



# Keystone XL Pipeline Project: Key Issues

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## Summary

Canadian pipeline company TransCanada has filed an application with the U.S. Department of State to build the Keystone XL pipeline, which would transport crude oil from the oil sands region of Alberta, Canada, to refineries in the United States. Keystone XL would have the capacity to transport 830,000 barrels per day, delivering crude oil to the market hub at Cushing, OK, and further to points in Texas. The project is expected to cost more than \$7.0 billion, of which at least \$5.4 billion would be spent on the U.S. portion. TransCanada is planning to build a short additional pipeline so that oil from the Bakken formation in Montana and North Dakota can also be carried on the Keystone XL pipeline.

As a facility connecting the United States with a foreign country, Keystone XL requires a Presidential Permit from the State Department. Issuance of a permit is dependant upon a finding that the project would serve the national interest. That finding is based, in part, on the environmental impacts of the project as determined in an environmental impact statement (EIS) prepared pursuant to the National Environmental Policy Act (NEPA). A draft EIS issued in April 2010 was rated “inadequate” by the U.S. Environmental Protect Agency (EPA).

To respond to comments from EPA, as well as the public and other agencies, the State Department issued a supplement draft EIS in April 2011. EPA found the supplement draft included insufficient information to determine environmental impacts and recommended additional data and analysis to be included in the final EIS. Once a final EIS is issued, the State Department plans to hold six public hearings to gather additional comments on whether authorization of a Presidential Permit for Keystone XL would be in the national interest. The State Department expects to make that decision before the end of 2011.

Opponents to the Keystone XL pipeline project, primarily environmental groups and affected communities along the route, object to the project principally on the grounds that it supports “dirty” Canadian oil sands development, that a potential spill could pose a risk to groundwater, that alternative pipeline routes avoiding the Ogallala Aquifer have not been fully considered, and that it promotes continued U.S. dependency on fossil fuels. Arguments criticizing the greenhouse gas emissions of oil sands production, generally, are based to some degree on the assumption that limiting pipeline capacity to U.S. markets may limit output from Canada’s oil sands.

Proponents of the Keystone XL pipeline, including Canadian agencies and petroleum industry stakeholders, point to energy security and economic benefits, such as job creation. Some contend that the Keystone XL project would secure growing Canadian oil supplies for the U.S. market, which could offset imports from less dependable foreign sources. They also claim that if oil sands output cannot flow to the United States, infrastructure to export it to Asia will likely develop.

International pipeline projects like Keystone XL are not subject to the direct authority of Congress, but numerous Members of Congress have expressed support for, or opposition to, the pipeline proposal because of its potential environmental, energy security, and economic impacts. Congress may have an oversight role stemming from federal environmental statutes that govern the pipeline’s application review process. The North American-Made Energy Security Act (H.R. 1938) would direct the President to issue a final order granting or denying the Presidential Permit for the Keystone XL pipeline by November 1, 2011. Whatever the State Department’s decision, legal challenges appear likely.

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## Introduction

In September 2008, TransCanada (a Canadian company) applied to the U.S. Department of State for a permit to cross the U.S.-Canada international border with the Keystone XL pipeline project. If constructed, the pipeline would carry crude oil produced from the oil sands region of Alberta, Canada, to U.S. Gulf Coast refineries. Because the pipeline would connect the United States with a foreign country, it requires a Presidential Permit issued by the State Department. Members of Congress have expressed support for the proposed pipeline's potential energy security and economic benefits while others have expressed reservations about its potential environmental impacts.<sup>1</sup> Though Congress has no direct role in permitting the pipeline's construction, it may have an oversight role stemming from federal environmental statutes that govern the pipeline's application review process. The North American-Made Energy Security Act (H.R. 1938) would direct the President to issue a final order granting or denying the Presidential Permit for the Keystone XL pipeline by November 1, 2011 (§ 3).

This report describes the Keystone XL pipeline proposal and the process required for federal approval. It summarizes key arguments for and against the pipeline put forth by the pipeline's developers, federal agencies, environmental groups, and other stakeholders. Finally, the report reviews the constitutional basis for the State Department's authority to issue a Presidential Permit, and opponents' possible challenges to this authority.

## Pipeline Description and Status

The U.S. portion of the Keystone XL pipeline project, as proposed, would pass through Montana, South Dakota, Nebraska, Oklahoma, and Texas (**Figure 1**). The pipeline would consist of approximately 1,380 miles of 36-inch-diameter pipe and have the capacity to transport 830,000 barrels per day (bpd) of crude oil to the United States, delivering up to roughly 200,000 bpd to an existing oil terminal in Oklahoma with the remainder sent further to points in Texas.<sup>2</sup>

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<sup>1</sup> See, for example, House Energy & Commerce Committee, Subcommittee on Energy and Power, Hearing on The American Energy Initiative: Discussion Draft of H.R. \_\_\_\_\_, the North American Made Energy Security Act of 2011, May 23, 2011; U.S. Senator Max Baucus, Letter to Secretary of State Hillary Rodham Clinton, September 10, 2010, [http://baucus.senate.gov/?p=press\\_release&id=179](http://baucus.senate.gov/?p=press_release&id=179); U.S. Representative Henry A. Waxman, Letter to Secretary of State Hillary Rodham Clinton, July 2, 2010, <http://democrats.energycommerce.house.gov/documents/20100706/State.070210.Clinton.Keystone.XL.pdf>.

<sup>2</sup> U.S. Department of State, *Supplemental Draft Environmental Impact Statement for the Keystone XL Oil Pipeline Project*, April 15, 2011, p. 1-4. An initial capacity of 700,000 bpd may be raised to 830,000 bpd by increasing the pumping capacity. The Keystone XL project had applied to the Pipeline Hazardous Materials Safety Administration to operate at slightly higher pressure than permitted in standard regulations, which would have enabled a 900,000 bpd capacity, but it withdrew its applications for such a Special Permit in August, 2010.

Figure I. TransCanada Keystone Pipeline System Routes



**Source:** TransCanada, Inc., *Keystone Pipeline System*, May 2010, [http://www.transcanada.com/docs/Key\\_Projects/keystone\\_may\\_2010.pdf](http://www.transcanada.com/docs/Key_Projects/keystone_may_2010.pdf).

**Note:** Figure I shows the developer's "preferred alternative" for the Keystone XL pipeline route according to Presidential Permit application documents. For discussion of alternative routes, see the State Department EIS discussed below.

The Keystone XL project is expected to cost more than \$7.0 billion, with the U.S. portion accounting for at least \$5.4 billion of that total.<sup>3</sup> Current cost estimates include cost increases since the project's initial permit application was filed reportedly due to currency swings, changing regulatory requirements, and permitting delays.<sup>4</sup> The Keystone XL pipeline would be an extension of TransCanada's existing Keystone pipeline, which links the Alberta oil sands to refineries in Illinois and Oklahoma (**Figure 1**). The Keystone pipeline received State Department approval on March 17, 2008, and began commercial operation in June 2010.

### Keystone XL Extension to Bakken Oil Production

The U.S. portion of the Bakken formation is an unconventional oil resource that underlies parts of North Dakota and Montana.<sup>5</sup> It currently produces around 350,000 bpd, much of which is

<sup>3</sup> TransCanada Keystone Pipeline, L.P., Application of TransCanada Keystone Pipeline L.P. for a Presidential Permit Authorizing the Construction, Operation, and Maintenance of Pipeline Facilities for the Importation of Crude Oil to be Located at the United States-Canada Border, U.S. Dept. of State, September 19, 2008, p. 10, <http://www.keystonepipeline-xl.state.gov/client/site/keystonexl.nsf/presidentialpermitapplication.pdf?OpenFileResource>.

<sup>4</sup> "TransCanada Expects \$1-Billion Cost Escalation for Keystone XL Pipeline," Canadian Press, February 17, 2011.

