

1.0 INTRODUCTION

TransCanada Keystone Pipeline, L.P. (Keystone) has applied to the U.S. Department of State (DOS) for a Presidential Permit at the border of the United States for the proposed construction, connection, operation, and maintenance of a pipeline and associated facilities for importation of crude oil from Canada. DOS receives and considers applications for Presidential Permits for such oil pipelines pursuant to the authority delegated to it by the President of the United States under Executive Order (EO) 13337 as amended (69 Federal Register [FR] 25299). DOS has determined that issuance of a Presidential Permit would constitute a major federal action that may have a significant impact upon the environment within the context of the National Environmental Policy Act of 1969 (NEPA) (42 United States Code [USC] § 4321 et seq.). To comply with NEPA, the principal objectives of this environmental impact statement (EIS) are to:

- Identify and assess potential impacts on the natural and human environment that would result from implementation of the proposed Keystone Pipeline Project (Keystone Project) in the United States,
- Describe and evaluate reasonable alternatives including no action to the Keystone Project in the United States that would avoid or minimize adverse effects to the environment,
- Identify the DOS preferred alternative;
- Identify and recommend specific mitigation measures, as necessary, to minimize environmental impacts, and
- Facilitate public, tribal, and agency involvement in identifying significant environmental impacts.

1.1 KEYSTONE PROJECT OVERVIEW

Keystone proposes to construct and operate a crude oil pipeline and related facilities to transport Western Canadian Sedimentary Basin (WCSB) crude oil from an oil supply hub near Hardisty, Alberta, Canada to destinations in the Midwest United States. The Keystone Project initially would have the nominal transport capacity of 435,000 barrels per day (bpd) of crude oil from the oil supply hub near Hardisty to an existing terminal and refinery at Wood River, Illinois, and an existing terminal at Patoka, Illinois. Additional pumping capacity could be added to increase the average throughput to 591,000 bpd if warranted by future shipper demand and market conditions. Two pipeline extensions are proposed that would transport crude oil from terminals in Ft. Saskatchewan, Alberta to existing facilities in Cushing, Oklahoma. With these extensions, the pipeline would interconnect with existing crude oil pipelines that supply U.S. Gulf Coast refinery markets.

In total, the Keystone Project would consist of the Mainline Project (approximately 1,850 miles of pipeline, including about 767 miles in Canada and 1,082 miles in the United States) and the Cushing Extension (296 miles of pipeline in the United States). Including the Cushing Extension, the total length of pipeline in the United States would be 1,377.9 miles.

In Canada, the Keystone Project would involve purchase of an existing 537-mile, 34-inch-diameter pipeline currently owned by TransCanada Limited and conversion of that pipeline to crude oil service; construction of a new 230-mile pipeline extension from Hardisty to the existing pipeline, and construction of a pipeline extension from the existing pipeline to the U.S./Canada border (Figure 1.1-1). Conversion

of the existing natural gas pipeline as opposed to a new pipeline would reduce construction costs associated with the Keystone Project. Appropriate regulatory authorities in Canada have conducted an independent environmental review process for the proposed Canadian facilities.

In the United States, the Mainline Project would comprise a 1,082-mile segment of 30-inch-diameter pipe from the Canadian border to Patoka, Illinois

The Cushing Extension would consist of 296 miles of 36-inch-diameter pipe extending from Steele City, Nebraska to Cushing, Oklahoma. This EIS describes and evaluates the U.S. portion of the proposed Keystone Project, including both the Mainline Project and Cushing Extension, and the additional facilities required to increase throughput capacity to 591,000 bpd.

The length of pipeline proposed within each affected state is listed in Table 1.1-1.

| TABLE 1.1-1 Miles of Pipeline by State for the Keystone Project | | | | | | | | |
|--|--------------|--------------|--------------|--------------|--------------|-------------|-------------|----------------|
| | ND | SD | NE | KS | MO | IL | OK | Total |
| Mainline Project | 217.8 | 219.9 | 214.6 | 98.7 | 274.0 | 56.9 | 0.0 | 1,081.9 |
| Cushing Extension | 0.0 | 0.0 | 2.5 | 210.4 | 0.0 | 0.0 | 83.1 | 296.0 |
| Keystone Project total | 217.8 | 219.9 | 217.1 | 309.1 | 274.0 | 56.9 | 83.1 | 1,377.9 |

Keystone would construct the 30- -inch-diameter pipelines within a 110-foot-wide corridor, consisting of a temporary 60-foot-wide construction right-of-way (ROW) and a 50-foot-wide permanent ROW.

Ownership of lands that would be crossed by the proposed Keystone Project is identified in Table 1.1-2.

The Keystone Project would require construction of pump stations, pigging¹ facilities, and delivery facilities. Mainline valves (MLVs) would be placed along the pipeline at locations necessary to maintain adequate flow through the pipeline. Valves would be installed and located as dictated by the hydraulic characteristics of the pipeline, as required by federal regulations, and with the intent to provide for public safety and environmental protection as part of pipeline integrity management practices. Delivery metering and power facilities would be located at Wood River and Patoka, Illinois and Ponca City and Cushing, Oklahoma.

Electrical transmission lines and electric substation construction or modification required for the Keystone Project would be constructed by local providers who would be responsible for obtaining any necessary federal, state, and local approvals or authorizations. Construction and operation of these facilities are considered connected actions under NEPA and therefore are evaluated within this EIS.

As currently proposed, the majority of the crude oil to be transported from Canada by the Keystone Project would be delivered to an existing refinery at Wood River, Illinois. A major capital project at the Wood River Refinery is planned in anticipation of receiving Canadian crude oil from the Keystone pipeline. This refinery upgrade is described in more detail in Section 1.7.

