973, as amended, and the U.S. Fish and Wildlife Service's Mitigation Policy.

The proposed Rockies Express East project would construct a pipeline, compressor stations, and ancillary facilities extending over 622 miles from Audrain County, Missouri to Monroe County, Ohio. The General Location Map provided in your 5 July 2006 letter shows the proposed pipeline entering Indiana in Vermillion County then traversing Parke, Putnam, Hendricks, Morgan, Johnson, Shelby, and Decatur Counties before exiting Indiana at Franklin County.

The Bloomington Field Office provided comments on the first draft of the Plan in an email to you dated 28 August 2006. We appreciate the opportunity to review the revisions made to the first draft. The proposed three step approach appears to be a useful mechanism to approach habitat characterization across a large potential impact area. We agree with the changes eliminating the application of the methodology to medium quality habitat - in this draft sites not assigned to high or low quality would all be coordinated with the FWS. This draft also contains positive changes relative to the factors contributing to high and low quality habitat.

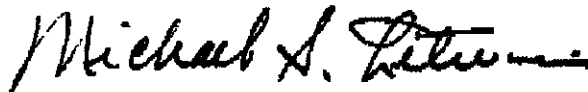
Page 2 of 2

We agree that the revised Plan provides a useful initial assessment tool for maternity habitat, but as we cautioned in our 28 August 2006 email, low quality reproductive habitat could potentially provide suitable foraging habitat. With respect to federal agencies, it is the policy of this office to assume the presence of Indiana bats in suitable habitat unless mist net surveys conducted according to accepted protocols fail to capture Indiana bats.

This endangered species information is provided for technical assistance only, and does not fulfill the requirements of Section 7 of the Endangered Species Act

Overall, the revised Plan presents a good mechanism for coordination between Rockies Express and NRG acting as the FERC's non-federal representative and the FWS. We look forward to working cooperatively to review the data.

Sincerely yours,



Scott E. Pruitt
Field Supervisor

cc: Christie Stanifer, IDNR, Division of Fish and Wildlife, Indianapolis, IN

1000 IDS Center
80 South Eighth Street
Minneapolis, MN 55402



telephone (612) 347-6789
facsimile (612) 347-6780
www.NRGINC.com

June 21, 2006

Mary Knapp
U.S. Fish and Wildlife Service
Reynoldsburg Ecological Services Field Office
6950 Americana Parkway, Suite H
Reynoldsburg, OH 43068

RE: Rockies Express Pipeline LLC, Rockies Express-East Project
Threatened and Endangered Species Survey Plans

Dear Dr. Knapp:

Rockies Express Pipeline LLC (Rockies Express) is proposing to construct and operate a new pipeline, including compressor and ancillary facilities to transport natural gas produced in the Rocky Mountain basins for delivery primarily to other pipelines and distribution customers located in the Midwest and eastern United States. The Rockies Express pipeline system consists of existing and new natural gas pipeline facilities extending from Rio Blanco County, Colorado to a terminus in Marion County, Ohio.

Existing pipeline facilities are being extended this summer under a Federal Energy Regulatory Commission (FERC) Certificate of Public Convenience and Necessity (Certificate), CP04-413-000. This project, referred to as the REX- Entrega Project, involves the completion of a 326-mile-long segment from Rio Blanco County, Colorado to Weld County, Colorado. A second segment, REX-West, will extend approximately 713 miles from Weld County, Colorado to Audrain County, Missouri. An application for a Certificate has been filed with the FERC (Docket No. CP06-354-000). A third segment, REX-East, will continue for another 622 miles from Audrain County, Missouri, to Monroe County, Ohio. Rockies Express has filed a request to participate in the FERC Pre-Filing process (Docket No. PF06-30-000) for this project.

Each project, while connected, will serve separate markets. The REX-East Project is the subject of this consultation.

In addition to the pipeline, REX-East will include construction of some aboveground facilities including compressor stations, block valves, and metering/regulation facilities. With the exception of compressor stations, aboveground facilities will be located within or adjacent to existing facilities or largely within the permanent right-of-way of the proposed project. These facilities will be sited to avoid impacts on special status species and sensitive vegetation communities. Pipeline construction will generally involve a 125-foot-wide construction right-of-way and is anticipated to begin in May 2008 with an expected in-service date of winter 2008. The Federal Energy Regulatory Commission (FERC) is the lead federal agency for the project.

Pursuant to 18 CFR 380.13, Rockies Express is acting as the FERC's non-federal representative for purposes of complying with section 7(a) of the Endangered Species

Act (ESA). Rockies Express has retained Natural Resource Group, Inc. (NRG) to assist with various aspects of project development, including agency consultations, environmental field surveys, and preparation of an application to the FERC. NRG, on behalf of Rockies Express, will be preparing environmental review documents for the project.

Based on a review of public documents for the REX-East Pipeline, including lists of federally endangered or threatened species found on websites maintained by the FWS, the following species were identified as potentially occurring in the general project area in Ohio:

- Indiana bat,
- running buffalo clover
- clubshell
- fanshell
- pink mucket
- Northern riffleshell, and
- bald eagle.

In order to complete an assessment of potential project impacts on these species, Rockies Express is proposing to conduct a general habitat review of the project area and focused follow-up surveys as necessary. Details of this general review and the potential surveys are described below.

The federally endangered Scioto madtom is also listed as potentially occurring in waterbodies crossed by the proposed project. This species is thought to be endemic to the Scioto River basin. This species prefers gravel bottomed stream riffles with moderate current and requires high quality water with low turbidity. Last observed in 1957, the 18 fish collected from Big Darby Creek are the only individuals that have ever been collected. Rockies Express believes that presence of this species within the project area is unlikely and that the project will have no effect on the Scioto madtom. As such, no surveys are currently proposed for this species.

General Habitat Assessment

Rockies Express is currently planning to conduct wetland and waterbody surveys within a 250-foot-wide corridor along the project route beginning in mid-August 2006. Wetland surveys will follow the methodology outlined in the 1987 Corps of Engineers Wetland Delineation Manual. Waterbody surveys will include identification of both perennial and intermittent waterbodies occurring along the project corridor as well as a qualitative assessment of many stream characteristics. Specifically, survey crews will record approximate stream width (bank-to-bank and at water level), depth, flow, substrate, bank slope, and bank vegetation (type and percent cover).

During these surveys, field crews will assess wetlands, waterbodies, and undisturbed upland areas within the survey corridor for suitable habitat for the eight species listed above. Where suitable habitat is identified, Rockies Express proposes to conduct additional species specific details as described in the following sections.

Indiana Bat

The federally endangered Indiana bat is listed as occurring in all 14 Ohio counties crossed by the proposed route, where individuals may roost under the bark of trees in

riparian and upland forests near perennial streams. During the summer, maternity colonies are typically found roosting behind sloughing bark or in cavities, often in, but not limited to, dead trees. Indiana bats forage on insects in and around the tree canopy of floodplain, riparian, and upland forests. Streams associated with floodplain forests and impounded bodies of water such as ponds, reservoirs, and wetlands are sometimes considered preferred foraging habitats for bats. The Ohio Division of Natural Areas and Preserves reports no known occurrences of the Indiana bat within one mile of the proposed pipeline route. However, Rockies Express will conduct surveys in forested areas along the project corridor to identify areas of suitable summer roosting habitat. Surveys will involve pedestrian meander searches for trees with the appropriate bark structure or cavities to sustain roosting bats. Rockies Express will not limit surveys to upland or wetland forests nor restrict identification of suitable trees to certain species or size. If suitable roost trees are identified, trees will be uniquely marked in the field and noted on aerial photographs.

Running Buffalo Clover

The federally endangered running buffalo clover is known to exist in Warren County. This clover requires moderate, periodic disturbance and grows in partially shaded areas on the fringe of forests and bottomland meadows. This species has also been known to occur in mowed areas and along streams and trails. The 21.1 miles of Warren County crossed by the proposed pipeline route is dominated by agricultural land, which is unlikely to sustain populations due to severe disturbance and exposure. According to information provided by the Ohio Division of Natural Areas and Preserves, there are no known occurrences of this species within one mile of the proposed route. However, areas may be present along the proposed route with the appropriate habitat for running buffalo clover. In areas of suitable habitat, as identified during preliminary habitat reviews, Rockies Express will perform species-specific surveys during the flowering season in 2007, between mid-April and June.

Mussels and Mussel Beds

There are four federally endangered mussel species with the potential to occur along the proposed route in Ohio. The *clubshell* is known to occur in only 13 streams throughout its range. Sensitive to disturbance, this mussel prefers areas with low turbidity in medium to small rivers and streams with loose sand or gravel substrate. Ohio populations are known to occur in Greene, Pickaway, and Fairfield Counties. According to information provided by the Ohio Division of Natural Areas and Preserves, clubshell populations may exist in the Scioto River and within Deer Creek State Park. The *northern riffleshell* inhabits firm sand or gravel substrates of streams of varying size. Known to occur in Pickaway County, Natural Heritage Data reports populations in the Scioto River and Big Darby Creek. The *fanshell*, known to occur in Morgan and Muskingum Counties, is found in medium or large rivers with moderate current and sand or gravel substrate. The *pink mucket*, known to occur in Morgan County, is found in major rivers and tributaries. The proposed route crosses less than two miles of the northwest corner of Morgan County where there are no perennial stream crossings. Rockies Express anticipates having no effect on this area. Of the seven perennial streams crossed in Muskingum County, four may be large enough to support fanshell populations. However, no known records of fanshell or pink mucket have been reported within one mile of the proposed route. *Mussel beds*, containing between 11 and 15 mussel species, are reported to be within a mile of the proposed route as far west as the Great Miami River as well as within the Virginia Military District. Waterbody surveys scheduled to begin along the project route in August 2006 will include an analysis of the substrate and hydrology of waterbody

crossings. In streams identified as having suitable habitat for mussels or mussel beds, Rockies Express will conduct surveys using trained biologists to determine presence or absence and species composition of mussels in the waterbodies.

Bald Eagle

The federally threatened bald eagle has known populations in Pickaway, Muskingum, Guernsey, and Noble counties, where they are likely to be present from November 15 to March 15 and may also be casual summer residents. Nesting populations are known to occur in Morgan County, where they may maintain a nest site between February 1 and June 31. Of the 96 perennial streams crossed by the proposed route in Ohio, 19 could be large enough to support nesting bald eagles. Rockies Express will conduct surveys in areas of suitable nesting habitat during the nesting season to determine if bald eagle nests are present.

Upon completion of preliminary habitat assessments and focused species surveys, as necessary, Rockies Express will determine the potential for the project to affect listed species and develop conservation measures to avoid or minimize effects. Rockies Express will then submit the survey results, assessment of potential effects, and discussion of conservation measures to the FWS for review.

With this letter Rockies Express requests approval of both the list of species identified as potentially occurring along the project route (as shown on the attached map) and approval of the proposed survey methods. If additional species or alternate survey methods are recommended or required, please provide details in your response letter. Rockies Express would appreciate a response within 30 days to allow incorporation into the survey planning process.

If you have any questions or need additional information regarding protected species, please contact me at (612) 359-5678 or jrthommes@nrginc.com.

Sincerely,

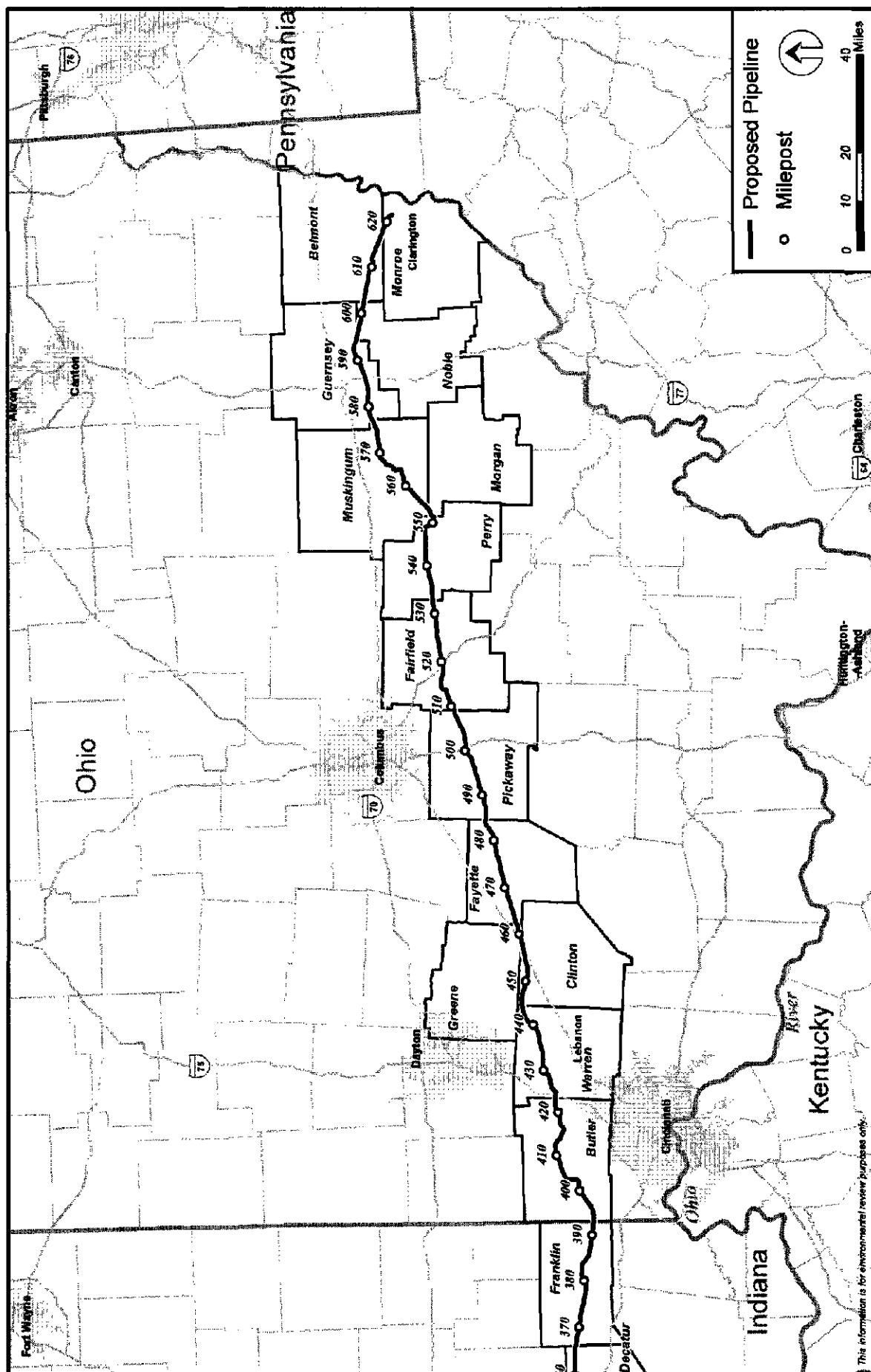
Natural Resource Group, Inc.



Jeff Thommes
Natural Resource Specialist

Enclosure: Project Location Map

cc: Jim Thompson, Rockies Express
Ryan Childs, Rockies Express
Elizabeth Dolezal, Natural Resource Group
Project File



Rockies Express Pipeline - East Project Project Overview Map Ohio



DATE: 05/05/06

REVISÉ: 05/05/06

SCALE: 1:1,800,000

DRAWN BY:RSMCGREGOR

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LOG

RECORD OF MEETING

Rockies Express Pipeline project team (Jim Thompson, Elizabeth Dolezal, and Ian Stewart) met with the Ohio Department of Natural Resources representatives as well as representatives from the USFWS on June 22, 2006. Randy Sanders, OH DNR stated he would be coordinating Ohio's response to the proposed project.

Jim Thompson reviewed the project's handouts which provided background on the project, its purpose and need and proposed schedule. In addition, he presented information on the FERC Pre-filing process and the federal and state agency roles.

Following Jim's presentation, each agency present was asked to summarize its concerns about the project based on the preliminary information. The following table outlines the information provided by agency.

The meeting concluded with Randy Sanders explaining that the OH DNR uses one point of contact on projects of this size and that he would act in this role to prevent conflicting directions being given to the applicants. He also offered up use of the maps (especially in geology) to assist the project in its planning.

USFWS (Megan Seymour)

- Add NPS to the list of federal permits due to the crossing of the Big Darby and Little Miami.
- REX will be required to avoid in water work on streams with freshwater mussel beds been April 15 and June 15
- FWS would like to see the Big Darby, Little Miami and Muskingum River drilled.
- Anticipate that they will require measures by REX to minimize spread of invasive species

Soil Wand Water (Blaine Gerdes, Kirk Hines)

- Looking for plans on the handling of drain tiles. Kirk and Blaine mentioned that mitigation guidelines were available. They would like to see the Rockies Express plans.
- Wanted to know if Rockies Express intends to use environmental inspectors.
- Briefly discussed stream bank restoration and that the department's preference is that stream banks be revegetated with native species and a "natural" look. Minimal use of rip rap maybe allowed.
- No in-water work during fish spawning season.

Parks (Kim Caris, Lynn Boydelatour)

- Recommended that project meetings and open houses be held at public parks (Deer creek or Caesar creek
- Avoid peak recreation areas.
- Reseed with native revegetation.

Scenic Rivers (Bob Dable)

- Concerned about the waterbody crossings of the Wild and Scenic Rivers. He will need to work with us.