<sup>5</sup> Richard M. Pollastro et al., Assessment of Undiscovered Oil Resources in the Devonian-Mississippian Bakken (continued...)

currently taken away by rail and truck, rather than by pipeline.<sup>6</sup> In part, this is because infrastructure has not kept up with rapid production growth in the Bakken region in recent years. Output is expected to increase significantly in the future, increasing the need for pipeline transportation capacity.<sup>7</sup>

TransCanada has signed contracts with Bakken oil producers to carry 65,000 bpd from the region via the Keystone XL pipeline. While not the full 100,000 bpd of capacity TransCanada had offered to oil producers, this was enough to justify adding the Bakken Marketlink Project, a pipeline running from Baker, MT, to the Keystone XL pipeline, which can then carry crude to the oil hub at Cushing, OK, and on to the Gulf Coast.<sup>8</sup> The Bakken Marketlink would have a 100,000 bpd capacity and is estimated to cost \$140 million. It could start operating in 2013 if it and the Keystone XL pipeline receive regulatory approvals.<sup>9</sup>

These new Bakken contracts also improve the economics for Keystone XL, raising its committed capacity from 75% to near 90% of its projected 830,000 bpd.<sup>10</sup> Lower transportation costs and access to new markets may support investment in the Bakken. And TransCanada is not the only company adding pipeline capacity. Notably, Enbridge, another Canadian pipeline company, is building a 145,000 bpd pipeline to transport oil from the Bakken region to markets in the Midwest in the same time frame. According to Enbridge, sufficient pipeline capacity has been slow to emerge in the region because “they’re smaller players in the Bakken. They are not able to make the 20-year commitments and it’s been a lot of work to get them to commit to the level that [is] required to underwrite a major project out of the Bakken.”<sup>11</sup>

## Presidential Permit Application Requirements

Ordinarily, the U.S. government does not have permit authority for oil pipelines, even interstate pipelines. This is in contrast to interstate natural gas pipelines, which, under Section 7(c) of the Natural Gas Act, must obtain a “certificate of public convenience and necessity” from the Federal Energy Regulatory Commission (FERC).<sup>12</sup> Generally, the primary siting authority for oil pipelines would be established under applicable state law (which may vary considerably from state to state). However, the construction, connection, operation, and maintenance of a pipeline that connects the United States with a foreign country requires executive permission conveyed through a Presidential Permit. Since the Keystone and proposed Keystone XL pipelines are designed for the importation of oil from Canada, their facilities require a Presidential Permit.

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(...continued)

Formation, Williston Basin Province, Montana and North Dakota, 2008, U.S. Geologic Survey, National Assessment of Oil and Gas Fact Sheet (2008–3021), April 2008, p. 1, [http://pubs.usgs.gov/fs/2008/3021/pdf/FS08-3021\\_508.pdf](http://pubs.usgs.gov/fs/2008/3021/pdf/FS08-3021_508.pdf). The Bakken formation also stretches into parts of Manitoba and Saskatchewan, Canada.

<sup>6</sup> Nathan Vanderklippe, “TransCanada to move U.S. crude through Keystone,” *The Globe and Mail*, January 26, 2011.

<sup>7</sup> Energy Information Administration, U.S. Department of Energy, *Annual Energy Outlook 2011 Early Release*, December 16, 2010, p. 8, [http://www.eia.gov/forecasts/aeo/pdf/0383er\(2011\).pdf](http://www.eia.gov/forecasts/aeo/pdf/0383er(2011).pdf).

<sup>8</sup> Jeffrey Jones, “TransCanada plans U.S. Bakken pipeline link,” *Reuters*, January 20, 2011.

<sup>9</sup> TransCanada, “TransCanada to Transport U.S. Crude Oil to Market Bakken Open Season a Success,” press release, January 11, 2011, <http://www.transcanada.com/5631.html>.

<sup>10</sup> Vanderklippe, 2011.

<sup>11</sup> Lauren Krugel, “TransCanada attracts support for Montana-to-Oklahoma crude pipeline,” *The Canadian Press*, January 20, 2011.

<sup>12</sup> 15 USC § 717f(c).

Executive Order 13337 delegates to the Secretary of State the President's authority to receive applications for Presidential permits.<sup>13</sup> Issuance of a Presidential Permit is dependant upon a finding that the project would serve the national interest.<sup>14</sup> In the course of making that determination, the State Department consults extensively with concerned federal and state agencies, and invites public comment in arriving at its determination. Further, in processing permit applications, the State Department reviews the project's compliance with the National Environmental Policy Act (NEPA, 42 U.S.C. § 4321 et seq.), the National Historic Preservation Act (16 U.S.C. § 470f), the Endangered Species Act (16 U.S.C. § 1531 et seq.), and Executive Order 12898 of February 11, 1994 (59 *Federal Register* 7629), concerning environmental justice. In processing the permit application for the Keystone XL Pipeline project, issues associated with NEPA compliance have drawn the most attention.

### **Environmental Review Under the National Environmental Policy Act**

Broadly, NEPA requires federal agencies to consider the environmental impacts of their actions before proceeding with them and to inform the public of those potential impacts. To ensure that environmental impacts are considered, an environmental impact statement (EIS) must be prepared for major federal actions "significantly" affecting the environment.<sup>15</sup> With respect to the application submitted by TransCanada, the State Department concluded that issuance of a Presidential Permit for the proposed construction, connection, operation, and maintenance of the Keystone XL Pipeline and its associated facilities at the United States border would constitute a major federal action that may have a significant impact upon the environment within the meaning of NEPA.<sup>16</sup> For this reason, the State Department prepared an EIS to address reasonably foreseeable impacts from the proposed action and alternatives.

Among other requirements, an EIS must include a statement of the purpose and need for an action, a description of all reasonable alternatives to meet that purpose and need, a description of the environment to be affected by those alternatives, and an analysis of the direct and indirect effects of the alternatives, including cumulative impacts.<sup>17</sup> Accordingly, the State Department EIS must review and consider the potential environmental impacts of the entire pipeline (including the construction, operation, and maintenance of the pipeline and its associated facilities), not just the facilities at the border crossing.

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<sup>13</sup> See Executive Order 13337, "Issuance of Permits With Respect to Certain Energy-Related Facilities and Land Transportation Crossings on the International Boundaries of the United States," 69 *Federal Register* 25299, May 5, 2004, as amended, and Department of State Delegation of Authority No. 118-2 of January 26, 2006. The source of Permitting Authority for relevant Executive Orders is discussed further in the **Appendix**.

<sup>14</sup> Executive Order 13337, at Sec. 1(g).

<sup>15</sup> 42 U.S.C. § 4332(2)(C).

<sup>16</sup> U.S. Department of State, "Notice of Intent to Prepare an Environmental Impact Statement and to Conduct Scoping Meetings and Notice of Floodplain and Wetland Involvement and to Initiate Consultation under Section 106 of the National Historic Preservation Act for the Proposed TransCanada Keystone XL Pipeline," 74 *Federal Register* 5020, January 28, 2009.

<sup>17</sup> In preparing an EIS associated with a Presidential Permit, NEPA regulations promulgated by both the Council of Environmental Quality (CEQ) and the State Department would apply. CEQ regulations implementing NEPA (under 40 C.F.R. §§ 1500-1508) apply to all federal agencies. NEPA regulations applicable to State Department actions, which supplement the CEQ regulations, are found at 22 C.F.R. § 161.

NEPA regulations require preparation of a draft EIS that must be circulated for public and agency comment, followed by a final EIS that incorporates those comments.<sup>18</sup> Preparing the EIS is the responsibility of a designated “lead agency,” in this case, the State Department. In developing the EIS, the State Department must rely to some extent on information provided by TransCanada. For example, TransCanada’s permit application included an Environmental Report which was intended to provide the State Department with sufficient information to understand the scope of potential environmental impacts of the project.<sup>19</sup>

The EIS must also identify any state, tribal, or federal licenses, permits or approvals applicable to the project in the United States.<sup>20</sup> Further, in preparing the draft EIS, the lead agency must request input from “cooperating agencies” which include any agency with jurisdiction by law or with special expertise regarding any environmental impact associated with the project.<sup>21</sup> Cooperating agencies for the Keystone XL project are the U.S. Environmental Protection Agency (EPA); the Department of Transportation’s Pipeline and Hazardous Materials Safety Administration (PHMSA), Office of Pipeline Safety (OPS); the Department of the Interiors Bureau of Land Management, U.S. Fish and Wildlife Service, and National Park Service; the U.S. Army Corps of Engineers; the U.S. Department of Agriculture’s Farm Service Agency, Natural Resources Conservation Service, and Rural Utilities Service; the Department of Energy’s Western Area Power Administration; and the Montana Department of Environmental Quality.