¹ A pig is a mechanical device that passes through the interior of a pipeline to clean or to inspect it.

| TABLE 1.1-2 Ownership of Land Crossed by the Keystone Project (miles) | | | | | |
|--|----------------|---------------|--------------|----------------|---------------|
| | Federal | Tribal | State | Private | Total |
| Mainline Project | | | | | |
| North Dakota | 0.0 | 0.0 | 0.8 | 217.0 | 217.8 |
| South Dakota | 0.0 | 0.0 | 0.0 | 219.9 | 219.9 |
| Nebraska | 0.0 | 0.0 | 0.0 | 214.6 | 214.6 |
| Kansas | 0.0 | 0.0 | 0.0 | 98.7 | 98.7 |
| Missouri | 0.0 | 0.0 | 0.5 | 273.5 | 274.0 |
| Illinois | 3.0 | 0.0 | 0.0 | 53.9 | 56.9 |
| Mainline Project subtotal | 3.0 | 0.0 | 1.3 | 1,077.6 | 1,081.9 |
| Cushing Extension | | | | | |
| Nebraska | 0.0 | 0.0 | 0.0 | 2.5 | 2.5 |
| Kansas | 3.6 | 0.0 | 0.0 | 206.8 | 210.4 |
| Oklahoma | 0.0 | 0.0 | 3.6 | 79.5 | 83.1 |
| Cushing Extension subtotal | 3.6 | 0.0 | 3.6 | 288.8 | 296 |
| Keystone Project total | 6.6 | 0.0 | 4.9 | 1,366.4 | 1377.9 |

1.2 PROJECT PURPOSE AND NEED

The primary purpose of the proposed pipeline is to transport incremental crude oil production from the WCSB across the border to meet the growing demand by refineries and markets in the United States. The Keystone Mainline Project would initiate at the crude oil supply hub near Hardisty, Alberta, Canada and terminate near the crude oil storage and pipeline hub near Patoka, Illinois. The Keystone Cushing Extension would interconnect with other existing crude oil pipelines that supply refinery markets in Cushing, Oklahoma, and the U.S. Gulf Coast.

The need for the project is dictated by a number of factors, among them:

- Increasing WCSB heavy crude oil supply combined with insufficient export pipeline capacity,
- Increasing crude oil demand in the United States and static domestic crude supply, and
- Projected oil production capacity in other traditional U.S. oil suppliers.

1.2.1 Increasing Western Canadian Sedimentary Basin Crude Oil Supply

According to the Oil and Gas Journal, Canada has 179 billion barrels of proven oil reserves, with 174 billion of those reserves in oil sands located in the WCSB.² The Alberta Energy and Utilities Board also estimates that 174 billion barrels of proven reserves are recoverable from Canada's oil sands. The

² Proved reserves are estimated quantities that analysis of geologic and engineering data demonstrates with reasonable certainty are recoverable under existing economic and operating conditions.

province of Alberta is now widely accepted as having the second largest recoverable reserves in the world, second only to Saudi Arabia.

Total production of crude bitumen and synthetic crude oil from the oil sands has increased from 600,000 to 1.1 million bpd by the beginning of 2007.³ As of mid-2006, the number of major mining, upgrading, and thermal in situ production projects has grown to include over 46 existing and proposed projects, encompassing 135 individual project expansion phases in various stages of execution. Canadian National Energy Board's (CNEB's) 2006 projections indicate a relatively aggressive ramp-up in oil sands production that extends to 2015.⁴ CNEB's projected base scenario, in which most but not all announced projects were assumed to go forward, anticipated that production capacity would increase year-over-year to eventually reach 3 million bpd by 2015.⁵

Crude oil production from the entire WCSB, including oil sands and conventional production, is now at 2.3 million bpd. According to CNEB, conventional crude oil production in the WCSB is expected to decline; but as a result of rapidly growing oil sands production, total WCSB production will rise to 3.9 million bpd by 2015.

1.2.2 U.S. Crude Oil Market Demand

According to the U.S. Energy Information Administration (EIA), U.S. consumption of liquid fuels (crude oil and refined products) is projected to total 26.9 million bpd in 2030, an increase of 6.2 million bpd over the 2005 total.⁶ Most of this increased demand is expected to be met with crude oil imports. In 2005, net imports of liquid fuels (primarily petroleum) accounted for 60 percent of domestic consumption. The United States is expected to continue its dependence on liquid fuel imports. The import share of domestic consumption declines slightly to 55 percent in 2015 before climbing to 61 percent in 2030.⁷ Based on this projection, U.S. imports by 2030 will be 16.5 million bpd, up from 12.4 million bpd in 2005—an increase of 4 million bpd in imported oil.

Canada has traditionally been the United State's largest supplier of oil due to its reliability and proximity to U.S. markets. Canada's share of U.S. oil imports has risen from 15 to 16 percent over the last 10 years, while the whole of the Western Hemisphere now accounts for 41 percent of U.S. oil imports. Demand for the proportion of heavy to light crude used by U.S. refiners has increased over the last 20 years as world supplies of light crude have diminished in proportion to supplies of heavy and extra-heavy crude. Many U.S. refiners have completed or are in the process of completing retrofits to handle the heavier types of crude in response to this change in the world supply. In recent years, crude oil imports from Venezuela (most of which are of heavy grade) have declined. The heavy crude oil that Keystone will deliver to U.S. refiners is ideally suited to replace the loss of these types of crude and meet the expected increase in demand.

³ Canadian National Energy Board (CNEB) figures. www.neb.gc.ca.

⁴ CNEB. 2006. *Canada's Oil Sands Opportunities and Challenges to 2015*. Energy Market Assessment. Calgary, Alberta. June. p.12.

⁵ *Ibid.* p. 13.

⁶ Energy Information Agency (EIA). 2007. *Annual Energy Outlook 2007*. (Report #DOE/EIA-0383[2007].) February. p. 96.

⁷ *Ibid.* p. 97.

1.2.3 World Oil Supply

Global oil production capacity and consumption remain tightly balanced after 3 years of rapid demand growth in Asia, the United States, and the Middle East. DOS and industry analysts project that it will remain so into the medium term. The ability and willingness of major oil and gas producers to step up investment in order to meet rising global demand are particularly uncertain. Capital spending by the world's leading oil and gas companies increased sharply in nominal terms over the course of the first half of the current decade and, according to company plans, will rise further to 2010. Expressed in cost inflation-adjusted terms, investment in 2005 was only 5 percent above that in 2000. Planned upstream investment to 2010 is expected to boost slightly the global spare crude oil production capacity. Capacity additions could be smaller because of shortages of skilled personnel and equipment, regulatory delays, cost inflation, and higher decline rates at existing fields.⁸ Investment issues are of particular concern in Mexico (the United States' third largest supplier of crude oil) where capital expenditures by its national oil company are insufficient to offset natural declines in oil field output (projected at 12 percent per annum by industry analysts.)

Political instability in several of the United States' top 11 suppliers is also expected to increase demand for crude from Canada. As a result of Nigeria's high rate of violent crime, its large income disparity, its history of tribal/ethnic conflicts, and its frequent internal social protests, oil exports have repeatedly been interrupted. At times during the last several years, as much as 70 percent of Nigeria's output has been shut down due to militant attacks on oil production infrastructure. Venezuela's production has continually declined since 1998 due to a combination of lack of investment to offset natural declines and loss of technical expertise in the state-run *Petroleos de Venezuela, S. A.* (PDVSA). Additionally, President Chavez has repeatedly threatened to divert Venezuela's large exports to markets other than the United States. In Iraq lack of investment due to security concerns, continual attacks by insurgents on oil infrastructure, and the tenuous political situation keep output at or below pre-war levels. In Algeria armed militants have confronted government forces and political instability and protests in Ecuador threaten oil production.

