

INTRODUCTION

CHAPTER 1

1.0 INTRODUCTION

1.1 Background and Overview

TransCanada Keystone Pipeline, L.P. (Keystone) proposes to construct and operate a crude oil pipeline and related facilities from Hardisty, Alberta, Canada, to Patoka, Illinois, in the United States (U.S.). The project, known as the Keystone Pipeline Project or Keystone, initially will have the capacity to deliver 435,000 barrels per day (bpd) of crude oil from an oil supply hub near Hardisty to existing terminals in Wood River and Patoka, Illinois. If market conditions warrant expansion in the future, additional pumping capacity could be added to increase the average throughput to 591,000 bpd. Based on shipper interest, Keystone also is considering the construction of two pipeline extensions to take crude oil from terminals in Fort Saskatchewan, Alberta, and deliver to Cushing, Oklahoma.

In total, the Keystone Pipeline Project will consist of approximately 1,845 miles of pipeline, including about 767 miles in Canada and 1,078 miles within the U.S. These distances will increase if the potential pipeline extension to Cushing, Oklahoma, is constructed as discussed below.

In Canada, the project will involve the sale to Keystone of an existing 537-mile, 34-inch-diameter pipeline currently owned by TransCanada Limited, and conversion of that line to crude oil service; the construction of a new 230-mile pipeline extension from Hardisty to the existing pipeline and the 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 will significantly reduce environmental impacts and overall construction costs associated with the project. Appropriate regulatory authorities in Canada will conduct an independent environmental review process for the Canadian facilities.



Figure 1.1-1 Proposed Keystone Oil Pipeline Route
(Potential expansion represented by the dotted line)

In the U.S., Keystone will construct and operate a new 1,078-mile pipeline (Keystone Mainline) that will transport crude oil from the Canadian border to existing terminals in the Midwest. The proposed pipeline will consist of 1,023 miles of 30-inch pipe between the Canadian border and Wood River, Illinois and a 55-mile segment of 24-inch pipeline between Wood River and Patoka, Illinois. Depending on the results of an additional binding Open Season to be held later in 2006 or early 2007, Keystone also may construct a 292-mile, 36-inch pipeline extension to Cushing, Oklahoma (Cushing Extension). Thus, there will be 1,370 total miles of new pipeline in the U.S. if the Cushing Extension is constructed. Unless specified, the remainder of this Environmental Report (ER) describes and evaluates the U.S. portion of the Keystone Pipeline Project, including both the Keystone Mainline and Cushing Extension, and the additional facilities required to increase capacity to 591,000 bpd.

Keystone will construct the 30- and 36-inch pipelines within a 110-foot-wide corridor, consisting of both a temporary 60-foot-wide construction right-of-way (ROW) and a 50-foot permanent ROW. In Illinois where a portion of the Keystone Pipeline will be a 24-inch pipeline, the project will be constructed within a 95-foot-wide corridor, consisting of both a temporary 45-foot-wide construction ROW and a 50-foot permanent ROW. Ownership of land crossed by the Keystone Pipeline Project is identified in **Table 1.1-1**.

Table 1.1-1 Ownership of Land Crossed by Keystone (miles)¹

	Federal	Tribal	State	Private²	Total
KEYSTONE MAINLINE					
North Dakota	0.0	0.0	0.8	216.1	216.9
South Dakota	0.0	0.0	0.5	218.4	218.9
Nebraska	0.0	0.0	0.0	213.7	213.7
Kansas	0.0	0.0	0.0	98.8	98.8
Missouri	0.1	0.0	1.9	271.1	273.1
Illinois	3.0	0.0	0.0	53.5	56.5
<i>Keystone Mainline subtotal</i>	<i>3.1</i>	<i>0.0</i>	<i>3.2</i>	<i>1,071.6</i>	<i>1,077.9</i>
CUSHING EXTENSION					
Nebraska	0.0	0.0	0.0	2.4	2.4
Kansas	3.6	0.0	0.0	206.1	209.7
Oklahoma ³	0.0	0.0	5.2	74.5	79.7
<i>Cushing Extension Subtotal³</i>	<i>3.6</i>	<i>0.0</i>	<i>5.2</i>	<i>283.1</i>	<i>291.8</i>
Keystone Pipeline Project Total	6.7	0.0	8.4	1,354.6	1,369.7

¹Slight discrepancies in total values due to rounding.

²Includes privately owned lands with a federal or state easement.

³No tribal lands crossed in Oklahoma with the revised alignment as described in Section 2.4.1.4.

The Keystone Pipeline Project also will require the construction of pump stations (some with pigging facilities), delivery facilities, densitometer sites (for detection of crude oil batch interfaces), and mainline valves. Pump stations will be placed along the pipeline at locations necessary to maintain adequate flow through the pipeline. Valves will be installed and located as dictated by the hydraulic characteristics of the pipeline, as required by federal regulations, and with the intent to enhance public safety and environmental protection as part of Keystone's integrity management practices. Densitometer sites for detection of crude oil batch interfaces will be located at Steele City (junction of Mainline and Cushing Extension), Wood River, Patoka, Ponca City and Cushing. Delivery metering and power facilities at Wood River, Patoka, Ponca City, and Cushing will measure the amount of product transported and delivered to terminals. Finally, electrical powerlines will be constructed by local power providers to provide power for the new pump stations and to power remotely activated valves and densitometer sites located along the pipeline route.