In addition to its role as a cooperating agency, EPA is also required to review and comment publicly on the EIS and rate both the adequacy of the EIS itself and the level of environmental impact of the proposed project.<sup>22</sup> Rating the EIS takes place after the draft is issued. The EIS could be rated either “Adequate,” “Insufficient Information,” or “Inadequate.” EPA’s rating of a project’s environmental impacts may range from “Lack of Objections” to “Environmentally Unsatisfactory” (EPA rating of environmental impacts is discussed in more detail, below).

The State Department released its draft EIS for the proposed Keystone XL Pipeline project for public comment on April 16, 2010.<sup>23</sup> The draft EIS identified TransCanada’s “preferred alternative” (**Figure 1**) for the project as well as other alternatives considered. On July 16, 2010, EPA rated the draft EIS “Inadequate.”<sup>24</sup> EPA found that potentially significant impacts were not evaluated and that the additional information and analysis needed was of such importance that the draft EIS would need to be formally revised and again made available for public review.

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<sup>18</sup> For more analysis of NEPA requirements, see CRS Report RL33152, *The National Environmental Policy Act (NEPA): Background and Implementation*, by Linda Luther.

<sup>19</sup> Documents submitted by TransCanada are available online at <http://www.keystonepipeline-xl.state.gov/clientsite/keystonexl.nsf?Open>, under the heading “Project Documents.”

<sup>20</sup> Any consultation or approval necessary to comply with any additional requirements should occur concurrently and be integrated with preparation of the EIS.

<sup>21</sup> 40 C.F.R. § 1508.5. Also, Executive Order 13337 directs the Secretary of State to refer an application for a Presidential Permit to other specifically identified federal departments and agencies on whether granting the application would be in the national interest.

<sup>22</sup> For more information, see the U.S. Environmental Protection Agency’s “Environmental Impact Statement (EIS) Rating System Criteria” at <http://www.epa.gov/compliance/nepa/comments/ratings.html>.

<sup>23</sup> Documents prepared by the U.S. Department of State related to its NEPA requirements are available online at <http://www.keystonepipeline-xl.state.gov/clientsite/keystonexl.nsf?Open>, under the heading “State Dept. Documents.”

<sup>24</sup> Letter from the U.S. Environmental Protection Agency to the U.S. Department of State regarding the draft EIS for the Keystone XL project, July 16, 2010, [http://yosemite.epa.gov/oeca/webeis.nsf/%28PDFView%29/20100126/\\$file/20100126.PDF](http://yosemite.epa.gov/oeca/webeis.nsf/%28PDFView%29/20100126/$file/20100126.PDF).



Additional criticism of the State Department's implementation of the NEPA process followed an October 21, 2010 statement by Secretary Clinton that, while analysis of the project was not complete and that a final decision had not been made, the State Department was "inclined to" approve the project.<sup>25</sup> Critics of the project, including some Member of Congress, stated that the Secretary's statement appeared to prejudice its permit approval for the pipeline proposal as a foregone conclusion.<sup>26</sup>

The State Department issued a supplemental draft EIS on April 15, 2011. In addition to addressing issues associated with EPA's inadequacy rating, the supplemental draft EIS addressed comments received from the public and other agencies. On June 6, 2011, EPA sent a letter to the State Department that rated the supplemental draft EIS as having "Environmental Objections—Insufficient Information."<sup>27</sup> EPA acknowledged that the State Department had "worked diligently" to develop additional information in response to EPA's comments and the large number of other comments on the draft EIS. However, EPA believed that additional analysis needed to be included in the final EIS to fully respond to its earlier comments. Among other items, EPA recommended that the State Department should do the following: improve the analysis of the potential oil spill risks, including additional analysis of other reasonable alternatives to the proposed pipeline route; provide additional analysis of potential oil spill impacts, health impacts, and environmental justice concerns to communities along the pipeline route and adjacent refineries; and improve its characterization of lifecycle greenhouse gas emissions associated with Canadian oil sands crude.

In its June 6<sup>th</sup> letter to the State Department, EPA refers to agreements with the State Department that certain deficiencies identified in the supplemental draft EIS will be addressed in the final EIS. Further, in its conclusion, EPA stated that it would carefully review the final EIS to determine if it fully reflects those agreements and if measures to mitigate adverse environmental impacts are fully evaluated. After the State Department addresses EPA's comments, as well as any additional public and other relevant agency comments to the supplemental draft EIS, the State Department may issue a final EIS for the project.

As discussed previously, after the final EIS is issued, EPA will then be required to rate the environmental impacts of the project. The final EIS may receive a rating of either "Lack of Objections," "Environmental Concerns," "Environmental Objections," or "Environmentally Unsatisfactory." The State Department would be required to respond to EPA's rating, as appropriate. A rating other than "Lack of Objections" would require the State Department to work with EPA to reduce the identified environmental impacts. A project with environmental objections or concerns involves impacts that should be avoided to protect the environment and may also require some corrective measures such as changes to the preferred alternative or consideration of

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<sup>25</sup> See Secretary of State Hillary Clinton "Remarks on Innovation and American Leadership to the Commonwealth Club," San Francisco, CA, October 15, 2010, available at <http://www.state.gov/secretary/rm/2010/10/149542.htm>. The statement by Secretary Clinton was actually made in response to a question about the Alberta Clipper pipeline project which received a Presidential Permit from the State Department in 2009, a State Department spokesman later clarified that the Secretary was referring to the Keystone XL pipeline permit approval.

<sup>26</sup> For example, see the October 21, 2010 letter from Senator Mike Johanns to Secretary Clinton expressing his concern that her statement gave the appearance that approval of the pipeline was a foregone conclusion [http://johanns.senate.gov/public/?a=Files.Serve&File\\_id=8b090aa5-76fe-41ca-a674-ae9e37db8d36](http://johanns.senate.gov/public/?a=Files.Serve&File_id=8b090aa5-76fe-41ca-a674-ae9e37db8d36).

<sup>27</sup> U.S. Environmental Protection Agency, Letter to the U.S. Department of State on the supplemental draft EIS for the Keystone XL project, June 6, 2011 available at <http://www.epa.gov/compliance/nepa/keystone-xl-project-epa-comment-letter-20110125.pdf>.

another project alternative. A project with unsatisfactory impacts would be identified as such based on its impacts to public health or welfare or to the environment. If EPA identifies unsatisfactory impacts that are not subsequently resolved, the proposal could be recommended for referral for dispute resolution to the Council of Environmental Quality (CEQ), which oversees federal agency implementation of the environmental impact assessment process and acts as a referee when agencies disagree over the adequacy of such assessments.

## **Issuing a Final Record of Decision and National Interest Determination**

The NEPA review is complete when the State Department issues a final Record of Decision (ROD), formalizing the selection of a project alternative. A Presidential Permit may be granted or denied once the State Department determines whether the project is in the national interest. For previous Presidential Permits, a ROD and National Interest Determination were issued as the same document.<sup>28</sup>

Issuance of the ROD and National Interest Determination involve distinctly different, yet interrelated requirements. Under NEPA, the State Department must fully assess the environmental consequences of an action and potential project alternatives *before* making a final decision. NEPA does not prohibit a federal action that has adverse environment impacts, it requires only that a federal agency be fully *aware of* and *consider* those adverse impacts before selecting a final project alternative. That is, NEPA is intended to be part of the decision-making process, not dictate a particular outcome. The State Department's decision to issue a Presidential Permit, however, dictates a particular outcome—that a Permit will not be granted unless it is determined that the project is in the national interest. While NEPA does not prohibit federal actions with adverse environmental impacts, a project's adverse environmental impacts may lead the State Department to determine that it is not in the national interest.