Canada's expected production increases, coupled with the adverse factors affecting other major U.S. suppliers make it likely that an ever larger share of U.S. oil imports will be sourced from this stable and nearby supplier. Even if the share of total imported oil in overall U.S. demand remains the same or declines slightly in coming years, as expected, DOS expects that heavy oil imports from the WCSB will continue to increase.

1.2.4 Pipeline Capacity from Western Canadian Sedimentary Basin

Nearly all of the 1.9 million bpd of crude oil imported from Canada in 2006 came from the WCSB⁹, and all of that was transported through three major pipeline systems: Enbridge, Kinder Morgan Express, and Kinder Morgan Trans Mountain. Total capacity from the WCSB for crude oil to U.S. markets now stands at 2.4 million bpd. However, the majority of WCSB crude continues to be sold into U.S. Petroleum Administration for Defense District I (PADD I – the U.S. Midwest) where a large proportion of U.S. refining capacity is located, and an increasing amount is forwarded on to refiners in PADD II (U.S. Gulf Coast) to offset declines in offshore production. These two districts are directly and indirectly served by the Enbridge system and Kinder Morgan Express, which together have a capacity of 2.1 million bpd.

⁸ International Energy Agency. 2006. World Energy Outlook 2006. OECD/IEA Paris, France. p. 4.

⁹ CNEB data. www.neb.gc.ca.

All of the expected increases in WCSB production will come from Alberta's oil sands, which produce a heavy synthetic crude oil when upgraded. The product can also be shipped as a non-upgraded bitumen mixed with diluents. Total capacity for heavy oil on the Enbridge and Kinder Morgan Express systems now stands at 1.2 million bpd.¹⁰ In 2006, approximately 1 million bpd of heavy crude was exported from the WCSB to the United States via these two pipelines.¹¹

The CNEB and DOS comparisons of the forecasted growth in heavy crude oil production in the WCSB versus the available pipeline capacity for heavy oil show a potential shortfall as early as 2007. Even with modifications to existing systems and de-bottlenecking efforts that are underway by Enbridge, it is likely that crude oil exports from the WCSB to the United States will exceed available pipeline capacity in 2009, necessitating the construction of a new pipeline to facilitate continued importation of crude oil.¹²

Exactly how much more capacity will be needed in the short term to mid term can be estimated. Given CNEB projections of an additional 1.6 million bpd of WCSB production over the current level by 2015, expected increased U.S. demand, and a similar proportion continued to be consumed by Canada (30 percent), an additional 1.1 million bpd of pipeline capacity would be needed by 2015 to accommodate U.S. crude oil imports from the WCSB. This increase in capacity would justify construction of Keystone's planned 450,000-bpd pipeline, and would necessitate additional pipeline construction to meet the remaining 700,000 bpd of capacity.

1.2.5 Mainline Project and Cushing Extension Demand

In December 2005, Keystone provided shippers an opportunity to participate in the Keystone Project by entering into contractual commitments for pipeline capacity. Shippers committed to binding contracts for 340,000 bpd. These binding commitments demonstrate the need for incremental pipeline capacity and access to Canadian crude supplies, and represent a commitment to utilize the Keystone Project. Keystone expects that the remainder of the excess capacity will be utilized by non-contract shippers at the tariff rate approved by the Federal Energy Regulatory Commission (FERC) (ENSR 2006a). Potential shippers also have expressed strong interest in a proposed pipeline extension to the Cushing market area. TransCanada conducted an Open Season process for the Mainline Project which ran from November 4 to December 1, 2005. As a result of the Open Season, TransCanada has secured firm, long-term contracts totaling 340,000 bpd, with an average duration of 18 years. Keystone anticipates that existing contracts will be renewed and additional contracts will be entered into such that the average contract term will continue beyond 18 years. This reasoning is based on the amount of crude oil reserves in the WCSB and the expected increase in production from the oil sands (TransCanada 2007c). A binding Open Season for the Cushing Extension closed at noon on March 14, 2007 (ENSR 2006a).

1.3 AGENCY PARTICIPATION

DOS, as the lead agency for the EIS, discussed the appropriate level of required participation with other federal agencies that would issue permits associated with the proposed Keystone Project. Federal agencies elected to participate as cooperating agencies in the process or to provide technical assistance to the environmental review. State agencies also were consulted to ensure that their needs for state permitting analyses would be assessed in the EIS. To facilitate agency participation in the EIS review,

¹⁰ Canadian Association of Petroleum Producers (CAPP). 2005. Crude Oil Pipeline Expansion Summary. Calgary, Canada. February. p. 5.

¹¹ CNEB data. www.neb.gc.ca.

¹² CNEB. 2006. Canada's Oil Sands Opportunities and Challenges to 2015. Energy Market Assessment. Calgary, Alberta. June. p. 33.

state and federal agencies were invited to the scoping meetings (see Section 1.5), and agency advisory meetings were conducted in February 2007 at the following locations:

- St. Louis, Missouri;
- Kansas City, Kansas;
- Oklahoma City, Oklahoma;
- Lincoln, Nebraska;
- Pierre, South Dakota; and
- Bismarck, North Dakota.

1.3.1 Lead Agency – U.S. Department of State

For cross-border oil pipelines, DOS is responsible for issuance of Presidential Permits and is the lead agency for the Keystone Project. As the lead federal agency, DOS is responsible for NEPA compliance and for compliance with Section 106 of the National Historic Preservation Act (NHPA) (16 USC § 470 et seq.). As the lead federal agency, DOS is also responsible for initiating informal consultation with the U.S. Fish and Wildlife Service (USFWS) under Section 7 of the Endangered Species Act (ESA) [16 USC § 1536] to determine the likelihood of effects on listed species. Additionally, DOS coordinates with the cooperating and assisting agencies to ensure compliance with acts and executive orders addressing:

- Potential effects to prime and unique agricultural lands (Natural Resources Conservation Service [NRCS]),
- Executive Order (EO) 11988 – Floodplain Management,
- EO 11990 – Protection of Wetlands,
- EO 12898 – Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations,
- EO 13007 – Indian Sacred Sites,
- EO 13112 – Invasive Species,
- EO 13175 – Consultation and Coordination with Indian Tribal Governments,
- EO 13186 – Responsibilities of Federal Agencies to Protect Migratory Birds, and
- EO 13212 – Actions to Expedite Energy-Related Projects

EO 11423 (33 FR 11741), as amended by EO 12847 (58 FR 29511) and EO 13337 as amended (69 FR 25299), governs the DOS issuance of Presidential Permits that authorize construction of pipelines carrying petroleum, petroleum products, and other liquids across U.S. international borders. Within DOS, the Bureau of Economic and Business Affairs, Office of International Energy and Commodity Policy, receives and processes Presidential Permit applications. Upon receipt of a Presidential Permit application for a cross-border pipeline, DOS is required to request the views of the Secretary of Defense, the Attorney General, the Secretary of the Interior, the Secretary of Commerce, the Secretary of Transportation, the Secretary of Energy, the Secretary of Homeland Security, the Administrator of the U.S. Environmental Protection Agency (EPA), and such other government department and agency heads as the Secretary of State deems appropriate. DOS must consider the project to be in the national interest to issue a Presidential Permit.