Geology Surveys (Dennis Hall)

- Concerned with the length of time the trench will be open.
- Has mapping resources available.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Ecological Services
6950 Americana Parkway, Suite H
Reynoldsburg, Ohio 43068-4127

(614) 469-6923 / FAX (614) 469-6919
August 7, 2006

**COPY FOR YOUR
INFORMATION**

Jeff Thommes
Natural Resource Group, Inc.
1000 IDS Center
80 South Eighth Street
Minneapolis, MN 55402

TAILS #: 31420-2006-TA-0757

Dear Mr. Thommes:

This is in response to your letter received on June 26, 2006 requesting a list of Federally-listed species that may occur in the vicinity of the proposed Rockies Express Pipeline LLC's Rockies Express-East Project. The project consists of existing and new natural gas pipeline facilities extending from Audrain County, Missouri, to Monroe County, Ohio. The proposed project will impact the following Ohio counties: Butler, Warren, Greene, Clinton, Fayette, Pickaway, Fairfield, Perry, Muskingum, Morgan, Guernsey, Noble, Belmont, and Monroe.

The proposed project lies within the range of the following Federally-listed endangered, threatened, and candidate species:

Species	County
Indiana bat (E)	All Ohio counties
running buffalo clover (E)	Warren
clubshell (E)	Greene, Pickaway, Fairfield
northern riffleshell (E)	Pickaway
fanshell (E)	Muskingum, Morgan
pink mucket pearly mussel (E)	Morgan
Scioto madtom (E)	Pickaway
bald eagle (T)	Nest Records: Pickaway, Muskingum, Morgan, Guernsey, Noble
eastern massasauga (C)	Warren, Greene, Clinton, Fayette, Fairfield
rayed bean (C)	Warren, Pickaway
sheepnose (C)	Morgan

E=Endangered T=Threatened C=Candidate

Indiana Bat (*Myotis sodalis*)

Since first listed as endangered in 1967, their population has declined by nearly 60%. Several factors have contributed to the decline of the Indiana bat, including the loss and degradation of suitable hibernacula, human disturbance during hibernation, pesticides, and the loss and

degradation of forested habitat, particularly stands of large, mature trees. Fragmentation of forest habitat may also contribute to declines. Summer habitat requirements for the species are not well defined but the following are considered important:

- (1) dead or live trees and snags with peeling or exfoliating bark, split tree trunk and/or branches, or cavities, which may be used as maternity roost areas;
- (2) live trees (such as shagbark hickory and oaks) which have exfoliating bark;
- (3) stream corridors, riparian areas, and upland woodlots which provide forage sites.

Should the proposed project area contain trees or associated habitats exhibiting any of the characteristics listed above, we recommend that the habitat and surrounding trees be saved wherever possible. If the trees must be cut, further coordination with this office is requested in order for the Service to evaluate potential impacts to the Indiana bat. We recommend the following information be provided to this office:

- (1) a map of the site with all forested areas indicated, including acreage;
- (2) a description of forested habitat, including dominant species composition, age, density of understory, and canopy cover;
- (3) please indicate the location of suitable roost trees (dead or live trees with peeling bark, cracks, or crevices), and describe the species, condition (live or dead), size (diameter breast high), and canopy cover;
- (4) descriptions and the sizes of any forested parcels onsite that will be preserved - preservation of forested habitat is the most significant way to minimize potential impacts to the Indiana bat and its habitat;
- (5) please note the location and size of any other forested properties within the vicinity of the project that are protected in perpetuity (e.g. parks, conservation easements, etc.);
- (6) please include the locations of any wetlands, streams, ponds, and cleared paths or trails;
- (7) describe connectivity of the site and other adjacent forested parcels;
- (8) any avoidance and minimization measures necessary to protect the bat and its habitat (such as seasonal tree clearing, temporary preservation of suitable habitat, etc.);
- (9) please include your determination of whether or not the project is likely to adversely affect the Indiana bat, using the information above as justification for your position.

Based on this information, the Service will evaluate potential impacts to the Indiana bat from the proposed project. Depending on the extent of impacts to suitable Indiana bat habitat, we may recommend mist net or emergence surveys to determine bat usage of the project area. These surveys would need to be designed and conducted in coordination with this office, and may only be completed during the summer months. If sufficient information is not provided to document a "not likely to adversely affect" determination, formal consultation under Section 7 of the Endangered Species Act of 1973, as amended, will be necessary.

Running Buffalo Clover (*Trifolium stoloniferum*)

This species can be found in partially shaded woodlots, mowed areas (lawns, parks, cemeteries), and along streams and trails. Running buffalo clover requires periodic disturbance and a somewhat open habitat to successfully flourish, but cannot tolerate full-sun, full-shade, or severe

disturbance. If suitable habitat is present, we recommend that surveys for this species be conducted by a trained botanist in May or June when the plant is in flower. Surveys for running buffalo clover should be designed and conducted in coordination with this office.

Clubshell and Northern Riffleshell (*Pleurobema clava* and *Epioblasma torulosa rangiana*)

These freshwater mussel species inhabit stream areas with sand or gravel substrate and also prefers areas with riffles and runs. Should the proposed project directly or indirectly impact any of the habitat types described above, we recommend that a survey be conducted to determine the presence or probable absence of these mussels in the vicinity of the proposed site. Surveys for the clubshell and northern riffleshell should be designed and conducted in coordination with this office.

Fanshell and Pink Mucket Pearly Mussel (*Cyprogenia stegaria* and *Lampsilis abrupta*)

These freshwater mussel species inhabit rivers with strong currents in shallow riffles to deep water with boulders; gravel, sand, or silt substrates. Should the proposed project directly or indirectly impact any of the habitat types described above, we recommend that a survey be conducted to determine the presence or probable absence of these mussels in the vicinity of the proposed site. Surveys for the fanshell and pink mucket pearly mussel should be designed and conducted in coordination with this office.

Scioto Madtom (*Noturus trautmani*)

This species is known only from Big Darby Creek in Jackson Township of Pickaway County. It has not been seen since 1957. The known habitat includes riffles where the water velocity was decreasing and the substrate was composed of sandy gravel with some small stones no larger than 4 inches in diameter. The presence of this species in the project area is unlikely since the Scioto madtom is thought to be extinct.

Bald Eagle (*Haliaeetus leucocephalus*)

We recommend that you annually contact Mr. Mark Shieldcastle, with the Ohio Department of Natural Resources, Division of Wildlife, (419) 898-0960, for the location(s) of the eagle nest(s) in the project counties. If any nests are located within 1/2 mile of the project site, further coordination with this office is necessary. If the nest is active, we recommend that work at the site be restricted from mid-January through July to allow pre-nesting activities, incubation, and raising of the young.

Eastern Massasauga (*Sistrurus catenatus catenatus*)

This is a docile rattlesnake that is declining throughout its national range and is currently a Federal Candidate specie and listed as endangered by the State of Ohio. Your proactive efforts to conserve this species now may help avoid the need to list the species under the Endangered Species Act in the future. Due to their reclusive nature, we encourage early project coordination to avoid potential impacts to massasaugas and their habitat. At a minimum, project evaluations should contain delineations of whether or not massasauga habitat occurs within project boundaries.

The massasauga is often found in or near wet areas, including wetlands, wet prairie, or nearby woodland or shrub edge habitat. This often includes dry goldenrod meadows with a mosaic of

early successional woody species such as dogwood or multiflora rose. Wet habitat and nearby dry edges are utilized by the snakes, especially during the spring and fall. Dry upland areas up to 1.5 miles away are utilized during the summer, if available. For additional information on the eastern massasauga, including project management ideas, please visit the following website: <http://www.fws.gov/midwest/Endangered/lists/candidat.html> or contact this office directly. Surveys for the eastern massasauga should be designed and conducted in coordination with this office.

Rayed Bean (*Villosa fabalis*)

The rayed bean is generally known from smaller, headwater creeks, but records exist in larger rivers. They are usually found in or near shoal or riffle areas, and in the shallow, wave-washed areas of lakes. Substrates typically include gravel and sand, and they are often associated with, and buried under the roots of, vegetation, including water willow (*Justicia americana*) and water milfoil (*Myriophyllum* sp.). Should the proposed project directly or indirectly impact any of the habitat types described above, we recommend that a survey be conducted to determine the presence or probable absence of the rayed bean in the vicinity of the proposed site. Surveys for the rayed bean should be designed and conducted in coordination with this office.

Sheepnose (*Plethobasus cyphus*)

The sheepnose is primarily known from larger streams. It typically occurs in shallow shoal habitats with moderate to swift currents over coarse sand and gravel. Habitats with sheepnose may also have mud, cobble, and boulders. Should the proposed project directly or indirectly impact any of the habitat types described above, we recommend that a survey be conducted to determine the presence or probable absence of the sheepnose in the vicinity of the proposed site. Surveys for the sheepnose should be designed and conducted in coordination with this office.

For your convenience, we have attached lists of qualified surveyors for the following species: Indiana bat, freshwater mussels, and the eastern massasauga. Please note that USFWS permit holders must contact this office in advance in writing for site-specific authorization before conducting surveys for federally-listed species in Ohio. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

We appreciate this opportunity to provide the above comments. If you have questions, or if we may be of further assistance in this matter, please contact Angela Zimmerman at extension 22 in this office.

Sincerely,


for Mary Knapp, Ph.D.
Field Supervisor

cc: USFWS - BIFO, CMFO, RIFO, and MISO
ODNR, DOW, SCEA Unit, Columbus, OH



United States Department of the Interior
Fish and Wildlife Service
Ecological Services Field Office
6950 Americana Parkway, Suite H
Reynoldsburg, Ohio 43068-4127

Phone: (614) 469-6923

FAX: (614) 469-6919



FAX COVER SHEET

Date: August 15, 2006 Total pages (including cover sheet) 5TO: Jeff Thomas 612-347-6780FROM: Angela ZimmermanCOMMENTS: letter from our office

FOR YOUR INFORMATION: _____

AS YOU REQUESTED: X

Delia Kelly

From: Angela_Zimmerman@fws.gov
Sent: Thursday, November 30, 2006 1:31 PM
To: Delia Kelly
Cc: Jeff Thommes; Sue_Jennings@nps.gov
Subject: Re: Rockies Express Pipeline - East Project

Attachments: pic32662.gif



pic32662.gif (4 KB)

Hi Delia,

I was looking through the aerial maps and quickly noted one specific site that concerns me. The pipeline route crosses Big Darby Creek in Pickaway County, Ohio exactly right at the point where an Indiana bat maternity colony was discovered last summer. This is right by the spot labeled as #494 on sheet 82. That mist-net survey was performed by John Chenger apparantly for a different project. How would the pipeline be constructed through this area? I am concerned about how this project could impact the colony, Big Darby Creek, and several endangered freshwater mussel species that occur in the creek. Also, as this is a National Scenic River, I have copied this to Sue Jennings with the National Park Service as she is the appropriate contact regarding this issue.

Angela Zimmerman
U.S. Fish and Wildlife Service
Reynoldsburg, Ohio Field Office

"Delia Kelly"
<drkelly@nrginc.com>

11/30/2006 12:11
PM

To
<angela_zimmerman@fws.gov>
cc
"Jeff Thommes"
<JRTTHOMMES@nrginc.com>
Subject
Rockies Express Pipeline - East
Project

Hello Angela,

The Rockies Express Pipeline - East Project continues to move forward with surveys of the proposed route. Currently, civil survey is approximately 76 percent complete. Wetland surveys, which include a preliminary habitat assessment, are 63 percent complete. These surveys are in the process of identifying areas appropriate for species-specific surveys, which are

tentatively scheduled to begin in spring, 2007. We intend to incorporate feedback from the FWS into this process, and want to be sure your recommendations are adequately represented. A new map set was sent to you on October 23, 2006. Once you have had a chance to review these maps, I would like to discuss any site-specific concerns you may have with resources along the route in Ohio. When it is convenient for you, please call me or email me a list of your concerns.

Attached you will find the Rockies Express Indiana Bat Habitat Assessment and Survey Plan. This document is a revision of the plan that you reviewed earlier this year, and is a product of ongoing consultations between Indiana FWS and Jeff Thommes, NRG. We are confident that this plan will provide guidance toward a responsible survey effort, and would like to ask that you review it and provide comments as you see fit. The plan makes reference to the Indiana Bat Survey Data Sheet and Mist Net Guidelines. Both documents are also attached for your reference.

Again, thank you for your continued participation in this project.

Delia

(Embedded image moved to Delia Kelly
file: pic32662.gif)NRG drkelly@nrginc.com
Logo 612.347.6794 Direct
612.347.6780 Fax

[attachment "Mist Net Guidelines 9_5_06.pdf" deleted by Angela Zimmerman/R3/FWS/DOI] [attachment "Indiana Bat Survey Data Sheet_FINAL.pdf" deleted by Angela Zimmerman/R3/FWS/DOI] [attachment "Indiana Bat Survey Plan_Draft 2.pdf" deleted by Angela Zimmerman/R3/FWS/DOI]

Delia Kelly

From: Delia Kelly
Sent: Thursday, November 30, 2006 3:53 PM
To: 'Angela_Zimmerman@fws.gov'
Cc: Jeff Thommes; Elizabeth Dolezal; Bart Jensen
Subject: RE: Rockies Express Pipeline - East Project

Angela,

Thank you for your response, these are exactly the type of comments we are hoping for. In terms of Big Darby Creek, Rockies Express is currently planning to complete the crossing of that waterbody using a horizontal directional drill. This method will avoid impacts on the waterbody as well as the area between the drill entry and exit points. The exact locations of those points are still be determined, pending additional review by the construction staff. We will continue to coordinate with you and the NPS regarding your concerns at the crossing location.

Again, thanks for the comments. Please provide other similar comments as they come up during your review. Your input is very helpful and aids us in project planning.

Delia Kelly
Natural Resource Group

Delia Kelly
drkelly@nrginc.com
612.347.6794 Direct
612.347.6780 Fax

-----Original Message-----

From: Angela_Zimmerman@fws.gov [mailto:Angela_Zimmerman@fws.gov]
Sent: Thursday, November 30, 2006 1:31 PM
To: Delia Kelly
Cc: Jeff Thommes; Sue_Jennings@nps.gov
Subject: Re: Rockies Express Pipeline - East Project

Hi Delia,

I was looking through the aerial maps and quickly noted one specific site that concerns me. The pipeline route crosses Big Darby Creek in Pickaway County, Ohio exactly right at the point where an Indiana bat maternity colony was discovered last summer. This is right by the spot labeled as #494 on sheet 82. That mist-net survey was performed by John Chenger apparantly for a different project. How would the pipeline be constructed through this area? I am concerned about how this project could impact the colony, Big Darby Creek, and several endangered freshwater mussel species that occur in the creek. Also, as this is a National Scenic River, I have copied this to Sue Jennings with the National Park Service as she is the appropriate contact regarding this issue.

Angela Zimmerman
U.S. Fish and Wildlife Service
Reynoldsburg, Ohio Field Office

"Delia Kelly"
<drkelly@nrginc.c

om> To
11/30/2006 12:11 PM <angela_zimmerman@fws.gov> cc
"Jeff Thommes"
<JRTTHOMMES@nrginc.com> Subject
Rockies Express Pipeline - East
Project

Hello Angela,

The Rockies Express Pipeline - East Project continues to move forward with surveys of the proposed route. Currently, civil survey is approximately 76 percent complete. Wetland surveys, which include a preliminary habitat assessment, are 63 percent complete. These surveys are in the process of identifying areas appropriate for species-specific surveys, which are tentatively scheduled to begin in spring, 2007. We intend to incorporate feedback from the FWS into this process, and want to be sure your recommendations are adequately represented. A new map set was sent to you on October 23, 2006. Once you have had a chance to review these maps, I would like to discuss any site-specific concerns you may have with resources along the route in Ohio. When it is convenient for you, please call me or email me a list of your concerns.

Attached you will find the Rockies Express Indiana Bat Habitat Assessment and Survey Plan. This document is a revision of the plan that you reviewed earlier this year, and is a product of ongoing consultations between Indiana FWS and Jeff Thommes, NRG. We are confident that this plan will provide guidance toward a responsible survey effort, and would like to ask that you review it and provide comments as you see fit. The plan makes reference to the Indiana Bat Survey Data Sheet and Mist Net Guidelines. Both documents are also attached for your reference.

Again, thank you for your continued participation in this project.

Delia

(Embedded image moved to Delia Kelly
file: pic32662.gif)NRG drkelly@nrginc.com
Logo 612.347.6794 Direct
612.347.6780 Fax

[attachment "Mist Net Guidelines 9_5_06.pdf" deleted by Angela Zimmerman/R3/FWS/DOI] [attachment "Indiana Bat Survey Data Sheet_FINAL.pdf" deleted by Angela Zimmerman/R3/FWS/DOI] [attachment "Indiana Bat Survey Plan_Draft 2.pdf" deleted by Angela Zimmerman/R3/FWS/DOI]



United States Department of the Interior

National Park Service

Midwest Region
601 Riverfront Drive
Omaha Nebraska 68102-4226



OCT 06 2006

ER-06/0855

The Honorable Magalie R. Salas
Secretary
Federal Energy Regulatory Commission
888 First Street, NE
Washington, D.C. 20426

FILED
OFFICE OF THE
SECRETARY
2006 OCT 17
2006 OCT 17 A 9:12

ORIGINAL

Subject: Review of Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Rockies Express Pipeline Project, Eastern Phase, FERC No. PF06-30-000, Colorado, Ohio, Missouri, Illinois, and Indiana.

