associated with depletions to the Platte River system include, but are not limited to, ponds (detention/recreation/irrigation storage/stock watering), lakes (recreation/irrigation storage/municipal storage/power generation), reservoirs (recreation/irrigation storage/municipal storage/power generation), created or enhanced wetlands, hydrostatic testing of pipelines, wells, diversion structures, dust abatement, and water treatment facilities. Any actions that may result in a water depletion to the Platte River system should be identified. The document should include: An estimate of the amount and timing of average annual water use (both historic and new uses) and methods of arriving at such estimates; location of where water use or diversion occurs as specifically as possible; if and when the water will be returned to the system; and what the water is being used for. Note that if the project has peculiarities or oddities, the Service may have more specific questions regarding the potential consumptive use of water.

Affect/No Affect Determination

The Service recommends that the State Department consider the information provided above with regard to making its assessment on the potential impacts of the proposed project on federally listed species and designated critical habitat and in making the "affect/no affect determination." Further, the Service recommends that the State Department not limit its consideration of affect to just the above project information, but other potential affects as they become apparent during the course of other project studies and/or project development and modification.

CANDIDATE SPECIES

Candidate species are species under consideration by the Service for possible inclusion on the *List of Endangered and Threatened Wildlife and Plants*. Although these species receive no substantive or procedural protection under ESA, the Service encourages federal agencies and project proponents to consider candidate species in their project planning process. The Dakota skipper (*Hesperia dacotae*) and eastern massasauga rattlesnake (*Sistrurus catenatus catenatus*) are candidate species that occur in the area where the proposed Keystone pipeline is planned to be constructed. Additional information regarding these two species is found in Enclosure 1.

BALD AND GOLDEN EAGLES

The BGEPA provides for the protection of the bald eagle (*Haliaeetus leucocephalus*) and golden eagle (*Aquila chrysaetos*) by prohibition, except under certain specific conditions, the taking, possession, and commercial use of such birds. Based on the information provided in your request, the Service has determined that both the bald eagle and golden eagle and their habitats could occur in the proposed project area and could be affected by the project. Thus, it is the project proponent's responsibility to minimize or avoid impacts. Surveys for nesting bald and golden eagles as well as avoiding both nesting and wintering habitat may be needed to avoid adversely impacting these two species of eagles and comply with the BGEPA.

REVIEW, COMMENTS, AND RECOMMENDATIONS ON THE PROPOSED PROJECT ACTION ON OTHER FISH AND WILDLIFE RESOURCES

A. Streams and Riparian Habitats

The proposed pipeline projects will cross many prairie streams and rivers throughout the Great Plains. The Service recommends that unavoidable impacts to stream pattern, profile, and dimension be mitigated at a ratio of no less that 1:1 (stream length and number, pattern, and length of meanders created/restored versus stream length and number, pattern, and length of meanders impacted; sequence and number of pools and riffles created/restored versus sequence and number of pools and riffles impacted). Additionally, compensation for unavoidable impacts to riparian habitats should occur at a minimum ratio of 3:1 (i.e., acres of riparian habitat replaces for acres of riparian habitat impacted). The 3:1 ratio is based on the loss of the habitat and the amount of time that will be required for planted trees to reach maturity. The Service recommends that TransCanada implement the following conditions as well as the Best Management Practices identified in Enclosure 2 when crossing streams in order to minimize potential environmental impacts:

1. Stream crossings should not be undertaken during fish spawning period. Most spawning occurs in April, May and June for most States.

2. Stream bottoms impacted by constructions activities should be restored to pre-project elevations.

3. Streams should be crossed perpendicular to flow.

4. Removal of vegetation and soil should be accomplished in a manner to reduce soil erosion and to disturb as little vegetation as possible.

5. Grading operations and reseeding of native species should begin immediately following trench backfilling.

B. Wetland Habitats

Information on the occurrence of wetlands within your project area may be obtained from the relevant National Wetlands Inventory (NWI) map. The U.S. Fish and Wildlife Service (Service) has the primary Federal responsibility for mapping and maintaining an inventory of wetlands in the United States. These NWI maps provide information on wetland type, location, and size and can assist you in analyzing the effect of your project. However, these maps may not necessarily provide information on wetlands regulated by the U.S. Army Corps of Engineers (Corps) under the Rivers and Harbors Act of 1899 and the Clean Water Act of 1977.

The NWI maps can be acquired from the appropriate State distribution center, one of six U.S. Geological Services (USGS) Earth Science Information Center regional offices, or by calling the USGS national toll-free number: 1-800-USA-MAPS. Maps can also be viewed at the Library of

Congress and the Federal Depository Library System and, where available, downloaded cost-free through the NWI Home Page on the Internet at <http://www.nwi.fws.gov>.

The proposed project will be routed through wetland areas that have regional, national, and international importance, especially to migratory birds such as shorebirds, wading and water birds and waterfowl. In general, the Service recommends that avoidance be the first step in any planning project that may adversely impact wetlands. Once all measures have been taken to avoid wetlands and impacts are still likely to occur, the Service recommends that the impacts be minimized to least amount of wetland area impacted. Unavoidable wetland impacts caused by the proposed construction project should be mitigated at a ratio of no less than 2:1 (wetlands created/restored versus wetlands impacted). The Service further recommends that unavoidable wetland impacts caused by the proposed project be mitigated at a ratio of no less than 1:1 should mitigation be applied to a certified wetland mitigation bank. The Service recommends that TransCanada implement the following conditions as well as the Best Management Practices identified in Enclosure 2 when crossing wetlands in order to minimize potential environmental impacts:

1. Crossing of wetland basins should be done when dry conditions exist.

2. Wetlands impacted by constructions activities should be restored to pre-project elevations. In cases where wetland basins to be crossed are formed because of impermeable soils, the soil area should be packed to reestablish the impermeability of the basin's floor.

3. Removal of vegetation and soil should be accomplished in a manner to reduce soil erosion and to disturb as little vegetation as possible.

4. Grading operations and reseeding of native species should begin immediately following trench backfilling.

C. Grassland Habitats

Native prairies are considered the most threatened habitat in the United States, including the seven States through which the proposed pipeline projects are planned to be routed. Therefore, it is of even more importance to protect whatever remains. Impacts to any prairie which is crossed by the proposed project should be minimized by restricting the work space to the absolute minimum necessary to complete the project. This includes vehicle and equipment driving and staging, and storage areas for materials, equipment and supplies. Restoration of any prairie impacts should be mitigated at a ratio of no less than 1:1 (grasslands created/restored versus grasslands impacted) and following methodology and materials approved by the Natural Resources Conservation Service for the specific area of a State that is impacted.

D. Migratory Birds

Under MBTA, construction activities in grassland, wetland, stream, and woodland habitats, and those that occur on bridges (e.g., which may affect swallow nests on bridge girders) that would

otherwise result in the taking of migratory birds, eggs, young, and/or active nests should be avoided. Although the provisions of MBTA are applicable year-round, most migratory bird nesting activity in the seven-State area occurs from approximately March through July. However, nesting of migratory birds can occur earlier in southern States and later in northern States. Additionally, some migratory birds are known to nest outside of the aforementioned primary nesting season period. For example, in Nebraska, raptors can be expected to nest in woodland habitats during February 1 through July 15, whereas sedge wrens which occur in some wetland habitats normally nest from July 15 to September 10.

If the proposed construction project is planned to occur during the primary nesting season or at any other time which may result in the take of nesting migratory birds, the Service recommends that the project proponent arrange to have a qualified biologist conduct a field survey of the affected habitats and structures to determine the absence or presence of nesting migratory birds. Surveys must be conducted during the nesting season. The Service further recommends that field surveys for nesting birds, along with information regarding the qualifications of the biologist(s) performing the surveys, be thoroughly documented and that such documentation be maintained on file by the project proponent until such time as construction on the proposed project has been completed. In addition, if above ground power lines are proposed for this project they should be built, at a minimum, to standards identified in the *Suggested Practices for Raptor Protection on Power Lines--The State of the Art in 1996* (Edison Electric Institute and the Raptor Research Foundation 1996).

The Service requests that the following be provided to our appropriate State Ecological Services field office prior to construction proceeding at the proposed project site. The purpose of the request is to assist the project proponent to avoid the unnecessary take of migratory birds and the possible need for law enforcement action:

a) A copy of any survey(s) for migratory birds done in conjunction with this proposed project, if any. The survey should provide details in regards to survey methods, date and time of survey, species observed/heard, and location of species observed relative to the proposed project site.

b) Written description of any avoidance measures implemented at the proposed project site to avoid the take of migratory birds.

c) Written description of any circumstances where it has been determined by the project proponent that one or more active bird nests cannot be avoided by the planned construction activities.

E. National Wildlife Refuges and State Wildlife Management Areas

Based on the route of the proposed projects that the Service has been provided, it appears that proposed pipeline will be going through several areas that the Service administers fee title or an easement within the National Wildlife Refuge (NWR) System. The Service requires that all wetlands under its jurisdiction be avoided during construction, when possible. Special Use or right-of-way permits will be necessary for any construction activities resulting in impacts to

Service lands (i.e., fee title and easements). The issuances of Special Use or right-of-way permits are subject to the final determination of a Refuge compatibility review process under the auspices of the National Wildlife Refuge Improvement Act of 1997. The following States along the proposed pipeline route where Service lands may be encountered are as follows:

North Dakota

The Service's North Dakota Habitat and Population Evaluation Team (HABET) has provided ENSR with digital data representing Service property interests that may be affected by the proposed project. For specific information on Service properties in North Dakota and to determine the need for permits, contact the following offices:

- Cavalier, Grand Forks, Nelson, Pembina, and Walsh Counties: Contact Roger Hollevoet, Project Leader, Devils Lake Wetland Management District, P.O. Box 908, 221 Second Street NW, Devils Lake, North Dakota 58301, Telephone No. (701) 662-8611.

- Barnes Griggs, and Steele Counties: Contact Ed Meendering, Wetland Manager, Valley City Wetland Management District, 11515 River Road, Valley City, North Dakota 58072-9619, Telephone No. (701) 845-3466.

- Dickey and LaMoure Counties: Contact Mick Erickson, Project Leader, Kulm Wetland Management District, 1 First Street SW, P.O. Box E, Kulm, North Dakota 58456, Telephone No. (701) 647-2866.

- Ransom and Sargent Counties: Contact Jeff King, Refuge Manager, Tewaukon National Wildlife Refuge, 9754 143½ Avenue SE, Cayuga, North Dakota 58013, Telephone No. (701) 724-3598.