The Keystone Pipeline Project will require the issuance of a Presidential Permit by the U.S. Department of State to cross the U.S./Canadian border. Issuance of the Presidential Permit is considered a federal action and is subject to environmental review pursuant to the National Environmental Policy Act (NEPA) (42 United States Code [USC] § 4321 et seq.). This ER is intended to provide the Department of State and other involved agencies with adequate information to commence review of the Keystone Pipeline Project under NEPA. This ER includes an objective disclosure of environmental impacts, both beneficial and adverse, resulting from the Keystone Pipeline Project, as well as a set of reasonable alternatives. Keystone is submitting preliminary field survey reports for spring and summer 2006 to the Department of State (November 15, 2006). Final 2006 field survey reports will be submitted in January 2007.

While the Keystone Pipeline Project will require electrical transmission powerline and facility upgrades in multiple locations along its route, Keystone will not perform and will not be responsible for the permitting of new electrical transmission lines and related facility construction. Rather, local power providers will be responsible for obtaining any necessary approvals or authorizations from federal, state, and local governments for such facilities. The permitting process for the electrical facilities is an independent process and no applications have been submitted for the electrical facilities to date. Construction and operation of these facilities, however, are considered connected actions under NEPA and, therefore, are evaluated within this ER.

The crude oil transported by the Keystone Pipeline to market destinations in the U.S. will be stored in existing storage tanks, will be integrated into the existing U.S. crude oil pipeline system, and will be processed at existing refineries. Based on Keystone's understanding of the operations and plans of the destination facilities (Wood River, Patoka, Ponca City, and Cushing), no additional oil storage facilities have been proposed because of this new oil supply. It is likely that refineries will shift feedstock from overseas sources transported by barge or other pipelines to the deliveries provided by the Keystone pipeline.

1.2 Purpose and Need for the Project

The purpose of the Keystone Pipeline Project is to transport incremental crude oil production from the Western Canadian Sedimentary Basin (WCSB) to meet growing demand by refineries and markets in the U.S. The Keystone Pipeline Project, depicted in **Figure 1.1-1**, will initiate at the crude oil supply hub near Hardisty, Alberta, Canada and terminate near the crude oil storage and pipeline hub near Patoka, Illinois. Keystone also will interconnect with other existing crude oil pipelines that supply refinery markets in Cushing and the U.S. Gulf Coast.

The need for the project is dictated by a number of factors including:

- 1) Increasing WCSB crude oil supply combined with insufficient export pipeline capacity;
- 2) Increasing crude oil demand in the U.S. and decreasing domestic crude supply;

- 3) The opportunity to reduce U.S. dependence on foreign offshore oil through increased access to stable, secure Canadian crude oil supplies; and
- 4) Binding shipper commitments to utilize the Keystone Pipeline Project.

1.2.1 Supply Component

Established crude oil reserves in the WCSB are estimated at 179 billion barrels (Canadian Association of Petroleum Producers (CAPP), April 2005). Over 97 percent of WCSB crude oil supply is sourced from Canada's vast oil sands reserves located in northern Alberta. The Alberta Energy and Utilities Board (AEUB) estimates there are 175 billion barrels of established reserves recoverable from Canada's oil sands. Alberta has the second largest crude oil reserves in the world, second only to Saudi Arabia (Oil and Gas Journal, December 2004).

CAPP estimates that, as a result of increasing production from the oil sands, the current level of crude oil production from the WCSB of about 2.3 million bpd is expected to increase by about 1.3 million bpd by 2015. (CAPP, July 2005). CAPP also has made a high case forecast, which estimates potential growth of over 2 million bpd over the same 10-year timeframe.

Existing crude oil export pipeline capacity out of the WCSB is insufficient to accommodate the forecasted crude oil supply growth, as shown in **Figure 1.2-1**. After accounting for Canadian domestic consumption, approximately 850,000 bpd of incremental export pipeline capacity will be required by 2015 to accommodate increased WCSB crude supply, based on CAPP's moderate forecast. Additional capacity above supply requirements also is required to avoid potential pipeline apportionment situations where short-term supply exceeds export pipeline capacity.