Dear Madame Secretary:

Thank you for the opportunity to review the Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Rockies Express Pipeline Project, Eastern Phase. The Department of the Interior (Department) has reviewed the application and offers the following comments and recommendations:

General Comments

The project has the potential to affect a number of resources of interest to the National Park Service (NPS), including federally designated Wild and Scenic Rivers, rivers listed on the Nationwide Rivers Inventory (NRI), projects funded with assistance from the Land and Water Conservation Fund (LWCF), National Natural Landmark (NNL) properties, and properties designated as National Historic Landmarks (NHL). These resources are discussed under the appropriate heading below.

Wild and Scenic Rivers Act

The Little Miami River and Big Darby Creeks in Ohio, and the Middle Fork of the Vermilion in Illinois are components of Wild and Scenic Rivers System (System), pursuant to section 2(a)(ii) of the Wild and Scenic Rivers Act (Act). The NPS, on behalf of the Department, retains section 7(a) responsibilities under the Act and works cooperatively with the State of Ohio and the State of Illinois to ensure other provisions of the Act are fully implemented.

Section 1(b) of the Act contains the Congressional declaration of policy and states:

It is hereby declared to be the policy of the United States that certain selected rivers of the Nation which, with their immediate environments, possess outstandingly remarkable scenic, recreational, geologic, fish and wildlife, historic, cultural, or other similar values, shall be preserved in free-flowing condition, and that they and their immediate environments shall be protected for the benefit and enjoyment of present and future generations.

Section 7(a) of the Act provides substantial protection to designated rivers. It states, in part, that:

No Department or Agency of the United States shall assist by loan, grant, and license or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such river was established, as determined by the Secretary charged with its administration.

TAKE PRIDE
IN AMERICA

A section 7(a) evaluation, pursuant to the Act, is used to analyze impacts of a proposed water resources project and determine whether any impacts would have a direct and adverse effect on the values for which the river was established, namely its free-flowing condition, water quality, and Outstandingly Remarkable Values (ORVs). Federal water resources projects that are determined to have a direct and adverse effect on the values for which designated rivers were added to the System are prohibited. Water resources projects include, but are not limited to dams, water diversion projects, dredging projects, fisheries habitat restoration/enhancement projects, bridge construction or demolition, bank stabilization projects, channelization projects, boat ramps, and other activities that require a section 404 permit from the U.S. Army Corps of Engineers (COE). Water resources projects located within the designated reach or upstream/downstream or on tributaries to the designated reach may be subject to section 7(a) review.

The ORVs for the Big Darby Creek include fish and mussels (federally listed and non-listed species) resources; on the Little Miami River, the ORVs include aquatic and terrestrial flora and fauna, historic, archeological, geologic, scenic, and recreational resources. The ORVs on the Middle Fork of the Vermillion River include scenic, geologic, fish and wildlife, ecological, recreational, and historic resources. Section 1 and section 10(a) responsibilities under the Act provide the context for evaluating potential environmental impacts to nationally significant resource and should be properly considered in your site planning and impact analysis.

In summary, each component of the System is to be preserved in its free-flowing condition, preserving its water quality and its ORVs. State administered components of the System must meet the same standards of resource protection as congressionally designated rivers. To assist you in your planning efforts, upon request, and if necessary, the NPS will provide a preliminary section 7 document, assuming all necessary information is provided to the Agency. Once the project specifications are finalized and Federal Energy Regulatory Commission and/or section 404 permits through the COE are applied for, the NPS will prepare a final section 7(a) determination for any water resource development projects described in all permit application(s).

Nationwide Rivers Inventory

Section 5(d) of the Act requires that:

In all planning for the use and development of water and related land resources, consideration shall be given by all Federal Agencies involved to potential national wild, scenic and recreational river areas.

In partial fulfillment of the section 5(d) requirements, the NPS has compiled and maintains the NRI, which is a register of rivers and river segments that may be eligible for inclusion in the System. These rivers were included on the NRI based on the degree to which they are free-flowing, the degree to which the rivers and their corridors are undeveloped, and the outstanding natural and cultural characteristics of the rivers and their immediate environments.

The intent of the NRI is to provide information to assist in making balanced decisions regarding use of the nation's river resources. An Executive order and subsequent instructions issued by the Council on Environmental Quality requires that each Federal Agency, as part of its normal planning and environmental review processes, take care to avoid or mitigate adverse effects on rivers identified in the NRI. Further, all Agencies are required to consult with the NPS prior to taking actions that could effectively foreclose wild, scenic, or recreational status for rivers listed on the inventory. For more information on the NRI, including a State-by-State listing of rivers in the program, please see <http://www.nps.gov/nrcr/programs/rca/nri/>.

Land and Water Conservation Fund Act

Section 6(f)(3) of the L.WCF Act (Public Law 88-578) states:

No property acquired or developed with assistance under this section shall, without the approval of the Secretary (of the Interior), be converted to other than public outdoor recreation uses. The Secretary shall approve such conversion only if (s)he finds it to be in accord with the then existing comprehensive Statewide outdoor recreation plan and only upon such conditions as (s)he deems necessary to assure the substitution of other recreation

properties of at least equal fair market value and of reasonably equivalent usefulness and location.

A conversion occurs when the scope of a project is changed to other than public outdoor recreation uses. The question whether there is a change to other than public outdoor recreation use is based upon a comparison of the public outdoor recreation assets provided by the original LWCF agreement and the impact of any proposed changes thereto. If the changes provide for other than public outdoor recreation as originally agreed to, in all or in part, a conversion exists.

Similarly, the Urban Park and Recreation Recovery (UPARR) program was established in November 1978 by Public Law 95-625 and stipulates that, "No property improved or developed with assistance under this title shall, without the approval of the Secretary (of the Interior), be converted to other than public recreation uses."

Conversions can be approved if substitute sites or facilities of reasonably equivalent location and usefulness are provided and the recipient has explored all practical alternatives.

Because of the length of the project, the number of counties that the project crosses, and the number of projects in those counties that may be affected by the project, the NPS suggests you consult directly with the contacts for each State listed below in order to better define the potential for impacts to these projects.

Illinois
Director
Office of Capital Development
Department of Natural Resources
One Natural Resources Way
Springfield, Illinois 62701
Telephone: 217-782-1807
<http://dnr.state.il.us/ocd/newosladi.htm>

Indiana
Chief
State and Community Outdoor Recreation
Planning Section
Department of Natural Resources
402 West Washington
Indianapolis, Indiana 46204
Telephone: 317-232-4070
<http://www.in.gov/dnr/outdoor/grants/lwcf.html>

Missouri
Director
Division of State Parks and
Historic Preservation
Department of Natural Resources
P.O. Box 176
Jefferson City, Missouri 65102-0176
Telephone: 573-751-2479
<http://www.mostateparks.com/grantinfo.htm>

Ohio
Grants Administrator
Department of Natural Resources
1952 Belcher Drive, Building C-4
Columbus, Ohio 43224-1386
Telephone: 614-265-6646
<http://www.dnr.state.oh.us/grants.htm>

National Natural Landmarks

Established in 1962, the NNL program aims to encourage and support voluntary preservation of sites that illustrate the geological and ecological history of the United States, and to strengthen the public's appreciation of America's natural heritage. The NNL sites are nationally significant sites owned by a variety of land stewards.

The NNL designation is made by the Secretary after in-depth scientific study of a potential site; all new designations must have owner permission. The NPS administers the program and regularly reports on the condition of the NNLs. The NNLs potentially affected by this project are listed below by State and county, including ownership.

State	County	National Natural Landmark	Ownership
Indiana	Putnam	Big Walnut Creek	State and Private
	Putnam	Fern Cliff	Private
	Shelby	Meltzer Woods	Private
	Parke	Rocky Hollow-Falls Canyon Nature Preserve	State
Ohio	Fairfield	Blacklick Woods	County
	Greene	Clifton Gorge State Park	State
	Greene	Glen Helen Natural Area	Private
	Belmont	Dysart Woods	State
	Butler	Hueston Woods	State

National Historic Landmarks

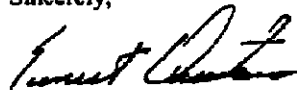
The NHLs are nationally significant historic places designated by the Secretary of the Interior because they possess exceptional value or quality in illustrating or interpreting the heritage of the United States. Today, fewer than 2,500 historic places bear this national distinction. The NHL program draws upon the expertise of the NPS staff who works to nominate new landmarks and provide assistance to existing landmarks. The NHLs potentially affected by this project are listed below by State and county, including the city or town where they are located.

State	County	National Historic Landmark	City/Town
Missouri	Pike	"Champ" Clark House	Bowling Green
Illinois	Sangamon	Susan Lawrence Dana House	Springfield
	Sangamon	Abraham Lincoln Home	Springfield
	Sangamon	Lincoln Tomb	Springfield
	Sangamon	Vachel Lindsay House	Springfield
	Sangamon	Old State Capitol	Springfield
	Ohio	Butler	Langstroth Cottage
Ohio	Butler	William H. McGuffey House	Oxford
	Butler	John B. Tytus House	Middletown
	Warren	Fort Ancient	Lchanon
	Greene	Huffman Prairie Flying Field	Fairborn
	Greene	Colonel Charles Young House	Wilberforce
	Fairfield	Sherman Birthplace	Lancaster
	Guernsey	South Bridge, National Road	Old Washington

The NPS has a continuing interest in working with the Federal Energy Regulatory Commission to ensure that project impacts to resources of concern to the NPS are adequately addressed. For general issues concerning these comments, please contact Regional Environmental Coordinator Nick Chevance, Midwest Regional Office, National Park Service, 601 Riverfront Drive, Omaha, Nebraska, 68102, telephone 402-661-1844. For information regarding Wild and Scenic Rivers or rivers listed on the NRI, please contact Wild and Scenic Rivers Coordinator Sue Jennings at 402-661-1848. For information on the NHL properties in Ohio, please contact Mr. Brian McCutchen, at 402-661-1940; for Illinois, Ms. Carol Ahlgren, at 402-661-1912; or for Missouri, Ms. Rachel Franklin-Weekley, at 402-661-1928. For information on the NNL properties, please contact Chief of Natural Resource Stewardship, and Science Steve Cinnamon at 402-661-1864.

We appreciate the opportunity to provide these comments.

Sincerely,



Ernest Quintana
Midwest Regional Director

cc:

Mr. Bob Gable, Scenic River Services Group
Division of Natural Areas & Preserves
Ohio Department of Natural Resources
1889 Fountain Square Ct, Bldg. F-1
Columbus, Ohio 43224

Director Joel Brunsvold
Illinois Department of Natural Resources
One Natural Resources Way
Springfield, Illinois 62702

Dr. Mary Knapp
U.S. Fish and Wildlife Service
Ecological Services
6950 Americana Parkway, Suite H
Renoldsburg, Ohio 43068-4127

U.S. Army Corps of Engineers
Attn: Doug Shelton
P.O. Box 59
Louisville, Kentucky 40201-0059

Project Manager Ryan H. Childs
Rockies Express Pipeline, LLC
500 Dallas Street, Suite 1000
Houston, Texas 77002

Director
Office of Environmental Policy and Compliance
Department of the Interior
1849 C Street, NW, MS 2342-MIB
Washington, D.C. 20240



LOG

LOG OF TELEPHONE CONVERSATION

CALL TO WHOM: Lou Chirarella	PHONE NO.: 309-543-3316
COMPANY: National Marine Fisheries Service	
NRG CONTACT: Jeff Madejczyk	PHONE NO.: 612-359-5684
DATE: 10/20/06	NRG OFFICE LOCATION: Minneapolis
RE: Essential Fish Habitat	
LOG OF CONVERSATION:	

I called Mr. Lou Chirarella at the North East Regional Office of the National Marine Fisheries Service (NMFS) to inquire as to designated essential fish habitat in the REX-East project corridor. I introduced myself to Mr. Chirarella and informed him that NRG is working on a FERC permit application for the project. I told him that the REX-East project corridor travels west to east through the States of Missouri, Illinois, Indiana and Ohio. I asked him if the NMFS had jurisdiction over any of the waters in these states or if they had any designations of essential fish habitat in these areas. Mr. Chirarella said that the NMFS does not have any jurisdiction over any of the waters in the states that I listed and as a result they have no listing of essential fish habitat in those areas. I asked him if the NMFS had jurisdiction over any inland freshwaters. He said that in some cases they have inland jurisdiction when there are anadromous salmonid species that utilize inland rivers, such as in the Northwest Region where the NMFS jurisdiction extends inland into Idaho. However, in the project area that I described there are no rivers that fall under their jurisdiction. I thanked Mr. Chirarella for his time.



April 5, 2006

Missouri Natural Heritage Program
Missouri Department of Conservation
2901 West Truman Blvd.
Jefferson City, MO 65102-0180

Attn: Shannon Cave

Re: Request for Natural Heritage Inventory Data
Rockies Express Pipeline Project
Carroll, Chariton, Randolph, Audrain, Ralls and Pike Counties, Missouri

Dear Mr. Cave:

Rockies Express Pipeline LLP (Rockies Express) is developing a 1,323-mile-long, 42-inch-diameter natural gas pipeline that extends from Cheyenne Hub in northeastern Colorado to Clarington, Ohio. The eastern segment of the proposed pipeline (REX East) crosses Missouri, Illinois, Indiana and Ohio, and is being treated as an independent project. Construction of the proposed project is anticipated to begin in the spring of 2008 and it is expected to be in service by winter 2008.

Rockies Express has retained Natural Resource Group, Inc. (NRG) to assist with various aspects of project development, including agency consultations, environmental field surveys, and preparation of an application to the Federal Energy Regulatory Commission (FERC). NRG, on behalf of Rockies Express, will be preparing environmental review documents for the project. Species-related information provided to NRG will be treated as confidential and will be used for project purposes only.

As shown in the enclosed CD, the proposed pipeline system includes an approximately 219-mile-long mainline section that runs west to east through Carroll, Chariton, Randolph, Audrain, Ralls and Pike Counties in Missouri. Initial environmental field surveys, including wetland delineations and habitat evaluations, are scheduled to commence in summer 2006. To assist our efforts to plan the project in a manner that minimizes impacts on sensitive natural resources, Rockies Express is requesting that the Missouri Natural Heritage Program provide site-specific information and interpretation regarding rare and endangered species, species of special concern, significant or unique ecological communities, and other sensitive resources along the proposed pipeline route. We are requesting interpreted data for a two-mile wide corridor, extending one mile on each side of the pipeline. In the enclosed CD, you will find three shape files describing the proposed pipeline route, mileposts, and sections within one mile of the route. To assure accuracy in our impact assessment, we would prefer that all species and habitat occurrences be submitted to us in a shape file that includes the township, range and section. In addition, we will need to know the federal and state listing status for each occurrence.



Rockies Express is also consulting with the U.S. Fish and Wildlife Service to assess potential project impacts on federally listed threatened or endangered species. Additionally, Rockies Express is contacting the various state resource agencies to discuss potential impacts on state-listed species, as applicable.

Providing a response within 30 days will ensure that your concerns are fully evaluated in project planning and that appropriate surveys can be conducted in a timely manner. If you have any questions, please contact Delia Kelly at 612-347-6794 or email to drkelly@nrginc.com.

Thank you for your assistance.

Sincerely,

Natural Resource Group, Inc.

Delia Kelly
Natural Resource Specialist

Enclosures: CD containing route location, mileposts, and sections crossed

cc (w/o enclosures): Jeff Thommes, NRG
Elizabeth Dolezal, NRG
Representative, REX East



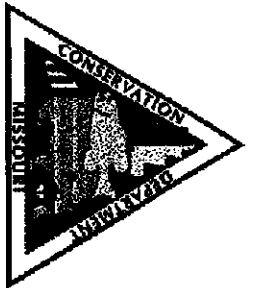
LOG

LOG OF TELEPHONE CONVERSATION

CALL TO/FROM WHOM: Shannon Cave	PHONE NO.: 573-522-4115 x3250
COMPANY: Missouri Department of Conservation-Policy Coordination Unit	
NRG CONTACT: Delia Kelly	PHONE NO.: 612-347-6794
DATE: April 5, 2006	NRG OFFICE LOCATION: Minneapolis
RE: Natural Heritage Review Request	

LOG OF CONVERSATION:

I contacted Mr. Cave to request that instead of sending paper maps with my Natural Heritage Database Request, I submit the maps and legal descriptions of the proposed REX-East route to him in electronic format. I asked him if he would be able to supply me with a response in the form of a shape file. He answered that he would not be able to provide me with pinpointed locations of species occurrences, but could provide information specific to Township, Range and Section. He added that he understood the genuine intention to use the data to reduce impacts to designated species and habitats, but told me that Missouri does not currently release this information. He asked me to send him our electronic files with sectional data being preferred but not necessary. I told him I would be sending the complete request soon and thanked him for his time.