1.3.2 Cooperating Agencies

The following agencies have agreed to cooperate in the NEPA process.

1.3.2.1 Advisory Council on Historic Preservation

Section 106 of the NHPA, as amended, requires the lead federal agency to take into account effects on historic properties or historic resources that are listed in, or eligible for listing in, the National Register of Historic Places (NRHP) and to afford the Advisory Council on Historic Preservation (ACHP) an opportunity to comment if adverse effects on NRHP-eligible properties are anticipated. Historic properties are prehistoric or historic districts, sites, buildings, structures, objects, or properties of traditional religious or cultural importance that are listed or eligible for listing in the NRHP, including artifacts, records, and material remains related to such a property or resource. ACHP's regulations are codified in 36 Code of Federal Regulations (CFR) Section 800.2.

1.3.2.2 U.S. Environmental Protection Agency

Under Section 402 of the Clean Water Act (CWA) (33 USC §1251 et seq.), EPA has jurisdiction over the discharge of pollutants from a point source into waters of the United States. Administration of permit programs for point-source discharges that require a National Pollutant Discharge Elimination System (NPDES) permit has been delegated to the states affected by the Keystone Project. EPA maintains oversight of the delegated authority. Regulated discharges include, but are not limited to, sanitary and domestic wastewater, gravel pit and construction dewatering, hydrostatic test water, and storm water (40 CFR 122).

Under Section 404 of the CWA (33 USC § 1251 et seq.), EPA reviews and comments on COE Section 404 permit applications for compliance with the Section 404(b)(1) guidelines and other statutes and authorities within its jurisdiction (40 CFR 230).

Under Section 309 of the Clean Air Act (CAA) (42 USC § 7401 et seq.), EPA has the responsibility to review and comment in writing on the EIS for compliance with Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 CFR Parts 1500–1508).

Under Sections 3001 through 3019 of the Resource Conservation and Recovery Act (RCRA) (42 USC § 3251 et seq.), EPA establishes criteria governing the management of hazardous waste. In accordance with 40 CFR 261.4(b)(5), any hazardous waste generated in conjunction with construction or operation of the Keystone Project is subject to the hazardous waste regulations.

The proposed Keystone Project is located within EPA Regions 5, 7, and 8. Region 8 is the lead for EPA's involvement as a cooperating agency.

1.3.2.3 Natural Resources Conservation Service

NRCS administers the Wetlands Reserve Program (WRP) (16 USC § 3837 et seq.), under which it purchases conservation easements and provides cost share to landowners for the purposes of restoring and protecting wetlands. Under the WPR, the United States may purchase 30-year or permanent easements. Land eligibility for the WRP is based on NRCS's determination that the land is farmed or converted wetland, that enrollment maximizes wildlife benefits and wetland values, and that the likelihood of

successful restoration merits inclusion into the program. Lands under WRP easement are subject to development and other use restrictions in order to ensure protection of wetland and wildlife conservation values. The Keystone Project preferred route will cross land restricted by at least one WRP lease. NRCS also administers the Emergency Watershed Protection Program (Floodplain Easements) and the Healthy Forests Reserve Program, and shares management of the Grasslands Reserve Program with the Farm Service Agency (FSA). The Keystone Project may involve lands included in these other NRCS land conservation programs. NRCS is also responsible for the Farmland Protection Policy Act (7 CFR Part 658), including protection of prime and unique agricultural lands. The Keystone Project would traverse prime farmland and potentially prime farmland.

1.3.2.4 U.S. Army Corps of Engineers

Under Section 404 of the CWA, COE has the authority to issue or deny permits for placement of dredge or fill material in the waters of the United States, including adjacent wetlands. Under Section 10 of the Rivers and Harbors Act (33 USC § 403), COE regulates work and placement of structures in, on, over, or under navigable waters of the United States.

1.3.2.5 U.S. Fish and Wildlife Service

USFWS is responsible for ensuring compliance with the ESA. Section 7 of the ESA, as amended, states that any project authorized, funded, or conducted by any federal agencies should not "...jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species which is determined...to be critical..." (16 USC § 1536[a][2] [1988]). USFWS also reviews project plans and provides comments regarding protection of fish and wildlife resources under the provisions of the Fish and Wildlife Coordination Act (FWCA) (16 USC § 661 et seq.). USFWS is responsible for the implementation of the provisions of the Migratory Bird Treaty Act (16 USC § 703) and the Bald and Golden Eagle Protection Act (16 USC § 688). USFWS's Division of Refuges is responsible for managing lands of the national wildlife refuge system, including easements, along the proposed route in North and South Dakota. Easements are protected under the National Wildlife Refuge Systems Administration Act (16 USC § 668dd[c]).

1.3.2.6 Farm Service Agency

The Farm Service Agency (FSA) is a unit of the U. S. Department of Agriculture (USDA) and administers several land conservation programs, including the Conservation Reserve Program (CRP), the Conservation Reserve Enhancement Program (CREP), the Farmable Wetlands Program, and the Grasslands Reserve Program. These programs provide annual rental payments and cost-share assistance to establish long-term resource conservation measures on eligible farmland. The terms of rental agreements are from 10 to 30 years, during which most agricultural uses of the affected lands are prohibited. The Grasslands Reserve Program is managed jointly with NRCS and includes provisions for rental agreements up to 30 years, 30-year-easements, and permanent easements. The Keystone Project involves lands included in FSA land conservation programs.

1.3.2.7 U.S. Department of Energy

The U.S. Department of Energy (DOE) administers multiple federal energy projects and has relevant experience in addressing the environmental review of projects of similar scope to the Keystone Project.

In addition, the Western Area Power Authority (Western) may play a role in determining final NEPA compliance with regard to electric substation construction and operation.