South Dakota

This project crosses through several Service Wetland Management Districts in South Dakota.. There are likely to be easements on some of the properties proposed for crossing of the pipeline. There may also be Waterfowl Production Areas crossed by the pipeline. For exact locations of these easements and any additional restrictions that may apply regarding these sites, you will need to contact the following offices:

- Huron Wetland Management District, Federal Building, Room 309, 200 4th Street SW, Huron, South Dakota 57350, Telephone No. (605) 352-5894.

- Waubay Wetland Management District, Route 1, Box 39, Waubay, South Dakota 57273, Telephone No. (605) 947-4521.

- Madison Wetland Management District at P.O. Box 48, Madison, South Dakota 57042, Telephone No. (605) 256-2974.

- Lake Andes Wetland Management District, 38672 291st Street, lake Andes, South Dakota 57356, Telephone No. (605) 487-7603.

State Wildlife Management Areas

Further, the proposed pipeline project may cross State Wildlife or Fishing areas that have been acquired by the States with Federal Assistance funds through the Pittman-Robertson Wildlife Restoration Act (PR) or the Dingell-Johnson Sport Fish Restoration Act (DJ). Certain restrictions apply to these lands which may have to be addressed before work can take place. The project proponent should contact the State agencies listed to determine if the project will cross any State areas which have been acquired with PR or DJ funds.

The Service appreciates the opportunity to review and comment on the two proposed pipeline projects. Should you have questions, please contact Mr. John Cochnar within the Nebraska Field Office at john_cochnar@fws.gov or (308)382-6468, extension 20.

Sincerely,

Assistant Regional Director
Ecological Services

REFERENCES

Edison Electric Institute and the Raptor Research Foundation. 1996. Suggested Practices for Raptor Protection on Power Lines - The State of the Art in 1996. Washington, D.C.

CONFIDENTIAL

ENCLOSURE 1

County Lists of Federally Listed and Candidate Species And Federally Designated Critical Habitats

State/ County	Bald Eagle (T)	Decurrent false aster (T)	Gray bat (E)	Gray wolf (E)	Higgins eye Pearly mussel (E)	Indiana bat (E)	Interior least Tern (E)	Pallid sturgeon (E)	Piping plover (T)	Running buffalo clover (E)	Scaleshell mussel (E)	Topeka shiner (E)	Western prairie fringed orchid (T)	Whooping crane (E)	Dakota Skipper (C)	Eastern massasauga (C)
Illinois																
Bond	X					X										X
Fayette	X															X
Madison	X	X	X			X		X								
Marion						X										
Kansas																
Brown	X															
Butler	X											X				
Clay	X															
Cowley	X						X		X					X		
Dickinson	X							X				X/CH				
Doniphan	X															
Marion	X											X/CH				
Marshall	X											X/CH				
Missouri																
Audrain						X										
Buchanan	X					X										
Caldwell						X										
Carroll	X					X										
Chariton	X					X										X
Clinton	X					X										
Lincoln	X					X										
Montgomery	X					X										
Randolph						X										

State/ County	Bald Eagle (T)	Decurrent false aster (T)	Gray bat (E)	Gray wolf (E)	Higgins eye Pearly mussel (E)	Indiana bat (E)	Interior least Tern (E)	Pallid sturgeon (E)	Piping plover (T)	Running buffalo clover (E)	Scaleshell mussel (E)	Topeka shiner (E)	Western prairie fringed orchid (T)	Whooping crane (E)	Dakota Skipper (C)	Eastern massasauga (C)
Nebraska	X						X		X							
Butler																
Cedar	X				X		X	X	X		X					
Colfax	X						X		X							
Gage	X															
Jefferson	X															
Platte	X						X		X							
Saline	X															
Seward	X												X	X		
Stanton	X												X			
Wayne	X															
North Dakota	X													X		
Barnes																
Cavalier	X			X										X		
Dickey	X			X										X		
Grand Forks	X			X												
Griggs	X													X		
Lamoure	X													X		
Nelson	X			X												
Pembina	X			X												
Ransom	X												X		X	
Sargent	X			X											X	
Steele	X															
Walsh	X			X												
Oklahoma	X						X		X							
Kay																
Noble	X						X		X					X		
Payne	X						X		X					X		

State/ County	Bald Eagle (T)	Decurrent false aster (T)	Gray bat (E)	Gray wolf (E)	Higgins eye Pearly mussel (E)	Indiana bat (E)	Interior least Tern (E)	Pallid sturgeon (E)	Piping plover (T)	Running buffalo clover (E)	Scaleshell mussel (E)	Topeka shiner (E)	Western prairie fringed orchid (T)	Whooping crane (E)	Dakota Skipper (C)	Eastern massasauga (C)
South Dakota																
Beadle	X											X/CH		X		
Clark	X											X/CH		X		
Day	X								X				X			
Hanson	X											X/CH				
Hutchinson	X											X/CH				
Kingsbury	X							X				X/CH				
Marshall	X															
McCook	X											X/CH				
Miner	X											X/CH				
Yankton	X				X		X	X	X		X	X/CH	X			

KEY

E – Endangered Species
T – Threatened Species
X – Species Occurrence in this County
CH – Critical Habitat
C - Candidate

Federally Listed And Candidate Species Occurrences, Habitats, and Impacts

Bald Eagle

The bald eagle (*Haliaeetus leucocephalus*), federally listed as threatened, nests, migrates, and winters in all seven States and within most of the counties along the proposed Keystone and Cushing pipeline routes. Bald eagles utilize mature, forested, riparian areas near rivers, streams, lakes, and wetlands. Bald eagles nest in the seven States generally from early February through mid-August and can vary by State to State. Bald eagles often return to use the same nest and winter roost year after year. Because bald eagles are particularly sensitive to human disturbance at their nests and communal roosts, protective buffers should be implemented around these areas [U.S. Bureau of Land Management (BLM) 2003, Buehler et al. 1991, Greater Yellowstone Bald Eagle Working Group (GYBEWG) 1996, Montana Bald Eagle Working Group (MBEWG) 1994, Stalmaster and Newman 1978, U.S. Fish and Wildlife Service (USFWS) 1986]. Disturbances near an active nest or within line-of-sight of the nest could cause adult eagles to discontinue nest building or to abandon eggs. Generally, bald eagle nest buffer recommendations include restricting activities within 1-mile of bald eagle nests in open country (BLM and USFWS 2002, 2003). In more heavily forested or mountainous areas, where the line-of-sight distance from the nest is shorter, this buffer distance could potentially be reduced (see Stalmaster and Newman 1978, USFWS 1986). During the nesting season bald eagle nest buffers should receive maximum protection during this time period. Also, for some activities (construction, seismic exploration, blasting, and timber harvest), a limited disturbance home range buffer may be required to extend outward into potential foraging habitat for 2.5 miles from the nest (GYBEWG 1996).

The bald eagle southward migration begins as early as October and the wintering period extends from December-March. Bald eagles roost in a forested area known as a communal roost. A communal roost is generally defined as an area where six or more eagles spend the night within 100 meters (328 feet) of each other (GYBEWG 1996). Human disturbances and loss of eagle wintering habitat can cause undue stress leading to cessation of feeding and failure to meet winter thermoregulatory requirements. These effects can reduce the carrying capacity of preferred wintering habitat and reproductive success for the species. For bald eagle communal winter roosts, the Service recommends that disturbance be restricted within 1 mile of known communal winter roosts during the period of November 1 to April 1 (BLM and USFWS 2002, 2003). The Service recommends that habitat altering activities be prohibited within 0.5-mile of active roost sites year round.

Disturbance sensitivity of roosting and nesting bald eagles may vary between individual eagles, topography, and intensity of activities. The buffers and timing stipulations, as described above, are normally implemented unless site-specific information indicates otherwise. Modification of buffer sizes may be permitted where biologically supported and in coordination with the Service.

Decurrent False Aster

The threatened decurrent false aster (*Boltonia decurrens*) is known to occur in Madison County, Illinois, in the floodplain of the Mississippi River. A number of populations of the plant occur in Mississippi/Missouri River floodplain in St. Charles County at the east end of Missouri. The plant occurs in seasonally flooded emergent wetlands. These wetland habitats

should be evaluated for their suitability to the plant. It occupies disturbed alluvial soils in the floodplain. Federal regulations prohibit any commercial activity involving this species or the destruction, malicious damage or removal of this species from Federal land or any other lands in the knowing violation of State law or regulation, including State criminal trespass law. A survey for this species may be necessary before earth disturbing activities occur.

Gray Bat

The endangered gray bat (*Myotis grisescens*) inhabits caves throughout the year. This species forages over rivers and reservoirs adjacent to forests. A search for this species should be made prior to any cave impacting activity in Madison County, Illinois.

Gray Wolf

The endangered gray wolf (*Canis lupus*) is an occasional visitor in North Dakota and most often seen in the Turtle Mountain area. The gray wolf that would occur in North Dakota as well as South Dakota are part of the Great Lakes Region Population, as well as the Western Great Lakes Distinct Population Segment (DPS). On March 16, 2006, the Service published in the *Federal Register* a proposal to delist the gray wolf in the Western Great Lakes DPS.

Higgins Eye Pearlymussel and Scaleshell Mussel

Shells of the endangered Higgins eye pearlymussel (*Lampsilis higginsii*) and Scaleshell mussel (*Leptodea leptodon*) have been recently found below the Gavins Point Dam. While populations of these mussels are not known in this reach of the Missouri River, there have been shells found there. With the long term nature of this project, it is appropriate to alert TransCanada of these shells and allow your environmental documents an opportunity to address these issues. These mussels require good water quality, and can be found in a variety of river habitats including riffle areas with gravel, cobble, or boulder substrates, mud, or sand.