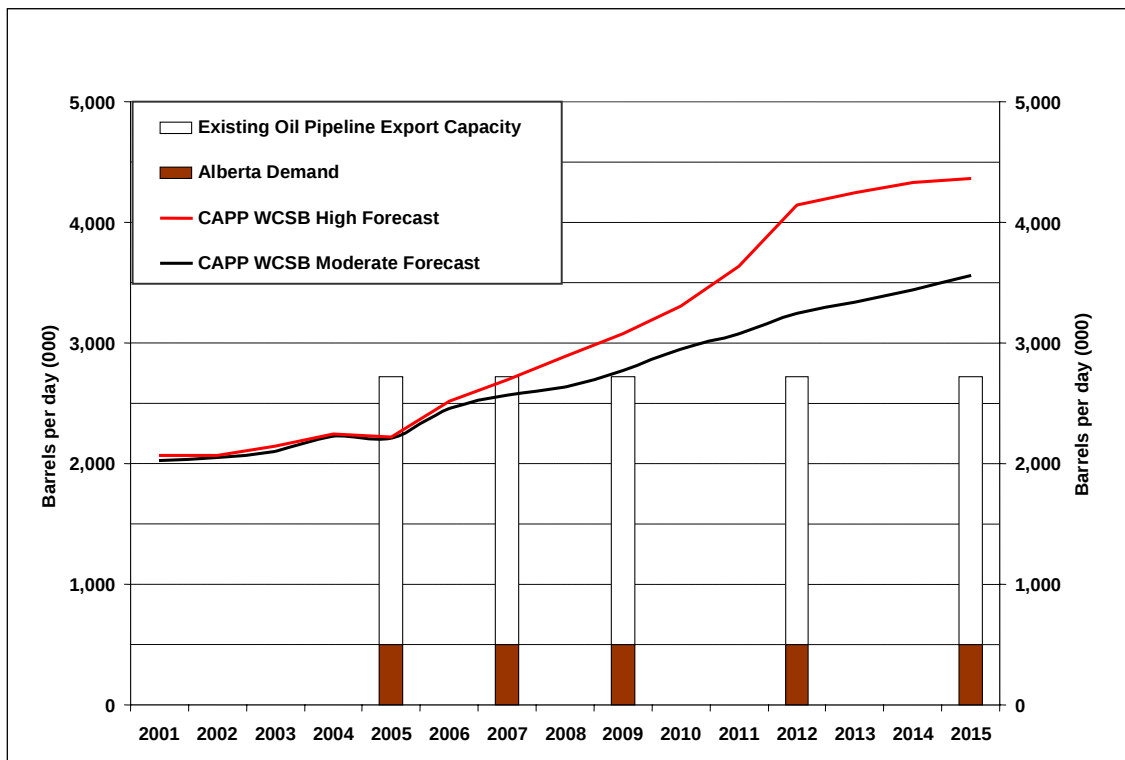


Figure 1.2-1 Existing WCSB Oil Pipeline Capacity versus CAPP Production Forecasts

As shown in **Figure 1.2-2**, the Keystone Pipeline Project initially will provide 435,000 bpd of incremental export capacity to address this deficiency. With expansion, Keystone could provide up to approximately 600,000 bpd of incremental export capacity. Thus, the addition of the Keystone pipeline will significantly increase the WCSB pipeline export capacity needed to address forecasted supply growth.

