October 28, 2016

By E-Mail

The Honorable Jo-Ellen Darcy
Assistant Secretary of the Army (Civil Works)
108 Army Pentagon, Room 3E446
Washington, D.C. 20310-0108
joellen.darcy@us.army.mil

Re: Standing Rock Sioux Tribe – Dakota Access pipeline

Dear Assistant Secretary Darcy:

In our meeting on September 23, and in my correspondence with you, I have tried to convey the vital importance of the waters of Lake Oahe to the life of the Tribe. It is precisely because of our deep connection to these waters – in both practical and spiritual ways – that an oil spill from the Dakota Access pipeline into Lake Oahe would be so devastating to us. But the Final EA dismisses our concerns about protecting these waters from oil spills, stating that direct and indirect impacts of the proposed crossing at Lake Oahe "will not affect members of the Standing Rock Sioux Tribe or the Tribal reservation." Final EA at 85.

This underscores one of the fundamental deficiencies of the Final EA – it assumes, without foundation, that placing a massive oil pipeline just upstream from the Reservation presents no risk to the Tribe. This raises the question – if the Dakota Access pipeline is so safe that it presents no risk at all when situated on the Tribe's doorstep, why isn't the pipeline safe enough to cross the River north of Bismarck, as originally proposed? The Final EA provides no answer.

More broadly, the Final EA does not adequately address pipeline safety and the risk that the pipeline poses to the waters of Lake Oahe and the Tribe. To address these issues, the Tribe retained an independent expert to examine the Final EA and provide his analysis. Richard B. Kuprewicz is the President of Accufacts, Inc., a consulting firm that provides expertise on pipelines to government agencies and industry. Mr. Kuprewicz is an engineer with over 40 years

of experience with respect to gas and liquid pipeline investigation, including SCADA, leak detection, management review, emergency response, and regulatory development and compliance. Among many other things, Mr. Kuprewicz served as an expert with respect to litigation brought to address the major oil pipeline spill into the Yellowstone River.

Mr. Kuprewicz reviewed the Final EA regarding the Lake Oahe crossing and found that it is incomplete and insufficient to support a finding of no significant impact. According to Mr. Kuprewicz, the Final EA, among other things, significantly underestimates the risk of an oil spill into sensitive areas including Lake Oahe. For example, Mr. Kuprewicz found that while the Final EA identifies the area adjacent to Lake Oahe as a high risk area for landslides, it fails to properly address the risk of a spill arising from this landslide risk. Mr. Kuprewicz further found that the Final EA fails to properly address the significant limitations of SCADA remote detection systems, and omits critical information that would be necessary to properly evaluate the response plan and other aspects of the pipeline proposal.

Mr. Kuprewicz's findings reflect the common sense point that was somehow lost in the Final EA – that pipelines leak, and that when they do so there are often devastating consequences, particularly when the leak contaminates water. The public record is filled with examples which further substantiate this point.

Along these lines, the statistics available from the Pipeline and Hazardous Materials Safety Administration are sobering. 1190 "significant" oil pipeline spills occurred between 1996 and 2015, an average of over fifty-nine oil spills per year.[1] The average amount of oil spilled from pipelines annually was 47,635 barrels, and the annual cost of the spills averaged over $131 million.[2]

Available data on "smaller" spills reinforces that spills are commonplace. For example, North Dakota – the second largest oil producer in the Nation behind Texas – collects and now publicly reports data on small and large spills in the State. In October 2015, EnergyWire summarized the data on oil spills from the North Dakota Department of Health, stating:

> The number of oil and wastewater spills has increased steadily, as oil production shot up from about 115,000 barrels a day in 2007 to 1.2 million barrels a day this year [in 2015]. North Dakota had 1,846 spills in 2014, up from 1,607 in 2013,

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[1] Pipeline & Hazardous Materials Safety Admin., U.S. Dep't of Transp., *Pipeline Significant Incident 20 Year Trend*, *available at* http://www.phmsa.dot.gov/pipeline/library/data-stats/pipelineincidenttrends (follow "SIGNIFICANT INCIDENT 20 YEAR TREND" hyperlink to interactive menu, select System Type: HAZARDOUS LIQUID/ State: ALL/ Offshore Flag: ALL/ Commodity: CRUDE OIL) (last visited July 21, 2016).