Indiana Bat

The Indiana bat (*Myotis sodalis*) is a federally endangered species found east of the Missouri River in all counties of Missouri and all counties except for Fayette County in Illinois where the pipeline project is proposed to be routed. Potential habitat for this species occurs statewide in Illinois, therefore, Indiana bats are considered to potentially occur in any area with forested habitat. Indiana bats migrate seasonally between winter hibernacula and summer roosting habitats. Winter hibernacula include caves and abandoned mines. These bats hibernate in large, tight clusters which may contain thousands of individuals. Very few caves exist that provide the conditions necessary for hibernation. Stable, low temperatures are required to allow the bats to reduce their metabolic rate and conserve fat reserves. Indiana bats are subject to natural hazards during hibernation, such as cave flooding, however, humans have been the major cause of declining bat populations. The clusters of hibernating bats are very susceptible to disturbance and vandalism. People touring caves can disturb bats and cause them to awaken. When a bat is aroused, it uses energy at a higher rate, which decreases the energy supply available for the rest of the winter. Females emerge from hibernation in late March or early April to migrate to summer roosts. Females form nursery colonies under the loose bark of trees (dead or alive) and/or cavities, where each female gives birth to a single young in June

or early July. A maternity colony may include from one to 100 individuals. A single colony may utilize a number of roost trees during the summer, typically a primary roost tree and several alternates. Some males remain in the area near the winter hibernacula during the summer months, but others disperse throughout the range of the species and roost individually or in small numbers in the same types of trees as females. The species or size of trees does not appear to influence whether Indiana bats utilize a tree for roosting provided the appropriate bark structure is present. However, the use of a particular tree does appear to be influenced by weather conditions, such as temperature and precipitation. Indiana bats give birth to only one young in midsummer. These young bats are capable of flight in a month. The remainder of the summer and fall is then spent accumulating fat reserves for hibernation. Indiana bats feed entirely on night flying insects, and a colony of bats can consume thousands of insects each night. Bats locate these insects by emitting high-pitched sounds and waiting for the echo, which allows them to zoom in on the bug's location. The fat reserves accumulated by devouring these large quantities of insects during the summer and fall allow the bat to sustain itself during hibernation.

During the summer, Indiana bats frequent the corridors of small streams with well-developed riparian woods, as well as mature upland and bottomland forests. The species forages for insects along stream corridors, within the canopy of floodplain and upland forests, over clearings with early successional vegetation (old fields), along the borders of crop lands, along wooded fence rows, and over farm ponds and in pastures. It has been shown that the foraging range for the bats varies by season, age and sex and ranges up to 81 acres (33 ha). Surveys for maternity roosts or bachelor colonies may be necessary if the route of the proposed Keystone pipeline goes through well developed riparian woodlands, bottomland forest or upland forest. A search for this species should be made prior to any cave impacting activities. In addition to impacts to the Indiana bat at its hibernacula, being an insectivore, the increased use of pesticides has undoubtedly resulted in the poisoning and decline of this species. Further, the clearing of forests has caused a decline in the summer habitat of the Indiana bat. Surveys for maturity roosts may be necessary if the route of the propose pipeline goes through well developed riparian woodlands or upland forests. Coordination with the Service regarding the use of certain types of pesticides to maintain pipeline right-of-way is recommended prior to their application.

Least Tern and Piping Plover

The least tern (*Sterna antillarum*), federally listed as endangered, and the piping plover (*Charadrius melodus*), federally listed as threatened, nest on unvegetated or sparsely vegetated sandbars in river channels and wetlands. Least terns and piping plovers are known to nest on the major river systems in South Dakota, Nebraska, and Kansas including the Platte, Loups, Niobrara, and Missouri and Arkansas rivers. Least tern will also nest on bare alluvial or dredge spoil islands and sand/gravel bars in or adjacent to rivers, lakes, gravel pits and cooling ponds. It also utilizes habitats along the Mississippi River in Illinois. Least terns feed on small fish in the river and piping plovers forage for invertebrates on exposed beach substrates. The nesting season for the least tern and piping plover is from April 15 through September 15. It is likely that both species nest at nearby sandpits, and forage on the Platte River. Channel constrictions caused by bridges, causeways, bridge approaches, roadway embankments, bank stabilization, levees, and other unnatural obstructions can result in the loss of broad, shallow, unobstructed channel and sandbar complexes used as feeding and potential nesting habitat by

least terns and piping plovers. Additionally, ill-timed human activities in the vicinity of such feeding and nesting habitats can disturb least terns and piping plovers. Depletions of instream flows in Nebraska from the Platte River have negative impacts on least terns and piping plovers. Surveys for nesting piping plovers and least terns should be performed prior to any construction, and no construction should take place within 1/4 mile of any known piping plover or least tern nest.

Pallid Sturgeon

The pallid sturgeon (*Scaphirhynchus albus*) was officially listed as an endangered species on September 6, 1990. In South Dakota, the pallid is known to occur in the Missouri River. In Nebraska, the pallid sturgeon is found in the Missouri and lower Platte rivers, while in Kansas and Missouri, it is found in the Missouri River. Pallids are found in the Mississippi River downstream of Melvin Price Locks and Dam in Illinois. Floodplains, backwaters, chutes, sloughs, islands, sandbars, and main channel waters formed the large-river ecosystem that provided macrohabitat requirements for the pallid sturgeon, a species that is associated with diverse aquatic habitats. These habitats historically were dynamic and in a constant state of change due to influences from the natural hydrograph, and sediment and runoff inputs from an enormous watershed spanning portions of ten States and Canada. Navigation, channelization and bank stabilization, and hydropower generation projects have caused the widespread loss of this diverse array of dynamic habitats once provided to pallid sturgeon on the Missouri and Mississippi rivers, resulting in a precipitous decline in populations of the species. Due to the scope of this project, it is likely that the pallid sturgeon would not be adversely impacted along the lower Platte River in Nebraska, except if an activity that would cause a depletion to the Platte River were to occur. However, the pallid sturgeon could be adversely impacted from the crossing of the Missouri and Mississippi rivers unless directional drilling methods are employed.

Running Buffalo Clover

Running buffalo clover (*Trifolium stoloniferum*) is an endangered plant that occurs on the floodplain of the Cuivre River, Cuivre River State Park, Lincoln County, Missouri. It appears that the alignment between Keystone pipeline miles 965-969 will pass near the Cuivre River. If the alignment occurs on the floodplain of Cuivre River, then surveys may be required regarding possible impacts to the plant. If potential habitat is present within the project area, the Service recommends that a survey be conducted by a botanist familiar with the species to determine the possible occurrence of this plant. Qualifications of the surveyor, method of survey, and results of the survey should be submitted to the Marion Illinois Sub-Office, 8588 Route 148, Marion, Illinois 62959 for review and a determination whether further section 7 consultation with the Service is necessary.

Topeka Shiner

The Topeka shiner (*Notropis topeka*), federally listed as endangered, is known to occur in South Dakota, Kansas, and Missouri where the two pipelines are proposed to cross. The Topeka shiner inhabits spring-fed, sandy-bottomed streams that have good water quality. The species lives in pools and slack water areas between riffle sequences along a stream course. The species is considered to be carnivorous and feeds on aquatic invertebrates. Stream

modifications, sediment deposition, pollution, overgrazing, and predation by introduced fish are thought to have led to the decline of the Topeka shiner across its Midwestern range.

Topeka Shiners can be impacted in one of two ways by a pipeline crossing. First are direct habitat impacts such as channel degradation or water quality impacts from increased sedimentation, which can also include riparian vegetation impacts. At a minimum, the project proponents should maintain and/or restore the riparian corridor with native vegetation, ensuring future filtering of surface runoff to the stream. Second, we recommend against any work that will impact the channel or its banks during the primary spawning season for the shiner; May 15-July 31 inclusive. At an informational meeting in Pierre, South Dakota on February 8, 2006, TransCanada pipeline representatives indicated that it is possible to bore under important habitats such as Topeka shiner streams. We recommend these Topeka shiner streams be crossed by using the directional boring techniques outlined at the February 8 meeting. Additionally, if the Topeka shiner streams cannot be bored, we recommend that erosion control measures be described and implemented as part of any request for Section 10/404 permit authorizations.

Topeka shiners are known to occupy numerous small streams within eastern South Dakota, and most are concentrated within the Big Sioux, Vermillion, and James River watersheds. Survey efforts continue to reveal additional inhabited streams.

Federally designated critical habitat occurs for the Topeka Shiner where the Keystone pipeline crosses North Elm Creek in Marshall County. Additionally, for the Cushing pipeline, Topeka shiner critical habitat occurs along in the following counties along the streams:

- Dickinson County; tributary to Carry Creek; CE 85
- Dickinson County; Carry Creek; CE 87
- Dickinson County; West Branch Lyon Creek; CE 92
- Marion County; Mud Creek; CE 114.

In Missouri, the proposed pipeline alignment will pass through Caldwell and Clinton counties. The Topeka shiner's historical range occurred in these two counties. It is believed that the fish no longer occurs in this part of its former range.

Critical habitat adverse modification may be addressed by the implementation of best management practices identified in Enclosure 2 to avoid impact to the habitat.

Western Prairie Fringed Orchid

The western prairie fringed orchid (*Platanthera praeclara*), federally listed as threatened, inhabits tall-grass calcareous silt loam or sub-irrigated sand prairies. Declines in western prairie fringed orchid populations have been caused by the drainage and conversion of its habitats to agricultural production, channelization, siltation, road and bridge construction, grazing, haying, and the application of herbicides. Along the proposed pipeline route, in Nebraska, populations are known to occur in Seward and Stanton counties with, and may occur at other sites in Nebraska. The western prairie fringed orchid has not recently been documented in South Dakota. However, the life cycle of the plant can make it difficult to detect, plus populations currently exist in the neighboring States of Nebraska, Minnesota and

North Dakota, and potential habitat may still be found in South Dakota, therefore potential exists for the orchid to be found in this State. In North Dakota, the orchid is found in Ransom County and on the Sheyenne National Grasslands, where the largest population in the United States is known to occur. If potential habitat is present within the project area, the Service recommends that a survey be conducted by a botanist familiar with the species during the flowering period (i.e., mid-June to mid-July) to determine the possible occurrence of this plant. Qualifications of the surveyor, method of survey, and results of the survey should be submitted to the appropriate Service State field office for review and a determination whether further section 7 consultation with the Service is necessary.

Whooping Crane

Whooping cranes *(Grus americanus)*, federally listed as endangered, use numerous habitats such as cropland and pastures; wet meadows; shallow marshes; shallow portions of rivers, lakes, reservoirs, and stock ponds; and both freshwater and alkaline basins for feeding and loafing during their spring and fall migration. Overnight roosting sites frequently require shallow water in which they stand and rest. shallow, sparsely vegetated streams and wetlands to feed and roost during migration. The north-south migrational corridor through Oklahoma, Kansas, Nebraska, South Dakota, and North Dakota is crossed by the two proposed pipelines. Migrating whooping cranes could be roosting or feeding in areas where the two pipelines are proposed to be constructed. The migration periods in general are from approximately March 23 through May 10 and from September 16 through November 16. Migration periods throughout the States involved may vary due to the northern or southern location during the migrational period. Alterations to feeding and roosting habitats, human disturbance, and depletions of instream flows to the Platte River in Colorado, Wyoming, and Nebraska have negative impacts on the whooping crane. Disturbance (flushing the birds) stresses them at critical times of the year. We recommend that you remain vigilant for these birds. There is little that can be done to reduce disturbance besides ceasing activity at sites where the birds have been observed. The birds normally do not stay in any one area for long during migration. If construction of the proposed pipeline occurs during either the spring or autumn migration and whooping cranes use areas within 1-mile of where pipeline construction is occurring, construction activities must cease immediately and the Service's respective State field office, including the Nebraska Field Office, (i.e., maintains the Cooperative Whooping Crane Tracking Project for the United States) must be notified to determine when construction can continue. Additionally, young adult whooping cranes are known to summer in North Dakota.

