

April 22, 2013

The Honorable John Kerry  
Secretary  
U.S Department of State  
2201 C Street, N.W.  
Washington, DC 20520

**RE: Notice of Availability for EIS No. 20130056, Draft Supplement, DOS, 00, Keystone XL Project (78 Fed. Reg. 15011-15012; March 8, 2013)**

Dear Secretary Kerry:

The undersigned associations are pleased to provide comments as the U.S. Department of State (DOS) undertakes another environmental review of the Keystone XL (KXL) pipeline permit application. We want to reiterate what API and others have stated in previous letters to DOS: it is in the best interests of all Americans to build the pipeline to ensure our long-term energy security, a dependable supply of Canadian oil to state of the art U.S. refineries and the creation of thousands of American jobs.

To summarize the recent history of this review, TransCanada submitted a new application for the project on May 4, 2012. On March 1, 2013 DOS released a Draft Supplemental Environmental Impact Statement (Draft SEIS) for the proposed project, pursuant to the National Environmental Policy Act (NEPA).

We support DOS's findings which confirm, once again, that there will be no significant impacts to most resources along the proposed project route. After more than four years of an unprecedentedly thorough review, it is time to move forward beyond the findings of this review, which has been conducted in coordination with dozens of other federal, state and local agencies, and determine that this project is in our nation's interest. The environmental assessment is but one factor in making this determination. After spending over four years on the environment impact statement, it's certainly time to consider the other key factors in making the national interest determination, including energy security, foreign policy and economic impacts. This project has the support of Americans at large by a 2-1 margin, the endorsement of the labor community, gained approval from the Governor of Nebraska after the route was moved twice to avoid sensitive areas, and enjoys vast support from policymakers that now includes majorities in both houses of Congress. Additionally, several states including Michigan, Ohio, Indiana, Kansas and Missouri have passed resolutions in support of KXL.

#### Overview

- "The construction of Keystone XL will make a significant contribution to the U.S.'s continuing economic recovery. It will support over 42 thousand jobs, putting over \$2 billion in workers pockets over the next 2 years." (4.10-9)
- Despite the growth of U.S. oil production, the Canadian oil sands will continue to play a critical role in supplying the U.S. energy market.
- Canada's oil sands are being developed with or without this pipeline.
- DOS concludes that "the incorporation of those [57 Special Permit] conditions would result in a project that would have a degree of safety over any other typically constructed domestic oil pipeline system" (4.13-64)
- DOS finds that "Spills associated with the proposed Project that enter the environment are expected to be rare and relatively small."

- DOS reaches the same conclusion as prior assessments – KXL will have little impact on climate change and oil sands will be produced regardless of its construction.
- In section 4.3.1, DOS finds that the migration potential of most anticipated petroleum releases is highly limited.
- DOS concludes that there would be no impacts to groundwater, surface water or soils and any potential impact would be managed through the Project Construction, Mitigation, and Reclamation Plan.
- Modeling suggests that the nature of crude oil transported to Gulf Coast refineries would essentially be the same with or without KXL.
- Significant amounts of oil sands crude are likely to be delivered to the Gulf Coast area with or without KXL.
- Prices are set on the world market. DOS concluded that shipping 830,000 barrels per day (bpd) from a particular source would not necessarily have a large impact on the overall crude market or the competitive position of the PADD 3 refiners.
- The route of the proposed project avoids the Sand Hills Region, as defined by a plan approved in 2011 by several states and federal agencies including US EPA, thus addressing previous concerns regarding impacts to the region.

### Economy

The construction of KXL will make a significant contribution to America’s continuing economic recovery. There is no doubt that this project is a tremendous job creator – whether specific to the project or for the hundreds of thousands of American workers who are gainfully employed due to oil sands development in Canada or the immediate well-paying jobs that the construction and manufacturing of the full KXL pipeline will create. Opponents suggest that this is not a job creator. Yet DOS found that, “(t)he construction of Keystone XL will make a significant contribution to the U.S.’s continuing economic recovery. It will support over 42 thousand jobs, putting over \$2 billion in workers pockets over the next 2 years.” (4.10-9)

Given the strong economic links between the U.S. and Canada, Keystone XL will provide significant benefits to the domestic economy stemming from the production and transportation of Western Canadian Sedimentary Basin (WCSB) crude. According to U.S. Census Bureau statistics, for every dollar the U.S. spends on Canadian goods and services, Canada spends approximately 89 cents on U.S. goods and services. As such, trade with Canada benefits the U.S. economy more than trade with any other country in the world. Second, assuming KXL would carry 730,000 barrels per day of WCSB at a hypothetical price of \$94 per barrel,<sup>1</sup> an additional \$25.0 billion of additional trade would be generated, much of which would flow back to the U.S. as Canadians purchase U.S. goods and services. Indeed, the Canadian Economic Research Institute (CERI) estimates U.S.-Canadian trade activity generated by Keystone XL would increase U.S. GDP by \$172 billion over a 25 year period and increase U.S. employment by 117,000 jobs.<sup>2</sup>

### U.S. Oil Markets

Despite the growth of United States oil production, the Canadian oil sands will continue to play a critical role in supplying the U.S. market. According to the SEIS, “(w)hile the increase in U.S. production of crude oil ...will likely reduce the demand for total U.S. crude oil imports, it is unlikely to reduce demand for heavy sour crude at Gulf Coast refineries.” (ES - 19). The Department of State is not alone in its assessment of the U.S. oil market. IHS CERA in a detailed study arrived at the same conclusion stating

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<sup>1</sup> EIA, Average Price for WTI in 2012. Available at <http://www.eia.gov/forecasts/steo/report/prices.cfm>

<sup>2</sup> CERI, “Pacific Access: Part I – Linking Oil Sands Supply to New and Existing Markets”, July 2012

that though supplies of U.S. light oil are substantial and growing, “the United States will still require oil imports...from Canada and the oil sands.”<sup>3</sup> The Gulf Coast of the United States has an unparalleled capacity to process heavy crude oil at our state of the art refineries, giving the U.S. a competitive edge on other refining centers around the world. More Canadian oil in the United States is good for our energy security, economic security and, ultimately, for consumers.