With regard to the consideration of environmental impacts in making a national interest determination, the fact that similar pipeline projects (e.g., the Alberta Clipper and the Keystone pipelines) have recently been determined to be in the national interest does not necessarily constrain the review of Keystone XL Pipeline project. The proposed route and end points of the Keystone XL Pipeline are unique, and thus may involve distinct environmental impacts. For example, in its determination that the supplemental draft EIS provided insufficient information, EPA expressed concerns regarding potential risks to the Ogallala Aquifer and environmental justice issues associated with the Port Arthur and Houston, TX, refineries. Although the approved Keystone pipeline also crosses the Ogallala Aquifer, it does so in a different location where the aquifer may have different characteristics in terms of depth, soil permeability, and other geological factors. (The aquifer issue is further discussed in a subsequent section.) Thus, specific environmental concerns unique to the Keystone XL project may lead to different conclusions and will need to be addressed to the satisfaction of EPA.

The State Department announced that once it issues a final EIS, interested federal agencies, such as the Department of Energy and EPA, will have 90 days to provide their opinion on whether issuance of a Presidential Permit would be in the national interest.<sup>29</sup> Further, during the first 30

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<sup>28</sup> U.S. Department of State, *Department of State Record of Decision and National Interest Determination, TransCanada Keystone Pipeline, LP Application for Presidential Permit*, February 25, 2008.

<sup>29</sup> U.S. Department of State, "State Department Announces Additional Public Meetings on Keystone XL Pipeline," press release, June 6, 2011, <http://www.state.gov/r/pa/prs/ps/2011/03/158402.htm>.

days of this 90-day review period, the State Department plans to host public meetings in each of the five states through which the proposed pipeline would pass (Montana, South Dakota, Nebraska, Oklahoma, and Texas) and in Washington, DC. These meetings are intended to give the public an additional opportunity to voice their concerns on issues they think should be taken into account in determining whether granting or denying the Presidential Permit would be in the national interest. These additional public meetings are not part of the NEPA process.

The State Department has indicated that it expects to make a decision on whether to grant the permit before the end of 2011. The North American-Made Energy Security Act (H.R. 1938) was introduced on May 23, 2010, and approved by the House Energy and Commerce Committee on June 23, 2011. It would direct the President to expedite the State Department's permit review process, requiring a final decision to grant or deny the permit no later than November 1, 2011. H.R. 1938 is motivated by the perception among some in Congress that the State Department is taking too long to review an energy infrastructure project critical to national security and economic growth.<sup>30</sup> Opponents of the bill argue that the project's unique and potentially unacceptable safety and environmental risks, as well as its uncertain impacts on fuel prices, require more time for analysis and evaluation.<sup>31</sup>

Whatever the State Department's final decision, legal challenges appear likely. However, in the event of a challenge based on an environmental issue, the distinction between State Department actions required under NEPA and those required under its authority to issue a Presidential Permit would be relevant. NEPA does not create a private right of action. Instead, judicial challenges to a federal agency action under NEPA are brought pursuant to the Administrative Procedure Act (APA, 5 U.S.C. §§ 706 et seq.). Presidential actions, however, are not subject to judicial review under the APA.<sup>32</sup> So the final EIS associated with the Keystone XL Pipeline may be subject to judicial review, but the State Department's national interest determination, made under its authority to issue of a Presidential Permit, is not. For more information regarding the State Department's authority to grant a Presidential Permit, see the **Appendix**.

## **State Siting and Environmental Approvals**

As noted above, the federal government does not exercise siting authority over oil pipelines. Siting for the Keystone XL pipeline still must comply with any applicable state laws. These laws vary from state to state. South Dakota, for example, required TransCanada to apply for a permit for the Keystone XL pipeline from the state public utility commission, which issued the permit on April 25, 2010.<sup>33</sup> Montana requires a certificate from the state's Department of Environmental

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<sup>30</sup> U.S. House of Representatives, Energy and Commerce Committee, "Committee Approves Legislation to Increase North American Energy Production and Create Jobs," press release, June 23, 2011.

<sup>31</sup> See, for example, Representative Henry A. Waxman, "Opening Statement before the Full Committee Markup on Semi-Annual Committee Activity Report and H.R. 1938, the North American-Made Energy Security Act," June 23, 2011.

<sup>32</sup> While the APA's definition of "agency" does not specifically exclude or include the president, the Supreme Court has held that exercises of presidential authority are not subject to judicial review because the president is not an agency (*Dalton v. Specter*, 511 U.S. 462, 470 (1994)). The Court has also held that the APA does not apply to the president based on separation of powers principles (*Franklin v. Massachusetts*, 505 U.S. 788, 800-01 (1992)).

<sup>33</sup> South Dakota Public Utilities Commission, Final Decision and Order; Notice of Entry Before the Public Utilities Commission of the State of South Dakota, In the Matter of the Application by TransCanada Keystone Pipeline, LP for a Permit Under the South Dakota Energy Conversion and Transmission Facilities Act to Construct the Keystone Pipeline Project, HP07-001, <http://puc.sd.gov/commission/orders/HydrocarbonPipeline/2008/hp07-001.pdf>.

Quality,<sup>34</sup> but has not yet granted one for the Keystone XL project. Nebraska does not appear to have any permitting requirements that apply specifically to the construction and operation of oil pipelines, although a state statute does include an “eminent domain” provision, which grants eminent domain authority to oil pipeline companies that are unable to obtain the necessary property rights from the relevant property owners.<sup>35</sup> A number of additional approvals and permits required by the states along the proposed route are summarized in TransCanada’s Presidential Permit application.<sup>36</sup> All of the aforementioned state approvals are in various stages of review along the proposed Keystone XL pipeline route.

## **Arguments For and Against the Pipeline**

Proponents of the Keystone XL pipeline, including Canadian agencies and U.S. and Canadian petroleum industry stakeholders, base their positions primarily on increasing the diversity of the U.S. petroleum supply and economic benefits to the United States, including job creation. Opponents, primarily environmental groups and affected communities along the route, object to the project principally on the grounds that Canadian oil sands development has negative environmental impacts and that it promotes continued U.S. dependency on fossil fuels. These issues are further discussed below.

### **Impact on U.S. Energy Security**

In its Presidential Permit application, TransCanada asserts that constructing the proposed Keystone XL pipeline is in the U.S. national interest to maintain adequate crude oil supplies for U.S. refineries. The application argues that the pipeline will allow U.S. refiners to substitute Canadian supply for other foreign crude supply and to obtain direct pipeline access to secure and growing Canadian crude output. In particular, the application asserts that the pipeline would allow the United States to decrease its dependence on foreign crude oil supplies from Mexico and Venezuela, the two largest oil importers into the U.S. Gulf Coast.<sup>37</sup> In its draft EIS for the project, the State Department similarly finds that the Keystone XL pipeline “would counteract insufficient domestic crude oil supply while reducing U.S. dependence on less reliable foreign oil sources.”<sup>38</sup> These arguments have taken on additional weight in light of the ongoing political unrest in the Middle East, which has disrupted oil production in Libya, a significant oil exporter, and has caused a spike in global crude oil prices.

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<sup>34</sup> Montana Major Facility Siting Act, Title 75, Chapter 20.

<sup>35</sup> Nebraska Rev. Stat. § 57-1101.

<sup>36</sup> TransCanada Keystone, L.P., *Keystone XL Project: Preliminary Environmental Report*, September 2008, Table 7, <http://www.keystonepipeline-xl.state.gov/clientsite/keystonexl.nsf/preliminaryenvironmentalreport.pdf?OpenFileResource>.

<sup>37</sup> TransCanada Keystone Pipeline, L.P., September 19, 2008, pp. 6-8.

<sup>38</sup> U.S. Department of State, *Draft Environmental Impact Statement for the Keystone XL Oil Pipeline Project*, April 16, 2010, p. 4-2.