Heritage Review Report

Missouri Department of Conservation
Policy Coordination Unit
P. O. Box 180
Jefferson City, MO 65102
673-622-4116 X 3250 - Shannon.Cave@mdc.mo.gov

Project type: Rockies Express Pipeline, eastern section
Location: per shape file provided, in the following counties only
County: Carroll, Chariton, Randolph, Audrain, Ralls, Pike
Described in query as: Req. for Natural Heritage Inventory data
Date query received: April 7, 2006

Ms. Delia Kelly
Natural Resource Group, Inc.
1000 IDS Center
80 South Eighth Street
Minneapolis, MN 55402
Copy: Doyle Brown

This is not a site clearance letter, but a report of Missouri Department of Conservation records concerning public lands and sensitive resources known to be near and possibly affected by the proposed project. I am returning your CD, having added two shapefiles (MDC areas, and REXE_sections which marks sections in which a species/habitat of concern is recorded.

Prepared by:
11-Apr-06
[Signature]

Species/habitats with Federal and State concerns:

Scientific Name	Common Name	Federal Status	State Status	State Rank	Quadrangle	County	Last record	Sec	Twp/Rng
<i>Haliaeetus leucocephalus</i>	Bald Eagle	T	E	S3	Louisiana	Pike	2001		
<i>Tympanuchus cupido</i>	Greater Prairie-chicken		E	S1	Laddonia	Audrain	1993	36	T52N R6W
<i>Tympanuchus cupido</i>	Greater Prairie-chicken		E	S1	Hutchison	Audrain	1993	27	T52N R7W
<i>Tympanuchus cupido</i>	Greater Prairie-chicken		E	S1	Tulip	Audrain	1988	24	T52N R12W
<i>Tympanuchus cupido</i>	Greater Prairie-chicken		E	S1	Hutchison	Audrain	1993	22	T52N R7W
<i>Tympanuchus cupido</i>	Greater Prairie-chicken		E	S1	Rowena	Audrain	1988	27	T52N R10W
<i>Tympanuchus cupido</i>	Greater Prairie-chicken		E	S1	Hutchison	Audrain	1988	28	T52N R7W
<i>Tympanuchus cupido</i>	Greater Prairie-chicken		E	S1	Laddonia	Audrain	1994	36	T52N R6W
<i>Tympanuchus cupido</i>	Greater Prairie-chicken		E	S1	Tina	Carroll	1990	7	T54N R22W
<i>Circus cyaneus</i>	Northern Harrier		E	S2	Coloma	Carroll	2002	28	T55N R24W
Dry-mesic loess/glacial till prairie				S1	Salisbury	Chariton	1999	12	T53N R17W
Wet bottomland prairie				S3	Salisbury	Chariton	1999	12	T53N R17W
<i>Carex arkansana</i>	A Sedge			S3	Bosworth	Chariton			
<i>Cycleptus elongatus</i>	Blue Sucker			S3	Keytesville	Chariton	1957	11	T53N R18W
<i>Macrhybopsis storeriana</i>	Silver Chub			S3	Vandalia	Ralls	1971	32	T53N R5W
<i>Speyeria idalia</i>	Regal Fritillary			S3	Brunswick West	Chariton	1982	17	T54N R20W
Creeks and small rivers (prairie region)									

FEDERAL STATUS is derived from the Endangered Species Act, administered by the U.S. Fish and Wildlife Service. The ESA provides federal protection for plants and animals listed as: E = Endangered, T = Threatened, C = Candidate, PE = Proposed Endangered for Federal listing.

STATE STATUS is either blank or E₁ for "endangered" as defined in the Wildlife Code of Missouri. STATE RANKS refer to species tracked but not listed, S1 = critically imperiled, S2 = imperiled, S3 = rare and uncommon or SE = exotic/invasive species.

Major concerns would include:

- revegetation with native species, especially in areas where greater prairie-chickens may occur;
- proper management for Indiana bats along the entire route, primarily preserving large trees, living or dead, that may serve as summer roost sites. More information is on attached best management sheet, also available at <http://www.mdc.mo.gov/documents/nathis/endangered/indianabat.pdf>;
- proper management of river and stream crossings. Best management recommendations relating to streams and rivers may be found at <http://www.mdc.mo.gov/documents/nathis/endangered/streams.pdf>

Concerns & management recommendations based on site or project details, not related to specific heritage records:

Streams should be protected from soil erosion, water pollution and in-stream activities that modify or diminish aquatic habitats. Best management recommendations relating to streams and rivers may be found at <http://www.mdc.mo.gov/documents/nathis/endangered/streams.pdf>

Bald eagles (*haliaeetus leucocephalus*, Federally threatened, State endangered) may overwinter or nest in big river habitats and lakes along the proposed line, where they feed on fish. See <http://www.mdc.mo.gov/documents/nathis/endangered/baldeagle.pdf> for best management recommendations.

Habitat loss can impact populations of grassland birds native to the area, including barn owls (state endangered), northern harriers (state endangered), Henslow's sparrow (imperiled in the state), and greater prairie-chickens (state endangered). Revegetation with native grasses and other flowering plants will minimize the impact of habitat disturbance. Best management practices may be found on-line at <http://www.mdc.mo.gov/nathis/endangered/birdm.htm>.

Indiana bats (*myotis sodalis*, Federally endangered, State endangered) roost and raise young under the bark of trees in riparian forests and upland forests near perennial streams across north Missouri. During project activities, avoid degrading stream quality and where possible leave snags standing and preserve mature forest canopy. Additional information to incorporate in planning documents is available at <http://www.mdc.mo.gov/documents/nathis/endangered/indianabat.pdf>. Gray bats (*myotis grisescens*, Federally endangered, State endangered) could also occur along streams, rivers, and reservoirs in Randolph County and east. See <http://www.mdc.mo.gov/documents/nathis/endangered/graybat.pdf> for best management recommendations.

Randolph, Pike and Rails county have known karst geologic features (e.g. caves, springs, and sinkholes, all characterized by subterranean water movement). Such features are not routinely identified in heritage records but may be encountered by the project.

Since cave fauna are influenced by changes to water quality, every effort should be made to protect groundwater in the project area. See <http://www.mdc.mo.gov/documents/nathis/endangered/karst.pdf> for best management information.

Pallid sturgeons (*Scaphirhynchus albus*, Federal and State endangered) are big river fish that may range widely in the Mississippi and Missouri River system (including parts of major tributaries). Because the preferred habitat and range of the species are unknown, any project that modifies big river habitat or impacts water quality should consider the possible impact to pallid sturgeon populations. See http://www.mdc.mo.gov/documents/nathis/endangered/pallid_sturgeon.pdf for best management recommendations.

The Randolph and Audrain sections are mostly in the vicinity of "booming grounds", or courtship areas, for greater prairie chickens (*Tympanuchus cupido*, state endangered). This grassland bird may nest and forage in grasslands several miles away from the booming ground. Prairie chickens may use grasslands in the project area. See <http://www.mdc.mo.gov/documents/nathis/endangered/greaterprairiechicken.pdf> for best management recommendations.

The Missouri and Mississippi Rivers are home to a number of species of state and federal concern, including pallid sturgeon, gray bats, Indiana bats, bald eagles, lake sturgeon, flathead chubs and others. Terrestrial projects that manage construction and include operation plans to avoid runoff of sediment or pollutants are unlikely to affect these species. Projects that place fill in or discharge water to the river are subject to federal permits, and strict observance of conditions required in those permits is important to minimize risk of damage to endangered species.

Conservation Department Areas: The proposed line appears to cross near the following Conservation Areas. If plans will include transit or impact to these areas, please contact Doyle Brown, 573-522-4115 X 3355 to identify the appropriate staff to review plans and secure approval for area impacts other than species of concern. The following public lands are within the 1-mile corridor:

AREA NAME	COUNTY	Acres
Jacks (Maude Shores) CA	Audrain	21
Sears (F. O. & Leda J.) Mem CA	Audrain	163
Sterling Price Community Lake	Charlton	84
Pine Ridge Lake	Charlton	0
Upper Mississippi CA	Lewis, Lincoln, St Charles, Pike	337

Conservation Opportunity Areas

MDC has identified a few areas in the state as the most promising places to restore or enhance species diversity or populations/habitats of concern. These are called Conservation Opportunity Areas and those crossed by or within one-mile of the proposed line are listed below. Public/private partnerships within these areas are being developed to improve the state's fish and wildlife diversity, and some federal funding may be available to help with habitat restoration projects within them.

NAME	Land Type	CRITERIA
Pero Creek	TP Woodland/Forest Hills	Solid block of woods; Aquatic COA; Existing conservation land
Bunch Hollow	TP Prairie/Woodland Hills	Woodland/savanna/grassland mix; High concentration of forest and grassland birds; Heritage communities; Existing conservation land
Upper Mississippi - Shanks	TP Alluvial Plains	Wetlands complex; Heritage elements; Existing conservation lands
Duck Lake	TP Alluvial Plains	Aquatic COA; Heritage elements
Grassy Creek	Aquatic	Only AES with small river and associated richness
Towsting Creek	Aquatic	Less channelized; existing focus; rare species;

A HERITAGE REVIEW provides information about species and habitats of concern that could be affected by the project. Heritage records note things that were positively identified at some date and time, marked at a location that may be more or less precise. Animals move quickly but plant communities can move also. To say "there is a record" does not mean the species/habitat is still there. To say that "there is no record" does not mean the project may not encounter something. Because of this, reports include information about records near but not necessarily on the project site. Three different kinds of information are provided.

- FEDERAL Concerns are species/habitats protected under the Federal Endangered Species Act and that have been known near enough to the project site to warrant consideration. For these, project managers must contact the U.S. Fish and Wildlife Service Ecological Services (101 Park Deville Drive Suite A, Columbia, Missouri 65203-0007; Phone 573-234-2132; Fax 573-234-2181) for consultation.
- STATE Concerns are species/habitats known to exist near enough to the project site to warrant concern and protected under the Wildlife Code of Missouri (RSMo 3 CSR 10). "State Endangered Status" is determined by the Missouri Conservation Commission under constitutional authority, with requirements expressed in the Missouri Wildlife Code, rule 3CSR10-4.111. "State Rank" is numeric rank of relative rarity, protected under general provisions of the Wildlife Code but not endangered.
- "Concerns & management recommendations" are things for which one might prudently look. There is no specific heritage record, but our knowledge of the surrounding landscape suggests consideration. 93% of Missouri's land is in private ownership, so most sites have never been carefully inspected by conservation professionals.

This report is not a site clearance letter. Rather, it provides an indication of whether or not public lands and sensitive resources are known to be (or are likely to be) located close to the proposed project. Incorporating information from our Heritage Database into project plans is an important step that can help reduce unnecessary impacts to Missouri's sensitive natural resources. However, the Heritage Database is only one reference that should be used to evaluate potential adverse impacts. Other types of information, such as wetland and soils maps and on-site inspections or surveys, should be considered. Reviewing current landscape and habitat information and species biological characteristics would additionally ensure that species of conservation concern are appropriately identified and addressed.

Additional information on rare, endangered and watched species may be found at <http://www.mdc.mo.gov/watched/endangered/>. If you would like printed copies of best management practices cited as internet URLs, please contact us.



LOG

LOG OF TELEPHONE CONVERSATION

CALL TO WHOM: Paul Calvert	PHONE NO.: 573-522-4115 Ext. 3859
COMPANY: Missouri Department of Conservation	
NRG CONTACT: Jeff Madejczyk	PHONE NO.: 612-359-5684
DATE: 10/10/06	NRG OFFICE LOCATION: Minneapolis
RE: Missouri Stream Classification and Fish Community Information	

LOG OF CONVERSATION:

I introduced myself to Mr. Calvert and informed him that NRG is working on a FERC permit application for a pipeline corridor project and that I am writing up information on the fish community in the project corridor. I told him that our project corridor only goes through one major watershed in Missouri, the Salt River. I asked him if the State of Missouri uses a classification system for its streams based on the fish community, such as warm water or cold water. Mr. Calvert informed me that all of the streams in this watershed that might be crossed by the project would be warm water streams. I asked him where I could find information regarding the fish communities of the streams in the project area. He directed me to a web-site which contains all of the major information for each watershed in Missouri. He suggested that if I needed more information I should contact the regional fisheries biologist, Brian Todd, who is responsible for the stream surveys in the area and could provide me with more detailed information than is available on the web site. I confirmed that I had the proper contact information for Mr. Todd and I thanked Mr. Calvert for his time.



LOG

LOG OF TELEPHONE CONVERSATION

CALL TO/FROM WHOM: Doyle Brown	PHONE NO.: 573-522-4115 Ext. 3355
COMPANY: Missouri Department of Conservation	
NRG CONTACT: Jeff Thommes; Jeff Madejczyk	PHONE NO.: 612-359-5678
DATE: 10/16/06	NRG OFFICE LOCATION: Minneapolis
RE: Missouri Stream Classification and Fish Community Information	
LOG OF CONVERSATION:	

Jeff Thommes placed a call to Mr. Doyle Brown at the Missouri Department of Conservation (MDOC). Jeff introduced himself and Jeff Madejczyk, stating that the REX-East pipeline project is investigating any potential impacts to state listed threatened and endangered species in the project corridor. Mr. Brown stated that he was familiar with the project and that he has previously worked on the REX-West project.

Mr. Thommes explained to Mr. Brown the process in regards to endangered species in the project corridor which includes: compiling the list of species that may occur in each county of the project corridor; determining the habitat requirements for the listed species; reviewing the project corridor for the presence of the required habitat, and determining if the project has the potential to effect the habitat or the species. Mr. Thommes stated that after completing this analysis, results would be sent to Mr. Brown for his review and comment.

Mr. Brown stated that he agreed with the overall approach and that it sounded logical. He stated that for any federally listed species, the MDC would defer to the federal recommendations for that species. He said for any species on which impacts may occur and/or surveys may be required, the MDC would provide us with proper survey methods and information for the species.

Mr. Thommes then stated that while we have been able to find a list of state threatened and endangered species for Missouri, we have not been able to find a list that shows which species might occur in the counties within the project corridor. Mr. Brown stated he could send us the species lists for the project counties if we sent him the counties in an e-mail.

It was decided that Mr. Brown would receive an e-mail with the counties in the project corridor and that we would follow up with Mr. Brown once we had completed our analysis. Mr. Thommes thanked Mr. Brown for his time.



LOG

LOG OF TELEPHONE CONVERSATION

CALL FROM WHOM: Brain Todd	PHONE NO.: 573-522-4115 Ext. 236
COMPANY: Missouri Department of Conservation	
NRG CONTACT: Jeff Madejczyk	PHONE NO.: 612-359-5684
DATE: 10/17/06	NRG OFFICE LOCATION: Minneapolis
RE: Missouri Stream Classification and Fish Community Information	

LOG OF CONVERSATION:

I received a call from Missouri Department of Conservation (MDC) Regional Fisheries Biologist Brain Todd in response to a voice message I left him requesting information on the fish communities and stream classification system for streams in the REX-East project corridor.

I informed Mr. Todd that I am working on the fisheries section for the FERC permit for a pipeline corridor project. He stated that he was aware of the project but he was unable to attend the joint agency meeting in Missouri, which talked about the project. I asked Mr. Todd if I could send him an e-mail with the list of streams that will be crossed by the project. I told him that I am looking for information in regards to the general fish communities in the streams including game fish communities, important angler areas or special/critical habitat. He said that he would be able to answer the questions and get something back to me.

I asked him if commercial fishing was allowed in any of the inland waters controlled by the MDC. He stated that commercial fishing is allowed in the Mississippi and Missouri Rivers, as well as a portion of the St. Francis River. There is no commercial fishing allowed on any of the smaller rivers or streams that will be crossed by the project.

I asked Mr. Todd if the MDC uses a classification system based on the fish communities for lakes, rivers and streams under its jurisdiction. Mr. Todd informed me that all the streams in the lower Salt River Basin that the project will be crossing are warm water streams but the MDC does not have an official classification system based on fish communities for any of the waters in the state.

Mr. Todd then asked me about the Mississippi River crossing. I informed him that the REX-East project would be using horizontal directional drilling (HDD) to go under the Salt and Mississippi Rivers. Mr. Todd asked me how far below the stream bed is the pipeline during the HDD process. I told him that I did not know off-hand, but I would find out and include it in my e-mail to him with the streams in the project area. He said that would be fine and I thanked him for his time.

Jeff Madejczyk

From: Doyle Brown [Doyle.Brown@mdc.mo.gov]
Sent: Thursday, October 26, 2006 9:10 AM
To: Jeff Madejczyk
Cc: Jeff Thommes
Subject: RE: County Lists of State T&E Species
Attachments: MDC Heritage Database Results for Audrain County.doc; MDC Heritage Database Results for Pike County.doc; MDC Heritage Database Results for Ralls County.doc

Jeff,

I apologize, it appears that your emails were stopped by our firewall and I did not retrieve them until last night. Attached are three lists for your use. The list also include natural communities utilizing a classification based on soils, geology, and plant type outlined in Paul Nelson's "The Terrestrial Natural Communities of Missouri (2005).

Let me know when you need anything else.

Doyle

Doyle F. Brown
Policy Coordinator
Missouri Department of Conservation
P.O. Box 180
2901 West Truman Blvd.
Jefferson City, MO 65109
(573) 522-4115 Ext 3355
Doyle.brown@mdc.mo.gov

>>> "Jeff Madejczyk" <jcmadejczyk@nrginc.com> 10/24/06 1:14 PM >>>
Mr. Brown:

I just wanted to check in a see if you have been able to find the county lists of Missouri T&E species for Audrain, Ralls and Pike counties. I attached my original e-mail request below for your reference (I know how easy these things can be deleted). Let me know if you need anything else from me in order to be able to track down the info we have requested.