#### No Impact on Canadian Oil Sands Production

Canada’s oil sands are being developed - with or without this pipeline. DOS concludes that, “...**it is unlikely that construction of the proposed Project would have a substantial impact on the rate of development of the WCSB oil sands.**” (Appendix W, page 66) U.S. demand for petroleum consumption will be the same whether we get that supply from Canada or less friendly sources. The Market Analysis section and Appendix C make it very clear that, in the absence of KXL, the oil sands will be developed. This result hinges on the conclusion that moving WCSB crudes by rail is a viable substitute for the KXL pipeline. To arrive at this conclusion, the SEIS carefully examines whether rail capacity could grow to keep pace with growing oil sands production by looking at development of loading and offloading facilities, track capacity, and rail tank car availability. On all three counts, there is ample evidence that it is logistically and economically possible for rail and existing or planned pipelines to transport the needed quantity of WCSB crude oil to the US refineries in the Gulf. Perhaps the strongest piece of evidence cited is the fact that companies, who would have had a clear incentive to study the costs and returns closely, have orders for more than 28,000 new insulated rail tank cars that are used only to transport bitumen (page 1.4-50). This fact alone trumps some KXL opponents’ latest claims that the economics won’t support rail. While the SEIS makes the case that production will not be significantly impacted by denial of KXL, the SEIS also implicitly highlights the reason why approval of KXL is important. The SEIS estimates that the incremental increase in cost of rail versus pipeline is \$5 per barrel (1.4-51). Given that the pipeline will be transporting 830,000 bpd, the additional cost is over \$1.5 billion a year.

#### Midwest Consumers will not be Negatively Impacted

The SEIS also examines the potential impact of the pipeline on gasoline prices. It states that “Midwest product prices are derived from Gulf Coast prices, both of which are in turn driven by international (rather than U.S. inland) crude oil prices. Enabling (additional volumes of) WCSB crudes to flow to the Gulf Coast would not change this dynamic.” (1.4-65) The SEIS later suggests that increased WCSB heavy crude volumes into the Gulf Coast area market may cause other suppliers of heavy crudes to “reduce their prices to compete with the new WCSB heavy crude volumes.” (Appendix C, page 13) Taken together, these SEIS statements imply that while KXL will not increase Midwest gasoline prices, it could lower them. This conclusion is consistent with a memo from the Department of Energy (DOE) to DOS on an earlier draft environmental impact statement.<sup>4</sup>

#### Nebraska Route is Approved

The concerns in Nebraska have been addressed. The KXL route has been moved twice. The pending KXL permit application proposes a new route through Nebraska. Specifically, the route has been changed to avoid the environmentally sensitive area known as the Sand Hills Region as officially identified by the Nebraska DEQ.

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<sup>3</sup> IHS CERA, “Future Markets for Canadian Oil Sands” January, 2013

<sup>4</sup> Memo from Carmine DiFiglio (DOE) to Keith Benco (DOS) “Comments on ‘The Tar Sands Road to China’” June 22, 2011. Available at: <http://keystonepipeline-xl.state.gov/documents/organization/182267.pdf>

DOS and the Nebraska Department of Environmental Quality (DEQ) signed a Memorandum of Understanding (MOU) in May 2012 to ensure coordination of the State and Federal review efforts. The State of Nebraska released its review of the proposed route, based on its law, in December 2012. The Governor of Nebraska approved the new route through Nebraska in January 2013. With support from all three governors along the route, in addition to the vast public, bipartisan and labor support, there is no basis for any further delay in issuing the national interest determination.

#### Pipeline Transportation is Safe and Efficient

According to the Pipeline and Hazardous Materials Safety Administration (PHMSA) of the U.S. Department of Transportation (DOT), "Pipelines are one of the safest and most cost-effective means to transport the extraordinary volumes of natural gas and hazardous liquid products that fuel our economy. To move the volume of even a modest pipeline, it would take a constant line of tanker trucks, about 750 per day, loading up and moving out every two minutes, 24 hours a day, seven days a week. The railroad-equivalent of this single pipeline would be a train of seventy-five 2,000-barrel tank rail cars every day."<sup>5</sup>

Construction of the proposed project will be undertaken with the utmost attention to safety. TransCanada will employ special construction procedures for crossings of roads, highways and railroads that will add additional safety where these transportation modes intersect. Procedures are laid out that will ensure appropriate offsets from existing underground utilities and safe excavation practices during construction. Special construction practices will be employed when the right-of-way comes within 25 and 500 feet of residential and commercial structures. TransCanada will also follow all requirements of 49 CFR Parts 194 & 195, applicable to facility response plans and safety requirements for hazardous liquids pipelines - plus 57 special conditions for operations and maintenance.