As required by 10 CFR 1022, the DOE is obligated to incorporate floodplain management goals and wetland protection considerations into its planning and regulatory decisionmaking processes. The agency accomplishes this goal by preparing a floodplain or wetland assessment consisting of a description of the proposed action, a discussion of potential effects on the floodplain or wetland, and consideration of alternatives. For actions such as this proposed action where an EIS is required, the assessment can be included in the appropriate NEPA document. Information provided in Section 2.0 (for description of proposed action), 3.2 (floodplain issues) 3.3 (additional floodplain issues), 3.4 (wetlands issues), and 4.0 (alternatives) of this FEIS will be used by DOE to prepare floodplain and wetland assessments and statements of findings consistent with 10 CFR 1022 for inclusion in the Final EIS.

Western Area Power Administration

The Western Area Power Administration (Western) is a federal power-marketing agency within DOE that sells and delivers federal electric power to municipalities, public utilities, federal and state agencies, and Indian tribes in 15 western and central states. A portion of the proposed Keystone Project is located within Western's Upper Great Plains Region, which operates and maintains nearly 90 substations and more than 8,000 miles of federal transmission lines in Minnesota, South Dakota, North Dakota, Montana, Nebraska, and Iowa.

Western has received requests from network customers for unplanned network load delivery points to serve unplanned load growth associated with the Keystone Project in North Dakota and South Dakota. Western, as the network provider and a balancing authority, is responsible for meeting load growth requests from network customers. Western's power transmission system would require either modification of existing electric substation facilities or construction of new Western electric substation facilities. According to DOE's NEPA Implementing Procedures (10 CFR Part 1021), these actions require environmental review.

In responding to the need for agency action, Western must abide by the following:

- **Addressing Interconnection Requests.** Western's *General Guidelines for Interconnection* establishes a process for addressing applications for interconnection. The process dictates that Western respond to the applications as presented by the network customers.
- **Protecting Transmission System Reliability and Service to Existing Customers.** Western's purpose and need is to ensure that existing reliability and service is not degraded. Western's *General Guidelines for Interconnection* provides for transmission and system studies to ensure that system reliability and service to existing customers is not adversely affected. If the existing power system cannot accommodate the applicant's request without modifications or upgrades, the applicant may be responsible for funding the necessary work unless the changes would provide overall system benefits.

Although the DOE is a cooperating agency under NEPA for the Keystone Project, the agency is independently determining its compliance responsibilities under Section 106 of the NHPA. This includes consulting for any new powerlines or substations in Western's system.

1.3.2.8 U.S. Department of Agriculture - Rural Utilities Service

The Rural Utilities Service (RUS) is an agency that administers the U.S. Department of Agriculture's Rural Development Utilities Programs. These programs include the provision of loans and loan guarantees to electric utilities and other entities to serve customers in rural areas, through the construction or expansion of generation, transmission and distribution facilities. Applications for financing have been or may be submitted to RUS by several rural electric cooperatives to enable the cooperatives' provision of electricity to pump stations that would serve the Keystone Pipeline. RUS is responsible for NEPA compliance for facilities proposed by the cooperatives to provide these services including, but not limited to, transmission lines.

1.3.3 Assisting Agencies

The following agencies provided technical assistance to DOS in the environmental review process.

1.3.3.1 U.S. Department of Transportation – Office of Pipeline Safety

The U.S. Department of Transportation's (DOT's) Pipeline and Hazardous Materials Safety Administration (PHMSA) Office of Pipeline Safety (OPS) has responsibility for monitoring the operation of oil pipeline systems in the United States, in compliance with 49 CFR Part 195, Transportation of Hazardous Liquids by Pipeline. OPS provided technical expertise to DOS in the assessment of the Keystone Project and in determination of appropriate mitigating measures.

1.3.3.2 U.S. Department of Transportation – Federal Highway Administration

The Federal Highway Administration (FHWA) is responsible for reviewing and approving the design of proposed Keystone Project federal highway crossings. FHWA assisted DOS in this capacity during the Keystone Project NEPA review.

1.3.3.3 Federal Energy Regulatory Commission

FERC is responsible for, among other things, interstate natural gas transportation pipelines in the United States. In this capacity, FERC has gained extensive experience in issues surrounding pipeline construction and operation. Based on this experience, FERC provided technical assistance to DOS in review of the proposed Keystone Project.

1.3.3.4 Department of Homeland Security

The Department of Homeland Security (DHS) provided technical assistance to DOS in the assessment of security issues surrounding construction and operation of the proposed Keystone Project.

1.3.3.5 Council on Environmental Quality

CEQ provides guidance to all federal agencies on the NEPA implementation process.

1.3.3.6 National Park Service

The National Park Service (NPS) provides technical review of the proposed crossing of NPS-administered lands by the Keystone Project.

1.3.3.7 Bureau of Indian Affairs

The Bureau of Indian Affairs (BIA) provides review and assistance regarding tribal and environmental justice issues.

1.3.4 State Agencies

Various resource agencies from each of the states crossed by the proposed Keystone Project have responsibilities for state and local permit issuance. The permits required by the various state and local jurisdictions crossed by the proposed corridor are discussed in Section 1.6. State agencies participated in project scoping and were invited to the agency advisory meetings described above.

1.4 INDIAN TRIBE CONSULTATION

As the lead federal agency for the NEPA review process, DOS initially contacted over 80 individual Indian tribes to determine whether the tribes were interested in the potential Keystone Project. Tribes were invited to the public scoping meetings held at 13 separate locations in October and November 2006. The United Keetoowah Band of Cherokee, the Upper Sioux Community, the Cherokee Nation, the Pawnee Nation, and the Kaw Nation participated in the scoping process. At publication of the Draft EIS, interested tribes were sent hard copies of relevant Draft EIS sections and electronic (CD) versions of the Draft EIS. The tribes were then invited to participate in the Draft EIS comment meetings held at 13 separate locations in September 2007.

As the lead federal agency for Section 106 of NHPA for the Keystone Project, DOS engaged in consultation with the consulting parties, including federal agencies, State Historic Preservation Officers (SHPOs), the ACHP, and federally recognized Indian tribes (70 FR 71194) within the Keystone Project area of potential effect (APE). Tribes potentially affected by the undertaking were invited to become consulting parties under Section 106 of the NHPA regulations. DOS meetings with consulting agencies and tribes were held in February, May, August, and October 2007 at locations in North Dakota, South Dakota, Missouri, and Oklahoma. A final tribal government-to-government consultation meeting was held in Washington, DC on December 18, 2007.