Thank you for your time and assistance.

Jeff Madejczyk
jcmadejczyk@nrginc.com
612.359.5684 Direct
720.956.5310 Fax

From: Jeff Madejczyk
Sent: Monday, October 16, 2006 12:06 PM
To: 'doyle.brown@mdc.mo.gov'
Cc: Jeff Thommes
Subject: County Lists of State T&E Species

10/26/2006

Mr. Brown:

Thank you for taking the time to speak with us today. The REX-East pipeline project will be crossing Audrain, Ralls and Pike Counties in Missouri. We have been unable to find a list of the threatened and endangered species for each county on the Missouri DOC website. You indicated on our call that you would be able to provide us the species lists for these counties.

Once we received the species list from you we will go through the process we described on the phone in regards to determining the potential that any of the listed species occur in the project corridor and what, if any, the project impacts could be on the species. Once we have completed this process we will contact you again with a description of how we conducted the analysis and our findings for your review.

If you have any questions in regards to this request, please contact me.

Thank you for your time.



Jeff Madejczyk
jcMadejczyk@nrginc.com
612.359.5684 Direct
612.347.6780 Fax



April 5, 2006

Illinois Natural Heritage Database
Illinois Department of Natural Resources
ORC-Division of Habitat Resources
One Natural Resources Way
Springfield, IL 62702

Attn: Tara Kieninger

Re: Request for Natural Heritage Inventory Data
Rockies Express Pipeline Project
Pike, Scott, Morgan, Sangamon, Christian, Macon, Moultrie, Douglas, and Edgar
Counties in Illinois

Dear Ms. Kieninger:

Rockies Express Pipeline LLP (Rockies Express) is developing a 1,323-mile-long, 42-inch-diameter natural gas pipeline that extends from Cheyenne Hub in northeastern Colorado to Clarington, Ohio. The eastern segment of the proposed pipeline (REX East) crosses Missouri, Illinois, Indiana and Ohio, and is being treated as an independent project. Construction of the proposed project is anticipated to begin in the spring of 2008 and it is expected to be in service by winter 2008.

Rockies Express has retained Natural Resource Group, Inc. (NRG) to assist with various aspects of project development, including agency consultations, environmental field surveys, and preparation of an application to the Federal Energy Regulatory Commission (FERC). NRG, on behalf of Rockies Express, will be preparing environmental review documents for the project. Species-related information provided to NRG will be treated as confidential and will be used for project purposes only.

As shown in the enclosed CD, the proposed pipeline system includes an approximately 203-mile-long mainline section that runs west to east through Pike, Scott, Morgan, Sangamon, Christian, Macon, Moultrie, Douglas, and Edgar Counties in Illinois. Initial environmental field surveys, including wetland delineations and habitat evaluations, are scheduled to commence in summer 2006. To assist our efforts to plan the project in a manner that minimizes impacts on sensitive natural resources, Rockies Express is requesting that the Illinois Department of Natural Resources provide site-specific information and interpretation regarding rare and endangered species, species of special concern, significant or unique ecological communities, and other sensitive resources along the proposed pipeline route. We are requesting interpreted data for a two-mile wide corridor, extending one mile on each side of the pipeline.

In the enclosed CD, you will find three shape files describing the proposed pipeline route, mileposts, and sections within one mile of the route. We are requesting that a



license agreement be extended to us for the sole purpose of achieving optimal accuracy in the impact assessment for this project. Information disclosed to us is intended for this project only and will be used to identify areas along the route where Rockies Express will need to take action to preserve and protect areas and/or species of concern. To ensure accuracy in our impact assessment, we would prefer that all species and habitat occurrences be submitted to us in a shape file that includes the township, range and section. In addition, we will need to know the federal and state listing status for each occurrence.

Rockies Express is also consulting with the U.S. Fish and Wildlife Service to assess potential project impacts on federally listed threatened or endangered species. Additionally, Rockies Express is contacting the various state resource agencies to discuss potential impacts on state-listed species, as applicable.

Providing a response within 30 days will ensure that your concerns are fully evaluated in project planning and that appropriate surveys can be conducted in a timely manner. If you have any questions, please contact Delia Kelly at 612-347-6794 or email to drkelly@nrginc.com.

Thank you for your assistance.

Sincerely,

Natural Resource Group, Inc.

Delia Kelly
Natural Resource Specialist

Enclosures: Project Location Map
Table of Sections Crossed
CD containing route location, mileposts, and sections crossed

cc (w/o enclosures): Jeff Thommes, NRG
Elizabeth Dolezal, NRG
Representative, REX East



LOG

LOG OF TELEPHONE CONVERSATION

CALL TO/FROM WHOM: Tara Kieninger	PHONE NO.: 217-782-2685
COMPANY: Illinois DNR-ORC-Illinois Natural Heritage Database	
NRG CONTACT: Delia Kelly	PHONE NO.: 612-347-6794
DATE: April 5, 2006	NRG OFFICE LOCATION: Minneapolis
RE: Natural Heritage Database Request	

LOG OF CONVERSATION:

I contacted Ms. Kieninger to request that instead of sending paper maps with my Natural Heritage Database Request, I submit the maps and legal descriptions of the proposed REX-East route to her in electronic format. I asked her if she would be able to supply me with a response in the form of a shape file. She answered that this would require the signing of a license agreement, intended to specify the limitations of the use of the information. After her receipt of the signed agreement, Ms. Keininger agreed to provide the information as I requested.

From: TARA KIENINGER
To: Delia Kelly;
CC:
Subject: Re: FW: REX East Projection
Date: Monday, April 17, 2006 11:13:05 AM
Attachments: kelly lic.doc

Dear Delia,

I have attached the Data License Agreement. Please sign it and fax it back to me at the number below so that I can send you the data you requested.

Please note my new email address below....

Tara Gibbs Kieninger, Database Administrator
ORC - Illinois Natural Heritage Database
Illinois Department of Natural Resources
One Natural Resources Way
Springfield, IL 62702-1271
217.782.2685
217.785-2438 (fax)
tara.kieninger@illinois.gov

>>> "Delia Kelly" <drkelly@nrginc.com> 04/14/06 11:05 AM >>>

Tara,

Hopefully this will work. We will use your new email address in the future.

Thank you,

Delia

Delia Kelly
drkelly@nrginc.com
612.347.6794 Direct
612.347.6780 Fax

From: Randy McGregor
Sent: Friday, April 14, 2006 10:45 AM
To: 'tara.kieninger@illinois.gov'
Cc: Delia Kelly
Subject:

Tara,

This is the coordinate system of the shapefiles that we sent you:

Projected Coordinate System:
USA_Contiguous_Albers_Equal_Area_Conic_USGS_version
Projection: Albers
False_Easting: 0.00000000
False_Northing: 0.00000000
Central_Meridian: -96.00000000
Standard_Parallel_1: 29.50000000
Standard_Parallel_2: 45.50000000
Latitude_Of_Origin: 23.00000000
Linear Unit: Meter

Geographic Coordinate System: GCS_North_American_1983
Datum: D_North_American_1983
Prime Meridian: 0
Angular Unit: Degree

Please contact me with any questions



Randy McGregor
rsmcgregor@nrginc.com
612.359.5682 Direct
612.347.6780 Fax



FAX

MEMO OF TRANSMITTAL

TO: Tara Kieninger

COMPANY: Illinois Department of Natural Resources - ORC

PHONE NO.: 217-782-2685

FAX NO.: 217-785-2438

FROM: Della Kelly

PHONE NO.: 612-347-6794

FAX NO.: 612-347-6780

DATE: 4/17/06

NO. OF PAGES, INCLUDING COVER: 3

RE: Natural Heritage Data License Agreement, Rockies Express-REX East Project

NOTES/COMMENTS:

Dear Tara Kieninger,

Here is a signed draft of the license agreement that stipulates that the information disclosed to me will be used for impact assessments for this project only. As stated in your email to me, my project team will also be permitted to view the data for purposes strictly relating to this project only.

Thank you for your assistance.

Sincerely,
Della Kelly

MINNEAPOLIS

1000 IDS Center
80 South Eighth Street
Minneapolis, MN 55402
612.347.6789

HOUSTON

Suite 200
520 Post Oak Boulevard
Houston, TX 77027
832.203.1492

DENVER

Tower One, Suite 580
1515 Arapahoe Street
Denver, CO 80202
720.956.5300

PROVIDENCE

Suite 2020
One Financial Plaza
Providence, RI 02903
401.278.4300

ANCHORAGE

Suite 301
601 W. Fifth Avenue
Anchorage, AK 99501
907.777.5300

License Agreement for use of the Illinois Natural Heritage Database data provided by the Illinois Department of Natural Resources

The Illinois Department of Natural Resources (IDNR) hereby grants a revocable license to **Delia Kelly of Natural Resource Group, Inc.** (Licensee) for use of the following Illinois Natural Heritage Database (INHD) data: Endangered and threatened species, Illinois Natural Areas Inventory (INAI), and Illinois Nature Preserves Commission (INPC) data in Geographic Information System (GIS) format for the proposed Rockies Express gas pipeline corridor in Illinois. IDNR retains the ownership of this data, allowing use by the Licensee for: environmental review and impact assessment.

USE OF THE DATA IS SUBJECT TO THE FOLLOWING CONDITIONS:

1. The License is revocable at any time if Licensee fails to comply with its conditions.
2. This License is non-transferable and time-limited. Licensee agrees to delete all data provided by IDNR no later than April 17, 2007 (this date shall be no later than one year following the issuance of this License) unless Licensee renews this Data License Agreement by April 16, 2007.
3. The Licensee agrees to use the data provided solely for the purpose(s) stated above. Licensee agrees to delete all electronic versions of the data upon completion of work requiring the data or by the date above, whichever occurs first.
4. Licensee acknowledges that the data provided are considered confidential and exempt from the Illinois FOIA and agrees not to voluntarily release or distribute the data to parties not covered by this License. Licensee shall take all reasonable precautions to protect and maintain the confidentiality of the data and agrees to deny all requests for the data from parties not covered by this License. This License is subject to the condition that the Licensee has the authority to deny access to the data. If the Licensee is forced to release the data by a court order, IDNR must be notified, this agreement is terminated, and the data must be deleted upon compliance with the terms of the court order.
5. Licensee agrees not to publish or distribute the data, as a portion or in its entirety, or any interpretations thereof, without the express, written consent of the IDNR. In any publication that is approved, the Licensee agrees to cite the IDNR and the Illinois Natural Heritage Database Program as the source of the data along with the data release date.
6. Licensee agrees to provide the IDNR with a list of any reports or printed materials prepared using the data and will provide a copy of such material if requested by the IDNR.
7. Licensee understands and acknowledges that the data is being provided for planning and assessment purposes only. Receipt of the data does not constitute IDNR review or authorization of any proposed project and does not exempt the Licensee from securing necessary permits and approvals from the IDNR or other regulatory agencies.
8. Although the IDNR maintains high standards of data quality control, it makes no warranty as to the fitness of the data for any purpose or that the data are necessarily accurate or complete. The INHD cannot provide a conclusive statement on the presence, absence, or condition of significant natural features in Illinois. We can only summarize the existing information regarding the natural features or location in

question known to the INHD at the time of this agreement. This License does not necessarily constitute IDNR agreement with the Licensee's interpretation of the data.

9. Licensee understands that the electronic portion of the data is only a representation of the more extensive information available in manual files and other electronic files at the IDNR.
10. By signature on the License, the Licensee hereby accepts all the terms and conditions of this License without exception, deletion or alteration. The Licensee recognizes that any use or release of the data not authorized by this License or failure to return the agreement will be considered a breach of this License. Upon breach, the Licensee shall immediately delete all data for this License shall be null and void and use of the data shall be unlawful and constitute unauthorized use.

Return this License Agreement and address all correspondence to:

Tara Kieninger
Natural Heritage Database Program Manager
Illinois Department of Natural Resources - ORC
One Natural Resources Way
Springfield, IL 62702
(217)782-2685
(217)785-2438 - fax

Delia Kelly
Signature of Licensee

Natural Resource Group, Inc
Agency

Natural Resource Specialist
Title

80 South Eighth Street, Suite 1000
Address

Minneapolis MN 55402
City/State/Zip code

612-347-6794
Phone number

drkelly@nrginc.com
Email address



LOG

LOG OF TELEPHONE CONVERSATION

CALL TO WHOM: Steve Pallo – Region 4 Fisheries Biologist	PHONE NO.: 217-524-4163
COMPANY: Illinois Department of Natural Resources	
NRG CONTACT: Jeff Madejczyk	PHONE NO.: 612-359-5684
DATE: 10/11/06	NRG OFFICE LOCATION: Minneapolis
RE: Stream Classification System and Fish Community info for Illinois	

LOG OF CONVERSATION:

I introduced myself to Mr. Pallo and informed him that NRG is working on a FERC permit application for a pipeline corridor project and that I am writing up information on the fish community in the project corridor. I asked him if the State of Illinois uses a classification system for its streams based on the fish community, such as warm water or cold water. Mr. Pallo stated that all of the streams that our project would cross are classified as warm water streams. I then asked him if the Illinois DNR has any reports that describe the fish communities of the streams or major watersheds. Mr. Pallo suggested that I contact Mr. Jim Mick, who is the Illinois DNR Rivers and Streams Program Manager. Mr. Pallo told me that Mr. Mick has a database with fish community information for all of the rivers and streams in Illinois. Mr. Pallo suggested that I send an e-mail to Mr. Mick with our streams of interest.

I thanked Mr. Pallo for the information and his time.

1000 IDS Center
80 South Eighth Street
Minneapolis, MN 55402



telephone (612) 347-6789
facsimile (612) 347-6780
www.NRGINC.com

December 14, 2006

Mr. Rick Pietruszka
Program Manager – Impact Assessment Division
Springfield Office of Water Resources
Illinois Department of Natural Resources
One Natural Resources Way
Springfield, IL 62702

Re: Rockies Express Pipeline – East Project
Pike, Scott, Morgan, Sangamon, Christian, Macon, Moultrie, Douglas, and Edgar
Counties, Illinois

Dear Mr. Pietruska:

As discussed during a project introductory meeting on June 22, 2006, Rockies Express Pipeline LLP (Rockies Express) is proposing to construct a 42-inch-diameter natural gas pipeline from northeastern Colorado to Clarington, Ohio. The eastern segment of the proposed pipeline (REX-East) crosses Missouri, Illinois, Indiana, and Ohio. Construction of the proposed project is anticipated to begin in the spring of 2008 and it is expected to be in service by winter 2008.

The Illinois portion of the project is approximately 195 miles in length and crosses Pike, Scott, Morgan, Sangamon, Christian, Macon, Moultrie, Douglas, and Edgar Counties. Rockies Express obtained the Natural Heritage Inventory (NHI) data (i.e., threatened and endangered species, nature preserves, and natural areas inventory sites) for the project area and overlaid the information onto 1:48,000-scale topographic maps. On September 8, 2006, Rockies Express provided a copy of the maps to you, Ms. Diane Tecic (Region IV Administrator, Illinois Department of Natural Resources (ILDNR)), and Ms. Mary Kay Solecki (Illinois Nature Preserves Commission) for review and comment.

In addition to the NHI data, Rockies Express reviewed the Ecological Compliance Assessment Tool (EcoCat) website. The EcoCat website defines the buffers for potential impacts on threatened and endangered species in the project vicinity as within two miles for aquatic resources, within one mile for terrestrial animals, and within one-half mile for terrestrial plants.

Review of the NHI data along the project corridor revealed no state-listed terrestrial plant resources known to occur within one-half mile of the proposed project route and no state-listed terrestrial animal resources known to occur within one mile of the proposed project route. Based on the two-mile buffer for aquatic resources, there are three qualifying listings near the proposed project route. These three listings, black sandshell, little spectaclecase, and bigeye chub, are discussed below.



Black Sandshell

The black sandshell, a state-threatened mussel, was noted within two miles of the project corridor in the Mississippi River in Pike County. The black sandshell inhabits riffles or raceways of medium to large rivers over firm sand or gravel substrates. Rockies Express is proposing to install the pipeline beneath the Mississippi River using the horizontal directional drill (HDD) construction technique. The HDD construction technique is a trenchless crossing method that avoids disturbing the bed and the banks of the waterbody. This crossing method will avoid impacts on in-channel aquatic habitat used by the black sandshell and other species and prevent direct mortality of black sandshell individuals that may exist near the river crossing location. As a result, no impacts on the black sandshell within the Mississippi River are anticipated as a result of the REX-East project.

Little Spectaclecase

The little spectaclecase, a state-threatened mussel, was noted within two miles of the project route in the Embarras River in Douglas County. The little spectaclecase can be found in creeks to medium size rivers and prefers areas of low current over sand or mud substrates. Rockies Express is currently in the process of conducting field surveys of waterbody crossings in Illinois. During the preliminary assessment of the Embarras River crossing, Rockies Express will determine if suitable habitat for the little spectaclecase exists at the proposed crossing site. Once the assessment of the crossing location is completed, Rockies Express will consult with the ILDNR to determine if additional field surveys for the little spectaclecase are necessary, and if so, will conduct surveys during the summer of 2007. If surveys identify individuals, Rockies Express will consult with the ILDNR to discuss the need to develop conservation measures to avoid or minimize impacts on the species.