As mentioned in the draft SEIS, the proposed project will be state of the art in materials, coating, construction practices, and monitoring systems. When coupled with the operations and maintenance practices described and the extra 57 special permit conditions that TransCanada has agreed to follow, the pipeline should be one of the safest ever built and operated and, if a release occurs, it should be detected quickly... "The Department, in consultation with PHMSA, has determined that incorporation of those [57 Special Permit] conditions would result in a project that would have a degree of safety over any other typically constructed domestic oil pipeline system under current code and a degree of safety along the entire length of the pipeline system similar to that which is required in HCAs [High Consequence Areas] as defined in 49 CFR Part 195.450." (4.13-64)

#### Potential for Spills are "Small" and "Rare" (4.16)

The primary focus of pipeline operators is to keep oil in the pipe. API supports the DOS finding that "(s)pill associated with the proposed Project that enter the environment are expected to be rare and relatively small" (4.16-6). The finding in Section 3.13.2 that the crude oils to be transported in the proposed project are not unique, but are "generally comparable to those of conventional crude oils" is supported by a number of sources including analyses completed by the Battelle Memorial Institute<sup>6</sup>, Alberta Innovates<sup>7</sup>, and Penspen Integrity<sup>8</sup>. In addition, these analyses find that diluted bitumen, while

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<sup>5</sup>[http://phmsa.dot.gov/portal/site/PHMSA/menuitem.ebdc7a8a7e39f2e55cf2031050248a0c/?vgnnextoid=2c6924cc45ea4110VgnVCM1000009ed07898RCRD&vgnnextchannel=f7280665b91ac010VgnVCM1000008049a8c0RCRD&vgnextfmt=print#QA\\_0](http://phmsa.dot.gov/portal/site/PHMSA/menuitem.ebdc7a8a7e39f2e55cf2031050248a0c/?vgnnextoid=2c6924cc45ea4110VgnVCM1000009ed07898RCRD&vgnnextchannel=f7280665b91ac010VgnVCM1000008049a8c0RCRD&vgnextfmt=print#QA_0)

<sup>6</sup> Battelle Memorial Institute, "Diluted Bitumen-Derived Crude Oil; Relative Pipeline Impacts", July 2012.

<sup>7</sup> Alberta Innovates, "Comparison of the Corrosivity of Dilbit and Conventional Crude", September 2011

<sup>8</sup> Penspen Limited, "Dilbit Corrosivity", February 2013.

having a slightly higher total acid number than some conventional crudes, is no more corrosive. This is true because the acids in diluted bitumen are generally not corrosive to carbon steel at pipeline operating temperatures. Recent testing using a method for measuring the corrosion potential for oils, ASTM G205, demonstrates that the corrosivity of oil sands-derived crudes is no different than that of other crudes. In examining liquid pipeline incident data collected by PHMSA from 2002 through mid-2012, not one release from pipelines moving any Canadian crude was caused by internal corrosion.

Based on the experiences obtained from the Enbridge Liquid Pipelines System, which has been transporting crude oil originating from the oil sands since 1968, constituents that potentially contribute to corrosion inside a pipeline include sediment and water that can enter the pipeline with the transported oil. Internal corrosion can occur if these constituents settle on the pipe bottom and establish a corrosion point. Higher density/viscosity crudes have a greater propensity to carry sediment. However, diluted bitumen (dilbit) and synthetic crude oil (SCO), on average, typically carry approximately 25 percent less sediment than conventional heavy oils (Ironsides 2012).

It should be noted that diluted bitumen does not have more aromatics despite the use of natural gas condensate as a diluent. First, heavy crudes, including diluted bitumen, tend to have lower aromatics than light crudes. Second, even though diluted bitumen has slightly more Benzene than other heavy conventional crudes, it has comparable or lower levels of other aromatics, including Toluene, Ethyl Benzene and Xylene. The use of condensates as a diluent does NOT significantly increase light aromatics, because condensates, as acknowledged in the SEIS, are primarily made of straight chain, branched and cyclic alkanes and alkenes.

#### Spill Data Supports the DOS Finding of Potential for Infrequent and Small Spills

DOS used data from numerous sources to discuss the potential for spills on the proposed project. The most relevant data for pipelines operated under U.S. DOT requirements and following industry standards (like API 1160) are PHMSA incident reports from 2002 to present. That is because pipeline integrity management requirements were put in place and more detailed data was collected by PHMSA beginning in the 2002 timeframe. The DOS appropriately used data from that point forward.

Both the number and volume of hazardous liquids releases have declined over that time period for mainline pipe on the right-of-way. This is the result of stricter pipeline safety requirements mentioned above and greater industry focus on keeping pipelines safe. Since the early 2000s, hazardous liquids pipeline releases on the right-of-way have declined in number by about 60% and volumes released by about 43%<sup>9</sup>.

Facility releases tend to be smaller in volume, are most often kept on operating company property and are more quickly detected and cleaned up, yielding less impact to the public and environment. Those are the types of releases experienced by the original Keystone Pipeline in its first year of operation. Industry integrity management programs are directed at both facilities and mainline pipe, but assessment and repair of pipelines on the right-of-way is where a great deal of attention has been focused.