[2] Notably, the PHMSA data only cover "significant" incidents, defined as spills involving either: a fatality or injury requiring in-patient hospitalization; $50,000 or more in total costs (measured in 1984 dollars); highly volatile liquid releases of 5 barrels or more or other liquid releases of 50 barrels or more; or liquid releases resulting in an unintentional fire or explosion. *See id.* PHMSA's data of course do not account for smaller spills.

> and more of them went uncontained than in previous years – 24 percent in 2014 compared with 20 percent in 2013.

EnergyWire further pointed out that:

> Pipeline spills can have a bigger impact than incidents at well sites because they occur in remote areas, away from the containment berms that surround most sites. Of the five biggest uncontained spills in the last 12 months [October 2014 to October 2015], three came from pipelines, according to the North Dakota Department of Health.[3]

Between 2006 and October 2014, 18.4 million gallons of oil and chemical substances leaked into North Dakota air, water, and soil.[4] Indeed, even with recent declines in oil production, the number of oil spills in North Dakota remains high. Review of the North Dakota Department of Health website shows that in the twelve-month period from July 27, 2015 through July 25, 2016 alone there were 1238 reported incidents of spills of oil or oilfield wastewater, of which 265 spills were not contained at the site.[5]

The importance of assessing the risk of oil spills in a comprehensive way is illustrated by the evaluation done for the Keystone XL pipeline, where the State Department prepared an analysis of both risk and environmental consequences of pipeline spills as part of the NEPA process.[6] And while the Keystone XL Final EIS analysis showed considerable risk of leaks and spills, even its analysis was criticized as incomplete and inaccurate. In deciding that the Keystone XL pipeline was not in the "national interest," the Secretary of State cited PHMSA data that reported 1692 pipeline incidents in ten years between 2002 and 2012.[7]

Oil pipeline spills are a regular feature of pipeline operations. For example, an evaluation prepared for a National Energy Board proceeding in Canada revealed that the TransMountain pipeline had experienced eighty-one spills between 1961 and 2013, or an average annual rate of

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[3] Mike Lee, *After Years of Spills, N.D. Still Deciding How to Handle Pipeline Leaks*, ENERGYWIRE (Oct. 29, 2015), http://www.eenews.net/stories/1060027102.

[4] Rebecca Jacobson, *Fracking Brine Leak in North Dakota Reaches Missouri River, Prompts State Democrats to Call for More Regulation*, PBS NEWSHOUR, (Jan. 26, 2015), http://www.pbs.org/newshour/rundown/fracking-brine-leak-north-dakota-reaches-missouri-river-prompts-state-democrats-call-regulation/.

[5] *See* N.D. Dep't of Health, *Environmental Incident Reports*, http://www.ndhealth.gov/ehs/spills/ (follow first two hyperlinks on right hand side under "Oilfield Environmental Incidents") (data as of July 25, 2016).

[6] *See* U.S. Dep't of State, *Final Supplemental Environmental Impact Statement for the Keystone XL Project* §§ 3.13, 4.13 (2014), *available at* https://keystonepipeline-xl.state.gov/finalseis/index.htm.

[7] U.S. Dep't of State, *Record of Decision and National Interest Determination, TransCanada Keystone Pipeline, L.P. Application for Presidential Permit* 13 (2014), *available at* https://keystonepipeline-xl.state.gov/documents/organization/249450.pdf.

1.53 spills per year.[8] The study revealed that spills can occur due to numerous unpredictable factors, including human error, natural events like landslides, and equipment malfunction, but despite their unpredictability, these events occurred with regular frequency on almost an annual basis. *Id*. at 24-25, 28-33. And the overall volume of oil spilled was enormous: over 5.7 million liters (over 1.5 million gallons). *Id*. at 21.