CANIDATE SPECIES

Dakota Skipper

The Dakota skipper (*Hesperia dacotae*), is a candidate species found in both North and South Dakota native prairies containing a high diversity of wildflowers and grasses. Habitats include two prairie types: 1) low (wet) prairie dominated by bluestem grasses, wood lily, harebell, and smooth camas; 2) upland (dry) prairie on ridges and hillsides dominated by bluestem grasses, needlegrass, pale purple and upright coneflowers and blanketflower. In North Dakota, the Dakota skipper occurs in Ransom and Sargent counties. In South Dakota, the Dakota skipper occurs in Brookings, Brown, Codington, Day, Deuel, Edmunds, Grant, Hamlin, Marshall,

McPherson, and Roberts Counties. Impacts to this species and its associate habitats should be avoided.

Eastern Massasauga

The eastern massasauga rattlesnake (*Sistrurus catenatus catenatus)*, is a federal candidate species and is known to occur in Bond and Fayette Counties, Illinois, in the vicinity of Carlyle Lake where it hibernates near the lake shoreline. In Missouri, the massasauga is known to occur in Chariton County. Massasaugas live in wet areas, including wet prairies, marshes and low areas along rivers and lakes. In many areas massasaugas also use adjacent uplands, including forest, during part of the year. They often hibernate in crayfish burrows but they may also be found under logs and tree roots or in small mammal burrows. Unlike other rattlesnakes, massasaugas hibernate along. Impacts to this species and its associate habitats should be avoided.

References

Buehler, D. A., T. J. Mersmann, J. D. Fraser, and J. K. D. Seegar. 1991. Effects of human activity on bald eagle distribution on the Northern Chesapeake Bay. Journal of Wildlife Management 55(2):282-290.

Greater Yellowstone Bald Eagle Working Group. 1996. Greater Yellowstone Bald Eagle Management Plan: 1995 Update. Greater Yellowstone Bald Eagle Working Group, Wyoming Game and Fish Department, Lander, Wyoming. 47 pp.

Montana Bald Eagle Working Group. 1994. Montana Bald Eagle Management Plan. Bureau of Reclamation, Montana Projects Office. Billings, Montana. 104 pp.

Stalmaster, M. V. and J. R. Newman. 1978. Behavioral responses of wintering bald eagles to human activity. Journal of Wildlife Management 42(3):506-513.

U.S. Bureau of Land Management. 2003. Final Statewide Programmatic Bald Eagle Biological Assessment. Prepared for the Wyoming Bureau of Land Management by Greystone Consultants. August 2003. 266 pp. + Appendices.

U.S. Fish and Wildlife Service. 1986. Recovery Plan for the Pacific Bald Eagle. U.S. Fish and Wildlife Service, Portland, Oregon. 160 pp.

Enclosure 2

Recommended Best Management Practices for Proposed Pipeline Construction Activities

- Implement a sediment and erosion control plan using best management practices during construction such as a) the installation of sediment fencing and straw hay bales to capture sediment, and b) stock piling any excavated material well away from streams and wetlands so that the material cannot slough back into these areas.
- Monitor sediment/erosion control measures after precipitation events. Clean, repair, and replace structures as necessary.
- Monitor sediment/erosion control measures periodically throughout all phases of construction. Clean, repair, and replace structures as necessary.
- Establish staging areas for the crew, equipment, hazardous materials, chemicals, fuels, lubricating oils, etc., no closer than 300 feet of a stream bank or wetland.
- Install sediment and erosion controls around staging areas to prevent discharge from these sites.
- Store construction waste materials, debris, and excess materials well away from streams and wetlands.
- Refuel construction equipment at least 100 feet from stream banks and wetlands.
- Use the horizontal directional drilling method for proposed pipeline crossings of streams and wetlands, especially those streams which contain flowing water during project implementation to avoid impacts to these resources.

- If the directional drilling method would not be feasible, we recommend the following:

  - conduct stream crossings during a period of low stream flow (July to October)
  - limit tree trimming and cutting to only what it is necessary
  - limit access of construction equipment within the stream channel to one confined location, preferably over an existing bridge, equipment pads, clean temporary native rock fill, or over a temporary portable bridge
  - limit in-stream equipment to that needed to construct a crossing
  - do not alter or remove natural stream features such as riffles or pools
  - place trench spoil at least 10 feet away from stream banks
  - use sediment filter devices to prevent flow of spoil off the right-of-way
  - de-water the trench, as necessary, to prevent discharge of silt laden water into streams and wetlands during construction and backfilling operations
  - return the substrate and contours of the wetland and stream bank and bottom of the channel to pre-project conditions.
- Maintain natural stream features such as riffles or pools.
- Keep all machinery out of streams as much as possible.
- Limit the removal of riparian vegetation to only when it is necessary.
- Replace any woody riparian vegetation unavoidably lost by planting five trees for every tree lost. Only native riparian plants should be used to help prevent the spread of exotics.
- Leave a wide natural vegetated buffer area around any wetland (minimum 100 feet) and along any streams (minimum 100 feet) located on the project site.

- Re-vegetate all disturbed areas as soon as possible after construction using only native plants to reduce soil erosion. Annual species, such as rye or wheat, may initially be planted along with native species in areas subject to immediate soil loss, such as a steep slope, to provide rapid erosion control. Final re-vegetation should use native species only.
- Limit the use of fertilizers, herbicides, pesticides, or other chemicals to re-establish native vegetation and maintenance of pipeline right-of-ways. Application of chemicals should be no closer than 100 feet of streams and wetlands.
- Remove and dispose of all debris and excess construction materials properly upon project completion.
- Evaluate the establishment of vegetation after project completion and inspect all sediment control structures at one month intervals for at least 3 months. Retain sediment control structures until site stabilization is achieved; and
- Remove temporary sediment/erosion control structures upon final site stabilization.

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March 3, 2006

Mr. John Cochnar
Assistant Field Supervisor
Nebraska Ecological Services
203 West Second Street
Federal Building
Grand Island, NE 68801

RE: Transmittal of 1:100,000 scale maps of the Keystone Pipeline Project.

Dear Mr. Cochnar:

In response to our phone conversation, please find attached one set of hard copy maps of the entire proposed pipeline system. Also please find a cd that contains an electronic copy of the each map sheet. Please call if you have any difficulty opening and printing the electronic files.

We look forward to working with you and your staff in the coming months.

Sincerely Yours,

Scott Ellis
Project Manager

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January 24, 2006

ENSR
1601 Prospect Parkway
Fort Collins, CO 80525
tel 970.493.8878
fax 970.493.0213
email
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web www.transcanada.com

Jeffrey Towner
Field Supervisor
U. S. Fish and Wildlife Service
North Dakota Field Office
3425 Miriam Avenue
Bismarck, ND 58501-7926

Dear Mr. Towner:

TransCanada is planning to construct and operate a 1,830-mile-long interstate crude oil transmission system from an oil supply hub near Hardisty, Alberta, Canada to destinations in the Midwestern United States (U.S). ENSR Corporation (ENSR) has been retained by TransCanada to prepare an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) for the proposed Keystone Pipeline Project (Project) within the U.S. In the U.S., the proposed Project would consist of approximately 1,070 miles of new pipeline constructed from the U.S.-Canada border in Pembina County, North Dakota to terminals and refineries in Salisbury (Chariton County), Missouri, Wood River (Madison County), and Patoka (Marion County), Illinois. TransCanada would construct the new pipeline within a temporary 110-foot-wide construction right-of-way (ROW). After construction and reclamation, the ROW would revert to a 60-foot-wide permanent ROW. TransCanada proposes to begin construction in the spring of 2008, with the system in-service by the end of 2009.

The Project also will require the construction of pump stations, valves, meters, and other ancillary facilities. The hydraulic characteristics of the pipeline will determine pump station and valve locations. The Project will meet all federal, state and local regulatory requirements and will implement an Integrity Management Program to help ensure public safety and to protect the environment. Flow meters and delivery metering stations will measure the amount of product transported and delivered to terminals. Electrical powerlines and facility upgrades will be required in some locations to provide power for the new pump stations and motor operated valves (MOVs) located along the pipeline route. Local power providers will be responsible for obtaining the necessary approvals and authorizations for any such construction.

National Environmental Policy Act Process

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The Department of State governs the issuance of Presidential Permits for crude oil pipelines across U.S. borders and will be the federal lead for the NEPA process. In evaluating the Presidential Permit application (including an EA), the Department of State will solicit the views of other federal agencies, including the Department of Interior. Based on public and agency input, the Department of State will review the EA to determine whether a Finding of No Significant Impact (FONSI) is appropriate or whether an Environmental Impact Statement must be prepared with respect to potential significant environmental impacts within the U.S. In addition to the NEPA process, the Department of State must comply with other requirements and regulations, including the Endangered Species Act.

Species Information Request

Enclosed is an overview map of the entire proposed route that traverses parts of North Dakota, South Dakota, Nebraska, Kansas, Missouri, and Illinois. In North Dakota, the Project will cross portions of Cavalier, Pembina, Walsh, Nelson, Steele, Barnes, Ransom, and Sargent counties (see attached Overview Map and CD with the Electronic Centerline).
In order to address potential impacts to aquatic and terrestrial plant and animal species, we are requesting species information for:

- Federally listed, proposed, and candidate species; and
- Designated critical habitat of federally listed species.

Where it appears that possible or probable concerns relative to sensitive species or habitats may occur, please indicate whether surveys might be required, as well as the preferred methodology and level of effort you would consider acceptable for the surveys. If appropriate, ENSR also would like to request that the USFWS designate a region project lead through the consultation process for the Project.