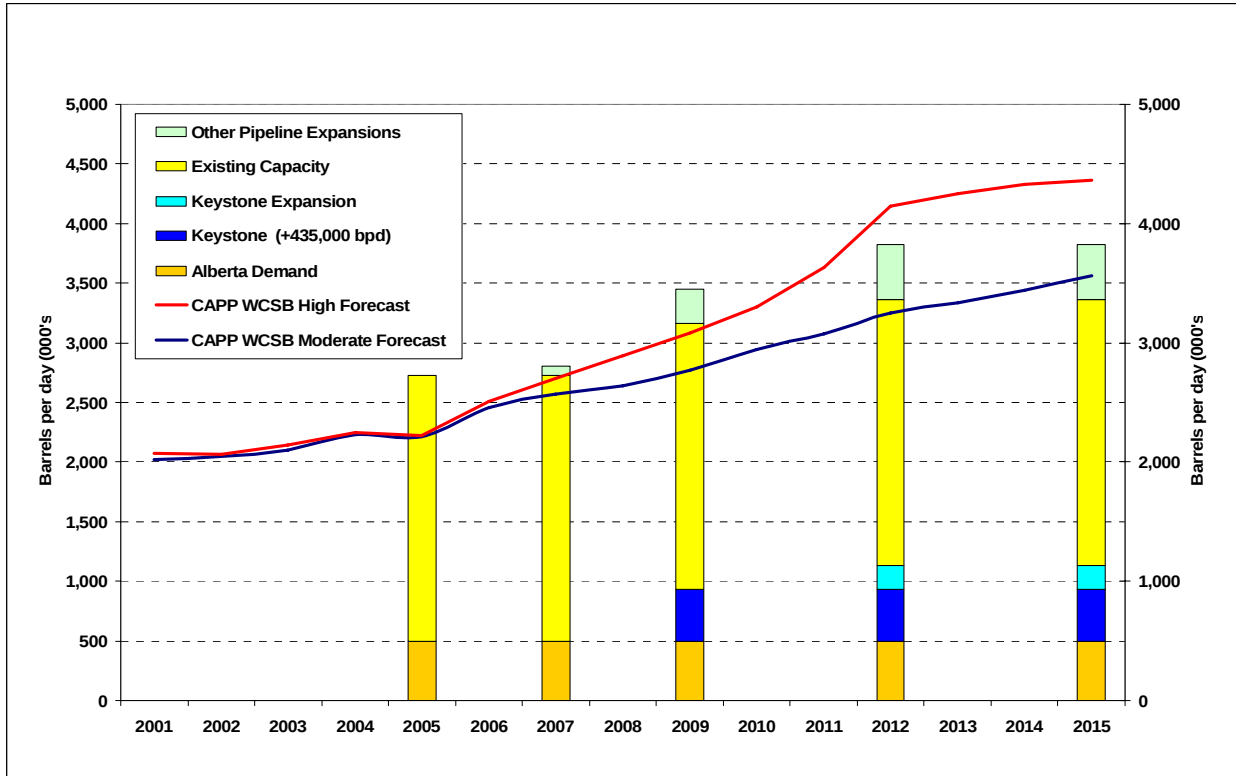


Figure 1.2-2 WCSB Oil Pipeline Capacity with Keystone versus CAPP Production Forecast

1.2.2 Demand Component

According to the Energy Information Administration (EIA), U.S. demand for petroleum products has increased by over 17 percent or 3 million bpd over the past 10 years and is expected to increase further. The EIA estimates that total U.S. petroleum consumption will increase by approximately 5.3 million bpd over the next 20 years, representing average demand growth of about 265,000 bpd per year (EIA Annual Energy Outlook 2006).

At the same time, domestic U.S. crude oil supplies continue to decline. For example, domestic crude production in the Petroleum Administration for Defense District II (PADD II), Keystone's initial target delivery area, continues to decline at an average rate of about 3 percent per year. Over the past 20 years, PADD II crude oil production has decreased by over 600,000 bpd or 60 percent (CAPP 2005).

The U.S. historically has compensated for decreases in domestic production through increased imports from Canada and foreign offshore sources. Canada is currently the largest supplier of imported crude oil and refined products to the U.S. (CAPP, April 2005), providing over 2.1 million bpd. Ten percent of oil consumed in the U.S. comes from Canada. U.S. imports of foreign crude and refined products continue to increase.

Crude and refined petroleum product imports into the U.S. have increased by over 4.3 million bpd over the past 10 years. In 2004, the U.S. imported over 13 million bpd of crude oil and petroleum products (United States Energy Information Administration 2006).

Keystone will provide a number of opportunities for refiners in the U.S. to utilize Canadian crude oil. Keystone's incremental pipeline capacity will provide the U.S. access to secure and growing Canadian crude supplies. Access to incremental Canadian crude supply also will provide an opportunity for the U.S. to offset declines in domestic crude oil production and decrease its dependence on offshore foreign crude supplies.

Keystone conducted a binding Open Season in December 2005 to provide shippers an opportunity to participate in the Keystone Pipeline Project by entering into contractual commitments for pipeline capacity. Binding contracts for 340,000 bpd were received, which Keystone has deemed sufficient to enable it to proceed with regulatory applications and, pending successful regulatory and environmental approvals, with construction of the pipeline. These binding commitments demonstrate the need for incremental pipeline capacity and access to Canadian crude supplies and represent a clear endorsement of the Keystone Pipeline 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).

Shippers, including producers, marketers and refiners, evaluate the merits of various pipeline proposals and ultimately decide which projects to support. Shippers have expressed significant interest in securing additional crude oil pipeline capacity on the Keystone Pipeline Project. Definitive shipper interest has been demonstrated through the execution of binding contracts for capacity on the Keystone Pipeline Project. Potential shippers also have expressed strong interest in a proposed pipeline extension to the Cushing market area.

1.3 Federal Approval Process and Authorizing Actions

A number of federal agencies have permitting, environmental review, and regulatory roles with respect to the Keystone Pipeline Project. The roles of federal agencies with respect to Keystone are summarized below.

1.3.1 Department of State

Executive Order (EO) 11423 (33 Federal Register [FR] 11741), as amended by EO 12847 (58 FR 29511) and EO 13337 (69 FR 25299), governs the U.S. Department of State's issuance of Presidential Permits authorizing the construction of pipelines carrying petroleum, petroleum products, and other liquids across U.S. international borders. Within the Department of State, 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, the Department of State 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 (USEPA), and such other government department and agency heads as the Secretary of State deems appropriate. The Department also solicits comments from the public through publication of a notice in the Federal Register.

In evaluating Presidential Permit applications, the Department of State complies with the environmental review requirements imposed by NEPA, as well as other applicable statutes. After consideration of the views obtained from various authorities and interested party commenters, the Department of State makes a determination whether the proposed pipeline will serve the national interest. If it is determined that the issuance will serve the national interest, the Department of State prepares a permit including such terms and conditions as the national interest may, in the Department of State's judgment, require. The Department of State is further required to notify those agencies required to be consulted of its proposed determination. If any of those agencies disagrees with the determination within 15 days of notification, it may ask the Department of State to refer the matter to the President for his consideration and a final decision. If no agency disagrees

within the 15-day period, the Department of State shall issue or deny the permit in accordance with the proposed national interest determination.