The threat to the environment, public health and safety arising from oil pipeline spills is at its zenith when pipelines cross water. As stated in the FEIS for the Keystone XL pipeline, "[t]he greatest concern would be a spill in environmentally sensitive areas, such as wetlands, flowing streams and rivers, shallow groundwater areas, areas near water intakes for drinking water or for commercial/industrial uses . . . ."[9]

The serious risks posed by oil pipelines crossing or near water are well-illustrated by several recent oil spills. For example, the 2010 pipeline failure near Marshall, Michigan, spilled over 800,000 gallons of oil into the Kalamazoo River and Talmadge Creek and acres of adjacent wetlands.[10] The pipeline leaked for seventeen hours before the company was able to shut down the pipeline. Local residents self-evacuated from their homes. As of the date of the National Transportation Safety Board Report on the accident in 2010, about 320 people reported adverse health symptoms consistent with oil exposure. *Id.* at 18. The spill damaged forty miles of river, required more than $1.2 billion in clean-up costs, and continues to require on-going monitoring.[11]

In January 2015, an oil spill occurred in the Yellowstone River from a ruptured pipeline underlying that river.[12] The release adversely affected the drinking water supply of the Town of Glendive, Montana, seven miles downstream from the pipeline. Monitoring did not prevent the spill, but only provided notice that it had occurred. And despite the emergency response plans, the Town was not immediately notified of the spill, and its impacts on the Town's water supply were investigated only after Town residents complained about the smell of the water. The

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[8] Sean Kheraj, *Historical Background Report: Trans Mountain Pipeline, 1947-2013* at 21, 24 (2015) (prepared for the City of Vancouver in the proceedings before the National Energy Board hearing into TransMountain Expansion Project), *available at* http://vancouver.ca/images/web/pipeline/Sean-Kheraj-history-of-TMP.pdf.

[9] U.S. Dep't of State, *Executive Summary: Final Supplemental Environmental Impact Statement for the Keystone XL Project*, at ES-9 (2011), *available at* http://keystonepipeline-xl.state.gov/documents/organization/182010.pdf.

[10] Nat'l Transp. Safety Bd., *Enbridge Incorporated Hazardous Liquid Pipeline Rupture and Release Marshall, Michigan July 25, 2010*, No. NTSB/PAR-12/01, *available at* http://www.ntsb.gov/investigations/AccidentReports/Reports/PAR1201.pdf (hereinafter "NTSB Report No. NTSB/PAR-12/01").

[11] Maria Gallucci, *Enbridge Oil Spill: Five Years Later, Michigan Residents Struggle to Move On*, INTERNATIONAL BUSINESS TIMES (July 24, 2015), http://www.ibtimes.com/enbridge-oil-spill-five-years-later-michigan-residents-struggle-move-2022591.

[12] Mont. Dep't of Envtl. Quality, *Poplar Pipeline Oil Spill on the Yellowstone River near Glendive*, deq.mt.gov/DEQAdmin/dir/postresponse/yellowstonespill2015 (under "Updates" tab) (last accessed July 21, 2016).

Town's water treatment plant was shut down for several days until measures could be taken to provide a safe water supply. Because the spill occurred in the winter, when ice covered the river, the full extent of the damage could not be determined until months later.[13]

The monitoring systems used for oil pipelines do not prevent leaks and are all too often ineffective in detecting leaks in a timely manner. Despite continued promises by pipeline proponents of their efficacy, these systems have repeatedly failed in other pipelines, including catastrophic pipeline oil spills like the ones in the Kalamazoo and Yellowstone Rivers. Simply put, there is no technology in existence today that can prevent spills or even quickly notify operators of an incident: technology that is repeatedly portrayed as "state of the art" is, in truth, dated and ineffective.