ENSR also is contacting the Service's South Dakota, Nebraska, Kansas, Missouri, and Illinois Ecological Field Offices to request sensitive species information along portions of the proposed Project route. In addition, ENSR is contacting the state wildlife offices and natural heritage programs for resource data and input on the proposed Keystone Project. If you have any questions regarding this request, please call me

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at (970) 493-8878. You also may direct project-related questions to the ENSR project manager, Scott Ellis, at the same number. Thank you in advance for your prompt response to this request.

Sincerely,

Charles Johnson
Senior Wildlife Biologist

CJ/

Ref: 10623-004

Enc. Overview Project Map
CD

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January 24, 2006

ENSR
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Pete Gober
Field Supervisor
U. S. Fish and Wildlife Service
South Dakota Field Office
420 S. Garfield Avenue, Suite 400
Pierre, SD 57501-5408

Dear Mr. Gober:

TransCanada is planning to construct and operate a 1,830-mile-long interstate crude oil transmission system from an oil supply hub near Hardisty, Alberta, Canada to destinations in the Midwestern United States (U.S). ENSR Corporation (ENSR) has been retained by TransCanada to prepare an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) for the proposed Keystone Pipeline Project (Project) within the U.S. In the U.S., the proposed Project would consist of approximately 1,070 miles of new pipeline constructed from the U.S.-Canada border in Pembina County, North Dakota to terminals and refineries in Salisbury (Chariton County), Missouri, Wood River (Madison County), and Patoka (Marion County), Illinois. TransCanada would construct the new pipeline within a temporary 110-foot-wide construction right-of-way (ROW). After construction and reclamation, the ROW would revert to a 60-foot-wide permanent ROW. TransCanada proposes to begin construction in the spring of 2008, with the system in-service by the end of 2009.

The Project also will require the construction of pump stations, valves, meters, and other ancillary facilities. The hydraulic characteristics of the pipeline will determine pump station and valve locations. The Project will meet all federal, state and local regulatory requirements and will implement an Integrity Management Program to help ensure public safety and to protect the environment. Flow meters and delivery metering stations will measure the amount of product transported and delivered to terminals. Electrical powerlines and facility upgrades will be required in some locations to provide power for the new pump stations and motor operated valves (MOVs) located along the pipeline route. Local power providers will be responsible for obtaining the necessary approvals and authorizations for any such construction.

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Information Request

Enclosed is an overview map of the entire proposed route that traverses parts of North Dakota, South Dakota, Nebraska, Kansas, Missouri, and Illinois. In South Dakota, the Project will cross portions of Marshall, Day, Clark, Beadle, Kingsbury, Miner, Hanson, McCook, Hutchinson, and Yankton counties (see attached Overview Map and CD with the Electronic Centerline).

In order to address potential impacts to aquatic and terrestrial plant and animal species, we are requesting occurrence data for:

- Federally listed, proposed, and candidate species;
- Designated critical habitat of federally listed species;
- State listed or state sensitive species; and
- Unique ecosystems or sensitive communities.

Because of the mobility of wildlife species, ENSR would like to request sensitive wildlife information 5 miles beyond the Project boundary. We also would like to request sensitive plant data 3 miles beyond the Project boundary. If applicable, please send electronic files for our environmental analysis to: cjohnson@ensr.aecom.com.

ENSR also is contacting the U.S. Fish and Wildlife Service and South Dakota Game, Fish, and Parks to request sensitive species information and to obtain input regarding the proposed Project route in South Dakota. If you have any questions regarding this request, please call me at (970) 493-

TransCanada
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8878. You also may direct project-related questions to the ENSR project manager, Scott Ellis, at the same number. Thank you in advance for your prompt response to this request.

Sincerely,

Charles Johnson
Senior Wildlife Biologist

CJ/

Ref: 10623-004

Enc. Overview Project Map
CD

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January 24, 2006

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Steve Anschutz
Project Leader
U.S. Fish and Wildlife Service
Ecological Services Field Office
203 West Second Street
Federal Building, Second Floor
Grand Island, NE 68801

Dear Mr. Anschutz:

TransCanada is planning to construct and operate a 1,830-mile-long interstate crude oil transmission system from an oil supply hub near Hardisty, Alberta, Canada to destinations in the Midwestern United States (U.S). ENSR Corporation (ENSR) has been retained by TransCanada to prepare an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) for the proposed Keystone Pipeline Project (Project) within the U.S. In the U.S., the proposed Project would consist of approximately 1,070 miles of new pipeline constructed from the U.S.-Canada border in Pembina County, North Dakota to terminals and refineries in Salisbury (Chariton County), Missouri, Wood River (Madison County), and Patoka (Marion County), Illinois. TransCanada would construct the new pipeline within a temporary 110-foot-wide construction right-of-way (ROW). After construction and reclamation, the ROW would revert to a 60-foot-wide permanent ROW. TransCanada proposes to begin construction in the spring of 2008, with the system in-service by the end of 2009.

The Project also will require the construction of pump stations, valves, meters, and other ancillary facilities. The hydraulic characteristics of the pipeline will determine pump station and valve locations. The Project will meet all federal, state and local regulatory requirements and will implement an Integrity Management Program to help ensure public safety and to protect the environment. Flow meters and delivery metering stations will measure the amount of product transported and delivered to terminals. Electrical powerlines and facility upgrades will be required in some locations to provide power for the new pump stations and motor operated valves (MOVs) located along the pipeline route. Local power providers will be responsible for obtaining the necessary approvals and authorizations for any such construction.

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National Environmental Policy Act Process

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Species Information Request

Enclosed is an overview map of the entire proposed route that traverses parts of North Dakota, South Dakota, Nebraska, Kansas, Missouri, and Illinois. In Nebraska, the Project will cross portions of Cedar, Wayne, Stanton, Platte, Colfax, Butler, Seward, Saline, Jefferson, and Gage counties (see attached Overview Map and CD with the Electronic Centerline).

In order to address potential impacts to aquatic and terrestrial plant and animal species, we are requesting species information for:

- Federally listed, proposed, and candidate species; and
- Designated critical habitat of federally listed species.

Where it appears that possible or probable concerns relative to sensitive species or habitats may occur, please indicate whether surveys might be required, as well as the preferred methodology and level of effort you would consider acceptable for the surveys. If appropriate, ENSR also would like to request that the USFWS designate a region project lead through the consultation process for the Project.

ENSR also is contacting the Service's North Dakota, South Dakota, Kansas, Missouri, and Illinois Ecological Field Offices to request sensitive species information along portions of the proposed Project route. In addition, ENSR is contacting the state wildlife offices and natural

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heritage programs for resource data and input on the proposed Keystone Project. If you have any questions regarding this request, please call me at (970) 493-8878. You also may direct project-related questions to the ENSR project manager, Scott Ellis, at the same number. Thank you in advance for your prompt response to this request.

Sincerely,

Charles Johnson
Senior Wildlife Biologist

CJ/

Ref: 10623-004

Enc. Overview Project Map
CD

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January 24, 2006

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Mike LeValley
Project Leader
U.S. Fish and Wildlife Service
Ecological Services Field Office
315 Houston Street, Suite E
Manhattan, KS 66502-6172

Dear Mr. LeValley:

TransCanada is planning to construct and operate a 1,830-mile-long interstate crude oil transmission system from an oil supply hub near Hardisty, Alberta, Canada to destinations in the Midwestern United States (U.S). ENSR Corporation (ENSR) has been retained by TransCanada to prepare an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) for the proposed Keystone Pipeline Project (Project) within the U.S. In the U.S., the proposed Project would consist of approximately 1,070 miles of new pipeline constructed from the U.S.-Canada border in Pembina County, North Dakota to terminals and refineries in Salisbury (Chariton County), Missouri, Wood River (Madison County), and Patoka (Marion County), Illinois. TransCanada would construct the new pipeline within a temporary 110-foot-wide construction right-of-way (ROW). After construction and reclamation, the ROW would revert to a 60-foot-wide permanent ROW. TransCanada proposes to begin construction in the spring of 2008, with the system in-service by the end of 2009.

The Project also will require the construction of pump stations, valves, meters, and other ancillary facilities. The hydraulic characteristics of the pipeline will determine pump station and valve locations. The Project will meet all federal, state and local regulatory requirements and will implement an Integrity Management Program to help ensure public safety and to protect the environment. Flow meters and delivery metering stations will measure the amount of product transported and delivered to terminals. Electrical powerlines and facility upgrades will be required in some locations to provide power for the new pump stations and motor operated valves (MOVs) located along the pipeline route. Local power providers will be responsible for obtaining the necessary approvals and authorizations for any such construction.

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Species Information Request

Enclosed is an overview map of the entire proposed route that traverses parts of North Dakota, South Dakota, Nebraska, Kansas, Missouri, and Illinois. In Kansas, the Project will cross portions of Marshall, Nemaha, Brown, and Doniphan counties (see attached Overview Map and CD with the Electronic Centerline).

In order to address potential impacts to aquatic and terrestrial plant and animal species, we are requesting species information for:

- Federally listed, proposed, and candidate species; and
- Designated critical habitat of federally listed species.

Where it appears that possible or probable concerns relative to sensitive species or habitats may occur, please indicate whether surveys might be required, as well as the preferred methodology and level of effort you would consider acceptable for the surveys. If appropriate, ENSR also would like to request that the USFWS designate a region project lead through the consultation process for the Project.

ENSR also is contacting the Service's North Dakota, South Dakota, Nebraska, Missouri, and Illinois Ecological Field Offices to request sensitive species information along portions of the proposed Project route. In addition, ENSR is contacting the state wildlife offices and natural heritage programs for resource data and input on the proposed Keystone

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Project. If you have any questions regarding this request, please call me at (970) 493-8878. You also may direct project-related questions to the ENSR project manager, Scott Ellis, at the same number. Thank you in advance for your prompt response to this request.

Sincerely,

Charles Johnson
Senior Wildlife Biologist

CJ/

Ref: 10623-004

Enc. Overview Project Map
CD

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January 24, 2006

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Fort Collins, CO 80525
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web www.transcanada.com

Charlie Scott
Field Supervisor
U.S. Fish and Wildlife Service
Ecological Services Field Office
101 Park DeVille Drive, Suite A
Columbia, MO 65203-0057

Dear Mr. Scott:

TransCanada is planning to construct and operate a 1,830-mile-long interstate crude oil transmission system from an oil supply hub near Hardisty, Alberta, Canada to destinations in the Midwestern United States (U.S). ENSR Corporation (ENSR) has been retained by TransCanada to prepare an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) for the proposed Keystone Pipeline Project (Project) within the U.S. In the U.S., the proposed Project would consist of approximately 1,070 miles of new pipeline constructed from the U.S.-Canada border in Pembina County, North Dakota to terminals and refineries in Salisbury (Chariton County), Missouri, Wood River (Madison County), and Patoka (Marion County), Illinois. TransCanada would construct the new pipeline within a temporary 110-foot-wide construction right-of-way (ROW). After construction and reclamation, the ROW would revert to a 60-foot-wide permanent ROW. TransCanada proposes to begin construction in the spring of 2008, with the system in-service by the end of 2009.