## Canadian Oil Imports in the Overall U.S. Supply Context

Gross U.S. imports of crude oil and petroleum products averaged 11.8 million barrels per day (Mbpd) in 2010.<sup>39</sup> Exports averaged 2.3 Mbpd, leaving net imports at 9.4 Mbpd.<sup>40</sup> U.S. net imports declined each year between 2005 and 2010 as a result of lower total oil demand and higher domestic supply. Domestic demand has decreased by about 1.7 Mbpd versus 2005 levels due largely to the economic recession. Meanwhile, U.S. production of oil and oil alternatives (including crude oil, natural gas liquids, and biofuels) has increased by 1.4 Mbpd since 2005. As a result, net imports fell by roughly 3.1 Mbpd since 2005.<sup>41</sup> Some of this decline could be mitigated in the near term as oil demand recovers from the recession or if domestic supply were to fall. However, there is increasing consensus among forecasters that U.S. net oil imports have passed their high water mark already and may remain relatively flat in the long run.<sup>42</sup>

Among the largest sources of U.S. gross oil imports are Canada (2.5 Mbpd), the Persian Gulf (1.7 Mbpd), and Mexico (1.3 Mbpd). Imports from the latter two sources have decreased in recent years in part due to lower need for imports described above and in part due to developments in those countries (**Figure 2**). All major Persian Gulf exporters are members of the Organization of the Petroleum Exporting Countries (OPEC), which cut production in 2009 to support oil prices. Mexican production has been falling since 2004 because new oil developments have not been able to offset depletion at Mexico's giant Cantarell field. Imports from Venezuela, another key source of U.S. imports, has also fallen. Venezuelan production never fully recovered after a strike at its national oil company, *Petróleos de Venezuela*, in 2002-2003. Venezuelan production today is nearly 1 Mb/d less than that achieved in 2001. In recent years, Venezuela has also been trying to diversify business away from the United States, for example, by increasing exports to China.<sup>43</sup>

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<sup>39</sup> All data in this section are from the U.S. Energy Information Administration's (EIA's) *Petroleum Navigator* ([http://www.eia.gov/dnav/pet/pet\\_move\\_impcus\\_a2\\_nus\\_ep00\\_im0\\_mbb1\\_m.htm](http://www.eia.gov/dnav/pet/pet_move_impcus_a2_nus_ep00_im0_mbb1_m.htm)) and *International Energy Statistics* (<http://tonto.eia.doe.gov/cfapps/ipdbproject/IEDIndex3.cfm>).

<sup>40</sup> For context, the United States consumes roughly 19 Mbpd, more than 20% of the world's oil market.

Net imports are gross or total imports less total exports. This section will focus on gross imports, though it should be noted that among U.S. petroleum exports about 0.2 Mbpd of petroleum products go to Canada and 0.4 Mb/d to Mexico.

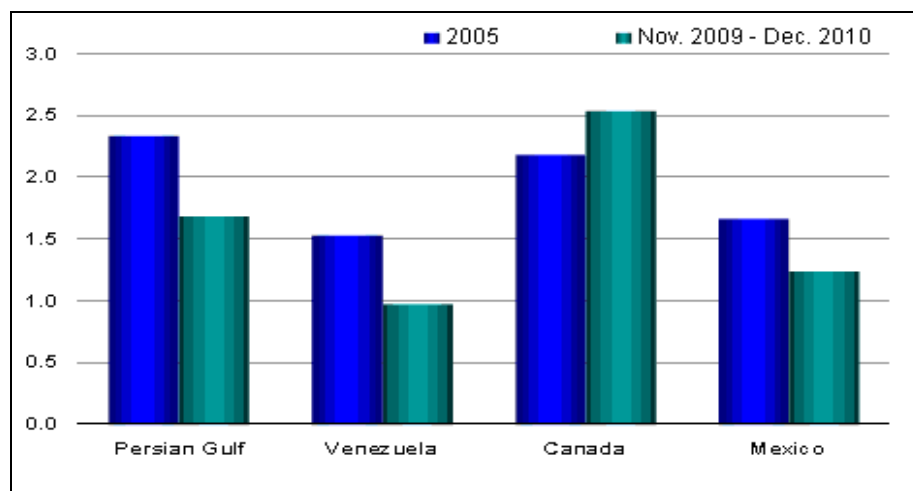
<sup>41</sup> These data are based on full year 2010 estimates provided by the EIA's *Short Term Energy Outlook* (STEO), <http://www.eia.doe.gov/emeu/steo/pub/contents.html>. The STEO provides a balance of U.S. supply and demand.

<sup>42</sup> For more analysis, see CRS Report R41765, *U.S. Oil Imports: Context and Considerations*, by Neelesh Nerurkar.

<sup>43</sup> U.S. Energy Information Administration, "Country Analysis Brief: Venezuela," February 2010, <http://www.eia.doe.gov/emeu/cabs/Venezuela/Oil.html>.

**Figure 2. U.S. Oil Imports, Selected Sources**

Gross imports, Mbpd



**Source:** U.S. Energy Information Administration, "Petroleum Navigator: U.S. Imports by Country of Origin," December 12, 2010, [http://www.eia.gov/dnav/pet/pet\\_move\\_impcus\\_a2\\_nus\\_ep00\\_im0\\_mbbldpd\\_m.htm](http://www.eia.gov/dnav/pet/pet_move_impcus_a2_nus_ep00_im0_mbbldpd_m.htm).

Meanwhile, Canadian production and exports to the United States have increased, primarily due to growing output from the oil sands in Western Canada. Energy markets in the United States and Canada are well integrated by pipeline infrastructure, and nearly all Canadian energy exports go to U.S. consumers.<sup>44</sup> Canadian oil production has increased about 0.2 Mbpd since 2005, and exports to the United States increased by 0.4 Mbpd (**Figure 3**).<sup>45</sup> Canadian oil production is expected to grow by as much as 1.6 Mbpd between 2009 and 2025, mostly through increased output from the oil sands.<sup>46</sup>

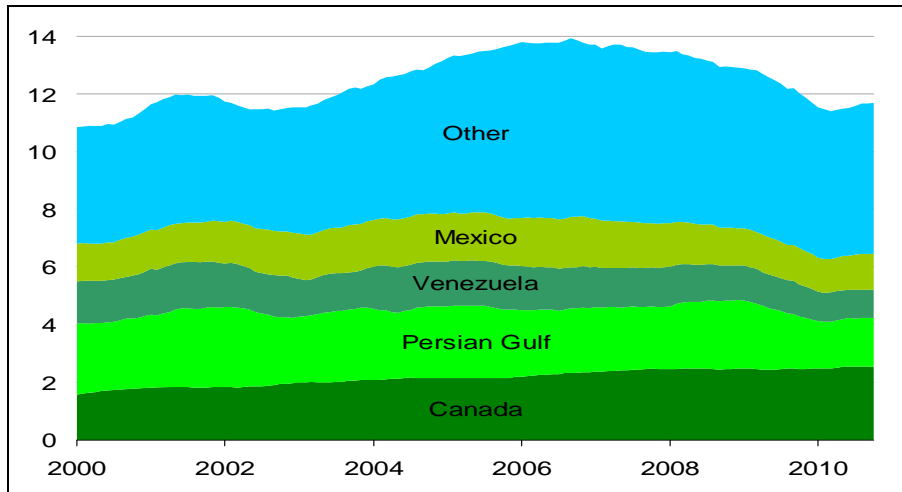
<sup>44</sup> For further analysis of U.S.-Canada energy trade, see CRS Report R41875, *The U.S.-Canada Energy Relationship: Joined at the Well*, by Paul W. Parfomak and Michael Ratner.

<sup>45</sup> As in the United States, Canadian consumption fell due to economic downturn. This allowed the increment in exports to be higher than the increment in production.

<sup>46</sup> Canadian Association of Petroleum Producers (CAPP), *Crude Oil: Forecast, Markets, and Pipelines*, June 2010, p. 2, <http://www.capp.ca/getdoc.aspx?DocId=173003>.