On October 11, 2006, the Department of State published a Notice of Intent To Prepare an Environmental Impact Statement and To Conduct Scoping Meetings and Notice of Floodplain and Wetland Involvement (71 FR 59849). Thirteen scoping meetings were held between October 24, 2006 and November 16, 2006, in cities located along the pipeline route. The public scoping period began with the publication of the Notice of Intent in the Federal Register and will continue until November 30, 2006.

1.3.2 U.S. Army Corps of Engineers Section 404 Nationwide Permits and Section 10 (Rivers and Harbors Act) Under the Clean Water Act

Section 404 of the Clean Water Act (CWA) establishes a permit program administered by the U.S. Army Corps of Engineers (USACE) to regulate the discharge of dredge and fill materials into the waters of the U.S., including their adjacent wetlands. The Keystone Pipeline Project will be under the jurisdiction of the multiple USACE districts. Keystone began field surveys along the Keystone Mainline in the spring of 2006. All areas along the Keystone Mainline where survey permission has been obtained will be surveyed by the end of 2006. Field surveys for the Cushing Extension are scheduled to begin in the spring of 2007. These field surveys will identify USACE jurisdictional waters of the U.S. and wetland delineations for applicable waterbodies that will be crossed by the project will be conducted. Keystone will file this information with the USACE and will apply for a Section 404 permit. Certain nationwide permits (NWP) may be applicable, including NWP 33 for access and dewatering and NWP 12 for temporary construction. Keystone also may require approvals under Section 10 (Rivers and Harbors Act). Keystone intends to submit its Section 404 permit applications to the appropriate USACE District offices in 2007.

1.3.3 National Park Service

The Keystone Pipeline Project will be constructed parallel to the existing Kanab Pipeline crossing of the Missouri National Recreational River near Yankton, South Dakota. This portion of the Missouri River, between Gavins Point Dam and Ponca State Park, is classified as a national recreational river segment, as defined in the Wild and Scenic Rivers Act (WSRA) (P.L.90-542, as amended) (16 USC 1271-12870). The river segment subject to WSRA is managed by the National Park Service (NPS) and administered by the Secretary of the Interior. Furthermore, administration of this river segment is conducted in coordination with, and pursuant to, the advice of a Recreational River Advisory Group that has been established by the Secretary of Interior. This group may include representatives of the affected States and political subdivisions thereof, affected federal agencies, and other organized private groups as the Secretary of Interior deems desirable. The Keystone Pipeline Project will require approval of the proposed river crossing from the Secretary of the Interior. In evaluating the proposed river crossing, the Secretary is required by NEPA to consider environmental impacts. The issues to be considered by the Secretary are included in this ER.

Keystone conducted discussions with the NPS and other agencies related to the proposed horizontal directional drill (HDD) of the Missouri River. The proposed crossing lies within a Wild and Scenic Recreational River segment. The proposed crossing would be located within NPS Wild and Scenic River jurisdiction, but no land owned by the NPS would be affected. A meeting was held in Yankton, South Dakota, on May 19, 2006, to discuss the proposed HDD under the Missouri River and preliminary crossing drawings were provided (Appendix D). A Special Use permit was required from the NPS to conduct geotechnical drilling near the banks of the river. Keystone filed a Special Use Permit Application with the NPS on August 17, 2006, and the NPS approved this plan on September 18, 2006. Initial data collected during this investigation suggests that HDD is technically feasible for this crossing.

1.3.4 Advisory Council on Historic Preservation

Section 106 of the National Historic Preservation Act (NHPA), as amended, requires the lead federal agency to take into account the effects of its undertakings 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 there will be adverse effects to NRHP-eligible properties. Historic properties are prehistoric or historic districts, sites, buildings, structures, objects, or properties of traditional religious or cultural importance, which are listed or eligible for listing in the NRHP, including artifacts, records, and material remains related to such a property or resource.

The Department of State, as lead federal agency, is responsible for NHPA Section 106 compliance for all lands, both public and private, affected by the Keystone Pipeline Project. The Department of State is using the services of Keystone, as the applicant, to prepare information, analyses, and recommendations necessary to comply with Section 106, in accordance with ACHP's regulations at 36 Code of Federal Regulations [CFR] Section 800.2.

To date, Keystone has completed files and records reviews for the Keystone Pipeline Project area. Protocols for field surveys were prepared by Keystone and reviewed and approved by state historic preservation officers (SHPOs). Field surveys started in the spring of 2006 along the Keystone Mainline. Several potentially eligible sites were located within the project area of potential effect (APE) during the field surveys. Keystone is either avoiding or conducting evaluative testing in order to definitively determine NRHP eligibility for these sites. For those sites in which avoidance was not feasible, evaluative testing was started in early September 2006. To date, evaluative testing has been started at 14 sites. One of the 14 sites has been determined eligible for the NRHP, three have been determined not eligible, and the results of testing on the remaining 10 sites are pending. Field surveys will be conducted along the Cushing Extension starting in the spring of 2007.