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Species Information Request

Enclosed is an overview map of the entire proposed route that traverses parts of North Dakota, South Dakota, Nebraska, Kansas, Missouri, and Illinois. In Missouri, the Project will cross portions of Buchanan, Clinton, Caldwell, Carroll, Chariton, Randolph, Audrain, Montgomery, Lincoln, and St. Charles counties (see attached Overview Map and CD with the Electronic Centerline).

In order to address potential impacts to aquatic and terrestrial plant and animal species, we are requesting species information for:

- Federally listed, proposed, and candidate species; and
- Designated critical habitat of federally listed species.

Where it appears that possible or probable concerns relative to sensitive species or habitats may occur, please indicate whether surveys might be required, as well as the preferred methodology and level of effort you would consider acceptable for the surveys. If appropriate, ENSR also would like to request that the USFWS designate a region project lead through the consultation process for the Project.

ENSR also is contacting the Service's North Dakota, South Dakota, Nebraska, Kansas, and Illinois Ecological Field Offices to request sensitive species information along portions of the proposed Project route. In addition, ENSR is contacting the state wildlife offices and natural heritage programs for

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resource data and input on the proposed Keystone Project. If you have any questions regarding this request, please call me at (970) 493-8878. You also may direct project-related questions to the ENSR project manager, Scott Ellis, at the same number. Thank you in advance for your prompt response to this request.

Sincerely,

Charles Johnson
Senior Wildlife Biologist

CJ/

Ref: 10623-004

Enc. Overview Project Map
CD

CONFIDENTIAL

January 24, 2006

ENSR
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web www.transcanada.com

Joyce Collins
Assistant Field Supervisor
U. S. Fish and Wildlife Service
Marion Ecological Services Sub-office
8588 Route 148
Marion, IL 62959-4565

Dear Ms. Collins:

TransCanada is planning to construct and operate a 1,830-mile-long interstate crude oil transmission system from an oil supply hub near Hardisty, Alberta, Canada to destinations in the Midwestern United States (U.S.). ENSR Corporation (ENSR) has been retained by TransCanada to prepare an Environmental Assessment (EA) in accordance with the National Environmental Policy Act (NEPA) for the proposed Keystone Pipeline Project (Project) within the U.S. In the U.S., the proposed Project would consist of approximately 1,070 miles of new pipeline constructed from the U.S.-Canada border in Pembina County, North Dakota to terminals and refineries in Salisbury (Chariton County), Missouri, Wood River (Madison County), and Patoka (Marion County), Illinois. TransCanada would construct the new pipeline within a temporary 110-foot-wide construction right-of-way (ROW). After construction and reclamation, the ROW would revert to a 60-foot-wide permanent ROW. TransCanada proposes to begin construction in the spring of 2008, with the system in-service by the end of 2009.

The Project also will require the construction of pump stations, valves, meters, and other ancillary facilities. The hydraulic characteristics of the pipeline will determine pump station and valve locations. The Project will meet all federal, state and local regulatory requirements and will implement an Integrity Management Program to help ensure public safety and to protect the environment. Flow meters and delivery metering stations will measure the amount of product transported and delivered to terminals. Electrical powerlines and facility upgrades will be required in some locations to provide power for the new pump stations and motor operated valves (MOVs) located along the pipeline route. Local power providers will be responsible for obtaining the necessary approvals and authorizations for any such construction.

National Environmental Policy Act Process

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The Department of State governs the issuance of Presidential Permits for crude oil pipelines across U.S. borders and will be the federal lead for the NEPA process. In evaluating the Presidential Permit application (including an EA), the Department of State will solicit the views of other federal agencies, including the Department of Interior. Based on public and agency input, the Department of State will review the EA to determine whether a Finding of No Significant Impact (FONSI) is appropriate or whether an Environmental Impact Statement must be prepared with respect to potential significant environmental impacts within the U.S. In addition to the NEPA process, the Department of State must comply with other requirements and regulations, including the Endangered Species Act.

Species Information Request

Enclosed is an overview map of the entire proposed route that traverses parts of North Dakota, South Dakota, Nebraska, Kansas, Missouri, and Illinois. In Illinois, the Project will cross portions of Madison, Bond, Fayette, and Marion counties (see attached Overview Map and CD with the Electronic Centerline).

In order to address potential impacts to aquatic and terrestrial plant and animal species, we are requesting species information for:

- Federally listed, proposed, and candidate species; and
- Designated critical habitat of federally listed species.

Where it appears that possible or probable concerns relative to sensitive species or habitats may occur, please indicate whether surveys might be required, as well as the preferred methodology and level of effort you would consider acceptable for the surveys. If appropriate, ENSR also would like to request that the USFWS designate a region project lead through the consultation process for the Project.

ENSR also is contacting the Service's North Dakota, South Dakota, Nebraska, Kansas, and Missouri Ecological Field Offices to request sensitive species information along portions of the proposed Project route. In addition, ENSR is contacting the state wildlife offices and natural heritage programs for resource data and input on the proposed Keystone Project. If you have any

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questions regarding this request, please call me at (970) 493-8878. You also may direct project-related questions to the ENSR project manager, Scott Ellis, at the same number. Thank you in advance for your prompt response to this request.

Sincerely,

Charles Johnson
Senior Wildlife Biologist

CJ/

Ref: 10623-004

Enc. Overview Project Map
CD

Environmental Permitting Agency Coordination for the Keystone Pipeline Project

Coordination Summary – Wetlands and Other Waters of the U.S.

The Keystone Pipeline Project conducted discussions with the U.S. Army Corps of Engineers and state agencies responsible for water quality and wildlife habitat to determine wetland and water body crossing permitting requirements under Sections 404 and 10 of the Clean Water Act, and state water quality programs. The Keystone Pipeline Project crosses four U.S. Army Corps of Engineers' (USACE) districts including the Omaha, Kansas City, St. Louis, and Tulsa Districts. Each of these districts has slightly different surveying and permitting requirements as outlined below. Meetings were held in 2006 with the Omaha (February 6, March 29), Tulsa (March 13), Kansas City (March 27), and St. Louis Districts (February 17, May 24 and July 14), to discuss surveying, permitting, and construction requirements. The Keystone Project initiated discussions in August with the Saint Louis and Kansas City Districts concerning geotechnical drilling needed for the design of horizontal directional drills at major river crossings. Consultations and correspondence in the attached binders are organized by USACE District.

Omaha District (North Dakota, South Dakota, Nebraska)

On February 6, 8, and 15, the Keystone Project team met with the Omaha District representatives, as well as U.S.Fish and Wildlife, Natural Resources Service, and state wildlife agency staff in Bismarck (North Dakota) Pierre (South Dakota), and Omaha (Nebraska). The purpose of these meetings was to introduce the project to the agencies, and obtain initial feedback on permitting and construction issues. On March 21, 2006 the Keystone Project furnished the USACE staff with maps showing proposed survey areas, a table of drainage crossings, wetland crossing construction methods, and protocols for wetlands and waters of the U.S surveys. On March 29, the Keystone team met with Omaha District staff in Pierre, which was attended by representatives from North Dakota and Nebraska (by phone). The purpose of this meeting was to discuss survey procedures, and the process to be followed for filing the project Section 404 application.

The following understandings were documented in a May 2 letter from ENSR to the Omaha District:

1. It is the Omaha District's preliminary opinion that the project could be permitted under a Nationwide 12 authorization, and that permanent wetland fills would be unlikely, or could be avoided.

2. Because of the linear nature of the project and the temporary nature of the surface disturbance, wetland delineations in accordance with the 1987 UASCE wetlands delineation manual will not be required in the Omaha District, with exception of locations where permanent aboveground facilities would be constructed.

3. Field wetland delineation and water crossing surveys along the pipeline route will be conducted in complex or major wetland and stream crossings locations, or where listed or sensitive species are known to occur. At these locations, field data will be collected in accordance with the COE 1987 Manual and/or stream crossing survey protocols. Crossing information on minor crossings, such as ephemeral streams and farmed wetlands will be provided to the USACE, using remote sensing (high quality aerial photos).

4. Keystone will furnish the USCAE with tables of the wetland and waters of the U.S. crossings, supported by a description of how boundaries were determined, area of surface disturbance, proposed crossing methods. Wetlands will also be documented as isolated or not isolated, along with the rationale for making the determination.

5. Keystone will make a preliminary determination of USACE jurisdiction for the project wetland and waterbody crossings. An explanation of the regulatory basis for the determination will be provided. The preliminary jurisdiction review will be provided to the USACE when the pipeline

route is accurately defined. Keystone will provide the USACE with the preliminary jurisdiction review. Based on the feedback from the USACE, the project will then file its Section 404 application.

Kansas City District (Kansas and the majority of Missouri)

An introductory meeting between the Keystone Project team and the Kansas City District and other state and federal agencies was held on February 6, 2006. On March 21, the Keystone Project furnished the USACE staff with maps showing proposed survey areas, a table of drainage crossings, wetland crossing construction methods, and protocols for wetlands and waters of the U.S surveys. The Keystone project team met with Mr. Cody Wheeler on March 27 to discuss permit application information requirements and construction methods. In an August 23 letter from ENSR to Mr. Wheeler the following understandings were documented, based on prior meetings and other factors:

1. It is the Kansas City District's preliminary opinion is that the project could be permitted under a Nationwide 12 authorization, and that permanent wetland fills would be unlikely, or could be avoided.

2. Farmed and prior converted wetlands that would be crossed should be defined to the extent possible. Subsequent to the March 27 meeting, Keystone contacted the Natural Resources Conservation Service to obtain information on these types of sites. Much of this information is not available because of privacy concerns.

3. Keystone will furnish the USCAE with tables of the wetland and waters of the U.S. crossings, supported by a description of how boundaries were determined, area of surface disturbance, proposed crossing methods. Wetlands will also be documented as isolated or not isolated, along with the rationale for making the determination, and preliminary USACE jurisdictional determinations will be made.

On August 26, 2006, Keystone notified the Kansas City District for proposed geotechnical drilling locations that were either located below the ordinary high water mark, or would be located in wetlands. The proposed drilling methods and environmental protection measures were included in this notification.