Based on the information available and assessed, we affirm DOS's conclusions that "spills associated with the proposed Project that enter the environment are expected to be rare and relatively small." (4.16-6)

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<sup>9</sup> Figures derived from the Pipeline Performance Tracking System, a voluntary release reporting system of the hazardous liquids pipeline industry. Data from 1999-2011.

## Spill Response Plan Subject to PHMSA Review and Regulation

As described in the Section 4.13.5.2, TransCanada will need to submit a facility response plan to PHMSA at least six months prior to operation and put in place a Spill Prevention, Control and Countermeasures (SPCC) plan under EPA oversight. The features to be included in their plans have already been laid out in some detail (see Appendix I) and include consideration of lessons learned from the 2010 Marshall, Michigan crude oil spill (4.13-73). The facility response plan must be reviewed by PHMSA and updated regularly. Drills to test the plan are also required on a regular basis, to ensure that everyone, including pipeline operating personnel and local emergency responders, know their roles if a spill should occur. This fully complies with emergency response expectations and the inclusion of information from the Marshall, Michigan, release shows that TransCanada is open to learning from industry experience.

## KXL Will Have Little Impact on Climate Change

In one of the most comprehensive greenhouse gas (GHG) assessments to date, DOS reaches the same conclusion as prior assessments: KXL will have little impact on climate change because WCSB crudes 1) are on average only “somewhat more” (4.15-107) GHG-intensive and 2) will be produced regardless of its construction.

DOS goes to great lengths to fully assess the well-to-wheels life-cycle GHG emissions of oil sands crudes. DOS expands upon the prior FEIS’s analysis by including a thorough discussion of the impact of assumptions regarding petroleum coke (“petcoke”) on the GHG intensity of WCSB crudes. The SEIS shows how each of the LCA estimates it uses accounted for petcoke combustion. Furthermore, it concludes that “GHG emissions from petroleum coke produced from WCSB oil sands crudes are slightly lower than petroleum coke GHG emissions from other heavy reference crudes.” (Appendix W, p. 50). DOS also expands the prior FEIS’s analysis to consider the impact of land-use change on LCA (Appendix W, pages 32-36). In the end, the DOS found the difference in GHG-intensity between WCSB crudes and reference crudes to be the same as it was in the last FEIS (3.3 to 20.8 MMTCO<sub>2</sub>e).

The DOS estimates are not without their critics. The three highest estimates of oil sands intensity compared to reference crudes are all from NETL’s 2009 study.<sup>10</sup> IHS CERA notes astutely that “NETL assumes that the GHG intensity of oil sands extraction and upgrading is 1.5 times higher than IHS CERA’s figure and outside the range of other studies. The NETL oil sands values do not represent the current GHG intensity of oil sands and therefore could be viewed as a mischaracterization.”<sup>11</sup> Removing the NETL estimates from the results would lower the top end of DOS’s range (3.3 to 20.8 MMTCO<sub>2</sub>e) by approximately 25%.

Regardless, the DOS analysis shows that GHG emissions from Canadian oil sands crude are comparable to many other crude oils commonly refined in the United States. DOS states that “(i)t is not clear whether WCSB oil sands-derived crudes are currently more GHG-intensive than other heavy crudes or crudes with high flaring rates. The life-cycle GHG emissions of WCSB oil sands crudes can fall within the same range as heavier crudes such as heavy Venezuelan crude oil and California heavy oil, and lighter crudes that are produced from operations that flare most of the associated gas (e.g., Nigerian light crude)” (Appendix W, pages 68-69). This finding is supported by research by Bergerson et al., (2012)<sup>12</sup>

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<sup>10</sup> NETL, “An Evaluation of the Extraction, Transport and Refining of Imported Crude Oils and the Impact on Life Cycle Greenhouse Gas Emissions”, March 27, 2009

<sup>11</sup> IHS CERA, “The Role of the Canadian Oil Sands in the US Market” June 2011 (page 11).

<sup>12</sup> Bergerson et al., “Life Cycle Greenhouse Gas Emissions of Current Oil Sands Technologies: Surface Mining and In Situ Applications” *Environmental Science and Technology* (2012)

which indicates that depending on the production and refining methods, oil sands crudes can have a carbon footprint lower than conventional crudes.

DOS further finds that as we move forward, the difference in GHG emissions from Canadian oil sands crudes and other crude oils is likely to become smaller. Specifically, DOS states “(i)t is not clear how changes in technology will affect the relative GHG-intensity of reference crudes and WCSB oil sands-derived crudes, but it is believed the gap between these crudes is more likely to narrow than widen.” (Appendix W, page 69) Moreover, the SEIS finds that “in 10 years it is possible that oil sands will be less energy intensive, well to wheels, than Saudi Arab Light delivered to the same Gulf Coast destination.” (Appendix W, page 54)

However, difference in GHG-intensity only matter if the oil sands will not be developed in the absence of KXL. In the prior FEIS, DOS concluded that “from a global perspective, the project is not likely to result in incremental GHG emissions” based on their qualitative analysis that since oil is a global commodity and since demand for oil won’t change due to the absence of KXL, the oil sands will be developed but the supply chains would be different. In the SEIS, DOS produces a quantitative analysis, finding that without KXL, there would be a very slight decline in production, a result with which others agree, including *Nature*.<sup>13</sup> In the end, DOS concludes that the KXL pipeline would increase GHG emissions by 0.07 to 0.83 MMTCO<sub>2</sub>e, which is insignificant.