Information from the files and records searches and field surveys will be documented in reports and submitted to the Department of State, SHPOs, and land managing agencies, as appropriate. The Department of State will consult with each SHPO to determine site eligibility for the NRHP and the project's effects on NRHP-eligible sites within the APE. If the Keystone Project will adversely affect NRHP-eligible sites, the Department of State will require the preparation and implementation of treatment plans to mitigate adverse effects. No construction will begin until all required consultations and approvals are received.

As the lead agency, the Department of State also is responsible for complying with the tribal consultation requirements of Section 106 of the NHPA, as amended, the Native American Graves Protection and Repatriation Act (NAGPRA), and American Indian Religious Freedom Act (AIRFA). Compliance involves contacting Native American groups with traditional or historical ties to the lands crossed by the proposed Keystone Project and ensuring that the requirements of the NHPA, AIRFA, and NAGPRA are met.

Tribal consultation was initiated by Keystone with 44 tribes that were recognized as having a potential past or present affiliation with the proposed project area. To date, two tribes have responded to the initial consultation letters. Neither tribe identified any areas of tribal importance within the project APE. At this time, follow-up phone calls to the tribes have not been conducted. The Department of State has indicated that it will continue consultation with the tribes from this point forward.

1.3.5 U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service (USFWS) is responsible for ensuring compliance with the Endangered Species Act (ESA). The Department of State, as the lead federal agency, is responsible for initiating informal consultation with the USFWS to determine the likelihood of effects on listed species. 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)]. The Department of State, or the applicant as a non-federal party, is required to

consult with the USFWS to determine whether any federally listed or proposed endangered or threatened species or their designated critical habitat occur in the vicinity of the proposed project. If, upon review of existing data, the Department of State determines that these species or habitats may be affected by the proposed project, the Department of State is required to prepare a Biological Assessment (BA) to identify the nature and extent of adverse impact and to recommend mitigation measures that will avoid the habitat and/or species or that will reduce potential impact to acceptable levels. If, however, the Department of State determines that no federally listed or proposed endangered or threatened species or their designated critical habitat will be affected by the proposed project, no further action is necessary.

Keystone consulted with the USFWS regarding potential occurrence of special status species along the pipeline route. Based on USFWS input, Keystone developed a list of special status species that would require surveys and identified appropriate survey protocols. Once the survey protocols were approved by the USFWS, surveys were initiated in the fall of 2006 and will continue during the spring of 2007.

Keystone continues to consult with the USFWS regarding potential impacts of the pipeline to special status species and mitigation measures to reduce possible impacts. Based on the results of field surveys and potential impacts to sensitive species, Keystone will prepare an applicant-prepared Biological Assessment. This document will be submitted to the Department of State following the completion of field surveys. The Department of State will then review the Biological Assessment and submit the document to the USFWS for its concurrence.

1.3.6 Office of Pipeline Safety

The Office of Pipeline Safety (OPS), Pipeline and Hazardous Materials Safety Administration, within the U.S. Department of Transportation (USDOT) is the primary enforcement agency that regulates the safety of interstate transportation of hazardous liquids by pipelines, including crude oil. Federal regulations governing the construction and safe operation of pipelines are enforced by the OPS. To comply with federal regulations (49 CFR Parts 194 and 195), Keystone will be required to develop a comprehensive Emergency Response Plan for the Keystone Pipeline Project and areas of operation. The OPS will need to review and approve Keystone's Emergency Response Plan prior to operation. Additionally, the OPS will conduct regular inspections of pipeline facilities in the future to enforce continual compliance with federal regulations. This will include the review and approval of Keystone's Integrity Management Plan for High Consequence Areas.

Keystone prepared a preliminary evaluation of spill risk, including the likelihood of an inadvertent release, the probable size of a release, and the potential impacts of an accidental release. This preliminary evaluation was submitted to the Department of State on July 1, 2006. Keystone will continue to update and refine this evaluation as the project progresses in accordance with U.S. federal regulations.

1.4 Permits and Relationship to Non-federal Policies, Plans, and Programs

A preliminary list of federal, state, and local permits and approvals is provided on **Table 1.4-1**. Individual road crossing and road use permits have not been included in this table, since such permits will be a standard requirement in all counties crossed.