1.5 SCOPING AND EIS COMMENT PROCESS

1.5.1 Scoping

On October 4, 2006, DOS issued a Notice of Intent (NOI) to prepare an EIS. The NOI informed the public about the proposed action, announced plans for scoping meetings, invited public participation in the scoping process, and solicited public comments for consideration in establishing the scope and content of the EIS. The NOI was published in the Federal Register and distributed to:

- Landowners along the proposed route,
- Federal agencies,
- Indian tribes,
- State agencies,
- Municipalities and counties,
- Elected officials,
- Non-governmental organizations,
- The media, and
- Interested individuals.

The official scoping period ended on November 30, 2006; however, any comments received after this date were considered in the Draft EIS.

DOS held 13 separate scoping meetings in the vicinity of the proposed route to provide opportunity for public comment on the scope of the EIS. The dates, and locations were:

- October 24 – Michigan, North Dakota ;
- October 25 – Lisbon, North Dakota;
- October 26 – Clark, South Dakota;
- October 24 – Yankton, South Dakota;
- October 25 – Stanton, Nebraska;
- October 26 – Seward, Nebraska;
- November 1 – St. Charles, Missouri;
- November 2 – Collinsville, Illinois;
- November 8 – Carrolton Missouri;
- November 9 – Seneca, Kansas;
- November 14 – Abilene, Kansas;
- November 15 – El Dorado, Kansas; and
- November 16 – Morrison, Oklahoma.

DOS received verbal, written, and electronic comments during the scoping comment period. All verbal comments formally presented at the meetings were recorded and transcribed. Additional written comments were received on comment forms provided to the public at the meetings and in letters. A summary of public comments related to EIS scope follows. Details are provided in Appendix A (Scoping Summary Report).

Table 1.5.1-1 summarizes the issues identified and comments received during the public scoping process for the Keystone Project. For each comment, the table references the section in this EIS that addresses the concern.

1.5.2 Comments on the Draft EIS

The 2007 Keystone Oil Pipeline Project Draft Environmental Impact Statement (Draft EIS) was released for public review on August 10, 2007. The public comment period ended on September 24, 2007; however, additional comments were accepted into November 2007. Comments were sent to DOS by email, website link (e-comments), phone, and U.S. mail. From September 4 through September 20, 2007, 13 public meetings were held to solicit oral testimony on the Draft EIS. Written comments also were accepted. These meetings were held at the following locations along the pipeline corridor and corresponded with the locations of the scoping meetings held in October 2006:

- September 4 – Carrolton Missouri
- September 5 – St. Charles, Missouri
- September 6 – Collinsville, Illinois
- September 11 – Michigan, North Dakota and Yankton, South Dakota
- September 12 – Lisbon, North Dakota and Stanton, Nebraska
- September 13 – Clark, South Dakota and Seward, Nebraska
- September 17 – Seneca, Kansas
- September 18 – Abilene, Kansas
- September 19 – El Dorado, Kansas
- September 20 – Ponca City, Oklahoma.

In total, 67 people provided oral testimony at these meetings, incorporating 230 individual comments on the 2007 Draft EIS. These comments were recorded and transcribed. In addition to the oral testimony, 110 letters, cards, emails, e-comments, or telephone conversation records incorporating 1009 comments were received from the public, agencies, the Applicant (Keystone), tribes and other interested groups and stakeholders. All written and oral comments and DOS responses to these comments are summarized in Appendix A.

1.6 PERMITS, APPROVALS, AND REGULATORY REQUIREMENTS

This EIS is intended to fulfill the needs and obligations set forth by NEPA and other relevant laws, regulations, and policies of DOS (the lead agency) and of COE, EPA, DOE, USFWS, NRCS, FSA, RUS, and ACHP (cooperating agencies; see Section 1.3.2). Assisting federal, tribal, state, and local agencies with jurisdiction over various aspects of the Keystone Project participated in the EIS process by providing direct input to DOS or through the EIS review and comment process (see Sections 1.3.3 and 1.3.4).

**TABLE 1.5.1-1
Issues Identified and Comments Received during the
Public Scoping Process for the Keystone Project**

| Issue | Comment | Section Where Comment/Issue Addressed in EIS: |
|------------------------|--|--|
| Purpose and Need | Need for the Mainline Project and the Cushing Extension, agency involvement, and required approvals. | 1.2 |
| Project Description | Distance to adjacent structures, construction methods, abandonment plans, sources of Keystone Project materials, construction schedule, maintenance and inspection plans and procedures, expected service life of the pipeline, right-of-way (ROW) revegetation, pipeline temperature, protection measures, operations, construction impacts to adjacent areas, powering, pipeline security, hydrostatic testing, and pump stations. | 2.0 |
| Alternatives | Selection of alternatives, route adjustments, route selection, routes that avoid sensitive areas, Kinder Morgan and Enbridge Pipelines, shipping refined products instead of a crude oil pipeline, renewable energy sources, seasonal avoidance of construction in agricultural areas, collocation with other ROWs, and adding a new refinery along the Mainline Project rather than constructing the Cushing Extension. | 4.0 |
| Geology | Potential rock slope instability and effects of earthquakes and fault lines. | 3.1 |
| Soils and Sediments | Soil compaction and settlement, topsoil segregation during construction, replacement of top soils after construction and abandonment, soil erosion, streambank erosion, pipeline effects on soil temperature, and soil instability. | 3.2 |
| Water Resources | Impacts on springs, aquifers, and water wells; water supply contingencies in the event of a spill; impacts to septic systems and sewage treatment facilities; stream channel erosion; impacts to dikes, dams, and reservoirs; runoff during construction; effects on drain tiles and drainage systems; and impacts on flood protection. | 3.3 |
| Wetlands | Impacts and mitigation measures, stabilization during construction, enforcement of wetland protection requirements. | 3.4 |
| Terrestrial Vegetation | Impacts on prairies and woodlands, impacts of pipeline temperature on vegetation and crops, revegetation of affected area, impacts on crop growth, invasive and noxious weeds, use of herbicides near organic farms, and effects on old-growth trees. | 3.5 |
| Fish and Wildlife | Impacts on game animals and their habitats; and impacts on deer, turkey, frogs, toads, bald eagles, beaver, pheasants, and quail. | 3.6 and 3.7 |