Bigeye Chub

The bigeye chub, a state-endangered fish, was reported as occurring within two miles of the proposed route in Crabapple Creek in Edgar County. The bigeye chub is found in small to moderate size tributaries with clear water and sand, gravel, or rocky substrates. They are often found in quiet areas near riffles or near aquatic vegetation. Rockies Express is currently in the process of conducting field surveys of waterbody crossings in Illinois. During the assessment of the Crabapple Creek crossing, Rockies Express will determine if suitable habitat for the bigeye chub exists at the crossing site. Once the assessment of the crossing location is completed, Rockies Express will consult with the ILDNR to determine if additional field surveys for the little bigeye chub are necessary, and if so, will conduct surveys during the summer of 2007. If surveys identify individuals, Rockies Express will consult with the ILDNR to discuss the need to develop conservation measures to avoid or minimize impacts on the species.

Rockies Express is also consulting with the U.S. Fish and Wildlife Service (FWS) to assess potential project impacts on federally listed threatened or endangered species and their habitat. During recent consultations, the FWS indicated that Rockies Express should contact Mr. Keith Shank with your office to discuss potential impacts of the proposed project. In response to that recommendation, Mr. Shank is receiving a courtesy copy of this letter.

Initial habitat assessments are being conducted this fall as part of the wetland and waterbody crossing assessments and the results of these assessments will help



determine where field surveys for federally listed species may be necessary. Rockies Express will be coordinating with the FWS offices in each state to finalize species specific survey plans for the spring and summer of 2007.

This information is provided for your review and comment in regards to potential impacts on Illinois listed threatened and endangered species. Rockies Express looks forward to meeting with you on January 9, 2006 at 1:30 PM to discuss the project in greater detail.

If you have any questions, please contact me at 612-359-5678 or by e-mail at jrthommes@nrginc.com.

Thank you for your assistance.

Sincerely,

Natural Resource Group, Inc.

A handwritten signature in black ink, appearing to read "JT", followed by a long horizontal line extending to the right.

Jeff Thommes
Natural Resource Specialist

cc: Elizabeth Dolezal, NRG
Bart Jensen, NRG
Keith Shank, ILDNR
Jim Thompson, Rockies Express Pipeline
Charlie Bertram, Rockies Express Pipeline



LOG

LOG OF TELEPHONE CONVERSATION

CALL TO/FROM WHOM: Ronald Hellmich	PHONE NO.: 317-232-8059
COMPANY: Indiana DNR-Division of Nature Preserves	
NRG CONTACT: Delia Kelly	PHONE NO.: 612-347-6794
DATE: April 5, 2006	NRG OFFICE LOCATION: Minneapolis
RE: Natural Heritage Review Request	

LOG OF CONVERSATION:

I contacted Mr. Hellmich to request that instead of sending paper maps with my Natural Heritage Database Request, I submit the maps and legal descriptions of the proposed REX-East route to him in electronic format. I asked him if he would be able to supply me with a response in the form of a shape file. He answered that it would be acceptable to send him the electronic shape files of the route and that he would respond with a shape file of species occurrences and a list of Township, Range and Sections associated with each occurrence. He said that no license agreement would be necessary as long as the information provided to the project team would be used for this project only. I assured him that it would, told him I would be sending the complete request soon, and thanked him for his time.



April 5, 2006

Division of Nature Preserves
Indiana Department of Natural Resources
402 West Washington Street, Room W267
Indianapolis, IN 46204

Attn: Ronald Hellmich

Re: Request for Natural Heritage Inventory Data
Rockies Express Pipeline Project
Vermillion, Parke, Putnam, Hendricks, Morgan, Johnson, Shelby, Decatur, and
Franklin Counties in Indiana

Dear Mr. Hellmich:

Rockies Express Pipeline LLP (Rockies Express) is developing a 1,323-mile-long, 42-inch-diameter natural gas pipeline that extends from Cheyenne Hub in northeastern Colorado to Clarington, Ohio. The eastern segment of the proposed pipeline (REX East) is being treated as an independent project and will cross Missouri, Illinois, Indiana and Ohio. Construction of the proposed project is anticipated to begin in the spring of 2008 and it is expected to be in service by winter 2008.

Rockies Express has retained Natural Resource Group, Inc. (NRG) to assist with various aspects of project development, including agency consultations, environmental field surveys, and preparation of an application to the Federal Energy Regulatory Commission (FERC). NRG, on behalf of Rockies Express, will be preparing environmental review documents for the project. Species-related information provided to NRG will be treated as confidential and will be used for project purposes only.

As shown in the enclosed CD, the proposed pipeline system includes an approximately 157-mile-long mainline section that runs west to east through Vermillion, Parke, Putnam, Hendricks, Morgan, Johnson, Shelby, Decatur, and Franklin Counties in Indiana. Initial environmental field surveys, including wetland delineations and habitat evaluations, are scheduled to commence in summer 2006. To assist our efforts to plan the project in a manner that minimizes impacts on sensitive natural resources, Rockies Express is requesting that the Indiana Department of Natural Resources, Division of Nature Preserves, provide site-specific information and interpretation regarding rare and endangered species, species of special concern, significant or unique ecological communities, and other sensitive resources along the proposed pipeline route. We are requesting interpreted data for a two-mile wide corridor, extending one mile on each side of the pipeline. In the enclosed CD, you will find three shape files describing the proposed pipeline route, mileposts, and sections within one mile of the route. To assure accuracy in our impact assessment, we would prefer that all species and habitat occurrences be submitted to us in a shape file that pinpoints occurrence locations and



includes the township, range and section. In addition, we will need to know the federal and state listing status for each occurrence.

Rockies Express is also consulting with the U.S. Fish and Wildlife Service to assess potential project impacts on federally listed threatened or endangered species. Additionally, Rockies Express is contacting the various state resource agencies to discuss potential impacts on state-listed species, as applicable.

Providing a response within 30 days will ensure that your concerns are fully evaluated in project planning and that appropriate surveys can be conducted in a timely manner. If you have any questions, please contact Delia Kelly at 612-347-6794 or email to drkelly@nrginc.com.

Thank you for your assistance.

Sincerely,

Natural Resource Group, Inc.

Delia Kelly
Natural Resource Specialist

Enclosures: CD containing route location, mileposts, and sections crossed

cc (w/o enclosures): Jeff Thommes, NRG
Elizabeth Dolezal, NRG
Representative, REX East

From: Hellmich, Ron
To: Delia Kelly;
CC:
Subject: Rockies Express pipeline
Date: Monday, April 24, 2006 7:41:24 AM
Attachments: IN_protectedareas_rex_east-pipeline.zip
IN_heritage_rex_east-pipeline.zip
r119_NRG_REX-pipeline.doc

Ms. Kelly,

I am responding to your request for information on the endangered, threatened, or rare (ETR) species, high quality natural communities, and natural areas documented from the Rockies Express pipeline project area, Indiana. The Indiana Natural Heritage Data Center has been checked and following you will find information on the ETR species and significant areas documented from the project area.

For more information on the animal species mentioned, please contact Katie Smith, Nongame Supervisor, Division of Fish and Wildlife, 402 W. Washington Room W273, Indianapolis, Indiana 46204, (317)232-4080.

The information I am providing does not preclude the requirement for further consultation with the U.S. Fish and Wildlife Service as required under Section 7 of the Endangered Species Act of 1973. You should contact the Service at their Bloomington, Indiana office.

U.S. Fish and Wildlife Service
620 South Walker St.
Bloomington, Indiana 47403-2121
(812)334-4261

At some point, you may need to contact the Department of Natural Resources' Environmental Review Coordinator so that other divisions within the department have the opportunity to review your proposal. For more information, please contact:

Kyle Hupfer, Director
Department of Natural Resources
attn: Christie Kiefer

Environmental Coordinator
Division of Water
402 W. Washington Street
Indianapolis, IN 46204

Please note that the Indiana Natural Heritage Data Center relies on the observations of many individuals for our data. In most cases, the information is not the result of comprehensive field surveys conducted at particular sites. Therefore, our statement that there are no documented significant natural features at a site should not be interpreted to mean that the site does not support special plants or animals.

Due to the dynamic nature and sensitivity of the data, this information should not be used for any project other than that for which it was originally intended. It may be necessary for you to request updated material from us in order to base your planning decisions on the most current information.

Also please find the included invoice <<IN_protectedareas_rex_east-pipeline.zip>> . Thank you for contacting the Indiana Natural Heritage Data Center. You may reach me at (317)232-8059 if you have any questions or need additional information.

<<IN_heritage_rex_east-pipeline.zip>> <<r119_NRG_REX-pipeline.doc>>

Ronald Hellmich
Division of Nature Preserves
402 W. Washington St., Rm W267
Indianapolis, IN 46204
(317)232-8059
(317)233-0133 fax
rhellmich@dnr.IN.gov



LOG

LOG OF TELEPHONE CONVERSATION

CALL TO WHOM: Rhett Wisener and Chip Long	PHONE NO.: 765-342-5527
COMPANY: Indiana Department of Natural Resources: District 5 Fisheries Biologist	
NRG CONTACT: Jeff Madejczyk	PHONE NO.: 612-359-5684
DATE: 10/11/06	NRG OFFICE LOCATION: Minneapolis
RE: Stream Classification and Fish Community information of Indiana	
LOG OF CONVERSATION:	

The REX-East Pipeline will cross though District 4 of the Indiana DNR. At the time I called the Region 4 District Office, Mr. Rhett Wisener was not available, but I was able to speak with the assistant fisheries biologist for the region, Mr. Chip Long.

I introduced myself to Mr. Long and informed him that NRG is working on a FERC permit application for a pipeline corridor project. I asked him if the State of Indiana uses a classification system for its streams based on the fish community. He said that they survey the streams within their region every couple of years to assess the fish community and that the results are available. I told him that it was not necessary for him to send me detailed survey reports for every stream within the project corridor but instead we need to be able to describe the general fish communities of the streams we will cross. Additionally, classifications will be needed for each stream in the project corridor (i.e. warm water vs. cold water). Mr. Long suggested that I send him an e-mail with a list of the streams in our project corridor and the type of information we are looking for. He said that he could review the list with the Regional Biologist Rhett Wisener and then they could provide us with information on fish community and stream classification system.

I stated that I would send him an e-mail with the streams in our project corridor and list the type of information we are looking for and I thanked him for his time.

Jeff Madejczyk

From: Long, Chris [CCLong@dnr.IN.gov]
Sent: Monday, October 16, 2006 2:54 PM
To: Jeff Madejczyk
Subject: RE: Stream Fish Communities

Jeff,

1) Stacey Sobat, Environmental Manager, Indiana Department of Environmental Management - Office of Water Quality
email: ssobat@idem.IN.gov Telephone - 317-308-3191

Stacey would be the person to direct questions regarding stream classification in Indiana.

2) Our (IDNR / DFW) sampling regime does not deliniate between "stream types". I have included the cumulative sampling summaries from the most recent collection for some of the streams on your list (12). These are all the collections we have on file for our district that correspond to your list. I will mail these to you tomorrow (10/17/2006). Please note that each sheet is numbered in the upper, left-hand corner and corresponds to the the number in the second column on the original attachment you sent to me. After reviewing what I have sent to you, you may ask Stacey about their collection records at IDEM.

Wabash River - Bob Ball - Southern Region Research Biologist (rball@dnr.IN.gov) 812-279-1215 and / or Tom Stefanavage - Big Rivers Biologist (tstefanavage@dnr.IN.gov) 812-789-2724

3) Angler importance: My supervisor and I both feel this is vague and leaves much room for interpretation. In the packet of information I am sending to you, I have included a Recreational Fishing Guide for 2006. Beginning on page 54, fishing access points are listed by **county**, a rating of shore fishing access, and predominant species present. Depending on your definition of "angling importance", this could be useful.

Supplemental stream stockings are not utilized in Indiana.

4) Brant Fisher, Non-game Aquatic Biologist, Indiana Department of Natural Resources - Division of Fish & Wildlife
email: bfisher@dnr.IN.gov Telephone - 812-526-5816

Brant is extremely knowledgable of the threatened and endangered aquatic taxa in Indiana. He would be your best contact for this information.

Summary - Most of the streams in central Indiana could be classified as warmwater streams. However, coolwater species such as smallmouth bass, walleye, sauger (where introduced) and rock bass sometimes inhabit the mainstem and upper reaches of these systems.

Please let me know if I can be of further assistance.

Sincerely,

Chip Long
Asst. Fisheries Biologist
Fish Mgmt. District 5
Division of Fish and Wildlife
Indiana Department of Natural Resources

Cikana SFH

10/16/2006

2650 SR 44
Martinsville, IN 46151
Tele: 765-342 - 5527
FAX: 765-349 - 1692

From: Jeff Madejczyk [mailto:jcmadejczyk@nrginc.com]
Sent: Wed 10/11/2006 11:22 AM
To: Long, Chris; Wisener, Rhett
Cc: Jeff Thommes
Subject: Stream Fish Communities

Chip:

Thank you for taking the time to speak with me today. Attached you will find a list of the perennial streams that we may be working around during our proposed project. As part of the FERC permit we are applying for we need to describe the fish communities in the project area. The information we are looking for in regards to the stream fish communities is as follows:

- 1) Stream classification system: many states classify their streams as cold water or warm water and then sometimes have sub-classes under each. Please let us know what type of classification system is used in Indiana and how the streams on the list fit into the system. If you already have a table with the classification for all streams in your region you can just send that to us and we will sort through it to find our streams of interest.
- 2) General fish communities: You mentioned that you sample different streams at different intervals depending on their importance. You do not need to send us the individual survey reports for each stream but instead we would like to have information on the fish community for each stream type and a list of the species that would be present. There is a fair amount of variation in terms of size between the streams on this list and mainly we want to be able to described the expected fish communities in the different stream types.
- 3) Angler Importance: Please let us know if any of the streams on this list are important recreational fisheries and what types of game fish communities they support. Also noting if they receive any stocked fish would be helpful.
- 4) Rare or endangered fish: Please let us know if any of these streams are known to support a population of rare, threatened or endangered fish, especially if you have collected any recently.

If you have any questions or concerns in regards to the items I have listed above, please do not hesitate to contact me. If any of this information can be obtained from the IDNR website, please let us know and we will be happy to access it from there.

Thank you for your time and assistance in completing this task.

Jeff Madejczyk



Jeff Madejczyk
jcmadejczyk@nrginc.com
612.359.5684 Direct
612.347.6780 Fax



LOG

LOG OF TELEPHONE CONVERSATION

CALL FROM WHOM: Chip Long	PHONE NO.: 765-342-5527
COMPANY: Indiana Department of Natural Resources: District 5 Fisheries Biologist	
NRG CONTACT: Jeff Madejczyk	PHONE NO.: 612-359-5684
DATE: 10/16/06	NRG OFFICE LOCATION: Minneapolis
RE: Stream Classification and Fish Community information of Indiana	
LOG OF CONVERSATION:	

Mr. Long called to inform me that he was going to mail me some reports with fish community survey information for 12 of the streams on the listed in the project water bodies table for Indiana. He also said that he sent me an e-mail with answers to the other questions I had about the fish communities in Indiana as well as contact information for people at other state agencies that may have the information I need.

I informed Mr. Long that I received the e-mail that he sent. I then asked him to confirm that the INDNR does not maintain a classification system for its lakes or streams based on the fish community or water body type. He agreed, and said that the only classification system that may be available would be one maintained by the Indiana Department of Environmental Management (IDEM). He said the person to contact at the IDEM was listed in the e-mail he had sent me. I thanked Mr. Long for the information and his help with this task.



LOG

LOG OF TELEPHONE CONVERSATION

CALL FROM WHOM: Tom Stefanavage	PHONE NO.: 812-789-2724
COMPANY: Indiana Department of Natural Resources: Big Rivers Fisheries Biologist	
NRG CONTACT: Jeff Madejczyk	PHONE NO.: 612-359-5684
DATE: 10/18/06	NRG OFFICE LOCATION: Minneapolis
RE: Commercial Fishing in Indiana	

LOG OF CONVERSATION:

Mr. Stefanavage called me in response to a voice message I left him requesting information on commercial fishing in Indiana. Mr. Stefanavage informed me that the commercial fishing regulations are available on-line as part of the Indiana Administrative Code. He said that the sections of the code that pertain to commercial fishing are Article 9; Rule 8; Section 312 IAC 9-8-1 to 9-8-5. He said that I could find information on commercial fishing methods, species and water bodies.

Mr. Stefanavage is the big river fisheries biologist for Indiana. I asked him if there was a report which described the fish community of the Wabash River. He stated that he is currently writing a report for the Wabash River but it is in draft form only and not ready for release to the public. He said that there is a species list available and he could e-mail that to me. I gave Mr. Stefanavage my e-mail address and thanked him for his time.

- Approximately one hour after our phone conversation, I received an Excel spreadsheet which listed the 116 different fish species that have been documented by the INDNR in the Wabash River.



LOG

LOG OF TELEPHONE CONVERSATION

CALL FROM WHOM: Christie Stanafor	PHONE NO.: 817-232-8163
COMPANY: Indiana Department of Natural Resources: Environmental Coordinator	
NRG CONTACT: Jeff Madejczyk	PHONE NO.: 612-359-5684
DATE: 10/18/06	NRG OFFICE LOCATION: Minneapolis
RE: State of Indiana T&E Consultation Process	

LOG OF CONVERSATION:

I received a call from Ms. Stanafor in response to a voice message left on Tuesday 10/17/06 by Jeff Thommes in regards to proceeding with consultations for threatened and endangered (T&E) species listed in the State of Indiana.