St. Louis District (eastern Missouri and Illinois)

An introductory meeting between the Keystone Project team and the Saint Louis District and was held in Saint Louis on February 17, 2006. On March 21, the Keystone Project furnished the USACE staff with maps showing proposed survey areas, a table of drainage crossings, wetland crossing construction methods, and protocols for wetlands and waters of the U.S surveys. The Keystone Project team held a conference call with Mr. Charles Frerker of the USACE on May 25 to discuss wetland and waters of the U.S. survey methods. On June 14, the Keystone Project Team met with the USACE and Illinois state agencies at Lake Carlyle to discuss the requirements for constructing the pipeline across Lake Carlyle. On August 26, 2006, Keystone notified the Saint Louis District about proposed geotechnical drilling locations within Carlyle Lake and on the banks of the Mississippi River that were either located below the ordinary high water mark, or would be located in wetlands. The proposed drilling methods and environmental protection measures were included in this notification.

The major results of these coordination activities are as follows:

1. Based on the Section 404 permit issued to the Two Rivers Pipeline in 2002, which the Keystone Pipeline would parallel across Illinois, it is possible that an Individual Permit would be required as the result of the long term loss of forested wetlands associated with Lake Carlyle and other major stream crossings. A nationwide permit also is possible, depending on predicted resource effects.

2. Keystone obtained the Two Rivers Environmental Assessment other technical documents from the USACE via a Freedom of Information request.

3. The Keystone Project cannot use the Two Rivers wetland delineations to substitute for the information needed for the Keystone Section 404 permit application. Two Rivers used an outdated methodology. The Keystone Project will be required to complete comprehensive wetland and drainage crossing surveys across the Saint Louis District using the 1987 manual. Keystone will map farmed or prior converted wetlands that would be crossed.

4. Levees crossings will require permitting, which is conducted through a separate branch of the USCAE. The Keystone Project should contact the levee districts to discuss crossing methods.

5. As the result of the June 14 meeting with USACE and Illinois agencies, Keystone will prepare a site specific Lake Carlyle crossing plan to illustrate the proposed pipeline right of way, and locations of directional drills. Issues that will need to addressed in the plan include season of construction (avoidance of high water periods and waterfowl hunting seasons), effects on listed species habitats, levee and impoundment crossings, avoidance of cultural resource sites, mitigation requirements for removing forested wetlands, backup construction plans if proposed construction period cannot be used.

Tulsa District (Oklahoma)

Keystone provided written information on the pipeline project to the District on March 9, 2006. Keystone discussed wetland and waters survey requirements with Mr. Timothy Hartsfield at a meeting in Oklahoma City on March 13, 2006. No subsequent discussions with the Tulsa District have been conducted pending the project open season for this portion of the project.

The results of the discussions with Mr. Hartsfield are as follows:

1. Tulsa District's preliminary opinion is that the project could be permitted under a Nationwide 12 authorization, and that permanent wetland fills would be unlikely, or could be avoided.

2. All wetland and drainage crossings along the Cushing Extension in Oklahoma will require ground surveys.

3. Consult the Tulsa USACE website for mitigation requirements, and minimum disturbance thresholds that result in mitigation.

4. Verify whether any USACE lands would be crossed. If so, contact the real estate division.

National Park Service, Missouri River crossing at Yankton

The Keystone Project conducted discussions with the National Park Service and other agencies related to the proposed horizontal directional drill of the Missouri River. The proposed crossing would be located within NPS Wild and Scenic River jurisdiction, but no land owned by the National Park Service would be affected. A meeting was held in Yankton on May 19, 2006 to discuss the proposed directional drill under the Missouri River. Preliminary crossing drawings were provided. A Special Use permit will be required from the National Park Service to conduct geotechnical drilling near the banks of the river. Keystone filed a Special Use Permit Application to the National Park Service on August 17, 2006. Approval of this plan by the National Park Service is pending.

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Action	Date	Participants/Contacts	Communication Objective or Information Provided	Conclusion/Overview/Action Items
OMAHA DISTRICT				
Meeting	Feb 6, 2006	**North Dakota –** USACE, USFWS, NDG&F, NRCS	• Discuss TransCanada project • Discuss Permit requirements and approvals • Determine 404 mitigation, delineations and filing process • USFWS issues • ND Game and Fish Issues	• Initiate Tribal Consultations • All 404, no Section 10 • ND COE & SD COE may coordinate • Look into Alliance permitting • COE will consider stratified approach to wetland delineations • COE/USFWS require wetland mitigation • File COE application after FEIS but informal submissions prior • USFWS easement mitigation required • USFWS may require land purchase in lieu of disturbed wetlands • ND Game & Fish WMA user permit Dan Cimarosti, USACE
Meeting	Feb 8, 2006	**South Dakota –** USACE, USFWS	• Discuss TransCanada project • Discuss Permit requirements and approvals • Determine 404 mitigation, delineations and filing process • USFWS issues	• HDD cross were USFWS T&E concern • COE suggests drilling 2 potential Section 10 crossings and wherever possible • Use NWI maps for sample sites • Contact FWS refuges for easements • Shiner – no crossing May 15 – July 31 Number of T&E species @ Missouri R.Steven
Meeting	Feb 15, 2006	**Nebraska –** USFWS, USACE, NDOT	• Discuss TransCanada project • Discuss Permit requirements and approvals • Determine 404 mitigation, delineations and filing process • USFWS issues	• Primary FWS concern is river dependent species • FWS wants data request to cover EIS. • Suggested 404/process by District. State may be required • Obtain mitigation SOP – Omaha COE • Check State Hwy improvements prior to construction.
Phone Communication	Feb 22, 2006	**North Dakota** **USACE – Dan Cimarosti**	• Left Message	• Requested DOS contacts • Confirm soil scientist survey requirements

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Action	Date	Participants/Contacts	Communication Objective or Information Provided	Conclusion/Overview/Action Items
Letter	March 21, 2006	**COE Omaha District** Russ Rocheford – Omaha District Patsy Crooke – ND Steven Naylor – SD Keith Tillotson - NE	• Cover letter • Maps of ROW • Proposed survey locations • Wetland crossing methodology	• Confirm meeting timing and agenda • Provide information on wetland surveys for project
E-mail	March 24, 2006	**COE Omaha District** Russ Rocheford – Omaha District Patsy Crooke – ND Steven Naylor – SD Keith Tillotson - NE	• E-mail	• Confirming receipt of March 21 letter and attachments • Providing proposed wetland survey protocol, general project location map, and data sheets for their review
E-mail	March 24	**COE Omaha District** Russ Rocheford – Omaha District Patsy Crooke – ND Steven Naylor – SD Keith Tillotson - NE	• E-mail with meeting confirmation	• Confirming their attendance at March 29 meeting
Letter	May 2, 2006	**COE Omaha District** Russ Rocheford – Omaha District Patsy Crooke – ND Steven Naylor – SD Keith Tillotson - NE	• Letter	• Summarizing meeting notes • Asking for confirmation of survey protocol
E-mail	May 8	Patsy Crooke – ND	• E-mail with comments on the March 24 letter	• Input on Section 401 requirements • Input on fens and springs and data sources • Input on prior converted wetlands
E-mail	May 10	Patsy Crooke –ND Cheryl Goldsberry – Omaha District	• E-mail with comments on the March 24 letter	• Comments on prior converted wetlands and prairie potholes
Phone communication	August 10	Russ Rocheford – Omaha District	• Discussion related to geotechnical permitting	• Requested input on nationwide permitting for geotechnical drilling studies. • Referred to levee specialists

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Action	Date	Participants/Contacts	Communication Objective or Information Provided	Conclusion/Overview/Action Items
Meeting to be scheduled October		**COE Omaha District** Contact: Cheryl Goldsberry – Omaha District Office Omaha, NE, or Pierre, SD. Lead ENSR Staff: K. Caddis	• Wetland delineations (field data and photointerpretations) • Tables (disturbance acreages, preliminary jurisdictional calls, crossing methods). • Updated BMPs and crossing plans, as required. • Supplemental information (NRCS wetlands, if available).	• Concurrence on jurisdictional wetlands and waterbodies. • Crossing issues that must be addressed to obtain Nationwide permits. • 404 Application schedule – filing and review.
KANSAS CITY DISTRICT				
Phone communication	Jan. 18, 2006	**USACE Kansas City District** Cody Wheeler	• Initiate agency communication • Identify COE contacts • Introduce project and protocols	• Cody Wheeler identified as COE contact • COE permits issued when EA/EIS is complete and ROD/FONSI issued • Project crosses Omaha, Kansas City and St. Louis districts • COE prefers directional drill for crossings • Delineation procedure to be discussed • Confirmed meeting for mid February
Phone communication	Jan. 30, 2006	**USACE Kansas City District** Cody Wheeler	• Confirm meeting date	• Cody Wheeler available for Feb. 6 meeting
Meeting	Feb 6, 2006	**Kansas-** Topeka, KS KDHE, KDWP, KDOT, KDA, USACE	• Discuss TransCanada project. • Discuss Permit requirements and approvals.	• Generators less than 250t = no permit • Register fuel tanks. May need SPCC • Title V permits apply 18 mths pre-construction • No stormwater permit do BMP/SWPPP • HT permits take 60 days • H2O appropriations permit • 401 process with 404 process • Nationwide 404 permit • Missouri R. HDD crossing

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				• With 404-state and local station permits • >50 sq mi drainage, Channel mod. Permit – 45-100 days. HDD no permit • Stations in floodplain need KDA & county permits • Action permits 30 days for approval • 30 days state lands crossing approval • Kansas Turnpike Authority for I-35 Cushing crossing, not DOT • KDOT has different districts (approx 4 mths) Ron Hammerschmidt, KDHE
Meeting	Feb 17, 2006 8:00-10:00AM	**Missouri –** USACE	• Discuss TransCanada project • Discuss Permit requirements and approvals • Determine 404 mitigation, delineations and filing process	• Obtain Equilon/Shell EA FOIA • Equilon Permit # P2303 as pdf • Contact Wood River Levee District
Letter	Mar. 21, 2006	**USACE Kansas City District** Cody Wheeler	• Cover letter • Maps of ROW • Proposed survey locations • Wetland crossing methodology	• Confirm meeting timing and agenda • Provide information on wetland surveys for project
E-mail	Mar. 24, 2006	**USACE Kansas City District** Cody Wheeler	• Submittal of survey protocol	• Requested review of WETLANDFORM2.doc, STREAMFORM.doc, Figure2-1-1_Project_Overview030506.pdf, Wetland Protocol Kansas City 3-23-06
Phone communication	Aug. 10, 2006	**USACE Kansas City District** Cody Wheeler	• Geotechnical drilling permit information • Confirm Nationwide 6 permit	• Nationwide 6 permit should cover geotechnical drilling • Obtained contacts for levees and other flood control structure drilling • Forward notification letter with maps and coordinates
E-mail	Aug. 10, 2006	**USACE Kansas City District** Cody Wheeler	• Forward guidance for geotechnical drilling near and within flood control structures	• Forwarded document WBOREF.800.doc