A 2012 Inside ClimateNews evaluation of PHMSA data showed that only 5% of pipeline spills between 2002 and 2012 were detected via remote sensors.[14] Instead, the general public reported nearly a quarter of all oil pipeline spills after seeing oil on the ground or in water, and pipeline staff reported the rest. For example, even though the proponent of the Enbridge pipeline claimed that it could detect ruptures within eight minutes, the actual rupture at the Kalamazoo River took seventeen hours to detect. *Id*. The National Transportation Safety Board analysis for the massive Kalamazoo River pipeline spill cited "pervasive organizational failures" and "weak regulation" for the spill and the seventeen-hour failure to find the source of the problem and shut down the pipeline.[15] More recently, the National Transportation Safety Board found that limitations of pipeline inspection tools and monitoring systems also led to the massive oil pipeline spill that adversely impacted the shoreline in Goleta California in May of 2015.[16]

In March of this year, a major leak at the relatively new Keystone pipeline in South Dakota highlighted the inadequacy of leak detection systems. The pipeline was commissioned in 2010 with what were purported to be "a number of advanced leak detection technologies."[17] Even so, thirty-five leaks occurred during its *first year* of operations. The recent leak, of an estimated 16,800 gallons of oil, was not uncovered by the pipeline's leak detection system but was reported by a passerby. *Id*.

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[13] Karl Puckett, *Oil Spill Caught Montana City Off Guard*, GREAT FALLS TRIBUNE (Feb. 10, 2015), http://www.greatfallstribune.com/story/news/local/2015/02/06/oil-spill-caught-montna-city-guard/23021479.

[14] Lisa Song, *Few Oil Pipeline Spills Detected by Much-Touted Technology*, INSIDE CLIMATE NEWS (Sept. 19, 2012), http://insideclimatenews.org/news/20120919/few-oil-pipeline-spills-detected-much-touted-technology.

[15] NTSB Report No. NTSB/PAR-12/01 at xii.

[16] Alison Sider, *'Preventable Errors' Led to 2015 California Oil Spill, Regulators Say*, THE WALL STREET JOURNAL (May 19, 2016), http://www.wsj.com/articles/preventable-errors-led-to-2015-california-oil-spill-regulators-say-1463696079.

[17] Phil McKenna, *Keystone I Leak Raises More Doubts About Pipeline Safety*, INSIDE CLIMATE NEWS (Apr. 6, 2016), http://insideclimatenews.org/news/05042016/keystone-pipeline-leak-doubts-pipeline-safety-transcanada.

In addition to the direct and irreparable damage that result from an oil spill itself, response to an oil spill may well require further dredging and attendant environmental impacts. As illustrated by the March 2016 oil spill that occurred in the Keystone pipeline in South Dakota, the company could not determine the location of the leak until after it dug up 275 feet of pipeline.[18] The need for additional dredging to detect and then correct a leak further underscores that oil pipelines are not appropriately covered by nationwide permits because the potential risks and impacts of spill and response vary by location and local conditions. Accordingly, they warrant review and evaluation pursuant to individual permits.

None of this is discussed in the Final EA. As Mr. Kuprewicz found, the Final EA does not provide a reasonable assessment of the risk of an oil spill, and is therefore deficient.

Conclusion

This letter, and Mr. Kuprewicz's report, add to the compelling reasons for you to revisit the earlier decisions regarding the Lake Oahe crossing and to determine, based on the public interest, that the easement for that crossing should be denied. Again, thanks to you, and the federal team, for considering the Tribe's concerns.

Sincerely,

Dave Archambault, II

Enclosures

cc: Lowry A. Crook, Principal Deputy Assistant Secretary for Civil Works, Office of the Assistant Secretary for the Army, lowry.a.crook.civ@mail.mil
Sam Hirsch, Principal Deputy Attorney General, U.S. Dep't of Justice, Sam.Hirsh@usdoj.gov
Lawrence Roberts, Assistant Secretary Indian Affairs, Dep't of Interior, Lawrence_Roberts@ios.doi.gov
Hilary Tompkins, Solicitor, Dep't of Interior, Hilary.Tompkins@sol.doi.gov
Jean Williams, Deputy Assistant Attorney General & Acting Chief of Staff, U.S. Dep't of Justice, Jean.williams@usdoj.gov

[18] Ken Ilgunas, *South Dakota Oil Spill Reveals Major Pipeline Problems*, TIME (Apr. 14, 2016), http://time.com/4292856/south-dakota-oil-spill/.