Lastly, DOS exceeds NEPA requirements by examining the full range of impacts of KXL on climate change (Appendix W) and the impacts of climate change on the KXL pipeline (Section 4.14).

#### The Construction and Operation of KXL Is Not a Major Source of Air Emissions

Air quality in the United States continues to improve over time. Over the last 20 years, refinery emissions of criteria air pollutants have decreased as much as 80% despite modest changes in crude slates.<sup>14</sup> Regarding the construction and operation of the pipeline, DOS reaches several conclusions showing that impacts to air quality will be minor, including confirming that:

- Pipeline construction and operations would not cause or contribute to a violation of federal, state, or local air quality standards (4.12-6), and would not trigger the requirement for a Title V operating permit, minor operating permit, or a preconstruction permit in any of the affected states (4.12-9).
- During construction, all construction camps will be powered by utility-provided electricity and so will not be a source of air emissions (3.12-11).
- Pipeline project emissions during construction, including emissions from emergency generators, storage vessels, equipment yards, etc., will be locally temporary, short-termed, and below the thresholds set for statutory regulation and control (3.12-2).
- During pipeline operation, the pump stations and mainline valve stations will be electrically driven, and hence will not be a major source of air emissions. Air emission impacts during pipeline operation may include minimal, intermittent fugitive [VOC] emissions from mainline valves and from valves, pumps, flanges, and connectors at the pump stations (4.12-9).
- Pipeline emergency generator emissions during operation at pump and mainline valve stations will meet specific statutory new source performance standard provisions using ultra-low-sulfur diesel fuel (3.12-10).

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<sup>13</sup> “Change for Good” Editorial *Nature* January 31, 2013

<sup>14</sup> Nelson, T. P. (2012), An examination of historical air pollutant emissions from us petroleum refineries. *Environ. Prog. Sustainable Energy*. doi: 10.1002/ep.11713

- The project will be located in remote or rural areas attaining current ambient air quality standards for all criteria pollutants and the emissions from pipeline construction and operation will be unlikely to affect continued local attainment or air quality in regional nonattainment areas due to transport to any measureable degree (3.12-2; 4.12-6).
- Noise impacts from construction will be temporary, localized and short-lived, and will not result in any long-term noise impacts (3.12-2; 4.12-14).
- There will be minimal noise impacts from pipeline operation since there are no noise-sensitive areas such as state and national parks or national wilderness areas within 1 mile of the pipeline pump stations (3.12-2).
- No materials at quantities posing a chemical release hazard to the air will be stored at pipeline aboveground facilities. The materials stored at contractor facilities in limited quantities include gasoline, diesel fuel, lubricating oil, greases, hydraulic fluid, engine oil, and other substances common to maintaining construction equipment (3.12-12).

#### KXL Would Have Minimal Impacts to Wetlands, Vegetation, Wildlife and Fisheries

DOS concludes that impacts to wetlands, vegetation, wildlife and fisheries will be minimal. In sum, the SEIS confirms that:

- Impacts to wetlands will be minimal. Only 28 acres of wetlands will be permanently affected. The SEIS lists 28 measures, with additional recommendations, that will be taken to protect and restore wetlands. (Table 4.4-1, 4.4-9 - 11, 4.4-13 - 14). Based on the analysis, API supports the conclusion that Impacts to wetlands will be minimal.
- Impacts to vegetation will be minimized. Sixty-four measures will be taken to reduce impacts to vegetation, restore disturbed areas, minimize impacts to grasslands, and minimize impacts to forested areas and uplands. The Natural Resources Conservation Service and local soil conservation authorities will be continuously consulted. (4.5-1-2, 4.5-12-16) Upon reviewing the assessment, DOS believes these impacts to be minimal and appropriately managed.
- Wildlife impacts including habitat loss and effects on mortality, reproduction, migration and movement will be minimized. The SEIS lists 15 mitigation measures to be implemented, including demarcation of buffer zones, prohibition on nest destruction, and implementation of surveys and conservation plans which should provide appropriate care for any potentially affected wildlife. (4.6-2, 4.6-12-13)
- Impacts on fisheries will be minimized, through measures to prevent inadvertent introduction of aquatic pathogens as well as measures to minimize erosion and suspension of sediment, and timing of construction activities to avoid spawning periods. Where the pipeline passes beneath water bodies, the pipeline will be sufficiently below the bottom to prevent increases in water temperature. (4.7-1-3, 4.7-6-13)

#### No Geological Hazards Associated with this Project

Based on DOS findings in this evaluation, which included seismic, erosion, subsidence and flooding, no hazards – or none that could not be mitigated with construction design – were found.

#### Paleontological Resources Will be Protected

Sections 3.1.2.2 and 4.1.3.2 address the potential for disturbance of paleontological resources during pipeline construction. The limited number of potential significant fossil localities that may be encountered will be protected and managed under a Paleontological Monitoring and Mitigation Plan as well as by applicable permit conditions and construction design.



## KXL Is Unlikely to Impact Ground or Surface Water

In Section 3.3, DOS finds that KXL is unlikely to adversely impact any groundwater or surface water resources. Construction of the pipeline across floodplains may result in alteration of floodplain topography. This will be managed by re-grading affected portions of floodplains to their original contours such that water flow across floodplains will not be impeded.