**Figure 3. Total U.S. Oil Imports**

Monthly imports in Mbpd on a 12-month moving average, Jan. 2000 to Oct. 2010



**Source:** U.S. Energy Information Administration, “Petroleum Navigator: U.S. Imports by Country of Origin,” December 12, 2010. [http://www.eia.gov/dnav/pet/pet\\_move\\_impcus\\_a2\\_nus\\_ep00\\_im0\\_mbbldpd\\_m.htm](http://www.eia.gov/dnav/pet/pet_move_impcus_a2_nus_ep00_im0_mbbldpd_m.htm).

Oil sands (also referred to as tar sands) are a mixture of clay, sand, water, and heavy black viscous oil known as bitumen. Oil sands require more processing than conventional crude oil. Oil sands are processed to extract the bitumen, which can then be upgraded into “syncrude” that is suitable for pipeline transport. Canada’s oil sands production is expected to be exported as either a light, upgraded synthetic crude or a heavy crude oil that is a blend of bitumen diluted with lighter hydrocarbons to ease transport. The bulk of oil sands supply growth is expected to be in the form of the latter.<sup>47</sup> Most oil sands imports into the United States currently go to the Midwest, where some refineries are investing in complex refining capacity to process growing volumes of heavy Canadian crude.<sup>48</sup> The U.S. Gulf Coast region already has a large amount of complex refining capacity and is considered potentially well suited for processing Canadian heavy crude oil.<sup>49</sup> Gulf Coast refiners currently process heavy crudes from Venezuela, Mexico, and elsewhere. Complex refineries in the Gulf Coast may be best equipped to handle a large increase of heavy oil sands crude, though they may still need to adjust processes and make new capital investments in equipment to accommodate particular crudes’ characteristics,<sup>50</sup> especially if the new Canadian crudes will be used in large amounts.<sup>51</sup> There are 15 refineries within Keystone XL’s proposed delivery area in Texas that currently process heavy crude oil which is similar in composition to the oil that the pipeline would bring down.<sup>52</sup>

<sup>47</sup> CAPP, 2010, p. 7.

<sup>48</sup> CAPP, 2010, p. 13. According to CAPP, refineries adding capacity to process heavy oil in the Midwest include those in Roxana, IL; Whiting, IN, and Detroit, MI.

<sup>49</sup> CAPP, 2010, p. 14.

<sup>50</sup> Baker Hughes, *Planning Ahead for Effective Canadian Crude Processing*, Baker Petrolite White Paper, 2010, [http://www.bakerhughes.com/assets/media/whitepapers/4c2a3c8ffa7e1c3c7400001d/file/28271-canadian\\_crudeoil\\_update\\_whitepaper\\_06-10.pdf.pdf&fs=1497549](http://www.bakerhughes.com/assets/media/whitepapers/4c2a3c8ffa7e1c3c7400001d/file/28271-canadian_crudeoil_update_whitepaper_06-10.pdf.pdf&fs=1497549).

<sup>51</sup> For a description of which units refineries may need to add (or have added) to be able to process more Canadian oil sands supply, see Praveen Gunaseelan and Christopher Buehler, “Changing US Crude Imports Are Driving Refinery Upgrades,” *Oil and Gas Journal*, August 10, 2009.

<sup>52</sup> U.S. Department of State, April 15, 2011. p. 1-4.

With expanded pipeline capacity extending to the U.S. Gulf Coast, Canadian oil sands crude may compete with other heavy crudes such as those from Mexico, Venezuela, and elsewhere.<sup>53</sup> It is difficult to predict precisely how this competition will play out, but it may take place through shifting discounts or premiums on crude oils from various sources.<sup>54</sup> It may be possible for Canadian oil supplies to effectively “push out” waterborne shipments from other countries, although this depends on a wide range of market conditions. Waterborne crudes may more easily go to other destinations than Canadian crudes, though like Canadian crudes they can be tied to specialized refining capacity, as is true for Venezuelan heavy crudes.

In 2010, 98% of Canada’s oil exports went to the United States, mostly through north-south pipelines. One oil pipeline extends from Alberta to Canada’s west coast, the Trans Mountain Pipeline, which is owned by Houston-based Kinder Morgan and has a capacity of 300,000 bpd. Some of the oil from the Trans Mountain Pipeline is loaded onto tankers and shipped from Vancouver. Currently, about 90% of the crude shipped out by sea goes to California, with the remainder shipped to the U.S. Gulf Coast and Asia.<sup>55</sup>

There are proposals to increase the capacity for oil from Alberta to reach the Canadian west coast. Kinder Morgan is considering expanding the Trans Mountain Pipeline to 700,000 bpd, more than doubling its existing capacity, and expanding west coast shipping facilities. Enbridge has proposed a new pipeline: the Northern Gateway project would have a 525,000 bpd capacity to send oil from Edmonton to Kitimat, British Columbia.<sup>56</sup> These projects reflect anticipated growth of Western Canadian oil production and an interest by Canadian oil producers to diversify their available markets beyond U.S. customers. Both proposals have received criticism from environmentalists. Because it would require construction of a completely new pipeline, Northern Gateway in particular has been criticized by some environmental and First Nations groups.<sup>57</sup>

If export capacity to the west coast is expanded it could increase the amount of Canadian crude oil going to non-U.S. markets. Canadian oil sales to Asian markets, where oil demand is growing rapidly, are more likely to develop if greater shipments to the United States are not possible.<sup>58</sup> A study commissioned by the Department of Energy concluded that:

if pipeline projects to the BC [British Columbia] coast are built, they are likely to be utilized. This is because of the relatively short marine distances to major northeast Asia markets, future expected growth there in refining capacity and increasing ownership interests by Chinese companies especially in oil sands production. Such increased capacity would alter global crude trade patterns. Western Canadian Sedimentary Basin (WCSB) crudes would be “lost” from the USA, going instead to Asia. There they would displace the world’s balancing

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<sup>53</sup> Center for Energy Economics and Bureau of Economic Geology, *Overview of the Alberta Oil Sands*, University of Texas at Austin, 2006, p. 16, [http://www.beg.utexas.edu/energyecon/documents/overview\\_of\\_alberta\\_oil\\_sands.pdf](http://www.beg.utexas.edu/energyecon/documents/overview_of_alberta_oil_sands.pdf).

<sup>54</sup> For more about the U.S. refining system, see CRS Report R41478, *The U.S. Oil Refining Industry: Background in Changing Markets and Fuel Policies*, by Anthony Andrews, Robert Pirog, and Molly F. Sherlock.

<sup>55</sup> Lucretia Cardenas, “Kinder Morgan Says Eyes Fall Open Season For Trans Mountain Pipeline Expansion,” *Platts*, March 24, 2011.

<sup>56</sup> Enbridge, “Northern Gateway at a Glance,” press release, 2011, <http://www.northerngateway.ca/project-info/northern-gateway-at-a-glance>. The project would also include a pipeline to allow the import of 193,000 bpd of condensate, a light hydrocarbon that can be blended with bitumen to allow pipeline transport.

<sup>57</sup> Derrick Penner, “Opposition to Enbridge Northern Gateway pipeline grows,” *Vancouver Sun*, December 2, 2010.

<sup>58</sup> Edward Welsch, “TransCanada: Oil Sands Exports Will Go to Asia if Blocked in U.S.,” *Dow Jones Newswires*, June 30, 2010.



crude oils, Middle Eastern and African predominantly OPEC grades, which would in turn move to the USA. The net effect would be substantially higher U.S. dependency on crude oils from those sources versus scenarios where capacity to move WCSB crudes to Asia was limited.<sup>59</sup>

## Economic Impact of the Pipeline

In addition to supply diversity arguments, some Keystone XL pipeline proponents support the project based on economic benefits associated with expanding U.S. pipeline infrastructure. A recent study by the Energy Policy Research Foundation, for example, concludes that “the Keystone expansion would provide net economic benefits from improved efficiencies in both the transportation and processing of crude oil of \$100 million-\$600 million annually, in addition to an immediate boost in construction employment.”<sup>60</sup> A 2009 report from the Canadian Energy Research Institute (CERI) commissioned by the American Petroleum Institute similarly concludes that:

As investment and production in oil sands ramps up in Canada, the pace of economic activity quickens and demand for US goods and services increase rapidly, resulting in an estimated 343 thousand new US jobs between 2011 and 2015. Demand for US goods and services continues to climb throughout the period, adding an estimated \$34 billion to US GDP in 2015, \$40.4 billion in 2020, and \$42.2 billion in 2025.<sup>61</sup>

These CERI estimates apply to the entire oil sands industry, however, not only the Keystone XL project, and they are derived from a proprietary economic analysis which has not been subject to external review. Some stakeholders point to State Department and other studies reporting much lower anticipated economic benefits.<sup>62</sup> Consequently, it is difficult to determine what specific economic and employment impacts may ultimately be attributable to the Keystone XL pipeline. Nonetheless, given the physical scale of the project, it could be expected to increase employment and investment at least during construction.