Table 1.4-1 Permits, Licenses, Approval, and Consultation Requirements

Agency	Permit or Consultation/Authority	Agency Action
FEDERAL		
Department of State (DOS)	Presidential Permit, Executive Order 11423 of August 16, 1968 (33 Fed. Reg. 11741)	Approve cross-border facilities. DOS is lead Federal agency for NEPA purposes.
U.S. Corps of Engineers (USACE) – Omaha, St. Louis, Kansas City, and Tulsa Districts	Section 404, Clean Water Act (CWA)	Section 404 permits for the placement of dredge or fill material in waters of the U.S., including wetlands.
	Section 10 Permit (Rivers and Harbors Act of 1899)	Section 10 permits for pipeline crossings of navigable waters.
Federal Highway Administration	Encroachment Permit	Permits for the crossing of federally funded highways.
Office of Pipeline Safety	49 CFR Part 195	Review and approval of Integrity Management Plan for High Consequence Areas.
	49 CFR Part 194	Review and approval of Emergency Preparedness Plan.
U.S. Environmental Protection Agency (EPA), Regions V, VI, VII, VIII	Section 401, CWA, Water Quality Certification	Water use and crossing permits for non-jurisdictional waters. Implemented through each state's Water Quality Certification Program.
	Section 402, CWA, National Pollutant Discharge Elimination System (NPDES)	Review and issue NPDES permit for the discharge of hydrostatic test water. Implemented through each state's Water Quality Certification Program.
NORTH DAKOTA		
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, CWA, Water Quality Certification	Permit for stream and wetland crossings/consultation for COE 404 process.
	NPDES Temporary Dewatering / Hydrostatic Testing Permit (NDG07000)	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. Reviewed in conjunction with Section 401 application.
		Permit for construction of pipeline in a floodway. Reviewed in conjunction with 401 permit application.

Table 1.4-1 Permits, Licenses, Approval, and Consultation Requirements

Agency	Permit or Consultation/Authority	Agency Action
Department of Transportation	Encroachment Permits	Permits for encroachment on state highways.
County Road Departments	Encroachment Permits	Permits for encroachment on county roads.
SOUTH DAKOTA		
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/ consultation for 404 process.
	National Pollutant Discharge Elimination System (NPDES) Temporary Discharge Permit (General Permit for Temporary Discharges and a Temporary Water Use Permit)	Permit regulating hydrostatic test (HT) water discharge, and construction dewatering to waters of the state.
	NPDES Storm Water Discharge Permit (SWD 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.
NEBRASKA		
Department of Environmental Quality (DEQ), Division of Water Resources	Section 401, CWA, Water Quality Certification.	Permit for stream and wetland crossings/ consultation for 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 Transportation	Encroachment Permits	Permits for encroachment on state highways.
County Road Departments	Encroachment Permits	Permits for encroachment on county roads.
KANSAS		
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 404 process.
	NPDES Temporary Discharge Permit	Permit regulating hydrostatic test water discharge.
Kansas Department of Wildlife and Parks	Action Permit	Permit for potential effects on federal and state-listed species.

Table 1.4-1 Permits, Licenses, Approval, and Consultation Requirements

Agency	Permit or Consultation/Authority	Agency Action
Kansas Department of Agriculture	Temporary and Term Water Appropriations Permits	Permits for appropriation of water for hydrostatic testing and watering ROW for dust suppression.
	Stream Channel Modification Permits	General pipeline crossing permit and/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		
Department of Natural Resources, Division of Water Resources	Section 401, CWA, Water Quality Certification	Permit for stream and wetland crossings/ consultation for 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 401 application.
County Road Departments	Encroachment Permits	Permits for encroachment on county roads.
ILLINOIS		
Illinois Commerce Commission	Certificate of Good Standing	Certificate to construct pipeline and associated facilities across all lands.
Illinois EPA, Division of Water Pollution Control	Joint Application for Section 401, CWA, Water Quality Certification	Permit for stream and wetland crossings/consultation for 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 (NOI, Form ILR10, and NOT)	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 Transportation	Encroachment permits	Permits for encroachment on state highways.

Table 1.4-1 Permits, Licenses, Approval, and Consultation Requirements

Agency	Permit or Consultation/Authority	Agency Action
County Road Departments	Encroachment Permits	Permits for encroachment on county roads.
OKLAHOMA		
Department of Environmental Quality (DEQ), Division of Water Resources	Section 401, CWA, Water Quality Certification	Permit for stream and wetland crossings/consultation for 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 ground 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 Permit	Permits to construct across jurisdictional roads.
County Road Departments	Encroachment Permits	Permits for encroachment on county roads.

1.5 ROW Acquisition Process

Keystone will seek to acquire the necessary ROW for the Keystone Pipeline Project by negotiating easements with landowners along the pipeline route. Keystone will negotiate permanent easements that will grant the company the right to construct, operate, and maintain the pipeline in the permanent ROW. Keystone also will negotiate temporary easements for additional workspace needed to construct the pipeline. Landowners will receive monetary compensation in return for granting easements, including loss of use during construction, crop loss, loss of nonrenewable or other resources, and the restoration of any unavoidable damage to property during construction. If an easement cannot be negotiated with the landowner, Keystone may acquire easements needed for pipeline construction under state eminent domain laws. State statutes define the prerequisites to utilizing eminent domain and set forth the eminent domain process in each state. Keystone also will acquire a limited number of sites in fee for the siting of pump stations.

Keystone initiated land acquisition in Illinois in October 2006 and anticipates initiating land acquisition in eastern Missouri and for the pump stations in late 2006. All other land acquisition will be initiated in early 2007.