In Section 4.3.5, DOS concludes that construction of the connected projects will have minimal impact provided normal construction and operational practices are followed. DOS finds that -

“(t)housands of miles of pipeline carrying crude and refined products traverse throughout the region where the Ogallala Aquifer is present. Pipelines installed within the last 10 to 15 years are all generally constructed and operated under similar regulatory and engineering procedures and design as would be required of the Keystone XL pipeline.” (3.3-5)

### *Groundwater*

Construction-related petroleum releases, if any, are anticipated to be small to medium; petroleum releases, if any, from the operating pipeline may range from small to large with limited impact should they occur.

According to Section 3.3.2.2, the proposed pipeline area does not cross any sole-source aquifers, as designated by U.S. Environmental Protection Agency (USEPA) Region 8 (USEPA 2012). In addition, the pipeline is underlain by a very shallow groundwater resource (<10 feet and total well depths < 50 feet bgs) over only very limited stretches (the most extensive and continuous of which is its crossing of the Platte River Valley). A limited number of public water supply wells are located within one mile of the proposed pipeline area (39 along the entire route; Montana-1, South Dakota-0, Nebraska-38), and a very limited number of private water supply wells are located within 100 feet of the pipeline (Montana-6; South Dakota-0, Nebraska-14).

In Section 4.3.3.1, model results and actual spill experiences were assessed and it was found that even a large release (42,000 gallons to 840,000 gallons) would have a small plume length (less than 1,500 feet). In Section 4.3.1, DOS finds that the migration potential of any potential petroleum release is highly limited. Further, a release of crude oil from KXL is unlikely to adversely affect a large area of any of the aquifers over and through which it will be constructed.

Factors that can limit spill migration in groundwater include: high viscosity, low density, the presence of higher nitrate concentrations in shallow groundwater from agricultural activities in addition to natural weathering and conditions at the time of the spill. The high viscosity of any released crude would make small releases essentially immobile. Releases, if any, will likely preferentially move through disturbed soil in the pipeline excavation toward the surface under the influence of pipeline pressure, and any released crude would float on groundwater.

### *Surface Water*

With regard to surface water, Section 3.3.3 shows that KXL would make numerous water body crossings (1,073), but only 56 (5.2%) are crossings of perennial streams. No public water supplies are located within one mile of the right-of-way in Montana, South Dakota or Nebraska. In only one instance does the right-of-way cross upstream of a public water supply, and in that circumstance crosses a tributary to the stream from which the water is diverted 44 miles upstream.

According to Section 4.3.3.3, operational impacts will typically involve adverse impacts similar to construction impacts that arise from the need to rebury the pipe or armor stream banks in response to

pipeline exposure as a consequence of channel migration, streambed degradation, general channel incision or localized headcutting. Good and well tested construction management practices that will be implemented according to the Project Construction, Mitigation, and Reclamation Plan combined with appropriate regulatory oversight, and, as required state and federal permitting, will eliminate or greatly mitigate these impacts.

#### Soil Impacts will Be Managed

In Section 4.2, DOS concludes that construction impacts to soils will be managed using the Project Construction, Mitigation, and Reclamation Plan which will reduce both the likelihood and severity of adverse impacts. The impacts identified can all be overcome through implementing appropriate construction practices.

According to Section 4.2.3.2, any potential surface disturbance impacts during construction would be addressed with the affected landowner or land management agency and a mutually agreeable resolution reached. In general, guidance in the Project Construction, Mitigation, and Reclamation Plan and NRCS best management practices (BMPs) will be used to address potential impacts. The operational impacts will be monitored by landowner reporting and aerial patrol (Integrity Management Plan).

During operations, the U.S. Department of Agriculture's Natural Resources Conservation Service best practices will be used to address potential impacts to soil and the pipeline will be monitored and regulated in accordance with government requirements and guidance in the Project Construction, Mitigation, and Reclamation Plan which contains aggressive monitoring of and rapid response to observations of incipient adverse impacts, including the authority to stop work to address observed incipient adverse impacts.

#### Consultation with Native American Tribes Protects Cultural Resources

Section 3.11 evaluates cultural resources along the project's route. DOS has built upon information in the FEIS and added new relevant information specific to Nebraska in addition to providing additional outreach to Native American tribes.

Tribes were consulted on the identification, evaluation and mitigation of historic properties on nontribal lands and TransCanada has provided supplementary analyses to help inform DOS. Cultural surveys were conducted when access was available and any ongoing surveys or evaluations of archaeological sites will be reviewed by DOS and applicable consulting parties.

We commend DOS's efforts and outreach to local, state and federal agencies, including consultations with the tribal communities. Not only did DOS provide initial outreach to Native American tribes in accordance with 36 CFR 800, but they again reached out to both those that expressed and did not express interest in consulting on the project last fall and held three meetings. DOS will continue to consult with tribes to ensure their issues of concern are addressed in the consultation process to be presented in the final EIS.

In Section 4.11, DOS suggests the possibility of potential effects near the KXL right-of-way and near ancillary facilities like pump stations and recommends mitigation measures to minimize these potential impacts. TransCanada "has committed, whenever feasible, to avoid known cultural resources, minimize impacts when avoidance is not possible, and mitigate impacts when minimization is not sufficient" (4.11-5)

Appendix E includes 13 pages documenting consultations with tribes, demonstrating their attention to Native American cultural impacts.