**TABLE 1.5.1-1
(Continued)**

| Issue | Comment | Section Where Comment/Issue Addressed in EIS: |
|---|--|---|
| Land Use, Recreation and Special Interest Areas, and Visual Resources | Use of eminent domain; land use restrictions; impacts on bicycle trails, day care centers, special use areas, agriculture, water lines, drainage facilities; impacts on the Conservation Reserve Program; access and agricultural restrictions during construction; compensation for crop production loss; protection of cattle during construction; and inconvenience to landowners and residents. | 3.9 |
| Socioeconomics | Potential loss of conservation easement and lease payments to landowners, impacts to property values, impacts of importing Canadian oil on U.S. trade deficit, revenues and taxes to local governments, costs of road damage related to construction traffic and Keystone Project use, impacts of Keystone Project electricity demand on local electric rates, costs of grassland destruction, impacts of Keystone Project traffic on local transportation infrastructure, and ROW access control. | 3.10 |
| Cultural Resources | Impacts on cemeteries and burial grounds, archaeological sites and artifacts, and cultural sites; and impacts of blasting and vibrations on historic structures. | 3.11 |
| Air Resources | Air pollution abatement from pump stations. | 3.12 |
| Noise | Effects of pump station noise on humans and cattle, noise from blasting, and effects of pipeline vibrations on nearby structures. | 3.12 |
| Reliability and Safety | Protection from vandalism and terrorist activities, ROW security, safety of pipeline crossings, spill contamination and cleanup, leak detection, pipeline integrity, compensation to landowners affected by spills, likelihood of spills, pipeline safety requirements, record of spills for similar pipelines, TransCanada's safety record, water supply contamination, emergency response plans, and systems for public notification and complaints. | 3.13 |
| Cumulative Impacts | Impacts when combined with the Rockies Express pipeline, Platt pipeline, Stillwater (potable water) pipeline, roads, and highways; potential for additional pipelines in the Keystone ROW; and effects on development of renewable energy resources. | 3.14 |

NEPA directs the federal government to examine major federal actions that may result in significant effects on the environment. Because it is considered a major federal action, authorization of the Keystone Project requires analysis under NEPA (42 USC § 4321 et seq.). Table 1.6-1 lists the permits, licenses, approvals, and consultation requirements for federal agencies that are not cooperating agencies and for state and local agencies.

1.7 CONNECTED ACTIONS

The Keystone Project would require electric power to service the proposed pump stations. Local electric transmission lines that supply power to pump stations would be contracted to local power providers. Therefore, the specific transmission corridors and substation locations would be determined at a later date. For the purposes of this EIS, general environmental concerns associated with typical transmission and substation facilities in the Keystone Project area are considered. When actual power contracts are consummated and specific transmission line and substation locations are identified, Western would determine whether this EIS provides the required compliance with NEPA or whether additional NEPA compliance analyses may be required prior to the issuance of construction permits for electric substation facilities in North Dakota and South Dakota. Western intends to assess its obligations under Section 106 of the NHPA independently of the Keystone Project Section 106 activities that are occurring concurrently with the DOS NEPA compliance process.

Another connected action is the Coker and Refinery Expansion (CORE) Project that is planned for the Wood River Refinery. The project would increase both the refinery's total crude processing capacity and the percentage of heavy crude oil processed. Presently, lighter, low-sulfur crude oil from foreign oil sources supplies the Wood River Refinery. In May 2006, ConocoPhillips, the operator of the Wood River Refinery, submitted applications to the Illinois Environmental Protection Agency for Prevention of Significant Deterioration (PSD) and National Pollutant Discharge Elimination System (NPDES) permits pursuant to the CAA and CWA. Potential impacts on water and air quality due to construction and operation of the refinery upgrade are discussed in Sections 3.3 and 3.12, respectively.

1.8 REFERENCES

ENSR. 2006a. Keystone Pipeline Project Environmental Report. Prepared for the U.S. Department of State. April. Updated November 15, 2006.

**TABLE 1.6-1
Other Permits, Licenses, Approvals, and Consultation
Requirements for the Keystone Project**

| Agency | Permit or Consultation Authority | Agency Action |
|---|--|---|
| Federal | | |
| National Park Service (NPS) | 16 United States Code (USC) § 1271 et seq. | Permit for geothermal drilling pipeline crossing of the Missouri River, classified as a National Recreational River under the Wild and Scenic Rivers Act and NPS lands |
| U.S. Department of Energy U.S. Department of Commerce U.S. Department of Homeland Security U.S. Department of Justice Federal Energy Regulatory Commission (FERC) | Executive Order (EO) 11423 (33 Federal Register [FR] 11741), as amended by EO 12847 (58 FR 29511) and EO 13337 (69 FR 25299) 42 USC § 4231 et seq. | U.S. Department of State (DOS) is required to request the views of these agencies regarding applications for Presidential Permits Advise DOS on proper implementation of the National Environmental Policy Act of 1969 (NEPA) for assessment of pipeline projects. (FERC has jurisdiction over natural gas pipelines and has well established procedures for environmental impact statement evaluations of pipelines.) |
| U.S. Department of Transportation (DOT) – Federal Highway Administration DOT – Office of Pipeline Safety | Encroachment Permits 49 CFR Part 195 49 CFR Part 194 | Permits for crossing federally funded highways Review and approval of Integrity Management Plan for high-consequence areas Review and approval of Emergency Preparedness Plan |
| Council on Environmental Quality (CEQ) | NEPA (42 USC § 4321 et seq.), EO 11514 | Coordination of federal programs related to environmental quality, including implementation of NEPA |
| North Dakota | | |
| North Dakota State Historical Society | Consultation under Section 106, National Historic Preservation Act (NHPA) | Review and comment on activities potentially affecting cultural resources |
| Public Service Commission | Energy Conversion and Transmission Facility Siting Act Corridor Certificate; Route Permit | Permit for construction of a pipeline within an approved corridor and along an approved route |
| Department of Health, Division of Water Quality | Section 401 Clean Water Act (CWA), Water Quality Certification National Pollutant Discharge Elimination System (NPDES) Temporary Dewatering/Hydrostatic Testing Permit (NDG07000), Stormwater Discharge Permit NDR10-0000 | Permit for stream and wetland crossings/consultation for U.S. Army Corps of Engineers (COE) Section 404 process Permit regulating hydrostatic test water discharge and construction dewatering and stormwater to waters of the state |