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Action	Date	Participants/Contacts	Communication Objective or Information Provided	Conclusion/Overview/Action Items
Phone communication	Aug. 11, 2006	**USACE Kansas City District** Charles Detrick	• Response to request for information on levee drills	• No permitting requirements but must follow COE outline if within 500ft landward and 150ft riverward of regulated structure • May require special use permits for Missouri R. • Forward maps of drill locations for review and authorization
Phone communication	Aug. 11, 2006	**USACE Kansas City District. Milford Lakes Project Office** R.J. Harmes	• Provide contact information with COE in Kansas City District • Obtain Milford Wildlife Area crossing permits	• Will need Special Use Permit issued by real estate division • Provide maps and aerials of crossing an project description • Mr. Harmes will forward information after review and notification of issues and final ROW
Meeting to be scheduled for October	-	**USCOE** Kansas City, Saint Louis Districts. Contacts: Cody Wheeler, KC, C. Frerker, Saint Louis Lead ENSR Staff: K. Caddis	• Wetland delineations (field data and photointerpretations) • Tables (disturbance acreages, preliminary jurisdictional calls, crossing methods). • Updated BMPs and crossing plans, as required. • Supplemental information (NRCS wetlands, if available).	• Concurrence on jurisdictional wetlands and waterbodies. • Crossing issues that must be addressed to obtain Nationwide permits. • 404 Application schedule – filing and review.
ST. LOUIS DISTRICT				
E-mail	Jan. 24, 2006	**USACE St. Louis District** From Rob Gramke	• Identification of project point of contact for St. Louis District USACE • Receipt of Nationwide 12 and regional conditions	• Attachments: Regional Conditions.doc, NW12-Utility line discharges.doc., and NWP12-Final.doc

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Action	Date	Participants/Contacts	Communication Objective or Information Provided	Conclusion/Overview/Action Items
Phone communication	Feb. 3, 2006	**USACE St. Louis District** Rob Gramke	• Returned call in response to request for meeting • Meeting to discuss permitting and consultation process for the Environmental Assessment	• Confirmation of St. Louis USCOE project meeting on Feb. 17, 2006
E-mail	Feb. 10, 2006	**USACE St. Louis District** From Rob Gramke	• Response to acceptance of USFWS representative at project meeting	• Acceptanse of USFWS representative attendance at meeting
Meeting	Feb 17, 2006 8:00-10:00AM	**Missouri --** USACE	• Discuss TransCanada project • Discuss Permit requirements and approvals • Determine 404 mitigation, delineations and filing process	• Obtain Equilon/Shell EA FOIA • Equilon Permit # P2303 as pdf • Contact Wood River Levee District
E-mail	Mar. 15, 2006	**ENSR** To Charles Frerker USACE	• Response to voice mail message from Charles Frerker regarding USACE pre-application meeting	• Informed Mr. Frerker that the pre-application being prepared • Description of application contents • Notification of spring delineation surveys • Request to schedule meeting
E-mail	Mar. 16, 2006	**USACE St. Louis District** From Charles Frerker	• Response to e-mail for meeting request	• Confirmation of meeting following review of project information. • Notification that agricultural lands delineations be performed under Corps manual • Previous NRCS delineations unacceptable • Designation of Charles Frerker as lead Corps contact in place of Mr. Gramke
Letter	Mar. 22, 2006	**USACE St. Louis District** To Charles Frerker	• Cover letter • Maps of ROW • Proposed survey locations • Wetland crossing methodology	• Confirm meeting timing and agenda • Provide information on wetland surveys for project
E-mail	Apr. 8, 2006	**USACE St. Louis District** To Charles Frerker	• Request for confirmation of receipt of March 22, 2006 letter and project information • Provided copy of FOIA request	• Await confirmation and feedback

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Action	Date	Participants/Contacts	Communication Objective or Information Provided	Conclusion/Overview/Action Items
Letter	Apr. 8, 2006	**USACE St. Louis District** Ms. Elizabeth Bertoglio FOIA Officer	• FOIA request for Two Rivers Pipeline EA or EIS and supporting documents • Two River Pipeline 404 permit and application	• Await confirmation of request and receipt of information
E-mails	Apr. 24, 2006	**USACE St. Louis District** To Charles Frerker	• Request for input on wetland delineation consultants • Response to FOIA inquiry	• Resources for consultants identified • Confirmed that FOIA was requested
Certified Letter	May 10, 2006	**USACE St. Louis District** William R. Levins-District Counsel	• Notification of releasable information on 2Rivers FOIA	• USACE can not release 2Rivers Cultural Resource Survey • 2Rivers Application could not be found
E-mail	May 19, 2006	**USACE St. Louis District** To Charles Frerker and Rob Gramke	• Confirmation of 2Rivers information provided to ENSR • Request for conference call on field studies	• Await arrangement of conference
E-mail	May 22, 2006	**USACE St. Louis District** From Charles Frerker	• Response to meeting invite and Confirmation of meeting attendance • Suggested other invitees	• Contact ISHPO, Carlyle Lake assistant manager and IDNR to invite to meeting
Memo – Conference Call	May 25, 2006	**USACE St. Louis District** **2Rivers Conference Call** Charles Frerker and Laurie Farmer (Wetlands sub-contractor)	• Discussion on the adoption of 2Rivers Pipeline Wetland Delineation studies for Keystone project	• Farmed lands and converted wetlands not included in 2Rivers delineations • Can use 2Rivers as start only • USACE requests that all wetlands and othe Waters of the U.S. be delineated
Meeting	June 14, 2006 10:00AM-12:00PM	**Illinois** IDNR, USACE, USFWS, IEPA, IHPA	• Discuss TransCanada corridor and crossing of Illinois with emphasis on Carlyle Lake • Environmental survey needs • Address WMA crossings approvals	• Carlyle – 35 acres floooded in fall, construct late summer/early fall • Can adjust levels for construction • 2Rivers staging area was in Greenville • May need valves at water crossings in App A of IL Rule 3704 • Wetland mitigation sites at USACE

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U.S. Army Corps of Engineers Communications Keystone 2006

Action	Date	Participants/Contacts	Communication Objective or Information Provided	Conclusion/Overview/Action Items
Meeting to be scheduled for October	-	**USCOE** Kansas City, Saint Louis Districts. Contacts: Cody Wheeler, KC, C. Frerker, Saint Louis Lead ENSR Staff: K. Caddis	• Wetland delineations (field data and photointerpretations) • Tables (disturbance acreages, preliminary jurisdictional calls, crossing methods). • Updated BMPs and crossing plans, as required. • Supplemental information (NRCS wetlands, if available).	• Concurrence on jurisdictional wetlands and waterbodies. • Crossing issues that must be addressed to obtain Nationwide permits. • 404 Application schedule – filing and review.
Meeting to be scheduled for October	-	**USCOE Saint Louis, Mississippi and Missouri levee districts** Contact: Lead ENSR Staff: K. Caddis	• Preliminary levee crossing plans	• Discussion about the acceptability of the proposed plans & other issues (environmental, permitting).
TULSA DISTRICT				
Meeting	Mar. 13, 2006 9:00-11:00AM	**Oklahoma State Agencies** ODWC, OWRB, OKCC, ODOT, ODEQ, OKDOE, USACE	• Discuss TransCanada project • Discuss Permit requirements and approvals • Discuss 404 mitigation, delineations and filing process	• EPA Region 6 issues stormwater & HT discharge permits. BMP documentation • BIA may be involved if cross tribal land • Land commissioners - contact for state school lands • May qualify for 404 Nationwide 12
Letter	Mar. 9, 2006	**USACE Tulsa** David Manning Tulsa Regulatory District	• Cover letter Describing TransCanada project • Overview Maps of Pipeline • Identification of USACE contact	• Contact USACE project lead • Provide proposed survey protocol • Provide ROW maps • Schedule Tulsa District meeting
Phone communication	April 2006	**USACE Tulsa District** Brenda Canyon	• Identification of Tulsa District project contact	• Timothy Hartsfield designated as Tulsa District project contact for USACE

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ENSR
1601 Prospect Parkway, Fort Collins, Colorado 80525
T 970.493.8878 F 970.493.0213 www.ensr.aecom.com

Memorandum

Date: January 26, 2006

To: Scott Ellis, Heidi Tillquist

From: Karen Caddis

Subject: Summary of COE contacts as of January 26, 2006

Distribution: S. Ellis H. Tillquist

Message

As requested, this memo contains a summary of contacts made with the US Army Corps of Engineers (COE) and the discussions that have occurred between Karen Caddis (ENSR) and the various COE representatives up to January 26, 2006. Contacts made to date are summarized in the following table:

Contact	COE District	Date and Call Summary
Cody Wheeler	Kansas City District, Special Projects Manager	1/18: Established that Cody is the Kansas City District contact (Kansas and Missouri), discussed general survey protocols, including doing surveys only at questionable locations, and how the COE is expecting their permits to be issued. Kansas City may be amenable to doing abbreviated surveys. Recommended contacting Keith Tillotson and Rob Gramke to confirm who the COE leads would be in their districts. Cody is available for meetings in early February if given a week's notice.
Keith Tillotson	Omaha District, Kearney Field Office Program Manager	1/18: Confirmed that Keith will not be an Omaha District contact. Keith provided names and numbers of anticipated leads for North and South Dakota and Nebraska and suggested contacting Russ Rocheford, the Omaha District Chief.
Russ Rocheford	Omaha District Chief	1/19: Russ confirmed that there would be three state leads in the Omaha District, Dan Cimarosti, Stephen Naylor, and Michael Rabbe. Russ is willing to act as mediator if need be; however, the state leads will be the main points of contact. The abbreviated survey protocol was discussed with Russ and he was agreeable; will work with state leads to finalize this idea. He emphasized that Section 10 regs need to be reviewed when crossing rivers in the Omaha District and that this district looks at surface water connections in reference to isolated wetlands. Recommended directional drilling wherever possible to avoid wetland impacts.