### Cumulative Effects Assessed and No Findings of Significant Impact

DOS conducted a very thorough cumulative effects assessment. A cumulative effects assessment considers the residual impacts of the Keystone XL pipeline project in combination with the residual impacts from the connected actions and actions from other past, present, and reasonably foreseeable future projects. Cumulative effects are those effects that occur, or continue to occur, long after the construction of a project is completed. This cumulative effects analysis in the SEIS has a broader scope of projects under consideration than what was evaluated in the FEIS and includes the geographic scope of projects considered to include non-linear projects and other development activities with the potential to contribute to overall cumulative effects within the pipeline project area. In this in-depth portion of the assessment, DOS found either no impacts or potential small localized impacts that could be managed during construction. The assessment focuses on potential adverse effects, while DOS does specifically recognize the “permanent beneficial impacts of the proposed pipeline construction that could occur in the form of increased tax revenues”.

#### *Refining Impacts- Oil Sands Crude Displacing Other Heavy Crudes & Would Not Increase Emissions*

The cumulative effects assessment concludes that for PADD 2, which is expected to receive oil transported through the pipeline from the Cushing tank farm, “there is no indication that the availability of oil transported via the proposed project would directly result in specific expansions of existing refineries and development of new refineries” (4.15-72). There are 57 refineries in PADD 3 with approximately half of our nation’s refining capacity. “The existing refineries processing heavy crude oil in PADD 2 and PADD 3 are designed and permitted to refine heavy crude oil...(a)s a result, the processing of heavy crude oil transported via the proposed project would occur within existing permit thresholds” (4.15-74). DOS concludes that the “permitting process is designed to avoid significant cumulative impacts to regional air quality associated with air emissions”. (4.15-75)

Further, DOS reaffirms that the “crude oil slate would be essentially the same with or without the proposed project” (4.15-75). DOS finds in this section that significant amounts of oil sands crude are likely to be delivered to the Gulf Coast area and that shipping 830,000 bpd from a particular source would not have a large impact on the overall crude market or PADD 3 refiners’ position in that market. Additionally “refineries are optimized to process a particular crude slate into a particular set of finished products” and “those refineries have significant incentive to seek out a heavier slate of crude oil regardless of whether there is increased transport capacity to deliver WCSB oil sands-derived crude oils to PADD 3”. (4.15-76) Additional information concludes that “refinery emissions were not correlated with fluctuations in crude slate quality” and that “refinery expansions or upgrades at refineries that could receive crude oil from the proposed project would likely be required to adhere to similar regulatory standards” (4.15-76).

DOS continues to find that oil-sands crude would be displacing other heavy crude oils and would not result in additional emissions. DOS appropriately notes that approximately one-third of the oil transported would not be heavy crude oil. During combustion, the oil transported “would not produce different end use emissions” (4.15-78).

#### *Cumulative Impacts of GHGs*

The DOS correctly concludes that “there would be no substantive change in global GHG emissions” due to the project (4.15-107). DOS finds that combustion dominates the total GHG life-cycle emissions regardless of crude oil examined (4.15-107). DOS also finds that life-cycle analysis estimates are sensitive to “choice of boundaries, consistent application of boundary conditions with studies, and to

key input parameters” (4.15-107). Lastly, DOS finds that “the gap in GHG intensity [between oil sands crudes and reference crudes] is likely to decrease over time” (4.15-107). Given these findings - that the non-combustion component of oil sands GHG emissions are small, relative to the combustion portion, difficult to measure, and likely to converge with GHG emissions from reference crudes - it is clear that there are no GHG life-cycle emissions concerns. The DOS has gone to great lengths to show that approval of KXL will not cause there to be a “substantive change in global GHG emissions” (4.15-107).

#### *Cumulative Impacts from Potential Releases Addressed (4.15)*

When considering historical pipeline incident data on existing crude oil pipelines, impacts are typically localized with short-and long-term effects (but not permanent effects) to resources. Even in a hypothetical scenario in which there were multiple releases from multiple pipelines (including KXL), the effects would still be expected to diminish over time, and would not be expected to have permanent effects to resources, ecosystems, and human communities.

The implementation of industry standards and practices, design standards and the addition of the Special Conditions developed by PHMSA and agreed to by Keystone, aid in reducing the potential for spill incidents associated with the proposed Project.

As discussed in the DSEIS, the potential impacts from unintended releases are heavily dependent on spill size and location, as well the relative speed and effectiveness of response activities. API agrees with the DOS’s assessment that “[s]mall to medium spills (up to 1,000 barrels), would more likely occur on construction sites or at operations and maintenance facilities, where in general, surface spreading is contained and infiltration into the ground reduced by responders that are at these locations.” As was mentioned earlier in these comments, spills at facilities are likely to be more numerous but smaller than on the right-of-way. The DOS also states that “[f]or medium to large spills (greater than 1,000 barrels), the response time between the spill event and arrival of the response contractors would influence potential magnitude of impacts to environmental resources. Once the responders are at the spill scene, the efficiency, effectiveness, and environmental sensitivity of the response actions (e.g., containment and cleanup of oil, protection of resources from further oiling) would substantively influence the type and magnitude of potential additional environmental impacts.”

As stated earlier in these comments, operators’ primary focus is on keeping oil in the pipe so that releases are minimized in number and size. It is equally imperative for operators to be ready to respond to unintended releases. API believes that Keystone’s construction, maintenance, operation and response plans fully address these important issues.