## Canadian Oil Sands Environmental Impacts

Oil production from oil sands is controversial because it has significant environmental impacts, including emissions of greenhouse gases during extraction and processing, disturbance of mined land, and impacts on wildlife and water quality.<sup>63</sup> Because bitumen in oil sands cannot be pumped from a conventional well, it must be mined, usually using strip mining or open pit techniques, or the oil can be extracted with underground heating methods.<sup>64</sup> Large amounts of water and natural

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<sup>59</sup> EnSys Energy & Systems, Inc., *Keystone XL Assessment: Final Report*, Prepared for the U.S. Department of Energy, Office of Policy & International Affairs, December 23, 2010, p. 118.

<sup>60</sup> Energy Policy Research Foundation, Inc., *The Value of the Canadian Oil Sands (...to the United States): An Assessment of the Keystone Proposal to Expand Oil Sands Shipments to Gulf Coast Refiners*, Washington, DC, November 29, 2010, p. 2, <http://www.eprinc.org/pdf/oilsandsvalue.pdf>.

<sup>61</sup> Canadian Energy Research Institute, *The Impacts of Canadian Oil Sands Development on the United States' Economy, Final Report*, Calgary, Alberta, October 2009, p. vii.

<sup>62</sup> National Wildlife Federation, “TransCanada Exaggerating Jobs Claims for Keystone XL,” November 9, 2010, [http://www.dirtyoilsands.org/files/Keystone\\_XL\\_Jobs\\_11-09-10.pdf](http://www.dirtyoilsands.org/files/Keystone_XL_Jobs_11-09-10.pdf).

<sup>63</sup> For more analysis of oil sands and their environmental impacts, see CRS Report RL34258, *North American Oil Sands: History of Development, Prospects for the Future*, by Marc Humphries.

<sup>64</sup> U.S. Bureau of Land Management, “About Tar Sands,” web page, January 11, 2011, <http://ostseis.anl.gov/guide/> (continued...)

gas are also required (for heating) during the extraction process.<sup>65</sup> The magnitude of the environmental impacts of oil sands production, in absolute terms and compared to conventional oil production, has been the subject of numerous, and sometimes conflicting, studies and policy papers.<sup>66</sup> Some stakeholders who object to oil sands projects oppose the Keystone XL pipeline because it expands access to new markets for the oil produced by those projects, thereby encouraging what they consider to be further environmentally destructive oil sands development. As discussed earlier, however, if oil sands production can be diverted to other markets (e.g., Asia), preventing the Keystone XL project may not necessarily limit oil sands development.<sup>67</sup>

## Possible Risks to the Ogallala Aquifer

The proposed route of the Keystone XL pipeline passes across significant portions of the Ogallala Aquifer (**Figure 4**), one of the world's largest known aquifers and the primary source of groundwater for approximately 20% of U.S. agricultural production.<sup>68</sup> Because the aquifer is relatively close to the surface, some stakeholders are concerned that a release from the pipeline could potentially contaminate the aquifer with oil, jeopardizing its use for farming and drinking water and causing significant ecosystem damage. These concerns have been heightened in the wake of the 2010 spill from an Enbridge oil pipeline in Marshall, MI, which released 819,000 gallons of crude into a tributary of the Kalamazoo River. Furthermore, a report by the Natural Resources Defense Council (NRDC) argues that the Keystone XL pipeline could be more likely to fail and cause environment damage than other crude oil pipelines because the bitumen mixture it would carry is “significantly more corrosive to pipeline systems than conventional crude,” among other reasons.<sup>69</sup> Canadian officials and other stakeholders have rejected these arguments, however, citing factual inaccuracies and a flawed methodology in the analysis, which compares pipeline spill rates in Canada to those in the United States.<sup>70</sup>

In its draft EIS for the Keystone XL pipeline project, the State Department states that “there is the possibility that a release could migrate through the overlying surface materials and enter a groundwater system.”<sup>71</sup> Nonetheless, the department concludes that “the probability of a large spill occurring is very low, and, consequently, risk of environmental impacts is minimal.”<sup>72</sup> The draft EIS views the risks of aquifer damage from the Keystone XL pipeline independently from such risks from other pipelines. Because the probability of a pipeline spill and subsequent

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(...continued)

tarsands/index.cfm.

<sup>65</sup> Cecilia Jamasmie, “The Challenges and Potential of Canada’s Oil Sands,” *Mining*, September-October 2010, pp. 7-8.

<sup>66</sup> For an example of contrasting views, see IHS CERA Inc., *Oil Sands, Greenhouse Gases, and US Oil Supply, Getting the Numbers Right*, 2010; and Natural Resources Defense Council, “Setting the Record Straight: Lifecycle Emissions of Tar Sands,” November 2010.

<sup>67</sup> For more analysis of oil sands and their environmental impacts, see CRS Report RL34258, *North American Oil Sands: History of Development, Prospects for the Future*, by Marc Humphries.

<sup>68</sup> Jane Braxton Little, “The Ogallala Aquifer: Saving a Vital U.S. Water Source,” *Scientific American*, March 30, 2009.

<sup>69</sup> Anthony Swift, Susan Casey-Lefkowitz, and Elizabeth Shope, Tar Sands Pipelines Safety Risks, Natural Resources Defense Council, February 2011, p. 6.

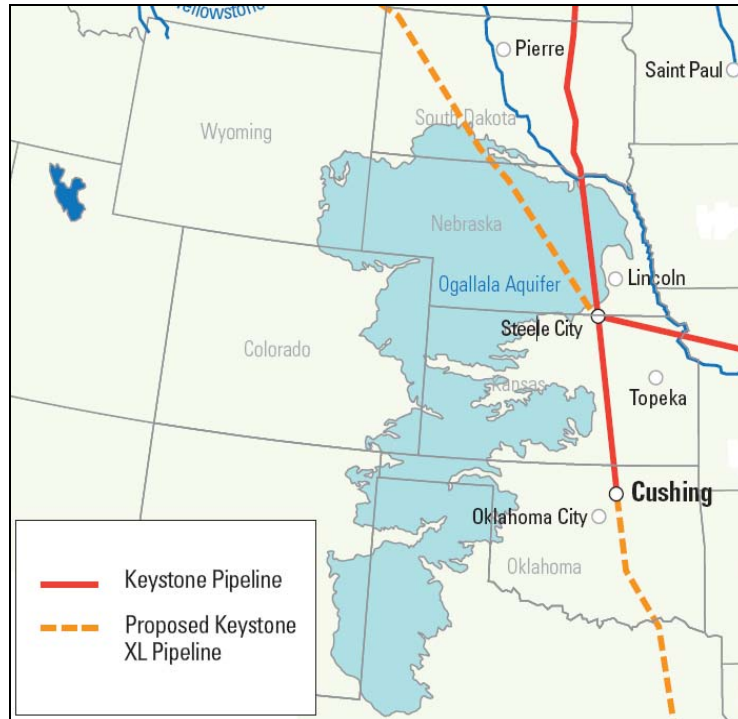
<sup>70</sup> Canadian Energy Resources Conservation Board, “ERCB Addresses Statements in Natural Resources Defense Council Pipeline Safety Report,” Press release, Calgary, Alberta, February 16, 2011.