I informed Ms. Stanafor that we have conducted the consultations with the US Fish and Wildlife Service (USFWS) offices for each state in the project corridor to determine the federally listed T&E species that have the potential to occur in the project corridor. I explained that we are now in the process of conducting consultations at the state level to determine if there are any additional state listed T&E species that may occur in or near the project corridor. I asked Ms. Stanafor who should be the main contact point for these consultations and she indicated that she would serve as the main contact point. I asked her if any biologists would also be involved and she stated that the two main biologists that would work on the REX-East project are Matt Buffington and Brant Fisher.

I explained to Ms. Stanafor that we have developed a process for state listed T&E species that we are using with the other states and we hope to use the same process in Indiana. The process involves the following steps:

- 1) review the county T&E lists for each county crossed by the project to determine species that may occur in the project area
- 2) determine the required habitat for each species
- 3) conduct a desk-top review of project corridor using aerial photos to determine if the proper habitat exists in the project corridor for a particular species and what potential impacts there may be
- 4) determine which species may require field surveys and/or possible future mitigation measures.

Ms. Stanafor indicated that she thought the process would be acceptable. I informed her that once we have completed steps 1 through 3, we will send the information to her for her review and concurrence on which species may require step 4. She indicated that would be acceptable.

I informed her that we are already working with the USFWS for federally listed species and are in the process of determining field survey procedures. I asked her if there would be any additional requirements by the State of Indiana beyond what the USFWS requests. She indicated that the INDNR would like to review the final plan that is agreed upon with the USFWS for species like the Indiana bat, but the USFWS requirements will likely be acceptable to the INDNR.

I informed her that we will be working on steps 1 through 2 in the coming weeks and would send her the data once it is compiled. She said that would be fine and I thanked her for her time.

Jeff Madejczyk

From: Stefanavage, Tom [TStefanavage@dnr.IN.gov]
Sent: Thursday, October 19, 2006 11:31 AM
To: Jeff Madejczyk
Cc: Schoenung, Brian; Donabauer, Steven; Wisener, Rhett; Lehman, Larry L.
Subject: RE: Wabash River Species List

Jeff,

Major watershed is a relative term so I'll define it as any watershed in that county with an average annual discharge greater than 100 cubic feet per second as a stream of that size will support a sport fishery. My source for the following is "Drainage Areas of Indiana Streams, USGS, IN DNR, Richard Hoggatt 1975".

Vermillion County:

Wabash River (11,708 cfs), Vermillion River (1,434 cfs), Little Vermillion River (244 cfs), Brouillets Creek (321 cfs).

Parke County:

Wabash River (11,715 cfs), Coal Creek (265 cfs), Sugar Creek (808 cfs), Big Raccoon Creek (520 cfs), Little Raccoon Creek (154 cfs).

Putnam County:

Big Raccoon Creek (193 cfs), Big Walnut Creek (719 cfs), Mill Creek (387 cfs), Deer Creek (91.3 cfs), Eel River (673 cfs).

Hendricks County:

White Lick Creek (188 cfs), Big Walnut Creek (119 cfs).

Morgan County:

White River/West Fork White River (2,703 cfs), White Lick Creek (291 cfs), Indian Creek (93.8 cfs).

Johnson County:

White River/West Fork White River (1,999 cfs), Big Blue River (1,058 cfs), Sugar Creek (474 cfs), Youngs Creek (109 cfs).

Shelby County:

Big Blue River (576 cfs), Little Blue River (105 cfs), Brandywine Creek (107 cfs), Sugar Creek (330 cfs), Buck Creek (101 cfs), Flatrock River (486 cfs).

Conns Creek (80 cfs), Lewis Creek (81.5 cfs).

Decatur County:

Flatrock River (302 cfs), Clifty Creek (84.5 cfs), Sand Creek (107 cfs).

Franklin County:

Whitewater River (1,317 cfs), Salt Creek (117 cfs), East Fork Whitewater River (382 cfs)

Our District Fisheries Biologists for that area (Rhett Wisener and Larry Lehman) may want to make some corrections or additions. Larry has Decatur County while Rhett has the remaining counties. They have the fisheries data on these other streams.

Tom

From: Jeff Madejczyk [mailto:jcmadejczyk@nrginc.com]
Sent: Thursday, October 19, 2006 9:45 AM
To: Stefanavage, Tom
Cc: Jeff Thommes
Subject: RE: Wabash River Species List

Tom:

10/19/2006

I do not mean to be a pest but could you tell me what major watersheds/river basins our project will travel through heading west to east through the following counties:

Vermillion
Parke
Putnam
Hendricks
Morgan
Johnson
Shelby
Decatur
Franklin

From what I can tell it would be the Wabash, West Fork White River and Whitewater River but I am not sure how the IN DNR defines the major watersheds of the state.

Thanks again for all your help.

Jeff

Jeff Madejczyk

jcmadejczyk@nrginc.com

612.359.5684 Direct

720.956.5310 Fax

From: Stefanavage, Tom [mailto:TStefanavage@dnr.IN.gov]

Sent: Thursday, October 19, 2006 8:39 AM

To: Jeff Madejczyk

Subject: RE: Wabash River Species List

Jeff,

See the attachment.

Tom

From: Jeff Madejczyk [mailto:jcmadejczyk@nrginc.com]

Sent: Wednesday, October 18, 2006 3:17 PM

To: Stefanavage, Tom

Cc: Jeff Thommes

Subject: RE: Wabash River Species List

Tom:

Thank you for sending the list with the species for the Wabash River. Can you give me an idea of which of these species are the most common? I do not need counts or anything like that but just the top 5 to 10 species in terms of abundance. Could also tell me the most abundant game fish species. Again, I do not need counts for all 20+ game fish on your list, just the top 5 or so that are the most abundant in the watershed.

10/19/2006

Thank You for your time and assistance.

Jeff Madejczyk

jcmadejczyk@nrginc.com

612.359.5684 Direct

720.956.5310 Fax

From: Stefanavage, Tom [mailto:TStefanavage@dnr.IN.gov]

Sent: Wednesday, October 18, 2006 10:34 AM

To: Jeff Madejczyk

Subject: Wabash River Species List

See attachment for Wabash River species list.

Tom Stefanavage

Big Rivers Fisheries Biologist

Indiana Department of Natural Resources

Division of Fish and Wildlife

Sugar Ridge Fish and Wildlife Area

2310 East State Road 364

Winslow, IN 47598

office (812) 789-2724

cell (812) 631-0473

10/19/2006

Jeff Madejczyk

From: Long, Chris [CCLong@dnr.IN.gov]
Sent: Wednesday, November 08, 2006 11:40 AM
To: Jeff Madejczyk
Subject: RE: White River

Jeff,

I just faxed the most recent survey summary for the West Fork White River... The survey was in response to a restocking effort after a major fish kill in 1999 that affected approximately 43 river miles...

If this survey does not meet your needs, please let me know and I can look for something prior to the 1999 fish kill.

I will be out of the office until Wednesday November 15.

Sincerely,

Chip Long

Asst. Fisheries Biologist
Fish Mgmt. District 5
Division of Fish and Wildlife
Indiana Department of Natural Resources

Cikana SFH
2650 SR 44
Martinsville, IN 46151
Tele: 765-342 - 5527
FAX: 765-349 - 1692

From: Jeff Madejczyk [mailto:jcmadejczyk@nrginc.com]
Sent: Wed 11/8/2006 10:30 AM
To: Long, Chris
Subject: White River

Chris:

I just wanted to check in because a couple weeks ago I sent a message in regards to the fish communities of the White River/West Fork White River. It is a river that was not listed on my original data request and Tom Stefanavage suggested that I look into it. I was just wondering if you have any survey reports for this river? Maybe if there are only a couple of sheets you could fax them to me at the number below. I thought that Tom said this system was in your district but if it isn't could you please let me know which district I should contact for fish community data.

If you have any questions in regards to this request please contact me.

Thank you for all of the information you have supplied. It has all been very helpful.

Jeff

11/8/2006



Jeff Madejczyk
jcMadejczyk@nrginc.com
612.359.5684 Direct
612.347.6780 Fax

Jeff Madejczyk

From: Kowalik, Clinton [CKowalik@dnr.IN.gov]
Sent: Tuesday, November 21, 2006 7:52 AM
To: Jeff Madejczyk
Cc: Schoenung, Brian; Lehman, Larry L.; Stefanavage, Tom
Subject: Sand Creek Fish list

Jeff,

Larry Lehman and I manage the state waters in Decatur County, IN. Chip Long sent you some fish info from Flatrock River earlier. We do not have survey data from Clifty Creek.

Below are top ten fish species and all game species collected during the Sand Creek survey (July 1994), which included four sampling stations in the lower 33-mile section of Sand Creek. Sand Creek starts in Decatur Co and flows into the East Fork of White River. In Decatur Co at RM 33, drainage area is 107 square miles. At its mouth in Bartholomew Co, drainage area is slightly greater than 259 square miles.

Top ten species (AFS common names) in descending order by number:

bluntnose minnow (24.5%)
spotfin shiner
longear sunfish
black redhorse
northern hog sucker
suckermouth minnow
golden redhorse
central stoneroller
silverjaw minnow
bluegill

The seven game species (AFS common names) in descending order by number:

bluegill
spotted bass
smallmouth bass
channel catfish
flathead catfish
largemouth bass
white crappie

If you want to see the entire fish management report, please let us know and we could send that to you.

You also may want to check out our DFW website for online reports (recent and archives).

<http://www.in.gov/dnr/fishwild/publications/notes/notes.htm>

Clinton R. Kowalik
Assistant Fisheries Biologist
INDNR/DFW
Fish Management District 8
Driftwood State Fish Hatchery
4931 S 250 W
Vallonia, IN 47281
Ph: 812-358-4110
Fx: 812-358-3087

From: Lehman, Larry L.
Sent: Mon 11/20/2006 2:03 PM
To: Kowalik, Clinton

Subject: FW: Wabash River Species List

Larry L. Lehman
IDNR/DFW Fisheries Biologist
Fish Management District 8
4931 South, County Road 250 West
Vallonia, IN 47281
Tx 812.358.4110
Fx 812.358.3087

From: Jeff Madejczyk [mailto:jcmadejczyk@nrginc.com]
Sent: Thu 10/19/2006 12:37 PM
To: Stefanavage, Tom
Cc: Schoenung, Brian; Donabauer, Steven; Wisener, Rhett; Lehman, Larry L.; Jeff Thommes
Subject: RE: Wabash River Species List

Tom:

Again, thank you very much for all of the information. I have already contacted Rhett Wisener (I actually spoke with Chris Long) and I am waiting for some data that he sent me earlier this week.

All of the information you have provided has been very helpful. I appreciate your time and efforts.

Thanks again.

Jeff

Jeff Madejczyk
jcmadejczyk@nrginc.com
612.359.5684 Direct
720.956.5310 Fax

From: Stefanavage, Tom [mailto:TStefanavage@dnr.IN.gov]
Sent: Thursday, October 19, 2006 11:31 AM
To: Jeff Madejczyk
Cc: Schoenung, Brian; Donabauer, Steven; Wisener, Rhett; Lehman, Larry L.
Subject: RE: Wabash River Species List

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Conns Creek (80 cfs), Lewis Creek (81.5 cfs).

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Jeff Madejczyk
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Jeff Madejczyk
jcmadejczyk@nrginc.com
612.359.5684 Direct
720.956.5310 Fax

From: Stefanavage, Tom [mailto:TStefanavage@dnr.IN.gov]
Sent: Wednesday, October 18, 2006 10:34 AM
To: Jeff Madejczyk
Subject: Wabash River Species List

See attachment for Wabash River species list.

Tom Stefanavage
Big Rivers Fisheries Biologist
Indiana Department of Natural Resources
Division of Fish and Wildlife
Sugar Ridge Fish and Wildlife Area
2310 East State Road 364
Winslow, IN 47598
office (812) 789-2724
cell (812) 631-0473



LOG

LOG OF TELEPHONE CONVERSATION

CALL TO/FROM WHOM: Debbie Woischke	PHONE NO.: 614-265-6818
COMPANY: Ohio DNR-Division of Natural Areas and Preserves	
NRG CONTACT: Delia Kelly	PHONE NO.: 612-347-6794
DATE: April 5, 2006	NRG OFFICE LOCATION: Minneapolis
RE: Natural Heritage Data Request	

LOG OF CONVERSATION:

I contacted Ms. Woischke to request that instead of sending paper maps with my Natural Heritage Database Request, I submit the maps and legal descriptions of the proposed REX-East route to her in electronic format. I asked her if she would be able to supply me with a response in the form of a shape file. She answered that it would be acceptable to send her the electronic shape files of the route and that she would respond with a shape file of species occurrences. She added that Ohio's concentration of listed species is generally located in Adams and Lucas Counties and that our impacts would likely be minimal as long as these counties could be avoided. I told her that, to my knowledge, we would not be crossing these counties. I told her that I would be sending the complete request soon, and thanked her for her time.



April 14, 2006

Ohio Department of Natural Resources
Division of Natural Areas and Preserves
Ohio Natural Heritage Program
2045 Morse Road, Building F-1
Columbus, OH 43229

Attn: Debbie Woischke

Re: Request for Natural Heritage Inventory Data
Rockies Express Pipeline Project
Butler, Warren, Clinton, Greene, Fayette, Pickaway, Fairfield, Perry, Muskingum,
Morgan, Guernsey, Noble, Belmont, and Monroe Counties in Ohio

Dear Ms. Woischke:

Rockies Express Pipeline LLP (Rockies Express) is developing a 1,323-mile-long, 42-inch-diameter natural gas pipeline that extends from Cheyenne Hub in northeastern Colorado to Clarington, Ohio. The eastern segment of the proposed pipeline (REX East) crosses Missouri, Illinois, Indiana and Ohio, and is being treated as an independent project. Construction of the proposed project is anticipated to begin in the spring of 2008 and it is expected to be in service by winter 2008.

Rockies Express has retained Natural Resource Group, Inc. (NRG) to assist with various aspects of project development, including agency consultations, environmental field surveys, and preparation of an application to the Federal Energy Regulatory Commission (FERC). NRG, on behalf of Rockies Express, will be preparing environmental review documents for the project. Species-related information provided to NRG will be treated as confidential and will be used for project purposes only.

As shown in the enclosed CD, the proposed pipeline system includes an approximately 229.2-mile-long mainline section that runs west to east through Butler, Warren, Clinton, Greene, Fayette, Pickaway, Fairfield, Perry, Muskingum, Morgan, Guernsey, Noble, Belmont, and Monroe Counties in Ohio. Initial environmental field surveys, including wetland delineations and habitat evaluations, are scheduled to commence in summer 2006. To assist our efforts to plan the project in a manner that minimizes impacts on sensitive natural resources, Rockies Express is requesting that the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, provide site-specific information and interpretation regarding rare and endangered species, species of special concern, significant or unique ecological communities, and other sensitive resources along the proposed pipeline route. We are requesting interpreted data for a two-mile wide corridor, extending one mile on each side of the pipeline. In the enclosed CD, you will find two shape files describing the proposed pipeline route and mileposts. To assure accuracy in our impact assessment, we would prefer that all species and habitat



occurrences be submitted to us in an electronic shape file that pinpoints occurrence locations. In total, we will need to know the pinpointed and legal locations as well as the federal and state listing status for each occurrence. In addition, REX East would like to request that a GIS layer of all the legal descriptions (Township, Range and section) in the state of Ohio be included as this information is not currently available to us online.

Rockies Express is also consulting with the U.S. Fish and Wildlife Service to assess potential project impacts on federally listed threatened or endangered species. Additionally, Rockies Express is contacting the various state resource agencies to discuss potential impacts on state-listed species, as applicable.

Providing a response within 30 days will ensure that your concerns are fully evaluated in project planning and that appropriate surveys can be conducted in a timely manner. If you have any questions, please contact Delia Kelly at 612-347-6794 or email to drkelly@nrginc.com.

Thank you for your assistance.

Sincerely,

Natural Resource Group, Inc.

Delia Kelly
Natural Resource Specialist

Enclosures: CD containing route location, mileposts, and sections crossed

cc (w/o enclosures): Jeff Thommes, NRG
Elizabeth Dolezal, NRG
Somebody from REX East

From: Woischke, Debbie
To: Delia Kelly;
CC:
Subject: Ohio Natural Heritage Data, REX East
Date: Thursday, April 27, 2006 10:34:52 AM
Attachments: data.dbf.txt
data.sbn.txt
data.sbx.txt
data.shp.txt
data.shx.txt
ma.dbf
ma.sbn
ma.sbx
ma.shp
ma.shx
sr.dbf
sr.sbn
sr.sbx
sr.shp
sr.shx

Dear Ms. Kelly:

Per your request, I have e-mailed you a set of ArcView shape files with our Natural Heritage Database records for the Rockies Express Pipeline - REX East project area ('data'). The projection is NAD83 Ohio South. Records included may be for rare and endangered plants and animals, geologic features, high quality plant communities and breeding and non-breeding animal concentrations. Fields included are scientific and common names, state and federal statuses, as well as managed area, date of the most recent observation and feature ID and elcode. The feature ID and elcode fields are codes we use to differentiate between records of the same species. State and federal statuses are defined as: E = endangered, T = threatened, P = potentially threatened, SC = species of concern, SI = special interest, FE = federal endangered and FT = federal

threatened.