The SEIS addresses the potential impacts on waterways, watersheds and associated habitats. The DOS notes, “(e)ven when major fish kills have occurred as a result of oil spills, population recovery has been observed and long-term changes in fish abundance have not been reported (Kubach 2011); therefore, impacts of oil spills on fisheries resources is not expected to contribute significantly to cumulative effects.” (4.15-109) DOS goes on to say “-historical pipeline incident data on existing crude oil pipelines indicate that impacts are typically localized, with short-and long-term effects to resources” and that while there is potential for cumulative impacts from concurrent spills- “- effects would still be expected to diminish over time, and would not be expected to have permanent effects to resources, ecosystems, and human communities.” API supports these conclusions and agrees with the final conclusion put forth by the DOS in this section that the current industry standards and practices, regulatory requirements (including design standards), and the special conditions agreed to by TransCanada will significantly reduce the likelihood of a release from the proposed project.

#### *Extraterritorial Concerns*

In a testament to the thoroughness of the SEIS, despite finding that there was no legal requirement to include an analysis of the environment and activities outside of the United States, the DOS included one. It finds that an analysis of the environmental effects of the KXL project has been in progress in Canada under appropriate regulatory authorities. The Canadian government found, in March of 2010, that KXL is needed to “meet the present and future public convenience and necessity” (4.15-110). Moreover, DOS correctly notes that the approval or disapproval of KXL will not materially impact the level of oil sands production. Hence, impacts from oil sands production are not a function of KXL. Regardless, once again, DOS goes the extra distance to catalog the layers of review and oversight the Canadian and Albertan governments use to regulate oil sands development. Alberta’s boreal forest is a unique treasure and 82 percent of it is completely untouched. The bulk of the landscape change is due to agriculture (12%), with energy development impacting only 2 percent of the surface area (4.15-112). The SEIS clearly shows that the activities in this relatively small area of the boreal forest are intensely regulated by the Canadian and Albertan authorities.

#### DOS Appropriately Analyzed Alternatives to the Proposed Project Alternatives

Section 2.1 explains that the route of the proposed project avoids the Nebraska DEQ designated Sand Hills Region, thus addressing previous concerns regarding impacts to the region.

The SEIS appropriately analyzed alternatives to the proposed project. Sections 2.2 and 5 show that DOS identified no action alternatives as well as two major route changes, the 2011 Steele City Alternative and the I-90 Corridor Alternative. Other alternatives were screened and appropriately ruled out for final analysis. The routes considered showed essentially the same findings compared to the KXL route with isolated differences.

There are 13 listed or proposed endangered species in the vicinity of the proposed pipeline. DOS finds that the mitigation efforts proposed by TransCanada will eliminate significant impacts on all the species.

For the “no action alternative”, DOS found-

Given the Government of Canada’s (and Alberta) stated commitment to develop the oil sands, the global crude oil market dynamics, the economic modeling done as part of the FEIS, and the examples of market dynamics over the past few years regarding crude oil transport in North America, it remains likely that if the proposed project did not proceed, producers of the WCSB and Bakken crude oil production would continue to utilize alternative transport infrastructure to accommodate increasing production of WCSB and Bakken crude oils (5.1-1).

DOS further concludes that given some other alternatives to move production, “the crude oil would be transported for refining in countries other than the U.S. (e.g., Asia).” (5.1-1)

It is abundantly clear under the “no action alternative” that if the proposed project is not built, economic/market conditions exist that alternatives to the proposed project will continue forward, including a mix of pipeline, rail and pipeline and even potentially rail and marine tanker options and the other alternatives would have comparable impacts.

#### KXL Serves our Nation’s Interests

We commend DOS for conducting an unprecedentedly thorough environmental analysis which supports reaching a finding that this project is consistent with our nation’s best interests. After this comment period, appropriate revision of the draft, and subsequent publication of the Final SEIS, the DOS will lead an inter-agency inquiry into whether the proposed Project serves the national interest. The national

interest determination by the DOS involves consideration of many factors, including energy security, environmental, cultural, and economic impacts, foreign policy, and compliance with relevant federal regulations. During this time the Department will consult with, at least, the eight agencies identified in Executive Order 13337 (April 30, 2004): the Departments of Defense, Justice, Interior, Commerce, Transportation, Energy, Homeland Security and the Environmental Protection Agency. With the environmental assessment repeatedly assessed, it is time to move forward in this national interest determination process.

This project is absolutely in our nation's interest. The proposed Keystone XL pipeline should be approved immediately. It will have no significant environmental or cultural impacts. It will create jobs now when we need them most. It will help bolster economic growth and provide energy security. With such positive contributions to the U.S. economy and the potential for increased supplies from our stable neighbor, Canada, we hope that DOS recognizes this project is in our national interest and facilitates a swift approval.

Should you have any questions or would like to discuss further, please feel free to contact Cindy Schild with the American Petroleum Institute at (202) 682-8482 or [schild@api.org](mailto:schild@api.org).

Sincerely,

American Petroleum Institute

American Exploration & Production Council

American Foundry Society

American Fuel & Petrochemical Manufacturers

American Highway User Alliance

American Iron & Steel Institute

American Trucking Associations

Associated Equipment Distributors

Association of Oil Pipe Lines

Consumer Energy Alliance

Energy Equipment & Infrastructure Alliance

Hispanic Leadership Fund

National Association of Wholesaler-Distributors

Petroleum Equipment Suppliers Association

Small Business & Entrepreneurship Council