1.6 Public Participation and Issues

1.6.1 Public Participation and Open Houses

Keystone has been engaged in public consultation since the project was first announced in February 2005. Keystone's public participation activities to date are summarized with reference to the following major U.S. pipeline route iterations:

1. Initial Route (through North Dakota, South Dakota, Iowa, Missouri, and Illinois) – This was the general route announced with the project announcement in February 2005. A more detailed and slightly refined version was used through the November 2005 Open Houses.

2. Spring 2006 Mainline Route (through North Dakota, South Dakota, Nebraska, northeastern Kansas, Missouri, and Illinois) – This proposed route was described in detail in the April 2006 ER filing. It also is the route discussed at the spring 2006 Open Houses.
3. Cushing Extension Route – This proposed extension was described in the original ER filing in April 2006 and was discussed at the June 2006 Cushing Extension Open Houses.
4. Major Route Variations – Reroutes with significant changes from the routes described in #2 and #3 above are the subject of ongoing consultation.

Keystone is committed to ongoing and regular correspondence, communication, and consultation with all stakeholders. Keystone shares information about the project and provides opportunities for identification and resolution of questions, issues, and concerns through a number of channels, including press releases, the project web site (www.transcanada.com/keystone), e-mail (keystone@transcanada.com), toll free telephone numbers for general inquiries (1-866-717-7473) and for landowner issues (1-877-860-4881), one-on-one discussions between landowners and land agents, and direct mailings. Public participation and consultation activities will continue throughout the life of the project.

Keystone's public participation program included meetings with community leaders and open houses. Keystone met with over 700 community leaders during 2005 and 2006. These meetings were designed to:

- Introduce the project, listen to and capture initial thoughts and concerns, and describe ways for interested parties to get additional information from TransCanada and the Keystone project team;
- Discuss plans for more detailed public participation and consultation with local landowners and stakeholders ensuring community leaders were comfortable with Keystone's approach;
- Assist in planning effective open houses by asking community leaders to identify potentially interested constituencies and potential local issues and concerns; and
- Begin to establish a business relationship between Keystone and the local units of government and communities neighboring the pipeline.

Keystone conducted three sets of open houses to inform communities and other interested stakeholders about the proposed Keystone Pipeline Project and to initiate the public input and feedback process.

In November 2005, 16 open houses were held along the Initial Route in the following locations:

North Dakota

Grafton (Walsh County)
Finley (Steele County)
Lisbon (Ransom County)

Iowa

Akron (Plymouth County)
Anthon (Woodbury County)
Harlan (Shelby County)
Creston (Union County)

Illinois

Greenville (Bond County)

South Dakota

Clark (Clark County)
Howard (Miner County)
Parker (Turner County)

Missouri

Trenton (Grundy County)
Keytesville (Chariton County)
Mexico (Audrain County)
Troy (Lincoln County)
St. Charles (St. Charles County)

Twelve open houses were held along the spring 2006 Mainline Route in:

North Dakota

Michigan (Nelson County)
Lisbon (Ransom County)

Nebraska

Stanton (Stanton County)

Seward (Seward County)
Odell (Gage County)

Missouri

Faucett (Buchanan County)
Carrollton (Carroll County)
Troy (Lincoln County)

South Dakota

Alexandria (Hanson County)
Yankton (Yankton County)

Kansas

Seneca Kansas (Nemaha County)

Illinois

Collinsville (Madison County)

In June 2006, four open houses were held along the Cushing Extension Route in:

Kansas

Washington (Washington County)
Abilene (Dickinson County)
El Dorado (Butler County)

Oklahoma

Morrison (Noble County)

1.6.1.1 Consultation on Route Variations

In response to feedback received, agency input and as a result of survey work done to date and ongoing engineering, portions of the route shared publicly at the spring 2006 and June 2006 open houses have been changed. Consultation with new landowners who may be affected by these reroutes is accomplished largely through one-on-one interactions with field personnel. Additionally, these new stakeholders are provided with information to allow them to access project information and to provide feedback by other means. Feedback on reroutes is also being solicited from local officials in areas near the reroutes.

These consultation activities continue to take place.

1.6.2 Agency Coordination and Consultation

An initial meeting was held between the Department of State and Keystone in July 2005. A follow-up meeting was held on January 24, 2006. The purpose of these meetings was to introduce the project to the Department of State and discuss the NEPA process. In February 2006 subsequent meetings were held among Keystone and USACE, NPS, and USFWS both at the federal and regional levels to discuss the project, identify any potential issues with these agencies, and initiate the permitting processes. Similar meetings were held with state agencies during February and March 2006.

Keystone filed a Presidential Permit application and supporting Environmental Report with the Department of State on April 19, 2006. Subsequent filings with the Department of State include a Preliminary Risk Assessment and draft Emergency Response Plan (filed July 1, 2006); a line list, electronic shapefiles for the refined centerline and pump station location, and documentation of agency consultation for wetlands, cultural, and biological resources (September 15, 2006).