Also included are layers for managed areas ('ma') and scenic rivers ('sr'). The 'ma' layer includes state nature preserves, parks, forests and wildlife areas, national wildlife refuges, county metro parks, as well as sites owned by non-profit groups (such as The Nature Conservancy), museums (such as the Cleveland Museum of Natural History), and others. Please be aware that the managed areas layer may not be complete. We are continually updating this layer as additional information becomes available to us.

If this project is located within 1000 feet of a state designated scenic river, the approval of the Director of ODNR may be required in accordance with Ohio Revised Code section 1517.16. Please contact the Scenic Rivers Group Manager for further information. Bob Gable can be reached at 614-265-6814.

You will notice that some of the locations are represented by circles of two sizes. This represents the locational accuracy of the record, and can be translated as follows: an exact location = a circle with a 328 foot radius and a general location within a square mile = a circle with a half mile radius. As time allows, these circles will be edited into more appropriate shapes.

Our inventory program has not completely surveyed Ohio and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Please note that although we inventory all types of plant communities, we only maintain records on the highest quality areas. Also, we do not have data for all Ohio wetlands. For National Wetlands Inventory maps, please contact Madge Fitak in the Division of Geological Survey at 614-265-6576.

Please contact me at 614-265-6818 if I can be of further assistance. I will send a hard copy of this letter along with an invoice.

<<data.dbf>> <<data.sbn>> <<data.sbx>> <<data.shp>> <<data.shx>> <<ma.

dbf>> <<ma.sbn>> <<ma.sbx>> <<ma.shp>> <<ma.shx>> <<sr.dbf>> <<sr.sbn>> <<sr.sbx>> <<sr.shp>> <<sr.shx>>

**Debbie Woischke, Ecological Analyst
Ohio Department of Natural Resources
Division of Natural Areas and Preserves
Ohio Natural Heritage Program
2045 Morse Rd., Bldg. F-1
Columbus, OH 43229-6605**

phone: 614-265-6818

fax: 614-267-3096

e-mail: debbie.woischke@dnr.state.oh.us



LOG

LOG OF TELEPHONE CONVERSATION

CALL TO/FROM WHOM: Mark Shieldcastle	PHONE NO.: 419-898-0960 x23
COMPANY: Ohio Department of Natural Resources	
NRG CONTACT: Delia Kelly	PHONE NO.: 612-347-6794
DATE: August 21, 2006	NRG OFFICE LOCATION: Minneapolis
RE: Rockies Express Pipeline – East Project Bald Eagle Nest Locations	

LOG OF CONVERSATION:

I called Mr. Shieldcastle to ask about the review process in Ohio for Bald Eagle nest locations. He said that his office would handle the review for the entire state. Mr. Shieldcastle agreed to look at the ArcView shape files for the route, but asked that I send him aerial photo maps when they become available. I asked Mr. Shieldcastle for an approximate timeframe for his review and he replied that they can usually turn over area reviews in a matter of days. I told Mr. Shieldcastle that I would email him the shape files and mail him the maps as they become available.



LOG

LOG OF TELEPHONE CONVERSATION

CALL TO WHOM: Doug Maloney	PHONE NO.: 937-372-9261
COMPANY: Ohio DNR – District 5 Fisheries Biologist	
NRG CONTACT: Jeff Madejczyk	PHONE NO.: 612-359-5684
DATE: 10/12/06	NRG OFFICE LOCATION: Minneapolis
RE: Ohio Fish Community Data for REX-East Pipeline Project	

LOG OF CONVERSATION:

I introduced myself to Mr. Maloney and informed him that NRG is working on a FERC permit application for the project. I asked him if the State of Ohio uses a classification system for its streams based on the fish community. To clarify, I described the classification system used in Wisconsin to group streams as warm water or cold water, and further classifications based on community type. He informed me that the State of Ohio does not classify their streams based on either fish community, warm vs. cold water or natural reproduction capacity. He said that the Ohio EPA classifies streams in the state, but that classification system is based more on water quality and not on fish community. I informed him that someone working on the project was in the process of obtaining the Ohio EPA info that classifies the streams based on water quality.

I asked Mr. Maloney if there were any reports maintained by the Ohio DNR that describe the fish communities of the major watersheds or basins in Ohio. He said that the Ohio DNR does not maintain that type of information. He informed me that the best source of fish community data for the state of Ohio is the Ohio EPA. He said that they have been conducting surveys for years on Ohio streams and they have summary information available. He then said that he could probably provide me with a list of some web sites for the Ohio EPA where I would be able to access the fish community data.

I asked Mr. Maloney about commercial fishing in Ohio, the regulation of which appears to be limited to Lake Erie. I asked him if commercial fishing is allowed in other lakes or streams within Ohio. Mr. Maloney confirmed that the Ohio DNR only allows commercial fishing in Lake Erie. Commercial fishing is not allowed in other lakes and streams within Ohio. He did state that commercial fishing is allowed in portions of the Ohio River under a permit from the state of Kentucky. I stated that our project corridor was north of the Kentucky border and that we would not be working near that section of the Ohio River.

I closed the call by telling him that I would send him an e-mail requesting the web sites for the Ohio EPA fish data and I thanked him for his time.



LOG

LOG OF TELEPHONE CONVERSATION

CALL FROM WHOM: Mindy Bankey	PHONE NO.: 614-265-6728
COMPANY: Ohio Department of Natural Resources: Environmental Coordinator	
NRG CONTACT: Jeff Madejczyk	PHONE NO.: 612-359-5684
DATE: 10/18/06	NRG OFFICE LOCATION: Minneapolis
RE: State of Ohio, Consultation Process for Threatened and Endangered Species Rockies Express Pipeline – East Project	

LOG OF CONVERSATION:

I received a call from Ms. Bankey, the Environmental Coordinator at the Ohio Department of Natural Resources (ODNR), in response to a voice message I left on Thursday 10/19/06 in regards to proceeding with consultations for threatened and endangered (T&E) species listed in Indiana.

I informed Ms. Bankey that we have conducted the consultations with the US Fish and Wildlife Service (USFWS) offices for each state in the project corridor to determine the federally listed T&E species that have the potential to occur in the project corridor. I explained that we are now in the process of conducting consultations at the state level to determine if there are any additional state listed T&E species that may occur in or near the project corridor. I asked Ms. Bankey who should be the main contact point for these consultations and she indicated that she would serve as the main contact point. I asked her if any biologists would also be involved and she stated that she would make sure the proper information gets transferred between the state biologist and Rockies Express.

I explained to Ms. Bankey that we have developed a process for state listed T&E species that we are using with the other states and we hope to use the same process in Indiana. The process involves the following steps:

- 1) review the county T&E lists for each county crossed by the project to determine species that may occur in the project area,
- 2) determine the required habitat for each species,
- 3) conduct a desk-top review of project corridor using aerial photos to determine if the proper habitat exists in the project corridor for a particular species and what potential impacts there may be,
- 4) determine which species may require field surveys and/or possible future mitigation measures.

Ms. Bankey indicated that she would discuss the process with a few of the appropriate people within the ODNR to determine if it is appropriate. She indicated that there are two separate heritage databases, one for plants and the other for animals. Ms. Bankey is going to check to see if anyone else at NRG has already requested the national heritage data. She said she can provide us the data by county so we can focus our search for suitable habitat to those species that are listed in the database. I offered to send her an e-mail with a map of the route as well as the counties we are going through and she said that would be helpful. After consulting with people in her group she plans to call me back to discuss if the process proposed by NRG is adequate.

I informed her that we are already working with the USFWS for federally listed species and in the process of determining field survey procedures, such as mist-net surveys for the Indiana bat. I asked her if there would be any additional requirements by the State of Ohio above and beyond what the USFWS requests. She indicated that the ODNR would like to review the final plan that is agreed upon with the USFWS for species like the Indiana bat but the USFWS requirements will likely be acceptable to the ODNR.

She said she will call me back once she has some additional information and I thanked her for her time.



LOG

LOG OF TELEPHONE CONVERSATION

CALL TO WHOM: Rich Carter	PHONE NO.: 614-644-3925
COMPANY: Ohio DNR – District 1 Fisheries Biologist	
NRG CONTACT: Jeff Madejczyk	PHONE NO.: 612-359-5684
DATE: 11/06/06	NRG OFFICE LOCATION: Minneapolis
RE: Fish Community Data for Deer Creek Lake	

LOG OF CONVERSATION:

The REX-East Pipeline will pass near or through a portion of Deer Creek Lake in Fayette & Pickaway Counties, Ohio. I was informed at the Ohio DNR headquarters that Deer Creek Lake is in District 1 and it was suggested that I contact the regional fisheries management biologist for fish community information for the lake. I called the Region 1 office and I was directed to Rich Carter.

I introduced myself to Mr. Carter and informed him that I worked for NRG and that we are working on completing a FERC application for a natural gas pipeline project going through Ohio. I told him that the project would be passing near Deer Creek Lake and I was looking for information about the lake's fish community and habitat. Mr. Carter offered to discuss these items with me over the phone.

Mr. Carter said that Deer Creek Lake was constructed by the US Army Corps of Engineers in 1968 and that it is 1290 acres in size. He informed me that the only species stocked in Deer Creek Lake is saugeye. Fish are stocked annually in the spring as either fry or fingerlings, depending on availability, and have been stocked every year since at least 1979.

I asked him what are the most abundant fish and Mr. Carter stated that gizzard shad are the most abundant species in terms of numbers and biomass. Mr. Carter stated that the most important and abundant game fish are largemouth bass, white bass, saugeye and channel catfish. Additional game fish species present include white & black crappie, blue gill and smallmouth bass. Other non-game fish species present in the lake include carp, white sucker and golden redhorse.

I asked Mr. Carter if there are any important areas of the lake in terms of fish foraging or spawning habitat. Mr. Carter informed me that at the headwaters of the lake, Deer Creek is an important tributary for white bass spawning runs. The bottom is fairly uniform with sand, clay, gravel and stumps. No single area sticks out as more important than another area. Mr. Carter stated that Deer Creek Lake is an important recreational resource for both fisherman

11/6/06 CALL LOG CARTER/MADEJCZYK

and pleasure boats, with many people coming from the Columbus area. Mr. Carter also informed me that the tail waters of Deer Creek Lake, below the dam, provide a very good saugeye fishery. The saugeyes present in the creek below the dam have escaped the Deer Creek Lake reservoir during flood periods.

I asked Mr. Carter if there are any other distinguishing characteristics of the lake that I should know about but he said that there were no others he could think of. I thanked him for his time.



LOG

LOG OF TELEPHONE CONVERSATION

CALL TO WHOM: Doug Maloney	PHONE NO.: 937-372-9261
COMPANY: Ohio DNR – District 5 Fisheries Biologist	
NRG CONTACT: Jeff Madejczyk	PHONE NO.: 612-359-5684
DATE: 11/06/06	NRG OFFICE LOCATION: Minneapolis
RE: Fish Community Data for Caesar Creek Lake	

LOG OF CONVERSATION:

The REX-East Pipeline will pass near or through a portion of Caesar Creek Lake in Warren County, Ohio. I was informed at the Ohio DNR headquarters that Caesar Creek Lake is in District 5 and it was suggested that I contact the regional fisheries management biologist for fish community information for the lake. I called the Region 5 office and I was directed to Doug Maloney.

I introduced myself to Mr. Maloney and informed him that I had spoken with him before in regards to stream fish community data and that he had directed me to the OEPA. I told him that this time I was calling about fish community data for Caesar Creek Lake. He offered to discuss the information he had over the phone.

He informed me that there are two species of fish stocked in Caesar Creek Lake, muskellunge and saugeye (a walleye/sauger hybrid). Both species are stocked annually as fingerlings in the spring, the saugeyes have been stocked since 1991 and muskellunge have been stocked since 1998.

I asked him what are the most abundant game fish and he stated that, starting with the most abundant, the game fish in Caesar Creek Lake include:

- White and Black Crappie
- Bluegill
- White Bass
- Largemouth Bass
- Smallmouth Bass
- Spotted Bass
- Channel Catfish
- Flathead Catfish
- Rockbass
- Black Bullhead

Yellow Bullhead

In addition to the above listed species the other species present in the lake include gizzard shad, white sucker, common carp, freshwater drum and golden redhorse. Mr. Maloney stated that gizzard shad are the most abundant species in terms of numbers and biomass in the system. Mr. Maloney stated that to his knowledge there are not reports of threatened, endangered or special concern species in Caesar Creek Lake.

I asked when the reservoir was formed, how big it is and if there were any special habitat or usage features I should know about? Mr. Maloney stated that Caesar Creek Lake was constructed by the US Army Corps of Engineers in 1978 and is approximately 2800 acres in size. The reservoir serves as a drinking water source for the town of Wilmington, Ohio. It is also an important recreational resource for fisherman and pleasure boats from the nearby metropolitan areas Dayton and Cincinnati, both less than one hour away.

Mr. Maloney stated that there are no real hot-spots or sensitive areas that are significant to the fish population for foraging or spawning. The lone exception would be the white bass, which makes spawning runs to the upper end of the lake and into the two main creeks that flow into the lake.

I asked Mr. Maloney if there are any other distinguishing characteristics of the lake that I should know about but he said that there were no others he could think of. I thanked him for his time.



LOG

LOG OF TELEPHONE CONVERSATION

CALL FROM WHOM: Hugh Trimble	PHONE NO.: 937-285-6357
COMPANY: Ohio EPA – Southwest Region Water Quality Specialist	
NRG CONTACT: Jeff Madejczyk	PHONE NO.: 612-359-5684
DATE: 10/19/06	NRG OFFICE LOCATION: Minneapolis
RE: Watershed in Ohio crossed by the REX-East Pipeline Project	

LOG OF CONVERSATION:

I received a call from Hugh Trimble in the Southwest Regional Office of the Ohio EPA in response to a voice message I left him regarding the major watersheds in Ohio that will be crossed by the REX-East Project.

I introduced myself to Mr. Trimble and informed him that NRG is working on a FERC permit application for the project. I told him that I have been reviewing the water quality and biological monitoring reports on the OEPA website and I have downloaded several reports for watershed that the REX-East project will pass through. I listed the reports I have so far including: Middle to Lower Great Miami River; Big Darby Creek; Muskingum River; Sevenmile Creek; Dry Fork Whitewater River; and Big Walnut Creek. I asked him if there were any reports that I am missing from watersheds of significance. Mr. Trimble suggested that the best person to contact for my questions is Mr. Jeff Deshon at the Central Office. Mr. Trimble stated that other watershed reports he could think of that I may want to review include:

- the Little Miami River;
- Paint Creek;
- Hawking River;
- and Scioto River.

He suggested that I visit the Ohio DNR website for a map of the watershed of Ohio so I could determine which additional reports would be needed. Mr. Trimble also suggested that there is a report called "Guide to Ohio Streams", which has general information about Ohio streams but does describe the basins/watersheds of the State. I thanked Mr. Trimble for his time.

Jeff Madejczyk

From: Dennis Mishne [Dennis.Mishne@epa.state.oh.us]
Sent: Friday, October 20, 2006 1:07 PM
To: Jeff Madejczyk
Subject: Fish Species in Ohio Streams the Pipeline Crosses

Attachments: Pipeline Streams 2.pdf; Pipeline Streams 1.pdf



Pipeline Streams
2.pdf (37 KB)...



Pipeline Streams
1.pdf (71 KB)...

Hello Jeff,

Jeff Deshon passed along your request to me. In response to your email, I have put together a couple of PDFs which contain fish species from 9 major rivers the pipeline will cross. Based on your map, I tried to pinpoint roughly where the crossings will be. I retrieved fish species from the database covering a distance of approximately 10 miles upstream and 10 miles downstream from the crossings. A 20-mile stretch of each river gives a good indication of what species live in these streams.

There are two PDFs. One has 6 rivers in western and central Ohio (Great Miami River, Little Miami River, Paint Creek, Deer Creek, Big Darby Creek, Scioto River). The other PDF contains 3 rivers in central and eastern Ohio (Hocking River, Muskingum River, Wills Creek). Each river contains a list of all fish species collected throughout the stretch of 20 miles which have been collected during various surveys throughout the last 28 years. Each species has several bits of information included such as total counted, average weight, and sensitivity to pollution. The field "TOL" refers to the pollution tolerance. Those with "I" and "R" are either rare, or extremely intolerant of pollution. If a species is listed as Endangered, Threatened, or Special Interest, they have the codes E, T, or S in brackets following the species name. This will make more sense when you look at the printouts.

FYI, Big Darby Creek is one of the most sensitive and threatened watersheds in the state of Ohio. It has several endangered and threatened species present throughout the watershed. There are large efforts being made to preserve and protect it from development and other pollution sources which may potentially degrade it.

If you have any questions about the species lists, or about any of the rivers which are contained in these printouts, feel free to email me at the above address, or give me a call at (614) 836-8775.

Sincerely,

Dennis Mishne
Aquatic Biologist
Division of Surface Water
Ecological Assessment Section
email: dennis.mishne@epa.state.oh.us
phone: (614) 836-8775