**TABLE 1.6-1
(Continued)**

| Agency | Permit or Consultation Authority | Agency Action |
|--|--|--|
| North Dakota (continued) | | |
| North Dakota State Water Commission | Authorization to Construct a Project within Islands and Beds of Navigable Streams and Waters | Submit application after COE application submitted and approved but prior to construction (at least 90 days) |
| | Temporary Water Use Permit SWC Form 247 | Submit application at least 60 days before construction |
| Department of Transportation | Encroachment Permits | Permits for encroachment on state highways |
| County Road Departments | Encroachment Permits | Permits for encroachment on county roads |
| South Dakota | | |
| South Dakota Historical Society | Consultation under Section 106, NHPA | Review and comment on activities potentially affecting cultural resources |
| Public Utilities Commission | Energy Conversion and Transmission Facilities Act | Permit for a pipeline and associated facilities |
| Department of Environment and Natural Resources, Surface Water Quality Program | Section 401 CWA Water Quality Certification | Permit for stream and wetland crossings and consultation for Section 404 process |
| | NPDES Temporary Discharge Permit (General Permit for Temporary Discharges) and a Temporary Water Use Permit | Permit regulating water use, hydrostatic test water discharge, and construction dewatering to waters of the state |
| | NPDES Storm Water Discharge (SWD) Permit (General Permit for Storm Water Discharges Associated with Industrial or Construction Activities) | Permit regulating discharge of storm waters from the construction work area; submitted in conjunction with Section 401 application |
| Department of Transportation | Encroachment Permits | Permits for encroachment on state highways |
| County Road Departments | Encroachment Permits | Permits for encroachment on county roads |
| Bon Homme-Yankton Water District | Permit | Permit to cross Bon Homme-Yankton water lines |
| Nebraska | | |
| Nebraska State Historic Preservation Office | Consultation under Section 106, NHPA | Review and comment on activities potentially affecting cultural resources |
| Department of Environmental Quality (DEQ), Division of Water Resources | Section 401 CWA Water Quality Certification | Permit for stream and wetland crossings/consultation for Section 404 process |
| | NPDES Excavation Dewatering and Hydrostatic Testing Permit | Permit regulating hydrostatic test water discharge and construction dewatering to waters of the state |
| | NPDES Storm Water Discharge Permit | Permit regulating discharge of storm waters from the construction work area |
| Department of Natural Resources | Water Appropriations DNR Form 675 (temporary or long term) | Permit to use public waters (for hydrostatic test water) |

**TABLE 1.6-1
(Continued)**

| Agency | Permit or Consultation Authority | Agency Action |
|---|--|---|
| Nebraska (continued) | | |
| Department of Transportation | Encroachment Permits | Permits for encroachment on state highways |
| County Road Departments | Encroachment Permits | Permits for encroachment on county roads |
| Kansas | | |
| Kansas State Historic Preservation Office | Consultation under Section 106, NHPA | Review and comment on activities potentially affecting cultural resources |
| Kansas Corporation Commission | Certificate of Convenience and Authority to Transport the Business of a Liquids Pipeline Carrier | Certificate to construct pipeline and associated facilities across all land |
| Department of Health and Environment, Division of Water Resources | Section 401 CWA Water Quality Certification | Permit for stream and wetland crossings/consultation for Section 404 process |
| | NPDES Temporary Discharge Permit | Permit regulating hydrostatic test water discharge |
| | Action Permit | Permit for potential effects on federally and state-listed species |
| Kansas Department of Agriculture | Temporary and Term Water Appropriations Permits | Permits for appropriation of water for hydrostatic testing and watering right-of-way (ROW) for dust suppression |
| | Application for General Permit – Pipeline Crossing or Buried Cable – Channel Modification (open cut) | General pipeline crossing permit or specific permits for stream channel crossings |
| Department of Transportation | Encroachment Permits | Permits for encroachment on state highways |
| Kansas Turnpike Authority | Permission to Construct | Permits to construct across jurisdictional roads |
| County Road Departments | Encroachment Permits | Permits for encroachment on county roads |
| Missouri | | |
| Missouri State Historic Preservation Office | Consultation under Section 106, NHPA | Review and comment on activities potentially affecting cultural resources |
| Department of Natural Resources, Division of Water Resources | Section 401 CWA Water Quality Certification | Permit for stream and wetland crossings/consultation for Section 404 process |
| | NPDES Storm Water Discharge Permit | Permit regulating discharge of storm waters from the construction work area |
| | NPDES Temporary Discharge Permit | Permit regulating hydrostatic test water discharge, and construction dewatering to waters of the state |
| Department of Transportation | Encroachment Permits | Permits for encroachment on state highways |
| County Planning Departments | Development Permit/ Application | Permit to construct in floodplains. Reviewed in conjunction with Section 401 application |
| County Road Departments | Encroachment Permits | Permits for encroachment on county roads |

**TABLE 1.6-1
(Continued)**

| Agency | Permit or Consultation Authority | Agency Action |
|---|--|--|
| Illinois | | |
| Illinois Commerce Commission | Certificate of Good Standing | Certificate to construct pipeline and associated facilities across all lands |
| Illinois State Historic Preservation Office | Consultation under Section 106, NHPA | Review and comment on activities potentially affecting cultural resources |
| Illinois Environmental Protection Agency (EPA), Division of Water Pollution Control | Joint Application for Section 401 CWA Water Quality Certification | Permit for stream and wetland crossings/consultation for Section 404 process |
| | NPDES Temporary Discharge Permit (General Forms 1 and 2E and Form ILG67) | Permit regulating hydrostatic test water discharge and construction dewatering to waters of the state |
| | NPDES Storm Water Discharge Permits (Notice of Intent Form ILR10) | Permit regulating discharge of storm waters from the construction work area |
| Illinois Department of Natural Resources, Office of Water Resources | Joint Application for Section 401 CWA Water Quality Certification (Statewide Permit 8 – Floodplain Development Permit) | Permit for construction of pipeline in a floodway; submitted in conjunction with Section 401 application |
| Illinois Department of Natural Resources, Office of Realty and Environmental Planning Division, Review and Coordination | T&E Agency Action Report and Request for Consultation on State Lands | Consultation for assessing impacts on endangered and threatened species and natural areas |
| Illinois Department of Natural Resources, Division of Natural Heritage | Incidental Take Authorization (ITA) | Submission of authorization to ITA Committee |
| Illinois Department of Transportation | Encroachment Permits | Permits for encroachment on state highways |
| County Road Departments | Encroachment Permits | Permits for encroachment on county roads |
| Oklahoma | | |
| Oklahoma State Historic Preservation Office | Consultation under Section 106, NHPA | Review and comment on activities potentially affecting cultural resources |
| DEQ, Division of Water Resources | Section 401 CWA Water Quality Certification | Permit for stream and wetland crossings/consultation for Section 404 process |
| Oklahoma Corporation Commission | Notice of Surface Discharge of Hydrostatic Test Water | Permit regulating hydrostatic test water discharge |
| Water Resources Board | Water Appropriations Permit, Temporary Water Lease Permit | Permit to withdraw groundwater or surface water from public or private sources for hydrostatic testing and watering ROW for dust suppression |
| Department of Transportation | Encroachment Permits | Permits for encroachment on state highways |
| Oklahoma Turnpike Authority | Construction Permits | Permits to construct across jurisdictional roads |
| County Road Departments | Encroachment Permits | Permits for encroachment on county roads |

Note: Regulatory requirements for federal cooperating agencies are described in Section 1.3.2.

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