<sup>71</sup> U.S. Department of State, *Draft Environmental Impact Statement for the Keystone XL Oil Pipeline Project*, Appendix P, “Risk Assessment,” April 16, 2010. p. 4-6.

<sup>72</sup> *Ibid.* p. 6-1.

groundwater contamination cannot be known with certainty, however, debate as to the groundwater risk potentially posed by the Keystone XL pipeline will likely continue.<sup>73</sup>

**Figure 4. Keystone XL Pipeline Route Across the Ogallala Aquifer**



**Source:** Natural Resources Defense Council, *Say No to Tar Sands Pipeline*, November, 2010, p. 3.

## Fossil Fuels Dependence

Some stakeholders object to the Keystone XL pipeline because it would increase U.S. supplies of oil, and thereby perpetuate the nation's dependence on imported fossil fuels and increase carbon emissions from the transportation sector.<sup>74</sup> Acknowledging this concern, in a public forum on October 20, 2010, Secretary of State Clinton reportedly remarked that “we’re either going to be dependent on dirty oil from the [Persian] Gulf or dirty oil from Canada ... until we can get our act together as a country and figure out that clean, renewable energy is in both our economic interests and the interests of our planet.”<sup>75</sup> Critics of the State Department’s draft and supplemental draft EIS assert that the environmental review overlooks the pipeline project’s overall impact on greenhouse gas emissions, for example, from the extraction and refining processes. To address those potential emissions, EPA recommends that the final EIS include discussion of mitigation approaches for greenhouse gas emissions from extraction activities that are either currently or

<sup>73</sup> For more analysis of pipeline safety issues, see CRS Report R41536, *Keeping America’s Pipelines Safe and Secure: Key Issues for Congress*, by Paul W. Parfomak.

<sup>74</sup> See, for example: Natural Resources Defense Council, *Tar Sands Invasion: How Dirty and Expensive Oil from Canada Threatens America’s New Energy Economy*, May 2010.

<sup>75</sup> See footnote 25.

could be employed to help lower lifecycle greenhouse gas emissions.<sup>76</sup> However, others have argued that whether the Keystone XL Pipeline is constructed would have little bearing on greenhouse gas emissions as there are likely to be other export routes available for Canadian oil sands crude, and therefore, the same crude oils would still be transported and refined, albeit in different geographies (e.g., China).<sup>77</sup>

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<sup>76</sup> See EPA letter referenced in footnote 24, p. 7.

<sup>77</sup> EnSys Energy & Systems 2010, p. 116.

## Appendix. Presidential Permitting Authority

The executive branch has exercised permitting authority over the construction and operation of “pipelines, conveyor belts, and similar facilities for the exportation or importation of petroleum, petroleum products” and other products at least since the promulgation of Executive Order 11423 in 1968.<sup>78</sup> Executive Order 13337 amended this authority and the procedures associated with the review, but did not substantially alter the exercise of authority or the delegation to the Secretary of State in E.O. 11423.<sup>79</sup> However, the source of the executive branch’s permitting authority is not entirely clear from the text of these Executive Orders. Generally, powers exercised by the executive branch are authorized by legislation or are inherent presidential powers based in the Constitution. E.O. 11423 makes no mention of any authority, and E.O. 13337 refers only to the “Constitution and the Laws of the United States of America, including Section 301 of title 3, United States Code.”<sup>80</sup> Section 301 simply provides that the President is empowered to delegate authority to the head of any department or agency of the executive branch.

The legitimacy of this permitting authority has been addressed by federal courts. In *Sisseton v. United States Department of State*, the plaintiff Tribes filed suit and asked the court to suspend or revoke the Presidential Permit issued under E.O. 13337 for the TransCanada Keystone Pipeline.<sup>81</sup> The U.S. District Court for the District of South Dakota found that the plaintiffs lacked standing because they would be unable to prove their injury could be redressed by a favorable decision.<sup>82</sup> The court determined that even if the plaintiff’s injury could be redressed, “the President would be free to disregard the court’s judgment,” as the case concerned the President’s “inherent Constitutional authority to conduct foreign policy,” as opposed to statutory authority granted to the President by Congress.<sup>83</sup>

The court further found that even if the Tribes had standing, the issuance of the Presidential Permit was a presidential action, not an agency action subject to judicial review under the Administrative Procedure Act (APA).<sup>84</sup> The court stated that the authority to regulate the cross-border pipeline lies with either Congress or the President.<sup>85</sup> The court found that “Congress has failed to create a federal regulatory scheme for the construction of oil pipelines, and has delegated this authority to the states. Therefore, the President has the sole authority to allow oil pipeline border crossings under his inherent constitutional authority to conduct foreign affairs.”<sup>86</sup> The President could delegate his permitting authority to the U.S. Department of State, but delegation did not transform the permit’s issuance into an agency action reviewable under the APA.<sup>87</sup>

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<sup>78</sup> *Providing for the performance of certain functions heretofore performed by the President with respect to certain facilities constructed and maintained on the borders of the United States*, 33 Fed. Reg. 11741, August 16, 1968.

<sup>79</sup> *Issuance of Permits With Respect to Certain Energy-Related Facilities and Land Transportation Crossings on the International Boundaries of the United States*, 69 Fed. Reg. 25299, May 5, 2004.

<sup>80</sup> *Ibid.*

<sup>81</sup> 659 F. Supp. 2d 1071, 1078 (D. S.D. 2009).

<sup>82</sup> *Ibid.* at 1078.

<sup>83</sup> *Ibid.* at 1078, 1078 n.5.

<sup>84</sup> See *ibid.* at 1080-81.

<sup>85</sup> *Ibid.* at 1081.

<sup>86</sup> *Ibid.*

<sup>87</sup> *Ibid.* at 1082.

In *Sierra Club v. Clinton*,<sup>88</sup> the plaintiff Sierra Club challenged the Secretary of State's decision to issue a Presidential Permit authorizing the Alberta Clipper pipeline. Among the plaintiff's claims was an allegation that issuance of the permit was unconstitutional because the President had no authority to issue the permits referenced in E.O. 13337 (in this case, for the importation of crude oil from Canada via pipeline).<sup>89</sup> The defendant responded that the authority to issue Presidential Permits for these border-crossing facilities "does not derive from a delegation of congressional authority ... but rather from the President's constitutional authority over foreign affairs and his authority as Commander in Chief."<sup>90</sup> The U.S. District Court for the District of Minnesota agreed, noting that the defendant's assertion regarding the source of the President's authority has been "well recognized" in a series of Attorney General opinions, as well as a 2009 judicial opinion.<sup>91</sup> The court also noted that these permits had been issued many times before and that "Congress has not attempted to exercise any exclusive authority over the permitting process. Congress's inaction suggests that Congress has accepted the authority of the President to issue cross-border permits."<sup>92</sup> Based on the historical recognition of the President's authority to issue these permits and Congress's implied approval through inaction, the court found the Presidential Permit requirement for border facilities constitutional.

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<sup>88</sup> 689 F.Supp.2d 1147 (D. Minn. 2010).

<sup>89</sup> *Ibid.* at 1162.

<sup>90</sup> *Ibid.*

<sup>91</sup> *Ibid.* at 1163 (citing 38 U.S. Atty Gen. 162 (1935); 30 U.S. Op. Atty. Gen. 217 (1913); 24 U.S. Op. Atty. Gen. 100; and *Natural Resources Defense Council (NRDC) v. U.S. Department of State*, 658 F.Supp.2d 105, 109 (D.D.C. 2009)). The court in *NRDC* held that the State Department's issuance of a presidential permit under Executive Order 13337 was not subject to judicial review under the Administrative Procedure Act for abuse of discretion because "the issuance of presidential permits is ultimately a presidential action." 658 F. Supp. 2d at 109, 111-12. The court said that to allow judicial review of such decisions would raise separation of powers concerns. *Ibid.* at 111.

<sup>92</sup> *Ibid.*; see also *Youngstown Sheet and Tube Co. v. Sawyer*, 343 U.S. 579 (1952) (establishing a three-part test for analyzing the validity of presidential actions in relation to constitutional and congressional authority).